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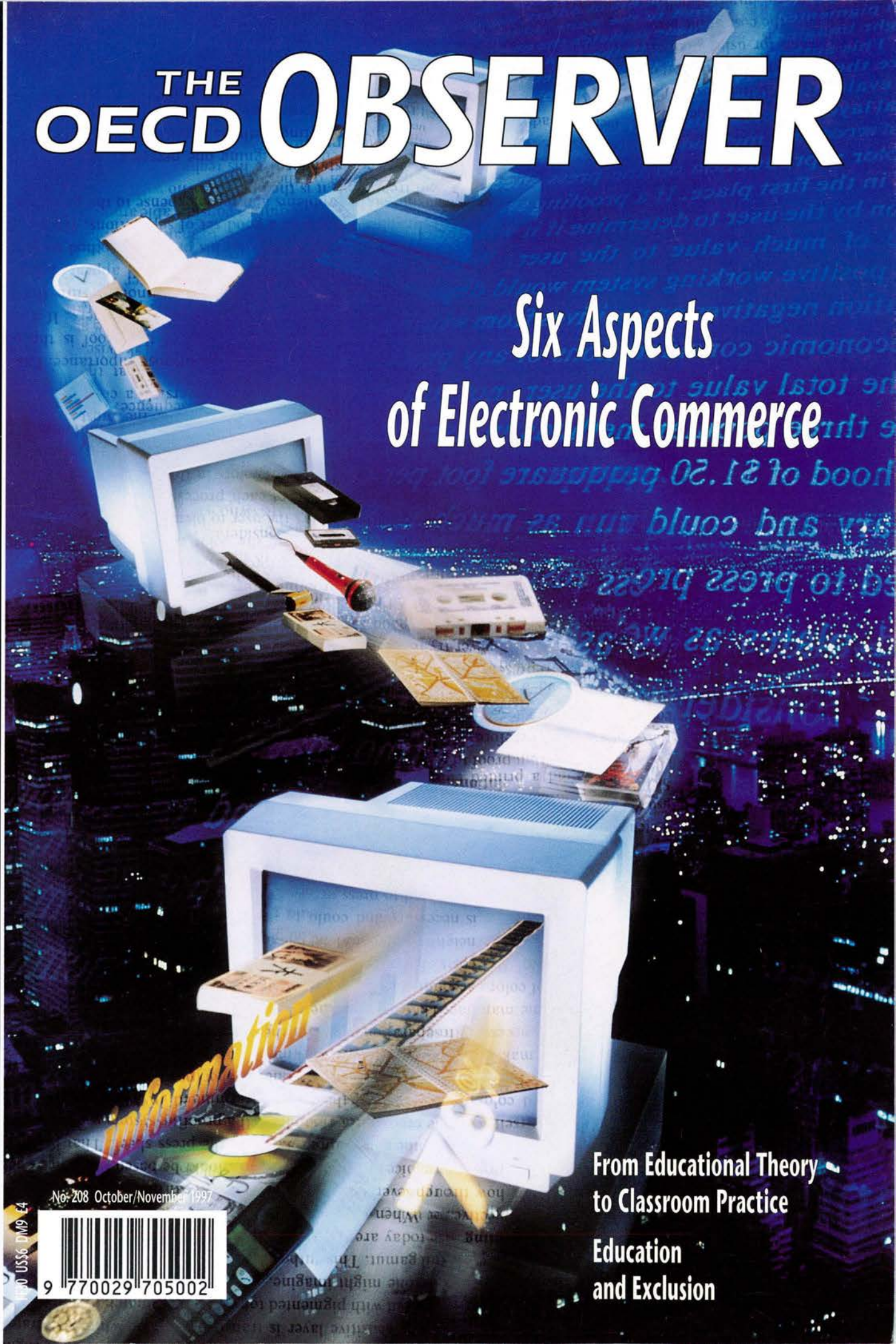

Six Aspects of Electronic Commerce

From Educational Theory to Classroom Practice

Education and Exclusion

No. 208 October/November 1997

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Electronic Commerce Opportunities and Challenges for Government

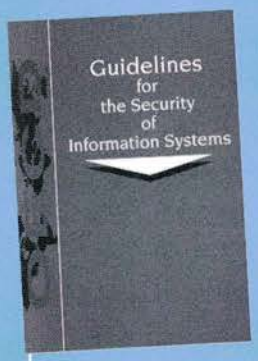
The emergence of electronic commerce represents a major structural change, which is bound to affect the economic environment, the organisation of firms, the behaviour of consumers, the workings of government and all spheres of human activity on a global scale. How can electronic commerce best be promoted? What economic principles should be adopted in light of this new electronic environment?

This report by a group of leading business users proposes strategic recommendations for governments, with a view to facilitating the development of electronic commerce and maximising its contribution to the creation of new businesses and jobs.

(93 97 04 1) ISBN 92-64-15512-0, May 1997, 84pp
FF45 US$9 DM13 £6 ¥950

Also available free of charge on the Internet at http://www.oecd.org/dsti/sti/it/ec/index.htm

See pp. 8–10 of this **OECD Observer**



Guidelines for the Security of Information Systems

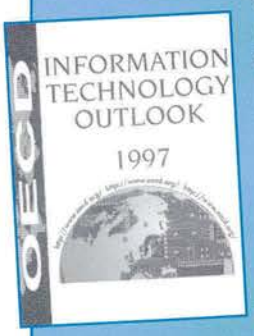
The explosive growth in the use of information systems for all manner of applications in all walks of life has made proper security essential. Security is an international matter because information systems often cross national boundaries. The OECD *Guidelines for the Security of Information Systems* will provide a foundation upon which governments and the private sector, acting singly and in concert, may construct a framework for security of information systems. The framework will include laws, codes of conduct, technical measures, management and user practices, and public education and awareness activities.

