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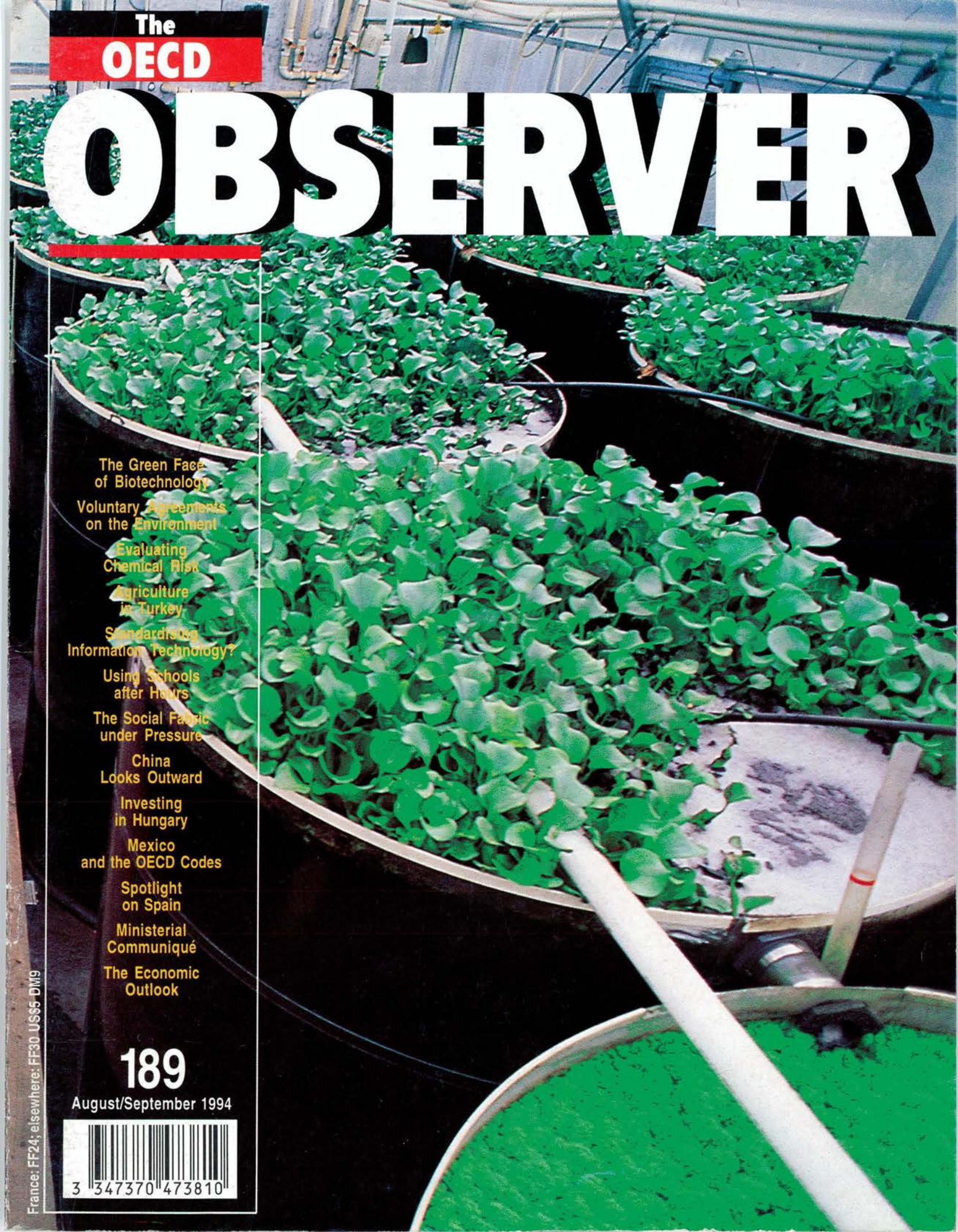

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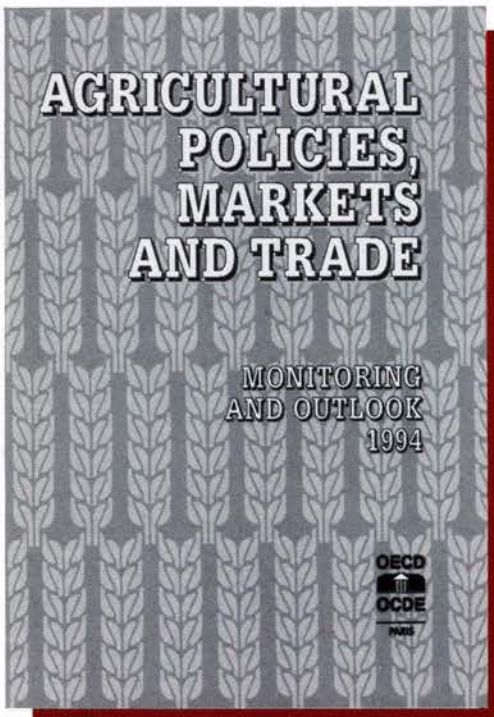

Agricultural Policies, Markets and Trade
Monitoring and Outlook 1994

This is the seventh annual report in which the OECD describes and assesses the main developments in agricultural policies, markets and trade in OECD countries in 1993, including estimates of producer and consumer subsidy equivalents for OECD countries. These developments are evaluated against the reform principles agreed by OECD Ministers in 1987 to improve the market orientation of agricultural production and consumption by progressive and concerted reductions in protection and assistance.

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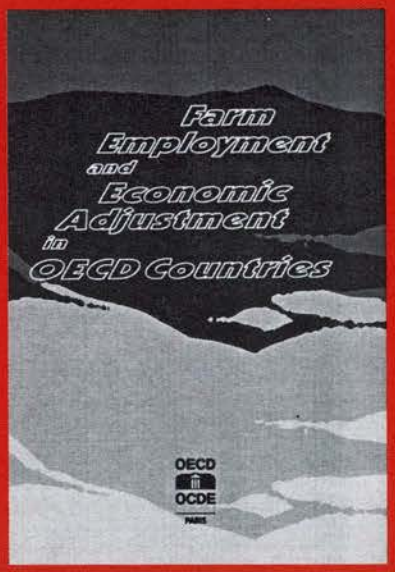

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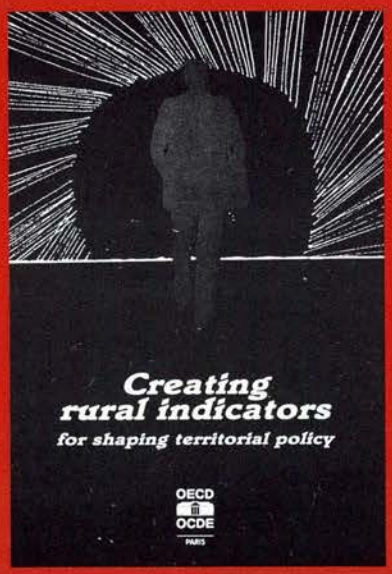

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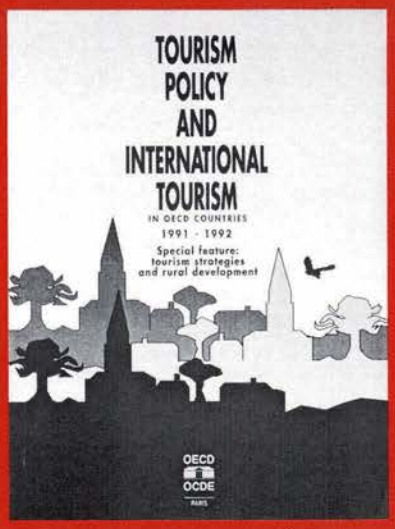

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C O N T E N T S

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August/September 1994

Cover
After health and pharmaceuticals, and then agri-food, biotechnology is moving into its third, and possibly most important, domain – the environment.
Photo: Craig Filipacchi/GAMMA Liaison

The Green Face

Salomon Wald

Siemens

One of the oldest biotechnologies comes of age as bacteria combine with high technology to purify 5,000 litres of effluent every second.

The vast potential of biotechnology in medicine and agriculture is generally recognised. Now biotechnology is turning to a third application – care of the environment.[1]

In the biotechnology debates of the last twenty years, particularly in Europe, there was a tendency to emphasise problems, real or conjectural, rather than to look for solutions – or to identify opportunities. Now, the mood is changing and the argument is beginning to perceive the large potential of biotechnology to contribute to the prevention, detection and remediation of environmental pollution and degradation. Biotechnology is thus moving into its third, and possibly most important, domain. After health care and pharmaceuticals – the first major sectors in which it was used – and the applications in agriculture and food which soon followed, the environment could become a priority of the life sciences and technologies.

But it has taken more than two decades for modern biotechnology to begin to have a noticeable impact in environmental protection. The delay is somewhat surprising, considering that the earliest and most widespread applications of biotechnology were waste-water treatment plants, all based upon the capacity of micro-organisms to degrade organic waste. These facilities were developed during the nineteenth century as it became clear that the dumping of wastes into rivers threatened both human health and aquatic life. Such technologies have thus been of enormous benefit to mankind – yet the past century has seen only minor changes in the fundamental designs of the original sewage treatment plants, and in the way micro-organisms are used. In a substantial number of cases, these facilities fail to meet modern requirements or the performance criteria now demanded.

One reason for this slow progress is that biotechnology in general is driven largely by scientific research initiatives ('science push'), and environmental biotechnology in particular lacked the glamour of medical or agricultural applications. Scientists, students and research funds are more easily attracted to the new molecular biology that promises to cure cancer or to engineer high-yield rice than to the skills necessary to improve sewage disposal. Past differences in priorities are still visible in recent funding patterns: the federal budget of the United States, for example, planned to spend $83.3 million for environmental biotechnology R&D in 1993. This figure represents just 2.1% of federal funds spent for all bio-technological R&D, as compared with 42% for health and 5.1% for agriculture.

Another important reason for the late development of environmental biotechnology is that it lacks the same 'natural' R&D constituency as the medical and agricultural research sectors: its scope is too vast, complex and ill-defined.

Environmental biotechnology became more prominent in the 1980s with the introduction in an increasing number of countries of legislation to protect the environment, together with the setting of standards for industry and the enforcement of compliance. This concerted government action has created a powerful 'market pull', replacing or complementing the earlier 'science push', a factor which, in this form and size, is not available to the other applications of biotechnology (health, agri-food). The result has been to open new and large potential markets for environmental or environmentally compatible products and processes. Governments, national or local, are themselves important buyers of environmental-biotechnology products for use in publicly funded facilities

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1. **Biotechnology for a Clean Environment: Prevention, Detection, Remediation**, OECD Publications, Paris, forthcoming 1994.

# of Biotechnology

(drinking water, sewage treatment, waste disposal).

In spite of shortcomings in legislation or implementation, both national and international laws have thus already helped to create a competitive and expanding environmental biotechnology industry. In some countries there is an obvious, causal relationship between early environmental legislation – and quite stringent legislation at that – and the creation of an environmental biotechnology industry. For example, Germany and the Netherlands are manufacturing and exporting biological technologies for treating waste-water and air. A successful waste-water treatment industry has been developed in Denmark. Japan is making efforts to develop an export-oriented environmental biotechnology industry.[2]

Jacana/Claude Nardin

The humble earthworm – one of history's most faithful bioremediators.

Technical Options

Environmental biotechnology must be seen in the context of a future where industrial technologies will have to be increasingly in harmony with the global material cycles of the biosphere. Thus, industrial technologies should use renewable resources, products and processes should be environmentally compatible, and waste should be recyclable.[3]

Biotechnology provides many technical options which could help achieve these goals. It is certainly not the only technology to make and keep the environment clean – there are many other, chemical, physical or engineering technologies – but it is an essential one, and its importance in synergy with those other tools is growing.

Environmental biotechnologies generally utilise micro-organisms and their parts or products. Yet the potential role of higher plants and animals should not be overlooked in, for example, environmental clean-up where they may play an ever-larger role. Already, different varieties of trees are planted to rehabilitate slag-heaps contaminated by mining. Earthworms, which are among the most widespread natural 'cleaning-up' agents, are also used by environmental biotechnology to purify soil.

At present, the main use of biotechnology is to clean up or 'remedy' pollution (hence the term 'bioremediation'). In the cleaning-up of air-pollution, biotechnological methods are probably the most effective. They involve the use of peat and compost beds to break down odours and simple volatile organic chemicals. There have recently been many improvements in filterbeds and biofilters based on the use of synthetic substrates and selected micro-organisms.

With waste-water and industrial effluents, the traditional aim of the biotreatment introduced in the nineteenth century was to reduce organic matter. Now, with the increasing importance of industrial pollution, processes are required that remove specific pollutants, particularly nitrogen and phosphorus (mainly from agriculture), as well as heavy metals and chlorinated compounds. Biological clean-up methods are used to remedy oil-spills, groundwater and aquifer contamination, and in the recycling of waste water to drinking water.

Soil and land treatment may be either *in situ* or *ex situ*. *In situ* treatment involves a number of techniques in which the soil is not disturbed, such as the injection of nutrient solutions to stimulate the remedial activity of indigenous micro-organisms, the introduction of new organisms, and 'bioventing', where air is supplied both for micro-organisms and as a carrier for the release of volatile materials.

Ex situ treatment requires the soil to be excavated and treated above ground, either in open piles (composting) or in specialised reactors (slurry reactors, for example). The treatment of solid waste aims to convert it into a safer, less toxic, more stable material which is either usable or disposable. Techniques include deposition in landfills, composting and anaerobic (oxygen-free) digestion of solids in order to convert their organic content into usable methane.

Bioremediation is now increasingly focussing on the cleaning-up of soil

2. Candice Stevens, 'The Environment Industry', **The OECD Observer**, No. 177, August/September 1992.

3. Candice Stevens, 'The Environmental Life-Cycle and Trade', **The OECD Observer**, No. 188, June/July 1994.

and solid waste. That raises complex scientific and technical questions related to the little-understood interactions of different organisms with one another, and with soil. As a result, many bio-remediation processes are still called 'black-box' processes since their functioning is still somehow enigmatic, based on trial and error rather than full scientific understanding.

From Cure to Prevention

The current pre-eminence of bio-remediation over prevention is the result of several decades of pollution, if not more, not least because countless polluted sites are calling for urgent remedial action – although the potential of bioremediation must not be seen as a licence to continue polluting. But biotechnology is largely oriented towards the future, and the top future priority for environmental biotechnology will be to reduce and prevent damage.

Biotechnology can prevent or reduce local environmental damage in several ways:

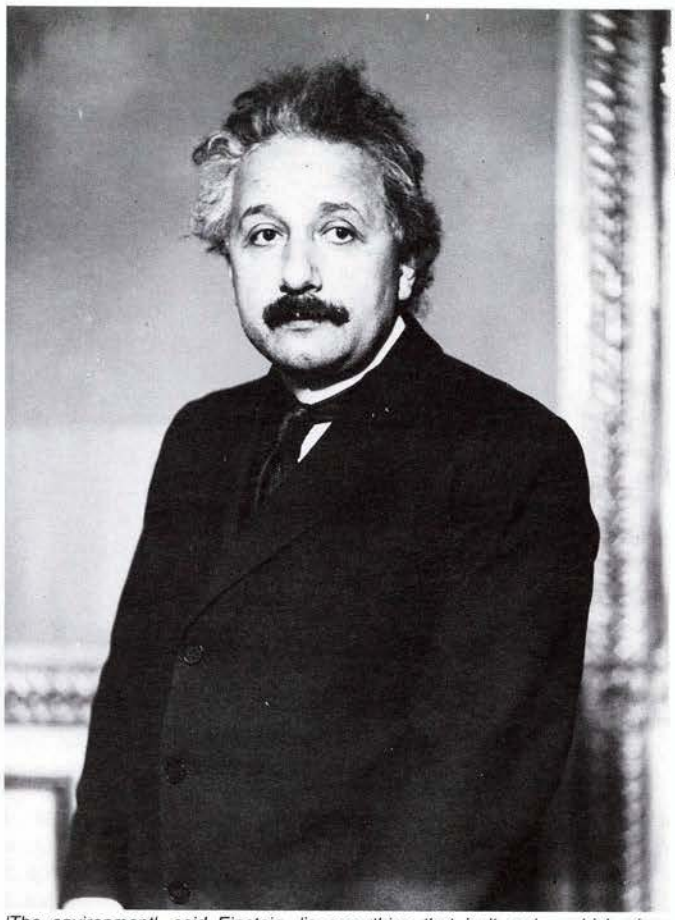
• added-value processes which convert waste-streams into useful products – for example, liquid wastes from milk- and cheese-processing are being upgraded to valuable lactic acids and milk proteins

• 'end-of-pipe' processes by which the waste stream is purified to the point where the products can be released without harm into the environment – among many other examples, there are biological methods which remove organic pollutants that endanger aquatic life, from waters polluted by potato starch, or methods which clean metal wastes from waters polluted by mining operations

• new biomaterials development, leading to the manufacture of materials with reduced environmental impact, seen amongst others in the development of biodegradable plastics

• new biological production processes that generate less, or more manageable, waste – for instance, the use of enzymes in the tanning of skins to make leather, or in bleaching to make paper where, previously, harsh and polluting chemicals were used.

One can see many potential links between environmental biotechnologies and the possible prevention of some of the long-term global threats to the environment. Japan, amongst other countries, is paying increasing attention to such links, and is proposing or financing biotechnological R&D to develop long-term, global 'prevention' technologies, to address such threats as global warming, desertification, water shortage, and to satisfy the demand for clean and renewable fuels.



Roger Viollet/Harlingue

'The environment', said Einstein, 'is everything that isn't me' – which gives biotechnology enormous scope for environmental applications.

Carbon dioxide (CO_2) is one of the main causes of the greenhouse effect that produces global warming. By improving the photosynthetic ability of plants to fix CO_2, algae, corals, and similar organisms, biotechnology might help to increase the processes which bind it into solid forms, thus partly off-setting the volumes of CO_2 released from the combustion of fossil fuels.

Biotechnology applications to deal with desertification could include the production of bio-polymer molecules to enhance water retention in soil, and the generation of plants resistant to salt and drought. In the energy sector, the microbial production of hydrogen and the bio-desulphurisation of oil and coal are receiving new attention and R&D support.

These examples show that biotechnology is much broader than gene technology, which nonetheless attracts more attention in the media. Biotechnology is the application of biological organisms, systems and processes to provide goods and services. What then, will be the role of genetically modified organisms in environmental biotechnology? There has been some debate on this topic, particularly in Europe, with both supporting and hostile opinions being raised.

As this debate continues, two facts must be kept in mind. First, the potential of naturally occurring organisms to help restore and maintain the environment is large, unknown and little exploited. Second, it may be increasingly necessary to use genetically modified organisms in the open environment to degrade the more recalcitrant pollutants, since natural evolutionary processes might be too slow. Only science-based analyses of safety and cost-benefit issues can evaluate the comparative merits, costs and possible drawbacks of using an engineered organism for a given prob-

Table
COSTS OF *IN SITU* BIOLOGICAL AND NON-BIOLOGICAL TREATMENT OF ENVIRONMENTAL POLLUTION (SOIL, AIR, WATER) IN THE NETHERLANDS, 1993

Soil Remediation	*Guilders/ton*	*Air Treatment*	*Guilders/1,000 m³*	*Water Treatment*	*Guilders/m³*
Bioremediation	**70–150**	**Biofiltration**	**0.50–5.00**	**Biological water treatment**	**0.10–1**
Extraction	125–150	**Bioscrubbing**	**3.00–6.00**	Sedimentation	0.05–30
Electro-reclamation	150–300	Chemical scrubbing	1.00–>20.00	Flotation	0.10–2
Steam-stripping	250–300	Adsorption (activated carbon)	1.00–10.00	Adsorption	1.00–10
		Incineration	2.50–25.00	Chemical oxydation	0.50–>5
		Catalytic treatment	2.50–20.00	Ultra-filtration	<1.00–>20

Note: biotechnological applications in **bold**.
Source: OECD and TNO

lem, against the proven dangers of certain pollutants to health and the environment.

A New Generic Technology?

Many commentators believe that biotechnology is on the way to becoming one of the main 'generic' technologies of the next century, modifying economic and social conditions in major ways, as information technology has been doing for the last few decades.

The successful diffusion of any new generic technology depends largely on the satisfaction of five criteria:

- a new range of technically improved products and processes
- cost reductions for many of them
- social and political acceptability
- environmental acceptability
- pervasive effects throughout the economic system.

Information technology satisfied all five criteria. Environmental biotechnology appears to satisfy at least the first criterion: products and services have increased considerably in the last five years, even if much more R&D will be necessary to improve their technical reliability and predictability.

For the second criterion, one of the most critical assets of biotechnology compared to other environmental technologies could be its clear, sometimes massive cost-advantage in every sector of environmental remediation: air, water and soil. Data collected in the Netherlands in 1993 indicates that biotechnology is the least expensive method in all three (Table). Although the precise figures apply to the Netherlands only, they can be generalised to all industrialised European countries, and in some cases, to the United States. Moreover, biological clean-up methods are much more 'sustainable' than any others, which include extraction, thermal treatment and incineration, steam-stripping, chemical scrubbing (air) and oxidation (water), ultra-filtration, and more.

Social and political acceptability are other keys to the success of generic technologies. That public opinion now often favours 'green' policies and technologies is an evident advantage for environmental biotechnology, and this edge is reinforced indirectly by political support in the form of legislation set up to protect the environment (clean-air and -water laws, and the like).

Bioremediation hardly requires raw materials or energy, and hardly ever produces secondary wastes because pollutants are transformed into familiar natural substances such as water, salt or carbon dioxide. In contrast, all other technologies require inputs of chemicals and/or energy, and wastes are often only shifted to other environmental sectors (say, from water to air).

The fifth criterion for successful diffusion is 'pervasiveness'. The pervasive character of soil, water and air pollution could offer biotechnology ubiquitous and global fields of application, all likely to grow as long as the world's population and standard of living increase.

These five criteria have been formulated by economists as a general model to assess the future diffusion of generic technologies. And it is clear that industrialists have, on more pragmatic grounds, arrived at very similar conclusions for environmental biotechnology. Throughout the OECD area, thousands of companies, small, medium-sized and large, and suppliers as well as potential users, already invest, or plan to invest in environmental biotechnology. The medium-term market potential is vast, and is expected to grow from an annual $40 billion in the early 1990s to $75 billion or more by the year 2000. Impacts on industrial growth and employment could in the longer term – say, over 20 years – become significant.

■ ■

Environmental biotechnology is a technology where the interests of academia, industry, governments and public opinion all appear to be pulling in the same direction, and where the scope for international co-operation in R&D seems to be particularly broad. It would seem to have a rather bright future. ■

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Agreement on the Environment

Giry/R.É.A.

A voluntary agreement can be aimed at reducing emissions from industrial processes.

Michel Potier

Voluntary agreements on activities that affect the environment between industry and the authorities are increasingly common in a growing number of OECD countries. Their emergence as yet another instrument of environmental policy reflects a basic change in the nature of environmental policies and in relations between industry and government.

There are a number of reasons that voluntary agreements have become part of the environmental scene in the last five or six years, particularly in connection with strategies to prevent and control pollution. First, the traditional regulatory approach to environmental policies is no longer always appropriate. Governments are, for example, finding it increasingly difficult to use direct regulation to control diffuse pollution, whether industrial, agricultural or urban, or to deal with global issues like climate change. Moreover, the additional administrative costs involved in a regulatory system are an incentive for governments, at a time of slower growth and tight budgets, to undertake regulatory reform and rely more on market forces.

Second, relations between government and industry are changing. The often confrontational attitudes of the early 1970s are giving way to a co-operative approach in which partnership is increasingly the rule. By and large, manufacturers have adopted a more positive and responsible attitude to the environment, particularly since they have realised that the environment is not only a constraint but also offers prospects of new markets.

These markets are vast. They comprise rehabilitation, measurement, pre-

Michel Potier is Head of the Economics Division of the OECD Environment Directorate.

vention and recovery. In 1992 the OECD estimated that the world market for environmental protection was $200 billion. It should be around $300 billion by the year 2000.[1] Perceptive firms see environmental protection as the source of a new competitive advantage whose importance will very soon become apparent – an advantage that will be appreciated by customers, government, countries in which firms want to do business, the banks and the best job-applicants. After the Rhine was polluted by its Schweizerhalle plant near Basel, for example, Sandoz acquired a remarkable degree of expertise and has become a world authority on environmental protection, risk analysis and site rehabilitation.

The Nature of Voluntary Agreements

A voluntary agreement is a contract between the authorities (for example, the Ministry of the Environment) and industry (a trade association or individual firm) or between a firm and a municipality or local residents' association. It entails the signature of a formal document by the parties to the agreement. Such a contract has the force of private law only and will not provide for any penalties for breach of its terms, although a tendency to give it more legal force is emerging in all countries, particularly in the Netherlands and Switzerland. Alongside voluntary agreements involving the signature of a contract, there are also an increasing number of voluntary initiatives, such as the chemical industry's 'Responsible Care Programme', whereby a particular industry commits itself unilaterally to a whole series of environmental protection measures. The chemical industry's programme was set up in Canada in 1985. Since then, national chemical-industry associations have organised similar programmes in many OECD countries (Austria, Finland, France, Germany, New Zealand, The Netherlands, United Kingdom, United States).

Under the contract, the trade association, industrial branch or firm undertakes to achieve a number of environmental objectives. Government is not involved in any way except for an informal commitment not to adopt regulations relating to the activity covered by the voluntary agreement while it remains in force.

A list of the voluntary agreements concluded so far in the OECD countries (Canada and the United States in North America, Austria, Finland, France, Germany, Italy, Netherlands (Table 1), Switzerland and the United Kingdom in Europe) shows that they include a very wide range of pollution-control objectives (air, water, waste, noise) and, less often, the protection of nature (Australia). Two types of pollution-control agreements can be distinguished: those on industrial processes – to reduce SO_2 emissions, for example – and those on products – an agreement to eliminate phosphates from detergents, for instance. The agreements on processes may apply to all types of pollution and are broken down more or less evenly among them (air, water, waste, miscellaneous). By contrast, agreements to improve product quality seem to outnumber by far those intended to reduce pollutant emissions from certain industrial processes.

Voluntary agreements include a general statement on the environmental objectives to be achieved, a timetable, the methods of making public the action taken, and the publication of results. In practice, they are closely connected with the traditional regulatory approach. They are sometimes a preliminary step before the adoption of formal regulation. They can also contribute to the implementation of existing regulations. In France in the 1970s, for example, sectoral contracts were concluded by the Ministry of the Environment and a number of trade associations with the aim of encouraging industry to carry out certain programmes to reduce pollution in exchange for financial assistance from the government.

Generally speaking, voluntary agreements supplement and strengthen existing regulations. That is the case in Japan where 40,000 agreements have been concluded since the start of the 1970s by firms and local authorities (Table 2). The standards set by them are usually stricter than national standards or those in municipal regulations. They are adapted to local conditions (geographical features, total pollution load); they are either limited to one medium (air or water) and to one or two substances (NO_x) or may apply to a wider range of pollutants and a number of media. Voluntary agreements also make it easier to co-ordinate federal and national action with regional and local regulations.

Table 1
CONTRACTS WITH INDUSTRY IN THE NETHERLANDS

Sector	*Date of contract*[1]
Printing	1990*
Base metals	1992*
Chemical products	1993*
Dairy products	1994
Metal and electronic products	1994
Textiles	1994
Slaughterhouses, meat-processing	1994
Leather	1995
Rubber and plastics	1995
Bricks and tiles	1995
Cement and cement products	1995
Other mineral products	1995

1. Contracts concluded * or to be concluded.
Source: Ministry of Housing, Netherlands

Advantages to Industry

Manufacturers benefit in a number of ways from voluntary agreements. First, by anticipating regulations and thus gaining more time, the industrial sector or firm will have a stronger hand in negotiations over the various aspects of the problems in front

1. Candice Stevens, 'The Environment Industry' **The OECD Observer**, No. 177, August/September 1992.

Giordano/SABA/R.E.A.

