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Technology and Industry

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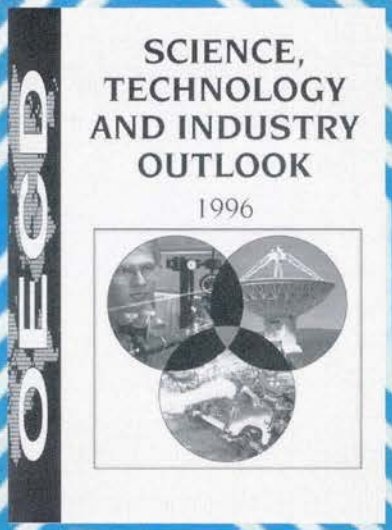

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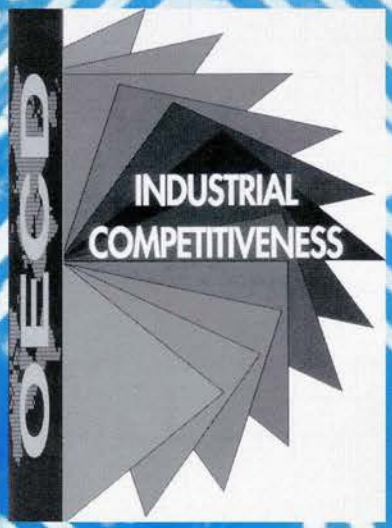

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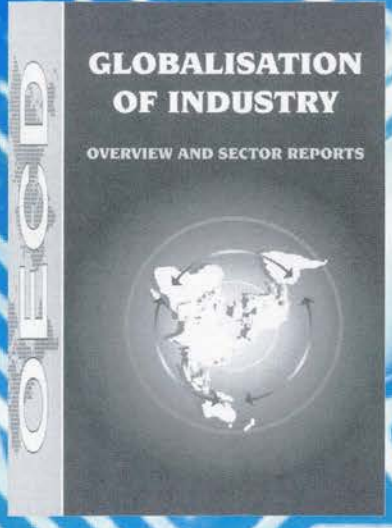

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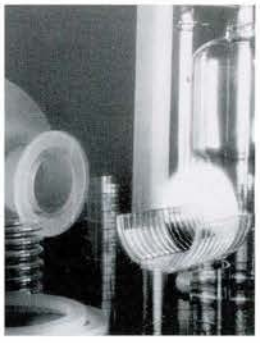

The rapid diffusion of modern technologies has combined with globalisation to change the nature of competition: it now takes place not between one country's industries and another's but on a world scale. That undermines the raison d'être of many remaining policies of state support.
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A New Role as Technology

Donald J. Johnston,

In the early 1980s I had the privilege of holding two important portfolios in the federal government of Canada – Science and Technology, and Economic and Regional Development. Addressing the role of government in those days was even more complex than today as we struggled with the legacy of the 'government knows best' mentality still supported by many active politicians and the reality of limited resources and a mounting inventory of disastrous interventions. Where was the proper balance to be found between private-sector research and development and public-sector support?

Now there is a pronounced and evident leaning to less and less government intervention, but that does not mean it has no role. On the contrary, I see a significant role for government today, as I did then, in ensuring the diffusion of technologies developed anywhere on the globe from which domestic industries could benefit. This is especially true of small and medium-sized enterprises which have limited knowledge of such new technologies. National governments in the OECD have the capacity, through their science and commercial experts in foreign capitals, to follow these technological developments and ensure in turn that information systems are in place to permit their diffusion to domestic industries.

Direct subsidies to domestic industries, by contrast, will enjoy a progressive and justified demise as global free trade becomes a reality. And although government procurement is nonetheless a very effective way of stimulating research and development, it too must be opened up to foreign competition. We are seeing this happening but it will take time. Otherwise we will lose the 'magic' of the market-place – that unending spiral of the conversion of goods and services to capital and the latter, usually married with innovation, to more goods and services in what we call economic growth.

As free trade truly becomes free and global, technological innovations will become increasingly important, offering consumers more and more options at cheaper prices all over the globe. We will see Schumpeter's theory of 'creative destruction' on a scale never before imagined

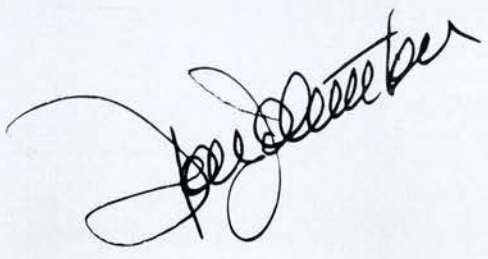
for Government and Trade Evolve?

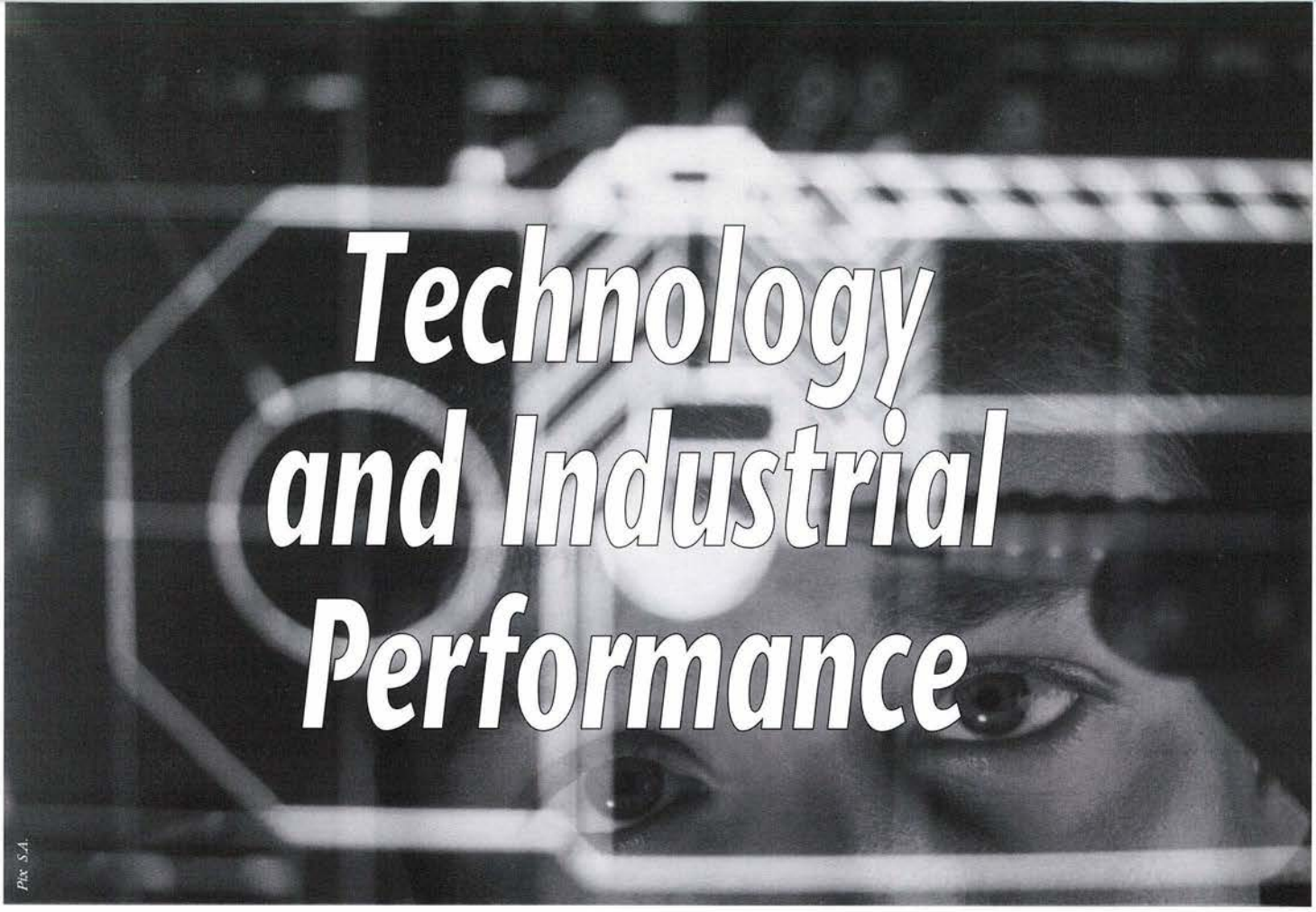
Secretary-General of the OECD

as the producers of goods and services compete for the choices of consumers. We have already seen many examples of it. Several come to mind as personal recollections. When I was a student the Wilkinson Sword hit the market; to our astonishment one could have more than one shave with a razor blade. The industry has never been the same since. The same is true of the influence of Japanese car-makers on the products of the United States and Europe. Cameras, sound systems, television sets: the list may seem endless, but it is nothing compared to what lies ahead in a true global market-place.

In this new world, what is the role of government to be? I have offered a few thoughts based on my own experience and observation, and this edition of The OECD Observer *offers some rich material from some of our experts who are pursuing these important questions. The explosion of free trade has dramatically shifted the paradigm. In the past governments saw themselves as helping domestic industry to compete in the rough and tumble of international trade. Today, and more so tomorrow, governments must recognise that it is individual firms which are competing in an international market place, not one country's industry against that of another. Support programmes to industry must be designed accordingly. They cannot be allowed to prejudice the concept of 'the level playing-field'. The first two articles in this issue, treating the role of technology in industrial performance and examining the extent of state support to industry, should be read in this light.*

The old saying 'Build a better mouse-trap and the world will beat a path to your door' is truer than ever. But to what extent should the state help you build that better mouse-trap? If any help is appropriate, what form should it take? In the age of globalisation these are important questions.





PIX S.A.

George Papaconstantinou

Designing appropriate policies for innovation and technology requires an understanding of how technology is generated and diffused. The OECD has examined this process across industries and countries, its impact on productivity, on employment and skills, and the role of technology in shaping international competitiveness.[1]

The capacity of firms to innovate depends on a multitude of factors, not least the efforts they make to create new products or improve production processes, the extent of skills in their work force, their ability to learn, and the general environment within which they operate. Of all the innovation-related activities of firms – research and development (R&D), design, marketing, 'tooling up', acquisition of patents and licenses, hiring of skilled personnel – R&D expenditures are particularly important, and their volume and intensity help determine both gains in productivity and success in international markets.

In the OECD economies, more than half of all R&D spending is financed by industry, and two-thirds of all R&D investment is performed in the business sector. Although the services sector is responsible for an increasing share of R&D, most new technologies are developed in the relatively small number of high-technology manufacturing industries, not least computers, semiconductors, pharmaceuticals and aerospace.

Yet it is less the invention of new products and processes and their initial commercial exploitation which generate major economy-wide benefits than their timely and widespread diffusion and use. The economic performance of most manufacturing and services industries depends on putting technology to work by adopting and using ideas and products developed elsewhere. Of all sectors in the economy, it is the services that are the heaviest users of technology (Figure 1): services industries as diverse as social and personal services, finance and insurance, transport and communications are the main acquirers of technologically sophisticated machinery and equipment.

The rapid increase in the international transfer of technology reinforces the importance of understanding the process of technology diffusion. The share of technology obtained through imported intermediate and capital goods has increased over time in most OECD countries. In general, larger countries obtain less of their technology from abroad than smaller ones, which depend on imports for more than half – although some large countries, such as Canada and the United Kingdom, also obtain more than 50% of their acquired technology from abroad. For most countries, the United States is the main source

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of imported technology (especially for computers and aerospace); for the United States, the dynamic Asian economies and Japan are the most important (Figure 2, p. 8).

The bulk of technology acquired in OECD countries comes from the information technology (IT) 'cluster' of industries (computers, communication equipment and semiconductors, electrical machinery, instruments), although the materials cluster (chemicals, basic metals, rubber, plastics) is also important (Figure 3, p. 8). The role of IT has increased over time, and it is the fastest-growing cluster.

Specific types of technology tend to gravitate to specific sectors: IT to advanced manufacturing, communication services, finance, insurance and real estate; consumer-goods technology to wholesale and retail trade; materials technology to agriculture and to less advanced manufacturing; and fabrication technology (metal products, non-electrical machinery) to mining, utilities and construction.

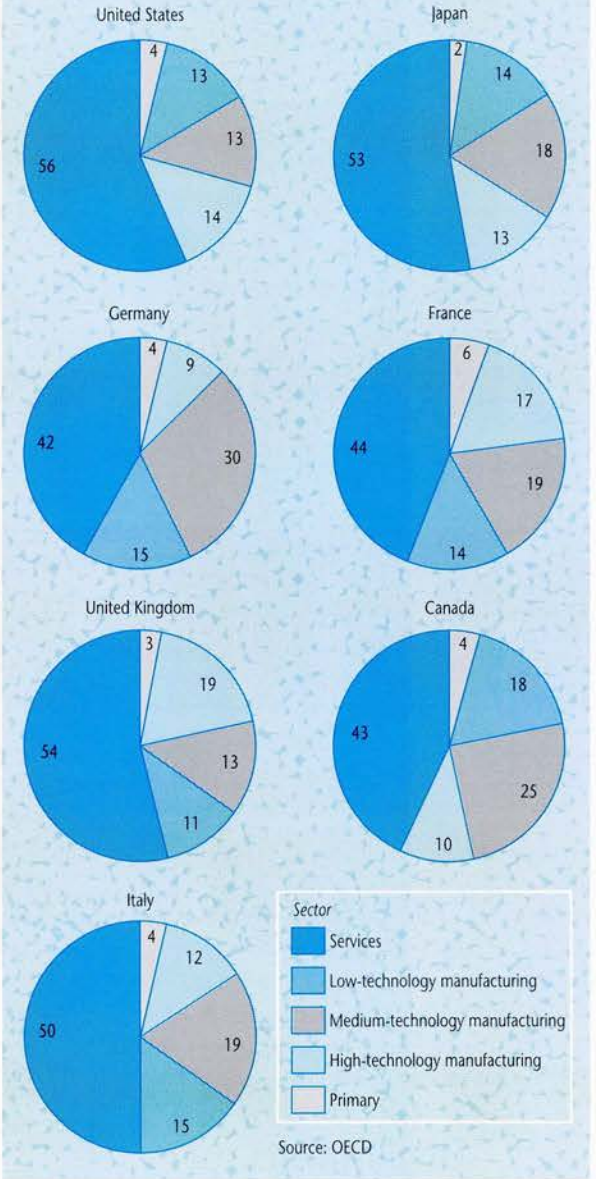
What Effects on Productivity?

The development of new products and processes is crucial for improvements in productivity. But innovating firms are not the only ones to profit from successful innovations; instead, as these advances are diffused, they ultimately contribute to higher productivity, competitiveness, employment and standards of living in the economy as a whole. Diffusion shapes productivity through several channels: the purchase of technologically sophisticated machinery, equipment and components; the acquisition of licenses or patents that enable one to use ideas developed elsewhere; or the simple borrowing of ideas and expertise. But at the same time an innovative effort of one's own is important to allow the benefits of outside technology to be enjoyed, since one of the functions of R&D is to help firms learn.

Empirical results on the import-ance of R&D and of technology diffusion for productivity growth in manufacturing and services during the 1970s and '80s in ten OECD countries – the G7 group, Australia, Denmark and the Netherlands – show a contrasted picture. In manufacturing, growth in productivity can be traced mainly to the R&D expenditures made by industries themselves, in particular in the machinery sector of manufacturing. In contrast, for the services, it is technology diffusion that matters. Productivity growth in services, and in particular in the information and communications technologies (ICT) segment (comprising transport and communication services, finance, insurance, real estate and business services), benefited considerably from the purchase of technologically sophisticated intermediate and investment goods from the manufacturing sector.

Analysis of these results also confirms the importance of foreign R&D for productivity growth. Gains in the ICT segment of services can be traced to the increasing international procurement of electronic investment goods and to the world-wide process of technology diffusion. Domestic technology flows are more important for productivity growth in large countries such as Japan and the United States and, to a lesser extent, Germany. In countries such as Australia, Canada, Denmark and the Netherlands, technology obtained through imported intermediate and capital inputs is more important.

Figure 1
Technology Diffusion in the G7 Countries, 1993
% of total embodied technology in different sectors



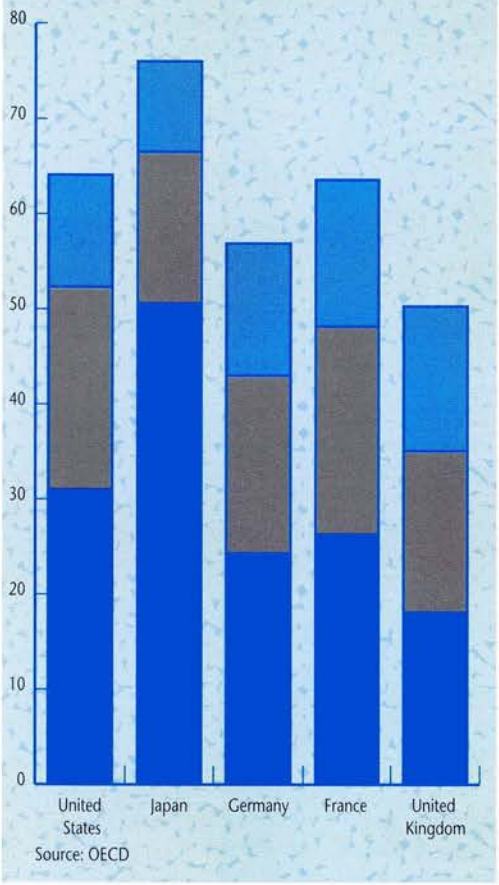
Source: OECD

Rapid technological advance has for some time now in OECD countries co-existed with lower productivity growth, as measured from aggregate statistics. This apparent inconsistency has given rise to the so-called 'Solow paradox' (named after the American economist Robert Solow, who coined the phrase 'we see computers everywhere but in the productivity statistics'). The aggregate data sit uneasily with increasing evidence from firms in a number of countries that it is the companies which develop new products and processes or which adopt efficiently new technologies developed by others that enjoy the fastest growth in productivity. Such evidence suggests that perhaps the key to the

1. ***Technology and Industrial Performance***. *OECD Publications, Paris, forthcoming 1997.*

Technology and Industrial Performance

Figure 2
Imported Technology by Country of Origin, 1993
%



paradox is the mismeasurement of both productivity and of the impact of technology in the largest segment of the economy, services. The OECD's analysis goes some way in remedying this inaccuracy: it shows that the impact of technology diffusion in services is large and expanding, and thus suggests that technology has growing benefits for the economy as a whole.

Employment and Skills

The impact of technology on employment in firms, industries or whole economies is the result of a complex set of relationships. The direct displacement of jobs because of new technologies is compensated by indirect offsetting factors through higher wages, incomes, profits and investment. But the adverse and beneficial effects do not coincide in time or space; the costs tend to be concentrated in the short term and affect particularly certain workers, industries and regions, while the benefits tend to be more medium and long-term and also more diffuse.[2]

Technology both destroys and creates jobs. But, beyond net gains or losses in employment, it is increasingly apparent that workers with different characteristics are affected differently.[3] In most OECD countries, the employment of high-skilled workers has increased faster than that of low-skilled workers, at an average rate of 2–3% during the 1980s (Figure 4). White-collar, high-skill occupations (officials, managers, professionals, technicians and the like) have tended to grow the fastest. In practically all countries where jobs in manufacturing declined in the 1980s, those in white-collar high-skill manufacturing increased. In the services, by contrast, the employment increase in most countries entails increases in both high- and low-skill white-collar jobs.

The decline in the wages or employment opportunities of unskilled workers as well as improvements in the pay or opportunities of skilled or 'knowledge' workers have been attributed largely to technical progress.[4] An examination of the role of technology in explaining the growth of the skill-base in the G7 countries in the 1980s shows a direct relationship between 'upskilling' and technical change: industries which invested more in research and were more innovative tended to acquire more human capital during the period examined. This suggests that accumulation of skills and innovative effort

2. George Papaconstantinou, 'Technology and Jobs', ***The OECD Observer***, No. 194, June/July 1995.

3. Graham Vickery and Gregory Wurzburg, 'Flexible Firms, Skills and Employment', ***The OECD Observer***, No. 202, October/November 1996.

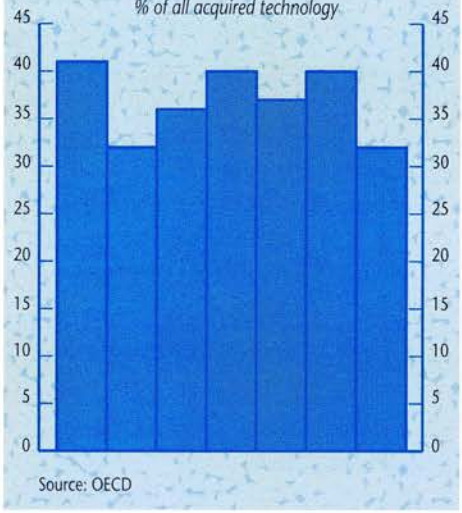
4. Candice Stevens, 'The Knowledge-based Economy', ***The OECD Observer***, No. 200, June/July 1996.

5. Jean Guinet and Hiroko Kamata, 'Do Tax-incentives Promote Innovation?', ***The OECD Observer***, No. 202, October/November 1996.

6. Riel Miller and Gregory Wurzburg, 'Investing in Human Capital', ***The OECD Observer***, No. 193, April/May 1995.

7. Jean-Claude Paye, 'Strategies for a Learning Society', Edwin Leuven and Albert Tuijnman, Life-long Learning: Who Pays?', and Abrar Hasan and Albert Tuijnman, 'Linking Education and Work', ***The OECD Observer***, No. 199, April/May 1996.

Figure 3
The Size of the Information-technology Cluster, 1993
% of all acquired technology



act jointly to raise economic performance. Moreover, technology affects the accumulation of human capital either directly through R&D investment or indirectly through technology diffusion. In the high-technology sectors, which by definition have a higher intensity of R&D expenditure, direct R&D plays a major role. Human-capital formation in low-technology manufacturing sectors, by contrast, benefits considerably from imported technology.

International Competitiveness

International trade has been transformed in recent years: new patterns of specialisation, increasing intra-industry and -firm trade and complex patterns of international sourcing are all characteristic of the globalisation of industrial activities and trade. Technology is central to this process; it is both what has allowed many of these developments to take place, and it is a competitive tool in itself, since innovation and the successful adoption of technology are essential for success in international markets.

High-technology exports now constitute about a quarter of OECD manufactured exports, a share that increased considerably during the 1980s, at the expense of low-technology products (Figure 5, p. 10). Individual products which made impressive gains were computers and semiconductors, telecommunication equipment, pharmaceuticals and scientific instruments; air-

craft have also made important gains in market shares since 1980.

There is little empirical evidence on how R&D and technology diffusion affect the contribution of individual industries to national shares in export markets. Empirical analysis of the impact of changes in price (such as movements in exchange or wage rates) and non-price or technology-related factors (such as R&D or technology diffusion) on the export performance of given industries indicates that an initial presence in high-growth markets is important and self-sustaining. This result draws attention to the importance of managerial decisions on the choice of geographical markets and of medium-term investments in export networks.

But the main conclusion of such analysis is that the determinants of export performance vary substantially from one industry to another. R&D helps competitiveness in high-technology industries but also in many others. Non-technology variables (low wage-growth, say, or favourable exchange-rate movements) play an important role in industries where substitutability between products is high and/or which export low-technology products (such as textiles, metal products or non-metallic minerals). A country-by-country analysis suggests that technological factors were the driving force behind the export competitiveness of Japan and, to a certain extent, the larger European economies. Export competitiveness in Canada and the United States, by contrast, benefited principally from favourable developments in wage and exchange rates.

What Change for Policy?