(93 96 02 1) ISBN 92-64-14569-9, April 1996, 50pp
FF85 US$17 DM25 £11

See Hiroko Kamata and Teresa Peters, 'A Consensus on Cryptography', **The OECD Observer**, No. 207, August/September 1997.

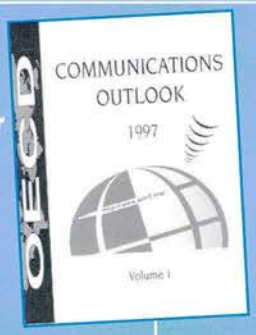
Information Technology Outlook 1997

As information technologies become more ubiquitous, their economic impact becomes both more significant and more diffuse. The 1997 *Information Technology Outlook* analyses several relevant issues. Major IT market trends (in hardware, software and computer services, with a special focus on semiconductors and networked computing and servers) are identified and set against the general economies of the OECD countries. The impact of IT networks on firm structures, the globalisation of IT industries, and the use of information technologies in the home are examined in further detail. The use of electronic information systems by government to deliver services and the use of information and communication technologies as a tool for lifelong learning are the focus of a discussion of IT policies. Some major recent developments also are examined: Internet congestion, recent software developments (component software, data mining), and the effect of IT on the packaged goods industry (supermarkets, department stores, speciality retail).



(93 97 03 1) ISBN 92-64-15475-2, June 1997, 292pp
FF290 US$57 DM85 £37 ¥6,100

See pp. 5–8 of this **OECD Observer**



ICCP – Information, Computer and Communications Policy

Communications Outlook 1997

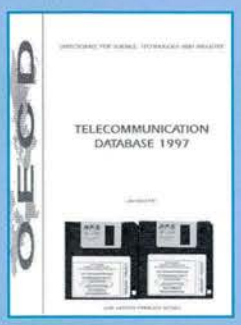
Volume I

Volume II Regulatory Annex

The 1997 *Communications Outlook* presents the most recent comparable data on the performance of the communications sector in OECD countries and on their policy frameworks. For the first time, in addition to the traditional information on the telecommunications sector, this edition includes broadcasting, cable television and the Internet.

The analysis and data presented in the report show that the role of the sector is expanding in OECD economies. The publication notes that the trend towards further liberalisation is gaining momentum. Governments should nonethless implement communications policies in a more timely fashion to respond to technological convergence of formerly distinct sectors.

(93 97 01 1) ISBN 92-64-15460-4, March 1997, 404pp
FF275 US$53 DM80 £33 ¥5,950



Telecommunication Database 1997

This data base provides time-series data on telecommunication and economic indicators for the OECD countries from 1980.

(93 97 02 3 D) ISBN 92-64-05047-7, May 1997
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October/November 1997

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Commerce Goes Electronic

Donald J. Johnston, Secretary-General of the OECD

The emergence of electronic commerce – commercial transactions based on the electronic transmission of data over communications networks such as the Internet – heralds a major structural change in the economies of the OECD countries. Its impact may be as far-reaching as the invention of the printing press and the automobile. It will affect all aspects of the economic environment, the organisation of firms, consumer behaviour, the workings of government and most spheres of household activity.

Even moderate estimates by the private sector predict a ten-fold growth in the volume of electronic commerce by the year 2000, up to a turnover of over $50 billion in the United States alone. Market-driven, it holds out the prospect of economic growth, productivity and job-creation in enterprises, as well as wider consumer choice and more purchasing power. Electronic transactions, and perhaps electronic flows of money and cash, will become a commonplace of the 'information society'.

But a change of this magnitude raises a number of questions. Will trade over the Internet, or whatever it evolves into, be as reliable as commerce in the markets we are familiar with today? Will nation-states and supranational bodies be able to regulate electronic commerce? Can consumer privacy be guaranteed? Will telecommunications infrastructures be able to adapt and expand with sufficient speed? How can governments safeguard their tax revenues if cybermarkets move economic activity beyond their surveillance? What will be the implications for home-working, and for new forms of access to such vital services as health care and education? And as trade in virtual markets transforms individual sectors, even seemingly unlikely ones such as agriculture, will governments prove flexible enough to accommodate changes which cannot even be imagined today?

These issues have now reached the agendas of decision-makers in boardrooms and government offices all over the world. The OECD Ministerial meeting in May 1997 referred to the new information and communications technologies as 'fundamental driving forces in globalisation' and noted the enormous potential of electronic commerce. The ministers asked the OECD to examine its implications so that these issues can be addressed within a coherent set of policies. At the summit of the Group of Eight in Denver in June, the leaders of the major industrial democracies underlined the importance of a predictable and stable regulatory environment for the growth of electronic commerce and urged the OECD to work with the private sector to meet these challenges.

Electronic commerce networks will be one of the major factors in making the information society truly global. Sovereign nations will have to come to terms with the international, transfrontier nature of new networks and communication systems and establish a coherent legal and regulatory framework in which electronic commerce can develop freely, effectively and fairly.

The OECD is a forum ideally suited for the exploration of these issues and the clarification of their implications for government action. The OECD's homogeneous membership, capacity for objective economic analysis and the broad scope of its work will be vital in producing comprehensive analysis for policy-makers, business and consumers alike.

A landmark conference, 'Dismantling the Barriers to Global Electronic Commerce', hosted in the city of Turku by the Government of Finland on 19–21 November 1997, in co-operation with the OECD and with the support of the European Commission and the Business and Industry Advisory Committee (BIAC) to the OECD, will draw together government policy-makers and private-sector leaders, and the main international organisations active in electronic commerce. The conference will address the issues of building user and consumer trust; establishing simple, predictable regulatory frameworks; ensuring access; and establishing payment systems. It will assess the steps taken to date to resolve those issues and discuss the principles on which action may be taken to remove barriers and promote the positive development of electronic commerce.