Voluntary agreements can also curb solid wastes – though some manufacturers have complained of adverse trade effects though rules on packaging.

of it. It will therefore be able to influence the definition of objectives and have more scope in deciding how it will keep to its commitments. Second, an agreement gives an industry a degree of regulatory security or stability and is thereby conducive to technological innovation. Lastly, such agreements tend to give the public and environmentalist groups a positive picture of industry.

In spite of these benefits, it is a challenge for industry to meet its commitments since their implications are not always properly assessed. And non-compliance can have a disastrous effect on an industry's reputation. That may occur, for instance, when a trade association fails to motivate all its members so that the costs of implementing the agreement are borne not by the entire sector but by one particular firm.

The impact of voluntary agreements on international trade is no different from that of regulations since the adoption of a standard (on a voluntary basis) will initially result in higher production costs – at any rate when the agreement does not entail the payment of an offsetting grant. But as a rule the industrial sector or firm which has accepted these additional costs will subsequently be able to recoup them since it ought to have a better reputation than its competitors as a result of highlighting its 'environment-friendlier' products.[2]

Some concern has recently been expressed about the risks of non-tariff barriers connected with these agreements. With packaging, for instance, some manufacturers in the European Union have often referred to their difficulties in obtaining the green label issued in Germany under the DUAL system (waste recycling).

Voluntary agreements are affected by another limitation. They are generally negotiated by major firms – the authorities' main partners and thus few in number – since they have the necessary technological and financial capacity and are more likely to benefit from government aid than small firms. In Italy, for instance, Fiat has received government aid on several occasions under such agreements. The latest of them, on public transport, was concluded in March 1994. It was signed and co-signed on the government side by the Ministries of Finance, Transport, Industry, Environment and Labour and concerns R&D work on vehicles with a low environmental impact, improved mobility in towns and a pilot project for recycling cars. Extensive use of such agreements is more difficult in a country with a high proportion of small and medium-sized businesses.

Table 2
VOLUNTARY AGREEMENTS ON POLLUTION PREVENTION IN JAPAN[1]

By type[2]	*Number of agreements*
Pollution control in general	1,834
Waste-water control	1,094
Noise and vibration control	903
Industrial waste control	658
Soot control	633
Offensive odour control	613
Raw material and fuel control	220
Other control	485
By sector[3]	
Machinery	377
Metals	304
Foodstuffs	207
Chemicals	198
Ceramics	196
Construction	134
Agriculture	121

1. 2,553 agreements concluded from October 1991 to September 1992.
2. An agreement can cover several activities.
3. Sectors with fewer than 100 agreements are not mentioned (over 1,000 such agreements).
Source: Environment Agency, Japan

Benefits to Government

Voluntary agreements also provide a series of benefits for government. First, they are an alternative to the often lengthy and complicated legislative process and avoid the requirement of drafting legislation which, for the environment, is always a complex task. Second, the responsibility for devising and more particularly implementing environmental protection measures and for monitoring costs is to a very large extent transferred to industry, thereby saving the government a substantial amount

2. Candice Stevens, 'The Greening of Trade', **The OECD Observer**, No. 187, April/May 1994, and 'The Environmental Life-Cycle and Trade', **The OECD Observer**, No. 188, June/July 1994; Jim Salzman, 'Green Labels for Consumers', **The OECD Observer**, No. 169, April/May 1991.

COI

The environment industry – here recycling raw materials – may reach $300 billion by the year 2000.

of money. Arrangements for publication of the results achieved by industry will also enable the authorities to observe the progress made and see where difficulties may arise.

Moreover, since voluntary agreements concern areas such as energy conservation or waste, which are difficult to regulate by a conventional system of permits, they will offer an incentive for firms to invest in the production processes most likely to comply with the environmental aims set by the authorities.

Lastly, these agreements will prove invaluable in cases where governments find it difficult to meet their international environmental obligations (with carbon taxes, for instance). That explains the growing interest shown by the American authorities in particular in these new policy instruments in connection with the convention on climate change signed in Rio in June 1993.

NGOs and the Public

Non-governmental organisations (NGOs) working in environmental protection are usually quite suspicious of voluntary agreements since most of them do not provide for any penalties in the event of non-compliance. That is because of their legal status. Although in some countries they are not recognised as legally binding, other countries, such as the Netherlands and the United Kingdom, do provide for this possibility. In the absence of any clearly specified legal remedy, the NGOs therefore cannot bring proceedings against a trade association or firm which has failed to meet its commitments.

Although the incentive to fulfil the contract is based on the threat that the authorities might impose heavier regulatory penalties and on industry's fear of damaging its image, the possibility that obligations will not be respected is attenuated by the fact that agreements are often linked with traditional regulations and their associated penalties. In addition, the reaction of consumers should not be underestimated since, on being informed by the media, they may boycott the products of firms which have failed to respect their commitments.

The public is not automatically receptive to this type of environment policy instrument, since it amounts to asking the private sector to police itself. Some agreements in the Netherlands have thus been denounced by environmentalist groups as attempted collusion between industry and government to the detriment of the environment. Indeed, in countries where government is not held to be very powerful, its ability to negotiate with and stand up to private interests is open to doubt.

■ ■

The growing interest in voluntary agreements shown by industry and government does seem to suggest that these new instruments in environmental policy are a useful supplement to the increasing range of instruments already in force. Unlike the others, they lend themselves to a very wide variety of institutional and administrative contexts and are thus extremely flexible. They seem to function better in countries and sectors where there is a climate of mutual trust between industry and the authorities. They would probably be more readily accepted if negotiations were more transparent and if environmentalist groups and NGOs were invited to participate. ■

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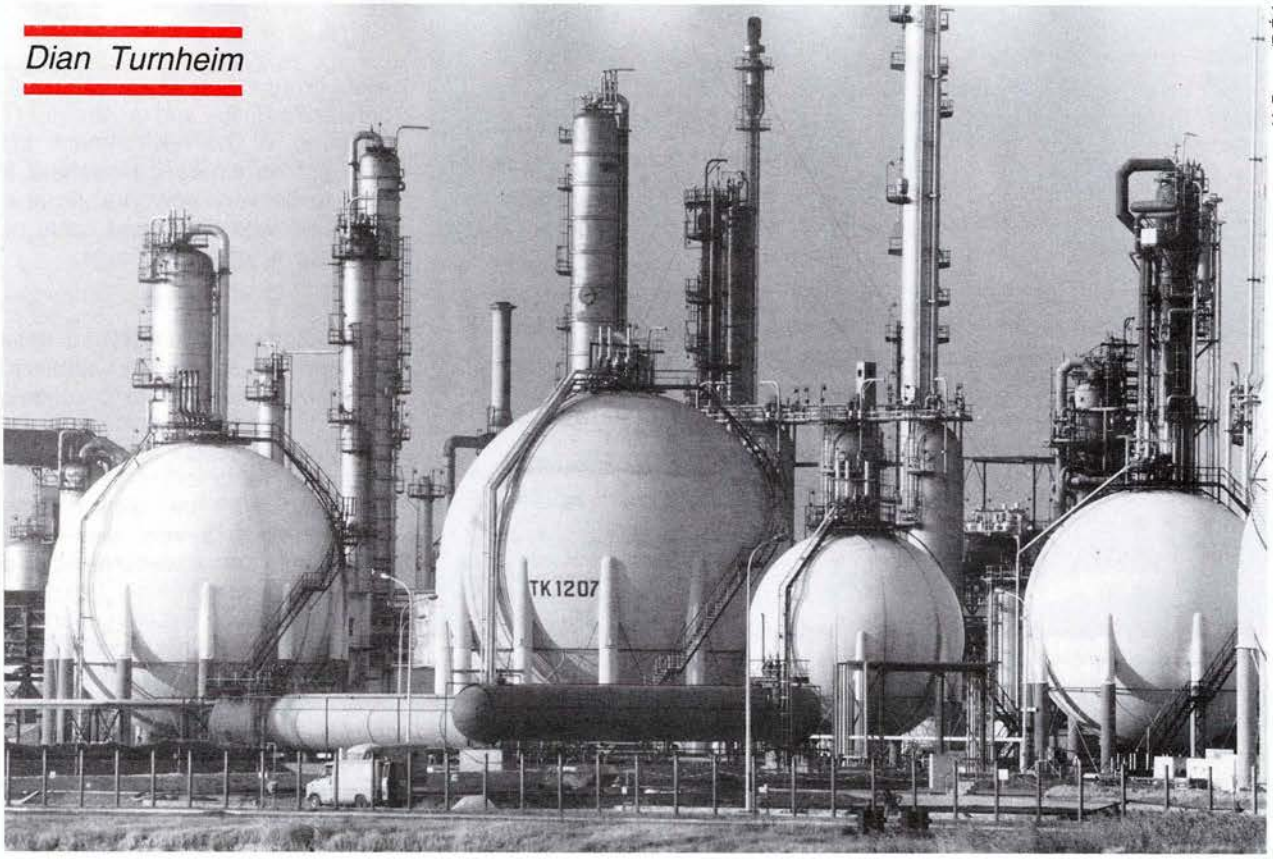
Evaluating Chemical Risks

Dian Turnheim



M. Fourmy/R.E.A.

The high costs of monitoring the dangers from industrial chemicals make them an ideal candidate for international co-operation.

Modern life is unimaginable without chemicals. They make up or go into virtually all manufactured products – paints and plastics, medicines and pesticides, detergents and solvents, and hundreds of thousands of others. But although chemicals are indispensable and improve living standards immeasurably, they can also pose risks to human health and to the environment. Since the early 1970s OECD countries have been working together to address the issue of chemical safety. Initially, the focus was on the safety testing and assessment of newly developed chemicals, before they were put on the market. In 1987, an OECD Council Decision called for the Organisation to spearhead a systematic effort to investigate existing chemicals, those already in use (some of them for a long time) whose safety had not yet been evaluated. That assessment would be based on a small battery of broadly agreed tests, which study the inherent characteristics of a chemical and its toxicity to man and the environment.

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The Council mandate presented a huge challenge. Many years will be required to meet it, not least because of the sheer number of chemicals in use – one estimate is around 100,000. Most of them are traded throughout the world, and many are produced by a small number of multi-national chemical companies. When countries began to tackle the problem after the 1987 Decision, it was clear that a substantial duplication of effort would occur if each country began individually to set priorities, identify the type of safety information required for an assessment, and require specific testing to be undertaken by its chemical industry. In the industry itself, which too is often international in its scope, an enormous amount of work would have had to be repeated to satisfy differing national requirements.

A solution was sought by both OECD countries and the industry in the framework of the OECD Chemicals Programme, where a way to co-operate in the immense task of investigating existing chemicals was developed. Countries had already agreed in the 1987 Council Decision to establish or strengthen their national programmes to investigate existing chemicals systematically. In a follow-up Council Decision, three years later, they committed themselves to co-operate in the systematic investigation of these chemicals within

the framework of the OECD.

To evaluate the safety of a chemical, a specific kind of information is required: its potential toxicity for man and/or the environment and the likely degree to which either will be exposed to it. The information on effects is derived primarily from tests done in laboratories to define the physical-chemical characteristics of a chemical and its potential toxicity. By contrast, much of the information required to analyse the potential exposure which will occur (for example, information on production processes, consumer uses, methods of disposal) has to be provided mainly by the producers and users of the chemicals.

As a general principle, the chemical industry within OECD countries is responsible for the safety of the chemicals it produces and is required to provide relevant information to governments. A fundamental question in the development of OECD work on the investigation of existing chemicals was exactly what minimum set of data would be required to assess effects and produce information on exposure, so that an initial assessment of the risks of a chemical could be made. With the goal of harmonising the information requirements that countries would initially have to fulfill, via their industries, the OECD developed the 'Screening Information Data Set' (SIDS). This is a package of data very similar to that required from the industry by governments in most OECD countries before a new chemical is put on the market. It contains information on the identity of the chemical, its physical and chemical properties, the sources and likely extent of exposure and use, environmental fate (for example, whether it degrades quickly or not[1]) and how it might be disseminated through the environment, as well as toxicological data.

Table
THE OECD EXISTING CHEMICALS PROGRAMME

Chemicals being investigated	
Information gathering	49
Testing	53
Assessments	
• completed	25
• underway	70
Total	197
Chemicals with completed assessments	
Low priority	16
Further work	
• testing	1
• exposure analysis	5
Special attention	3
Risk reduction	0
Total	25

The systematic investigation of existing chemicals involves several steps: setting priorities, gathering information, testing and assessment. The success of this work depends on the voluntary co-operation of the industry. The chemical industry in OECD countries has accepted its responsibilities on the safe use of its products, establishing a variety of programmes through which they follow their chemicals from development to disposal endeavouring to promote their safe use at every stage.

Distribution of the work on systematic investigation of existing chemicals is carried out according to the relative weight of the GNP of a country in relation to other OECD countries, with the United States and Japan together carrying about half the workload. Chemicals are reviewed in batches of around 50, currently distributed among 16 member countries each of which takes the lead on the investigation of one or more of the chemicals. Detailed procedures for investigating individual chemicals are developed and modified as the work goes on, 'learning by doing'.

Setting Priorities, Gathering Information

Beginning with the assumption that the highest exposure of humans and the environment will potentially be to those chemicals which are available in the highest volumes, a decision was made in the OECD Programme to focus on High Production Volume (HPV) chemicals, defined as those produced in volumes of at least 1,000 tonnes per year in two or more OECD countries or 10,000 tonnes in a single country.

Governments, in consultation with the chemical industry, provided the OECD with information on all the chemicals produced in these quantities. The OECD then prepared a list of 1,500 HPV chemicals, covering an estimated 90–95% of the total volume of chemicals produced in OECD countries. The vast majority of the 100,000 existing chemicals on the market are low-volume chemicals such as those added in small amounts to preparations for very specific purposes. By concentrating initially on the HPV chemicals, countries felt they could most efficiently and effectively fill

SCREENING IN ACTION

What happens when a HPV chemical is considered for screening in the OECD procedure?

The chemical para-toluene-sulfonamide, often more commonly known by its initials PTS, is produced in volumes in excess of 1,000 tonnes per year in Canada, Japan and Sweden. It is used as a raw material in the synthesis of pesticides and drugs, as a plasticiser for thermosetting resins, as a preservative for outdoor paints and as a coating in fluorescent lights.

In the SIDS programme, the chemical was 'sponsored' by Japan, and when the collected data was reviewed by the OECD countries involved in the SIDS work, it was agreed that several tests had to be done before the chemical would fulfil the SIDS requirements. These tests addressed biodegradation, acute toxicity to fish, daphnia and algae, effects on DNA and on reproduction; they were undertaken by Japan.

Based on the results of these tests and the original information, an assessment report, again prepared by Japan, was discussed at the initial assessment meeting, where it was unanimously agreed that PTS currently presented a low priority for further work. Of course, as and when further information is received, this decision will be reviewed.

The OECD Initial Assessment of PTS has been published by IRPTC/IPCS and constitutes part of the UNCED recommendations for increasing the number of assessments of chemicals.

1. Candice Stevens, 'The Environmental Life-Cycle and Trade', **The OECD Observer**, No. 188, June/July 1994.

INTERNATIONAL CO-OPERATION

OECD work on existing chemicals is carried out in complete co-operation with other international organisations and with the European Union (EU). The EU is implementing its own programme on existing chemicals, in which its 12 member states work together. This programme makes up the combined 'European' contribution to the OECD Existing Chemicals Programme. The information-gathering phase of the EU and OECD programmes is already fully co-ordinated, through the use of a Harmonised Electronic Data Set (HEDSET) developed by the two organisations. Priority setting is co-ordinated and reviews of both programmes carried out at an OECD SIDS Initial Assessment Meeting. These are held as soon as there is a group of 20 or so draft assessments to deal with, about once a year, in order to allow non-EU OECD countries to provide their input and to ensure OECD-wide acceptability of assessments.

In addition, in the spirit of the recommendations of the United Nations Conference on Environment and Development (UNCED) and its Agenda 21, the Existing Chemicals Programme co-operates with a variety of UN organisations engaged in chemicals-related work. All the data that have become available through the OECD Programme are publicly available. A United Nations Environment Programme (UNEP) database, the International Register of Potentially Toxic Chemicals (IRPTC), serves as the repository for these data. In this way, the information used in the OECD work, including that not previously published, becomes available worldwide.

The UNEP also works with the World Health Organisation and the International Labour Office in their joint 'umbrella' International Programme on Chemical Safety (IPCS). The IPCS nominates participants from non-OECD countries to the SIDS Initial Assessment Meeting, thereby ensuring a wide acceptability of the OECD assessments. The OECD and IRPTC will publish the SIDS Initial Assessment Reports under the auspices of the IPCS, so that these reports too, are available internationally.

the gaps in knowledge about the risks posed to health and the environment.

Several hundred of the HPV chemicals on the list have already been investigated in the past on a case-by-case basis in national programmes or in the programmes of other international organisations (box, left); they have therefore not been selected for investigation by the OECD. Instead, as a starting point, chemicals about which little is known have been chosen (despite their high volumes of production).

Existing information on these chemicals is first gathered by the 'sponsor' country by searching published scientific literature. In addition, the chemical industry within and outside the sponsor country makes available information which often had not been freely available beforehand. The quality of the data is evaluated by the sponsor country, and a SIDS Testing Plan is prepared in order to arrange for the filling of gaps in the data or to replace old data whose quality is considered inadequate.

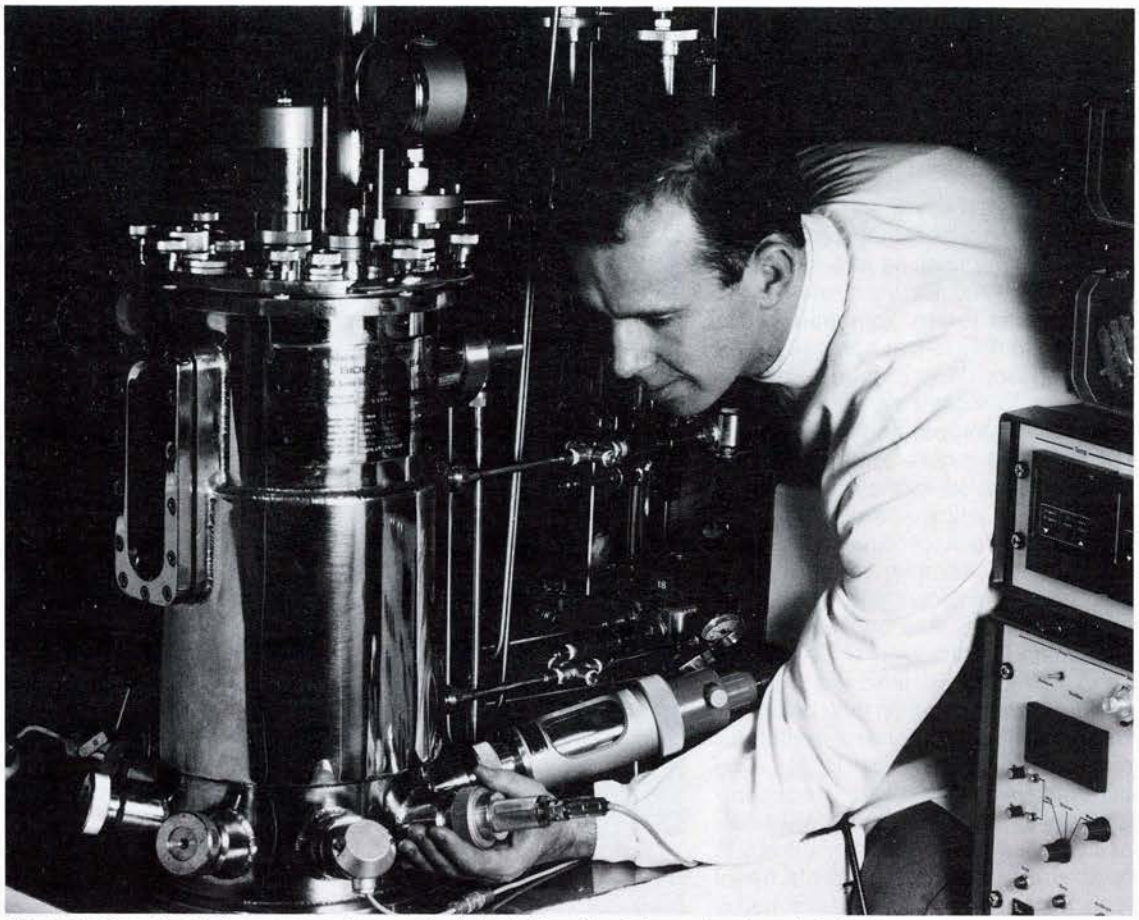
Testing and Assessment

In consultation with the sponsor country, the chemical industry then undertakes to do the necessary testing. The cost varies according to the number and type of studies required: completing a SIDS can cost between $20,000 and $150,000 per chemical. Some animal tests, like those on effects on reproduction, are complicated and may take up to a year to complete. Any single test is carried out only once, and by a single company. But, in accordance with a 1981 OECD Decision on Mutual Acceptance of Data, other OECD countries accept the results because testing is done according to the OECD Test Guidelines and the OECD Principles of Good Laboratory Practice, developed in the early 1980s in the context of testing new chemicals.

Once a full SIDS is available (through information gathering or testing), the sponsor country prepares a SIDS Initial Assessment Report for each chemical based on the SIDS and any additional information it might have. This report is discussed by the participating countries at a SIDS Initial Assessment Meeting in the presence of the companies producing the chemical. The result is a co-operative assessment of the chemical, one with which producers and regulators throughout OECD can agree. This assessment involves agreement on one of the following four

Co-operation on chemicals testing reduces the use of animals.

Daniel Giry/R.E.A.



COI

The economies of scale from co-operation on chemicals testing offer obvious advantages to industry.

conclusions about the chemical:

- further work is a low current priority
- further work is necessary to address concerns identified (say, further testing or detailed exposure analysis)
- the chemical warrants special attention because of specific properties or effects which were discovered
- the chemical is a candidate for in-depth risk assessment, with a view to actions to reduce any risk.

The guidance developed in this fashion ensures that sponsor countries make their assessments in a way that can be accepted in the other countries participating in the Chemicals Programme.

The result of the SIDS process is therefore an agreed initial assessment of the potential risks, making it possible to identify the chemicals which require a more thorough investigation. Decisions can be made on the further testing or exposure analyses called for or, in cases of unambiguous results from assessment showing that the potential risk is high, recommendations to the policy bodies in OECD on the actions that will reduce the risk. These can range from special labelling of the chemical, through voluntary action by industry to reduce exposure to a complete ban. By the same token, the chemicals which the SIDS initial assessment suggest are of low concern can be eliminated from further investigation.

Since 1990, when co-operative work started in practice, the investigation of several batches of chemicals has been initiated and/or completed. So far around 450 tests have been undertaken under the auspices of one of the 16 countries taking an active part in the work. Almost 100 of these tests have been of the more complicated (and expensive) types, like tests for reproductive toxicity.

■ ■

Approximately 200 HPV chemicals are now being subjected to a systematic investigation of their potential effects on human health and/or the environment. Many other HPV chemicals will be dealt with in the near future. Through this process of sharing the burden, investigating the safety of existing chemicals, an immense international challenge – which could never have been addressed in its totality by one country alone – has become a manageable goal.

It would not have been possible without the voluntary co-operation of the chemical industry. The advantages to the industry are obvious: because only one of the companies producing a given chemical has to carry out an agreed test package, testing costs for the industry as a whole are reduced considerably. Furthermore, by participating in the discussions, industry can provide input in the planning of realistic systematic investigations. Moreover, because unnecessary duplicative testing is avoided, the use of animals in testing is reduced, with the corollary benefit of improving the industry's public image.

Non-member countries benefit, too, because more data on chemical safety and assessment reports become available worldwide. And there are wider macro-economic effects: international harmonisation will eventually reduce trade barriers, and therefore encourage trade and economic efficiency. ■

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Using Schools after Class Hours?

Michael Hacker

'Latch-key kids' – so-called because they have to let themselves into an empty house and fend for themselves until their parents return from work – are exposed to dangers at home (through domestic accidents, for example, or exposure to violent or vacuous television programmes) and in the street: left without the care and supervision of responsible adults they can become involved in crime, vandalism and drugs. And lack of supervision can affect their performance at school. According to a recent poll undertaken in the United States by the National Education Commission on Time and Learning, 51% of teachers identify 'children who are left on their own after school' as the primary explanation for students' difficulties in class. The same poll reports that 12% of elementary school children care for themselves after the school day ends.[2] In rural areas, too, many parents travel long distances to work, leave home early in the morning and return late in the evening, or work unsociable hours in jobs related to agriculture or the tourist industries.

Yet one often hears complaints that educational facilities are under-used. Parents of children who have nowhere to play find it galling that playgrounds, libraries and gymnasia are locked up after school and during the school holidays; and taxpayers rightly observe that expensive facilities lie idle for much of the year.

Patterns of Provision

Some OECD countries have taken steps to meet these criticisms. The National Education Commission on Time and Learning recommended that 'schools respond to the needs of today's students by remaining open longer during the day and that some schools in every district remain open throughout the year'. Other countries have also taken some steps in this direction. Their experience offers valuable lessons on how school buildings can be used outside normal school hours.

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Sanz/Mairie de Paris

Many parents in the OECD area have no choice, if they are to work full-time, but to leave their children on their own after school. Could the use of school buildings after class hours offer a solution for these children who are left to their own resources, at home or in the street?[1]

After-hours child-care would allow a wide range of recreational and social activities: sport, music, dance, drama, arts and crafts, a chance to read and to use computers. But recent research suggests that provision for school-age children outside school hours covers less than 5% of children in most countries of the European Community.[3] The exceptions are Belgium, Denmark, France and Portugal, where a considerably larger proportion of children are catered for, though not always in school buildings. In Copenhagen in 1990 some 29% of 7- to 10-year-olds were covered, almost a third of whom were provided for in schools. And in France, the Ministry of Education is encouraging the use of schools to accommodate leisure activities for young people during the summer holidays.

In many countries – particularly in Denmark, England, France and Sweden – the shared use of buildings by schools and other groups in the community has been established for many years. Indoor and outdoor sports facilities in schools are often made available to young people in the evenings and at weekends. Some local authorities in the United Kingdom have built facilities with joint use in mind. At the Dukeries Complex in Nottinghamshire the County Council and the Newark District Council pooled resources to provide an integrated range of facilities specifically designed for joint use by school and community during the school day and out-of-school hours. As well as the school and an adult education centre, the facilities include provision for parents and young children, swimming and other indoor and outdoor sports, a youth centre, a library and information centre and a school farm.[4]

Not all out-of-hours provision uses the school buildings themselves: indeed, much of it is in separate centres that are frequently located on school sites, where educational facilities can

1. The report on which this article is based will be published later this year in the **PEB Papers** series.

2. *Prisoners of Time*, National Education Commission on Time and Learning, Washington, DC, April 1994.

3. P. Moss (ed.), *Childcare in the European Community 1985–1990*, Commission of the European Communities, Brussels, 1990.

4. **PEB Exchange**, No. 20, OECD Publications, Paris, Autumn 1993 (back-issues are available free of charge from the Programme on Educational Building at the OECD).

be used to supplement them. There may also be opportunities to re-use both buildings and land surplus to current educational requirements. At Trørød-skolen (a primary school) in Denmark surplus teaching space has been adapted to create three multi-purpose areas to provide bases for the child-care activities for children of different age-groups outside school hours.

Provision also varies within countries: it is generally more widespread in urban areas, particularly those subject to economic or social deprivation, than elsewhere. In such areas the costs of providing for the children of poorer parents are often met in whole, or in part, from public funds.

There is a clear emphasis on younger children (up to 8 or 10 years old) and little evidence of large-scale provision for children older than that. The lack of reliable evidence on the extent of demand makes it difficult to judge the nature and quantity of accommodation required. Research in the United Kingdom and Denmark indicates that there may be substantial unmet demand for young teenagers, and for the children of mothers who wish to pursue further education or training, in addition to the children of families where the mother goes to work.[5] There may also be unmet demand in rural areas, though here transport poses a particular problem, since school buses are often timed to fit in with normal teaching hours in term times, and the cost of providing services at other times may be pro-hibitive.[6]

Administrative Complications?