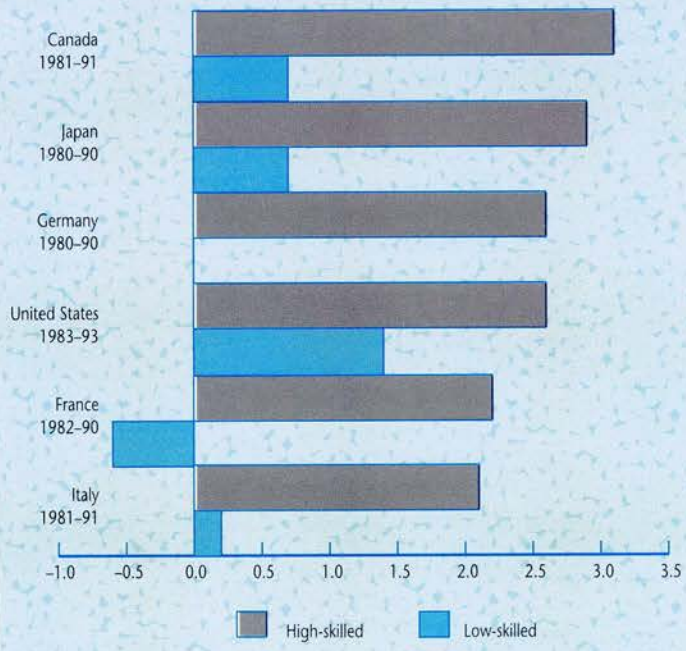
Technology policy used to consist almost exclusively of incentives for R&D investments through subsidies and tax credits or through strong property rights and standards.[5] This approach has slowly been complemented by a parallel concern for an economic environment conducive to the diffusion of innovation. Several countries have instituted measures aimed at encouraging firms to adopt new technologies efficiently, either by removing regulatory and other obstacles, or by using the tax system and fiscal measures to encourage investment in new machinery or in assimilation of knowledge developed elsewhere. Practically speaking, this approach implies diversity in policy measures aimed at diffusing best practices – for example, through technology-extension centres which provide advice and information to firms (and which cover services as well). It also points to an important role for government in encouraging the diffusion of new technologies in services that are publicly provided, not least education and health care.

Another policy issue concerns the importance, for realising the social returns to innovative activity, of competitive pressures, both on the industries that supply new technologies and on the main users. Monopoly allows industries which develop new technologies to charge prices that enable them to capture most of the benefits of innovation; productivity gains in user industries are then lower than where supplier markets are competitive. Similarly, lack of competition and excessive regulation in service industries will blunt incentives to modernise by adopting new technologies, and will certainly not spur innovation. Further liberalisation of service industries as diverse as wholesale and retail trade, telecommunications, electricity and even some aspects of health and education will encourage product innovation and variety, as well as higher productivity, lower prices and increased demand for these services.

Policies to promote technology diffusion should be co-ordinated with those that promote the development of adequate human capital.[6] In an environment where technology can quickly change the skills that are in demand, systems that rapidly provide adequate new skills to workers are necessary. Countries are presently in a period of experimentation and flux, testing ways to link education and learning more closely to work requirements, while they also try to provide the broader skills that will underpin continuous learning.[7] In preparation for the closer connection between learning and work, public education is exploring work-based learning opportunities for students. Public-sector training programmes have recently come under scrutiny, and more effort is required to determine which training programmes work well, and which do not.

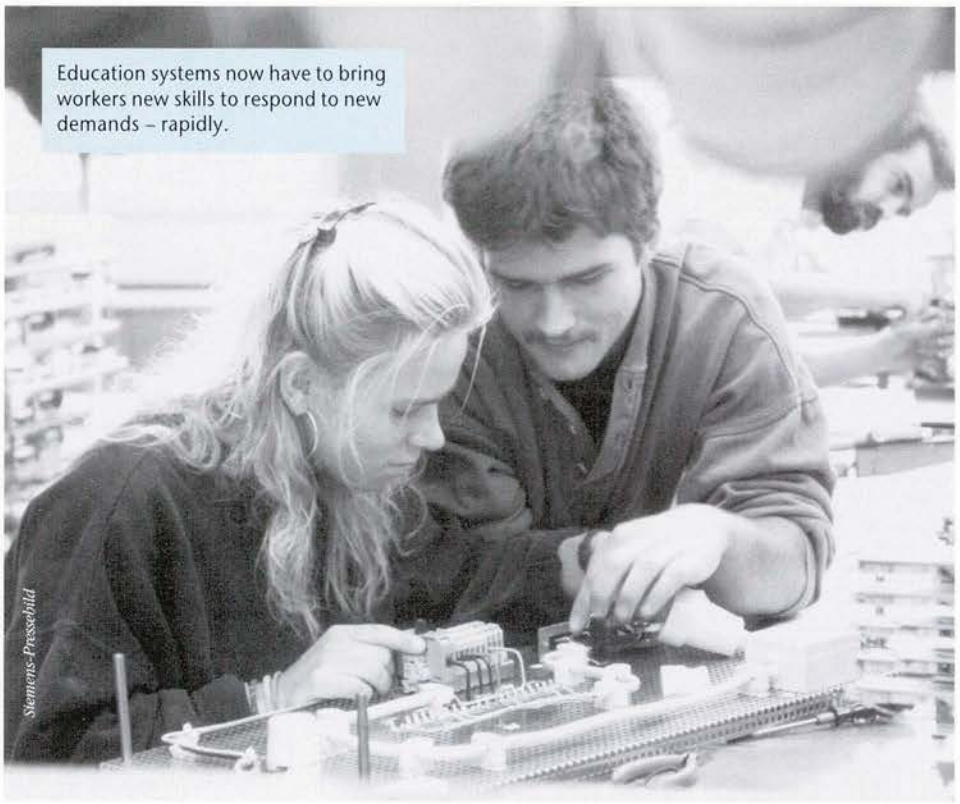
The predominance and increasing importance of the IT cluster for tech-

Figure 4
Employment Growth of High-skilled[1] and Low-skilled[2] Workers
Average annual growth rates (%)



1. 'High-skilled' workers are defined as those in the following occupational groups: legislators, senior official and managers (ISCO-88 Group 1); professionals (ISCO-88 Group 2); technicians and associate professionals (ISCO-88 Group 3). For Germany, ISCO-88 Group 1 covers legislators and senior officials only and ISCO-88 Group 3 excludes teaching associate professionals so that high-skilled workers are underestimated.
2. All others.
Source: OECD

Technology and Industrial Performance


Education systems now have to bring workers new skills to respond to new demands – rapidly.

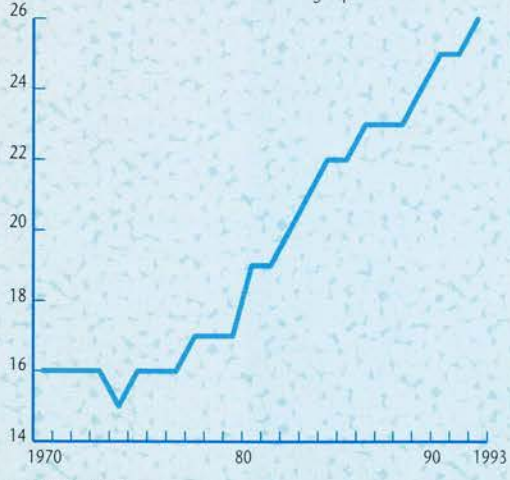
Siemens-Pressebild

nology diffusion and the growing weight of high-technology products in international trade both imply that technology policy has to pay particular attention to the network characteristics of IT and to the potential for realising economy-wide gains from its widespread application. Governments could therefore stimulate the creation of networks of firms and encourage public institutions to facilitate the generation of future IT applications, endorsing market-driven rules for standards, and liberalising product markets, in manufacturing as well as in services, so as to increase the incentives for widespread adoption and diffusion.

■■

Rapid industrial globalisation and the widespread international sourcing of technology suggest that for most countries the option of developing an exclusively national capacity in certain technology areas does not really exist. Attempts to stimulate the development of new products or processes in domestic manufacturing industry through discriminatory trade practices will simply mean higher costs to other domestic firms that rely on access to the best available components, machinery or materials technology, whether from domestic or foreign sources. The costs of trade protection will then include, in addition to traditional welfare costs borne by consumers, those incurred by manufacturing and services producers who import technologically advanced equipment and components. An open regime for trade and investment is thus also important for productivity growth because the international spill-overs of high-technology products benefit both importing and exporting countries. ■

Figure 5
Total OECD High-technology Exports, 1970–93
% of total manufacturing exports



Source: OECD

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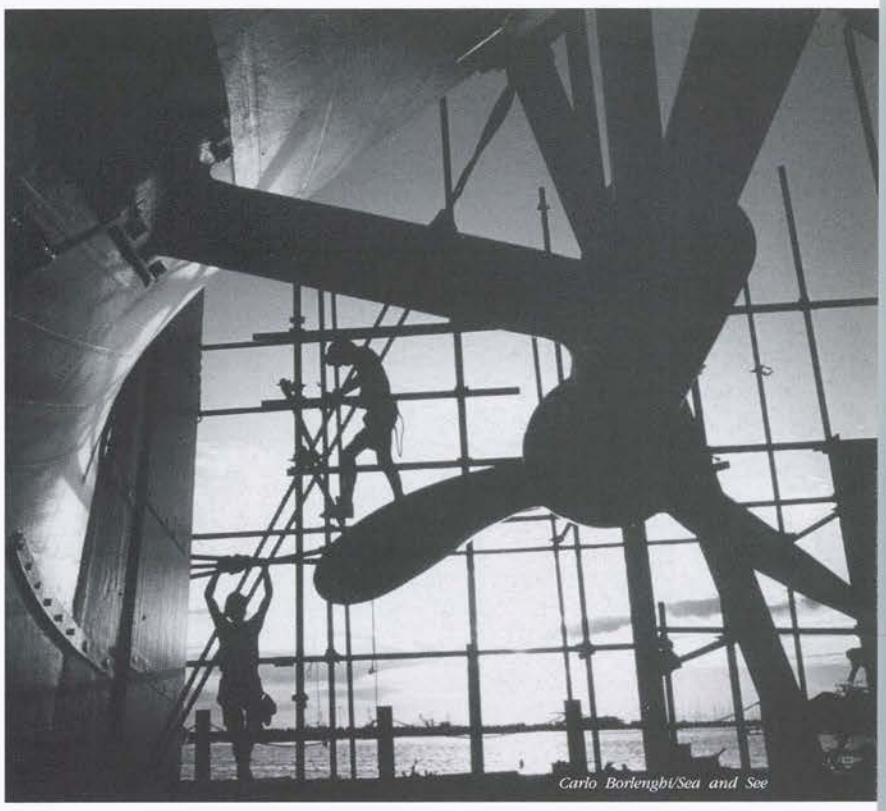
Public Support to Industry

Marian Murphy and Udo Pretschker

The OECD has recently completed the third phase of a project which aims to increase the international transparency and comparability of government support to manufacturing industry. The results point clearly to the persisting importance of subsidies as an instrument of structural policies in the OECD area. Can such subsidies still be justified, particularly in view of their distortion of trade and competition?[1]



Carlo Borlenghi/Sea and See

Subsidies have long been associated with economic inefficiency. They hamper the efficient allocation of resources and can distort international trade and competition. They also place a heavy burden on public budgets which nowadays are increasingly stretched.

Government support and industrial subsidies are defined by the OECD to cover all measures of financial support from central or sub-central government to manufacturing industry which result in a net cost to government (box, p. 12). The financing instruments for which the net cost can be calculated are grants, loans, guarantees, infusions of equity capital and tax concessions. Public support to manufacturing industry in the OECD countries is delivered either directly, through a vast range of programmes implemented by central, regional or local tiers of government, or indirectly, by intermediary agencies or institutions. Most of these programmes are available exclusively to manufacturing industry, although a few others are open also to non-manufacturing enterprises.

To analyse government support, the OECD classified it in ten categories, identified by their objectives:

- sectoral policies
- crisis aid
- R&D and technological innovation
- regional development
- general investment incentives
- support to small and medium-sized enterprises (SMEs)
- labour and training[2]
- exports and foreign trade
- energy-efficiency
- environmental protection.

The OECD analysis covers the major developments in public support to domestic industry from 1989 to 1993, when the economic and geo-political environment was marked in particular by:

- the accelerating globalisation of industrial activities
- the conversion of military production after the end of the Cold War
- deteriorating budgetary situations in almost all OECD countries
- a changing pattern of industrial policies from a sectoral to a more framework-oriented approach[3]

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E-mail: dsti.contact@oecd.org

1. Public Support to Industry, *available free of charge from the Industry Division of the OECD Directorate for Science, Technology and Industry.*

2. Programmes initially reported to the OECD project under this policy heading were withdrawn from the main database and represented in an annex, since many of the instruments involved have mainly social-policy objectives; there are also uncertainties as to the final beneficiaries of such programmes.

3. Rauf Gönenç, 'A New Approach to Industrial Policy' and Hanspeter Gassmann, 'From Industrial Policy to Competitiveness Policies', **The OECD Observer**, *No. 187, April/May 1994. See also* Mario Cervantes, 'Helping Industry Help Itself', **The OECD Observer**, *No. 200, June/July 1996.*

Public Support to Industry

BACKGROUND

Whence the Data?

The OECD is collecting data on direct and indirect programmes of government support to manufacturing industry. The primary objectives are to improve international transparency and to compare the trends and patterns of such support across the OECD. The OECD publication Industrial Subsidies: A Reporting Manual *describes the definitions and methodologies used.*[1]

Beginning in 1986, three rounds of data collection have been carried out, covering 1982–86, 1986–89 and 1989–93.[2] *To date, the OECD's database on industrial-support programmes contains detailed information on approximately 1,450 support programmes applied in 24 OECD countries, as well as in the Slovak Republic, which participated as an observer (Greece and Luxembourg did not take part in the exercise, and Hungary and Poland were not OECD members when the third phase of the project was finalised). In addition to the data on support programmes, information was collected on public R&D contracts, intermediary R&D institutions and civilian and military procurement which can all serve as indirect means of public support.*

The figures in the OECD database refer exclusively to manufacturing. Whenever actual expenditure data relating to manufacturing were not available, estimates were made jointly by the OECD and national government experts.

Public support was calculated in terms of Gross Government Budget Expenditure (GGBE) and Net Cost to Government (NCG). GGBE measures the total amount of funds transferred to beneficiary companies or the total amount of uncollected tax liabilities from them per year by each programme. NCG measures the difference between the cost of funding a programme and the revenue generated for the public budget by the same programme in any given year.

The OECD's strict, programme-based, bottom-up approach makes it the sole source of information on support to manufacturing industry. Figures in surveys published by other international organisations are derived at least partly either from national accounts or government statistics which, in addition, do not isolate the share of total support that goes to manufacturing. Moreover, the information collected by the OECD undergoes a 'peer review' to ensure that the data are internationally acceptable.

1. ***Industrial Subsidies: A Reporting Manual****, OECD Publications, Paris, 1995.*

2. Industrial Support Policies in OECD Countries, *1990;* Industrial Support Policies in OECD Countries, 1986–89, *1992;* Public Support to Industry, *1996 – all available free of charge from the Industry Division of the OECD Directorate for Science, Technology and Industry.*

• emerging international discipline on subsidies in the final stages of the Uruguay Round negotiations.

All of these trends suggest a shrinking role for public subsidies directed to manufacturing industry. And indeed the general expectation was of a fall in support. Instead, government support in the OECD area grew by 25% in nominal terms from 1989 to 1993 (Table 1) – an upward trend that should be even more marked when data from 1992 and 1993 for certain large tax-concession programmes become available. In the event, support declined only in a third of the 25 participating countries, and it grew in the other two-thirds. The main reason for the increase appears to be because of regional-development policies, where spending almost doubled.

In real terms, public support increased between early 1989 and late 1993 by 1%. The manufacturing support rate, measured as the share of nominal support in manufacturing GDP, was 1.09% in 1989, and 1.15% in 1993 – a growth rate of 5.5% overall – although the rise in this indicator is likely to have been curtailed more by the growth in manufacturing GDP than by collective policy efforts to curb industrial support.

The trend as a whole masks considerable diversity in spending under the range of policy programmes. Reductions in sectoral aid, investment incentives and SMEs were largely outweighed by stronger support in all other areas.

Support to regional development, exports and trade, and R&D played a prominent role in net spending. The large financial volumes and the number of programmes in sectoral aid, crisis aid and exports and trade promotion at the end of 1993 is a problem that in large measure has yet to be tackled. In view of the structural adjustment policies adopted and the stronger international discipline being brought to bear on subsidies, a more marked shift away from sector-, enterprise- and product-specific assistance towards 'horizontal', interdisciplinary policy areas would have been expected.

Almost 50% of sectoral programmes is concentrated on three ailing industries – steel, shipbuilding and textiles (Table 2) – which account for only 9% of manufacturing GDP in OECD countries. Measured for both direct and indirect support, the aircraft and space industries lead other sectors (Tables 2 and 3).

Crisis-aid subsidies given directly to large firms – whether publicly or privately owned – are nonetheless likely to occupy a lower place on the political agenda, since the emphasis in crisis aid is shifting to SMEs that are experiencing difficulty, with the funds increasingly provided by regional and provincial governments. Programmes providing support to SMEs as either their primary objective (359) or secondary goal (194) constitute more than a third of all the programmes reported, reflecting the growing recognition of the contribution of small business to job-creation.

Concentration of support in a few programmes is particularly evident for R&D and technological innovation. The ten largest programmes consumed more than 50% of total direct R&D support reported for the years 1991 and 1992. Most of these programmes are directed towards general research objectives, such as funding of technology parks or venture capital, international co-operation or support for hiring personnel. Almost 40% of all R&D programmes directly promote selected technologies, chiefly microelectronics and information technology, energy-saving, new materials, space and aero-

Table 1
Reported Expenditures and Programmes by Policy Objective, 1989–93

Policy Objective	Programmes	NCG[1] in current prices; million dollars				
		1989	1990	1991	1992	1993
Sectoral	147	4,449	4,923	5,813	5,194	3,388
% share	*10.2*	*12.1*	*11.7*	*12.1*	*11.1*	*7.4*
Crisis Aid	53	1,625	668	875	585	3,188
% share	*3.7*	*4.4*	*1.6*	*1.8*	*1.3*	*6.9*
R&D and Technological Innovation	269	6,369	7,864	9,102	9,976	8,677
% share	*18.7*	*17.3*	*18.7*	*19.0*	*21.4*	*18.9*
Regional Development	213	8,510	9,803	14,049	14,863	15,386
% share	*14.8*	*23.1*	*23.3*	*29.3*	*31.8*	*33.4*
Investment	148	2,953	2,805	2,767	2,396	2,594
% share	*10.3*	*8.0*	*6.7*	*5.8*	*5.1*	*5.6*
SMEs	359	5,432	6,031	4,340	4,693	3,750
% share	*25.0*	*14.7*	*14.4*	*9.0*	*10.0*	*8.1*
Export and Foreign Trade	118	6,883	8,973	9,920	7,813	7,268
% share	*8.2*	*18.7*	*21.4*	*20.7*	*16.7*	*15.8*
Energy-efficiency	64	436	620	840	866	1,443
% share	*4.5*	*1.2*	*1.5*	*1.8*	*1.9*	*3.1*
Environment	66	249	338	276	329	333
% share	*4.6*	*0.7*	*0.8*	*0.6*	*0.7*	*0.7*
Total	1,437	36,906	42,025	47,983	46,717	46,028

1. Net cost to government.
Source: OECD

nautics, and biotechnology.

In addition to 148 schemes offering incentives for investment, 96 programmes promoting investment as a secondary policy-objective were reported, particularly in regional development. Indeed, 765 programmes of the 1,437 reported to the OECD have the stimulation of investment as their goal. They absorbed 37% of total public support to manufacturing industry in 1989–93. Such schemes appear to be a domain of sub-central tiers of government and reflect intensified competition among them for creating new businesses or attracting investment to their area.

Table 2
Support to Selected Industries, 1989–93
million $

	1989	1990	1991	1992	1993
Shipbuilding	2,114.6	1,957.1	2,304.0	1,815.0	1,337.7
Steel	187.9	255.3	66.0	47.0	38.2
Textiles	153.4	101.7	95.0	85.4	45.8
Aircraft	464.9	607.4	366.9	502.7	340.7
Total	2,920.8	2,921.4	2,831.8	2,450.1	1,762.4

Source: OECD

Among programmes supporting exports and foreign trade, export-credits and guarantees appear to be the main means of channelling public support to manufacturing industry. Export credits and export-credit guarantees merit further scrutiny in view of their financial volume and their uneven distribution among countries.

The policy objectives of energy-efficiency and environmental protection as part of the new paradigm of sustainable economic development may have been the driving force behind the shift towards programmes supporting the use of cleaner or renewable-energy inputs and more efficient production technologies.

Qualitative Features

Defence procurement, R&D contracts, contracts awarded by space agencies and intermediary R&D institutions such as national industrial research centres (which can serve as indirect means of public support) channel far more financial resources to manufacturing industry than direct support (Table 3). Even if the support element in the panoply of indirect measures is only a very small percentage of the total, it is still substantial. Since there is as yet no agreed methodology for measuring the amounts involved, its relative importance as a policy instrument has yet to be established and, more particularly, how much support it channels to manufacturing industry.

Only 4.4% of all the support programmes identified by the OECD limit access to these programmes to domestically owned enterprises. Opening national support policies to foreign-owned firms or even to enterprises from abroad can be considered to be a reasonable policy response to world-wide industrial globalisation. The resulting international diffusion of national spending raises new issues and complicates the interpretation of national support figures and rates.

Since only 16% of all support programmes end within a five-year period, turn-over in the stock of programmes is not very dynamic. Indeed, almost two-thirds of them have a lifespan of more than five years. Yet, in a dynamic economic environment, with rapidly shortening life-cycles for products, often closely linked to the lifetime of the investments required to manufacture them, long-lasting programmes are difficult to justify. The rationale appears to be clear when there are problems of structural adjustment to

Table 3
Direct and Indirect Support to Manufacturing Industry, 1989–93
billion $

	Reported Expenditure					
	1989	1990	1991	1992	1993	Total 1989–93
Direct support (1,437 programmes)	36.9	42.0	48.0	46.7	46.0	219.6
R&D contracts to manufacturing industry	19.3	17.8	17.5	16.7	17.2	88.5
Space agencies: contracts awarded by/procurement of	4.9	5.9	5.6	6.5	6.4	29.3
Public support to intermediary R&D institutions	0.8	0.9	0.9	1.0	1.0	4.6
Defence-procurement expenditures	209.7	221.4	234.3	210.2	207.3	1,082.9
of which:						
Goods	169.1	178.2	188.7	168.9	166.9	871.8
R&D	28.9	30.0	28.4	29.0	29.5	145.8

Source: OECD

Public Support to Industry

be addressed. But the longevity of operational support schemes established under guise of crisis aid, R&D, and exports and foreign trade deserves closer examination – normally, such schemes should operate on a shorter-term basis.

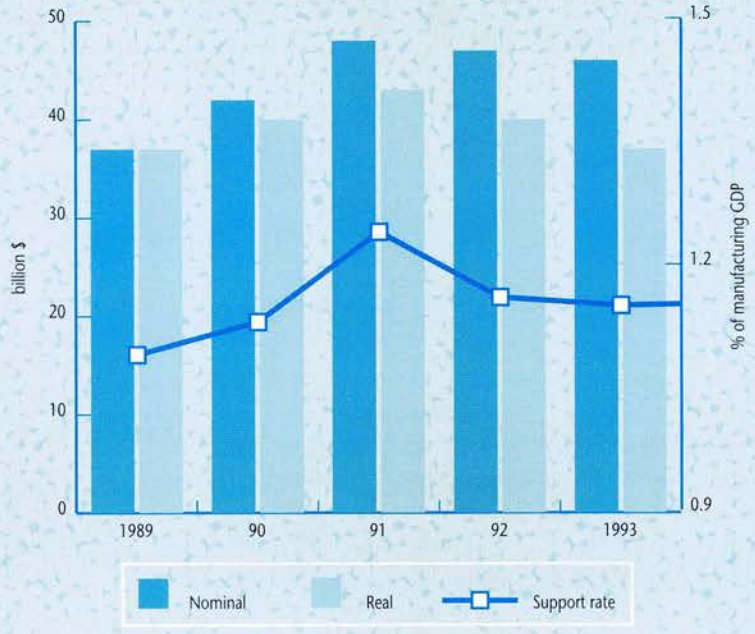
The role and the development of support from sub-central strata of government are difficult to analyse in view of the gaps in the data, especially for the major federal countries. Moreover, there is much less statistical information available for sub-central support than for centrally managed support. The figures in Table 4 therefore underestimate the amounts involved. Centrally managed programmes represent 45.2% of the total reported; and regional, local and other sub-central programmes together account for 36.6%. The contrast in spending is much sharper where, on average, centrally financed programmes account for 80% of the total and sub-central programmes represent 6%. In addition, public and/or private institutions managed 8% of the total reported expenditure.