This meeting will be followed by an OECD symposium, 'A Borderless World – Realising the Potential of Global Electronic Commerce', to be held in Canada in the second half of 1998. The symposium will be aiming to establish a global consensus on the general principles and policies for the operation and use of information networks for electronic commerce so as to ensure that the potential of this sea-change in technology supports growth, jobs and prosperity.

Imagining the Impact of Electronic Commerce

Andrew Wyckoff

The advent of markets on the Internet seems set to have a dramatic impact on traditional ways of doing business, bringing producers and consumers closer and eradicating many of the costs encountered until now. And there will certainly be wider, deeper effects, the nature of which can barely be imagined.

Analysing, in 1997, the likely impact of electronic commerce is about as easy as estimating the impact of the automobile a hundred years ago. Intuitively you know that the impact will be large, but as yet few people know how to drive, roads are of varying quality and garages and mechanics are nearly non-existent. With some confidence you can say that there will be a beneficial effect on supplying industries such as oil, steel, glass and rubber, and that direct competitors like farriers, oat-chandlers and carriage-makers are likely to suffer, but beyond that it is largely speculation. Who would have predicted that the car would lead to suburbs, air pollution and the geo-political importance of the Middle East?

So it is with electronic commerce. It is clear that the supplying industries – producing computers, networking equipment and the software necessary for electronic commerce – will benefit. It is also evident that direct substitutes, such as retail travel agencies, retailers of shrink-wrapped software and bricks-and-mortar music stores, will suffer, but history suggests that these impacts will be small in comparison to developments that are impossible to imagine today.

Like the car, before the mass-production techniques ushered in by Henry Ford, electronic commerce has existed for some time in proprietary, hand-crafted forms. But the widespread diffusion of the Internet through the use of open, non-proprietary standards that exploit the existing communications network means that now anyone with a few thousand dollars can become a merchant or a consumer on the Web. And 'e-commerce' is by definition a global activity, where geographical boundaries mean little.

These factors have contributed to the spectacular growth rate of this activity, albeit from a very small base. A US trade association for e-commerce businesses on the Internet claims that 'there is no such thing as an Internet-based

Mary Evans Picture Library

The global effects of electronic commerce are as difficult to imagine today as were those of the motor car a hundred years ago.

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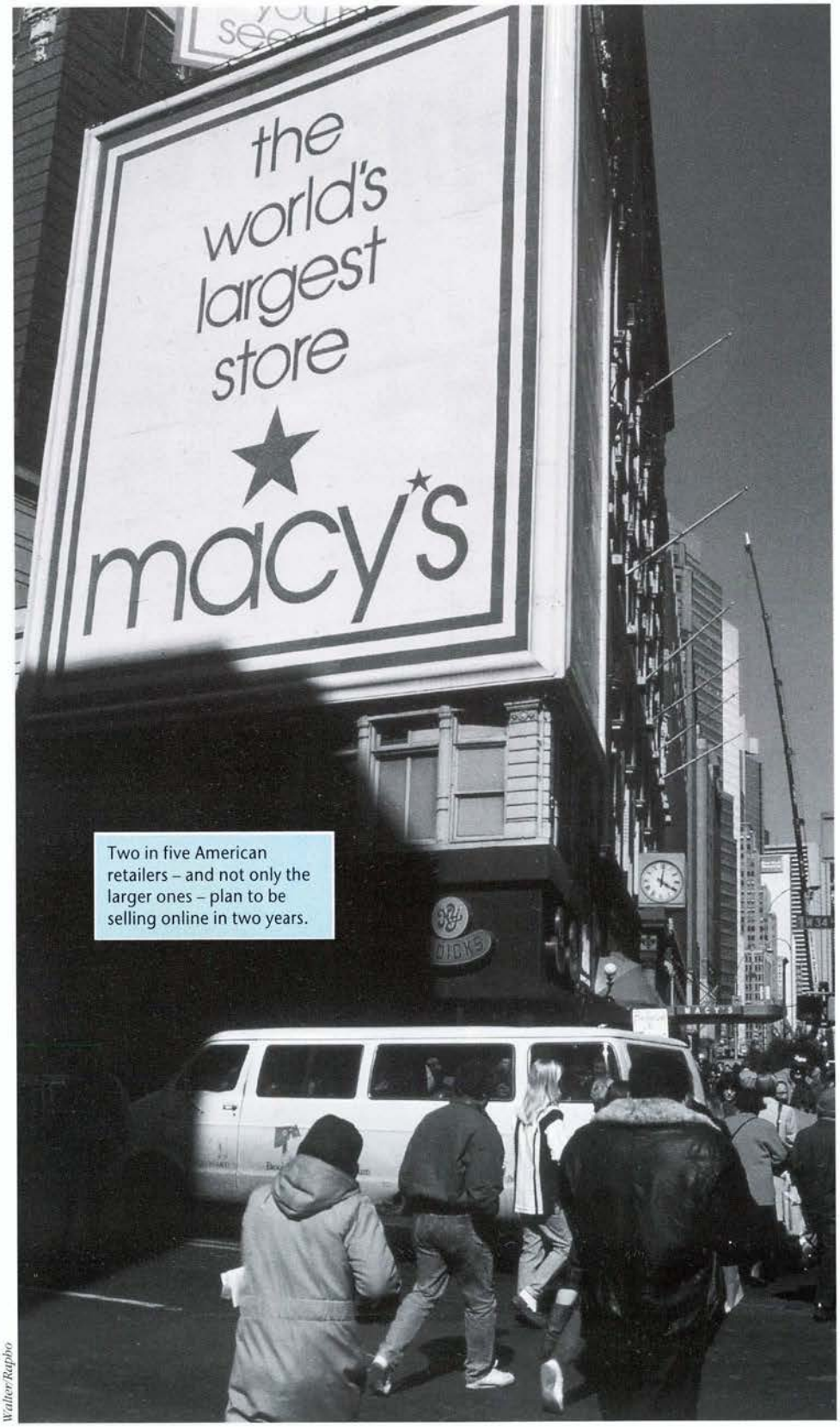
Imagining the Impact of Electronic Commerce



Two in five American retailers – and not only the larger ones – plan to be selling online in two years.