In using schools outside teaching hours it is important that the school's primary function should not be compromised, through, for example, the necessity of limiting extra-curricular school activities or to clear away work in progress at the end of the school day. The use of a building by more than one user at different times, especially when one group has grown accustomed to sole occupancy, can create tension and will expose any weaknesses in the management structure. Problems can easily arise over such basic aspects as responsibility for cleaning and rearranging furniture, protecting display material and children's work or the resolution of disputes between different groups over priority for the use of specific spaces.

Existing legislation and administrative structures do not always serve to encourage the wider use of educational buildings out of school hours. Although in Denmark, France and the United Kingdom recent initiatives have encouraged the use of schools by non-education users, these steps involve co-operation and different forms of partnership between the schools, central and local government, sporting, leisure and recreational services, community and voluntary groups and in some instances private and commercial organisations. There have been some successes nevertheless. In England and Wales, for example, a three-year central government initiative created 3,833 additional after-school places in the first year, many of which make use of school premises.

Decentralisation of responsibility for the management of educational buildings from central or regional government to the local community or, indeed, the individual school can encourage the use of schools outside teaching hours. In some parts of the OECD, notably the Nordic countries, responsibility for education, social services and the care of young people now rests with unitary departments within local authorities, which both encourages and much simplifies the process.

A further consequence will be supplementary staffing and running costs and in some instances some additional

5. A. M. Curtis and J. Versey, 'Enquiry into Child Care Provision and Need', States of Jersey Education Office, St Helier, 1991; R. Clark and S. Wisher, 'Out-of-School Childcare in Sheffield', Hallam University, Sheffield, 1991; Jensen *et al.*, 'The Danish Folkskole', Danish Council for Educational Development in the Folkskole, 1992.

6. Martine Safra, 'Educational Infrastructure in Rural Areas', **PEB Papers**, OECD Publications, Paris, forthcoming 1994; Martine Safra and Richard Yelland, 'Infrastructure for Rural Schools', **The OECD Observer**, No. 184, October/November 1993.

AN EXEMPLAR FROM SWEDEN

Björngårdsskolan – a primary school – is accommodated in an imposing five-storey building on a small site in one of the older parts of Stockholm. The building was originally constructed in 1908, as a teacher-training college. To meet current educational and environmental requirements and to allow the building to be used for child-care outside school hours, the building was extensively renovated and altered in 1991.

There are currently 361 children in the school aged 6–12 years and in 13 classes. The 6–9 year-olds are in mixed-age groups, and all are welcome – indeed, encouraged – to be in the school from 7.00 a.m. until school starts at 8.10 a.m., and from when classes end at 2 p.m. until 5.30 p.m., and all day during the holidays. Lunch and an afternoon snack are provided.

A charge made by the local authority is reduced for those with low incomes or from large families. The school has a budget delegated from the city authority for all aspects of expenditure, except building maintenance which is the authority's responsibility. When the budget is set at the beginning of the year, a separate element is included for child-care in the budget, but the principal has power to switch funds between budget items. No practical distinction is drawn between the school and child-care programmes, which are both the responsibility of the principal. She is supported by a management committee, on which parents, pupils and staff are represented.

The school is staffed by 50 adults, of whom 20 are teachers and 18 child-care staff, working an eight hour day, in shifts to ensure cover from 7.00 a.m to 6.00 p.m. The teaching and child-care staff work as an integrated team and there are regular team meetings to co-ordinate the educational and child-care programmes.

The alterations to the building involved the creation of seven 'bases'. All are of similar design, making use of one original general purpose classroom (of about 60 square metres), and a second classroom remodelled to provide a cooking/dining and social area of about half that size, a small group room and a single lavatory. The use of both educational and domestic furniture, curtains and soft furnishings, and indoor plants combine to create a varied and visually stimulating environment which caters for the wide range of educational, social and recreational activities. The cooking/dining/social area provides for light practical work, elementary science and technology as well as providing a 'family kitchen' for the child-care programme. Lunch is brought from the kitchen on the top floor. The child-care activities include indoor games, reading, model-making, sewing, painting and drawing. The school playground has also been renovated and provides for a wide variety of outdoor activities.

Cuisset/R.É.A.

capital expenditure. Extended use will also mean extra expenditure on such aspects as heating, lighting and maintenance, as well as additional wear and tear on furniture. It may be necessary to spend money on alterations to the building – for example, to separate the area used outside school hours from the rest of the school, or to provide more office space or toilets.

These costs have to be identified and related to the services provided and the different user-groups concerned, such as child-care organisations, sporting and recreational clubs and societies. This calculation can then provide a basis for assessing the extent of any public subsidy and charges made to users.

Social and Economic Advantages

Work in the United Kingdom and the United States[7] has shown that, quite apart from the educational benefits to the individual child, an economic case can be made for subsidising the wider availability of child-care, taking account of such factors as children's prospects for better jobs through improved educational attainment, savings associated with lower crime rates, the increased opportunities for parents to contribute to the economy and reduced reliance of families on public support.

The extended use of schools can also encourage closer relationships between schools and parents. Parents are likely to be free to come to the school more often, and thus to become more familiar with their child's learning environment. They may be drawn into the organisation and running of activities, and can benefit from meeting other parents and talking to staff.

■ ■

The use of educational facilities to broaden the opportunities available to young people may not always be the best solution. Some schools may not provide a suitable setting for out-of-school activities; unsurprisingly, some children may prefer to get away from school rather than spend more time there; there may be conflicts of interest between education and other uses; and there may be an increased risk of loss and damage to buildings, equipment and materials.

But in many cases educational buildings could provide, at little cost, a stimulating and appropriate environment for young people of school age out-of-school hours for a wide range of extended educational, social, recreational, cultural and sporting activities. Such an atmosphere could well improve their academic performance. And it would improve the use of the resources tied up in school buildings. The benefits are therefore likely to outweigh the additional costs. With imagination and care schools could serve as a second home to young people before and after class and during the holidays. ■

7. H. Joshi and H. Davies, 'Mothers' Human Capital and Childcare in Britain', *National Institute Economic Review*, No. 146, November 1993; J. Berreta-Clement, L. J. Schmeinhart, W. S. Barnett, A. S. Epstein, D. P. Weikart, *Changed Lives: The Effects of the Ypsilanti Perry Pre-school Project on Youths through Age 19*, Monographs of the High/Scope Educational Research Foundation, No. 8, Ypsilanti, Michigan, 1984.

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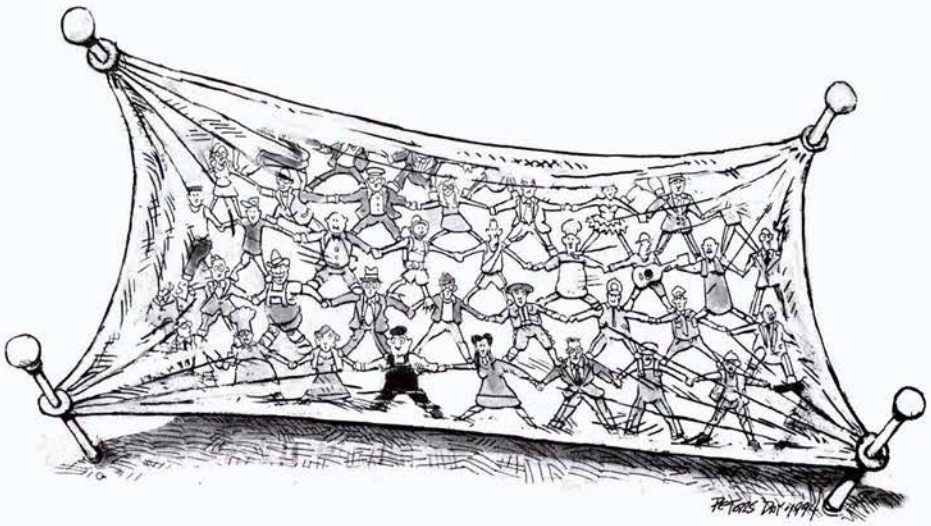
The Social Fabric under Pressure

Barrie Stevens

Unemployment, changing job patterns, demographic and other changes in the social fabric look set to pose enormous problems to OECD countries over the next decade or so. But they could also bring about new forms of organisation and solidarity. These trends and their likely implications were examined at a conference recently organised by the OECD Forum for the Future.[1]

In 1994, without counting the many workers who are underemployed, in early retirement, or not captured by the statistics, some 35 million people (around 8½% of the workforce) will be unemployed in the OECD area. The picture that government agencies and research institutes paint of the job market over the next 5–10 years is hardly reassuring.[2] On aggregate, they expect unemployment in the European Union (EU) to remain around 11% until the end of the decade, with even higher rates persisting in France and Italy (12–14%) and in Spain and Ireland (15–18%). In some Nordic countries, too, unemployment is likely to remain quite high (Finland 12–13%, Sweden 7–8%). Rates of joblessness in the United States are projected to fluctuate around the 6–7% mark, those in Canada around 10%; and it is thought that Japan's rate could move up to over 3%.

Although a substantial part of current and projected unemployment is structural, there is little doubt that some of it is cyclical and that renewed economic growth would help to make some inroads into joblessness. Over the last couple of years, the long-term prospects for the global economic environment as a whole have improved. A vital boost has been given to the world economy with the successful conclusion of the Uruguay Round and NAFTA, and the consolidation of the European Single Market. There is strong growth in some countries in Asia and Latin America which should provide vast markets as they expand. Moreover, it is important not to underestimate the internal dynamics of OECD economies: advances in product and process technology, the spread of more flexible systems of production and service provision, more innovative patterns of work organisation and locational strategy could help OECD countries to maintain and extend their international competitive position. So earlier projections for the 1990s and the first half of the next decade, which suggest an aggregate rate of economic growth in the 2½% range for the OECD area as a whole, could prove to be rather too pessimistic.



So how much growth would reduce unemployment, and by what amount? The question is not easy to answer, but some indications are available. Simulations by CEPII/OFCE,[3] for instance, suggest that – on the assumption of no major change in policy – it would take a growth rate of 5% per annum in the EU to pull average unemployment there back to 5% by the end of the year 2000. But in individual European countries, the annual real growth rates required to this end seem, from today's perspective at least, quite out of reach for some economies (almost 6% annual growth for France, over 7% for Spain, and well over 8% for Ireland, for example).

Moreover, OECD governments do not have very much fiscal room for stimulating growth. Social expenditures and, with the notable exception of Japan, already high burdens of public debt are set to rise in the major OECD economies to around 50% of GDP by the beginning of the next century.

Nonetheless, there will be some net growth in employment over the next 10–15 years. In absolute terms, the

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1. **OECD Societies in Transition: The Future of Work and Leisure**, OECD Publications, Paris, forthcoming 1994.

2. These include the National Institute for Economic and Social Research in the United Kingdom, the French Centre d'Études Prospectives et d'Informations Internationales (CEPII) and Observatoire Français des Conjonctures Économiques (OFCE), Prognos of Switzerland, the Government Institute for Economic Research in Finland, the US Bureau of Labor Statistics and the Japan Center for Economic Research.

3. 'Quelles politiques de croissance en Europe', *Économie Internationale*, No. 55, 3rd quarter 1993.

largest increase will be in the United States (24 million jobs) followed by the EU (some 10 million) and Japan (4 million). But what sort of jobs will these be?

The Profile of Future Jobs

Most projections for OECD countries, (for Australia, Germany, Japan, the Netherlands and the United States, for example) point to future developments which have long become conventional wisdom: notwithstanding a certain arbitrariness of classification, a very large number of jobs in which rapid expansion is expected will be in highly qualified, well-paid occupations such as information and computer technologies (not least for systems analysts and computer scientists), executive and managerial jobs, and so on. But considerable growth is also expected in specific occupations providing personal services. In the United States, for example, given the country's changing demographic composition, five of the ten fastest-growing occupations will be involved in the delivery of medical services: home health aides, personal and home-care aides, physical therapists and medical assistants. Still in absolute numbers, registered nurses and nursing aides, orderlies, and so on, look set to account for net growth of over 1.3 million jobs.

The sharpest declines look set to occur among farmers and agricultural workers, textile, clothing and leather workers, electrical equipment assemblers, and clerks involved in routine office operations. But this is not to predict a generalised shortage of jobs for the low-skilled. In the United States, for example, sales staff, cashiers, food-preparation workers, waiters and waitresses could, together, account for a net addition to the workforce of 2.6 million jobs by 2005, and over the same period occupations such as guards, gardeners and groundsmen are expected to add a further 700,000.

Education and Training?

Linking up these overall trends with the evolving demographic and social situation and with ethnic diversity of the workforce which is increasing in some OECD countries highlights the inevitability of growing demands on education and training systems. Requirements are increasing in further education and training of older workers, and lifelong learning, as in future many people will discover they have to change jobs, and possibly professions, several times in the course of their working lives.

At the other end of the age-scale is the necessity to improve the transition from school to work. There is also a general concern better to equip young people with broad-based skills that facilitate mobility and flexibility in later life, provide them with the basis to adjust to new types of work organisation, and prepare them in general for the advent of the 'learning society'.[4] In addition, some sections of the population in many countries will have to be targeted for the teaching of basic reading, writing and numerical skills. At the same time, demand will continue for intermediate qualifications and for highly specialised advanced training.

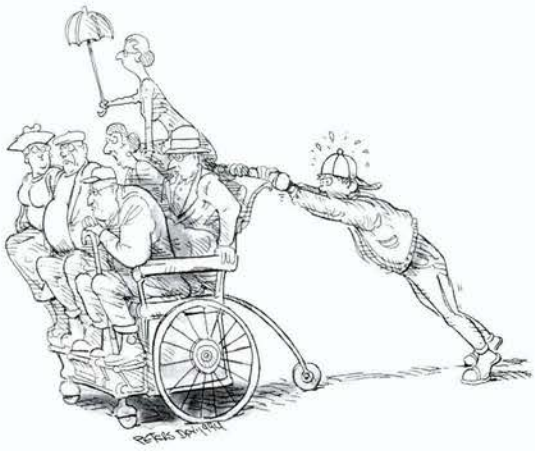
4. Eric Esnault, 'From Higher Education to Employment', **The OECD Observer**, No. 176, June/July 1992.

And a better balance, moreover, will have to be found between academic and vocational qualifications. Occupational projections for a number of countries suggest that vocational training will be of considerable importance in the coming years. Figures for Germany, for instance, show that the share of the workforce with apprenticeship, post-apprenticeship and advanced technical qualifications will increase from 66% in the late 1980s to around 70% by the year 2000.

Recent years have also seen a surge in many countries in the growth of non-regular employment – part-time or temporary work, fixed-term contracts, and so on – which raises questions about access to training. Part-time employment in the United Kingdom, for example, which in 1990 already accounted for about 22% of the labour force, is set to rise by a further 700,000 by the year 2000, bringing its share close to 25%. Similarly strong growth in non-regular employment is expected for a number of other countries.

Evidence from the last decade or so indicates, first, that there is a link between the amount of enterprise-based training received by an employee and the length of his or her tenure; second, that too high a turnover does not facilitate the development of workplace skills; and third, that those workers who have a good standard of initial education and training tend to benefit more from further education and training than those with little or no qualifications.

A major sustained effort is clearly called for to improve and broaden access to training, not least through strengthening the incentives facing the principal actors on the education and training market. Institutions will require encouragement to diversify their repertoire of courses so as to improve their responsiveness to the requirements of employers and employees alike. Workers' willingness to invest in their own training could be enhanced by ensuring that such training is as effective as possible in raising their incomes over their working lives. And enterprises themselves are likely to show themselves readier to offer



training if they are permitted to treat accumulation of human capital within the firm as an investment, on a par with physical capital, for example, through provisions making investment in workforce training a tax-deductible expenditure.[5]

Pressures on Cohesion

There is concern in many OECD countries that unemployment and the rapidly changing requirements of the labour market are set to put increasing pressure on social cohesion. Long-term unemployment – with all its implications for skill obsolescence, demotivation and stigmatisation, and its disruptive influence on the lives of individuals – continues to be a major problem in the OECD area. This is particularly true in the EC but it is also the case in other countries, in, for example, the Nordic countries which in the past had been generally immune to the trend.

Among the long-term unemployed, the young face special risks. They tend to experience more psychosomatic and psychological problems than their counterparts with jobs, and consume more narcotics and alcohol. Moreover, there is a mounting body of evidence in the United States and the United Kingdom that associates long-term youth unemployment with burglaries, theft and similar property crimes.

But these are not the only sources of pressure on social cohesion. In spite of several decades of generally improving living standards, poverty has remained a persistent feature, proving in some, but not all, OECD countries to be remarkably resilient even to such prolonged periods of economic growth as was experienced in the 1980s. And in some countries falling real wages, in particular for low-skilled workers, seem to have locked people into poverty, so that widening disparities in earnings are often perceived as a source of additional strain on the social fabric.

A further potential source of pressure on social cohesion is the issue of inter-generational redistribution. The next few decades will see considerable increases in the numbers of elderly people and a steady decline in the share of the working-age population available to support them.[6] The severest impact of these demographic changes will be on pensions and health-care budgets. Without increases in contributions, cuts in benefits and/or modifications to entitlements, the constraints on economic performance would become intolerable.[7]

But such reforms imply a significant redistribution of the financial burden and of benefits, both among the generations and among different social groups, which could prove highly controversial. In areas with large proportions of elderly, relatively wealthy people – Florida, for example – there is evidence of growing disaffection, particularly among the young, with the civic behaviour of elderly residents and their impact on the community. That is raising concerns that in the future the elderly may become increasingly regarded as an economically selfish voting bloc and a generationally divisive influence.

Weakening Solidarity?

How well placed are OECD societies to face these challenges? On the surface at least, there are worrying indications that the foundations of social cohesion are weakening. For example, the institutions which hitherto knitted together the social fabric have been undergoing important transformations. The role of families has changed and the influence of traditional structures of solidarity and consensus-building, such as church and trade unions, has declined.

As a result, traditional symbols of personal identification seem to be fading, leaving people with a strong sense of having to 'belong' and to participate, but with fewer means of expressing collective sovereignty, defining general interest, and structuring solidarity. Indeed, recent years have witnessed a relative decline in the influence of the established political parties and a proliferation of narrowly focused special-interest groups, leading to fears that the capacity of the political system to develop and sustain coherent policy is being severely undermined.

With the widening sense of economic insecurity among many segments of the population, vested interests appear as deeply entrenched as ever. At the same time, the trend to more individualistic life-styles has gained considerable momentum. So, too, it would seem, has the loss of traditional value-orientation for many young people.

Perhaps the most dramatic change to have taken place these last 40 years has been in the family. The extended family has become largely extinct, and the conventional, two-parent, single-earner family has become much less widespread. Female participation rates have risen quite spectacularly,[8] as have the numbers of single-parent families and the number of single-person households. These trends are set to continue even in the more traditional societies. As a result, families in general will be less capable of assuming certain social responsibilities, not least that of caring for the aged.

Concomitantly, the ability of government to cope with these changes is shrinking. The welfare state – the most important institution of social protection

5. Graham Vickery and Gregory Wurzburg, 'Intangible Investment: Missing Pieces in the Productivity Puzzle', **The OECD Observer**, No. 178, October/November 1992.

6. Patrick Hennessy, 'Who Looks After the Elderly?' **The OECD Observer**, No. 188, June/July 1994.

7. Edwin Bell, 'Social Policy and Economic Reality', **The OECD Observer**, No. 183, August/September 1993.

8. Françoise Coré, 'Women and the Restructuring of Employment', **The OECD Observer**, No. 186, February/March 1994.

and redistribution in most OECD countries today – is itself under siege from a variety of factors:

• budgetary pressure

• the general increase in affluence which has shifted the balance between those whose interests are best served by collectivist approaches and those whose interests are best promoted by private solutions

• the increasing cost of social-security benefits

• the erosion of community forms of support

• loss of economic support and confidence, especially in periods of protracted weak growth, tend to undermine public support for collectivist welfare policies.

New Social Dynamics?

But underneath the surface, changes could be underway in the internal dynamics of the social systems in OECD countries. Some self-correcting demographic mechanisms may be at work. Earnings disparities, for example, may begin to shrink again as the share of young people in the labour market declines in the next 10–15 years, their relative scarcity helping to push up their wages in some countries.

The average standard of education in the workforce will rise as older, less educated workers retire, and the educational level of most minorities will continue to rise. And many older people in the future will have accumulated considerable assets on retirement, partly through privately financed pension, insurance and other saving plans, partly through inherited wealth. In the United States, for instance, it is estimated that the baby-boom generation – now in their forties and early fifties – will inherit around $10 trillion in current dollars.

What is more, there are indications that the concept of family, far from disintegrating, may be undergoing a kind of structural adaptation to changing economic and social conditions, involving above all a trend to diversification of form. For instance, there are signs of strengthening relationships among wider family networks (nephews, nieces, uncles, grandfathers, ...); and it has been observed that new forms of familial organisation are emerging in Northern European countries and among the young generation, which are leading to new types of solidarity. Although unofficial co-habitation and a high degree of autonomy and mobility are an increasingly common phenomenon in these 'relational clusters', they are also characterised by increased equity between male and female partners and a sense of responsibility which extends beyond the narrower confines of the traditional family.

Statistics from the United Kingdom point in this direction. In 1991, for example, 30% of births were out of wedlock, compared with less than 12% in 1980. But the proportion of such births registered by both parents rose from half to three-quarters, and more than 50% of these were registered by parents living at the same address. Against this background it comes as less of a surprise that pan-European opinion polls indicate an increase in all countries over the last decade in the importance people attach to family life.

■ ■

It is highly improbable that such self-correcting mechanisms will of themselves be sufficient to meet the challenges of the next decades, unless they are accompanied by appropriate policies that tackle directly issues such as labour-market efficiency, education and training incentives, population aging, the effectiveness of social benefits, and so on.

Yet there can be little doubt that the transformations taking place within OECD countries will also prove a severe challenge to the effectiveness of governance, and are likely to reveal the state in its current form to be inherently unsuited to its new tasks. With the OECD societies of the future operating much more as networks of people, technologies and communications, unconstrained by highly structured hierarchies, and functioning in largely autonomous groups and localities, centralised decision-making in government will be much less effective. Governments will thus be obliged to find new and more flexible organisational forms and mechanisms for preserving social cohesion and solidarity. ■

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New Paths for Turkish Agriculture

Alain Keler/Sygma

Morvarid Bagherzadeh and Ronald Steenblik

Agriculture in Turkey is gradually moving away from an interventionist past towards a more liberal, market-based approach. What are the main hurdles that still have to be overcome?[1]

In the last 15 years agricultural policies in Turkey have developed against a background of fast-paced economic, demographic and social change. At the beginning of the 1980s, Turkey's economic strategy switched from a policy of industrialisation based on import substitution to one of economic stabilisation, aimed at allowing a bigger role for markets, addressing structural impediments and tackling the chronic problem of inflation. Progress in overcoming these problems was made, though in recent years annual rates of inflation have risen and remained above 50%, well above the rates experienced in any other OECD country. This inflation has been linked with the steep depreciation of the Turkish lira over the period. Important steps have also been taken to create a more open trading regime and to forge new regional trading blocs with, for example, countries in the Black Sea region, and the Turkic republics of the former Soviet Union. The resulting expansion of trade has been a driving force behind rapid growth in the economy in general.[2]

Agriculture no longer dominates the Turkish economy, as it did until the 1970s, but it still accounts for larger shares of total output (16%) and employment (42%) than in any other OECD country. In many ways the transition that the Turkish agricultural sector is undergoing – in particular, the decline in the share of agricultural labour in employment as a whole[3] – resembles the experience that several western European countries went through during the 1950s and '60s.

Strong growth in population and real per capita income has pushed up food consumption and led to increased demand for meat and dairy products, the consumption of which is still relatively low compared with other OECD countries. Thus, while Turkey remains a net exporter of food products, imports are tending to grow at a faster rate than exports.

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HOW MUCH SUPPORT?

For some years now the OECD has been calculating the total amount of assistance provided to agriculture by an indicator known as the Producer Subsidy Equivalent (PSE). Simply put, the PSE measures the costs of the annual subsidies transferred from consumers and from national budgets to agriculture that arise from the range of agricultural policies. The transfers to producers that result from the higher prices that consumers are obliged to pay is analogous to a tax on consumption. These 'market price support' transfers are often much higher for OECD countries than are the more visible direct transfers made from government budgets. Turkey is no exception.

Support in Turkey, as measured by the percentage PSE,[1] was well below the average for the OECD during the late 1980s, though higher than that of Australia and New Zealand (Table). Since then it has increased, mainly as a result of increases in market price support. Only about two-fifths of overall Turkish agricultural production is included in the set of standard commodities for which PSEs are calculated, the lowest share across all OECD countries. Assuming that the average rate of support for these excluded commodities is roughly similar to the support accorded to those that are included,[2] the total transfers arising from agricultural policies in Turkey are estimated to be at least 10% of Turkish GDP.

1. The ratio of the PSE to the total value of agricultural production – that is, the percentage PSE (%PSE) – is the indicator usually used to compare support across countries, commodities and years. Unlike the net total PSE, which is expressed in currency units, such as billions of dollars, the %PSE neutralises the effect of inflation and changes in exchange rates.

2. This is not an unreasonable assumption, since virtually all of the major commodities excluded from the PSE measurement benefit from input subsidies and support of a general nature (research and advisory services, for example), and several, such as hazelnuts and tobacco, are covered by support purchase schemes.

Table
PRODUCER SUBSIDY EQUIVALENTS IN THE OECD AREA,[1] 1979–93
% and thousand dollars[2] per farmer[3]

	1979–86[a]	*1987*	*1988*	*1989*	*1990*	*1991*	*1992[b]*	*1993[c]*
Australia	10	10	8	7	12	12	10	9
	3	*3*	*3*	*3*	*4*	*5*	*4*	*4*
Austria	31	47	46	38	49	53	55	56
	4	*9*	*10*	*8*	*13*	*14*	*16*	*15*
Canada	28	51	38	35	46	45	38	32
	9	*18*	*15*	*15*	*20*	*20*	*17*	*13*
EC[4]	37	49	46	40	46	48	47	48
	7	*10*	*10*	*9*	*13*	*13*	*13*	*12*
Finland	56	69	70	68	70	71	67	67
	10	*20*	*24*	*27*	*34*	*32*	*24*	*19*
Japan	64	74	72	68	65	66	71	70
	8	*16*	*17*	*16*	*16*	*18*	*20*	*20*
New Zealand	24	13	7	5	5	4	3	3
	6	*4*	*3*	*2*	*2*	*1*	*1*	*1*
Norway	70	74	74	72	75	77	77	76
	19	*30*	*32*	*31*	*36*	*37*	*39*	*35*
Sweden	44	58	56	52	57	64	58	52
	15	*26*	*30*	*30*	*39*	*43*	*35*	*25*
Switzerland	68	78	77	71	78	78	75	77
	15	*26*	*28*	*25*	*31*	*31*	*30*	*30*
Turkey	17	30	27	28	32	41	38	37
	0	*1*	*1*	*1*	*1*	*1*	*1*	*1*
United States	21	32	24	20	23	21	21	23
	11	*21*	*17*	*14*	*16*	*15*	*15*	*17*
OECD[5]	34	47	42	37	42	42	41	42
	8	*13*	*13*	*12*	*15*	*15*	*15*	*14*

1. All commodities.
2. Thousands of dollars in *italics*.
3. Full-time farmer equivalent.
4. 1979–85: EC-10; since 1986: EE-12; since 1990: ex-DDR included.
5. Excluding Turkey.
a. Average.
b. Estimate.
c. Provisional.
Source: OECD

Turkish agriculture still suffers from a number of chronic structural and institutional problems. Farms are characteristically small and fragmented – no more than 15% are in a single, integrated piece. That problem may be attributed to many factors, including Turkey's land-inheritance law, the high rate of natural population growth, the large size of families in rural areas and the perceived value of agricultural land as both a hedge against inflation and an insurance for old age. Most farms rely on family labour, and typically educational attainment is low. Contrary to the trends in all other OECD countries, the total work force in Turkish agriculture has remained virtually stagnant over the last decade, the number of farm enterprises has increased, and average farm size has declined. Value added per worker in agriculture is one-fifth that in the rest of the economy. Not surprisingly, incomes in rural areas are below those in urban centres. Elements of the social infrastructure, such as schools and advisory services, are improving, but

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they are faced with a daunting task: to transform the traditional Turkish farmer into a market-oriented producer adept at using modern, scientific practices.