■ ■

This OECD project will go on to develop analysis that is more country-specific. Examinations of individual countries are planned; these will build on the existing and updated reportings as well as on additional background information, thereby allowing for a clearer understanding of national support policies. In addition, the analysis, which is currently more a question of fact-finding, will in the future be more policy-oriented and thematic, addressing questions related to the efficiency of support programmes. A first category in which such analysis will be undertaken is R&D and technological innovation.

An improved evaluation of support policy would have several advantages. First, it could increase the general awareness that industrial-support policies should deliver the results desired of them, and generate information on best practice to this end. It could strengthen government resistance to pressure from lobbies. And in general, it could result in a more efficient use of public resources. ■

Figure
Nominal and Real NCG[1] Expenditure and the Manufacturing Support Rate



1. Net cost to government.
Source: OECD

Table 4
Central and Sub-central Support, 1989–93

Management	Programmes	NCG[1] in current prices; million dollars				
		1989	1990	1991	1992	1993
Central	650	31,076	34,074	39,770	37,320	32,300
Joint central/ sub-central	91	1,043	1,279	2,178	2,753	5,949
Local	144	512	762	796	876	898
Regional	52	872	1,016	1,010	917	796
Sub-central	330	767	827	743	981	696
Private institution	22	1,227	1,549	1,158	1,426	2,481
Public institution	124	1,192	2,250	1,984	1,771	2,503
Public/private institution	7	77	102	107	122	126
Unclassified	17	140	169	239	551	279
Total	1,437	36,906	42,025	47,983	46,717	46,028

1. Net cost to government.
Source: OECD

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Managing Government Ethics

Sally Washington

Few, if any, OECD countries have escaped occasional headlines pointing to government scandals, exposing anything from inappropriate behaviour to full-scale corruption, on the part of both politicians and civil servants. Politicians can be dealt with at the polls, if not through the judicial system. But what can be done to ensure integrity in the machinery of government?[1]

Non-elected public servants exercise an enormous amount of discretionary power in their everyday work: in their stewardship of government resources, in their dealings with citizens and in their influence on policy-making. Ethical standards are a vital check against arbitrary misuse of that power. But are standards falling? Or are misdemeanours, or even straightforward mistakes, simply more visible today? Without some kind of barometer to measure behaviour, it is difficult, if not impossible, to measure changes in the relative frequency of corruption in the public service. What appears to be an increase in the number of scandals may mean only that accountability and watchdog systems are working well, and that misconduct that was previously quietly overlooked or hidden in bureaucratic secrecy is now publicly exposed.

Government employees are exposed to the same range of incentives for personal gain as are people in other walks of life, and there will always be some 'bad eggs' in the public service as there are anywhere else in society. But more damaging than bad people are bad systems. The OECD has conducted a study of ethics management in nine member countries,[2] most of which recognised public concerns about falling standards but indicated confidence that, in general, standards of conduct are still high. They did, by contrast, express disquiet about a seeming mismatch between the traditional rules and systems governing the behaviour of public servants and the modern roles they are expected to fulfil.

With the continuing debate on the role of the state and the resulting pressure for public-sector efficiency, public servants operate in a changed environment, particularly where management techniques (risk management, managerial autonomy, a focus on results rather than rules) have been imported from the private sector.[3] They are subject to more intense scrutiny (not least from the media) and increased demands (for individualised treatment, for better quality and quantity of services) from citizens. These pressures are sometimes fuelled by governments' own attempts to set standards of service and develop mechanisms for citizens to challenge decisions (such as the Ombudsman of the Norwegian Parliament and the Citizens' Charters in the United Kingdom). In short, the public sector is having to provide better and more responsive services but with stricter limits on resources.

Many officials are also having to assume new functions and responsibilities as a result of devolution and increased managerial discretion, the growing commercialisation of the public sector, the changing relationship between the public and private sectors (not least, the 'revolving door' in employment, whereby recruitment from the private sector into the public service is no longer uncommon), and shifting arrangements for accountability. Some of these reforms may have had unintended impacts on ethics and standards of conduct.

Causes of Conflict

When resources are short, there may be pressure to cut corners or to by-pass due process, especially if public servants are feeling underpaid, fatigued by constant change, or unsure about job security. Having to meet minimum performance targets (especially when pay or tenure depends on it) may also create pressure for results even at the expense of ethical behaviour.

A reduction of the size of the public sector raises other issues. If, for example, public servants are shown the door, restrictions on where they take their talents next raise questions of fairness, complicated by any 'inside information' they may take with them that could be useful in securing future government contracts.

Restructuring, sometimes establishing government business corporations and executive agencies (bodies which remain government-owned but are relatively free from direct interference and operated like private-sector firms), raises questions as to whether employees should be subject to the same ethical and behavioural stand-

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Managing Government Ethics

FOCUS

Protecting the Whistle-blowers

Many countries in the OECD study reported new procedures to encourage whistle-blowing (reporting wrong-doing committed by others), to appeal against adverse decisions or to seek counsel (in the United Kingdom, for example, there are independent Civil Service Commissioners and in the Netherlands 'confidential officers' in departments) when asked to perform a task they feel is unethical or inappropriate. If procedures are also open to the public (in the Netherlands members of the public can report breaches of ethics to the Internal Security Service), they can also help to cultivate society at large as a watchdog over official conduct.

But whistle-blowing raises a variety of problems. It conflicts with traditions of loyalty to superiors and solidarity with colleagues. Indeed, reporting wrong-doing often backfires: whistle-blowers become victims; they are considered disloyal and 'not team players' and their careers usually suffer. Protection for whistle-blowers – New Zealand has legislation pending which will apply to both the public and private sectors – is one way to encourage public servants to report any suspected wrong-doing. Improved whistle-blowing procedures are consistent with the emphasis on openness and transparency in modern public management. They also help to avoid the situation where public servants feel their only option is to report outside, either openly or by leaking information to the media.

ards as 'mainstream' civil servants or whether this requirement is inconsistent with administrative autonomy. Some countries are already taking steps to clarify uncertainties: the United Kingdom, for example, has introduced a Code of Practice for Board Members of Public Bodies.

Even in the 'core' public service, increased departmental autonomy has raised concerns that the traditional public-service ethos may be breaking down, as departments define their own standards and ways of operating. This trend is exacerbated by increased recruitment from the private sector, into managerial positions in particular. Claims that private-sector attitudes might somehow 'taint' the public sector may be overstated in view of the parallel interest in integrity in the private sector. But there are some areas where behavioural norms between the two sectors differ: giving gifts or offering hospitality in business dealings, for example, is standard practice in the private sector but is frowned upon and usually strictly regulated in the public sector.

The devolution of authority also has implications for public accountability and sometimes leads to confusion about who is ultimately responsible when things go wrong: ministers, chief executives, individual bureaucrats or private-sector contractors? The recent Cave Creek incident in New Zealand – where a group of young people were killed when a poorly constructed viewing platform erected by the Department of Conservation collapsed – shows the difficulty of determining who is 'responsible' and who should be blamed for mistakes in a highly devolved management environment. (In this case the minister involved eventually resigned from his portfolio but not from the cabinet.)

A corollary of managerial autonomy is that a reduction in detailed rules could allow more room for misconduct and mistakes. More direct contact with public money – coupled with fewer controls over its use – may increase the temptation and the opportunities to indulge in corrupt or fraudulent practices and make conflicts of interest more likely. Some risks are obvious (in procurement, contracting-out, managing privatisation programmes, for example) and others less so: the use of corporate credit-cards, frequent-flyer credits, cellular phones, abuse of the Internet.

But where public-sector operators are in direct competition with the private sector – in, for example, the supply of information technology services, public transport, airport operations, and even childcare or health services – there are questions as to whether ethics and procedural rules applying to the public sector are an impediment to competition. Should the 'rules of the game' be equalised either by loosening the rules for public-sector operators or by including those specifications in contracts with the private sector? Indeed, governments may have to decide if there is an implicit trade-off between ethics and efficiency and, if so, where the appropriate balance lies.

Public-management reforms over the past decade or so have realised clear efficiency gains. But they may place public servants in situations where there are few guidelines as to how they should act. Yet systems characterised by complex administrative rules may also foster unethical conduct, since people may be forced to break or bend them just to get the job done. Likewise, cumbersome and complex rules make unethical conduct easier to disguise. And when numerous approvals are required for an administrative action, the opportunities for individuals to extract a rent for giving approval (a 'gate-keeper toll') are increased.

An 'Ethics Infrastructure'?

So how do countries ensure standards are maintained in the public service, especially in the face of change? Governments employ a range of tools and processes to regulate against undesirable behaviour and to provide incentives to good conduct. Such an 'ethics infrastructure' has a number of elements.

The first is political commitment: without clear messages from government leaders that unethical conduct will not be tolerated, initiatives to improve public-sector ethics will fall on barren ground. Indeed, recent attempts to improve public-sector ethics in OECD countries have been sponsored at the highest tiers of political life, such as the Committee on Standards in Public Life set up by the British Prime Minister in 1994, the Portuguese Deontological Charter launched by the Secretary of State for Administrative Modernisation in 1993, the integrity measures sponsored by the Dutch Minister of the Interior (1995), and directives issued by the United States President's Council on Integrity and Efficiency (1991). Of course, leaders also provide important role models: public servants are no more likely than children to respond to 'do as I say, not as I do'.

A second element is an effective legal framework. Countries must first take stock of existing criminal codes, which apply to all citizens, as

well as civil-service laws, conflict-of-interest statutes and regulations, which apply to public servants. This framework should, at the very least, be clear and consistent, and new rules should not add to the volume and complexity of legislation, particularly since the current trend is to streamline it. Moreover, there are drawbacks to over-reliance on legislation to ensure ethical conduct: it tends to encourage minimum compliance because it is designed to punish undesirable behaviour rather than promote good conduct. In short, the law is an inflexible tool for the day-to-day management of ethics, but it provides an important safety-net.

Third, there should be efficient accountability mechanisms, setting guidelines for government activities, for checking that results have been achieved and that due process has been observed. They can include internal administrative procedures (requirements that activities or requests be recorded in writing) and comprehensive processes such as audits and evaluations of an agency's performance. They might also be external to the public service, in the form, for example, of legislative or parliamentary committees. Provisions for whistle-blowing are also important (box, left). Ideally, accountability mechanisms encourage ethical behaviour by making unethical activities hard to commit and easy to detect.

A fourth element is workable codes of conduct. In spite of the trend towards a less rules-based regime for public management, five of the nine countries involved in the OECD study have implemented new codes of conduct over the past five years and a sixth is in the process of designing one, suggesting that governments still see the desirability of defining explicitly, although not necessarily in minute detail, the behaviour expected of public servants. Indeed, Australia and New Zealand now have a broad code of conduct covering all government employees which individual agencies draw on to design a purpose-built code to reflect their particular objectives. In other countries (for example, the Netherlands and Norway) codes are all agency-based: the ethical issues confronting an employee of a defence ministry might vary considerably from those facing social-security officials. And those that are not enshrined in legislation are easier to create and amend to cope with changing circumstances. But they can also be too specific or too general, unworkable, unused, unknown or simply too simplistic.

A fifth requirement is the professional processes by which public servants learn and inculcate ethics, standards of conduct, and public-service values. There does indeed seem to be some convergence on what countries define as key values: both traditional standards of probity, loyalty and honesty and newer notions of value-for-money, efficiency and service to the citizen. Training – both induction and refresher courses – is essential, not least to make entrants aware of the importance of ethical behaviour.

Supportive conditions are another important factor: if public servants are feeling underpaid, overworked and insecure, or if there are regular industrial-relations disputes, they are less likely to embrace initiatives to improve performance including in the ethical domain. Too much security, by contrast, can result in complacency.

There is also a role for ethics co-ordinating bodies. They take various forms – parliamentary committees or central agencies, for instance – and assume a variety of functions: they can be watchdogs, counsellors and advisors, or overall promoters of public-sector ethics. But the existence of such a body should not allow departments and managers to absolve themselves of responsibility for ensuring ethical conduct within their jurisdictions.

Countries emphasise different elements of this ethics infrastructure depending on whether they manage conduct primarily through guidance and management incentives or through controls and sanctions. If a country has been plagued with corruption or scandals, it will probably want, in the short term at least, to emphasise punishment rather than prevention. The balance between the different components of an ethics infrastructure will depend on cultural, political and administrative traditions, and its historical record in promoting ethical behaviour.

■ ■

The tensions between traditional notions of public administration (doing things by the book) and new forms of public management (seeking results through innovation and risk-management) are starting to emerge, most evidently in considerations of ethics. Where should the balance lie between too much and too little control? Countries will draw their own conclusions. But they must be aware of the inherent trade-off, including those between the administrative costs of trying to catch every misdeed, minor misdemeanour or genuinely corrupt action versus the political costs of allowing some mistakes to occur. New risk-management strategies based on these costs and benefits are required.

In any case, how a country handles ethical issues should be consistent with its approach to public management in general. Recent trends – reducing detailed rules in favour of broad guidance (defining values and disseminating codes of conduct) and more transparency (whistle-blowing and requiring public servants to disclose their financial and other interests to uncover any potential conflicts) – suggest that countries are indeed striving for more consistency.

In spite of, or perhaps because of, the changes occurring in the public sector in OECD countries, good and ethical conduct is imperative. The success of public-management reforms, and indeed overall confidence in government, will depend on it. That requires an effective infrastructure. It also means that ethics should no longer be seen as a separate and distinct concern but as an integral part of all management systems. ■

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Digital Audio-Visual Finds New Markets

Jeremy Beale

The advent of a global information infrastructure will have dramatic effects on the production and supply of audio-visual services.

The development of a global information infrastructure (GII) will radically reduce the cost of delivering audio-visual information and entertainment to markets around the world, whether conventional film, enhanced services such as video-on-demand or new Internet-based multimedia services. The digital computing and communications technologies underlying the GII are changing how services can be delivered – also how they are produced, as computers and computer networks become basic tools for creating and packaging visual, audio and data content. But not only are many of the technologies the same or similar for production and delivery; continuous communication (or interactivity) between creators, programmers and consumers of content is increasingly central to the production of services.

The restructuring of content production and delivery is particularly important for audio-visual products such as film, where traditionally heavy capital investments and high personnel costs have required large economies of scale to achieve adequate returns. Production of audio-visual programmes for large media companies is already often sub-contracted to small and medium-sized enterprises (SMEs), and SMEs are often seedbeds of digital content-creation. In addition, though, SMEs may increasingly be able to deliver programmes to broad audiences over the Internet as easily as large enterprises can. The once-vital economies of scale may thus give way to more widely dispersed forms of production if appropriate market and regulatory frameworks exist.

But a diverse set of obstacles hampers the job-creating and growth-generating potential of the emerging new services; the ability of companies to produce and deliver content to expanding global markets requires regulatory and policy reform. A regulatory framework better adapted to the new environment could support the growth of creative new enterprises and global content markets, while promoting the cultural identities and diversity that often concern governments and thus have sometimes disrupted trade negotiations.

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Delivery and Content

Audio-visual markets are already large. Gross box-office revenues for films in Europe, North America, Australia and Japan in 1994 reached a little over $11 billion (Table), and broadcasting revenues for the OECD countries reached approximately $122.87 billion.[1] A large number of jobs have been created in these media. The motion-picture industry in the United States has since 1985 created over a quarter of a million, most of them in production or distribution and video sales. In Europe, too, employment has grown in all countries in audio-visual and related sectors, with the biggest increases occurring in countries that have allowed an expansion of private broadcasters.[2]

Improvements are being made in the delivery of audio-visual content in both cinemas and broadcasting. 'Multiplex' cinemas, which combine a number of screens with different film showings alongside shops selling related items, food, and other forms of entertainment, are

Table
Cinema Exhibition, 1994

	Europe[1]	United States	Japan	Australia
Population (millions)	383	c. 257	c. 125	c. 17
Number of screens	18,805	26,586	1,747	1,028
Number of inhabitants per screen	c. 20,400	c. 9,700	c. 71,000	c. 16,500
Gross box-office revenues (million ECU[2])	3,058[a]	4,293	1,259	281
Admissions (millions)	c. 688.7[a]	1,210	123	63.6
Frequency per head of population	1.9[a]	4.7	1	3.7
Average ticket price (ECU)	c. 4.44[a]	3.55	10.23	4.42

a. Not including Ireland and Portugal.

1. Austria, Belgium, Denmark, Finland, France, Germany, Greece, Iceland, Ireland, Italy, Luxembourg, the Netherlands, Norway, Portugal, Spain, Sweden, Switzerland, the United Kingdom.
2. ECU values 31 December 1994: 1 ECU = 1.223 US$.

Source: *European Cinema Yearbook*, 1995

More screens, fewer seats per screen – the trend has been the same in virtually all OECD countries.

Aurel/Jerrican

making movie-going a broader-based and more rewarding experience for consumers. Although the number of screens has increased, the number of seats per screen has decreased in virtually all OECD countries (though large screens are often retained for 'blockbusters'). Similarly, wide, flat, high-quality digital screens promise improvements in domestic viewing. New digital satellite, cable and terrestrial networks will allow for hundreds of new channels, as well as more individually responsive services, such as video-on-demand.[3] This compares to the handful of one-way channels traditionally offered over-the-air, or the 20–30 currently offered by cable TV.

As well as improving and expanding delivery techniques which offer economies of scope by meeting more particular audience tastes, digitisation has also added value to the production of audio-visual content. Following the establishment of the Industrial Light and Magic (ILM) company in 1975 by George Lucas (director of *Star Wars*), a growing number of firms have started developing digital special effects, including Silicon Graphics, Digital Domain, Rhythm & Hues, and Pixar. Warner and Sony, two of the world's big music-and-entertainment conglomerates, have also set up facilities to produce digital effects. An increasing number of Hollywood epics now rely upon digital techniques to stimulate sales.

Initially, these possibilities spurred a rise in production by Hollywood studios. Twentieth Century Fox, for instance, went from producing 15 to 30 films a year. But although the number of releases rose by 9% (to 426) in 1995, production and marketing costs grew by 10%, and demand in the North American market rose only by 1%. As the number of box-office failures has increased, most of the major studios have announced cutbacks in the number of future releases. Fox, along with other studios, has concentrated on maximising value by focusing upon either expensive digital blockbusters (such as the recent *Independence Day*, which cost $71 million to make), or on low-cost films of around $15 million, cutting out films with a mid-range budget of $30–40 million.[4]

Digitisation can be expensive, and the cost of visual effects for blockbusters has risen from on average $5 million five years ago to $24 million today. Although the United States is the largest consumer and producer of films and music, media companies in other OECD countries may fear further international concentration of production, given existing market shares and the increased use of digital technologies in audio-visual production.

But digitisation can help reduce costs through standardisation and reduction of some of the heavy capital and labour inputs traditionally associated with movie-making – such as for hand-made scenery, stunt work and large casts of

1. **OECD Communications Outlook 1997**, OECD Publications, Paris, 1997.

2. European figures include all audio-visual activities, as a large proportion of content production in Europe is carried out by broadcasters; figures for the United States do not include broadcasting, as until recently a legal barrier prevented content production by broadcasters there. This discrepancy makes direct comparison difficult.

3. An interesting future possibility would be delivery of movies to cinema screens by satellite or fibre-optic cable. Once network operators can distribute video on a national basis, there would seem no reason why national cinema chains could not use such a service.

4. Figures from The Financial Times, 18 June 1996; Wired, February 1996; the Motion Picture Association of America; The Wall Street Journal, 21 June 1996.

Several of the larger studios have concentrated on maximising returns from expensive digital blockbusters – such as the recent *Independence Day*, which had production costs of $71 million.

extras. In the film *Forrest Gump*, for instance, 1,000 extras were digitally copied to appear as a crowd of 50,000 in an anti-war demonstration.

The technical labour involved in such digital production is at present also costly. But the new media which use them are still a source of economic growth and jobs. According to a recent study, for instance, total employment in new media in the metropolitan New York area was 71,500 workers in 1994, up by 28,500 since 1992; the other leading centre in the United States, San Francisco, had over 2,200 new media companies, employing 62,000 workers.[5] The study also estimated that employment in new media in the New York area would increase by 39,000 employees between 1996 and 1998. The average annual pay for workers in this sector, at $31,421, was also well above the national average. The study also estimated that the size of the new-media industry in the New York area had more than doubled in the last year, to become a $3.8 billion-a-year business; there were 70,000 employees in new media, compared with 17,000 in television and fewer than 14,000 in book publishing.[6]

Some analysts argue that multi-channel broadcasting has eroded the previously relatively closed structure of content markets in traditional media, and will bring down production costs through increased competition. Other observers question whether the proliferation of channels will itself alter market structures, as existing programmers may simply combine channels to offer enhanced viewing of existing content (such as 'near-video-on-demand' whereby a particular film begins transmission every twenty minutes or so), while keeping programming a centralised broadcasting activity, and restricting the scope of content-creating possibilities.

In either event, new and extensive market opportunities for the development of audio-visual services exist in the interactive environment of the Internet. Indeed, the packet-switched architecture of the Internet works against hierarchical forms of production and delivery. In addition, with relatively little capital investment (mainly in network servers, PCs and software), small-scale, Internet-based enterprises can produce and distribute content, thus encouraging both entrepreneurial activity and the development of digital authoring and networking skills. Though the sheer volume of information becoming available on the network has produced a counter-tendency towards general programming sites, the individual ability to search for and distribute customised content is being reinforced by the development of 'intelligent agents', software which can be loaded onto a PC and programmed to go out and search network sites for specified kinds of data in an ever-more precise manner – and which can exchange information with other 'intelligent agents' they meet on the network.

The move towards network-based services (particularly Internet) will reduce demand for labour in traditional media systems. But a study of multimedia producers for the Canadian government found that, although employment in retail sales channels would be reduced, network-based distribution of content was expected to increase demand for technical, creative, management/administration and direct-marketing staff.[7] Whether this occurs depends in turn upon whether governments put in place regulatory frameworks which support new forms of finance, pricing, employment, and consumption of network-based services.

Financing, Pricing and Consumption

The financing of audio-visual production and delivery is already undergoing fundamental change. Most movies make little or no direct profit on cinema showings but rather through sales of other goods in multiplex cinemas, or associated items such as clothing, toys and videos. Video sales, for instance, accounted for 49% of Hollywood's worldwide revenues in 1995. But the reception of a movie in the cinema is considered vital to the success of video sales and TV viewing. Cinemas thus become a marketing or advertising tool for downstream activities, which makes the marketing and advertising of movies increasingly important to their initial reception at the box office. In addition, movies advertise or promote other goods which are used as props: the sharp distinction between advertising and media content is being eroded.

The financing of audio-visual broadcasting is also changing fundamentally. In many OECD countries broadcasting traditionally relied upon license fees to pay for terrestrial over-the-air delivery of programmes. During the 1970s and '80s, the entrance of private broadcasters made

advertising more important, and the development of cable and satellite delivery in the '80s and '90s introduced monthly subscriptions and pay-per-view. In the United States the broadcast media have traditionally relied on advertising as a source of finance for programme-making. Advertising spending on broadcasting remains buoyant. Nonetheless, the market is fragmenting as new delivery media develop, and it seems likely that marketers will increasingly shift advertising from the broadcast networks to other media such as to cable television, direct mail, interactive media and computer online services as traditional broadcasters lose viewers.

Internet-based interactive network services reinforce these trends. Spending for advertising on the World Wide Web in the first quarter of 1996 was $26 million, up 110% from $13.6 million in the last quarter of 1995,[8] though few web sites charge fees for access at the moment. The traditional arm's-length relationship between the 'producer' and the 'consumer' is becoming one in which the consumer is increasingly involved in defining content production, with consumption becoming less of a one-off event and more a continuous process of definition.

What Change for Policies?

Existing regulations for audio-visual production and distribution are ill suited to these developments. In the past, many OECD countries have sought to stimulate domestic production through various forms of government sponsorship. National public broadcasters in particular have often been dedicated to promoting and carrying a given quantity of domestically produced audio-visual content. But many countries have also had recourse to cultural protectionism by restricting imports of foreign-produced audio-visual material; advertising, too, is often restricted.

Most, if not all, OECD countries view the GII as a means of promoting the domestic production and export of content in order to maintain and encourage economic growth and job creation. But the attempts to exclude foreign producers – through quotas on the broadcast of foreign and domestically produced content, or restrictions on foreign ownership of broadcasting entities – are being increasingly undermined by this very development to which countries are committed for their future economic well-being. The development of multi-channel transmission, and the subsequent dedication of individual channels to particular 'thematic' programming (in sports, news, films or quiz and talk shows) makes such policies increasingly difficult to maintain across the range of programme categories. Indeed, the interactive and international creation, packaging and delivery of content in new Internet-based services makes even halfway measures relatively ineffective. With increasing proliferation of delivery channels and service providers, restrictions on advertising also have to be relaxed in order to both open diverse revenue sources and to stimulate audio-visual content creation in the increasingly grey area between services and advertisements.