Walter Rapho

business more than two years old'. In fact, almost all of the current estimated 250,000 commercial World Wide Web sites have been in operation less than a single year, and the number of Internet hosts registered as being 'commercial' (*.com) represents the fastest-growing segment of the Internet (Figure).

Although reliable figures on the sales volume of merchants engaged in e-commerce are difficult to obtain, nearly every source has the amount of activity growing by about 200% annually. A recent survey suggests that, by 1999, 39% of all US retailers plan to sell online.[1] Taking the median of a dozen different estimates of the size of e-commerce in the year 2000 places it at $55.5 billion, which is about three-quarters of the volume of US catalogue sales in 1996, 14% of Visa's 1995 credit-card business and some 2–3% of all 1997 US retail sales. Compared with these benchmarks, e-commerce is small, but for an activity that has been in existence for only a few years, even a presence of this size is significant.

Intangibles in Front

As might be expected, penetration across sectors is not even. Although much of the media attention has focused on online merchants selling books, wine and computers, the available data suggest that the big e-commerce sellers are intangibles: travel and ticketing services, software, entertainment (including adult, gambling, online games and music) and financial services. This conclusion makes intuitive sense: since the product cannot be physically examined, traditional commerce has no advantage over the convenience of electronic means of doing business.

For these and other intangible products like them, such as audio, video, information services, real-estate services and some business services like telephone calls and payroll and billing services, the economic impact of e-commerce could be large and relatively swift. Later on, it is likely that any economic activity that lends itself to the application of digital technologies – including large sectors like health-care services,

education and many government services – will be affected by electronic commerce.

Measuring the importance of these sectors to the economy is difficult because information products, like newspapers, are classified as manufacturing while online news (possibly the same article) is a service. For this reason designers of new classification systems, such as that recently adopted in North America, have created a new sector – information and cultural industries – which includes a blend of what was previously considered manufacturing or services (box, right).

E-commerce dramatically shrinks the distance between producers and consumers, who can make their purchases directly without involving traditional 'middle-men' – retailers, wholesalers – and in the case of intangibles, even without distributors. Although new intermediaries are required (network-access providers, electronic payment-systems and services for authentication and certification of transactions, for example), these services are far less labour-intensive than the traditional ones and do not have to be rooted in a particular geographic location. In general, electronic commerce succeeds in moving economic activity closer to some of the ideals of perfect competition: low transaction costs, low barriers to entry, and improved access to information for the consumer.

These impacts can be seen in the way electronic commerce is changing the market for software, which is the hallmark of the knowledge-based economy, as cars were to the manufacturing era. Very quickly, the sale of software is moving out of traditional shops and onto the Internet, with merchants boasting of inventories of titles in the tens of thousands. These 'shops' are accessible from nearly anywhere at anytime. Increasingly, the software is being delivered electronically over the network instead of being shipped in shrink-wrapped boxes, and it is expected that by next year a third of all packaged software will be sold this way, allowing consumers to use instantly what they have bought.[2] Consumers thus enjoy both more choice of delivery and, increasingly, the chance to 'try before you buy'.

The savings made by not maintaining a physical store or shop, not keeping an inventory and by having substantially lower labour costs are considerable; one estimate places the cost of buying software over the Internet at \$0.20–0.50 per transaction as opposed to \$5 for a telephone order and \$15 for a traditional retailer.[3] Search engines and intelligent agents can be used by consumers to go out and scour the Internet for the lowest price or find obscure, hard-to-find packages, which lowers information and search costs.

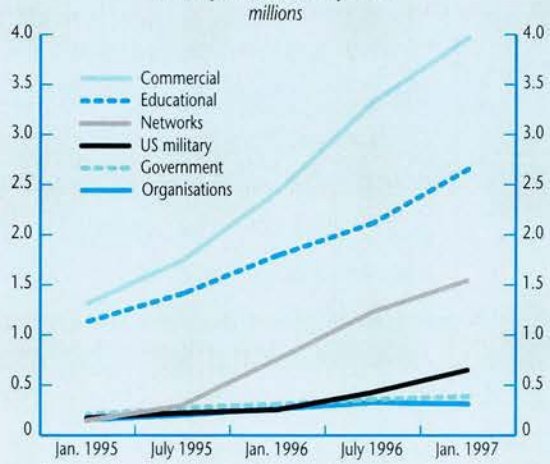
Frequently the real attraction of e-commerce is not only lower prices but some new value added, at least because it allows products to be tailored to individual requirements. In the online sale of software, sellers now perform many of the support tasks that used to fall to users: installation, keeping track of licenses, making sure that users have the right version, and ensuring that upgrades are made on schedule. One consultancy group, Gartner, estimates that this cuts the internal technical supports costs that firms have to bear by 55%, thus enhancing productivity.

This new model of distribution forces a re-evaluation of the traditional means of doing business: if consumers can order and receive software nearly instantly over the Internet, why should people buy copies? Why not rent what you want, as you require it, as happens with videos? Likewise, the relative ease of setting up shop on the Internet presents a challenge to dominant producers that used to have a large influence over traditional distribution channels: small, independent producers, from anywhere in the world, can now gain access to a global marketplace with relative ease.