The Policy Framework

The objectives driving Turkish agricultural policy have changed little over time: to ensure adequate nutrition and food supplies at reasonable prices to consumers; to raise production and yields while reducing the vulnerability of production to adverse weather conditions; to raise self-sufficiency; to increase farm incomes and improve their stability; to increase exports; and to develop rural areas. They are in many respects similar to those in other OECD countries. But in Turkey the emphasis has been primarily focused on increasing agricultural productivity and thus food supplies for a growing domestic food market.

In pursuit of its agricultural policy objectives, the government has implemented a set of measures based essentially on the support of producer prices, complemented by trade-related measures, subsidies for farm inputs and investments in infrastructural projects, particularly irrigation. The domestic prices of crops are bolstered through both tariffs and intervention purchases in the domestic market, principally of sugarbeet, tobacco, wheat, sunflower seeds, cotton and tea. Border measures support the prices of livestock.

The making of agricultural policy in Turkey requires input from many different government authorities, generally through complex and time-consuming procedures. In addition, a large number of government agencies, state-owned and state-directed intervention bodies, particularly the State Economic Enterprises (SEEs) and Agricultural Sales Co-operative Unions (ASCUs) and state-owned banks take part in its implementation. These institutions pervade much of the agri-food economy, usually providing a variety of functions, which can include intervention buying and stockpiling, disbursing subsidies, procuring and supplying inputs to farmers, undertaking structural and infrastructural projects, and importing and exporting agricultural commodities. Many of these bodies have monopsonistic, monopolistic or quasi-monopolistic powers and thus influence the determination of prices in the market, even where private companies and traders are present.

Some comparatively small agricultural SEEs are in the process of being privatised. But the largest, most influential SEEs – the TMO (grains and pulses), TŞFAŞ (sugarbeet), TEKEL (tobacco) and ÇAYKUR (tea) – remain in public hands for the time being. These four enterprises together dominate the markets for 25% of Turkey's agricultural output and employ over 90,000 workers. In order to overcome various legal and other obstacles that have impeded the privatisation of these companies, a framework law for privatisation, a social safety-net and a labour-adjustment programme are being prepared. But the government has to clarify the rules for competition in the respective markets of the SEEs and adjust the roles of these companies in the execution of policy. Over the long run, the extension of privatisation and the introduction of a competitive market structure into the agri-food sector would generate efficiency gains, increase the share of agricultural subsidies that actually reach farmers (their 'transfer efficiency'), and enhance the market signals on which producers and consumers make their decisions.

Encouraging economically efficient domestic production, coupled with a more liberal trading policy, would ensure the security of Turkey's food supplies in a less costly way than current policies. Indeed, it is quite possible that in the more liberal world trading environment envisaged by the recent GATT agree-

ment, and with lower volumes of support, Turkish agriculture would increase its production of several agri-food products in which it has a longer-term comparative advantage, such as nuts, fruits, vegetables and certain grains.

Steps towards Reform

Turkey has already taken some steps in this direction. It has increased the role of markets in the overall economy, reduced quantitative restrictions on imports, and taken steps to privatise some SEEs. In agriculture it has allowed for more flexibility in administered prices to reflect differences in qualities of commodities; it has introduced a deficiency payment system (replacing a system based on administered prices) for cotton and tobacco; it has begun to build up the private-sector provision of some farm services, such as artificial insemination; and it has helped to establish commodity exchanges. Yet these reforms are only the initial steps towards developing an agricultural sector more responsive to market signals.

It is imperative that clear limits be established on what is still predominantly an open-ended agricultural support system. Such limits are essential, not only because they would improve the operation of agricultural markets – giving Turkish farmers the kind of flexible and clear price signals that are required for them to respond efficiently to changes in demand – but also in order to reduce the public-sector borrowing requirement, to release resources for use elsewhere in the economy, and to reduce the burden on consumers. To this end, the government in 1994 began applying supply controls to supported crops, starting with tea, tobacco and hazelnuts.

Agricultural price support is an expensive and inequitable means of redistributing income. That goal could be better attained through direct payments to targeted groups – as well as by lowering the implicit tax on consumers through the reform of price-support policies, which hit poorer groups even more in Turkey than in most other OECD countries.[4] (Turkish households have the lowest per capita income in the OECD, and spend the highest share of their income on food – 32%, compared with 18% on average for the OECD as a whole.) In view of the government's current budget difficulties, the large number of small farmers in Turkey, and the limited amount of information available on farm incomes, it might nonetheless be difficult to devise an effective delivery mechanism for direct payments.

In the process of reforming its agricultural policies, the Turkish authorities may have to address other policies that directly affect the structure and performance of the agri-food sector, such as inheritance and tax laws. Bringing down inflation, for one, would reduce pressures to revise agricultural prices upwards and improve the functioning of markets for both inputs and outputs. In general, taking a more coherent and integrated approach to the formulation of economic, agricultural, nutritional, environmental, rural and labour-market policies would help to avoid the pursuance of conflicting objectives.

Basic shifts in the direction of policy would also necessitate corresponding changes in the institutions currently involved in agricultural support. Such changes should endeavour to reduce the complexity of the policy-making process and to increase the transparency of the support system in Turkey. The complexity and opacity of the current system hinder the operation of agricultural and financial markets, and make it more difficult for the government to control its finances and inflation. The government should also endeavour to decentralise decision-making and encourage farmers to begin to take over some of the economic functions currently performed by the government – for example, by strengthening farmer co-operatives and other farmer-run or private-sector organisations. Finally, the government could usefully improve the data it collects on the socio-economic variables relevant to agriculture, on the geophysical characteristics of agriculture, and on policy performance.

■ ■

Achieving these long-term objectives will require time, and in pursuing them consideration will have to be given to maintaining an appropriate balance between feeding the population, addressing rural problems, protecting the environment and providing economically efficient employment opportunities. Turkey should build on and consolidate the reforms that have been started: strengthening the role of market signals, pursuing a policy of more private-sector involvement, addressing the specific structural problems of the agricultural sector, improving agricultural research and its diffusion, and continuing administrative reforms. ■

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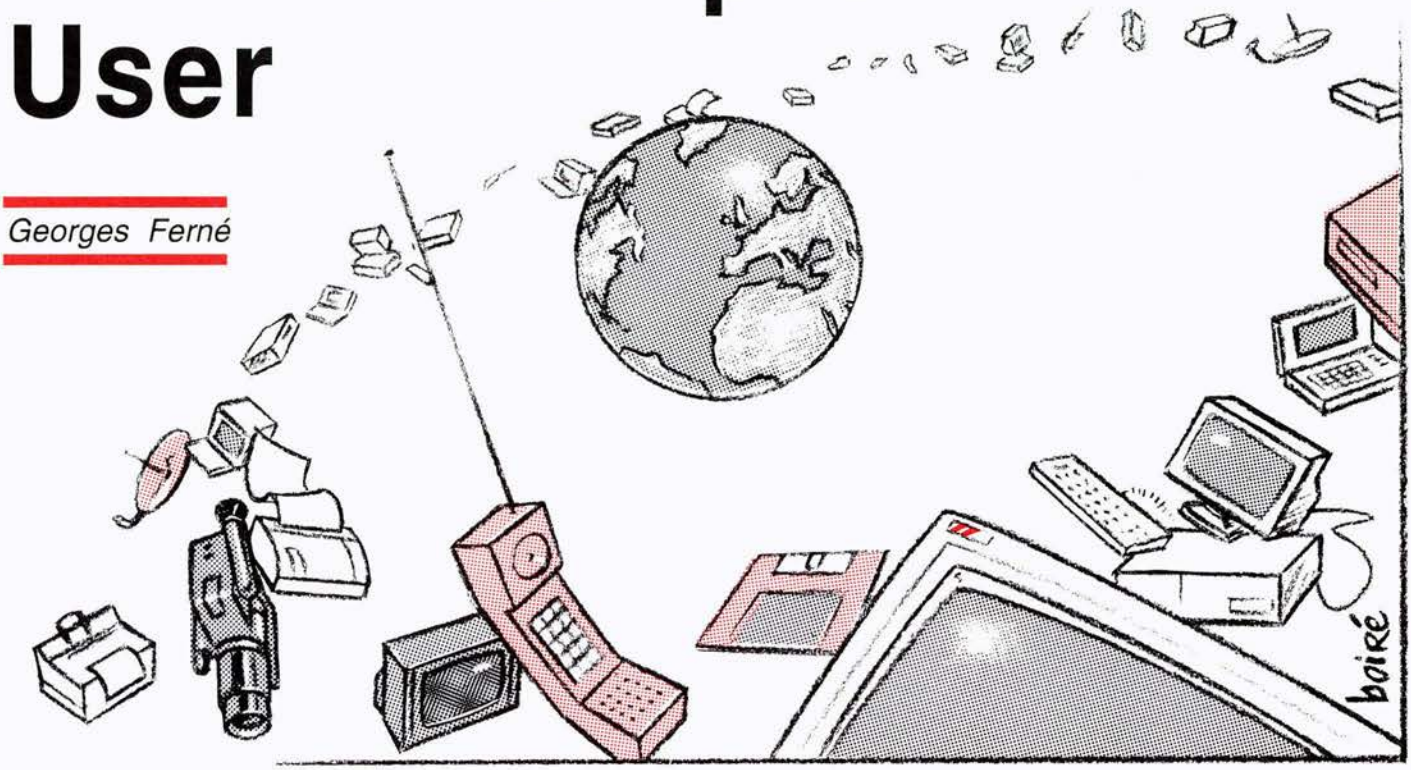
IT Standardisation and the Disparate User

Georges Ferné



Can standardisation in information technologies become more efficient, technological dead-ends be avoided and the diffusion of new technologies assisted by involving users more closely in setting standards? These ideas are attractive – but are they realistic?[1]

Standardisation in information technologies (IT) to introduce coherence among computer systems could have an enormous impact. A common bedrock of coherent systems, effectively interconnected and allowing communication from computer to computer with ease, is vital for the future of industrial and trade infrastructure. IT users ought to be freed from dependency on a single manufacturer so that they can use heterogeneous systems with hard- and software that will still be compatible even though it is supplied by different firms – IBM, DEC, Apple, and so on. And unless this development comes about, the world data-processing, transfer and access system will remain fragmented and will not allow new industries and services to evolve.

Standardisation involves many different parties but also huge costs. For instance, the total cost of developing the Open System Interconnection (OSI) system of standards has been estimated at over $4 billion over the past fifteen years. In 1984 the start-up budget for one of the bodies concerned (X-Open, a consortium of large firms) totalled some $90 million.

Manufacturers and Users

IT standardisation involves two groups, whose interests occasionally clash. First, there are the computer manufacturers and distributors (hardware and software) and service firms working in product design, manufacturing and marketing. They have tended to follow monopolistic strategies and to divide the market into captive customer groups for specific systems (MS-DOS, Apple, and so on). Then there are the users, who are concerned by standardisation only to the extent that it specifies the nature and precise characteristics of the products available, raises expectations of new applications and functions and diversifies their sources of supply.

Users have a tremendous hold over the industry, even though they might not be aware of it. Their choices can spell out life or death for a standard.[2] In IT, standards mostly concern networks, and the capacity of networks to attract customers depends on size. The more users who adopt a standard (VHS versus Betamax, for example), the more the standard will be attractive to other potential users (VHS, say, is favoured because more films will be available,

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UNIVERSALITY *V.* SPECIFICITY

Although in favour of standardisation, and on good grounds, each group of users – if not each user – wishes to have access to technical systems as closely tailored to its own requirements as possible: the search for universality thus counteracts that for specificity. This is a vital point as it illustrates the frequent clash of interests between users and sellers. Sellers obviously prefer 'captive' users (who have no other option than the hardware and software offered to them) to secure their market share or market lead. On the other hand, users have everything to gain from an open environment enabling them to turn to any supplier they wish for each component of their computer systems – and therefore derive full benefit of competitive advantages, which implies that each product should comply with a system of compatible standards.

Standardisation is therefore the source of countless clashes between numerous organisations, with varying ambitions imposing the use of the standards they control, breaking into a monopoly to acquire a foothold, or escaping these constraints to obtain 'customised' standards compatible with as many other standards as possible. These conflicts and contradictions are bound to flare up sooner or later. For instance, a dispute with considerable implications arose at the European Telecommunications Standardisation Institute (ETSI) on the subject of intellectual property rights. A standard may include technological components that are owned by a firm. Should the firm then be free to choose the size of the fees to be paid for the use of such a standard – say, the GSM mobile telephone standard, which (at least) can cover the whole of continental Europe – or should this right be limited?

Other obstacles may arise wherever users in various sectors decide to develop their own systems while official procedures are being laboriously followed to develop more general standards. Once users' own standards have been introduced, their diffusion is hampered in practice by the existence of many incompatible variants. Such is the case in Electronic Data Interchange (EDI), where the general standard, EDIFACT, now has rivals in the form of 'customised' standards in road and air transport and various industrial and trade sectors.

Finally, users may be the victims of their own choices or of the mistakes made by manufacturers. When Wang missed the turn taken by office automation, many users found they had no other option than to convert to radically new systems at considerable cost.

The price to pay can be very high both for users and for suppliers when protracted and expensive standardisation work is brought to a halt by such obstacles. Hence the idea of trying to achieve, in the early stages of standardisation, consensual solutions through user participation, so that the use of new products can spread more easily.

because it will be easier to exchange and borrow cassettes. and so on).

In the event, IT standardisation is hampered by the fact that its products (standards) do not match customer requirements (functions). Inevitably, there is a feeling that if producers and users consulted one another more often, many of these problems could be resolved or, at any rate, mitigated.

But this kind of consultation is especially difficult since IT users form a highly heterogeneous body of distinct groups which often change. They fall into four categories:

- major user-groups (often multinational),[3] each representing market shares big enough to allow them to negotiate on an equal footing with equipment suppliers or service firms, sometimes even setting their own standards, as General Motors, Boeing, British Airways, Électricité de France, Reuters, and others have done
- public administrations, which can sway decisions in their capacity of IT users (some of the choices made by the Defense Department in the United States, for instance)
- professional or trade associations (agro-food distributors in the United States, for example, who developed bar codes in distribution)
- individuals using micro-computers, who can only influence standardisation through their purchasing decisions.

In spite of these differences, users by and large share a common core of expectations of standardisation. First, it should help avoid technological dead-ends, where options trap users in a doomed technology. That has happened to people who purchased computers that were then cast aside by software designers (the failure of PS/2 launched by IBM in the late 1980s shows that even the biggest users can suffer this mishap), or who chose video recorders that met Betamax and not VHS standards. Next, standardisation should promote universality by making it easy to communicate between all kinds of hardware and software of different sources.

Standardisation Where?

Producer-sellers and users lie either side of the market where standards compete and of an institutional system which in recent years has considerably branched out in IT. Rapid technological progress and increasing integration of IT and communications have spawned many official and non-official bodies, national, regional and international. In Europe, for instance (although similar bodies exist elsewhere), there is the European Workshop for Open Systems (EWOS) or the Open Systems Interconnection/Technical and Office Protocol (OSITOP) on the user side and, on the manufacturer side, the European Computer Manufacturers' Association (ECMA) and the Standards Promotion and Application Group (SPAG).[4] Various firms have joined together to defend specific interests or to move faster than the official channels: internationally, there is the International Standards Organisation (ISO), the International Electrotechnical Committee (IEC) and the International Telecommunications Union (ITU); in Europe, there is the European Committee for Electrotechnical Standardisation (CENELEC) and the European Telecommunications Standardisation Institute (ETSI).

3. Computer equipment or service distributors that also happen to be users are not included here, since this category concerns buyers of IT products only.

4. Georges Ferné, 'The Economic Stakes in Computer Standardisation', **The OECD Observer**, No. 164, June/July 1990.

The many different roles of government in the standardisation process muddy the picture even more. By shaping the 'profiles' of the technologies it wishes to acquire, and therefore by having a direct influence on the choices made by equipment manufacturers, the public sector can apply strong pressure over the adoption of standards in such high-tech activities as defence. An example is the European Procurement Handbook for Open Systems (EPHOS), and there are equivalents in other regions.

Public administrations have also become large users of IT in all areas and participate as such in the activities of the various standardisation bodies without necessarily co-ordinating their positions. In many countries, government gives financial support to the standardisation system, which therefore usually relies on public subsidies as well as on voluntary contributions by industry. The appropriate balance between the two modes of financing is the subject of much debate in most countries.

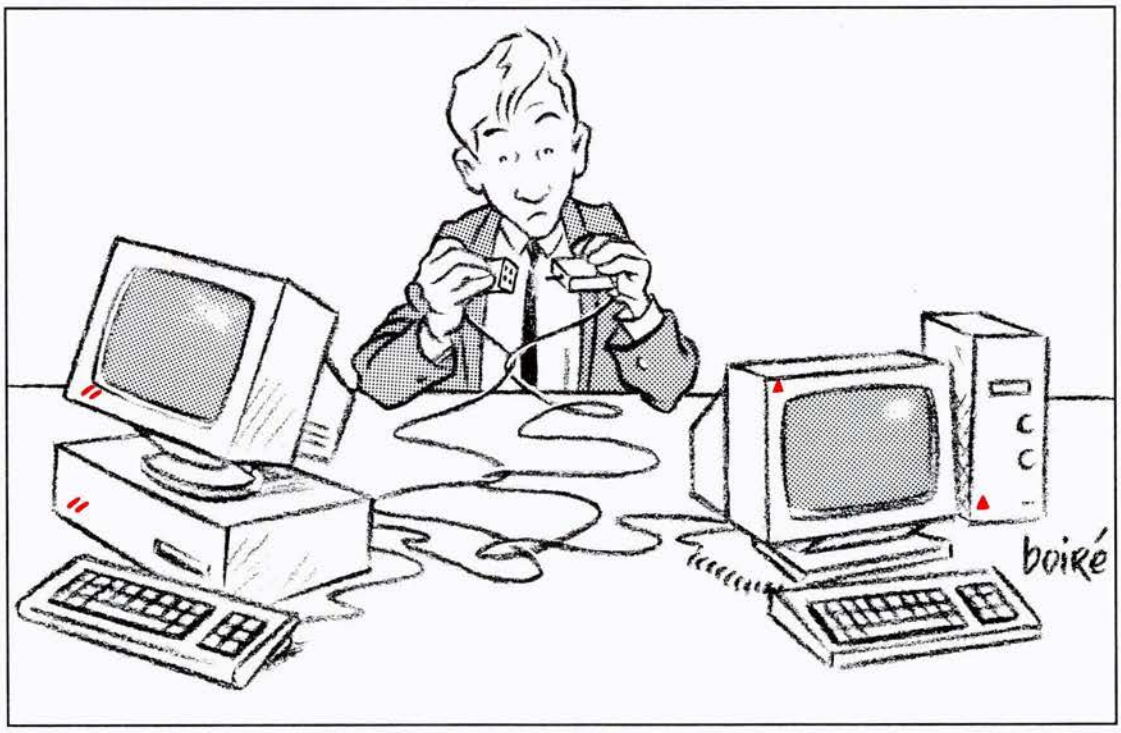
The public authorities have also occasionally been tempted to intervene in the standardisation of IT by promoting a given standard either in the general interest (for open systems, for instance) or for the purpose of championing a national standard. This move has not always been successful. Moreover, the 'perfectionism' of official systems clashes with the uncontrolled spontaneous changes occuring in the field in response to user demand. The official setting of X400 electronic mail standards is hampered in practice by the uncontrolled but extraordinarly rapid worldwide growth of the Internet network which diversifies to suit individual users.

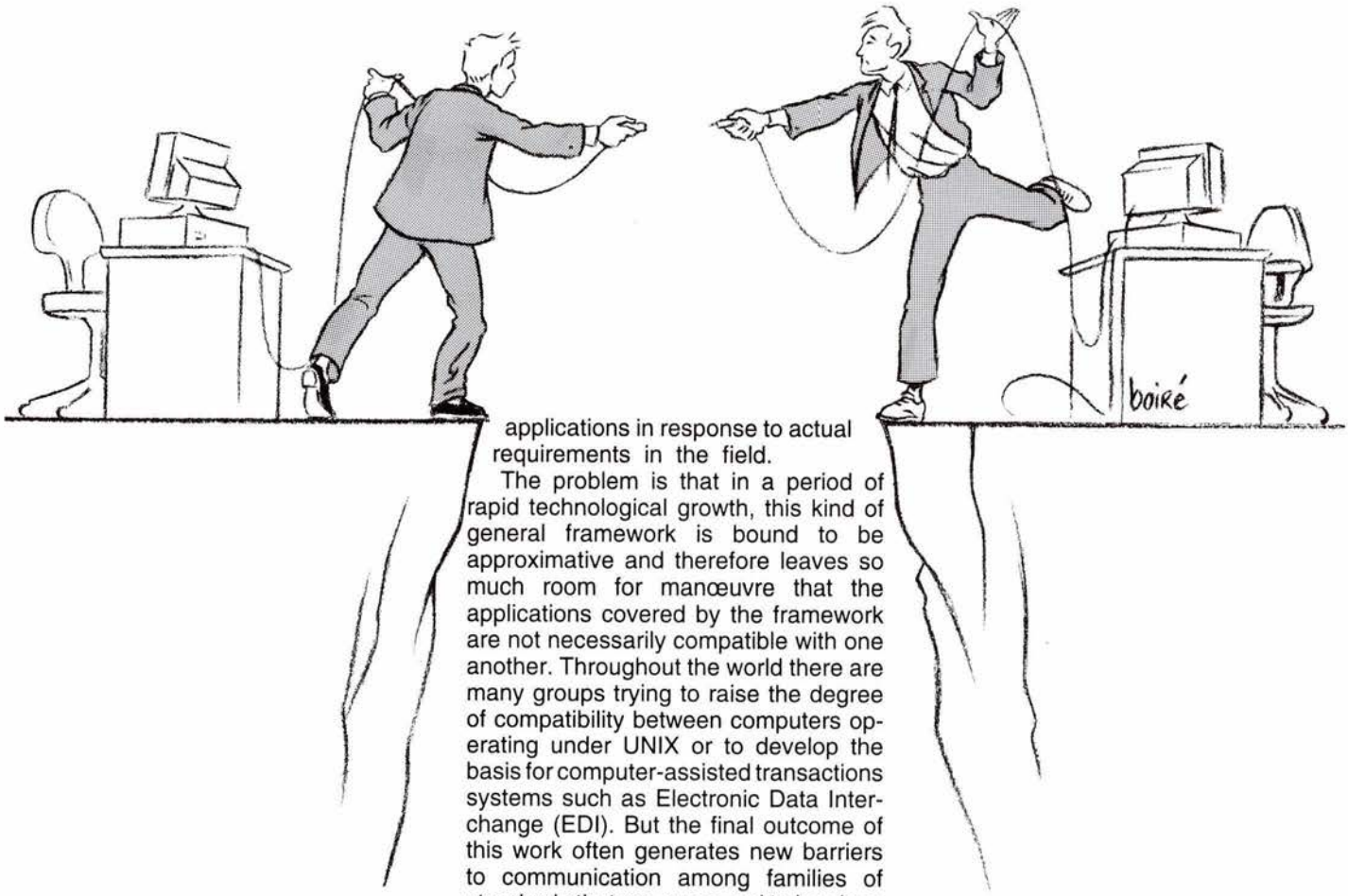
The *ad hoc* combinations that come and go as all these public and private interests fluctuate make it more difficult to monitor standardisation in IT so as to prevent overlapping and duplication of activities by the various bodies and introduce minimum co-ordination, to the dismay of all concerned. Producers complain about the huge costs and questionable efficiency of participating in these various bodies: in the case of a multinational, several hundred experts may be involved. Secretarial services and the chairmanship of many working parties have to be provided, participation fees must be paid to every consortium which aims at producing a family of standards, such as UNIX, which covers at least seven diverging variants. And users complain because they are acutely aware of the slow and inadequate progress of institutions which do not adequately meet their expectations for compatibility between different types of equipment, and because when they participate more directly in the discussions they have to contend with institutional opacity, not to mention the considerable expenses entailed.

Ways of Participating

Some users, of course, are highly organised and already participate in IT standardisation, sometimes with considerable impact. Most of these users are so big that they can set their own standards and impose their requirements on producers to ensure the development of systems meeting general requirements while remaining specific. An example is the setting of standards for the exchange of data on financial transactions by banking groups or systems for booking tickets by air carriers.

Large firms are increasingly coming together in semi-official associations or working parties – EWOS, SPAG, OSITOP or X-OPEN. Their objective is to draw up unofficial standards quickly





on a consensual basis which the parties concerned can introduce without waiting for the approval of official institutions through cumbersome and protracted procedures.

The rapid evolution of IT favours this type of approach, especially to encourage the setting of application standards for open systems aimed at facilitating exchanges between different configurations – at considerable cost. The goal is to establish a system of standards for interfaces between computer systems and therefore applying both to equipment and to operating systems, and to communication protocols as well as to data access modes. The framework thus defined should therefore act as a reference for identifying more limited applications in response to actual requirements in the field.

The problem is that in a period of rapid technological growth, this kind of general framework is bound to be approximative and therefore leaves so much room for manœuvre that the applications covered by the framework are not necessarily compatible with one another. Throughout the world there are many groups trying to raise the degree of compatibility between computers operating under UNIX or to develop the basis for computer-assisted transactions systems such as Electronic Data Interchange (EDI). But the final outcome of this work often generates new barriers to communication among families of standards that are supposed to be close to one another.

In the hope of overcoming these barriers, groups that are more specialised than ever before are being created without others ever being phased out, so that the overall standardisation system is becoming more and more complex, opaque and poorly co-ordinated, resulting in an 'institutional jungle'.

Small users could indeed join forces, in the same way as large users do, so as to spread the costs of attending the many meetings of the legions of national and international bodies involved – in, say, the setting of EDI standards in transport or real estate, which are tending to acquire new network structures. But many users decide not to join in the knowledge that the benefits of any standardisation will eventually be freely available to all.

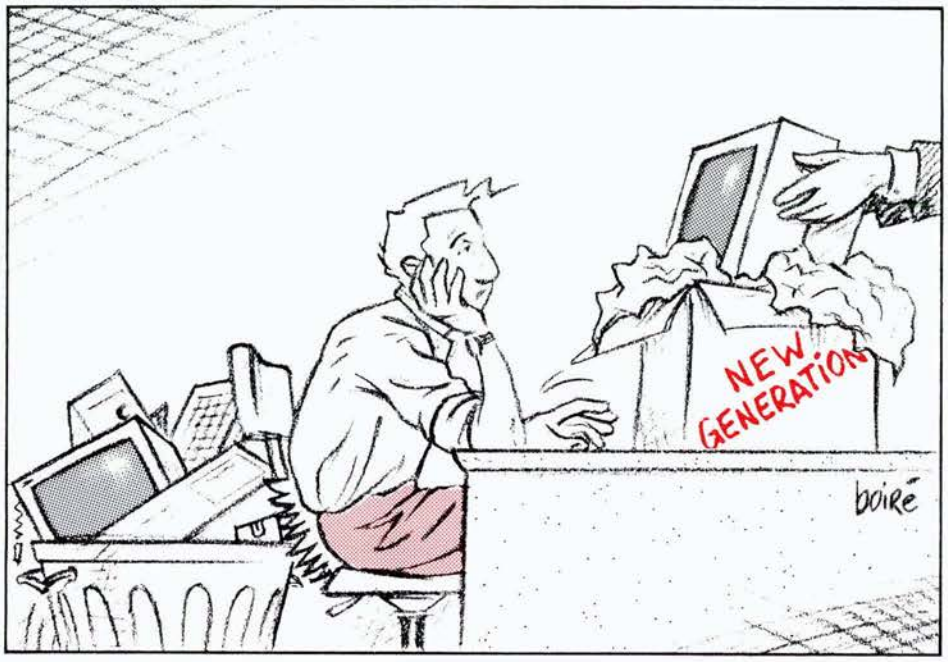
Official institutions – in Europe, say, CEN-CENELEC (the European Standardisation Committee-European Electrotechnical Standardisation Committee) for information technologies or ETSI for telecommunications, or globally, the ISO, IEC and ITU – are full of good intentions and are prepared to accept the representatives of smaller users. But assuming they are willing to come forward, small users realise that the actual decisions are taken elsewhere and, here again, they have to face the costs.