The key to ensuring that every country has the chance to increase production and trade in growing global markets is through policy and regulatory reforms which encourage rather than restrict the development of on-line audio-visual services by firms in international markets. In general, OECD governments are reducing direct subsidies of content production, and are increasingly relying upon a range of measures or frameworks which positively support domestic production. France, for instance, sponsors the production of film-making from box-office receipts, provides special social-security benefits for artists so as to keep them dedicated to their crafts, and offers loans and subsidies for the development of digital special effects. Canada provides for financial transfers to producers from broadcasters on the basis of traffic flow. Ireland offers tax write-offs to film producers. Such measures can support the rapid and easy growth of firms developing network-based services while respecting diverse social and cultural values, if developed within a reasonably straightforward and transparent framework of commercial practices. But agreement will have to be reached on the outlines of an international framework for such content promotion measures if they are not to result in anti-competitive practices and trade friction.

■■

The detailed definition of a framework for domestic promotion of network-based content production would be premature. It would also be inappropriate for governments to dictate its nature, since the private sector should, and will, play a leading role in deciding the framework conditions. Instead, policy-makers should begin to focus on how the new products, services and means of distribution will affect the traditional regulatory issues concerning audio-visual services. They have, after all, made a policy commitment to the development of a global information infrastructure and society which fundamentally challenges the restrictive national market and regulatory structures of the past. ■

5. *Coopers & Lybrand*, New York New Media Industry Survey: Opportunities & Challenges of New York's Emerging Cyber-Industry, New York New Media Association, *April 1996*.

6. The New York Times, *16 April 1996*.

7. IMAT: Survey of the Multimedia Industry in Canada, *DJC Research, Toronto, 1995*.

8. *Figures from* USA Today, *5 June, 1996*; The New York Times, *22 April 1996*; USA Today, *30 April 1996*.

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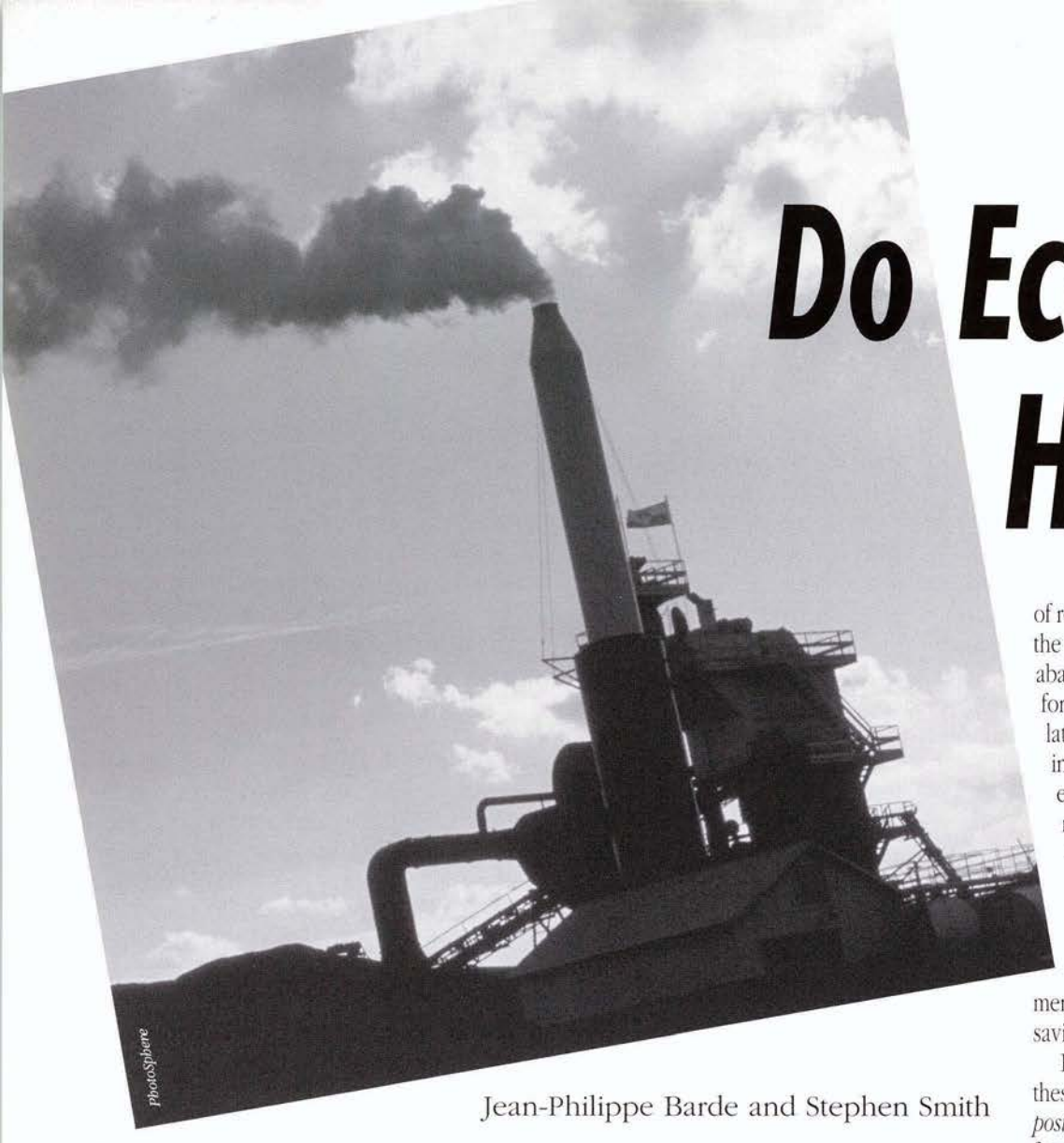

Do Economic Instruments Help the Environment?

Jean-Philippe Barde and Stephen Smith

Over the last decade the OECD countries have made increasing use of so-called 'economic instruments' – 'ecotaxes', charges and tradable permits chief among them – in environmental policy. What have been the achievements of this approach? Do economic instruments deliver what was hoped of them, both in protecting the environment and promoting economic efficiency?[1]

Economic instruments aim to use market forces to encourage producers and consumers to limit pollution and avoid the degradation of natural resources. A typical approach is to put a 'price tag' on emissions so as to discourage water pollution, or to charge access to natural parks so that they are used more rationally (box, right).[2]

Theoretical arguments suggest that there should be substantial gains, in the form of more flexibility, lower costs and increased innovation, if environmental policy uses these devices rather than conventional 'command-and-control' (CAC) regulations. Typically, emission taxes, if fixed at an appropriate figure, should minimise the cost of reducing pollution across polluters by moving the reduction in emissions to where marginal abatement costs are lowest; the same holds true for tradable permits. Several studies have simulated the effects of policies using economic instruments in reducing air pollution in different areas of the United States; a review of the results from 11 of them found that, on average, the cost of achieving a given environmental objective through CAC policies was six times higher than for cost-minimising instruments such as emission taxes and tradable permits.[3] Thus, economic instruments ought to bring about considerable cost-savings.

But simulations are not enough to say whether these gains are made in practice – and few *ex post* studies have been performed so far. That is far from unusual: systematic evaluation of environmental policies – or of government policies in general – is relatively rare. And with economic instruments there are particular reasons for the lack of evaluation, a major one being that in most instances they are used in combination with other policy measures, such as standards, voluntary agreements, and information and education campaigns. Disentangling their specific contribution is thus a complex, and sometimes impossible, task.

Second, the data necessary to perform evaluations of their effectiveness are often lacking, simply because they are often implemented without forethought being given to the collection of such material. The OECD has therefore drawn up general guidelines for 'in-built evaluation systems', whereby provision should be made for

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1. ***Evaluating the Efficiency and Effectiveness of Economic Instruments in Environmental Policy***, *OECD Publications, Paris, forthcoming 1997.*

2. *Jean-Philippe Barde and Johanes Baptist Opschoor, 'From Stick to Carrot in the Environment',* ***The OECD Observer****, No. 186, February/March 1994.*

3. *T.H. Tietenberg, 'Economic Instruments for Environmental Regulation',* Oxford Review of Economic Policy, *Vol. 6, No. 1, p. 24, 1990.*

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collecting and processing data from the moment a policy is implemented (through, for example, the specification of the type of data for each type of economic instrument, definition of a baseline, and the clarification of the institutional setting for collecting and processing the data).

Other factors in the lack of evaluation include the relatively recent introduction of many of these instruments, which means that their effects may not yet be fully apparent; and there are institutional obstacles, which arise from the division of responsibility between different government departments – for environmental taxes, for instance, the finance and the environment departments.

The potential benefits from evaluation are nonetheless increasingly being recognised. And it provides feedback which can help to improve the design and performance of environmental policies.

Three Goals

There are several reasons for introducing economic instruments. Sometimes they are intended to provide incentives (to reduce polluting emissions, for example). In other instances, or in addition, they may have been designed to provide resources to finance specific pollution-abatement programmes. With tradable permits, the primary aim may be to reduce the overall abatement cost. Although these various aims are often conjoined, it is useful to differentiate economic instruments with reference to their main or primary purpose.

Aim: Financing

Water-effluent Charges

The well-established systems of charging for water effluents in France, Germany and the Netherlands have proved to be effective in

BACKGROUND

The Types of Economic Instruments

Charges and taxes

• Emission charges or taxes are direct payments on the quantity and quality of pollutant discharged. They are applied to cope with many environmental concerns, such as air and water pollution and noise, in most OECD countries, although with varying intensity. Charges on effluents in water, for example, form the backbone of the water-management systems in France, Germany and the Netherlands but are also used to a varying degree in many other countries. Charges on waste discharge are also quite common, but with different degrees of sophistication and coverage (and applying to industrial waste in only a few instances). Air-pollution charges and taxes are increasingly implemented in a number of countries, including charges on SOx emissions in France and on NOx emissions in Sweden. Noise charges are applied to aircraft in a few countries, in systems that range from the crude to the more elaborate.

• User-charges are payments for the cost of collection and treatment services, and are commonly used by local authorities for the collection and treatment of solid waste and sewage water. Their primary purpose is to raise revenue.

• Product charges or taxes are applied to products which create pollution either when they are manufactured, consumed or disposed of. There are, for example, taxes on fertilisers, pesticides and batteries. 'Green' taxes on energy (carbon and sulphur taxes on fuels, for example) are one of the main categories. Such levies are intended to modify the relative prices of the products and/or to finance collection and treatment systems.

Marketable (tradable) permits

The rationale of tradable permits for polluting emissions is to allow polluters more flexibility in allocating pollution control across different sources, while permitting government to retain a firm limit on total polluting emissions. An increase in emission from one source must be offset by the decrease of an equivalent, sometimes larger, quantity from other sources. When, for example, a statutory ceiling on pollution is fixed for a given area, a polluting firm can set up or expand its activity only if it does not increase the total pollution load. The firm must therefore buy 'rights' or permits to pollute from other firms located in the same control area which are then required to abate their emission by an equal amount (this is 'emissions trading'). The objective of this approach is two-fold: first, to achieve cost-minimising solutions (by encouraging firms which would find it costly to reduce their emissions to purchase the right to pollute from companies where the cost was lower); and, second, to reconcile economic development with environmental protection by allowing new activities to set up in a control area without increasing the total volume of emissions within it.

Deposit-refund systems

These are widely applied in OECD countries, for drinks containers in particular. A payment is made when purchasing a product contained in a designated type of packaging. The payment (deposit) is reimbursed when the packaging is returned to the dealer or a specialised treatment facility.

Subsidies

Subsidies are also an important economic instrument and are used in many OECD countries, although to a limited extent. The main forms of financial assistance are grants, soft loans and accelerated depreciation.

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FOCUS

Seven Criteria for Policy Evaluation

The relative success of environmental-policy instruments should be evaluated by reference to a set of well-defined criteria. Seven of them are particularly important.

- *Environmental effectiveness: does the instrument succeed in reducing pollution?*
- *Economic efficiency, judged by the extent to which the instrument has enabled a more cost-effective achievement of policy objectives than some alternative measure. Economic theory suggests that the main advantage of economic instruments is their potential for minimising the aggregate abatement-costs across polluters ('static efficiency'). Whether or not economic instruments provide real cost-savings is a central, though complex, issue.*
- *Administration and compliance costs including those of the administrative bodies responsible for applying the instrument as well as those subject to it. The individual characteristics and relative complexity of policy instruments will influence this cost burden substantially.*
- *Some economic instruments, charges and taxes in particular, provide government with income. This revenue could allow other taxes to be reduced, or government spending to be increased, on, for example, specific environmental measures.*
- *There are wider economic effects which include the impacts on aggregate prices, income distribution, employment and trade.*
- *Dynamic effects and innovation: economic instruments are generally expected to be more effective than others at stimulating innovation in pollution-control technologies ('dynamic efficiency').*
- *There are 'soft effects' in the form of, for example, changes in attitudes and awareness, capacity building (for example, through the creation or improvement of expertise and management capacity of the economic instrument) and the generation and diffusion of information. These effects may be important, though they are difficult, if not impossible, to quantify.*

reducing discharges of waste water, although the specific contribution of the charges is sometimes difficult to isolate as they operate in combination with regulations and discharge permits.

In France, the water-management system, in operation since 1968, is a complex combination of direct regulations and economic instruments. Water-effluent charges play a major role in financing pollution-control facilities: the total revenue of the French water agencies rose from FF2.2 billion in 1975 to 9 billion in 1995. As a consequence, between 1980 and 1992, the municipal waste-water treated as a percentage of total waste-water emissions rose from 30 to 42%; for industrial pollution, discharges of oxydisable substances decreased by 28%, suspended solids by 38% and heavy metals by 39%. A sizable share of these achievements can be attributed to the use of revenue raised by the charges, although the impact of the charges as an incentive not to pollute is unclear; it is probably low.

The German system of water-effluent charges has been in operation since 1981. Not much in the way of data is available as to their effectiveness – although, interestingly, a survey carried out after they were announced but before they came into force found that three-quarters of the private enterprises and two-thirds of the municipalities surveyed had increased, accelerated or modified their abatement-measures for water pollution in anticipation of the charge. That seems to indicate how even the threat of charges can be instrumental in inducing pollution-abatement.

The Dutch system of water-management has been very effective. The percentage of water effluent treated increased from 51% in 1980 to 74% in 1991. During that period, waste-water discharge from the manufacturing sector decreased by 80%. Effluent charges, in place since 1970, have risen sharply over time (a 115–31% increase in real terms between 1975 and 1994). No fewer than 54% of companies interviewed in one survey attributed a decisive influence on their decision to invest in pollution-control to the charges and the announcement that they were going to go up, against 20% which indicated that discharge permits were a stronger incentive to change. The same study also estimates that a rate increase of 1% yields a pollution reduction of 0.5–1%. Although it is again difficult to disentangle the effect of the charge from the full package of policies involved, it is clear that the charges have had a substantial impact on behaviour. As in France, their primary purpose was to raise revenues to finance water-treatment facilities, but in practice they have turned out to have an important incentive function, too.

Aim: Incentive

When the revenue from ecotaxes is not earmarked for environmental purposes, but rather paid into the general government budget, such taxes are usually intended to provide an incentive for improved environmental performance (unless the purpose of the tax is purely to provide revenue).

Taxes and charges on air pollution

There is increasing evidence of the effectiveness of taxes and charges in reducing air pollutants. Sweden introduced a charge on nitrogen-oxide (NOx) emissions in 1992. It was designed to accelerate and stimulate investment in advanced combustion and pollution-abatement technologies and as a supplement to existing regulatory measures. Nonetheless, a 35% reduction in NOx emissions was achieved within 20 months after the implementation of the charge. And, as with the water-effluent charges in Germany and the Netherlands, reductions in emissions followed rapidly after the government announced its intention to introduce the charge in 1990. The charge is levied at 40 crowns per kilo of NOx, since initial estimates of the cost of reducing NOx emissions ranged between 20 and 80 crowns per kilo. Instead, the charge stimulated industry to develop cheaper, more efficient technologies, as low as 10 crowns per kilo.[4]

A tax on sulphur emissions in Sweden was introduced in 1991 to stimulate further reductions in sulphur oxides (SOx) emissions above those already achieved by regulation. The result was a reduction of the sulphur content of fuel

4. The Swedish Experience: Taxes and Charges in Environmental Policy, *Swedish Ministry of Environment, Stockholm, 1994.*

oils by almost 40% beyond the legal requirement. The sulphur content of light oils is now below 0.1% on average (less than half the legal limit of 0.2%). The tax also stimulated emission-abatement measures in combustion plants. It is estimated that the tax alone has reduced annual emissions of sulphur by around 6,000 tons (about 6% of total sulphur emissions).

In 1991, Sweden also introduced a tax differential between three types of diesel fuels used for motor vehicles. The cleanest diesel fuel (class 1) is taxed at 35% less than diesel fuels of class 3 (the dirtiest). In 1990 less than 1% of the diesel sold in Sweden was designated 'clean'; in 1996, 76 % of the diesel used in transport was of the cleanest type. The result has been a reduction in sulphur emissions from diesel vehicles by 75% on average.

In Norway, an SO_2 tax on oil products has been in force since 1970 as part of a mix of policy instruments comprising individual emission standards for industry and product standards on the sulphur content of fuel oils. Between 1973 and 1992 this set of measures led to a 67% reduction in sulphur emissions from industrial sources and between 1980 and 1992 to a reduction of emissions from heating installations of 86%. The contribution of the SO_2 tax is thought to be small because of its low rate during that period (some 1–2% of the price of oil products). But since 1992 the tax rate has considerably increased (up to 14–15% of the oil price). As a result, the price of heavy fuel oil (that is, oil with a high sulphur content) has become so high as to remove it from the market.

Tax differentiation between leaded and unleaded gasoline offers another instructive example. It has been introduced in most OECD countries, together with a series of regulations requiring petrol stations to sell unleaded gasoline and a range of new emission standards for motor vehicles mandating, in particular, catalytic converters. The result has been a strong reduction in the use and market share of leaded gasoline. In Germany and the Netherlands, for example, the market share of unleaded petrol is now more than 75%. In Sweden, where the tax differential increased from 0.10 crowns in 1986 to 0.51 in 1992, the share of leaded gasoline decreased from 100% in 1986 to 40% in 1992 and is now no longer sold on the market, as has happened also in Austria, Denmark and Finland. Again, it is difficult to disentangle the effect of the tax differential from the other contributing factors, although it is widely acknowledged that the tax was successful in accelerating the move from leaded to unleaded petrol. This is a typical case of an eco-tax providing an additional incentive to reduce and/or accelerate the reduction of pollution.


Leimdorfer/RÉA

The main goal of water-effluent charges in France and the Netherlands is to raise money to pay for treatment – though they also have a considerable effect on behaviour.

Waste charges

Charges and taxes on waste are applied in many OECD countries, either as user-charges levied by municipalities or as charges on specific types of waste (hazardous waste from industry, agricultural waste, for instance). Most of these charges are intended purely to raise revenue, with no additional incentive function, although some specific incentive schemes are operated in a number of states or municipalities.

Since household wastes are commonly subject to flat-rate charges, often based on the size of the household or dwelling and included in the residential property tax, there is no incentive to reduce the volume of refuse collected. But in a number of countries, refuse-collection charges are based, totally or in part, on an estimate or actual measurement of volumes discharged. 'Per bag' charges, for example, are applied in several US cities. These schemes require households to pay for the number of bags or bins collected or to purchase special marked bags or stickers to place on refuse bags. The evidence available indicates that such systems have proved quite effective. In High Bridge, New Jersey, for instance, the volume of household waste was reduced by 25%, and in Seattle, Washington, by 5% between 1970 and 1988, despite a general increase in the volume of waste throughout the United States during this period. Such charges also increase the participation of households in recycling schemes since they are encouraged to sort out recyclable materials (paper and glass, for example) and dispose of them in special sites or containers.

Aim: Reducing Costs

Tradable Permits

The primary purpose of tradable permits is economic efficiency. Just as markets drive resources to their most highly valued use, trade in permits

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Table
Emissions Trading Activity, 1974–86

	Estimated number of internal transactions	Estimated number of external transactions	Estimated cost savings (millions $)	Impact on environmental quality
Netting[1]	5,000–12,000	None	25–300 in permitting costs; 500–12,000 in emission-control costs	Insignificant in individual cases and probably in aggregate
Offsets[2]	1,800	200	'not easily estimated [...] probably hundreds of millions of dollars'	Probably insignificant
Bubbles[3] *(federally approved)*	40	2	300	Insignificant
Bubbles[3] *(state-approved)*	89	0	135	Insignificant
Banking	Under 100	Under 20	Small	Insignificant

1. Allows a source, subject to modifications, to compensate increased emissions by using emission-reduction credits attributed to another source within the same plant.
2. Allows new emitters to obtain emission credits from other existing firms in a given area.
3. Multisource plants are enclosed in imaginary 'bubbles', allowing firms to adjust their emission controls to the different sources of emission within the bubble, provided the aggregate limit for the bubble is not exceeded.

Source: R. W. Hahn and G. L. Hester, 'Marketable Permits: Lessons for Theory and Practice', *Ecology Law Quarterly*, Vol. 18, 1989

(which are purchased and have monetary value) allow the emission of a given volume of pollutant. They should thus be acquired by the users for whom they are most valuable, stimulating pollution reductions by those for whom the costs of abatement are lowest. If those holding the permits can find ways to reduce the amount of pollution they produce (through technology, for example), they are able to sell their unused permits in the marketplace.

The US system of trading in permits to manage air pollutants is the most prominent such undertaking in OECD countries. Its primary purpose is to provide cost-savings as polluters with high abatement-costs can buy pollution permits from polluters with lower abatement-costs, thus providing industry with increased flexibility, while continuing progress towards improved air-quality. Once more, as trade in such entitlements co-exists with other regulatory requirements, it is difficult to determine how much improvement in air quality, if any, can be attributed to the trading system as such. Yet there is ample evidence on the cost-savings realised (the Table summarises evidence on the performance of the US programmes over their first decade or so of operation – 1974–86).

The 1990 amendment of the US Clean Air Act aims at reducing by 40% annual emissions of SO_2 from 1980 volumes. It also implements a 'sulphur emission trading programme' in two phases (1995–2000 and 2000–10). Substantial cost savings (20–50%) are expected. It is too early to obtain a comprehensive assessment of the programme, initiated in January 1995, although the data available provide some interesting results. The volume of trade in the permits has been so far much lower than expected, but substantial savings in cost have been already generated. In particular, increased flexibility in the regulatory system has prompted many firms to develop less costly emission-abatement measures and to rely more on trading permits. The Environmental Protection Agency initially retained a figure of $750 per ton as the basis for estimates of allowance prices. In 1995, the price of traded allowance was about $170 and fell by $100 by the end of the year. Some utilities have switched to low-sulphur coal, the price of which has decreased substantially, thanks to reduced transport cost and productivity increases.

■ ■

The few examples presented here combine with the other evidence available to suggest that economic instruments perform well. But not all cases are success stories: there are instances where poor performance has resulted in the instrument either being dropped or being substantially reformed and redesigned. Evaluating the record of economic instruments is a complex business, and no black-and-white picture of their general success (or otherwise) emerges – although this is true also of more traditional command-and-control policy measures. Indeed, except in a few countries, the real outcomes of policies are rarely evaluated on a systematic basis. Governments therefore have to undertake regular evaluations of the effectiveness of their policies. A first step would be to institute a framework proposed by the OECD whereby data are collected and analysed as the policy in question is implemented. And the systematic evaluation of policies is crucial if environmental policy-instruments are to be understood and, as necessary, adjusted. ■

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Entrepreneurship and Local Development

Sergio Arzeni and Jean-Pierre Pellegrin

The adaptability of entrepreneurship to changing conditions is one of the major factors in the adjustment of economies to a new competitive environment, in line with a general trend towards decentralisation, both of business organisation and of government. The growth of small, independent but interdependent firms – a phenomenon based on local clusters and networks – has proven a vital element in this process.[1]

Over the last two decades, with the shift from mass to flexible production, the link between local development and the role of small firms has become increasingly clear. Rapid economic change requires adaptability and flexibility. Centralised government and large firms, with specialised skills and economies of scale, have often been slow in making the necessary socio-economic adjustments, leaving these unwieldy institutions ill-prepared to tackle high unemployment and meet the advent of global competition. The response lies in stimulating the development of entrepreneurship and decentralising decision-making. Institutions aimed at promoting entrepreneurship – local ones in particular – have grown in importance, with organised services and partnerships involving public authorities, the private sector and local communities.