■■

The changes being felt because of the online sale of software will not be applicable to all products, especially non-commodity tangibles. And a number of technical and regulatory barriers could limit the growth of electronic commerce. >

Figure
Shift in Number of Hosts by Category, January 1995–January 1997
millions



Source: Network Wizards, June 1997, http://www.nw.com/

FOCUS

A New Business Sector Emerges

The North American Industry Classification for Information and Cultural Products

51 Information and Cultural Industries

511 Publishing Industries
5111 Newspaper, Periodical, Book and Database Publishers
5112 Software Publishers

512 Motion Picture and Sound Recording Industries
5121 Motion Picture and Video Industries
5122 Sound Recording Industries

513 Broadcasting and Telecommunications
5131 Radio and Television Broadcasting
5132 Pay TV, Specialty TV and Program Distribution
5133 Telecommunications

514 Information Services and Data Processing Services
5141 Information Services
5142 Data Processing Services

1. Clinton Wilder, 'Survey Shows Retailers Going Online to do Business', Information Week, http://www.techweb.com (21 May 1997).

2. Jeff Moad, 'Tossing the Boxes', PC Week, http://www.pcweek.com (22 January 1997).

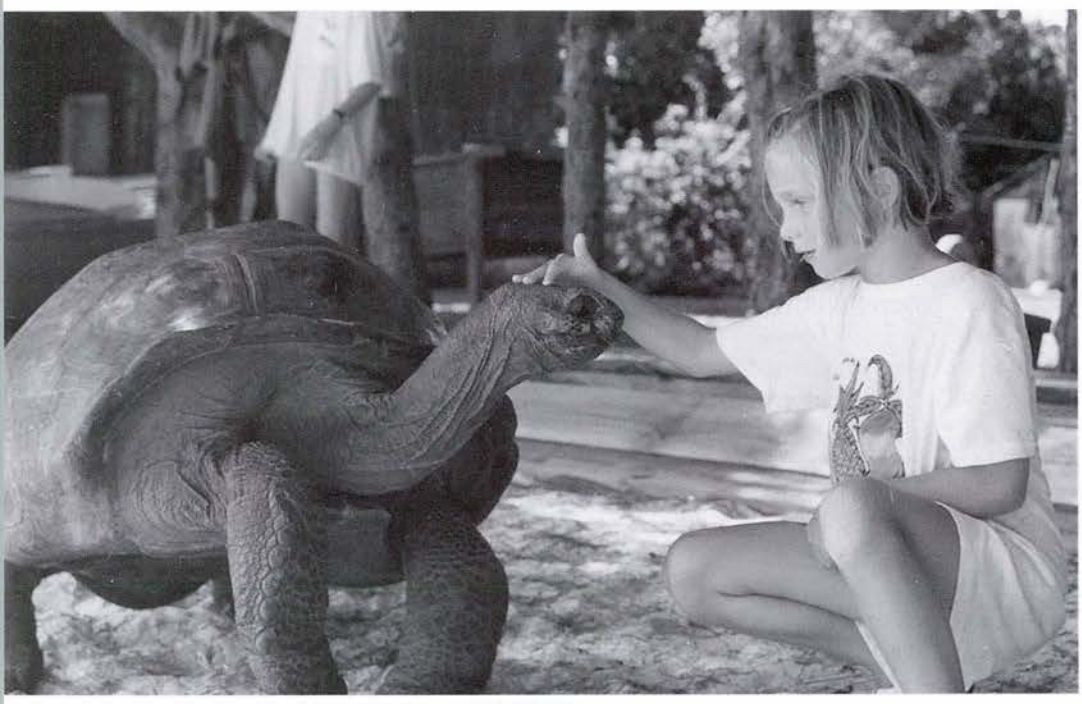
3. David Bollier, The Future of Electronic Commerce, The Aspen Institute, Washington DC, 1996.

The

of

Georges Ferné

The 'Sacher Report'[1] just published by the OECD assesses current developments in electronic commerce and presents a new aspect of the issue by setting out priorities for government action. Its originality is derived from the fact that it expresses the point of view of senior executives from twenty major international firms (in retail distribution, banking and finance, food, automobile, chemicals and multimedia) which are leading users of electronic commerce. The members of the group consulted nearly 100 top decision-makers from 80 companies and organisations which are currently playing a leading role in the expansion of electronic commerce: users, suppliers and vendors of computer and telecommunications equipment, network services and software, a few public bodies, and more.



OECD

It is in intangible products – travel, software and financial services, for example – that electronic trade is growing fastest.

But for easily digitised products and many services, the advantages are very large, implying that the economic impact on these intangibles could be pronounced.

To the consumer buying an electronic version of *The Wall Street Journal* 'published' in New York or *The Economist* 'from' London, the physical origin of such products means little; indeed, the computer distributing them will probably be located in a lower-cost third country. The increase in international trade in such intangibles that will almost certainly result may not be measurable by statisticians. And for some sectors that have enjoyed shelter from competition because of logistical or regulatory barriers (finance, travel services and retail, for instance), this international competition could come as a shock. Heightened competition and lower costs should bring down prices for many products, reducing inflationary pressures. This trend can already be seen in the securities-trading industry where on-line traders are aggressively undercutting the commissions of traditional brokers.

In recent years traditional intermediaries such as retailers, wholesalers and distributors have been a source of jobs in quite a number of countries. So e-commerce may well result in a loss of employment in such services, which, while boosting productivity, may aggravate already serious unemployment problems. But, as when the motor car displaced the blacksmith and horse liveries, these adverse effects loom large only when one concentrates on the impact to direct competitors to e-commerce. Such an approach fails to acknowledge the wide range of new products, jobs and growth that e-commerce will stimulate. Who would have predicted five years ago that people would be spending over $100 million annually to connect to the Internet, and an additional $50 million to play online games? ■