Participation becomes difficult or not depending on the types of standard concerned:

• national or international – a small or medium-sized enterprise might sacrifice resources to take part in the proceedings of a national technical group working on a standard liable to bring specific benefits but will hesitate to become involved in regional or worldwide proceedings

• product or functional standards (for example, those governing teletex, videotex, mobile telephones, modems, and so on); here again, the more the potential benefits are limited to a specific product, the more direct participation of specific, well-identified users might be expected

• *ex post*, *ex ante* or anticipatory standards – it can be easier to obtain a consensus for setting a standard for a product undergoing development as opposed to one that is already marketed; this is the path increasingly followed by standardisation bodies (the GSM standard on the new generation of mobile telephones has been drawn up in this way). The problem is that a product that is not yet in existence does not have any clearly identified users.



The Impact of Globalisation

The current economic globalisation process is making all users, whether large or small, more aware of what is at stake: small firms now feel involved in world markets. Although current standardisation mechanisms generate multiple and complex fragmentation, as with EDI standards, advancing globalisation means that these problems have to be overcome.

IT producers are not going to introduce a high degree of coherence and compatibility unprompted, since that would stimulate competition and they wish to retain their market shares under the protection of their own technologies. Only pressure from users can make them do so.

In 1991, the first signs appeared: a group of large firms that use IT (initially composed of American Airlines, Boeing, DuPont de Nemours, General Motors, Kodak, McDonell Douglass and Merck) drew up a 'menu' of requests, providing a kind of framework for future standardisation work, for the intention of the IT industry.

More recently, a group of industrial experts on IT standardisation has been set up by the OECD Committee for Information, Computer and Communications Policy to draw up a report on the mechanisms, procedures and products of standardisation. Although very large multinational firms are being more overtly active at this stage, the movement is bound to spread, especially through the relations between these firms and their suppliers.

The public authorities are also trying to fill the present gaps in order to define and introduce measures stimulating and facilitating the participation of a wider range of users. Government intervention in standardisation might take shape at different stages, from informing a wide range of users about the benefits of competitiveness to more active participation of government bodies in activities where collective interests are at stake, by way of efforts to improve the conditions of equal access to strategic information, transparency of procedures and the institutional economics.

■ ■

There is no doubt that new technologies – today information technology, tomorrow materials and biotechnology – require new approaches to keep costs under control and avoid wasted technical progress. From their own viewpoints, users can bring a new dimension to standardisation, closer to the concerns of competitiveness and efficiency prevailing throughout the fabric of industry. ■

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China's Growing Presence

Roger Melloul/Sygma

Kiichiro Fukasaku

The Chinese government has, slowly but surely, been turning the economy towards market principles. What form has this change taken, and how has it been reflected in China's relations with its trading partners?[1]

China's move towards a market economy was set in train at the Third Plenary Session of the 11th Central Committee of the Chinese Communist Party in December 1978. The two most important objectives of the reform were to decentralise its system of central planning, with more reliance on market forces, and to open up its economy and integrate it more closely into the world market.

The process began without any comprehensive blueprint, timetable or plan. Instead, the government adopted a gradual and pragmatic approach, a strategy of 'feeling for the stones while crossing the river', as it has been described. Chinese reformers would conduct various experiments of introducing market-oriented policy reforms and regulations (for example, stock markets, foreign-exchange markets and bankruptcy law, to name a few) on a limited scale and when they proved successful the government endorsed the policy changes that brought about success.

This gradualism allows a pragmatic solution to politically sensitive issues, such as the introduction of land-lease markets. A notable example of this approach was the creation of the Special Economic Zones (SEZs) in which local authorities and enterprises were allowed to experiment with various capitalist practices that could not be applied immediately to other parts of the country. (In this sense, SEZs in China are quite different from Export Processing Zones (EPZs) in East and South-east Asian countries.)

Another contentious issue at the outset of reform was how to handle foreign direct investment (FDI). A central aspect of policy here is first to enact important but unspecific 'enabling laws' that allow the government to introduce more detailed policy measures later when political and economic conditions are met. The traditional policy of self-reliance under central planning and suspicious views about foreign-funded firms that were particularly strong during the Cultural Revolution (1966–76) meant that China had to establish a legal and institutional framework for FDI from scratch. The first measure taken after 1978, when policy shifted in favour of FDI, was to get the landmark Joint Venture Law of 1979 passed; it was followed by numerous other laws and regulations affecting both Chinese and foreign firms, dealing with income tax, repatriation of profits, labour management, land use and property rights.[2]

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A crucial feature of reform has been the liberalisation of China's links with the world economy from highly centralised control. Although the Chinese economy was never completely closed, even before the 1978 reforms, foreign trade was rigidly controlled by the central government and based on a series of national plans; it was handled by a dozen state-owned foreign-trade corporations. Foreign trade was merely a balancing factor to fill gaps in supply and demand under the national plans. The reform of foreign-exchange policy has been moving far ahead of the reform of commercial policy, which has been controlled primarily through the use of export and import licenses, and import liberalisation has been much slower than decentralisation of export activity. In spite of its large domestic market, the opening-up of the Chinese economy has meant that trade has expanded from less than 5% of GDP in 1978 to nearly 20% in 1991.

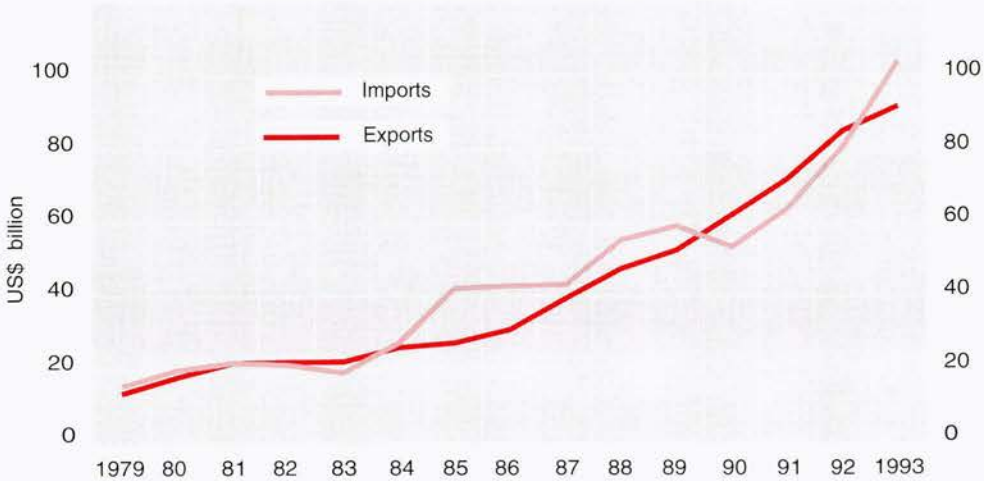
The initial focus of reform was on internal development, with emphasis on the development of import-substituting industries such as iron and steel,

1. K. Fukasaku and D. Wall, **China's Long March to an Open Economy**, OECD Publications/Development Centre, Paris, forthcoming 1994.

2. D. Wall and K. Fukasaku, 'China's Open Economy Reforms 1978–1992' in Chung Lee and Helmut Reisen (eds.), **From Reform to Growth: China and Other Countries in Transition in Asia and Central and Eastern Europe**, OECD Publications/Development Centre, Paris, 1994.

machinery and transportation equipment, and the agricultural sector, which employed about 70% of China's total labour force in the late 1970s. The exchange rate of the yuan was also heavily over-valued. In spite of the lifting of the ban on FDI in 1979, the Chinese authorities remained cautious. As a consequence, the trade and investment regimes were strongly inward-oriented, at least initially. It is since the mid-1980s that development strategies have shifted substantially in favour of production for export. This change corresponds to China's *de facto* adoption of 'coastal development strategy' which opened up 14 cities in the coastal regions, the active encouragement of FDI through various fiscal incentives and the beginning of a large real devaluation of the yuan. This outward orientation has not changed in spite of the temporary setback, both political and economic, that followed the suppression of the Tiananmen Square demonstration on 4 June 1989.

Figure
CHINA'S MERCHANDISE TRADE, 1979–93



Sources: *China Statistical Yearbook; Economic Daily*

Patterns in Trade and Investment

The 15 years since 1979 have seen spectacular growth in China's merchandise exports (Figure), chiefly of manufactured goods. This remarkable performance has been made possible by the gradual increase in the number of local enterprises that are engaging in foreign trade independently of the trade plan set by the central government. Since the mid-1980s decentralisation in the provinces and municipalities has gathered momentum, further accelerating the pace of export growth.

The volume of China's merchandise imports has nonetheless fluctuated widely during this period, which primarily reflects the government's 'stop-go' macro-economic policies. A sharp rise in merchandise imports in 1979–80, 1984–85 and 1987–88 due to strong domestic demand exacerbated the balance of payments situation, which immediately led the Chinese authorities to take an import-retrenchment policy in 1981, 1986 and 1989 by tightening credit allocations and administrative controls on imports. For economies such as China's, macro-economic adjustment poses a formidable challenge because an effective means of macro-economic management through an appropriate mix of fiscal and monetary policies has yet to be established.

As the reforms progress and market forces come to play a bigger part in resource allocation, China's pattern of trade has tended to move to reflect its comparative advantage. Perhaps most dramatic are the changes in the product composition of China's exports: the share of manufactures in total merchandise exports increased from roughly one-half in 1980 to more than three-quarters in 1991. This structure resembles those of the Dynamic Asian Economies (DAEs), with increased specialisation in exports of labour-intensive products. In 1991 such products as textiles, clothing, footwear, watches and other simple electrical products accounted for at least one-third of China's total merchandise exports. Concurrently, substitution of imports by domestically produced goods in both intermediate goods (iron and steel, for example) and capital goods (machinery and transportation equipment) has also made some progress.

FDI has made a significant contribution to China's industrialisation drive (Table). The flow of FDI into China was very small from 1979 to 1982, but since 1983 China has managed to attract an increasing amount. The actual inflow of FDI averaged over $3 billion a year between 1988 and 1990, and it was followed by a surge in 1991–93. Last year the actual inflow of FDI registered a record $25 billion, which put the accumulated flow of FDI into China since 1979 at $60 billion, directly or via Hong Kong. Nonetheless, the ratio of actual FDI to contracted (or planned) FDI has declined substantially over the last three years, to less than 20% – nearly as low as the average ratio which prevailed during the 1979–82 period. Such a marked fall may have indicated a deterioration in China's 'investment friendly' environment, and earlier over-optimism on the part of western investors who were unaware of the continuing difficulties faced by firms investing in China. It may also reflect in part a longer time-lag involved in foreign-investment projects, as the average amount of capital per project becomes larger.

Table
OECD IMPORTS FROM CHINA AND OTHER ASIAN ECONOMIES, 1979–91

	1979		1985		1989		1990		1991	
	million $	*% of total*	*million $*	*% of total*	*million $*	*% of total*	*million $*	*% of total*	*million $*	*% of total*
China	6,160	0.5	14,673	1.1	36,394	1.6	44,653	1.7	56,746	2.2
ASEAN	31,241	2.7	35,908	2.6	54,599	2.4	61,964	2.4	69,952	2.7
Indonesia	14,723	1.3	16,916	1.2	18,405	0.8	20,816	0.8	21,867	0.8
Malaysia	8,497	0.7	9,608	0.7	15,504	0.7	17,237	0.7	20,211	0.8
Philippines	4,542	0.4	4,770	0.3	7,272	0.3	7,777	0.3	8,352	0.3
Thailand	3,478	0.3	4,615	0.3	13,418	0.6	16,134	0.6	19,522	0.8
NIEs[1]	38,824	3.4	70,706	5.2	140,320	6.3	141,339	5.5	146,714	5.7
Hong Kong	10,600	0.9	15,752	1.1	24,599	1.1	25,114	1.0	25,555	1.0
South Korea	11,037	1.0	19,640	1.4	46,177	2.1	44,286	1.7	44,760	1.7
Singapore	5,208	0.5	8,880	0.6	19,193	0.9	22,523	0.9	23,213	0.9
Taiwan	11,979	1.0	26,435	1.9	50,350	2.3	49,415	1.9	53,186	2.1
South Asia	6,128	0.5	7,933	0.6	13,818	0.6	15,807	0.6	16,364	0.6
India	5,123	0.4	6,407	0.5	10,981	0.5	12,299	0.5	12,578	0.5
Pakistan	1,006	0.1	1,527	0.1	2,838	0.1	3,507	0.1	3,786	0.1
Total non-OECD	371,840	32.3	402,487	29.3	565,557	25.3	639,117	24.9	653,360	25.2
Total World	1,150,404	100.0	1,372,265	100.0	2,231,536	100.0	2,568,007	100.0	2,589,189	100.0

1. New Industrialising Economies.
Source: OECD

This massive inflow of FDI reflects changes in China's role in the world economy and in its relationships with regional economies in Pacific Asia. From a global point of view, China's entry into the world market has introduced a major supplier of labour-intensive products, in direct competition with several East and South-east Asian economies – a development which has also added to the pressure for adjustment in the OECD countries. Foreign-funded enterprises have come to play a key role in promoting China's foreign trade: they accounted for a quarter of China's total trade (exports and imports) in 1992.

From a regional point of view, China's coastal development strategy has brought about the emergence of a 'greater Chinese economy', comprising China, Hong Kong and Taiwan,[3] despite continued political difficulties in the region. Hong Kong serves as the region's commercial, financial and information centre, through which China's southern provinces have become increasingly integrated with the fast-growing East Asian economies. Taiwan is also emerging as a major source of foreign investment, linking the Chinese mainland to the outside world. The rapid development of coastal provinces such as Guangdong and Fujian has been made possible through the establishment of formal and informal commercial networks with overseas and Hong Kong Chinese entrepreneurs as well as those in Taiwan and South-east Asia (Singapore, for example). According to a recent projection,[4] this 'greater Chinese' economy could become the world's largest economic area by the year 2002, if its combined GDP is expressed on the basis of purchasing power parities.[5]

As a result of the rapid rise in exports, by 1991 China had become one of the largest non-OECD exporters to the OECD countries because the market share of other non-OECD exporters had contracted during the decade up till then through weak commodity prices. The increase is explained by the rapid shift of Chinese exports from primary products to manufactured goods. In 1979, primary products accounted for nearly 60% of total imports from China by the OECD countries. By 1991, more than 80% of total OECD imports from China were manufactured.

Among the three major OECD markets, China's exports are highest in Japan and lowest in Europe. Although the rise in China's market share had been rapid in OECD Europe, from a very small base over the last ten years, China still accounted for less than 1½% of total imports into Europe in 1991, compared with 3.5% in North America and 6.1% in Japan. For manufactured goods the import shares were 1.3% in Europe, 4.1% in North America and 7.1% in Japan. China's exports of manufactured goods to the OECD area are concentrated on a very narrow range of products: textiles and clothing, footwear, travel goods, miscellaneous manufactured articles, some electrical products and chemical products. Although no product group in the SITC 2-digit category[6] achieved a 5% share of OECD imports in 1981, ten years later the position had changed dramatically: travel goods (SITC 83) accounted for 29%, footwear (85) for

F. Berengo Gardin/Contrasto/R.E.A.

3. R. S. Jones, R. E. King and M. Klein, 'Economic Integration between Hong Kong, Taiwan and the Coastal Provinces of China', **OECD Economic Studies**, No. 20, OECD Publications, Paris, Spring 1993.

4. P. Armington, and U. Dadush, 'The Fourth Growth Pole', *International Economic Insights*, May/June 1993.

5. Measuring China's GDP (or per capita GDP) in US dollars or purchasing power parities poses a difficulty for an international comparison of economic development and trade openness because of large successive devaluations of the yuan against the dollar and the valuation problem of non-tradable sectors.

6. The Standard International Trade Classification (Revision 1) was developed by the United Nations Statistical Office in the early 1960s, and this aggregation method (now Revision 3) has been used most commonly to describe 'product groups' in national and international trade statistics.


Bellavia/R.E.A.

13%, clothing (84) for 12% and miscellaneous manufactured articles (89) – mainly toys – for 8%.

Unfinished Business

China has been successful in allowing strong supply-responses to market incentives created by the open-economy reforms, even though they are partial and incomplete. Over the last 15 years China has established markets for goods in which prices are determined by trade, not central planners. But, unlike western capitalist systems, free entry into and exit from these markets are not necessarily guaranteed. In addition, clear rules and regulations required to prevent the abuse of market power have yet to be established. Thus the markets which exist in China create rents for those with privileged access to them, and people with good *guanxi*, or connections, can ensure that the rents accrue to themselves; the inevitable result is corruption.

A long list of policy reforms will be necessary to sustain the 'opening-up' process in the coming years and remove many of the distortions in China's foreign trade and investment regimes:

- the extension of direct trading rights to all enterprises
- convertibility of the yuan, if only for current account
- continued import liberalisation
- open and competitive markets in intermediate and capital goods and factors of production
- transparent and automatic regulations for FDI
- the removal of discriminatory policies in favour of investment in SEZs and other development zones.

■ ■

Economic reform in China is a continuing process. In November 1993, the Third Plenary Session of the 14th Central Committee of the Chinese Communist Party set the objective of establishing a 'socialist market economy' in the coming years. The decision by the Central Committee states that 'the establishment of this structure aims at enabling the market to play the fundamental role in resource allocations under macro-economic control by the State'. The adoption of the five main planks of that objective would imply the extension of the 'opening-up' process to the hinterland and go some way towards fulfilling the criteria for further development. One of the planks in the platform of the socialist market economy is the establishment of 'a nationwide integrated and open market system closely to combine the urban market with the rural market and link the domestic market with the international market, so as to optimise the allocation of resources'. The decision of the Central Committee also points to further reform of foreign trade and investment regimes. Indeed, the adoption of the objective of a 'socialist market economy' was quickly followed by a series of substantial new policy reforms at the beginning of 1994, including those of the currency and foreign-exchange system and commercial policy framework.

The Chinese experience demonstrates that even partial removal of barriers to foreign trade and investment can exert dramatic effects. But there is a long way to go – especially in dealing with the social division which is widening between those with privileged access to markets and those without it. ■

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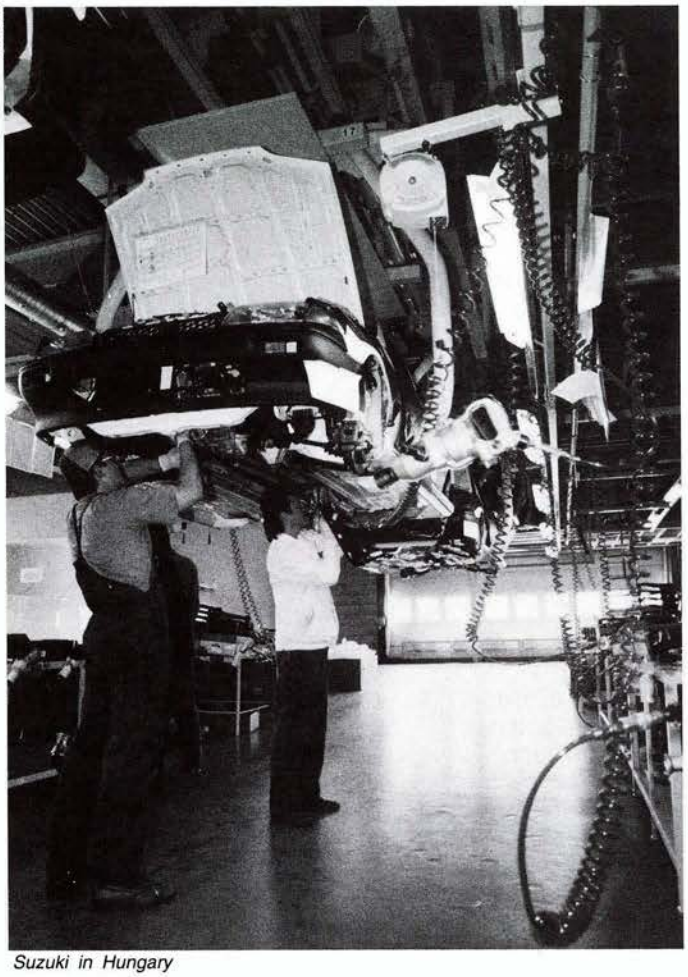
Foreign Investment in Hungary

Marie-France Houde

Hungary's adherence to the foreign-investment disciplines of the OECD shows that the country has already made substantial headway in establishing a market economy. The Hungarian authorities consider that adherence to these disciplines is an important step towards membership of the Organisation, for which they recently submitted a formal application.[1]

Suzuki



Suzuki in Hungary

Although Hungary is a small country with a population of only 10.5 million, it has succeeded in attracting half of the $14 billion of foreign direct investment (FDI) which has flowed into central Europe since the fall of communism in 1989, with a record figure of $2.5 billion in 1993. FDI accounted for nearly 9% of Hungarian GDP, compared with 3.5% in the former Czechoslovakia and 1.2% in Poland during the same period. These figures reflect the openness of the Hungarian economy: combined exports and imports amount to some 70% of its GDP.

Even compared with foreign investment in the smaller OECD countries over the same period, the size of this inflow is impressive – it is twice the amount of investment in Austria, Hungary's chief trading partner, roughly $1 billion more than that in Greece, and nearly two-thirds that in Portugal, where FDI has risen dramatically since it joined the EEC in 1986 (4.6% of GDP in 1991).

Most of the investment came from the United States and the European countries with which Hungary has the closest trading ties and/or which are also its closest neighbours (Austria, France, Germany, Italy, the Netherlands, Sweden, Switzerland and the United Kingdom). Hungary also has attracted the lion's share of Japanese investment in central Europe, which although not as large as European and American investment, is growing rapidly. Both the Newly Independent States (NIS) of the former Soviet Union and China have also begun to invest in Hungary.

The bulk of investment has been in the manufacturing sector, especially in the automobile, electronics, pharmaceutical and food industries, which are the traditional mainstays of the Hungarian economy.[2] Many of the world's major corporations have invested in Hungary – Alcoa, Ansaldo, Audi, Ford, General Electric, General Motors, Philips and Suzuki. The acquisition in 1993 of a one-third stake in the MATAV telecommunications company by the consortium DBP Telekom-Ameritech for the sum of $875 million attests to the growing attraction of Hungary to foreign investors.

The remaining FDI was more or less evenly divided between trade (14%), services, especially financial services (also 14%), and other sectors (10%). Foreign financial institutions have been allowed to participate actively in the transformation of the banking sector and the development of the securities market.[3] There has also been substantial foreign investment in the insurance sector.

A number of factors explain the success of Hungary in attracting FDI: its strategic position in the centre of Europe, the degree of economic and political stability it has achieved, and its early adoption of market-based laws and regulations. It is also the first central European country to have liberalised its FDI regime and provided guarantees on the repatriation of capital and profits.

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1. The adherence took the form of an exchange of letters between the OECD and the Hungarian government in Paris on 11 April 1994, with Béla Kadar, Minister of International Economic Relations, signing for Hungary and Jean-Claude Paye, Secretary-General, signing for the OECD. Since 1991, Hungary has been participating in OECD activities as a 'Partner in Transition' country within the framework of the programme of the OECD Centre for Co-operation with the Economies in Transition.

2. Matthew Harley, 'Hungarian Agriculture at the Crossroads', **The OECD Observer**, No. 186, February/March 1994.

3. Hans J. Blommestein, 'Sound Banking for a Strong Market', **The OECD Observer**, No. 177, August/September 1992.

HUNGARY'S COMMITMENTS TO THE OECD

In March 1993 the Hungarian government notified the OECD that it wished to adhere to all the provisions of the Declaration and Decisions on International Investment and Multinational Enterprises and to participate in the activities related to their implementation. After examining this request, the Committee on International Investment and Multinational Enterprises (CIME) recommended to the OECD Council that Hungary be invited to adhere with the same rights and obligations as member countries. Hungary is now a signatory of a co-operation agreement which comprises four interrelated instruments administered by the CIME, of which Hungary is now a full member.[1]

• The National Treatment instrument requires participants to treat foreign-controlled enterprises operating within their territory no less favourably than similarly situated domestic firms; the Hungarian authorities lodged only a few exceptions to this principle, to cover restrictions on foreign direct investment (FDI) in real estate, transport, gambling and aid to small and medium-sized enterprises. The authorities agreed that these measures would be periodically reviewed by the CIME with a view to their gradual elimination. Hungary also undertook not to adopt new exceptions to national treatment.

• The Guidelines for Multinational Enterprises set standards of behaviour that multinational enterprises are encouraged to observe so that their activities are in harmony with the national policies of their host countries. They cover fields as various as the disclosure of information, competition, taxation, employment and industrial relations. The Hungarian government must also establish a 'national contact point' to promote and explain these guidelines to business, labour and the public sector. This contact point will provide a forum for discussions between management and trade unions, and with contact points in other countries, on the problems encountered in implementing these principles.

• The instrument on Investment Incentives and Disincentives aims to make these measures and their impact more widely known, provides for consultation and review procedures, and seeks to strengthen international co-operation. Hungary will participate in the CIME's work on identifying and eliminating the distorting effects of these measures on FDI, particularly by preparing reports and studies and/or consulting with OECD countries.

• The instrument on Conflicting Requirements proposes a co-operative approach aimed at avoiding conflicts in the requirements imposed on multinational enterprises by their country of origin and the host country. Such situations have occurred when certain laws have been applied extra-territorially.

1. **The OECD Declaration and Decisions on International Investment and Multinational Enterprises – Basic Texts**, OECD Publications, Paris, 1992; **National Treatment for Foreign-Controlled Enterprises**, OECD Publications, Paris, 1993; see also *The OECD Instruments for Promoting the Liberalisation of Foreign Direct Investment*, 1993, available free of charge from the OECD Directorate for Financial, Fiscal and Enterprise Affairs.

Tax and financial incentives and the availability of a skilled and competitive labour force have also played an important role. Furthermore, Hungary is generally considered to be a promising base for exporting to western Europe – especially since the recent association agreement concluded with the European Union – and a hub for enterprises doing business with other countries in central and eastern Europe.

Hungary has signed a number of bilateral investment protection agreements and tax conventions, as well as international agreements on the settlement of disputes and the protection of intellectual property. The most wide-ranging of these is the association agreement with the European Union, the aim of which is to promote legislative convergence with a view to Hungary's eventual accession to the European Union.

Walden

IKEA in Hungary.

An Environment Conducive to Investment

This favourable climate for investment is largely the outcome of political resolve. The expansion of FDI has been central to the Hungarian government's economic strategy over recent years; the government considered that a substantial inflow of foreign capital and expertise would be required to enable Hungarian enterprises to become competitive in world markets. The fundamental legislation (the 1989 Foreign Investment Act) was based on the principle that foreign enterprises established in Hungary would be entitled to operate under the same conditions as their Hungarian counterparts, that is, they would receive national treatment (box, above).

Unlike some OECD countries and other central and eastern European countries, Hungary does not impose a general authorisation procedure for the entry and establishment of foreign enterprises – all they have to do is register with the relevant local Court of Registration and to report any foreign-exchange transactions. The 1989 Act also provides basic guarantees such as the right to repatriate capital and profits and to receive immediate compensation at the real market value in the event of expropriation. There are no nationality requirements for the managers of subsidiaries.

Like other central European countries, Hungary has provided various incentives to attract FDI, especially in state-of-the-art

Serge Attal/R.E.A.

A joint venture with the United States.

sectors, high-tech services (such as software) and infrastructure. Until recently, the tax incentives were particularly attractive.[4]

There are also very few sectoral restrictions; those restrictions that do exist are in sectors that are also often restricted in OECD countries: navigation on inland waterways (which is reserved to vessels flying the national flag), passenger transport on domestic public roads (which, for journeys beginning and ending in Hungary, is reserved to national carriers) and road haulage (which is sometimes subject to bilateral agreements). Authorisation is required for foreigners to engage in domestic commercial aviation and there are numerous bilateral agreements governing air transport. Cash-winning slot machines may be operated only by Hungarian-owned businesses, although casinos may be foreign-owned.