Large firms, now taking their lead from smaller ones, have embarked on a process of re-organisation and decentralisation towards a flexible model of production, with lean manufacturing processes, vertical disintegration and the realisation of the value of local systems.[2] Regions and cities have similarly come to be regarded not as passive hosts relying purely on geographical advantage but as active structures themselves capable of generating innovative processes. The industrial districts of Emilia Romagna and Veneto in Italy, Juten in Denmark or Baden-Württemberg in Germany are the best known of these structures and thus the more widely analysed, but many similar areas exist in other OECD countries. Within these local systems, competitors, customers, suppliers and specialised research and training programmes concentrated in a geographical area offer a propitious climate for improvement and innovation. In the Emilian ceramic tiles district, for example, the close interaction between mechanical-engineering activities related to production and local manufacturing customers, together with applied research and vocational training support centres, has encouraged technological development and diffusion, including new, integrated production lines.

The local business environment has thus acquired an important role, particularly in the support it brings to the creation and growth of small and medium-sized enterprises (SMEs). Furthermore, economic-development strategies defined in terms of geographical area have proved more flexible and more comprehensive than sectoral and national policies, their value becoming clearer still when the issues of entrepreneurship and job-creation are addressed because they provide services directly tailored to firms.

A century ago, Alfred Marshall drew attention to the concentration of specialised textile and engineering industries, capital, technical and commercial expertise in the North of England, leading him to point to the existence of 'external economies'. Since then the defining characteristics of these economies have been identified: the active presence and the strong interaction between a community and a population of firms in a specific area, and a new, flexible, decentralised and efficient model of socio-industrial organisation. Another basic feature is the division of production into different phases, with the coexistence of a large number of interdependent SMEs or a network of such firms.

Localised systems of SMEs are groupings of firms specialised in various complementary functions, interacting and collaborating by pooling services, training, technology-diffusion and export-promotion among themselves. Firms can cooperate within these clusters and through formal and informal networks to use the resources provided by these services in their business environment and markets to maximum benefit. Other elements are of equal importance: the degree of skills at hand, the educational attainment, avail-

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1. ***Networks of Enterprises and Local Development***, *OECD Publications, Paris, 1996.*

2. *Graham Vickery and Gregory Wurzburg, 'Flexible Firms, Skills and Employment',* ***The OECD Observer****, No. 202, October/November 1996.*

Entrepreneurship and Local Development

Delliuc-XPX/REA

Networking allows SMEs to overcome their physical isolation – their main problem – and to benefit from the synergies of the local environment. This kitchen-accessories business is based in the ceramic-tiles district of Emilia Romagna.

ability of adequate supplies of sites, finance and the existence of informal relations and transactions based on trust and convention.[3]

The creation of networks of firms as self-help devices for SMEs is based on the idea that contacts and co-operation with other firms are the best way for an SME to solve its problems and that this mutual learning process could be facilitated by some kind of external assistance and brokerage. For example, a programme has been set up in Denmark, based on an independent analysis of the inter-firm linkages in the Italian and German local systems, to encourage firms to co-operate in order to enforce their competitiveness and allow them to gain access to new markets through networking, the development of common projects, and the provision of broker support (by a financial 'veteran' or technical expert), financial incentives to cover the cost of an initial feasibility study and up to 50% of the costs of running the network. Such joint projects can concern the development of a new line of products, the access to a new market or the development of new productive processes that a firm could not achieve on its own.

The network system is based not only on economies of scale but also on a system of learning and organising that arises through interdependence and mutual exchange between firms. A firm that wants to derive an advantage from local external economies so as to improve its competitiveness must itself participate in these collective learning processes and establish roots in the community.

The Fruits of Flexibility

There are considerable differences between networks and co-operation projects within such networks. Some horizontal networks regroup a few similar SMEs which aim at exporting their goods or occupying a new market. They share the R&D burden, the costs of expensive equipment, may co-operate in the conception of a new project, or the launching of some new activity. Other networks work vertically and consist of different firms, sometimes from different sectors, aiming to find complementary activities in the development of a new product, for instance. A third type is the 'knowledge' network: an association geared to solving a common problem or exchange technology or market information. New Zealand, for example, has developed 'flexible knowledge networks' – associations of SMEs in the same export sector as well as 'hard networks' of firms that develop innovative projects jointly.

The creation of such networks is not an easy task. Many have a short lifespan; some, promoted by the public sector, depend heavily on public finance and have only a passive role within firms. Nevertheless, evaluations carried out in Denmark in 1992 show that, among 3,000 firms involved in the programme mentioned earlier, 82% have created jobs, 75% have improved their competitiveness and 42% their sales; and a total of 94% state their readiness to pursue co-operation with the network. The co-operation that these networks allow is not a goal in itself but a way of enabling the local environment and the development of firms to interact, of tackling the main problem of small firms, which is not their small size but their isolation. It is dramatically different from strategic alliances between large firms whose goal is almost always to enforce dominant positions.

Localised economies, of course, are no safer than national ones from cyclical fluctuation and structural change but their organisation generally remains flexible and decentralised. The co-operation that is characteristic of firms at the heart of networks set up by regions or the firms themselves facilitates adjustment and allows them to keep or enforce the competitive advantages that play a central role in their success. A well-known example can be found in the semi-conductor firms in Silicon Valley, in California. After having been hard hit by the aggressive marketing strategy of Japanese chip-makers, the region was

*3. Mario Pezzini, 'Entrepreneurial Towns', **The OECD Observer**, No. 197, December 1995/January 1996.*

able to recapture a large market share by redefining its own strategy through networking and interaction, placing more emphasis on new, customised chips and diversifying into other products associated with personal computers, peripherals and software.

This success is apparent in strong production growth and in the above-average tendency to retrain workers, renew flagging firms and generate dynamism in job-creation. Successful local productive systems can attain full employment patterns and some are facing skills shortages. Furthermore, they constitute flexible local labour markets, with the part-time or temporary working and sub-contracting which allow the adaptability that nascent enterprises require. Moreover, the instability of employment within firms and high inter-firm mobility seems to be compensated for by the stability of local labour markets.

Two characteristics should encourage support policies for local systems. The first is that these enterprise networks diffuse information on production techniques and on markets, and thus create and enforce an atmosphere of reciprocity and trust. Second, they develop a continual process of innovation that neither the market nor public authorities could have accomplished individually.

Policy Particulars

Some of the characteristics of these local systems can lead to a redefinition of the guidelines of industrial and labour-policy instruments that, implemented on a territorial basis, can assist SMEs. The main goals of these policies are to help entrepreneurs and other economic agents adopt more flexible forms of organisation, to encourage them to intensify their exchanges, co-operate within networks and tighten the links between them and the public or private organisations that supply the various services (training, research and so on) that are necessary to develop the externalities that help firms innovate, step up their competitive advantages and grow.

Some countries have implemented a single policy towards local systems and networks, including assistance programmes to the creation and the development of SMEs. This approach avoids duplication and rivalry between services of patchy quality and poor relevance and allows a more comprehensive view for potential users who are otherwise often unaware of the help available or may be confused by the number of different initiatives. As a response to this potentially confusing multiplicity, the UK Business Links Programme was established in 1992. This scheme aims at providing a unified service of 'one-stop shops' of around 600 teams of personal business advisors acting as network brokers who encourage local companies to set up joint ventures and strategic alliances, and improve both the skills of their labour force and their performance.

One of the goals of assistance policy is to avoid excessive centralisation and the implementation of services without consulting clients. The knowledge of what enterprises require can be generated only locally. Furthermore, services to firms should be capable of adapting to changing demand.

A precondition for such assistance is the decentralisation of power to tiers of governments that are close to the firms in question and that can delve into the local environment to help resolve problems that vary from region to region. Such a decentralised system has existed in Spain since the 1980s, when the development of the Spanish state was based on the principle of autonomy for the regions. It allowed regions to manage their own economic activities through full powers or legislative development of executive powers in industrial promotion. The Institute for the Small and Medium-Sized Firms (IMPIVA), for instance, set up in Valencia in 1985 as a regional-development agency with the task of co-ordinating the autonomous industrial policy of the region, works as a public company whose relationships with third parties are governed by private law. An essential part of the Institute's work has been to promote infrastructural services and investment projects to support firms and stimulate diversification. IMPIVA also employs its own technical, organisational and financial resources to achieve interaction between the firms and the network. The latter is made up of 11 specialised Technology Institutes and other bodies such as businesses and innovation centres set up as private associations and managed by the business community – around 20,000 firms with an average size of 11 employees and located in the three main cities and rural nuclei.

■■

The strength of firms that make up local productive systems are often dependent on the specific characteristics of their immediate environment. It is a paradox of globalisation that the creation of international, interdependent networks and an increased mobility of factors of production and of products have contributed to the enforcement of regional specialisation and the strong interaction of firms in a local economic setting which tends to act as a stepping-stone for their global activities. In the uncertainty of an international context, with its increased competition and more volatile markets, the proximity of competitors, of clients and suppliers as well as training organisations and support activities, creates a favourable climate for the response to change and innovation. ■

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Investment in Ukraine

Barbara Peitsch

Since Ukraine gained its independence in 1991, there has been a substantial improvement in its framework for foreign direct investment.[1]

Like most of the other former Soviet republics, Ukraine is on the path from being a centrally planned economy to one based on market principles. It has recently made sweeping changes to its legislation in order to promote reform. With a new law on foreign direct investment (FDI), adopted in 1996, the implementation of an ambitious privatisation programme, and several new commercial laws regulating foreign trade, taxation and banking, the legal and regulatory framework for investment, and for commercial activity in general, is now much more transparent than it used to be and should facilitate FDI.

Between 1991 and 1995 hyperinflation, political instability (there were two presidents and seven cabinets in those four years) and volatile regulations were strong disincentives to investment in Ukraine. Up to the beginning of 1995 Ukraine had attracted only $150 million. The stock of FDI in Ukraine nonetheless doubled by the end of 1995, to over $300 million, thanks largely to improved economic performance and a more reform-oriented government. As of the beginning of September 1996, the cumulative stock of FDI is estimated to have reached $900 million. Although this increase is an indication that the climate for investment is improving, FDI in Ukraine remains low, particularly when measured on a per capita basis (Table).

By country of origin, companies based in the United States account for 22.8% of the total amount invested, followed by those based in Germany (17.3%), the Russian Federation (7.0%), the United Kingdom (6.2%), Cyprus (5.1%) and Switzerland (4.7%). Most FDI was channelled into commerce (26.4%), agricultural processing (14.5%), machine building (12.8%), transportation and communications (4.1%) and the chemical sector (3.7%). Geographically, the cities of Kiev, Lvov, Odessa, Dnipropetrovsk, Donetsk and Zakarpattya have attracted more than 70% of total investment to date.

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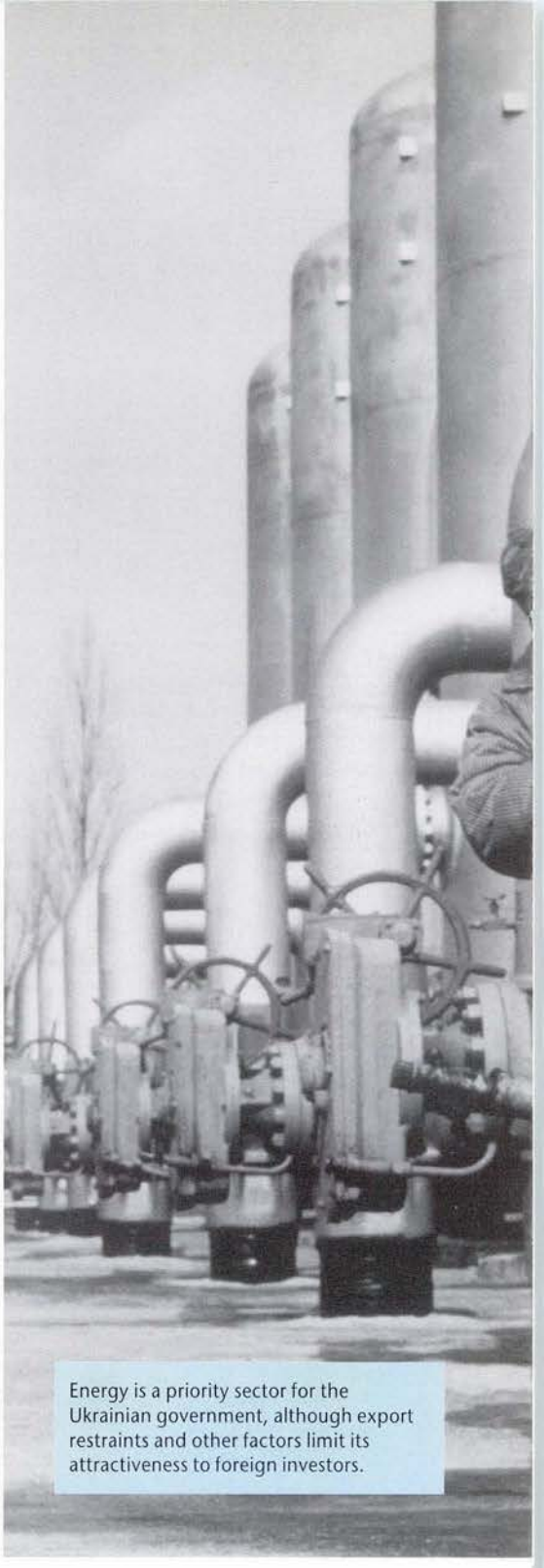
The Legal Framework

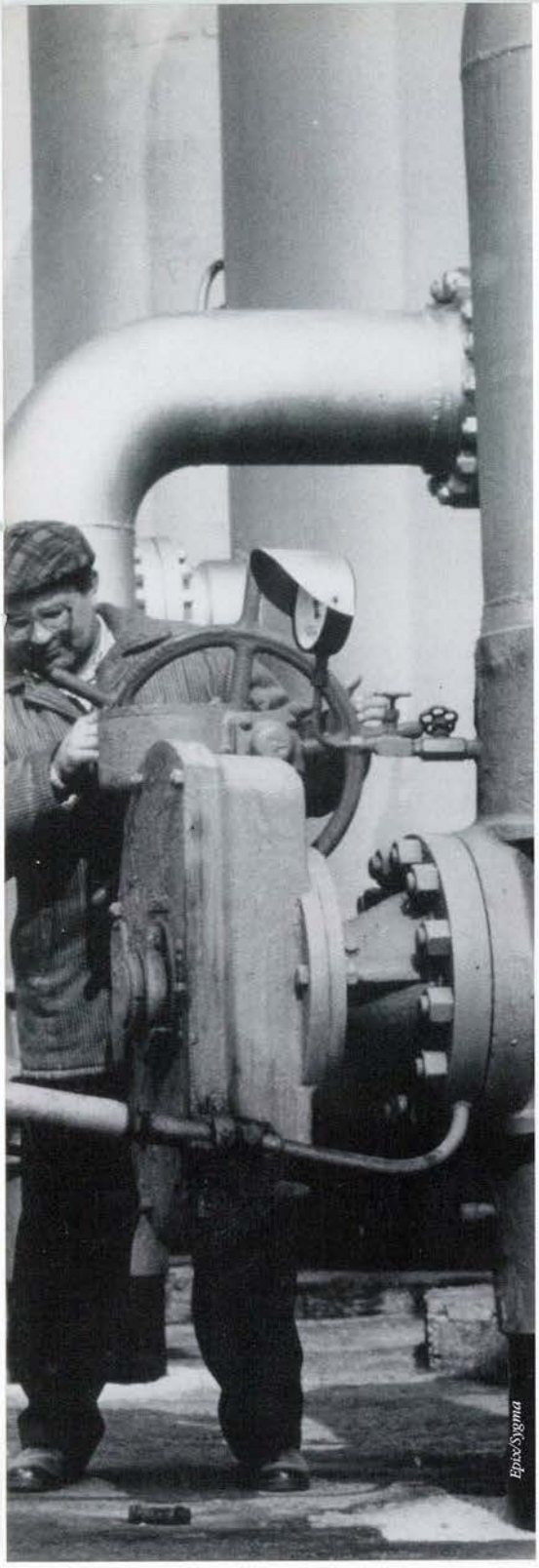
The legal framework for FDI in Ukraine has improved over time. A first 'Law on Foreign Investment', passed in 1992, provided extensive tax 'holidays' (up to ten years for some sectors and investments of a given size) but did not stimulate substantial inflows of FDI.[2] In 1993, the initial law was superseded by a decree from the Cabinet of Ministers, which introduced the notion of 'qualified foreign investment'. This decree was also based on tax-incentives but set conditions which had to be met before the investor would qualify for any of them. In 1995, the Ukrainian Parliament passed a new law on the taxation of profit, which applies equally to all enterprises, both domestic and those with foreign participation. The new foreign-investment law followed shortly thereafter and eliminated all automatic tax incentives previously granted



Energy is a priority sector for the Ukrainian government, although export restraints and other factors limit its attractiveness to foreign investors.

1. ***Investment Guide for Ukraine***, *OECD Publications, Paris, forthcoming 1997.*

2. *David Holland and Jeffrey Owens, 'Tax, Transition and Investment',* ***The OECD Observer,*** *No. 193, April/May 1995.*



to foreign investors, since it had been found that incentives alone were not effective in attracting FDI.

In 1996, Ukraine revised its legislation on FDI for the third time in four years. Unlike the previous legislation, which was focused on incentives for enterprises with FDI, the new legislative approach is to strengthen the national-treatment regime – that is, to set up non-discriminatory legal conditions for both foreign and domestic investors.

The attraction of additional FDI is a top policy priority for the Ukrainian government and the reason for the establishment, in 1996, of the National Agency for Reconstruction and Development (NARD). The NARD has the status of a ministry and is responsible for promoting investment and improving the legal framework by streamlining existing rules and regulations. The Ukrainian State Credit and Investment Company was set up in 1995 to finance investment projects and to oversee implementation of the government's investment programme. Although it tends to focus more on domestic investment, to the extent that foreign investment is required to support particular projects, it co-ordinates closely with the NARD and relevant ministries. In addition, there are departments within a number of governmental bodies (for example, the Cabinet of Ministers, the Ministry of Finance, the Ministry of Economy, and the Ministry of Foreign Economic Relations) that deal with issues related to FDI.

To enjoy the guarantees and benefits provided by the foreign investment law, an investment must be registered with the appropriate authorities (usually the regional or city administration) within three days after it has been made. The investor will be notified that registration has occurred within three working days from receipt of all required documentation. The registration office also requires that it be notified if and when an investment is terminated (it is no longer necessary to register commitments to invest). All companies, including those with foreign participation, must also register with the local tax-authorities, the local social-security office and with the national pension fund within ten days from the date of their state registration.

There are still some sectors in Ukraine – including banking, insurance, and heavy industry where damage to the environment could result – in which neither foreign nor domestic investors can invest without special permission, which has to be granted by the Cabinet of Ministers of Ukraine or its authorised body. As in most of the other former Soviet republics, the production of drugs, weapons and ammunition, and explosives is restricted to state-owned enterprises only and is therefore closed to foreign investment. Restrictions also affect other activities, but the lists change often and do not always promote liberalisation.

Those exceptions apart, national treatment for foreign investors is provided by the current legislation, which states that foreign investors are to be treated no less favourably than Ukrainian nationals.

Investment Protection

The law adopted in 1996 protects FDI in several ways. It allows for the full repatriation of profit, invested capital and wages of expatriate employees in hard currency – once all taxes and outstanding debts have been paid. In the event of nationalisation or expropriation, the 1996 law guarantees prompt compensation in hard currency equal to the present value of the amount initially invested. In addition, it provides a ten-

Table
FDI in Nine Economies in Transition

	$ million					FDI/capita $
	1991	1992	1993	1994	1995	1995
Bulgaria	38,524	56	171	196	150	17
Czech Republic	612	1,123	586	860	2,500	242
Hungary	1,459	1,471	2,339	1,147	4,400	426
Poland	117	284	580	542	2,500	64
Romania	42	80	94	342	400	17
Russia	..	500	1,000	1,100	2,000	13
Slovak Republic	..	234	350	516	200	36
Slovenia	..	..	..	..	150	73
Ukraine	..	..	..	150[a]	300	6

.. not available.
a. 1991–94.
Sources: OECD (1991–94), Economist Intelligence Unit (1995), CIA (population statistics)

Investment in Ukraine

year guarantee against changes in legislation that would adversely affect a foreign investor.

Ukraine has signed bilateral investment treaties with 15 countries, eight of which are members of the OECD – Canada, the Czech Republic, Denmark, Finland, France, Germany, Poland and the United States. Such treaties enhance the guarantees provided in the 1996 law, provide for national treatment and/or most-favoured-nation status for FDI. Investment from those countries which have a treaty may thus be able to import machinery and other equipment duty free, or at concessional rates, with possible exemptions for investment in selected sectors of the economy, such as banking, insurance and heavy industry, and procedures for international arbitration in the settlement of disputes that arise between foreign investors and the state.

Some Incentives Remain

Although in general tax incentives to attract FDI have been abolished, Article 7 of the 1996 law does allow for their provision on a case-by-case basis if the investment has been made in a priority region or sector. Priority sectors include energy (especially energy conservation), food-processing, shipbuilding, aviation, chemicals, electronics and light industry while the regions targeted for development through FDI include Odessa and the eastern industrial regions. But it is still not clear which government agency will authorise the incentive(s), and under what circumstances.

FDI in the form of an 'in-kind contribution' is exempt from customs duties and VAT. A new mechanism for the customs clearance of non-cash investment was introduced in 1996. Such investment will be cleared by the customs against a promissory note issued by the investor. The investment will be exempt from customs duties if the promissory note is settled within 30 days and the investment is recognised as an asset on the balance sheet of the company.

Products manufactured by an enterprise with foreign participation are exempt from export licensing and quotas. But this benefit does not apply to all goods. The most important of them is energy (despite its priority status), which is a deterrent to investors in that sector.

Foreign investors are also exempt from the 50% mandatory sale of hard-currency export revenue, which applies to local companies, who must exchange half of all hard-currency revenue from exports for local currency with the National Bank upon receipt, at the official rate set on that day. But this exemption is authorised only if the hard currency was obtained through the sale of the foreign investor's own production in Ukraine (goods or services). Foreign investors are not exempt from the mandatory sale if they re-export goods manufactured elsewhere and imported to Ukraine for assembly.

In October 1992, preferential conditions for economic activity undertaken by both foreign and domestic investors were established in 'free economic zones'. At present, only two such zones exist, one in Odessa and one in Uzhgorod. Although both have been established from a legal point of view, no investment has entered since their creation. Other free economic zones are in the process of being created. Since each zone has the right to set its own conditions, some are likely to be more concessional than others.

■ ■

Ukraine has made considerable progress over the past 18 months in stabilising its economy. The political leadership is clearly committed to reform. The legal framework is now more liberal and transparent, but more work is required, particularly in legislation outside of the FDI law that applies to both foreign and domestic investors, such as taxation, property rights and exchange controls. In addition, existing legislation must be more effectively implemented. Tax evasion remains a problem among entrepreneurs and small and medium-sized businesses, which has led the Finance Ministry to tax trade and investment excessively, since the revenue is easier to collect. Legislation that would stimulate investment in energy and natural resources, on production sharing and concession agreements, is still missing. The recent increase in FDI has made Ukrainian officials realise that the benefits of FDI – not least the creation of jobs, the transfer of technology and access to new management techniques and expertise – far outweigh the costs of foreign ownership and control of assets. ■

FOCUS

Ukraine and the OECD

The OECD has been working with Ukrainian authorities in revising the country's FDI and related legislation. If adequate funding is available, a group of experts, under the auspices of the Committee for Investment and Multilateral Enterprises (CIME), will meet later this year to assist in the drafting of legislation on production sharing and concession agreements. Legislation on the sharing of production would improve conditions for investment in energy by allowing all investors, both domestic and foreign, to provide the government with an agreed amount of product in lieu of taxes, while allowing the government to maintain ownership and control of the resource. Ukraine participates, moreover, in the Network of Co-operation between Investment Promotion Agencies established by the OECD Istanbul Centre in 1996, which allows Ukrainian officials to regularly consult their peers on policy, promotional techniques and other matters. This network is especially important for a country like Ukraine, which to date has relatively limited experience in investment promotion.