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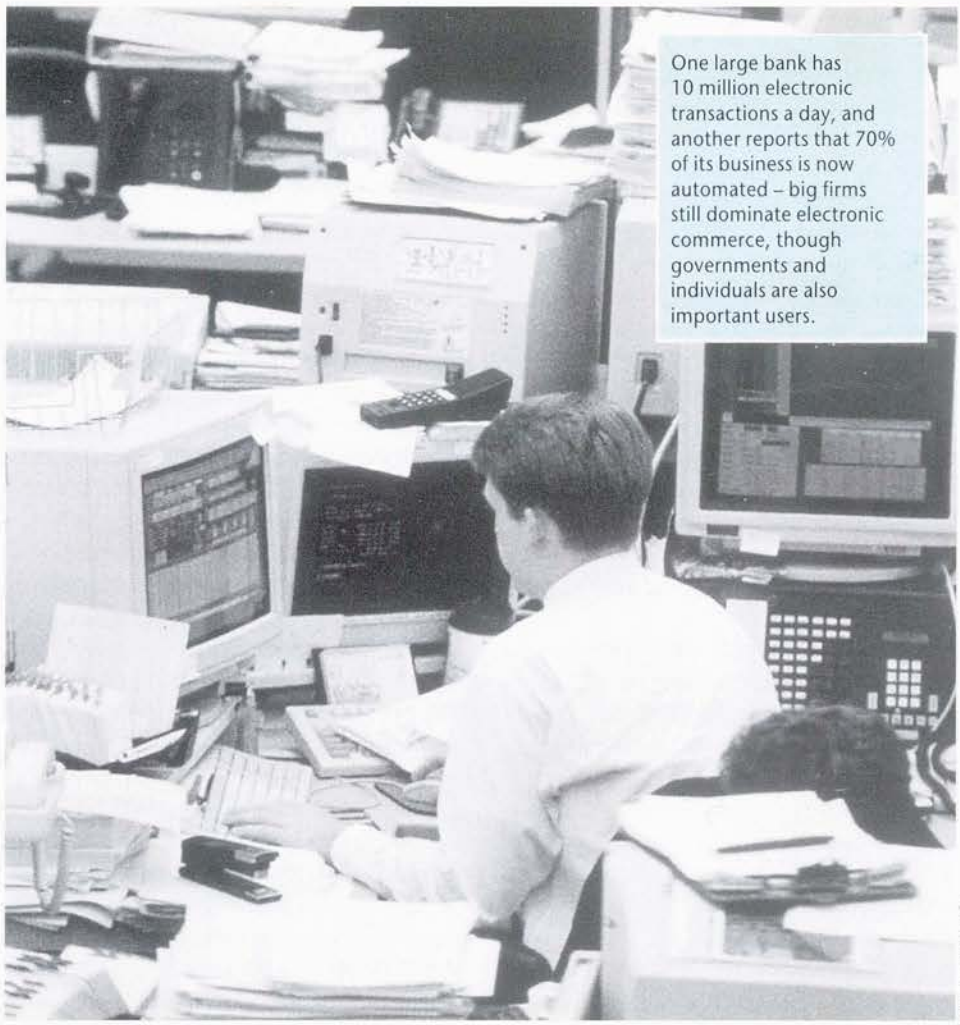
Policy Implications 'E-commerce'

Electronic commerce has a broader sense than that accorded to its usual meaning – purchases made over networks by end-consumers. There are also transactions between firms which organise their supply and distribution chains with the support of public and private information infrastructures. These changes are affecting all sectors of activity. The OECD's Sacher Report notes, for example, that one large bank already carries out some ten million electronic transactions per day. Another bank indicated that about 70% of its transactions are already automated. A major retailer reported that the entire volume of its business with suppliers, amounting to over $10 billion, is carried out electronically. An important European car manufacturer reported that it maintains electronic links with over 800 suppliers, supporting transaction volumes of close on $7 billion in 1996; and a US aerospace company reported that 60% of orders for spare and replacement parts are fully automated, enabling delivery to any part of the world in less than 24 hours.

Electronic transactions can thus involve three groups of actors: business, government and individuals. At present, the bulk of electronic commerce is still conducted business-to-business or, to a lesser extent, business-to-government in connection with public procurement and customs and excise formalities.

In spite of the still embryonic nature of electronic commerce, the authors of the Sacher Report are convinced that it will assume a position of major economic importance in the near future, and that the consequences will be dramatic for business endeavours of all kinds. The Report points out that the figures cited for the projected growth of Internet users are not reliable (estimates of the current number of Internet users, for example, vary between 30 and 50 million), but it goes on to argue that the use of new information and communications technologies opens up new possibilities of direct, general interfaces between each consumer and a growing range of products, thanks to data-transmission networks and, especially, the spectacular growth of the Internet in recent years.



One large bank has 10 million electronic transactions a day, and another reports that 70% of its business is now automated – big firms still dominate electronic commerce, though governments and individuals are also important users.

Feature-Saba REA

The definition of electronic commerce therefore encompasses all types of commercial transactions based on the electronic processing and transmission of data, including text, sound and image. The difficulty and scale of the challenges facing governments stem from the fact that the

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1. From the name of the Chairman of the Group, John Sacher, Executive Director, Marks and Spencer plc, who, under the aegis of the OECD, prepared ***Electronic Commerce: Opportunities and Challenges for Government,*** *OECD Publications, Paris, 1997.*

The Policy Implications of 'E-commerce'

electronic market-place is still far from complete and that the technology is evolving rapidly and its direction is, in many respects, unpredictable. To a large extent it will be necessary to rely on market forces to shape the new patterns of commercial behaviour while safeguarding the claims of government[2] and the interests of consumers and citizens.[3]

Three features of electronic commerce in particular are set to modify traditional market behaviour and have an impact on the effectiveness of regulatory frameworks:

- by opening up new opportunities for achieving economies of scale and by facilitating international rationalisation of production and distribution, electronic commerce ('e-commerce') promotes the globalisation of commercial activity by giving firms direct access to distant markets
- e-commerce provides a new vehicle for the delivery of intangible products, blurring many of the current distinctions between domestic and foreign firms to a point where it becomes very difficult to determine where a transaction has actually been carried out, and thus the jurisdiction under which it falls
- the growth of electronic commerce is being supported by the Internet, which has established a basic networking paradigm that could eventually allow the entire spectrum of commercial activities to be conducted electronically.