Obviously, these provisions apply only to the private sector, and it should be borne in mind that the public sector occupies a much larger share of the Hungarian economy than is the case in OECD countries, especially in the manufacturing and service sectors. Nevertheless, through an intensive privatisation programme undertaken by the State Property Agency, the government had managed to reduce the share of state-owned enterprises to 50% of GDP by the beginning of this year. These companies were most often sold off by competitive tender after they had been transformed into limited liability or joint stock companies. Foreign investors were actively involved in these privatisations, buying into companies either on their own account or in partnership with Hungarian companies. The undertakings that they were required to give on restructuring, job protection and investment or business plans were no different from those for Hungarian nationals.

In 1992 the establishment of a State Asset Holding Company clarified the government's intentions towards enterprises considered to have a special economic or strategic interest in energy, heavy industry, foreign trade, transport and communications, financial services, pharmaceuticals and defence. Nonetheless, foreign enterprises can engage in many of these activities on an equal footing with Hungarian enterprises through a system of concessions. In the long term, the government intends to retain control of enterprises which provide essential public services or whose activities cannot be carried out more efficiently by companies in the private sector, whether they are Hungarian or foreign.

■ ■

Hungary's adherence to the OECD's investment instruments should further strengthen its favourable attitude to FDI. Moreover, the extension of these instruments to a region which requires foreign capital for its transformation and development should increase foreign investor confidence. That Poland and the Czech Republic have also recently applied to adhere to these instruments can only reinforce this favourable trend still further. ■

4. It is worth noting that the tax incentives for foreign-owned enterprises were scrapped in late 1993 in order to reinforce the tax base and increase government revenues. This is a sign of the economic maturity of Hungary, which is increasingly moving away from special aid programmes and is seeking to promote a favourable investment environment instead.

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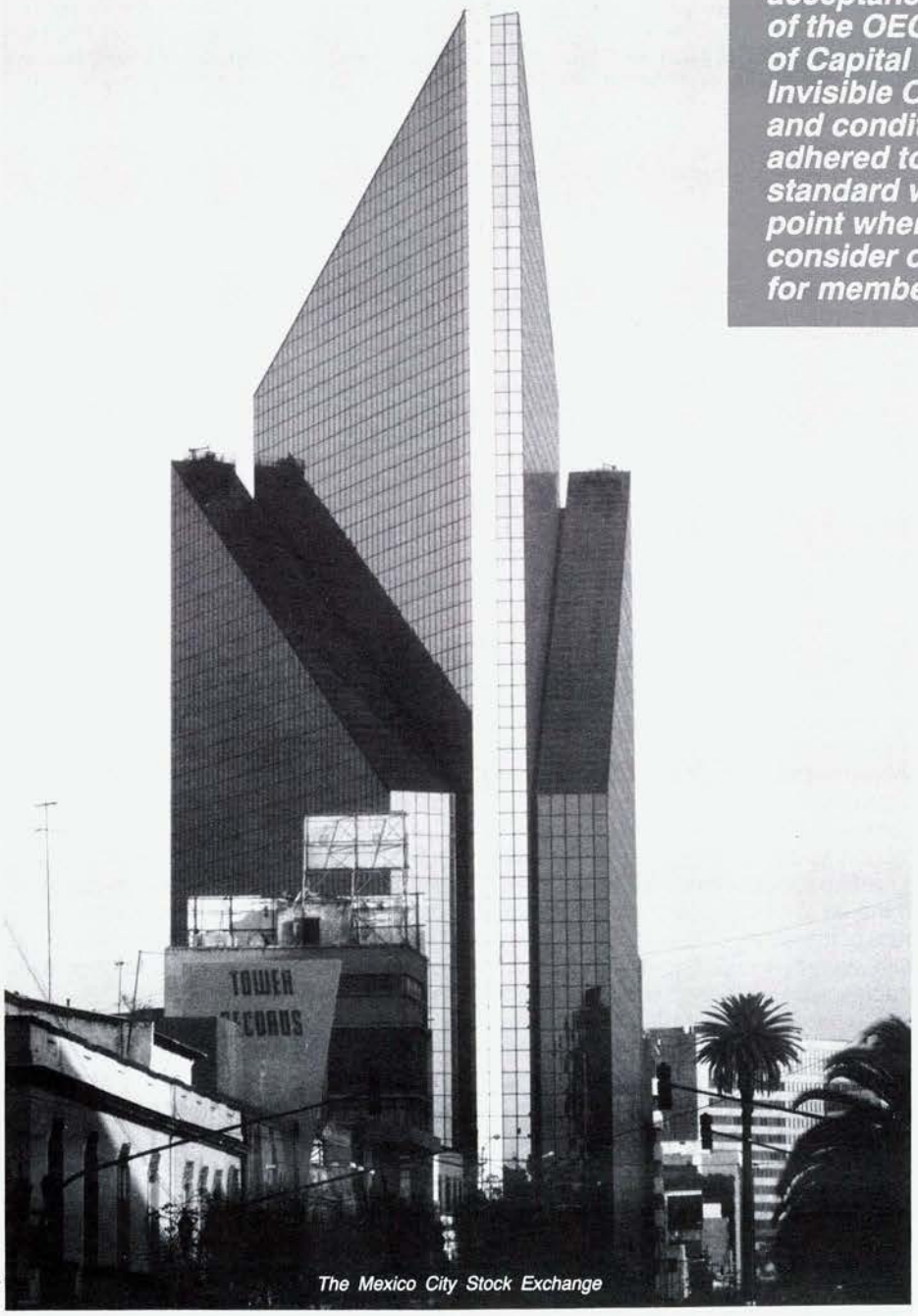
Mexico and the OECD Codes of Liberalisation

Pierre Poret

An essential condition of Mexico's accession to membership of the OECD was its acceptance of the obligations of the OECD Codes of Liberalisation of Capital Movements and Current Invisible Operations. The terms and conditions on which Mexico has adhered to the OECD Codes set a high standard which will provide a reference point when the Organisation comes to consider other candidates for membership.



Serge Attal

The Mexico City Stock Exchange

When Mexico joined the OECD, on 18 May of this year,[1] it was in a position to do so as a country with free currency convertibility for both current and capital operations. That compares favourably with the more restrictive exchange regimes of many OECD countries in the past. As a result, Mexico's reservations to the Codes are limited in scope and number:[2] Mexico maintains controls on some cross-border capital operations only, notably in domestic currency and between financial institutions, and on cross-border current invisible operations only in the field of financial services and transport services.

Although Mexico has a tradition of regulating foreign direct investment (FDI), a new law, passed in December 1993, provides for extensive liberalisation which in certain cases goes beyond Mexico's commitments under the North American Free Trade Agreement (NAFTA) and is generally applicable to investors from all countries.

1. Christian Schricke, 'Mexico, 25th Member of the OECD', **The OECD Observer**, No. 188, June/July 1994.

2. Mexico's reservations to the OECD Codes will be included in the forthcoming 1994 edition of the Codes.

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OECD CODES OF LIBERALISATION OF CAPITAL MOVEMENTS AND CURRENT INVISIBLE OPERATIONS

The two OECD Codes of Liberalisation are Decisions of the Council and are thus legally binding. Accordingly, member countries must take whatever steps are necessary to ensure that the obligations accepted are honoured.[1]

The objective of the Codes is the progressive liberalisation of all the operations falling within their purview. The Capital Movements Code covers direct investment and almost all other international capital operations. The Current Invisibles Code covers a wide range of current payments and of service operations including tourism, transport, audiovisual work, insurance, banking and other financial services.

The Codes provide a framework of notification, examination and consultation through which their prescriptions can be monitored and liberalisation achieved.

Liberalisation means that residents of member countries are free from any restraint to conclude between each other the transactions specified in the 'Liberalisation Lists', and to make the corresponding transfers from one country to the other.

Where liberalised operations require authorisation, it shall be automatically given, subject only to the right of the authorities to impose restrictions in cases where they consider that the national interest would be prejudiced in connection with public order or security. Moreover, liberalisation must not be frustrated by domestic measures which, although not strictly a prohibition, would nevertheless by reasonable standards be likely to curtail the possibility of effecting the operation.

Under Article 5 of the Codes, the authorities may take steps for the purpose of verifying the authenticity of each operation or of preventing evasion of laws and regulations, but this verification must be carried out as quickly and simply as possible.

Adhering to the Codes implies an obligation not to withhold authorisation of operations between residents of the new country and the residents of other OECD countries, unless reservations have been lodged on the relevant items or by invoking the derogation clauses in Articles 7.

The terms of the Articles 2 b) do not permit the lodging of additional reservations on any of the items in the Current Invisibles Code or in List A of the Capital Movements Code (that is, almost all capital operations except those in short-term instruments and derivatives and non-resident acquisition of real estate which are in List B). This implies a 'standstill' which, under normal circumstances, allows no reduction in the degree of liberalisation of the operations concerned. When a reservation is lodged, the reasons must be notified forthwith to the OECD, and the country in question must submit to a periodic examination of the reservations it maintains.

Invocation of the derogation clauses is intended to provide only temporary dispensation from the liberalisation obligations, and restrictions imposed thereunder should be withdrawn as soon as circumstances permit.

Any remaining restrictions must be applied to OECD countries in a non-discriminatory manner. Countries which have not so far liberalised must not be discriminated against and must continue to receive the benefits of liberalisation. Members of a 'special customs or monetary system' are permitted to apply to one another additional measures of liberalisation without extending them to other OECD countries.

1. **Introduction to the OECD Codes of Liberalisation**, OECD Publications, Paris, forthcoming 1994.

Currency Convertibility

Mexico has a tradition of free convertibility of its currency. As early as 1946, fifteen years before most OECD countries, Mexico complied with Article VIII of the Articles of Agreement of the International Monetary Fund, which provides for full convertibility of the domestic currency for payments and transfers in connection with current international transactions. Unlike other Latin American countries, Mexico has actively used capital controls only during a short period of time – the second half of 1982 in the wake of an external debt crisis – although a two-tier foreign exchange market was in place from August 1982 to November 1991 to dampen the short-term volatility of the controlled, commercial exchange rate.

As a result, Mexico has no reservations with respect to the bulk of the operations covered by the Code of Liberalisation of Capital Movements. The most important restrictions which are reflected in Mexico's reservations to the Capital Movements Code concern the following operations:

- inward direct investment, which is subject to certain sector-specific limitations and to general review requirements in the case of acquisitions of more than 49% of the equity of Mexican enterprises with assets exceeding $25 million[3]
- acquisition by foreign non-residents of real estate for residential purposes
- issue of foreign securities and other instruments on the Mexican financial market
- purchase by non-residents of domestic shares and other securities of a participating nature falling under the purview of legislation on inward direct investment
- operations in domestic currency, including specific operations in debt securities, lending by non-resident financial institutions to resident financial institutions and the opening in Mexico of deposit accounts by non-resident financial institutions
- financing operations in foreign currency abroad by resident banks, except for operations related to international trade
- purchase of foreign instruments abroad by resident securities firms for their own account.

As far as capital movements other than inward direct investment are concerned, the restrictions on operations in domestic currency with non-residents and foreign-exchange liabilities of resident banks are probably the most important ones by today's OECD standards. Those on residential real estate, the admission of foreign securities in the domestic market and investment abroad by securities firms are not uncommon – or

3. A future article in **The OECD Observer** will examine Mexican policy on FDI.

have been lifted only recently – in several OECD countries.

For foreign acquisitions of real estate, the restrictions are justified by the Mexican authorities by constitutional requirements. The other restrictions are motivated mainly by the importance of protecting domestic savers and to ensure orderly conditions on the foreign-exchange and money markets.

Indeed, the objective of the Mexican authorities is to achieve further liberalisation in many of these areas. In particular, the reform of the Mexican Stock Market Law in July 1993 provides for free access of foreign issuers to the domestic market. Implementing regulations, still to be adopted, will be aimed only at ensuring the same degree of investor protection as provided by the rules currently applicable to domestic issuers and will not discriminate against non-residents.

The regulations affecting international operations in Mexican pesos go back to 1985. Their purpose was to prevent the development of an offshore peso market so as to reserve the market to authorised domestic foreign-exchange dealers and thus preserve the effectiveness of existing policy instruments. At that time, the imposition on Mexican banks of obligations to invest in government paper at rates generally below those of the market created a strong incentive to shift the peso market towards overseas banks not disadvantaged by such requirements. But the risks associated with the creation of an offshore peso market are probably smaller now. Incentives for purely regulatory arbitrage between domestic and offshore markets are weaker now that compulsory investment requirements are no longer imposed on Mexican banks. The significant widening of the fluctuation bands for the exchange rate since 1992, the elimination of fiscal deficits and continuing disinflation also help reduce currency speculation.

Against this background, the long-term objective of the Mexican authorities is to maintain an influence on the pace of development of the offshore peso market, not to prohibit it. For some years now, their approach has been to test the market's reactions to gradual *de facto* liberalising steps before effectively removing formal restrictions on international capital operations in domestic currency.

In spite of the instability of the exchange rate following the assassination of the front-running presidential candidate Luis Donaldo Colosio, Mexico's liberal policy towards capital movements has been maintained, for several reasons. First, past experience with controls was largely unsuccessful. The extensive restrictions temporarily introduced in 1982 proved of limited effectiveness in preventing capital flight while further weakening investors' confidence. The Mexican authorities are therefore focussing on other, more effective instruments to smooth the evolution of the exchange rate, such as interventions by the central bank – recently reinforced by the creation of swap facilities among NAFTA partners – and changes in short-term interest rates.

Second, the new central-bank law has removed the ability of the Bank of Mexico to impose new exchange controls. The only way to do so in the future would be through new legislation enacted by the Congress.

Third, present currency difficulties are likely to represent only a temporary break in otherwise favourable medium-term prospects for long-term foreign investments, which should continue to be attracted by ambitious market-oriented reforms as well as impressive progress in fiscal consolidation and price stability since the early 1990s.

Fourth, as a result of its adherence to the Capital Movements Code, Mexico is not entitled to return to controls on operations for which it has not lodged reservations, unless it can justify derogation.

Financial Services

Although trade liberalisation proceeded rapidly in non-services sectors during the 1980s, non-resident providers of insurance, banking and other financial services have limited access to the Mexican market on a cross-border basis and none through branching. These restrictions have required Mexico to lodge reservations to the Current Invisibles Code on the following operations:

- insurance on goods in international transit (unless the insurance contract is entered into without being asked for by the foreign insurer)
- life-insurance contracts offered in Mexico by non-residents
- insurance for ships and vehicles that are registered in Mexico or owned by Mexican resident and for persons, when the person is in Mexico; credit insurance, when the insured person is subject to domestic laws; and civil liabilities for events that may occur in Mexican territory
- payment services, banking and investment services, custodial and depository services, asset-management services (other than the safekeeping of assets), and advisory and agency services (except for operations concerning mergers, acquisitions, restructurings, management buyouts and venture capital)
- the establishment of branches and agencies of foreign insurers and of non-resident investors in the banking and financial-services sector.

The Mexican authorities justify their restrictions on the provision of financial services on a cross-border basis or through branching by the importance of ensuring an orderly, gradual process of liberalisation and adequate consumer protection. Thus, for the time being, only institutions incorporated under Mexican law and hence under the direct control of local supervisors are allowed to provide financial services in Mexico.

For securities dealers, insurance and banking services, the opening-up of the market will take place essentially through the channel of the NAFTA. Under this agreement, financial institutions established in Canada or the United States, including subsidiaries of those based in other countries, can have access to the

domestic market by means of establishment or acquisition of Mexican subsidiaries, subject to market share limitations that will apply during a transition period from 1 January 1994 to 31 December 1999. In the context of the OECD accession procedure, Mexico agreed to review its treatment of banks, insurance companies and securities dealers, and to consider extending the direct benefits of the NAFTA to all OECD countries, no later than the beginning of 1998.

As far as other financial institutions (securities specialists, investment companies, managing companies of investment companies, bonding firms, general-deposit warehouses and foreign-exchange firms) are concerned, Mexico committed itself to extend, promptly after accession, to all OECD countries the measures of the NAFTA which fully liberalise foreign investment.

Recently, important internal reforms designed to adapt the Mexican banking and financial sector to a more competitive and open environment have been undertaken. Interest rates were deregulated and credit rations dismantled in 1989. A new banking law was passed in 1990 and, by July 1992, within thirteen months, all the eighteen commercial banks nationalised in 1982 had been privatised. A reform modernising and internationalising the Mexican stock market was passed in July 1993. A package further liberalising cross-border financial services was adopted in January 1994 and applies without discrimination to all countries, while, with the entry into force of NAFTA on 1 January 1994, conditions for the establishment of subsidiaries and for equity participation by NAFTA countries' financial institutions will be gradually liberalised.

As institutions become more efficient and prudential arrangements are strengthened as a result of these reforms, further progressive liberalisation of the provision of insurance, banking and other financial services by non-residents will become possible in the future.

Transport Services

Maritime- and road-transport services are the main other areas of current invisible operations where Mexican restrictions call for reservations to the Current Invisibles Code.

Mexico's policy in maritime transport is being liberalised. Under a new navigation law, cargo reservations and restrictions on the cross-border provision of cabotage (coastal navigation within the border of the country) services have been eliminated.[4]

Nonetheless, under the implementing regulations of a decree of 1989, automobile and component manufacturers that are subject to a trade-balance requirement have a substantial incentive to resort to Mexican companies for the transport of automobiles and parts because associated freight costs can be added to the value of exports or subtracted from the value of imports for the purpose of trade-balance calculations if the freight is provided by Mexican shipping companies. Although the 1989 decree expires in the year 2004, the Mexican authorities have recently stated their willingness to enter into consultations with interested parties, including OECD countries, to determine a new, shorter, timetable for rescinding it.

The new navigation law also contains provisions which allow the Mexican authorities to discriminate against countries that impose restrictions on activities of Mexican-flagged vessels or permit anti-competitive shipping practices that have an adverse effect on the Mexican economy. The Mexican authorities have informed the OECD that, since its accession, these discriminatory provisions have ceased to be applicable to any OECD country.

Road-transport services within and into the country may be provided only by Mexican nationals and Mexican companies, whose by-laws contain a clause excluding foreigners from owning their stock. Restrictions on cross-border scheduled bus services and cross-border truck services will be eliminated respectively in January 1997 and January 2000 under the NAFTA for all road-transport companies established in the United States and Canada irrespective of their country of origin. The non-discrimination principle of the Codes would normally require these liberalisation measures to be placed within a broader legal framework than the NAFTA. Yet since, within the OECD area, for geographical reasons, only companies established in the United States and Canada could enjoy the economic benefit of liberalisation of the cross-border provision of road transport services, it is of no practical significance.

■ ■

The OECD Codes of Liberalisation are the concrete expression of the vocation of the OECD, set out in its Convention, to help its member countries promote the liberalisation of international trade and the freedom of capital movements. They lie at the heart of the process of accession to the Organisation of any country that wishes to join. ■

4. The new law also allows for increased foreign participation in Mexican companies dedicated to the commercial exploitation of ships for interior navigation and coastal sailing and foreign ownership of Mexican-flag vessels.

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Spotlight on Spain: The Structural Imperative

Panayotis Thomopoulos

Like a number of other continental European countries, Spain is having to contend with a sharp slowdown in economic activity. This cyclical low is further highlighting the scale of disequilibria – inflationary pressures, public-sector deficit, high unemployment – that have become structural, to the extent that they are the outcome of systemic rigidities inherited from the past, particularly from the Franco era, that were partially masked by five years of strong growth (4.75% per year on average between 1986 and 1990) and fuelled by the inflow of foreign investment generated by Spain's entry into the European Community. Restoring the sound, sustainable growth that will bring Spain up to the degree of development of the major western European economies means not only persisting with policies aimed at restoring macro-economic equilibrium but also – and perhaps above all – introducing or stepping-up structural reforms designed to inject more flexibility into the labour market and foster the free play of competition.[1]

Spain moved into recession around mid-1992 and in 1993 GDP showed a fall of 1%, the sharpest downturn for 30 years. Initially, the downturn in demand was the outcome of a decline in public investment, rapidly followed by a reduction in private investment caused by rising interest rates and a sharp drop in company profits, with firms continuing to grant excessive wage increases despite the recession.

In 1993 this trend was accentuated by a substantial decline in private consumption brought about by the change in the savings behaviour of households in response to mounting unemployment. The net saving rate rose to 7.5%, compared with a ten-year average of 5.25%. The substantial shedding of labour, which began during the first half of 1992, led to a decline in total employment of 2% in 1992 and of 4.3% in 1993. Coupled with growth in the labour force, this trend caused what was already a very high unemployment rate to accelerate sharply from a 'low' of 16.2% in 1990 to close on 24% by early 1994.

The decline in production was cushioned in 1993 by the growth of export volumes, helped by the devaluation of the peseta in 1992 and again in 1993. In spite of the depreciation of the currency, the rise in prices – except for food and energy products – slowed to an annualised rate of 4½% in April 1994, since increasing underemployment had put a brake on domestic inflationary pressures. Moreover, coming against a background of slacker activity, these devaluations helped to improve the current-account balance, with the deficit last year being reduced to about 1% of GDP, compared with over 3% over the previous four years.

Yet, again like a good many other European countries, Spain was unable to achieve the economic policy objectives it had set for 1993. It proved impossible for the government to keep to the rather restrictive budgetary stance that it had intended to pursue in accordance with its priorities of combatting inflation and bringing the economy into line with the convergence criteria set out in the Maastricht Treaty. Indeed, the decline in tax revenue caused by the recession pushed the public-sector deficit up to 7.3% of GDP.

Monetary policy was substantially revised following the crisis within the EMS in the summer of 1993 and the subsequent broadening of the margins of fluctuation. The highly restrictive policy that had been introduced in mid-1992 to counter the speculative attacks in the foreign-exchange market failed to prevent three successive devaluations of the peseta between September 1992 and May 1993. But as of August 1993 with calm having been restored in the EMS and economic activity slowing sharply, the monetary authorities began to ease interest rates. That has had a substantial impact on long-term rates, but real short- and medium-term rates remain high.

The fall in interest rates and the marked productivity gains since 1992 are likely to result in an improvement in firms' cash flow in 1994. But, until their balance sheets have been put on a sounder footing, it would be unwise to count on a genuine upturn in investment.

Consequently, there is unlikely to be a sharp upturn in activity in 1994 and GDP growth is not expected to exceed about 1¼%, with inflation down to around 3¾% by the end of the year. If the 1994 budget is achieved in full and disinflation continues, GDP growth could accelerate to 2¾% in 1995, but this would not be enough to make a serious dent in unemployment, which could be over 24½% by early 1995. What is more, these forecasts assume the continuation of the structural reforms aimed at improving flexibility and removing barriers in the markets for goods (competition), services (rents) and labour.

As far as competition is concerned, in spite of the progress achieved, many monopolies still exist. In addition, the restructuring of public-sector enterprises is continuing but is being slowed by the absence of an adequate budgetary constraint. The major task still to be tackled is the complete overhaul of the labour market, whose rigidities to some extent explain the fundamental disequilibria within the Spanish economy – recurrent inflation, the public-sector deficit and widespread unemployment, which has escalated between 1975 and 1994 from 7.5 to almost 25% of the labour force.

During the initial period (1975–85), the sharp rise in unemployment was because of the shock provoked, from the very outset of Spain's return to demo-

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1. **OECD Economic Surveys: Spain**, OECD Publications, Paris, 1994.

cracy, by the insertion of an over-protected economy, dominated by obsolete sectors and at the same time with low productivity, into a world economy in the throes of recession and where competitive pressures were becoming increasingly severe. One or two figures will convey the scale of the adjustment: salaried employment in the private non-agricultural sector fell by 23% between 1976 and 1985, and agricultural employment fell by an average of 3.7% a year.

After 1985, the annual rate of decline in farm employment accelerated, averaging 6.2% from 1985 to 1993. By contrast, non-farm employment rose very rapidly between 1985 and 1990 at an annual rate of 4.5%, which caused unemployment to fall from 21.5 to 16.2%, despite a marked increase in the civilian labour force. The problem is that the rapid expansion of the economy during this period encouraged firms to invest in improvements in capacity rather than productivity, which remains well below rates in other, competing countries. Rising participation rates (particularly for women) and virtually stagnant labour-productivity accentuated the further increase in the unemployment rate (which rose by 8 points between 1990 and 1994), since the loss of competitiveness of the Spanish economy, compounded by the slowdown in activity, made it impossible to continue to stave-off radical adjustments.

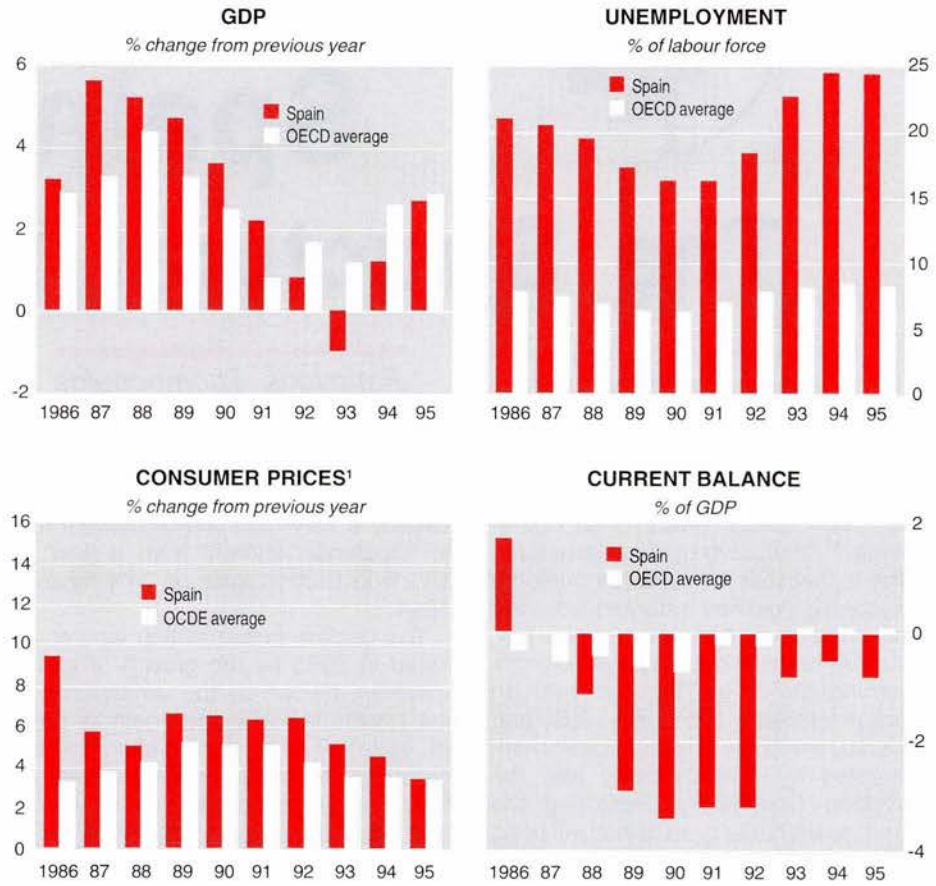
These dramatic peaks and troughs in the pattern of employment can be ascribed in part to the pronounced rigidity of real and nominal wages, which allows firms facing a decline in demand with no other alternative than massive redundancies. Among the many factors contributing to this rigidity are the often automatic extension to an entire region or sector of wage agreements concluded by individual firms, the multiplicity of wage-indexation clauses, the strict regulations governing redundancy procedures, and so on. Until very recently the unemployment benefit scheme for workers with permanent contracts encouraged neither the search for another job nor mobility, since redundancy payments would often exceed 50 months' wages while the scale of benefits, plus the fact that they were not subject to tax, meant that in many cases net income was higher than the last wage. That is not much of an inducement to seek work in the case of those in the middle-income bracket and a definite disincentive for the lower-paid.

Faced with this situation, the Spanish government has begun to react. In 1992 the scale of unemployment benefits and the period of eligibility were substantially reduced while, at the same time, benefits were made subject to social-insurance contributions and income tax. But it is chiefly by means of the Employment Act passed in May 1994 that the Spanish authorities intend to break away from the decades of corporatism in employment.

Among the battery of new provisions in the Act are the abolition of the strict limits on working hours, the simplification of redundancy procedures, the phasing-out of the *ordenanzas laborales* which restrict functional mobility, and their replacement by modern collective agreements, and the rationalisation of the system of fixed-term contracts. In addition, a decree passed in December 1993 removed the restrictions on part-time work, relaxed the monopoly on placement of the public employment services and introduced a new system of apprenticeship.