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A New Approach to Development

James H. Michel

The relationship between developed and developing countries is changing. Aid donors are now reformulating their policies so as to respect the ideas and opinions of developing countries and their peoples. This new approach is characterised both by ambitious goals and a realistic view of how they can be achieved.[1]

The world has changed radically in the past decade. The confrontation between East and West is a thing of the past. And, more gradually, the divide between North and South is being bridged in a globalising world – though some countries face a widening gulf and the danger of marginalisation. Differing views of government priorities and international responsibilities – together with a long legacy of corrosively bad press – have meant that aid budgets in the majority of OECD countries have faced even more severe tests of political accountability than most other areas of policy.

The last two years in particular have seen some intensive scrutiny of earlier development practices. In 1995 a meeting of development ministers from the member countries of the OECD Development Assistance Committee (DAC)[2] committed themselves to an intensive, year-long process of reviewing past experiences and planning policies for the next century. The resulting report, published in May 1996,[3] has since been the subject of wide international discussion and is beginning to form a framework for the co-operation of DAC countries with their partners in the developing world, with international organisations and, not least, with one another.

The new strategy – based on a partnership between donor and recipient – draws upon what has been learned in half-a-century of success and failure in development co-operation. At its core lies a pragmatic approach to a global community of shared interests, and the necessity of solidarity and concerted action to advance those interests in the future.

The demands of the new approach upon the conduct of development co-operation will be considerable. There are deeply entrenched gaps between theory and practice, contradictions which contribute to the uncertainty in public and political support for the funding of aid, and ambivalence about its importance. If these inconsistencies are not overcome, the prospects for existing patterns of co-operation will become increasingly bleak.

There are a number of anomalies that have indeed to be ironed out:

- both developing countries and external partners acknowledge the value of local control of development policies and programmes, and yet patterns of donor activism and recipient passivity continue to be found, characterised more by paternalism than by relations of partnership
- donors regularly proclaim the importance of development, and yet many of them have imposed disproportionately large cuts on already reduced aid budgets in their attempts at achieving fiscal restraint; concomitantly, concerns about aid as a whole should focus not only on its volume but also on its effectiveness in contributing to the desired outcomes
- it is increasingly evident that a comprehensive approach, employing coherent policies across a range of government activities, is essential, and yet officials in aid agencies and trade ministries (for example) often act independently of one another as if aid and trade were independent or even competing policy instruments
- there is general agreement of the importance of better co-ordination between donors, multilateral organisations and developing countries, and yet the principal focus is often still inward, concentrating on one's own projects and programmes
- efficiency is universally demanded in the expenditure of public funds, and yet practices like tied aid (which makes assistance dependent on procurement only from sources in the donor country) continue, even though international competition is becoming the norm in government procurement for purposes other than aid.

Measurable Goals

The most widely noted feature of the new development partnerships strategy is its proposal

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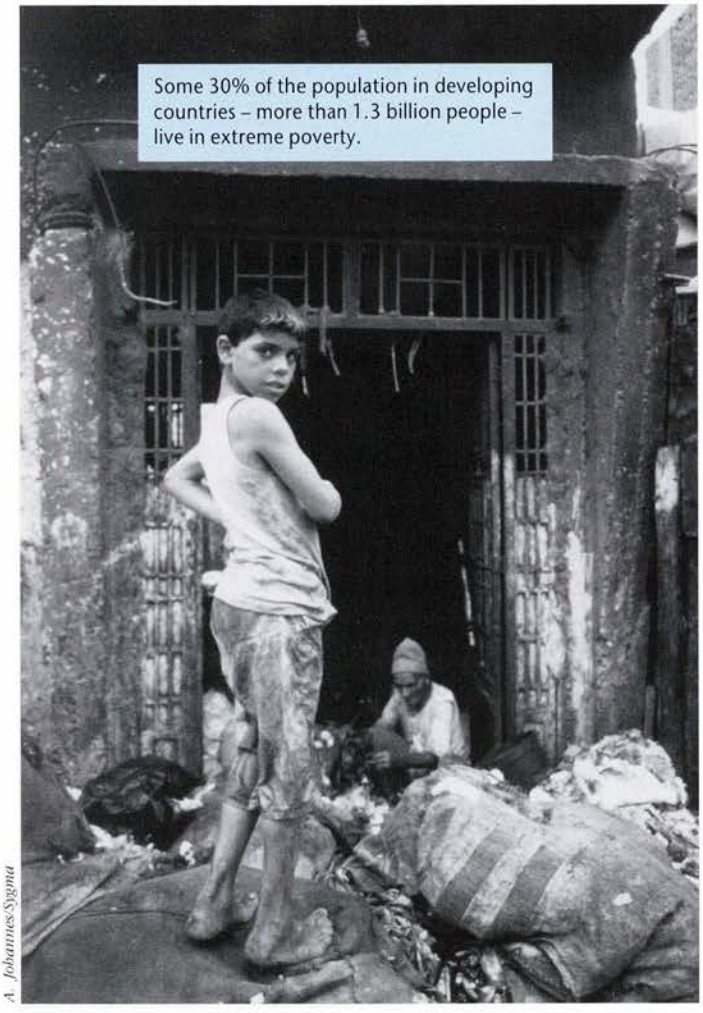
1. ***Development Co-operation Report for 1996: Efforts and Policies of the Members of the Development Assistance Committee***, *OECD Publications, Paris, 1997.*

2. *The members of the DAC are Australia, Austria, Belgium, Canada, Denmark, Finland, France, Germany, Ireland, Italy, Japan, Luxembourg, the Netherlands, New Zealand, Norway, Portugal, Spain, Sweden, Switzerland, the United Kingdom, the United States and the European Commission. Other OECD countries participate in DAC deliberations of interest to them. The International Monetary Fund, United Nations Development Programme and World Bank are permanent observers.*

3. ***Shaping the 21st Century: The Contribution of Development Co-operation***, *OECD Publications, Paris, 1996; reprinted in* ***Development Co-operation Report for 1996,*** op. cit.

A New Approach to Development



Some 30% of the population in developing countries – more than 1.3 billion people – live in extreme poverty.

A. Johannes/Sygma

for a global effort to achieve a limited number of specific goals within a foreseeable time. Based on the experience of many years and the conclusions reached at a series of global conferences, and focused on conditions in the developing world, these selected goals aspire to an improved quality of life. All of these goals are based upon commitments agreed to at the 1992 Rio Conference on the Environment and Development, the 1994 Cairo Conference on Population and Development, the 1995 Copenhagen Summit on Social Development and the 1995 Beijing Conference on Women; the developing countries participated actively at all of these meetings. The quantitative goals identified in the strategy are few in number, but they are of profound significance for the kind of world that future generations will inhabit.

The first, and undoubtedly the most ambitious, goal is to reduce by at least one-half by 2015 the proportion of people living in extreme poverty in the developing countries. Based on a standard annual income of $370 per capita, the World Bank has estimated that 30% of the population in developing countries – more than 1.3 billion people – live in extreme poverty.[4] Reducing that number to 15% would be a major step forwards.

The second category of goals involves social development and identifies four areas in particular: primary education, gender equality, basic health care and family planning:

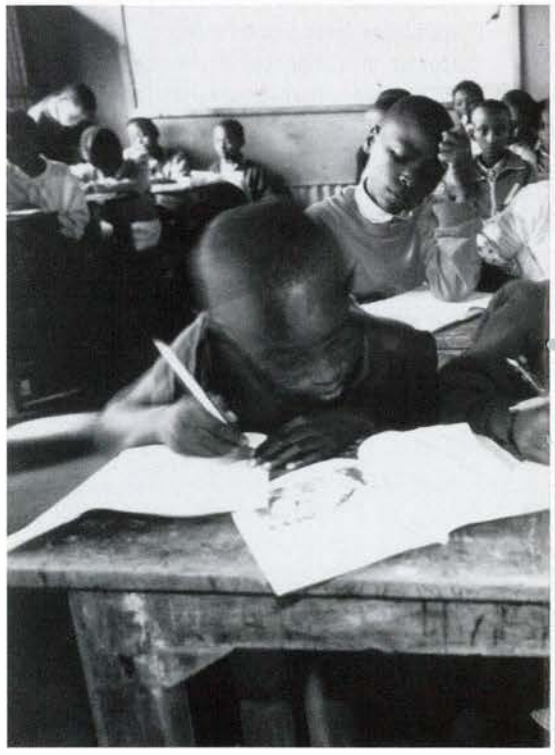
- universal primary education in all countries by 2015
- elimination of gender disparity in primary and secondary education by 2005
- reduction of infant and child mortality rates by two-thirds and reduction of maternal mortality by three fourths, all by 2015
- access through the primary health-care system to reproductive health services for all individuals of appropriate ages, including safe and reliable family-planning methods, by 2015.

The third measure of progress identified in the strategy is to have national strategies for sustainable development in operation in all countries by 2005, so as to ensure, by 2015, a reversal of current trends in the loss of environmental resources – covering, for example, forests, fisheries, fresh water, climate, soils, biodiversity, stratospheric ozone – and the accumulation of hazardous substances.

The goals are not intended as a prescription, but as a proposal. They represent a global vision and a basis for dialogue with developing countries, who have to set their own national goals in the light of circumstances. No outside party can draft the agenda for any developing country, and no single set of goals could adequately address the enormous variety in the difficulties faced by very different countries in very different circumstances.

Moreover, some central elements in development are extremely difficult, if not impossible, to measure. In particular, issues of democratic accountability, the protection of human rights and the rule of law are increasingly recognised as important to sustainable development. The

One of the goals of the new development strategy: universal primary education in all countries by 2015.

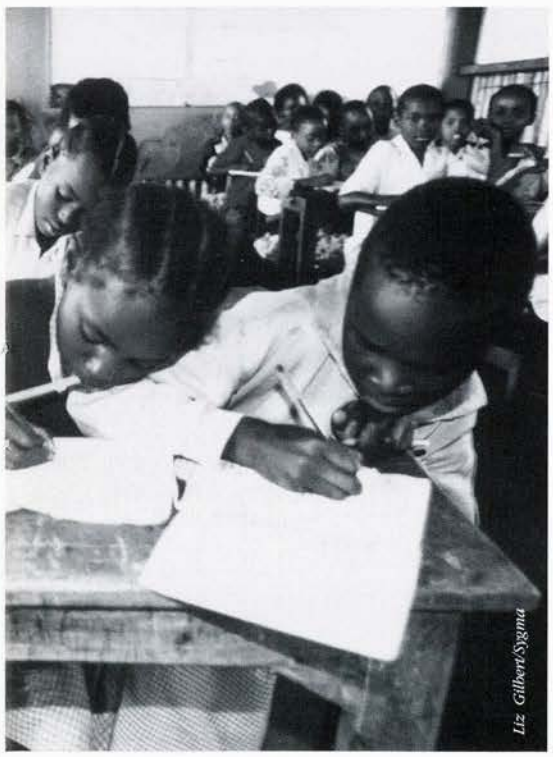


4. Human Development Report 1996, *United Nations Development Programme, New York, 1996.*

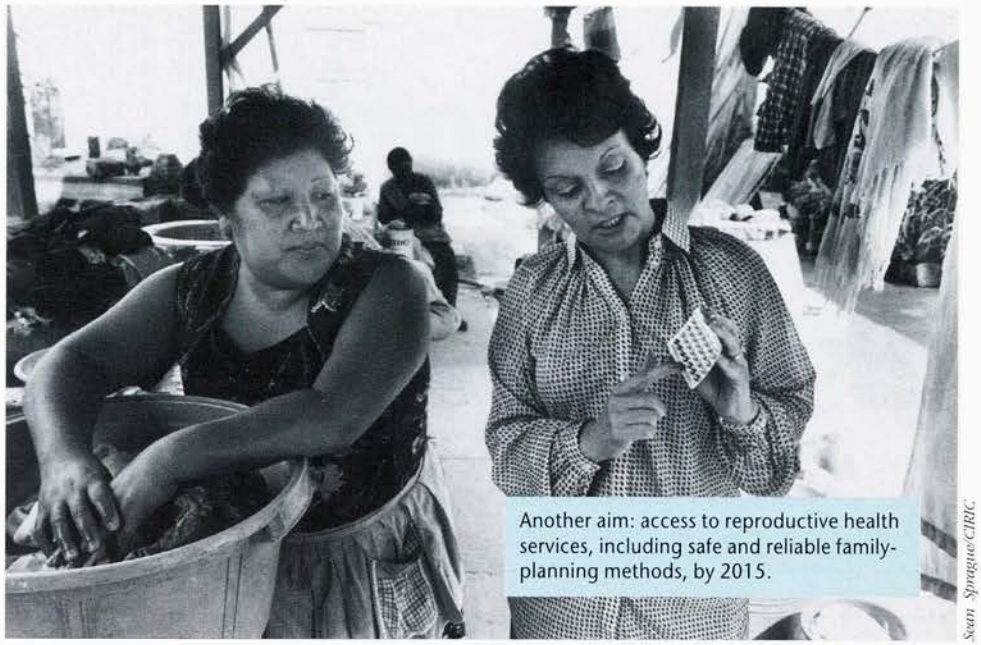
strategy of the DAC reaffirms the conviction that these qualitative aspects of development are essential to the attainment of more measurable goals and that they must remain a part of the agenda for development co-operation.

Genuine Partnerships

The new strategy also places stronger emphasis on the developing country itself as the starting point for co-operation efforts that reflect local circumstances, encourage local commitment and participation, and foster the strengthening of local capacities to manage development themselves, and with growing self-reliance. It suggests that locally controlled strategies and targets should emerge from participatory processes in which developing countries engage local authorities and their people and their external partners rather than bring about a situation in which each donor and multilateral agency has its own development strategy for a particular country.



Liz Gilbert/Sygma



Another aim: access to reproductive health services, including safe and reliable family-planning methods, by 2015.

Sean Sprague/CIRIC

A number of activities underway in the DAC can contribute to the implementation of this strategy. Work is underway on a pilot review of development-co-operation based on the experience of a single developing country in dealing with a large number of donors and multilateral organisations. A series of five further pilot studies is examining progress in country-based co-ordination of participatory development and good governance. Efforts (using amongst other means, an informal network on technical co-operation) are continuing with the aim of enhancing capacities for economic management, social development, environmental sustainability and good governance.

Growing budget constraints on many donors are making it increasingly difficult for them to maintain a presence in the field and to delegate authority (the usual reaction in such circumstances is to centralise), exactly when those capabilities are most pressingly required to facilitate co-ordination in the countries themselves and to foster increased local control over the development process. In order to help developing countries to assume increasing responsibility for their own development, DAC countries and the multilateral agencies, as well as other external partners, must also be able to carry out their part of the partnership agreement.

■■

The new DAC strategy will necessitate both adequate staffing and adequate funding. There should be a stronger effort to sustain and increase official development assistance to help reverse the growing marginalisation of the poor and more toward realistic goals of human development. That will require an increase in aid budgets, a concentration of available resources on countries where their absence is most desperately felt. They have also to be used effectively; here, the sharing of experience would help, as would enhanced co-ordination among donors and improved monitoring and evaluation of the results of different kinds of approaches and instruments.

Aid policies should also recognise the increasingly diversified composition of development finance and the importance of domestic savings, efficient local financial systems, sound economic policies and private foreign investment in fast-growing developing economies. Concessional resources should be used in ways that help countries build their capacities to create and mobilise domestic resources, attract private capital and gradually eliminate their dependency on aid.

Finally, the policies of the OECD countries in areas other than development co-operation can have profound implications for development objectives (agriculture and trade are obvious examples). A concerted effort should ensure that the entire range of policies in the industrialised world will support development. ■

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Globalisation and Development

Ebba Dohlman and Raundi Halvorson-Quevedo

Most of the industrialised countries are already deeply enmeshed in globalisation and are taking steps both to maximise its benefits and to ease the adjustments it demands. But there are wide differences in the readiness of developing countries to face global economic integration: they are increasingly heterogeneous in their degree of development, productive capacity, human-resource base and competitiveness. Some, particularly in South-east Asia and Latin America, are moving into mainstream global trade and investment flows. Others have the potential to participate more actively in world trade but must persevere with their growing efforts to improve local conditions for entrepreneurship and expand domestic capacities to produce and export.[1]

Many of the developing countries are a world apart from globalisation. Global trade and investment flows largely pass them by, despite the often considerable progress they have achieved in liberalising and deregulating their economies and opening their borders to international trade and investment. In the past decade, for example, net foreign direct investment (FDI) from OECD countries to the developing world increased by 270% – but the lion's share of it was attracted by a handful of Asian and Latin American countries. Developing countries similarly have a growing share in trade, currently accounting for a quarter of world exports – but Africa's share is a meagre 1.8% of the total, and has been falling steadily.

These imbalances give cause for broad concern. Evidence from recent World Bank studies show that integration in global markets through FDI and trade flows creates economic growth and employment.[2] Trade and investment are the principal mechanisms for the transmission of innovative ideas, marketing networks, more effective management practices, new production and packaging techniques, and consumer-friendly design – all prerequisites for competing in global markets.

The successful integration of the developing countries into a globalising world economy is logically a direct concern for the development co-operation efforts of OECD countries. Donors and their public in OECD countries are recognising that they have a stake in helping the less-advanced countries and their populations find their place in the global economy. Poverty, misery and marginalisation in large parts of the world threaten the prospects of rich and poor alike.

In the poorest developing countries (for instance, Sub-Saharan Africa and South-west Asia), human, institutional and industrial capacities are not adequate to produce on the demanding terms required by the global market-place. Trade and investment flows – essential for stimulating the growth necessary to absorb burgeoning labour forces – have considerable scope for expansion across the developing world. Yet many of them may find integration very difficult unless there are strong catalysts in the form of international support and co-operation.

OECD donors are committed to work with their partners to reduce by half the number of people living in poverty in the developing world – currently 1.3 billion – by 2015.[3] Strengthening the trade capacity and investment appeal of these countries is an important means to this end. Donors are increasingly turning their attention to how development co-operation can spread the benefits of globalisation to a larger proport-

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1. ***Development Co-operation Report for 1996: Efforts and Policies of the Members of the Development Assistance Committee***, *OECD Publications, Paris, forthcoming 1997.*

2. *Milan Brahmbhatt and Uri Dadush, 'Disparities in Global Integration', Finance and Development, Vol. 33, No. 3, September 1996.*

3. ***Shaping the 21st Century: The Contribution of Development Co-operation***, *OECD Publications, Paris, 1996. See also pp. 33–35.*

4. *Michel Courcelle and Anne de Lattre, 'The Enterprise Impulse in West Africa',* ***The OECD Observer****, No. 203, December 1996/January 1997. See also* Support of Private Sector Development, *Development Co-operation Guidelines Series), OECD, Paris, 1995, available free of charge from the Financial Policies and Private Sector Division of the OECD Development Co-operation Directorate.*

ion of the world's population, by, for example, promoting joint ventures, stimulating technology acquisition and building trade capacity.

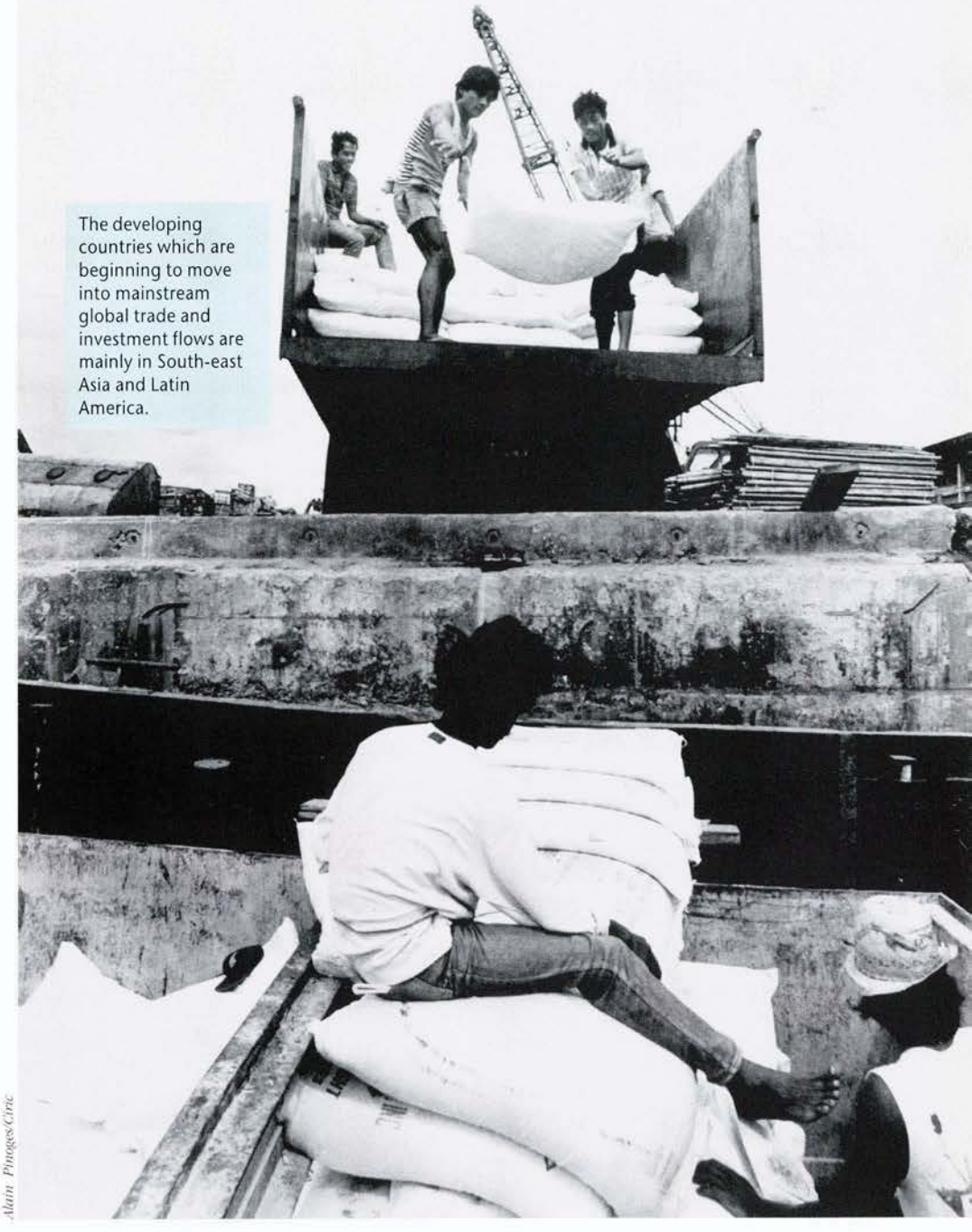
The obstacles are substantial. Many poorer developing countries are characterised by an undiversified export base limited to commodities (Ghana, for example, is heavily reliant on cocoa, Honduras on bananas, and Zaire on copper). They have limited or inefficient industrial capacity. Their infrastructure (transport, telecommunications and energy) is inadequate or dysfunctional. Their entrepreneurial forces are nascent or weak. They have a shortage of managers, engineers and technicians. Their institutions are weak, and human capital is poorly developed. Many of them also still face high prevailing tariffs and non-tariff barriers from OECD countries for their agricultural, textile and metal exports – the very sectors wherein their comparative advantage lies.

Yet the current context for drawing poorer countries into the global system is nonetheless extremely propitious:

- most developing countries are well-advanced in implementing structural adjustment and economic reforms geared to strengthening market forces through liberalisation and deregulation
- the basic conditions for good governance are receiving more attention from their governments, often under popular pressure for democratic reform
- the Uruguay Round of trade discussions has created new export opportunities, especially in agricultural, textile and metal products
- information and other technologies are spawning new services and products with lower barriers to entry
- strengthened regional integration/co-operation efforts among developing countries will help lock in reforms, create larger markets that allow economies of scale, and provide an intermediate step to the highly competitive global market-place.

Efforts must continue to help developing countries improve local business conditions[4] and modernise/diversify their export sectors. Of equal importance are investment policies that are transparent, non-discriminatory and contain adequate safeguards for currency convertibility, the repatriation of profits and dividends and intellectual property rights. Indeed, a more strategic approach geared to creating and deepening global links is now necessary, including such elements as:

- developing new market and product niches, such as intra-regional and inter-developing country trade, agro-industry, and information services
- promoting access to and use of modern communications and information technologies more broadly in poorer developing countries
- establishing national centres for promoting product quality, diffusing information on international standards, and testing locally made export products
- encouraging local entrepreneurs, especially small- and medium-sized enterprises, to 'think globally and act locally', producing high-quality and attractive goods that can be marketed in both domestic and international markets
- helping local business associations and learning networks develop an international 'window' using outward-looking personnel who can share



The developing countries which are beginning to move into mainstream global trade and investment flows are mainly in South-east Asia and Latin America.