A new commercial sphere is thus emerging, in the process raising many economic, political, social and cultural issues: the effects on competition and competitiveness, effects on prices, modification of the nature and role of intermediaries, the emergence of new banking and financial channels, influence on the mobility of companies, impact on consumer behaviour, implications for the institutional structures that regulate and facilitate commercial activities, sweeping changes in the definition and organisation of work, consequences for linguistic balances, and more. By and large, the role of infrastructure and information in job creation and productivity is only now beginning to be imagined. Electronic commerce could generate new activities and new jobs but it could also modify the structure of skills required, the way they are used, the relations of complementarity and competition between firms, and the criteria used in national and international strategies to determine the geographical location of industrial and commercial activities.

The Sacher Recommendations

In view of the importance of these issues, the Sacher Report considers that there are three priority areas for government action.

The first is to support the growth of electronic commerce by providing the flexible, open-ended infrastructure it requires. The Report recommends that electronic infrastructure services like telecommunications, television and data networking, as well as the regulatory regimes for them, be permitted – indeed, encouraged – to converge. The objective is to put in place managed network facilities that can respond to a growing diversity of commercial demands in an international technical and regulatory environment that is as standardised as possible.

Governments will also have to raise the visibility of electronic commerce and promote new partnerships with the private sector in order to co-ordinate technical, economic and political choices. Every government is thus invited to appoint a Chief Information Officer whose role would be to maintain a dynamic dialogue with private actors on the harmonisation of the principles of electronic commerce and the adaptation of the public sector to the new environment, with a view to creating what the Report calls an 'electronic administration' in tune with new developments in the private sector.

In government itself, priority should be given to promoting the rapid acquisition of the professional and technical skills required in the electronic market-place and to implementing precautionary changes in regulatory practices on a continuous basis: badly conceived deregulation or re-regulation can provide new forms of protection to existing monopolies, curb or involuntarily impede technological advances, and in the long run can be worse than preserving the status quo. As a matter of urgency, governments should clarify the legal definitions, practices and structures that pertain to commercial activities in an electronic environment. They must also seek to put in place a uniform international framework setting out the legal principles applicable to a whole range of matters, from consumer protection to fraud and crime prevention and comprising intellectual property, electronic identity, the definition of residence, liability, auditing, and the control, unauthorised use and protection of databases.

In the crucial area of taxation, the Group opposes proposals that are oriented to taxing the process of data exchange (the 'bit tax') as being unworkable and potentially discriminatory to e-commerce activities and to normal business communications. It proposes approaches to taxation based on consensual principles relating to the source and destination of products, whether tangible or intangible, and to the residency of companies.

■ ■

By the clarity of its analysis and the force with which it highlights the requirements of big users, the Sacher Report focuses attention on three constraints on developments in e-commerce: the emergence of a market-place in which new actors and intermediaries have already acquired a foothold, thereby shaking up the traditional division of responsibilities between the private and public sectors; the growing importance of users in economic and technological choices, a fact that has to be taken into account when policies are being framed; a fundamental calling-into-question of the legislative and commercial frameworks of commerce, of which it is not yet known whether they will manage to adapt or whether they will have to undergo radical change. ■

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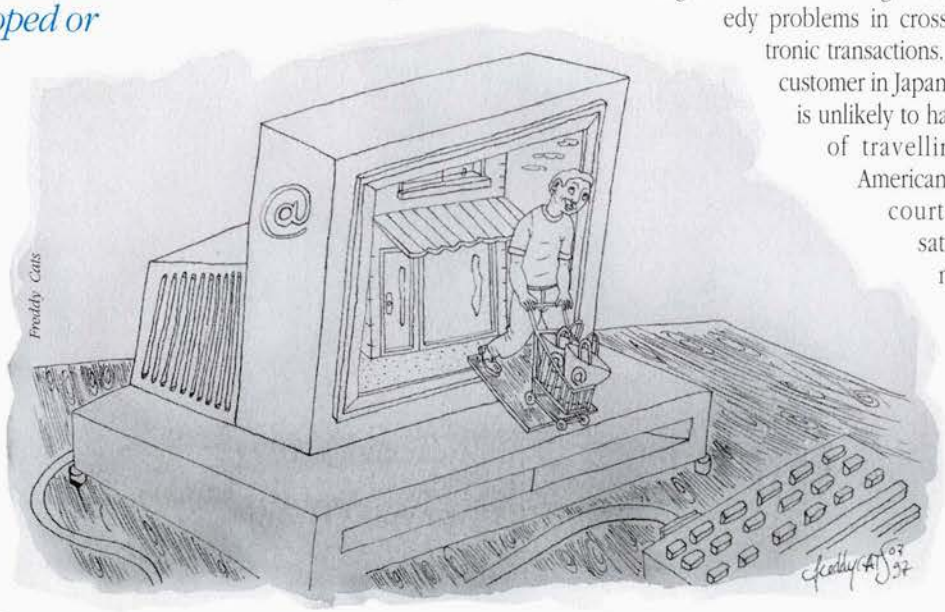
2. See pp. 16–19.

3. See pp. 11–13.

Protecting Consumers in the Cybermarket

Elizabeth Lynch

The estimated 50 million people 'surfing the Web' have almost instant access to information about a wide variety of physical goods and services – as well as to an increasing number of digital products. Electronic commerce is likely to grow exponentially. First, though, mechanisms to protect consumers must be developed or re-defined.[1]


Freddy Cats

Business-to-consumer electronic commerce is in its early stages of development. And now, as access to the Internet expands, more and more consumers are entering the cyber-marketplace from their own homes. Yet there are a number of concerns that threaten consumer confidence in the safety and reliability of the virtual market. There is uncertainty about the existence of reliable mechanisms of redress in the event that, for example, merchandise turns out to be defective or the consumer suffers some other wrongdoing. In addition, the nature of open networks like the Internet creates a number of additional commercial threats when making transactions in an electronic environment, including exposure to unfair marketing practices, infringement on privacy and unauthorised use of data.