Having made these moves to deal with the structural causes of the disequilibria that are checking Spain's economic development, and particularly the rigidities of the labour market, the authorities in Madrid will now have to adhere to this strategy, while at the same time stepping up their efforts in fiscal consolidation. This is a delicate task, both politically and socially but if it is carried through successfully, it will enable Spain once again to play its rightful role on the global economic stage. ■

INDICATORS



1. Private consumption deflator.

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IEA (International Energy Agency)

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(61 94 11 1) ISBN 92-64-14133-2, 280pp.
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ENERGY IN DEVELOPING COUNTRIES
A Sectoral Analysis
June 1994
The developing countries as a group represent the largest source of growth in global demand for energy. In 1991, they accounted for about one-quarter of global energy consumption and, by 2010, their share is expected to rise to over 35%. The implications of developments in these countries are, therefore, of special significance both for the global energy system and for the global environment. This study examines the recent trends in energy demand in a group of developing countries as well as the factors which underpin the growth in energy consumption. For this purpose, it considers energy demand on an end-use sectoral basis and examines the effects of a range of parameters including the changing degrees and patterns of industrialisation, the increasing share of populations living in urban areas, and the rising demand for transport services, all of which are associated with growth and development.
(61 94 13 1) ISBN 92-64-14135-9, 130pp.
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NEA (Nuclear Energy Agency)

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Nuclear Energy Data is the OECD Nuclear Energy Agency's annual compilation of basic statistics on electricity generation and nuclear power in OECD countries. The reader will find quick and easy reference to the present status of and projected trends in total electricity generating capacity, nuclear generating capacity, and actual electricity production, as well as on supply and demand for nuclear fuel cycle services.
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'Nuclear Energy and Information' Series

INFORMATION POLICIES OF NUCLEAR REGULATORY ORGANISATIONS
Paris (France) Seminar, 6–8 December 1993
May 1994, bilingual
In order to respond to the information requirements of the public, especially since the Three Mile Island and Chernobyl accidents, most OECD countries operating a nuclear-energy programme are striving to promote their nuclear regulatory organisation and to publicise its licensing and inspection system for nuclear facilities. The goal of that system is mainly to ensure that the safety of the facilities contributes efficiently to the protection of the health of the workers and the population, as well as the environment. Those organisations have also developed public-information policies for nuclear incidents and accidents, the degree of risk involved and the appropriate emergency measures. The necessity of information, in this respect, is particularly clear in central and eastern European countries and in the New Independent States of the former USSR where efforts to introduce a genuine nuclear safety culture hinge on competent and independent regulatory authorities.

This publication contains the proceedings of an international seminar organised by the OECD Nuclear Energy Agency.
(66 94 06 3) ISBN 92-64-04116-8, 224pp.
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'Nuclear Safety' Series

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THREE MILE ISLAND REACTOR PRESSURE VESSEL INVESTIGATION PROJECT
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Proceedings of an Open Forum sponsored by the OECD Nuclear Energy Agency and the United States Nuclear Regulatory Commission, Boston (USA), 20–22 October 1993
June 1994
The Three Mile Island Vessel Investigation Project (TMI-VIP) was an international research project undertaken by eleven member countries of the OECD Nuclear Energy Agency from 1988 to 1993. The TMI-2 accident provided a unique opportunity to study a severe accident in a commercial pressurised water reactor (PWR). When the damage was found to be more extensive than thought initially, the TMI-VIP was set up to determine and assess the conditions of the lower head of the reactor vessel.

The TMI-VIP was successful in the difficult task of recovering vessel samples and has enabled both scientists and engineers to obtain a better understanding of reactor pressure vessel structural integrity under beyond-design-basis conditions. From this understanding, improvements in severe-accident management and designs for future systems may be derived. The open forum presented the accomplishments of the project in the context of the overall evolution of nuclear safety and the benefits of international co-operation in nuclear research.
(66 94 05 1) ISBN 92-64-14134-0, 402pp.
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MANAGING THE ENVIRONMENT
The Role of Economic Instruments
June 1994
The use of 'economic instruments' such as emission taxes and charges, and tradable emission permits, has developed considerably since the 1989 publication of the first comprehensive OECD survey. It is now recognised that such economic instruments make an essential contribution to the process of sustainable development by promoting the effective integration between economic and environmental processes and by reinforcing the efficiency of environmental policies. This book provides a detailed assessment of the use of economic instruments in OECD countries, explores their role in economies in transition and analyses their implementation and international dimension.
(97 94 09 1) ISBN 92-64-14136-7, 192pp.
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PROJECT AND POLICY APPRAISAL
Integrating Economics and Environment
May 1994

Sustainable development implies the consistent use of economic techniques for evaluating projects, programmes and policies designed either to protect the environment or which may have an effect on it. More particularly, the environmental consequences of any activity should be evaluated in monetary terms, in a cost-benefit framework. How, for example, can the economic values of death or illness because of pollution, amenity losses or the destruction of natural resources be evaluated?

This manual provides a detailed description of such techniques as the monetary valuation of environmental damage, the pricing of environmental resources, and the role of discounting. In addition, numerous practical examples of the use of these techniques in both industrialised and developing countries are presented.
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THE ECONOMICS OF CLIMATE CHANGE
Proceedings of an OECD/IEA Conference
June 1994
An international conference on the economics of climate change was convened by the OECD and the International Energy Agency (IEA) in Paris in June 1993. Participants included many of the world's foremost experts in the field, as well as representatives from business, labour and other non-governmental organisations.

The conference sought to examine points of consensus and divergence among existing studies on the economics of climate change. Participants also focused on how economic analysis could contribute to meeting the obligations of OECD countries under the 1992 Framework Convention on Climate Change. Discussions centred on such topics as the economic costs and benefits of strategies to mitigate greenhouse gases, the potential role of carbon taxes and other economic instruments in the policy mix, possibilities for technological change and diffusion, especially in the energy sector, and joint abatement action between industrialised and developing countries.

This volume contains the papers presented at the conference, as well as summaries of the subsequent discussions. It provides an overview of the 'state of the art' in the economics of climate change and several suggestions for future research.
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AGRICULTURE AND THE ENVIRONMENT IN THE TRANSITION TO A MARKET ECONOMY
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Decision-making in the economies of central and eastern European countries and the New Independent States of the former Soviet Union (NIS) largely ignored the environmental impacts of agriculture in the past. The legacy is a degradation in the quality and quantity of the water and land resources upon which agriculture critically depends. The transition to a market economy provides a unique opportunity for countries in the region to develop new approaches to increase the coherence and effectiveness of both agricultural and environmental policies.

Presented at the OECD conference on Agriculture and the Environment in the Transition to a Market Economy in Vilnius, Lithuania, the papers in this volume examine policy issues in agriculture, the environment and rural development in OECD countries and those of central and eastern Europe and the NIS. In addition, they review approaches to policy integration for specific agriculture-environment issues.
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Finance, Taxation, Enterprises, Investment

OECD Reviews of Foreign Direct Investment

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June 1994
With one of the OECD's smallest and most open economies, Ireland welcomes foreign direct investment (FDI) and offers grants and tax incentives to attract investors. Direct investment plays a unique role in the Irish economy, accounting for a larger part of its manufacturing output, employment and exports than in most other OECD countries. Still, the cost of attracting foreign investment has come under increased scrutiny and questions have been raised about whether too much emphasis has gone to promoting foreign investment and not enough to developing local enterprises. The government is trying to address this question by helping local businesses improve their links with the international sector, and has re-organised its industrial-development programme with this issue in mind.

This study examines the role of direct investment in the Irish economy, Ireland's policies towards FDI, and the implications of Ireland's new industrial policy for foreign investors.
(21 93 54 1) ISBN 92-64-14149-9, 74pp.
France: FF90; elsewhere: FF115 US$20 DM37

PORTUGAL
May 1994
Foreign direct investment (FDI) in Portugal has soared since the mid-1980s. Today, foreign enterprises constitute an important source of employment and exports in Portugal. The Portuguese government has taken a number of important steps to open its economy to FDI by removing a wide range of sectorial restrictions, replacing a cumbersome system of prior authorisation with a streamlined one of prior notification, and offering incentives to promote investment from abroad. Yet a number of restrictions remain on investment from outside the European Union, creating more opportunities to open the economy to private investors and increase competition in the Portuguese market.

This study examines the role of FDI in Portugal's economy and the progressive liberalisation undertaken by the Portuguese government in its direct-investment regime. It recommends additional steps that might be taken to further open the economy to direct investment and integrate Portugal more fully into the European and global economy.
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INSURANCE STATISTICS YEARBOOK 1985–1992
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The insurance industry is a major component of the economy by virtue of the amount of premiums it collects, the scale of its investment and, more fundamentally, the essential social and economic role it plays by covering personal and business risks.

This annual publication gathers major official insurance statistics for 24 OECD countries. It provides the reader not only with information on the various activities of this industry but also on trends in the international insurance market. The data, standardised as far as possible, are broken down under numerous sub-headings, and a series of indicators allows a better understanding of the characteristics of the national markets.
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TRADE AND INVESTMENT: TRANSPLANTS
June 1994
In its examination of FDI/trade linkages, the OECD held a Round Table on 'transplants' which are primarily associated with Japanese car-production facilities in the United States. This publication presents the discussions by experts from universities and the private sector, based on case studies of transplants in Europe, Australia, and Mexico. The Round Table improved the understanding of the connections between Foreign Direct Investment (FDI) and international trade, helped demystify transplants and more generally identified the contributions of FDI to the host economy.
(21 94 04 1) ISBN 92-64-14156-1, 178pp.
France: FF200; elsewhere: FF260 US$44 DM79

Industry, Science and Technology

STI Review
No. 14
May 1994

National innovation systems play an important role in the development capabilities of economies. This edition of the **STI Review** compares the systems used in different OECD countries, proposes new methods of analysis, and examines some aspects of government policies which affect national innovation capabilities. These articles, based on empirical and statistical studies, include:

- The Nature and Economic Importance of National Innovations Systems
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- Techno-Economic Networks and Science and Technology Policy
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MANUFACTURING PERFORMANCE
A Scoreboard of Indicators
May 1994
This report examines the performance of manufacturing industries over the last two decades in 13 OECD countries (Australia, Canada, Denmark, Finland, France, Germany, Italy, Japan, the Netherlands, Norway, Sweden, the United Kingdom and the United States). Performance is evaluated using 16 indicators covering five broad areas of economic activity – R&D, investment, international trade, employment and structural change – for 22 individual manufacturing industries. A comprehensive and consistent assessment of the evolution, current situation and likely trajectory of the manufacturing sector of these countries emerges from such a detailed examination.

The three parts of the report include a summary of the pattern of change provided by the indicators; a more specific and detailed description of the 16 indicators organised in the five broad areas of economic activity; and an appendix describing the newly available data enabling the construction of this wide range of detailed industrial indicators.
With 32 tables and 29 graphs
See Dianne Dobbeck and Wendy Woods, 'Mapping Industrial Activity', **The OECD Observer**, No. 188, June/July 1994.
(92 94 03 1) ISBN 92-64-14126-X, 158pp.
France: FF90; elsewhere: FF120 US$20 DM35

THE OECD STAN DATABASE FOR INDUSTRIAL ANALYSIS, 1972–1991
June 1994, bilingual
The STructural ANalysis Industrial database covers 49 manufacturing sectors in 16 countries from 1972 to 1991, thereby providing the most complete international data on industrial activity available to date. STAN contains estimates comparable with national accounts for variables of industrial activity: production, value added, gross fixed capital formation, employees engaged, labour compensation, and exports and imports.

This publication provides an invaluable tool for international economic research and analysis. It reflects general trends and highlights inter-industrial relationships, and enables the design of industrial indicators such as shifting shares of output and employment by industry, capital expenditures per worker, import penetration, as well as of detailed industrial modelling exercises.
With 108 tables
(92 94 02 3) ISBN 92-64-04121-4, 240pp.
France: FF280; elsewhere: FF350 US$59 DM105
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Labour Market and Social Issues

THE OECD JOBS STUDY
Facts, Analysis, Strategies
June 1994
Unemployment is probably the most widely feared phenomenon of our times. It touches all parts of society. There are 35 million unemployed people in OECD countries. Perhaps another 15 million have either given up looking for work or have unwillingly accepted a part-time job. As many as a third of young workers in some OECD countries have no job. And the sheer numbers do not measure the full human cost.

There are many causes of unemployment. The 'cyclical' part will be eliminated by economic growth as recovery takes hold. But much unemployment is structural, arising from a growing gap between the importance of adapting to change, and the economy's and society's ability and even willingness to change. The solution lies in a thorough examination and reform of all the policies which bear on the capacity and willingness to adapt and to innovate in the face of technological change and intensifying global competition.

Most in the work force will adapt quite readily, but some will require particular help. And a minority will prove unable to adapt. These people will have to be supported, out of the considerable fruits of rapid change, so as to share in society's increased prosperity.

This OECD publication, the first of a series, offers a concise and clear examination of this critical issue. Drawing on expertise from many parts of the OECD, this study sets out the facts that depict today's unemployment, analyses the fundamental factors that produced it and that could move OECD economies towards full employment. It puts forward a menu of measures that will help create jobs and prepare people to fill them.

A second, companion volume, **Evidence and Explanations**, is to be published in September.
(81 94 07 1) ISBN 92-64-14145-6, 50pp.
France: FF50; elsewhere: FF65 US$11 DM20

WOMEN AND STRUCTURAL CHANGE
New Perspectives
May 1994
OECD countries are undergoing profound technological, economic and social changes. Women are daily confronted with difficulties insofar as the social infrastructure and the labour market fail to respond fully to these new social realities.

This publication presents the report of a group of experts to the Secretary-General of the OECD examining the relationship between structural adjustment and the integration of women into OECD economies in the 1990s and identifying directions for action related to work and family compatibility, occupational segregation and employment flexibility. A technical report analyses the impact of structural change on women's employment, in particular the growth in part-time work, and trends in the service and public sectors, and considers the efficacy of existing equal employment opportunity policies in a constantly changing environment.
See Françoise Coré, 'Women and the Restructuring of Employment', **The OECD Observer**, No. 186, February/March 1994.
(81 94 05 1) ISBN 92-64-14111-1, 200pp.
France: FF130; elsewhere: FF170 US$28 DM50

Social Policy Studies No. 14

CARING FOR FRAIL ELDERLY PEOPLE
No. 1
New Directions in Care
June 1994
The OECD area has a growing population of elderly people. In particular, it has a growing number of the very old, many of whom constantly require personal care and social support. The challenge for OECD countries will be to provide good-quality care at manageable cost to a growing number of people.

This report is the first of three which will appear on the subject of **Caring for Frail Elderly People**. It examines recent developments and trends in care provided by families, in housing policies, in private financing for care and in the management of care services. It confirms that the pattern of care for elderly people is changing, and that the understanding of, and adaptation to, these changes is only beginning.
See Patrick Hennessy, 'Who Looks After the Elderly?, **The OECD Observer**, No. 188, June/July 1994.
(81 94 06 1) ISBN 92-64-14160-X, 140pp.
France: FF120; elsewhere: FF155 US$27 DM47

OECD Documents

DISABLED YOUTH AND EMPLOYMENT
June 1994
In spite of major structural changes in the labour market in the 1980s, young people with severe disabilities must be included in open and supported employment within the community. Improved education and training facilities for young people with disabilities have contributed to this goal of maximising employment opportunities. This publication gives examples of good practice in Sweden, the United Kingdom and the United States, providing an important basis on which to plan the development of transitional arrangements for all young people.
(96 94 05 1) ISBN 92-64-14152-9, 135pp.
France: FF60; elsewhere: FF80 US$13 DM24

Rural Development

CREATING RURAL INDICATORS FOR SHAPING TERRITORIAL POLICY
May 1994
The creation of OECD Rural Indicators is an important innovation in international statistics.

This territorially disaggregated information base will permit and stimulate international communication and co-operation on rural development issues.

Territorial differences in demographic, economic, social and environmental conditions and trends are of key importance for formulating rural policies. A sub-national breakdown of statistics is often indispensable as national averages conceal more than they reveal.

This report shows that rural indicators work is not only feasible in an international context, but that it can also enrich the capacity of researchers and policy-makers to describe and understand the territorial implications of development.

(03 94 01 1) ISBN 92-64-14112-X, 94pp.
France: FF80; elsewhere: FF100 US$18 DM30

Trade

Trade Policy Issues No. 3

THE BENEFITS OF FREE TRADE
East Asia and Latin America
May 1994

The developing world is changing radically. Trade reforms are now a central feature of development plans and replace systems of protection that had been built up during the post-war period but which failed to deliver lasting economic growth and prosperity. This publication analyses the experiences of eleven countries in East Asia and Latin America (Argentina, Bolivia, Brazil, Chili, Hong Kong, Korea, Malaysia, Mexico, Singapore, Taiwan and Thailand) which are among the first developing countries to succeed in fostering enduring reforms. Their economic transformation, and the contribution of OECD countries to it, has produced exceptional benefits both for their own populations and for the world economy. No other publication to date gives such a broad perspective on the question of trade liberalisation.

(22 94 02 1) ISBN 92-64-14110-3, 226pp.
France: FF220; elsewhere: FF290 US$49 DM87

Transport

ECMT (European Conference of Ministers of Transport)

INTERNALISING THE SOCIAL COSTS OF TRANSPORT
May 1994

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See Tom Jones and Jack Short, 'The Economics of Transport Costs', **The OECD Observer**, No. 188, June/July 1994.

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Round Table 94

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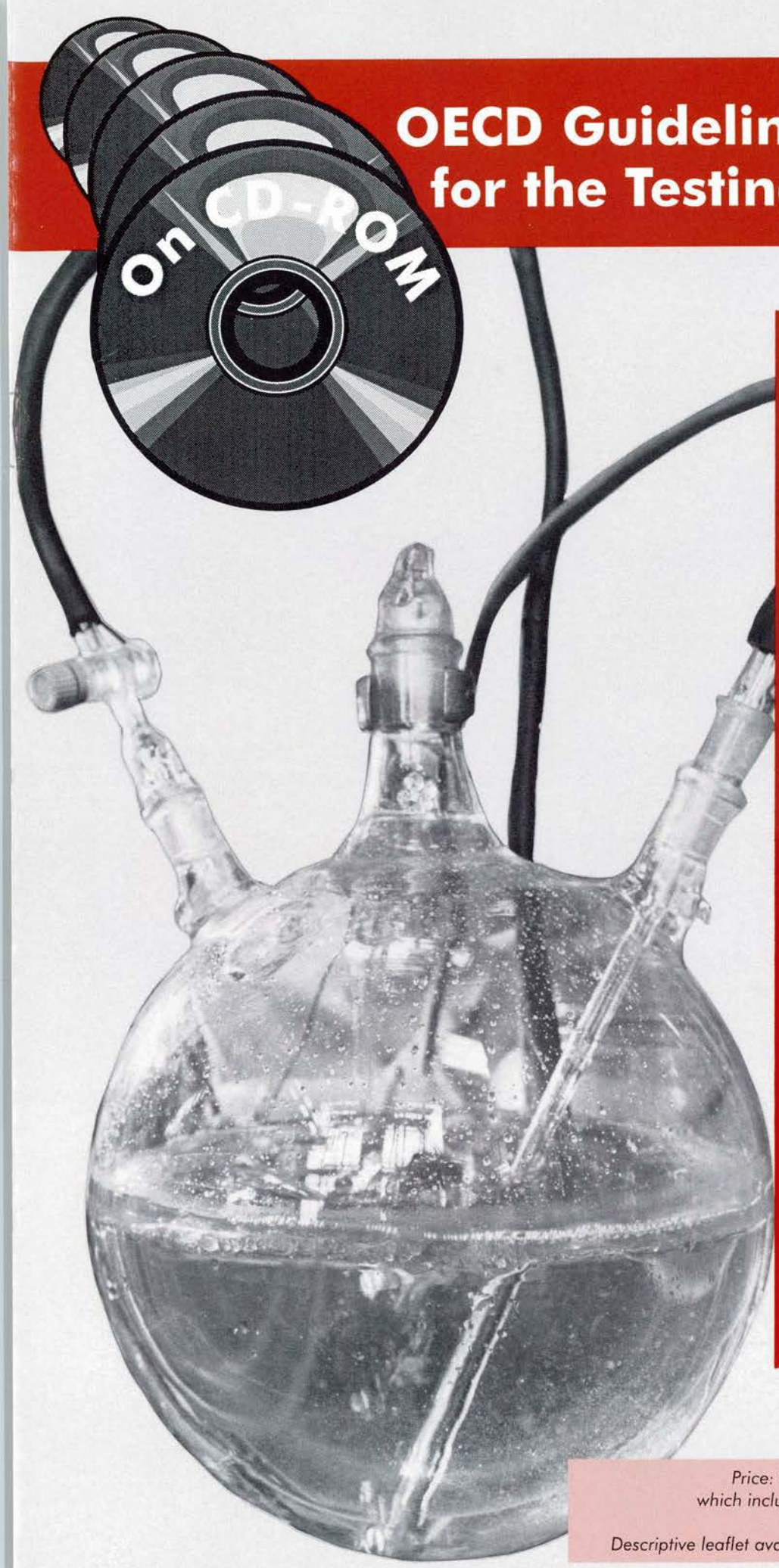

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OECD Council Meets at Ministerial Level

Communiqué

The Council of the OECD met on 7 and 8 June 1994 at Ministerial level. The meeting was chaired by Mr Bertie Ahern, Minister for Finance, Mr Dick Spring, Deputy Prime Minister and Minister for Foreign Affairs and Ms Eithne Fitzgerald, Minister of State at the Department of Finance, of Ireland. Vice-Chairmen were Mr Ferdinand Lacina, Federal Minister for Finance and Mr Wolfgang Schüssel, Federal Minister for Economic Affairs, of Austria, and Mr André Ouellet, Minister of Foreign Affairs, Mr Lloyd Axworthy, Minister of Human Resource Development and Western Economic Diversification, and Mr Roy MacLaren, Minister for International Trade, of Canada. Prior to the meeting, the Chairman led consultations with the Business and Industry Advisory Committee (BIAC) and the Trade Union Advisory Committee (TUAC) to the OECD; both organisations submitted statements for the consideration of Ministers.

Mexico, which has just acceded to the Convention on the OECD, after a process which has provided valuable experience, took part in the meeting as a full member for the first time. Ministers welcomed this event, seeing it as the beginning of a new phase in the OECD's development and look forward to Mexico's contribution to the work of the Organisation.

Promoting Growth and Employment

Ministers welcome the signs that the economic recovery, which began two years ago in some OECD countries, is taking root also in others and gradually gathering pace, allowing for an improved outlook for the rest of 1994 and 1995. However, Ministers recognise that further policy measures are necessary to realise the potential of OECD economies and to ensure an enduring decline in the number of jobless. Unemployment is an unacceptable waste of human potential, an ordeal for those concerned – especially young people and the long-term unemployed – and a threat to social cohesion. Member-country governments are therefore giving very high priority to combating unemployment and encouraging job creation.

Ministers endorse the main conclusions of the *OECD Employment/ Unemployment Study Policy Report.* They agree to implement its employment strategy recommendations within the context of their particular economic circumstances. They recognise that the present situation is attributable both to the effects of the recent recession and, significantly, to serious structural deficiencies, especially the inadequate and sluggish adjustment of member country economies to the rapid changes associated with technological progress, competition and globalisation.

The process of globalisation will enable a rapidly growing proportion of the world population to participate in and benefit from economic development and thus will contribute to world-wide prosperity. Recent technical advances and the expansion of trade and investment create vast new opportunities for OECD countries to expand employment. To do so requires them to be permanently innovative and able to adjust, constantly improving their economic efficiency. This is the way to ensure job creation and better standards of living. It is a challenge that member countries can and must meet.

Ministers agree that hindrance or reversal of globalisation, world-wide competition, technical progress or structural change, runs counter to the long-term interests of member countries. They reject protectionism of any kind, in order not to preserve artificially yesterday's jobs instead of preparing for those of tomorrow, including new well-paid jobs in emerging sectors. They endorse the OECD's analysis that to delay the necessary structural adjustment would be to go down a blind alley and make it more painful and costly.

Ministers also agree that their implementation of the employment strategy, in co-operation with the social partners in the light of national circumstances, depends on and must exploit the positive interaction between macro-economic and structural policies. By contributing to strong, sustainable and non-inflationary growth, macro-economic policy can create stable conditions which facilitate structural adjustment, private investment and job creation. By improving the adaptability and speed of adjustment of the OECD economies, and by creating a suitable climate for individual and corporate initiative, structural policies allow stronger sustainable growth without inflationary overheating.

To provide economic agents with a framework which gives the confidence and encouragement to move forward, macro-economic policy must pursue three interrelated objectives:

- reduce budget deficits over the medium-term
- ensure lasting price stability
- support demand as necessary and appropriate.

Member country governments need to be energetic in their efforts to reduce budget deficits and bring public debt and expenditure under

control. This need for fiscal consolidation conditions the policy actions described below. Various elements of this general problem can be emphasised: for example, that it affects all levels of government; the fiscal burdens of aging populations; or the need to control social expenditures or pension system liabilities (noting, *inter alia*, that accrued pension liabilities can amount to a significant share of overall public liabilities). But the shared broad objectives remain to realise high rates of saving and low long-term interest rates, thereby encouraging higher private investment. In addition, every effort must be made to improve the quality of budgets, by examining revenue and expenditure sides with a view towards optimising their impact on growth, structural adjustment, employment and productivity.

Ministers agree that monetary policy must continue to be anchored by its ultimate goal: strong, sustainable, non-inflationary growth. They recognise the different positions of the OECD economies in their economic cycles. Where recovery is well underway, monetary policy should remain vigilant in preventing the emergence of inflationary pressures, in a way which sustains recovery over the medium-term. Where recovery is not yet sustained, eased monetary policy should be maintained or the scope for further easing should be exploited as far as possible, without jeopardising prospects for price stability; where possible, consistent with the medium-term policy objective of budget consolidation, fiscal measures will be implemented as necessary to ensure sustained non-inflationary growth led by strong domestic demand. Continuation of exchange rate co-operation will further contribute to an economic climate favourable to growth.

Ministers recognise that even with improved growth prospects, OECD unemployment, which has an important structural component, is projected to fall only slowly, and that comprehensive labour-market and other structural reforms are therefore essential. The *Policy Report* covers a wide range of structural policies. To reduce unemployment, the aim must be to establish the conditions most conducive to innovation, private initiative and the creation of large numbers of jobs at all skill levels and to ensure that people are equipped to take these jobs. Enhanced labour-market flexibility helps to match people with jobs. In these ways member countries will be contributing fully to sustainable world economic development, while at the same time paving the way for continued improvement in the living standards and quality of life of their populations.

In shaping structural policies, member country governments will aim to:

- nurture an entrepreneurial climate which encourages the creation of new enterprises, often small and medium-sized, and the expansion and adaptation of existing firms, and enables firms to increase efficiency and employment
- ease regulations that discourage private initiative
- complement, as appropriate, private-sector initiatives to develop, disseminate and implement technological innovation, including information, communications and environmentally sound technologies
- further liberalise services markets and exploit to the full the job-creation potential of the services sector
- reduce the general level of subsidisation of enterprises, in particular, by refraining from subsidising out-of-date and uncompetitive production
- promote the expansion of public or private investments in modern infrastructures
- enhance the integration of economic and environmental strategies in all sectors.

Member-country governments also resolve to promote measures that can increase sustainable employment and help achieve both social equity and economic efficiency. With these ends in mind, they will seek:

- further to improve education and training systems, in each national institutional context and, where appropriate, in close co-operation with social partners, local authorities and private initiatives, so as to ensure that people can, throughout their lifetime, develop their knowledge and skills, thereby contributing to improved productivity and sustained high levels of growth
- to improve the functioning of labour markets by making them more flexible, with a view to achieving a better match between the supply of and demand for jobs, and by reducing impediments to labour mobility
- to make employment services more effective and, more generally, give high priority to active labour-market policies and programmes including those targeted to the long-term unemployed and youth
- to amend laws and regulations that discourage firms from taking on workers, or people from taking up work
- to co-operate closely with regional and local authorities towards enhancing employment opportunities at all skill levels, without neglecting services activities which can absorb unemployed workers in large numbers.