Alain Pinoges/Cric

From Ideas to Action in Biotechnology

Some promising examples are emerging in Africa of the promotion of links between research activities and production. One North-South partnership has triggered the development of intra-African co-operation with the potential to accelerate the diffusion of biotechnology and its application in production. The initiative came from Monsanto Corporation, a large American chemical firm which had diversified into agro-biotechnology. It began a search for an African plant pathologist, an African country where a new technology could be readily disseminated, and third, an African crop with specific characteristics (it had to be part of the staple diet of that country, to be produced by peasant farmers so as to maximise its development impact, to have a problem which could not be solved through traditional methods; furthermore, given Monsanto's commercial interests, it had to be preferably a root or tuber crop in which they had little expertise). The learning implicit in the partnerships would thus be two-way. USAID was enlisted to help find a researcher and fund part of the cost of training. In 1991, a woman plant-pathologist on the staff of the Kenya Agricultural Research Institute moved to Monsanto. She had been doing research on the aphid that transmitted the sweet-potato disease which had destroyed nearly half of Kenya's yield. At Monsanto she undertook the research required to create a new transgenic, virus-resistant variety of sweet potato using Monsanto's technology and a gene identified by the International Potato Research Centre in Peru. After this success, she went on to set up Afrinet, the Africa branch of the International Service for the Acquisition of Agri-Biotech Applications, a non-profit international organisation sponsored by a number of foundations and corporations and working to facilitate partnerships within Africa for the transfer and development of biotechnology.[1]

An earlier initiative by the International Institute for Scientific Research for the Development of Africa (IISDA), supported by Canada, France and the Ivoirian government, focused on the improvement of yam varieties and the treatment of malaria, in close collaboration with the International Institute for Tropical Agriculture in Nigeria, which is active in tissue culture for germplasm conservation and the in vitro *distribution of disease-free planting material for yams and other crops.*[2]

1. Lynn K. Mytelka, 'The Future of Networking in Biotechnology', in *International Journal of Technology Management (Biotechnology Review)*, special issue, 1995.

2. *Genetic Engineering and Bio-technology Monitor*, No. 40, UNIDO, Vienna, December 1992.

information and pursue links to encourage global partnerships (alliances, sub-contracting and supplier contracts, for example)

- accelerating privatisation operations
- fostering new forms of private/public partnerships (concessions and sub-contracting, for example) for creating/maintaining infrastructure and public services (toll roads in Indonesia and the Philippines and electricity generation in Pakistan, for instance)

Support for Trade and Investment

Support for the promotion of trade and investment has always been central to development co-operation. But now donors and developing countries alike are beginning to rethink their approaches and priorities – not least because of the pressure of globalisation and a commitment to results-oriented, sustainable development assistance. As a result, measures to support trade and investment are becoming even more important. Donor governments increasingly take the view that building trade capacity requires simultaneous action on two fronts: the strengthening of productive capacity for selling on global markets has to be accompanied by measures to expand and deepen market access. The World Trade Organization (WTO), the United Nations Conference on Trade and Development (UNCTAD) and the International Trade Centre (ITC) are therefore joining forces with a view to streamlining, re-focusing and better co-ordinating their technical assistance activities. As part of a new initiative, the 'Integrated Programme for Technical Assistance', they can cover the full spectrum of trade-related technical co-operation issues, from legal and analytical questions to trade and trade-related policy formulation, the strengthening of institutional and human capacities, and trade support and promotion.

More attention is also being given to helping developing countries make their voices heard in fora that deal with trade and investment. For example, donors can help strengthen the negotiating capacity of developing countries in multilateral fora and rule-making bodies and work as honest brokers for developing countries in trans-

Information and other technologies are spawning new services and products with lower barriers to entry.

Dermais/ferrican

Schwerb-Cancel/Houaqui

A more strategic approach to globalisation should promote national centres for improving product quality, diffusing information on international standards and test locally made export products.

actions between public and private sectors (in privatisations and divestitures, for example). Donors also stand ready to help developing countries bring their laws, policies and technical capacities into line with Uruguay Round agreements and international investment standards, including those to be established under the proposed OECD Multilateral Agreement on Investment (the MAI).[5]

Both donors and recipients are seeking to improve the qualitative participation of developing countries in the international economy, one that is in line with sustainable human development. Development strategies for trade and investment should therefore take account of residual potential for creating employment, alleviating poverty, bringing women into the mainstream of economic development and protecting the environment (box, left).

*5. See William H. Witherell, 'An Agreement on Investment', **The OECD Observer**, No. 202, October/November 1996.*

These new approaches are being translated into operations in the field. Many innovations take their cue from lessons of best practices distilled by the donor community from three decades of seeing what works and what doesn't. Several principles emerge:

- enterprises must share in the cost of services provided and in the risks that must be borne
- promoting local identification and involvement with, and commitment to, assistance efforts requires a response to locally defined demands through locally created channels and instruments
- encouraging the spread of best practices requires the support of knowledge-networks (like the Internet, video-conferencing) linking research and academic institutions to exchange experience, on a regional and global basis, between entrepreneurs, institutions and authorities
- reinforcing the partnership between government and entrepreneurs calls for a strengthening of the institutions (chambers of commerce and professional associations, for example) through which a dialogue on policy issues and related concerns can take place. Such consultations inform government of the concerns of the business community while simultaneously building up in the private sector a sense of commitment to the government's reform agenda.

■ ■

Globalisation, to achieve its promise, will have to maximise the constructive interdependence among all nations – industrialised, developing and poorer alike. Marginalisation will impose avoidable costs, in human suffering, reduced choices and opportunities, excessive migratory pressures, damage to the global ecosystem or the spread of conflict. It is the actions of people in the developing countries themselves that will determine in large part the pace at which they can benefit from globalisation. But the policies and tools of the industrialised countries, including development co-operation, have their contribution to make. ■

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Japan
Corporate Governance: A System in Evolution

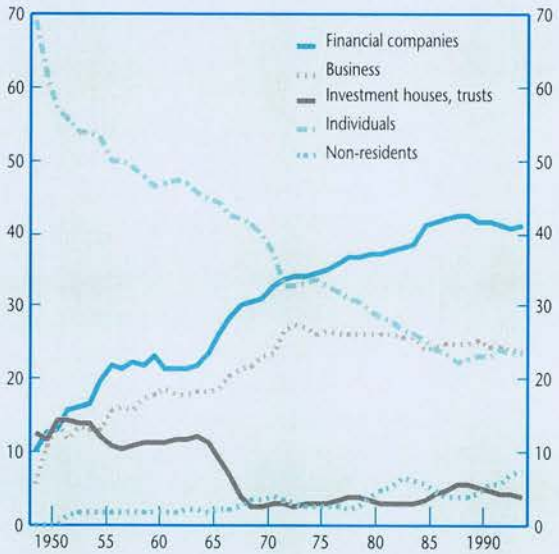
Randall S. Jones and Kotaro Tsuru

The divergence of interests between managers and share-holders which arises from the separation of ownership and control in modern joint-stock companies can adversely affect the performance of the corporate sector and thereby the economy at large.[1] Since the 1950s, Japan's approach to the problem of corporate governance has differed from that in other countries.[2]

There are broadly three mechanisms of corporate governance. The first is to motivate managers to carry out efficient management by linking their pay or promotion to the performance of the firm. In many countries, this approach has meant high managerial salaries and schemes such as share options for executives. In Japan, executive pay is on average lower than in other OECD countries and stock options have not generally been used because of restrictions on the ability of companies to buy back their own shares and because the income-tax treatment of such packages has been unfavourable. As a result, direct incentives for managers are lower in Japan.

The second method is to use indirect means of corporate control such as that provided through the discipline of the capital market. A take-over market is presumed to be the ultimate weapon against managerial misconduct. But in Japan take-overs are relatively rare compared with the United States and the United Kingdom, though not because of legal impediments. Rather, given the prevalence of stable shareholding, it is quite difficult for an external buyer to purchase a sizable portion of shares in a company through the Japanese market. Indirect control by take-overs is therefore limited.

Figure 1
Distribution of Share-holders by Category, 1949–94
%



Source: Annual Securities Statistics, Tokyo Stock Exchange

The third mechanism, direct control, involves giving more power to shareholders, creditors or other interested parties, either by strengthening their ability to monitor the performance of the company or through their institutional rights, such as the power to replace management. The legal structures of corporate control in Japan are very similar to those in other countries. But the ownership structure, where nearly 70% of all stocks are owned by institutions and corporations (Figure 1), is rather different. Moreover, the concentration of ownership is much higher in Japan than in the United States and the United Kingdom,[3] reflecting both the fact that financial institutions are allowed to own stocks in Japan and the tendency for companies with business relationships to hold each other's stocks ('cross-shareholding').

The Main Bank

In Japan, a few important institutional shareholders exercise direct control, aided by stable and concentrated shareholding. Among them, the so-called 'main bank' plays an important role in corporate governance. Although a company usually does business with several banks, it often has a special relationship with one of them. This main bank performs five important functions: it makes loans, and is usually its major creditor; it helps place

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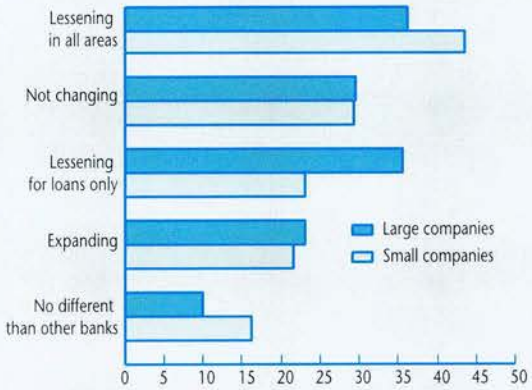
the bonds issued by the firm; it owns shares, often, indeed, as the main shareholder; it offers payment settlement facilities; and it supplies information and management personnel.

These functions enable the bank to integrate three types of monitoring: *ex ante* – basically, screening the company's applications for loans; interim – gathering information on the continuing performance of borrowers; and *ex post* – intervening in the affairs of firms in difficulties. It is not entirely clear why banks have an incentive to carry out such extensive monitoring on behalf of other bank lenders and shareholders. Nevertheless, it seems to have resulted in a number of advantages for other financial institutions.

Figure 2
The Perceived Role of the Main Bank
% of responses to a survey in 1991



Source: *Research Reports*, No. 75, Nihon Keizai Research Centre

One of the most important features of the Japanese main-bank system has been that it provides a type of contingent governance. When performance is good, corporate affairs are left to the incumbent management. When it deteriorates, the main bank, using its power as a lender and shareholder, intervenes in the management of companies to supervise downsizing and reorganisation where necessary.

Such interventions often occur through the appointment of bank directors to the board of the company. There is substantial evidence that the influence of directors placed by banks on client firms' boards is much stronger than their numbers would suggest, reflecting the important role of the main bank. Moreover, the probability that a bank will send additional directors to a board is directly related to poor performance, particularly in comparison with other companies in the same industry. Other large shareholders also exercise an important but subsidiary influence. In addition, business partners, such as suppliers and clients, also monitor the performance of companies.

The main-bank system worked well in the past, but strains are now beginning to emerge as a result of the impact of financial liberalisation in Japan. The demand for bank loans has fallen as companies have reduced their fixed capital formation and financial investment after four years of sluggish economic growth. In addition, financial deregulation has both eased access to capital markets and reduced bank profits. In the current environment, the banks may not be able to afford to undertake such extensive monitoring services (Figure 2). The severe bad-loan problems faced by the major banks have made them reluctant to take risks and have reduced their capital. These changed circumstances may impair their ability to provide aid when their clients face financial distress, which has hitherto been a key aspect of their *ex post* monitoring role.

Although the capital position of banks may recover in the current upturn, more financial institutions other than banks may have to become involved in corporate governance. In particular, stiffer competition in life insurance and in fund management could force these institutions to take a more active role. Deregulation of these two sectors should therefore be accelerated. The fund-management market could be further liberalised, and reform of the investment rules governing life insurance and pension funds pursued with new vigour. New accounting procedures, based on market prices, would be another welcome step.

Another way to encourage diversity in the provision of corporate governance would be to allow the creation of holding companies with financial stakes in a wide range of firms. Such companies could provide 'their' firms with central management skills. And a change in the tax disincentives and legal restrictions which limit stock options would tie the rewards to management more closely to the performance of the companies which they run.

These liberalising measures would allow the governance system to evolve in a manner appropriate to the structural changes in the economy, including a lower growth potential, an aging population,[4] deregulation and changes in other markets, such as labour. The strengths of the bank-based system of governance could be simultaneously reinforced by improving the banks' own disclosure and accountability, and by strengthening supervision of the banks. ■

1. See also Peter Jarrett, 'The United States – Corporate Governance: The Market as Monitor'. ***The OECD Observer****, No. 203, December 1996/January 1997.*

2. ***OECD Economic Surveys: Japan****, OECD Publications, Paris, 1996.*

3. The top five share-holders own an average of a third of outstanding shares in a Japanese company, compared with about a quarter in the United States and a fifth in the United Kingdom.

4. Peter Hicks, 'The Impact of Aging on Public Policy'. ***The OECD Observer****, No. 203, December 1996/January 1997.*

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Indicators

Definitions and Notes

Gross Domestic Product	*Volume series, seasonally adjusted except for Czech Republic and Portugal*
Leading Indicator	*A composite indicator, based on other indicators of economic activity (employment, sales, income, etc.), which signals cyclical movements in industrial production from six to nine months in advance*
Consumer Price Index	*Measures changes in average retail prices of a fixed basket of goods and services*
Current Balance	*$ billion; not seasonally adjusted except for Australia, the United Kingdom and the United States*
Unemployment Rate	*% of civilian labour force – ILO standardised unemployment rate; national definitions for Czech Republic, Iceland, Mexico, Switzerland and Turkey; seasonally adjusted apart from Turkey*
Interest Rate	*Three months, except for Greece (twelve months)*
..	*not available*

Source: **Main Economic Indicators**, *OECD Publications, Paris, January 1997.*

Australia

	period	% change from previous period	% change from previous year
Gross Domestic Product	Q3 96	1.2	3.8
Leading Indicator	Nov. 96	0.3	2.9
Consumer Price Index	Q3 96	0.3	2.1
		current period	same period last year
Current Balance	Oct. 96	-1.42	-1.61
Unemployment Rate	Oct. 96	8.8	8.6
Interest Rate	Nov. 96	6.42	7.41

Austria

	period	% change from previous period	% change from previous year
Gross Domestic Product	Q4 95	0.0	0.3
Leading Indicator	Oct. 96	1.4	6.2
Consumer Price Index	Nov. 96	0.1	2.3
		current period	same period last year
Current Balance	Oct. 96	-1.15	-1.01
Unemployment Rate	Oct. 96	4.1	3.9
Interest Rate	Dec. 96	3.35	4.06

Belgium

	period	% change from previous period	% change from previous year
Gross Domestic Product	1994		2.2
Leading Indicator	Nov. 96	0.0	5.1
Consumer Price Index	Dec. 96	0.2	2.6
		current period	same period last year
Current Balance	Q4 94	3.87	4.07
Unemployment Rate	Oct. 96	9.6	10.1
Interest Rate	Dec. 96	3.00	3.80

Canada

	period	% change from previous period	% change from previous year
Gross Domestic Product	Q3 96	0.8	1.6
Leading Indicator	Oct. 96	0.2	4.1
Consumer Price Index	Nov. 96	0.4	2.0
		current period	same period last year
Current Balance	Q3 96	1.39	-0.38
Unemployment Rate	Nov. 96	10.0	9.4
Interest Rate	Dec. 96	3.08	5.83

Czech Republic

	period	% change from previous period	% change from previous year
Gross Domestic Product	Q3 96	4.2	3.6
Leading Indicator		..	..
Consumer Price Index	Nov. 96	0.5	8.6
		current period	same period last year
Current Balance	Q2 96	-1.16	-0.51
Unemployment Rate	Nov. 96	3.3	2.8
Interest Rate	Oct. 96	12.69	11.15

Denmark

	period	% change from previous period	% change from previous year
Gross Domestic Product	Q2 96	1.0	2.2
Leading Indicator	Oct. 96	0.1	6.6
Consumer Price Index	Nov. 96	0.2	2.4
		current period	same period last year
Current Balance	Q3 96	0.99	1.08
Unemployment Rate	Oct. 96	5.6	6.7
Interest Rate	Dec. 96	3.60	4.70

Finland

	period	% change from previous period	% change from previous year
Gross Domestic Product	Q3 96	1.9	3.8
Leading Indicator	Jul. 96	1.2	5.2
Consumer Price Index	Nov. 96	-0.3	0.7
		current period	same period last year
Current Balance	Nov. 96	0.83	0.63
Unemployment Rate	Oct. 96	15.0	16.3
Interest Rate	Dec. 96	3.08	4.54

France

	period	% change from previous period	% change from previous year
Gross Domestic Product	Q3 96	0.9	1.4
Leading Indicator	Nov. 96	-0.2	3.8
Consumer Price Index	Nov. 96	-0.1	1.6
		current period	same period last year
Current Balance	Aug. 96	0.31	-0.23
Unemployment Rate	Oct. 96	12.5	11.7
Interest Rate	Dec. 96	3.44	5.56

Germany

	period	% change from previous period	% change from previous year
Gross Domestic Product	Q3 96	0.8	1.9
Leading Indicator	Nov. 96	-0.2	4.1
Consumer Price Index	Nov. 96	-0.1	1.4
		current period	same period last year
Current Balance	Oct. 96	-0.88	-3.44
Unemployment Rate	Oct. 96	9.1	8.4
Interest Rate	Dec. 96	3.23	3.94

Greece

	period	% change from previous period	% change from previous year
Gross Domestic Product	1995		2.0
Leading Indicator	Nov. 96	0.9	1.4
Consumer Price Index	Nov. 96	-0.3	7.7
		current period	same period last year
Current Balance	Jul. 96	-0.51	-0.12
Unemployment Rate		..	..
Interest Rate	Dec. 96	11.20	14.20

Iceland

	period	% change from previous period	% change from previous year
Gross Domestic Product	1995		2.1
Leading Indicator		..	..
Consumer Price Index	Dec. 96	-0.4	2.1
		current period	same period last year
Current Balance	Q3 96	-0.02	0.04
Unemployment Rate	Nov. 96	4.3	5.0
Interest Rate	Dec. 96	7.10	7.30

Note: figures for Hungary, Korea and Poland are in preparation.

Ireland

	period	% change from previous period	% change from previous year
Gross Domestic Product	1995		10.7
Leading Indicator	Nov. 96	1.1	10.2
Consumer Price Index	Q3 96	0.5	1.5
		current period	same period last year
Current Balance	Q2 96	0.16	0.51
Unemployment Rate	Oct. 96	12.0	12.4
Interest Rate	Nov. 96	5.68	5.69

Italy

	period	% change from previous period	% change from previous year
Gross Domestic Product	Q2 96	-0.4	0.7
Leading Indicator	Nov. 96	0.9	2.6
Consumer Price Index	Nov. 96	0.3	2.6
		current period	same period last year
Current Balance	Aug. 96	4.40	2.74
Unemployment Rate	Jul. 96	12.2	12.0
Interest Rate	Dec. 96	7.25	10.61

Japan

	period	% change from previous period	% change from previous year
Gross Domestic Product	Q3 96	0.1	3.2
Leading Indicator	Nov. 96	0.0	1.5
Consumer Price Index	Nov. 96	-0.3	0.5
		current period	same period last year
Current Balance	Oct. 96	3.27	4.54
Unemployment Rate	Nov. 96	3.2	3.4
Interest Rate	Dec. 96	0.52	0.52

Luxembourg

	period	% change from previous period	% change from previous year
Gross Domestic Product	1995		3.8
Leading Indicator	Nov. 96	-0.1	8.0
Consumer Price Index	Oct. 96	0.3	1.5
		current period	same period last year
Current Balance		..	..
Unemployment Rate	Oct. 96	3.2	2.9
Interest Rate		..	..

Mexico

	period	% change from previous period	% change from previous year
Gross Domestic Product	Q3 96	1.4	7.4
Leading Indicator	Nov. 96	0.8	3.5
Consumer Price Index	Nov. 96	1.5	27.8
		current period	same period last year
Current Balance	Q3 96	-0.71	-0.27
Unemployment Rate	Nov. 96	5.2	6.4
Interest Rate	Nov. 96	28.94	54.19

Netherlands

	period	% change from previous period	% change from previous year
Gross Domestic Product	Q3 96	0.7	2.9
Leading Indicator	Nov. 96	0.0	3.1
Consumer Price Index	Nov. 96	-0.1	2.3
		current period	same period last year
Current Balance	Q2 96	6.14	4.48
Unemployment Rate	Sep. 96	6.7	6.8
Interest Rate	Dec. 96	3.08	3.66

New Zealand

	period	% change from previous period	% change from previous year
Gross Domestic Product	Q2 96	0.0	0.5
Leading Indicator		..	..
Consumer Price Index	Q3 96	0.6	2.4
		current period	same period last year
Current Balance	Q2 96	-0.57	-0.56
Unemployment Rate	Q3 96	6.3	6.1
Interest Rate	Nov. 96	8.97	8.31

Norway

	period	% change from previous period	% change from previous year
Gross Domestic Product	Q3 96	2.5	5.1
Leading Indicator	Nov. 96	1.0	3.5
Consumer Price Index	Nov. 96	0.0	1.8
		current period	same period last year
Current Balance	Q3 96	2.97	1.35
Unemployment Rate	Q2 96	5.0	5.2
Interest Rate	Dec. 96	4.14	5.43

Portugal

	period	% change from previous period	% change from previous year
Gross Domestic Product	Q4 95	5.0	3.7
Leading Indicator	Oct. 96	-1.9	-1.9
Consumer Price Index	Nov. 96	0.2	3.0
		current period	same period last year
Current Balance	Q4 95	-0.12	-1.04
Unemployment Rate	Oct. 96	7.1	7.3
Interest Rate	Dec. 96	6.42	8.92

Spain

	period	% change from previous period	% change from previous year
Gross Domestic Product	Q3 96	0.6	2.2
Leading Indicator	Oct. 96	0.6	3.0
Consumer Price Index	Nov. 96	0.0	3.2
		current period	same period last year
Current Balance	Oct. 96	0.95	0.75
Unemployment Rate	Oct. 96	22.3	22.7
Interest Rate	Dec. 96	6.36	9.21

Sweden

	period	% change from previous period	% change from previous year
Gross Domestic Product	Q3 96	0.7	0.7
Leading Indicator	Nov. 96	1.9	10.3
Consumer Price Index	Nov. 96	-0.2	-0.6
		current period	same period last year
Current Balance	Oct. 96	1.05	0.65
Unemployment Rate	Oct. 96	9.9	9.2
Interest Rate	Dec. 96	3.88	8.62

Switzerland

	period	% change from previous period	% change from previous year
Gross Domestic Product	Q3 96	-0.2	-0.7
Leading Indicator	Nov. 96	0.5	3.4
Consumer Price Index	Dec. 96	0.1	0.8
		current period	same period last year
Current Balance	Q3 96	4.34	5.04
Unemployment Rate	Nov. 96	5.1	4.2
Interest Rate	Dec. 96	2.00	1.95

Turkey

	period	% change from previous period	% change from previous year
Gross Domestic Product	Q1 96	8.4	10.3
Leading Indicator		..	..
Consumer Price Index	Dec. 96	3.4	79.8
		current period	same period last year
Current Balance	Q1 96	-0.72	0.43
Unemployment Rate	Q2 96	6.3	7.2
Interest Rate	Jul. 96	95.58	66.98

United Kingdom

	period	% change from previous period	% change from previous year
Gross Domestic Product	Q3 96	0.4	2.2
Leading Indicator	Nov. 96	0.0	4.8
Consumer Price Index	Nov. 96	0.1	2.7
		current period	same period last year
Current Balance	Q3 96	-0.11	-2.76
Unemployment Rate	Oct. 96	7.9	8.7
Interest Rate	Dec. 96	6.35	6.49

United States

	period	% change from previous period	% change from previous year
Gross Domestic Product	Q3 96	0.5	2.2
Leading Indicator	Nov. 96	0.6	6.7
Consumer Price Index	Nov. 96	0.2	3.3
		current period	same period last year
Current Balance	Q3 96	-47.96	-37.69
Unemployment Rate	Nov. 96	5.4	5.6
Interest Rate	Dec. 96	5.44	5.62

The OECD Economic Outlook

Highlights

The convergence of cyclical conditions in the OECD area is likely to continue in the coming year, with robust and sustainable growth in the United States and a continuation of the expansions in Japan and Europe, following a pause in 1996 (Table 1). At the same time, substantial output gaps suggest that the risk of a resurgence of inflation will remain low in Japan and continental Europe, at least for the next year or two (Table 2). And in Europe, high unemployment will remain a major problem (Table 3). In some other countries, particularly the United States, where unemployment is low, and the United Kingdom, where it has fallen significantly, there may be a risk of inflationary pressures although, as yet, there are no convincing indications that inflation is rising. Short-term macro-economic policy requirements for achieving and enhancing non-inflationary growth therefore differ according to country- or region-specific situations. In a nutshell, judicious use of monetary policy, together with credible, sustained fiscal consolidation over time without heavy concentration of restraint in a short span of time would contribute to faster growth of output and employment without compromising the objectives of inflation control.[1]

In the face of this short-term situation, growth of output and living standards over the 1990s is likely to fall well short of post-war achievements in all major OECD areas. Improving on this relatively weak performance would raise material living standards as well as provide the resources to meet long-standing social goals, including an acceptable distribution of income, the elimination of poverty and the protection of the most vulnerable members of society; such resources will be required all the more as populations age.