The implementation of these poli-

cies, which has begun in many member countries, calls for tenacity and effort. Sustained adjustment is necessary. As it occurs, the need for social cohesion should also be taken into account. Each government will seek to ensure, within the constraints of their specific circumstances, that there is an adequate social safety net for those who need temporary encouragement to adjust, as well as those who despite their efforts do not succeed in adapting; they should be afforded a decent standard of living and full participation in economic and social life.

The benefits to be reaped from this employment strategy are considerable. Renewed confidence will strengthen consumption and investment; productivity gains and innovation will fuel rising living standards; structural adjustment, by removing obstacles and making member countries' firms more competitive, will enable them to take full advantage of the enormous markets being opened up elsewhere in the world. Ministers stress that the success of this strategy to increase employment and reduce unemployment depends critically on initiative by individuals and firms, and their innovative and creative capacities; government action alone will not suffice.

Building on the *Policy Report* and the OECD's *Triennial Structural Review*, Ministers request the OECD to carry forward the work outlined below. This work should exploit fully the Organisation's multidisciplinary strengths within the framework of its committee structure. Ministers will have a first review of this follow-up programme at their 1995 meeting. The tasks include:

- to deepen and differentiate the analyses and priority policy recommendations of the *Policy Report* through cross-country analysis and by country
- to work with national and international statistical agencies to develop better data where deficiencies impede policy-making, to coordinate studies on the sources of job creation and job loss, and to develop analysis of the relationships between technology (including information technology), job creation and growth
- to use OECD's existing peer review structures to monitor collectively the implementation of policies adopted and, in particular, assess the effect of structural reforms on overall economic performance.

This work programme will also enable the OECD to respond in a timely way to the request of the G-7 Ministers for further analysis on the impact of technology and productivity on employment.

While economic growth and job creation in the OECD countries depend to a large extent on the macroeconomic and structural policies implemented, they are also shaped increasingly by growing inter-dependence with the rest of the world. The strengthening of the multilateral system and co-operation with non-member countries are prerequisites of the strategy adopted.

Strengthening the Multilateral System

OECD members celebrate the signing of the Uruguay Round Final Act and the establishment of a World Trade Organisation (WTO) as historic events which mark an important step towards a universal trading system, and will enhance world trade, leading to new opportunities for employment. The agreements concluded will substantially advance trade liberalisation, expand and strengthen the multilateral rules and disciplines governing international trade, and promote further non-inflationary growth in accordance with the objective of sustainable world-wide development.

Ministers undertake to:

- do everything to ensure that there are no delays in the ratification process and that the new WTO will enter into force on the 1 January 1995 target date
- avoid, during that process, any trade-restrictive or distortive measures that would contradict the letter or spirit of the new rules and disciplines under the WTO, and to conform to multilateral dispute settlement procedures
- make every effort to find, in a constructive spirit, mutually acceptable solutions to any trade-related problems in areas where multilateral rules do not exist, and to avoid initiatives and arrangements which are inconsistent with the principles of free trade or undermine the multilateral trading system
- implement within the agreed period and respect fully and effectively the rules and liberalisation commitments contained in the Uruguay Round package, conclude speedily the remaining negotiations in accordance with the Final Act, and try to implement their commitments in advance, when possible
- resist protectionism in all its forms and continue to work towards further trade liberalisation, proper functioning of market mechanisms, and deregulation.

The OECD will actively support the Preparatory Committee and the WTO in implementing the Uruguay Round agreements and their work programmes. Drawing upon its multidisciplinary strengths, the OECD also will continue to monitor and analyse areas where further progress with liberalisation and the strengthening

of the multilateral system may be required. The OECD work programme, which will involve co-operation with all relevant international organisations, will include:

• trade and environment, a high-priority area in which the analytical work already well underway will be further developed, with a report to be prepared for Ministers in 1995 containing substantive conclusions and a review of member governments' actions to implement the OECD procedural guidelines adopted by Ministers in 1993

• trade and competition law and policy, and trade and investment

• trade, employment and internationally recognised labour standards, including basic concepts, empirical evidence in trade and investment patterns, and current mechanisms for promoting higher labour standards worldwide. This work should lead to a report to Ministers in 1995.

The OECD will also contribute to strengthening the multilateral system by:

• continuing to monitor and analyse the progress of regional integration to ensure that it continues to complement and strengthen the multilateral system

• entering a new phase of work aimed at elaborating a multilateral investment agreement, with a report to Ministers in 1995

• continuing to strengthen transparency and discipline concerning officially supported export credits and export credit insurance. To this end, Ministers urge the Participants in the Export Credit Arrangement to agree to the latest Proposal from their Chairman on additional measures and future work, and report progress in 1995 on its implementation

• ensuring that there is no relaxation in the drive to reform agricultural policies on the basis of the principles agreed by Ministers in 1987 and in 1992

• contributing actively to the work underway at national and international levels to tackle environmental problems; Ministers re-affirm their commitment to work with non-member countries in a spirit of strengthened partnership for successful implementation of Agenda 21 and conventions related to sustainable development and to support the United Nations Commission on Sustainable Development to this end

• carrying further its analysis of the problems posed, in a globalised economy, by disparities in systems of taxation, which could distort the flows of goods, services and capital, and by completing its current review of the OECD Transfer Pricing Guidelines

• advancing the work on the convergence of competition laws and policies

• continuing analysis of subsidies and indicators of government assistance to industry

• completing the negotiation, which Ministers consider important, of an agreement respecting normal competitive conditions in the shipbuilding industry

• continuing its analytical work on migration trends and policies.

Ministers endorse:

• the OECD Council's Recommendation on Bribery in International Business Transactions, and they invite the Organisation to promote effective observance, by member countries and as many non-member countries as possible, of the principles laid down in the Recommendation

• the Decision of the Financial Action Task Force (FATF) to extend its work for a further five years, emphasising the importance of continued worldwide action against money-laundering.

The Role of the OECD in an Evolving World

Many non-member countries are gaining relevance in the world economy and are basing their development on market principles, pluralist democracy and respect for human rights, as the OECD countries have long done. Within the scope of its resources, the Organisation should continue to build up contact, dialogue and co-operation with these countries. Where mutual interest exists, it should open up to those of them which are both ready and able to assume all the responsibilities of membership.

Korea has established further close links with the Organisation and is now taking part in a number of activities on the same footing as member countries. Ministers welcome Korea's intention to make a formal application for membership this year with a view to becoming a member by the end of 1996 and invite the Organisation to examine the terms and conditions of Korea's membership as soon as Korea is ready to do so.

The four 'Partners in Transition' countries – the Czech Republic, Hungary, Poland and the Slovak Republic – have made substantial but varying headway, with the assistance of the OECD Centre for Co-operation with Economies in Transition (CCET), in moving towards a market system and integration into the world economy. All four have recently applied for membership of the OECD. Ministers welcome this and ask for an early start of negotiations with each of these countries to examine the terms and conditions of membership in order

to bring each of them into the Organisation as soon as each is ready and able to assume all the responsibilities of membership.

Ministers welcome the Declaration on Co-operation as well as the Agreement on Privileges and Immunities signed today between the OECD and the Federation of Russia, which mark the firm intention of both parties to deepen their existing active co-operation and policy dialogue. They hope that this co-operation will help to strengthen the ongoing transition process in Russia and contribute to the full and beneficial integration of this major country into the world economy.

The CCET should continue to make effective use of its available resources to provide support to other countries in Europe and Asia engaged in transition to a market economy, through a focused programme of activities. Ministers welcome the substantial efforts that these countries have made. They ask the Organisation to consider how to develop for Bulgaria, Romania and Slovenia, in the light of their recent requests to the Organisation, new country-specific programmes tailored to their particular requirements. They note that the other countries, in particular the Baltic States, may be interested in such country-specific programmes.

China has become in many respects a leading player in the world economy. The OECD will continue to broaden its knowledge and understanding of this country. Possibilities for dialogue and co-operation will be explored with China and developed where mutual interests exist.

Ministers express satisfaction with the continuing OECD dialogue with the Dynamic Non-Member Economies (DNMEs). They look to the informal high-level meeting with the DNMEs, to be held in Tokyo in October 1994, as a major opportunity jointly to explore ways to develop the dialogue. As the number of dynamic economies and major players in various sectors increases, it is important to provide possibilities for mutually beneficial dialogue with the OECD. For similar reasons, the Organisation will remain attentive to all possibilities for intensifying relations with regional groupings. Ministers encourage the Organisation to continue its study of economic and other linkages with major developing countries (other than the DNMEs).

Ministers also note that OECD contacts with countries in Latin America are increasing beyond those with Latin American participants in the DNME dialogue. They are pleased that, after Korea, Argentina and Brazil have joined the OECD Development Centre.

While an increasing number of developing countries are making encouraging economic and social progress, many others have yet to embark on the dynamic growth path. OECD governments are committed to continuing to bring support to the self-help efforts of these countries, especially the poorest, notably in sub-Saharan Africa, in building up economic and social infrastructures, and developing the human resources necessary for their economic growth and smoother integration into the world economy. Member countries are committed to give particular consideration to the interests of developing countries in implementing the Uruguay Round results and in dealing with new trade issues. Member countries will seek to assist the least developed countries to take advantage of the outcome of the Round. Basic economic and political reforms, especially those aimed at good governance, deserve particular support in partnership and dialogue with developing countries. Poverty, debt, hunger, disease, population growth, environmental, refugee and migration pressures in developing countries are all issues of global importance for sustainable development. In conflict and famine situations, special aid responses are required, and they should be integrated with the needs and strategies for long-term development. Recognising the importance of sustaining their efforts in this field, Ministers ask the OECD to address the issues of aid effectiveness, quality and volume as well as improved coherence of OECD member countries' policies.

■ ■

As the 21st century approaches, the world, now marked by generalised economic interdependence, holds great promise as well as risk. The OECD countries bear a special responsibility for ensuring that sustainable economic development and social progress are consolidated and extended. They intend to shoulder that responsibility and contribute to the full, through all their policies, towards further harmonious and constructive pursuit of the universally shared benefits offered by the process of globalisation. They look to the OECD to help them achieve this through its analyses, its identification at an early stage of upcoming issues and opportunities, its recommendations, and its monitoring of member countries' policies. ■

OECD Economic Outlook

Highlights

Table 1
GROWTH OF REAL GDP IN THE OECD AREA
%

	Share in total OECD	change from previous year			
	1991	1992	1993	1994	1995
United States	37.65	2.6	3.0	*4.0*	*3.0*
Japan	15.47	1.1	0.1	*0.8*	*2.7*
Germany	8.84	2.1	–1.3	*1.8*	*2.6*
France	6.83	1.2	–0.9	*1.8*	*2.9*
Italy	6.42	0.7	–0.7	*1.5*	*2.6*
United Kingdom	5.94	–0.6	1.9	*2.8*	*3.2*
Canada	3.46	0.7	2.4	*3.7*	*4.3*
Total of above 7 countries	84.62	1.7	1.3	*2.7*	*2.9*
Austria	0.89	1.6	–0.3	*1.8*	*2.7*
Belgium	1.13	1.4	–1.3	*1.5*	*2.6*
Denmark	0.59	1.2	1.2	*4.0*	*3.5*
Finland	0.51	–3.8	–2.6	*1.9*	*4.7*
Greece	0.52	0.9	–0.1	*1.0*	*1.6*
Iceland	0.03	–3.4	0.8	*–0.6*	*1.4*
Ireland	0.27	4.9	2.3	*4.1*	*4.5*
Luxembourg	0.05	1.8	0.3	*1.5*	*2.6*
Netherlands	1.63	1.4	0.2	*1.4*	*2.8*
Norway	0.47	3.4	2.2	*4.3*	*2.9*
Portugal	0.59	1.1	–0.5	*1.2*	*2.3*
Spain	3.26	0.8	–1.0	*1.2*	*2.7*
Sweden	0.96	–1.9	–2.1	*2.7*	*2.9*
Switzerland	0.98	–0.1	–0.6	*1.5*	*2.5*
Turkey[1]	1.33	5.8	6.8	*0.6*	*4.3*
Total of above 15 countries	15.38	1.2	0.2	*1.7*	*2.9*
Australia	1.85	2.1	4.1	*4.0*	*4.3*
New Zealand	0.31	–0.4	4.8	*3.9*	*3.5*
Total of above 17 countries	17.54	1.3	0.8	*2.0*	*3.1*
Total OECD	100.00	1.7	1.2	*2.6*	*2.9*
OECD Europe	41.26	1.1	–0.2	*1.9*	*2.8*
EC	36.09	1.0	–0.4	*1.9*	*2.8*
Total OECD *less* the United States		1.1	0.2	*1.8*	*2.9*

Figures in *italics* are projections.
1. GNP.

Economic growth in the OECD area as a whole is steadily gathering strength. OECD activity could expand by over 2½% in 1994 and close to 3% in 1995 (Table 1). Where recoveries are well established (North America, the United Kingdom, Australia and New Zealand), output continues growing at a healthy pace, and unemployment is falling (Table 2). Recovery is becoming apparent in an increasing number of continental European countries. For continental Europe as a whole, however, the pick-up of domestic demand is modest; and, despite a significant boost from net exports, GDP growth is unlikely to be sufficient to reduce the unemployment rate until 1995. In Japan, recent indicators are encouraging. Domestic demand should strengthen progressively this year and could expand relatively rapidly next; output growth in Japan will nonetheless probably remain weak because of a continued decline in net exports due to the appreciation of the yen. Inflation is projected to remain low, declining somewhat in Europe and picking up slightly in North America (Table 3).

Recovery must be sustained; this is not the time for any relaxation of policy effort. Attention should be concentrated on ensuring that the longer-term setting of policy is aimed effectively at achieving fundamental economic and social goals.

A Growth-oriented Approach to Policy

OECD economies must expand more rapidly than over the past two decades if they are again to become high-employment societies with steadily rising national living standards. The challenge is to raise economies' capacity to grow, i.e., their 'supply potential'. Individual aspirations for high living standards and agreed social needs are such that there is no basic secular deficiency of demand in OECD countries, even though there may be periods in which effective demand is cyclically weak. However, growth-inhibiting rigidities have increased considerably over the past two decades or so, making the OECD recovery more inflation-prone. The ways in which most OECD countries sought to extend and deepen social protection have played an important role in this respect. Increasing inflexibility has weakened the pace at which output potential and overall living standards could rise, making it increasingly difficult to achieve social goals, and contributing significantly to rising unemployment.

Faster growth of out put and productivity economy-wide, as well as high employment, would provide the economic basis for improved social cohesion. Achievement of these goals requires appropriate macro-economic and structural policies. A common element in both sets of policies is the provision of a framework in which economic agents have the greatest possible scope and incentive – and also the ability – to innovate, adapt and work.

Experience over the post-war period shows that macro-economic policy has an asymmetric influence. While bad macro-economic policy always results in bad economic performance, good macro-economic policy does not, by itself, guarantee good overall economic performance. It must be combined with structural policy reforms if fundamental goals of a sustained expansion of living standards with much lower unemployment are to be achieved.

The key elements of 'good' macro-economic policy are:

• Improving public finances. Budget deficits have weighed increasingly adversely on economic performance by pre-empting national saving, raising interest rates through the build-up of public debt and impeding private-sector investment. Continuing efforts towards fiscal consolidation should set the stage for sound public finances consistent with better overall economic performance over the longer term. The greater scrutiny of public expenditure, aimed at improving its quality, will also support better performance. As economies recover, it is important to take the crucial lesson from recent history and avoid the temptation to relax the commitment to an underlying improvement in public finances as deficits fall in response to strengthening activity.

• Keeping inflation under control. Most OECD countries have achieved low inflation or effective price stability. It is essential to build on this to establish firmly the credibility of policy geared to maintaining price stability over the longer term. With inflation uncertainty eliminated, investors and consumers can take decisions in a context of clear

Table 2
UNEMPLOYMENT IN THE OECD AREA[1]

	thousands	% of labour force			
	1991	1992	1993	1994	1995
United States[2]	8,443	7.4	6.8	*6.3*	*5.8*
Japan	1,360	2.2	2.5	*2.9*	*2.8*
Germany	2,602	7.7	8.9	*10.0*	*10.0*
France	2,361	10.4	11.7	*12.3*	*12.2*
Italy[3]	2,654	11.6	10.4	*11.7*	*11.9*
United Kingdom	2,346	10.0	10.3	*9.6*	*8.9*
Canada	1,417	11.3	11.2	*10.8*	*10.2*
Total of above 7 countries	21,182	7.3	7.3	*7.4*	*7.1*
Austria	125	3.6	4.2	*4.5*	*4.6*
Belgium	391	10.3	11.9	*12.8*	*12.7*
Denmark	296	11.2	12.2	*11.0*	*10.5*
Finland	193	13.1	17.9	*18.5*	*17.7*
Greece	301	8.7	9.8	*10.7*	*11.0*
Iceland	2	3.0	4.3	*6.0*	*6.2*
Ireland	210	16.3	16.6	*15.7*	*15.4*
Luxembourg	2	1.6	2.1	*2.7*	*2.5*
Netherlands	490	6.7	8.1	*9.8*	*9.5*
Norway	116	5.9	6.0	*5.6*	*5.2*
Portugal	198	4.2	5.5	*6.4*	*6.9*
Spain	2,464	18.4	22.7	*24.5*	*24.4*
Sweden	122	5.3	8.2	*8.0*	*7.8*
Switzerland	39	2.5	4.5	*4.5*	*3.8*
Turkey[4]	1,547	7.9	8.7	*12.6*	*14.0*
Total of above 15 countries	6,496	9.6	11.5	*13.2*	*13.5*
Australia	815	10.7	10.9	*10.0*	*9.2*
New Zealand	167	10.3	9.2	*8.7*	*8.1*
Total of above 17 countries	7,479	9.7	11.4	*12.8*	*12.9*
Total OECD	28,660	7.8	8.2	*8.5*	*8.3*
OECD Europe	16,458	9.6	10.7	*11.7*	*11.8*
EC	14,314	10.3	11.3	*12.0*	*11.9*
Total OECD *less* the United States	20,218	8.0	8.8	*9.5*	*9.5*

Figures in *italics* are projections.
1. Commonly used definition.
2. Break in series from January 1994.
3. Break in series in 1991 and 1992.
4. The figures incorporate important revisions to Turkish data.

Table 3
PRIVATE CONSUMPTION DEFLATORS IN THE OECD AREA
%

	change from previous year			
	1992	1993	1994	1995
United States	3.3	2.7	*2.1*	*3.1*
Japan	2.1	1.0	*0.3*	*0.3*
Germany	4.7	4.0	*3.1*	*1.9*
France	2.4	2.1	*1.7*	*1.4*
Italy	5.3	4.8	*3.9*	*3.0*
United Kingdom	4.8	3.5	*2.9*	*2.9*
Canada	1.1	1.5	*0.7*	*2.1*
Total of above 7 countries	3.3	2.6	*2.0*	*2.3*
Austria	3.8	3.6	*2.7*	*2.1*
Belgium	2.1	2.8	*2.4*	*2.2*
Denmark	2.1	1.5	*2.0*	*2.6*
Finland	4.2	3.7	*1.5*	*2.0*
Greece	14.6	14.0	*10.8*	*9.0*
Iceland	4.9	4.9	*1.3*	*0.7*
Ireland	2.6	1.9	*2.5*	*2.5*
Luxembourg	2.8	3.5	*2.8*	*2.5*
Netherlands	3.0	2.1	*2.1*	*2.0*
Norway	2.6	1.9	*1.4*	*1.8*
Portugal	9.8	6.7	*5.7*	*4.4*
Spain	6.4	5.1	*4.5*	*3.4*
Sweden	2.6	6.1	*2.4*	*3.3*
Switzerland	4.1	2.9	*1.0*	*2.5*
Turkey	56.2	51.9	*106.0*	*82.0*
Total of above 15 countries	10.0	9.1	*13.6*	*11.0*
Australia	1.7	1.9	*1.8*	*2.5*
New Zealand	1.0	1.4	*1.0*	*1.8*
Total of above 17 countries	8.8	8.1	*11.9*	*9.8*
Total OECD *less* Turkey	4.2	3.5	*3.5*	*3.4*
OECD Europe	6.1	5.4	*6.3*	*5.0*
OECD Europe *less* Turkey	4.4	3.8	*3.0*	*2.5*
EC	4.5	3.8	*3.1*	*2.5*
Total OECD *less* the United States	4.7	4.0	*4.4*	*3.6*

Figures in *italics* are projections.

relative price signals. This will contribute to the efficient allocation of resources.

• Ensuring coherence of fiscal and monetary policies. It is particularly important to avoid a situation in which monetary policy, aiming at the objective of underpinning price stability, is overburdened because of an inconsistent fiscal-policy setting. Moreover, even with coherent, appropriately set macro-economic policies, patience is typically required because it takes time to unwind imbalances. Trying to force the pace, through macro-economic stimulus beyond the adaptive capacity of the economy, would only be counterproductive.

• Achieving consistency of policies and the exchange-rate regime. Within essentially fixed exchange-rate systems, appropriate macro-economic policies must be supported by structural policies. These should aim to ensure that wage and price adjustments provide sufficient flexibility in responding to shocks to make commitments to fixed exchange rates credible and viable. Where exchange rates are floating, currency movements resulting from divergent monetary policy actions that are appropriate domestically should be accepted, so long as they remain within reasonable limits.

• Supporting macro-economic policy with a further liberalisation of the multilateral trading system. Governments must be seen to be engaging in co-operative efforts to ensure that the implementation of macro-economic policies does not lead to tensions, not only in the exchange markets but also in trade matters, to avoid undermining business and consumer confidence. It is particularly important that the Marrakesh agreement, which concluded the Uruguay Round negotiations, be implemented fully and rapidly.

Actions to reduce unemployment significantly have been reviewed extensively by the OECD in carrying out the mandate received from Ministers in 1992 to examine the reasons for and the remedies to the disappointing progress in dealing with unemployment. Although the structural-reform recommendations presented to Ministers and published under the title *The OECD Jobs Study* focus on unemployment, many of them would help to improve economic performance more generally.

Current Macro-economic Policy Requirements

During the recent downturn, general government budget positions weakened by the equivalent of 3% of GDP on average in the OECD area. While the deterioration was partly due to the recession, a third to a half appears to have been structural. OECD governments recognise the need for action to restore balance to public finances, and

Table 4
CURRENT BALANCES IN THE OECD AREA
% of GDP

	1992	1993	1994	1995
United States	–1.1	–1.7	*–2.1*	*–2.1*
Japan	3.2	3.1	*2.8*	*2.5*
Germany	–1.1	–1.1	*–0.7*	*–0.2*
France	0.3	0.9	*1.4*	*1.6*
Italy	–2.2	1.3	*2.0*	*2.5*
United Kingdom	–1.4	–1.7	*–2.1*	*–2.3*
Canada	–4.0	–3.5	*–3.2*	*–2.8*
Total of above 7 countries	–0.2	–0.1	*–0.1*	*–0.2*
Austria	–0.1	–0.5	*–0.6*	*–0.6*
Belgium-Luxembourg	2.9	4.9	*5.1*	*5.4*
Denmark	3.3	3.9	*2.6*	*2.5*
Finland	–4.6	–1.2	*3.0*	*3.7*
Greece	–2.8	–1.0	*–1.3*	*–1.6*
Iceland	–3.1	0.1	*0.3*	*0.2*
Ireland	5.3	5.7	*5.5*	*5.7*
Netherlands	2.1	2.8	*3.3*	*3.5*
Norway	2.5	2.3	*2.2*	*2.9*
Portugal	–0.2	1.4	*2.2*	*2.1*
Spain	–3.2	–0.8	*–0.5*	*–0.8*
Sweden	–2.1	–0.2	*2.8*	*4.0*
Switzerland	6.2	8.0	*7.3*	*6.8*
Turkey[1]	–0.8	–5.5	*–2.3*	*–2.5*
Total of above 15 countries	0.3	1.6	*2.3*	*2.4*
Australia	–3.7	–3.8	*–3.9*	*–4.3*
New Zealand	–2.2	–2.1	*–1.2*	*–0.5*
Total of above 17 countries	–0.2	0.9	*1.5*	*1.5*
Total OECD	–0.2	0.1	*0.1*	*0.1*
OECD Europe	–0.7	0.3	*0.7*	*1.0*
EC	–0.9	0.1	*0.5*	*0.7*
Total OECD *less* the United States	0.2	1.0	*1.2*	*1.2*

Figures in *italics* are projections.
1. GDP.

most countries have embarked on medium-term programmes to reduce deficits. There has been a steady tightening of fiscal stance throughout the OECD area since last year, the notable exception being Japan, and budget positions should improve as recoveries become established in more countries.

There are no grounds for complacency. If the recovery is sustained at an average annual growth rate of 2½ to 3% over the remainder of the decade, implementation of present plans is likely to narrow general government deficits significantly, perhaps to between 1 and 2% of GDP in 2000. However, this would be sufficient only to stabilise gross public debt relative to GDP during the period to the end of the century, and in most countries at very high levels: some 70–75% for the OECD as a whole, compared with below 60% in the late 1980s. Furthermore, were there significant slippage in implementing consolidation programmes, or were growth not sustained, the situation could be substantially worse. Only slightly lower growth – by half a percentage point per year – could lead to debt levels in 2000 averaging close to 85% of GDP.

With the room for manœuvre on fiscal policy severely circumscribed, monetary easing has been the motor of OECD economic recovery – although a series of fiscal stimuli have also been adopted by Japan. Short-term interest rates fell significantly from the peaks in the late 1980s or early 1990s to more recent troughs (or most recent observations): by 6 to 7 percentage points in the United States and Japan; by around 5 to 10 percentage points in most continental European countries; and by around 10 percentage points or more in the United Kingdom, Canada, Australia, Finland and New Zealand. Peak-to-trough falls in long-term interest rates, although smaller, have also been substantial.

More recently, however, long-term interest rates have risen across countries. This started in the United States in October last year, in Japan in early January, and followed in most other countries from the end of January. Policy implications depend on the relative importance attached to different causes of these developments:

- insofar as the rise in long-term interest rates reflects an improvement in long-run growth expectations and higher expected returns on business investment over time, it may have no special implications for policy
- insofar as it reflects an increase in inflation expectations or a slippage in the pace of fiscal consolidation and the prospect of higher public debt relative to national and global saving, a firmer hand on the relevant policy lever – monetary or fiscal – is called for
- insofar as it reflects the perception of higher risks involved in long-term financial investments associated with greater uncertainty about the future course of domestic or external policies, there may be a need to articulate policy intentions more effectively in order to stabilise the expectations of domestic and international investors in bond markets
- insofar as the earlier declines and recent increases in bond yields reflect short-run erratic and reversible factors and have been taken by corporate and other borrowers as such, this would not affect economic activity, and hence would not require policy response. To the extent that the earlier decline in long-term interest rates had begun to be built into real economic decisions by prospective borrowers, the reversal could inhibit recovery and thus could call for a relatively easier stance of monetary policy (i.e., less rapid tightening or greater easing than earlier envisaged), if this could be achieved without additional upward pressure on long-term rates.

These considerations, together with the implications of different cyclical positions among major countries, point to differing policy requirements:

- the United States, where recovery is relatively strong and the margin of spare capacity is possibly the least of all OECD countries, has already begun to move to the more 'neutral' monetary policy stance necessary to guard against inflation pressures that would otherwise threaten sustained recovery; continuing efforts to convince the markets of the monetary authorities' readiness to adjust the monetary policy stance as necessary to keep inflation under control could contribute to the stability of market conditions and help to sustain non-inflationary growth
- in other countries where recoveries are under way, margins of spare capacity are larger than in the United States, but the forces which have led to tighter monetary conditions there are likely to come increasingly into play
- in countries where activity is still weak, easy monetary conditions should be maintained; further cuts in short-term interest rates could be envisaged, depending on how weak recovery is likely to be, how inflation prospects are viewed and whether it is judged that action on short-term interest rates can be taken without increasing the pressure on long-term interest rates.

In all countries, insofar as real long-term interest rates are considered to be too high, the solution is more likely to be found in more ambitious reduction of budget deficits.

13 June 1994