Considerable progress has been made in reducing fiscal deficits in most OECD countries, with the notable exception of Japan, where output is still depressed (Table 4). But ratios of public debt to GDP remain high and pressures on public finances will intensify over the coming decades with population aging. Continuing the process of fiscal consolidation over the medium-term is thus the key macro-economic policy challenge facing virtually all OECD countries. Cutting fiscal deficits further to stop and reverse the build-up of public debt that has occurred in the past two decades would reduce long-term real interest rates and stimulate productive investment, growth and employment opportunities.

Enhancing the credibility of medium-term fiscal consolidation programmes could pay immediate dividends in terms of economic performance, thereby reducing the short-term risks attached to deficit reduction. If financial markets, businesses and households are assured that necessary fiscal corrections will actually be carried out, the short-term adverse aggregate-demand effects of consolidation would be mitigated. Financial markets, anticipating that the pressures associated with the requirements of government financing will recede, will tend to reduce real interest rates, even in the short run, thereby stimulating private-sector investment. Confidence that the long-term benefits of fiscal consolidation would be forthcoming would further raise investment demand and, in addition, it could boost household consumption. Some of these effects appear to have operated in Denmark and Ireland, both of which experienced sharp reductions in fiscal deficits in the late 1980s along with buoyant private-sector domestic demand. In the past year, the progress made in reducing deficits in Italy

1. ***OECD Economic Outlook***, *No. 60, OECD Publications, Paris, 1996.*

Table 1
Growth of Real GDP in the OECD Area
%

	Share in total OECD	Change from previous year			
	1991	1995	1996	1997	1998
United States	36.36	2.0	*2.4*	*2.2*	*2.0*
Japan	14.56	0.9	*3.6*	*1.6*	*3.7*
Germany	8.34	1.9	*1.1*	*2.2*	*2.6*
France	6.37	2.2	*1.3*	*2.5*	*2.6*
Italy	5.97	3.0	*0.8*	*1.2*	*2.1*
United Kingdom	5.54	2.4	*2.4*	*3.3*	*3.0*
Canada	3.21	2.3	*1.5*	*3.3*	*3.3*
Total/average of above 7 countries	80.35	1.9	*2.2*	*2.1*	*2.6*
Australia	1.70	3.2	*4.1*	*3.3*	*3.0*
Austria	0.83	1.8	*1.1*	*1.4*	*2.3*
Belgium	1.06	1.9	*1.3*	*2.2*	*2.6*
Czech Republic	0.55	4.8	*4.8*	*4.6*	*5.3*
Denmark	0.55	2.8	*1.9*	*2.9*	*3.1*
Finland	0.48	4.2	*2.5*	*3.5*	*3.6*
Greece	0.62	2.0	*2.2*	*2.5*	*2.8*
Hungary	0.38	1.5	*0.5*	*1.7*	*3.2*
Iceland	0.03	2.1	*5.4*	*3.3*	*2.9*
Ireland	0.26	10.3	*7.0*	*6.2*	*6.8*
Luxembourg	0.06	3.7	*2.4*	*3.1*	*3.2*
Mexico	2.70	-6.9	*4.0*	*5.0*	*4.5*
Netherlands	1.52	2.1	*2.7*	*2.7*	*3.0*
New Zealand	0.28	1.9	*1.2*	*2.9*	*2.9*
Norway	0.49	3.3	*5.1*	*3.0*	*2.3*
Poland	0.99	7.0	*5.5*	*5.0*	*5.0*
Portugal	0.62	2.4	*2.6*	*2.9*	*3.2*
Spain	3.04	2.8	*2.1*	*2.7*	*3.0*
Sweden	0.89	3.6	*1.7*	*2.2*	*2.1*
Switzerland	0.91	0.1	*-0.3*	*0.8*	*2.0*
Turkey	1.69	7.3	*7.5*	*5.7*	*5.0*
Total/average of above 21 countries	19.65	2.0	*3.2*	*3.4*	*3.5*
EU	36.15	2.5	*1.6*	*2.4*	*2.7*
Total OECD	100.00	2.0	*2.4*	*2.4*	*2.7*

Figures in *italics* are provisional.

has helped to reduce interest-rate differentials significantly vis-à-vis Germany. Moreover, in the absence of inflationary pressures, credible fiscal-consolidation plans can allow a cut in policy-controlled interest rates to offset the negative short-run demand effect of fiscal consolidation without compromising the primary goal of achieving and maintaining price stability. In such a context, it should be possible to lower short rates without increasing pressure on long-term interest rates which would be detrimental to growth and increase the cost of deficit financing.

To be credible, such programmes should be concrete, sustainable and transparent. Building a fiscal programme on concrete measures would mitigate the risk that timely action on taxes or expenditures might not be taken and, consequently, that fiscal targets will not be met. The sustainability of a fiscal programme depends to a large extent on the 'quality' of the measures actually taken. Where tax burdens are already high – as is the case in many European countries – further substantial increases in taxes necessary to close budget deficits may be too costly in terms of the economic distortions they generate, as reflected in poor labour-market or productivity performance. In such cases, expenditure reductions may prove to be economically more efficient and, therefore, sustainable in the long run. Reliance on one-off measures, such as capital transfers from publicly owned enterprises, or on measures that may have to be reversed, including some public-sector wage freezes and deferrals of public investments, only delay the necessity of more fundamental fiscal adjustments. The consolidation process can be made more transparent by establishing overall fiscal principles and goals, as well as by clarifying the budget concepts relevant to those goals, the economic assumptions that underlie medium-term budget forecasts and government accounts. In some cases, binding fiscal rules may reinforce credibility, although in many cases they may prove difficult to enforce and there is a risk that the loss in flexibility of fiscal policy could at times aggravate economic cycles.

Sustainable improvement in economic performance will, however, involve much more than fiscal consolidation: it will also require that structural reforms be undertaken on a wide front in order to increase the efficiency of the use of scarce resources as well as to enhance innovativeness and the adaptability of OECD economies to changes brought about by globalisation and new technologies. In product markets, preliminary research suggests that there could be significant long-term gains to regulatory reform in both Japan and continental Europe, where regulation is more pervasive and reforms have not yet been as comprehensive as those in the United States and the United Kingdom (although the research suggests that the latter would also benefit substantially from further reform). The

Table 2
Private Consumption Deflators in the OECD Area
%

	Change from previous year			
	1995	1996	1997	1998
United States	2.4	*2.1*	*2.2*	*2.3*
Japan	–0.5	*0.0*	*0.6*	*0.3*
Germany	1.9	*1.7*	*1.5*	*1.5*
France	1.6	*1.8*	*1.3*	*1.2*
Italy	5.7	*4.2*	*2.5*	*2.2*
United Kingdom	2.6	*2.6*	*2.5*	*2.3*
Canada	1.6	*1.4*	*1.3*	*1.4*
Average of above 7 countries	2.0	*1.8*	*1.8*	*1.7*
Australia	2.5	*2.1*	*2.5*	*2.8*
Austria	2.3	*1.9*	*1.8*	*1.7*
Belgium	1.6	*2.0*	*1.9*	*1.7*
Czech Republic	9.1	*9.1*	*8.5*	*7.5*
Denmark	2.1	*2.1*	*2.5*	*2.8*
Finland	0.2	*0.6*	*1.7*	*2.1*
Greece	9.3	*8.6*	*7.2*	*6.0*
Hungary	26.4	*23.0*	*19.0*	*16.0*
Iceland	1.8	*2.3*	*2.8*	*3.4*
Ireland	2.0	*1.8*	*2.0*	*2.1*
Luxembourg	0.7	*1.4*	*1.8*	*2.0*
Mexico	39.1	*35.0*	*17.0*	*10.0*
Netherlands	0.9	*1.7*	*2.1*	*2.2*
New Zealand	2.3	*1.9*	*1.6*	*1.3*
Norway	2.4	*1.3*	*2.5*	*2.4*
Poland	27.8	*19.6*	*14.9*	*11.6*
Portugal	4.1	*3.3*	*2.6*	*2.4*
Spain	4.7	*3.6*	*2.9*	*2.5*
Sweden	2.4	*1.5*	*2.1*	*2.2*
Switzerland	1.3	*0.7*	*1.2*	*1.4*
Turkey	94.6	*78.0*	*73.0*	*65.0*
Average of above 21 countries	17.7	*14.9*	*11.7*	*9.7*
EU	3.0	*2.6*	*2.1*	*2.0*
OECD *less* high-inflation countries[1]	2.1	*1.9*	*1.9*	*1.8*
Total OECD	5.1	*4.4*	*3.7*	*3.3*

Figures in *italics* are provisional.

1. High-inflation countries are defined as those which have had 10% or more inflation in terms of the GDP deflator on average during the 1990s on the basis of historical data. Consequently, the Czech Republic, Greece, Hungary, Mexico, Poland, Portugal and Turkey are excluded from the aggregate.

blueprint laid out in the *OECD Jobs Study*[2] provides the best way forward for sustainably reducing unemployment and raising employment: a stable macro-economic framework, measures to ensure the re-integration of the unemployed, especially youth and the long-term unemployed, into the labour market, reductions in disincentives to hire and work, policies to increase skills and deregulation to increase flexibility and dynamism.

In addition to the challenge of raising longer-term growth, the governments of OECD countries are also facing the problems associated with poverty and exclusion. In many countries, particularly in Europe, these problems have been aggravated by the rise in structural and long-term unemployment during the past 25 years. In other countries, particularly the United States and the United Kingdom but also some continental European countries, there are concerns that rising wage and income inequality have had adverse social consequences. These issues are linked to fiscal reform. The increase in government outlays in the past 30 years has, in most countries, been driven by rising social expenditures, including, in many countries, those related to rising unemployment. While these programmes have alleviated poverty, some of them have distorted economic incentives, particularly in labour-markets, reducing employment and output. Conversely, pressures for fiscal consolidation and labour and product market reforms have raised concerns about the public sector's ability to deal with social problems.

The relationship between growth and inequality is complex, and the usual assumption of a 'trade-off' between the two is not necessarily correct. A concern about the deregulation of labour markets is that higher employment will come at the expense of a wider distribution of wage rates. However, increased employment – in terms of both jobs and hours worked – that would result from appropriate labour-market reforms might more than offset a wider wage-rate distribution. Evidence from the United States and a few European countries, for which comparable data on labour-earnings distributions are available, suggests that labour-market reforms do not have to increase labour-earnings inequality even if they increase wage-rate inequality. But it is important to emphasise that changes in the distribution of labour earnings may not be reflected in distributions of disposable income, which depend also on the redistributive effects of taxes and transfers, and are central to the questions of poverty and the distribution of economic resources.

More generally, the relationship between equity and growth will depend on the specific policies in place. For example, redistributive measures that heavily distort economic decisions are likely to blunt growth, whereas those that encourage the formation of human capital are likely to raise growth and, if

2. ***The OECD Jobs Study: Facts, Analysis, Strategies***, *OECD Publications, Paris, 1994*; ***The OECD Jobs Study: Evidence and Explanations***, *OECD Publications, Paris, 1994*; ***The OECD Jobs Study: Investment, Productivity and Employment***, *OECD Publications, Paris, 1995*; ***The OECD Jobs Strategy: Technology, Productivity and Job Creation***, *OECD Publications, Paris, 1996*; ***The OECD Job Strategy: Enhancing the Effectiveness of Active Labour Market Policies***, *OECD Publications, Paris, 1996*; ***The OECD Jobs Strategy: Pushing Ahead with the Strategy***, *OECD Publications, Paris, 1996.*

Table 3
Unemployment in the OECD Area[1]

	Thousands	% of labour force			
	1993	1995	1996	1997	1998
United States[2]	8,927	5.6	*5.4*	*5.4*	*5.5*
Japan	1,645	3.2	*3.3*	*3.2*	*3.1*
Germany	3,419	9.4	*10.3*	*10.4*	*10.1*
France	2,946	11.7	*12.4*	*12.5*	*12.1*
Italy	2,335	12.0	*12.2*	*12.2*	*11.8*
United Kingdom	2,884	8.2	*7.6*	*7.4*	*7.0*
Canada	1,649	9.5	*9.6*	*9.4*	*9.2*
Total/average of above 7 countries	23,804	6.9	*6.9*	*6.9*	*6.8*
Australia	944	8.6	*8.4*	*8.1*	*8.0*
Austria	222	5.9	*6.2*	*6.5*	*6.4*
Belgium	512	13.0	*12.9*	*12.6*	*12.3*
Czech Republic	184	3.0	*3.0*	*3.6*	*4.1*
Denmark	349	10.3	*8.9*	*8.6*	*8.4*
Finland	444	17.2	*16.4*	*15.5*	*14.5*
Greece	398	10.0	*10.1*	*10.3*	*10.4*
Hungary	519	10.3	*10.6*	*10.6*	*10.5*
Iceland	6	5.0	*4.3*	*3.9*	*3.7*
Ireland	219	12.2	*12.0*	*11.8*	*11.6*
Luxembourg	4	3.0	*3.1*	*3.0*	*2.9*
Mexico[3]	516	6.3	*6.0*	*5.5*	*5.3*
Netherlands	415	7.1	*6.6*	*6.2*	*5.8*
New Zealand	157	6.3	*6.2*	*6.0*	*6.1*
Norway	127	4.9	*4.2*	*3.9*	*3.6*
Poland	2,427	13.3	*12.5*	*12.0*	*11.4*
Portugal	248	7.2	*7.2*	*7.1*	*6.9*
Spain	3,481	23.3	*22.7*	*22.4*	*21.7*
Sweden	356	7.7	*7.9*	*7.4*	*7.2*
Switzerland	179	4.2	*4.6*	*4.8*	*4.5*
Turkey[4]	1,601	7.5	*7.2*	*6.8*	*6.8*
Total/average of above 21 countries	13,307	10.3	*9.9*	*9.7*	*9.4*
EU	18,232	11.2	*11.4*	*11.3*	*10.9*
Total OECD	37,112	7.8	*7.8*	*7.7*	*7.5*

Figures in *italics* are provisional.

1. Commonly used definitions.
2. Break in series from January 1994.
3. Figures based on the national survey of urban employment.
4. Important revisions to data.

Table 4
Current Balances in the OECD Area
% of GDP

	1995	1996	1997	1998
United States	–2.0	*–2.1*	*–2.0*	*–2.0*
Japan	2.2	*1.4*	*1.4*	*1.5*
Germany	–0.7	*–0.7*	*–0.2*	*0.0*
France	1.1	*1.3*	*1.5*	*1.6*
Italy	2.5	*3.5*	*4.2*	*4.3*
United Kingdom	–0.4	*–0.1*	*–0.2*	*–0.5*
Canada	–1.5	*0.0*	*0.4*	*0.4*
Average of above 7 countries	–0.1	*–0.3*	*–0.1*	*–0.1*
Australia	–5.4	*–4.1*	*–4.0*	*–3.9*
Austria	–2.0	*–1.7*	*–1.3*	*–0.9*
Belgium/ Luxembourg	5.6	*6.1*	*6.0*	*6.1*
Czech Republic	–4.1	*–5.8*	*–5.4*	*–4.9*
Denmark	0.9	*1.0*	*1.1*	*1.1*
Finland	4.5	*3.3*	*3.5*	*3.9*
Greece	–2.5	*–3.5*	*–3.5*	*–3.7*
Hungary	–5.6	*–3.9*	*–3.3*	*–3.2*
Iceland	0.8	*–2.1*	*–3.0*	*–1.5*
Ireland	2.2	*1.9*	*1.8*	*1.7*
Mexico	–0.2	*0.0*	*–1.2*	*–2.2*
Netherlands	4.4	*4.4*	*4.5*	*4.6*
New Zealand	–4.4	*–3.9*	*–4.5*	*–4.5*
Norway	3.0	*6.1*	*6.3*	*6.0*
Poland	–2.0	*–5.2*	*–5.7*	*–6.6*
Portugal	–0.2	*–0.4*	*–0.4*	*–0.5*
Spain	0.2	*0.1*	*–0.1*	*–0.2*
Sweden	2.0	*3.0*	*3.9*	*4.5*
Switzerland	6.6	*6.6*	*6.2*	*6.0*
Turkey	–1.6	*–2.9*	*–3.6*	*–4.0*
Average of above 21 countries	0.9	*0.8*	*0.7*	*0.6*
EU	0.7	*1.0*	*1.3*	*1.3*
Total OECD	0.0	*–0.1*	*0.0*	*0.1*

Figures in *italics* are provisional.

directed at those who now have relatively little human capital, narrow the distribution of income. Currently, however, much of the discussion in this area remains theoretical, and there is an urgent requirement to proceed to empirical analysis of specific policy options.

Finding ways to manage the social aspects of fiscal and structural reform is thus one of the most important challenges facing policy-makers. Effective design of policies and programmes can thus minimise the potential conflict among policy objectives, but some trade-offs will certainly remain. The weight given to competing considerations must ultimately be determined by the political process. In practice, decision-making is complicated by the difficulties of quantifying the trade-offs involved, as well as by the well known political problems in overcoming the opposition of entrenched interests, particularly in situations where the government has only a small majority, is split owing to a coalition or to internal divisions or faces a difficult election in the near future. Such considerations point to the importance of objective analysis of economic-policy choices, including their social consequences, and of clearly communicating the results in order the better to inform public debate. Moreover, the equity concerns raised by fundamental structural reform are real. Dealing with them in a constructive way will be easier if the public decision-making process is – and is seen to be – transparent and fair.

28 November 1996

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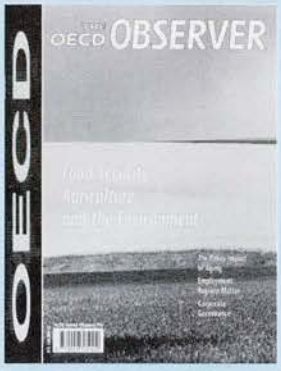

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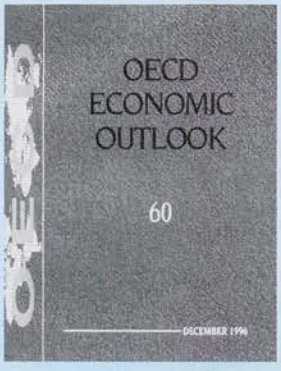

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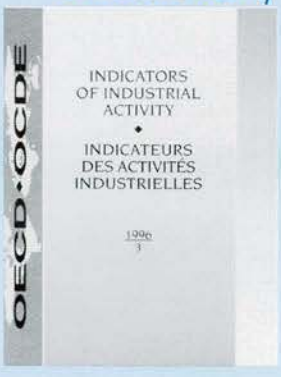

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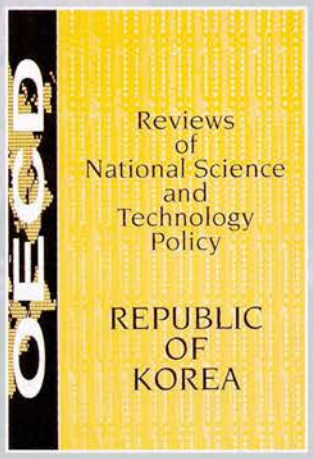

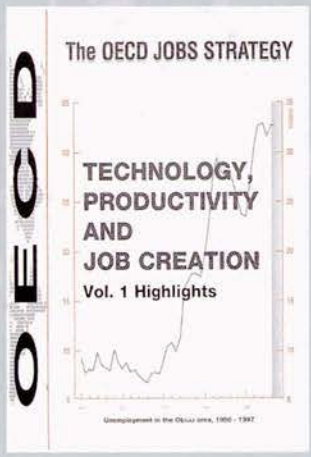

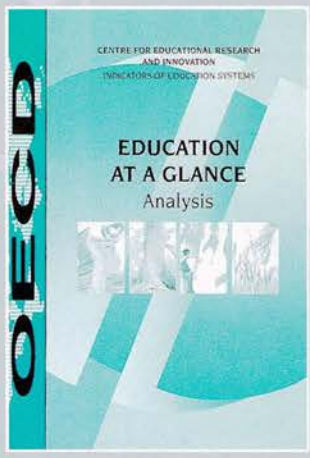

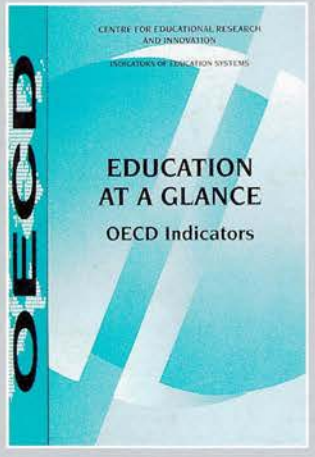

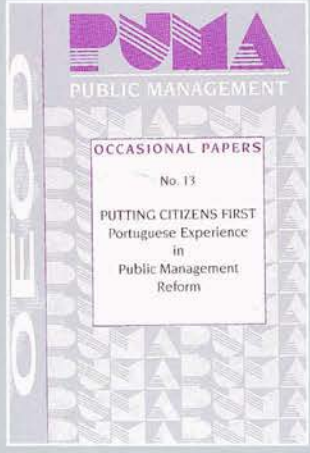

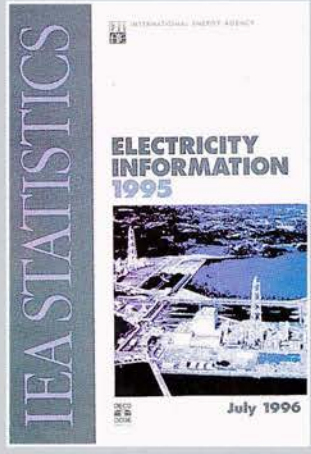

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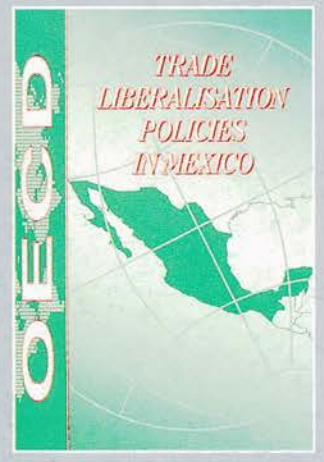

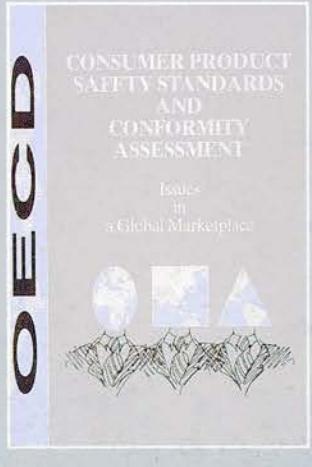

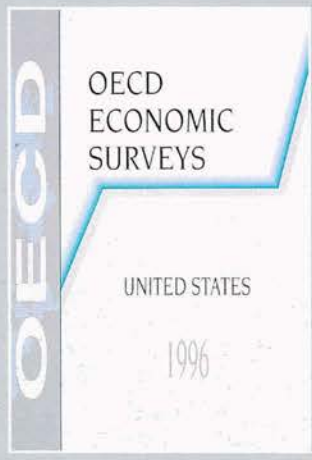

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