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There are thus a number of unanswered questions that consumers are asking as trade on the Internet begins to take off. What if a product ordered through the Internet never arrives? Is a credit card open to misuse once its number gets into cyberspace? Will products prove to be less safe than those bought in person? Moreover, specific rules about product liability may have to be re-evaluated for 'e-commerce', particularly for digital products (software programmes, for example) that could damage someone's information and communications system.

Fair and efficient redress mechanisms for such grievances will have to transcend national borders. But the international nature of the emerging network environment may itself make it impossible to determine which court would have jurisdiction over a given transaction or, even if such authority were established, to hold a transgressor to account. In such cases, consumers might be left without legal recourse to remedy problems in cross-border electronic transactions. A dissatisfied customer in Japan, for example, is unlikely to have the option of travelling to North American or European courts to obtain satisfaction. No matter how impressive the information infrastructure, consumers will hesitate to shop on the Internet unless they are assured of the existence of mechanisms to lodge complaints and address grievances or, indeed, of the presence of a universal dispute resolution and redress system.

Personal privacy, a central concern for all users of the Internet, has particular implications for consumers. In principle, consumer privacy and the use of confidential transactional data should be respected no less thoroughly online

1. ***Gateways to the Global Market: Consumers and Electronic Commerce***, *OECD Publications, Paris, forthcoming 1997.*

Protecting Consumers in the Cybermarket

than in the physical market. But technological advances allow merchants easily to intercept, collate and 'mine' the data used in transactions – on, for instance, people's browsing and consumption patterns.

Once, moreover, a consumer has decided to purchase a good or service online, he or she is obliged to provide sensitive information – not in the least, an address and details of payment – which merchants find extremely valuable. Information about direct or indirect methods of collection and use of consumer data should be made available with the utmost transparency: for instance, those online surveillance and tracking mechanisms which record 'electronic footprints' (for example, the traces a consumer leaves behind when surfing from one web site to another) and 'cookies' (including the cache of information stored in the consumer's hard drive which can reveal sites he or she has previously visited). Consumers should have control of their data; they may want to correct inaccuracies or restrict transfer, sale or other unauthorised distribution.

Steps towards Safety

The likely economic and social impact of the explosive growth of e-commerce requires that government, industry and consumer groups proceed as partners in finding long-lasting solutions.

Technology should be used to empower consumers to protect themselves on the Internet. The private sector should take the lead in devising web-based technological solutions, which could include, for example:

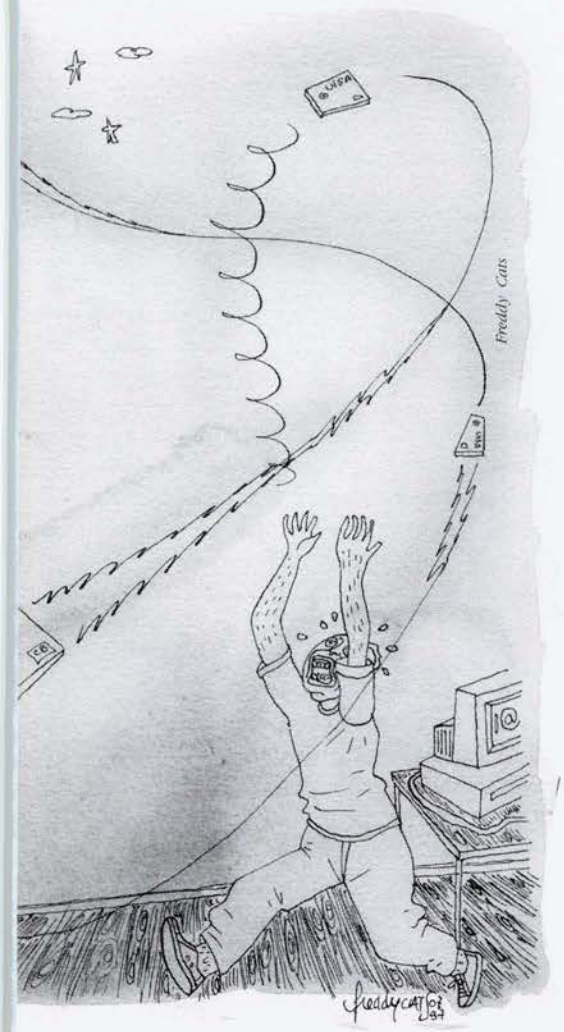
- a labelling system where a certificate, displayed on the website, guarantees that the online business has met certain consumer-protection requirements and good business standards
- a notification system for consumer data with, say, a dialogue box on the screen informing consumers of when and how their data will be collected and allowing them to choose what may happen to the information
- a mechanism notifying the consumer of the legal jurisdiction which would apply, as well as the venue for redress and dispute resolution.

Technological solutions of this sort may require co-ordination, which could well be achieved by industry self-regulation. When government input is required, perhaps to address specific consumer concerns, it should be based on simple and predictable legal tools that are sensitive to the technology and to the pace of change in the online environment.

These issues are currently being addressed in a number of fora: national, regional (the European Union and APEC, for instance) and global (not least, the United Nations Commission on International Trade Law). The OECD is currently working to produce consumer-protection guidelines to help bolster confidence in the cybermarket. Initially, they would address three main areas: fraud and misleading commercial conduct, dispute resolution and redress mechanisms, and online consumer privacy.[2] These guidelines form part of the OECD's interdisciplinary effort to promote the information

*2. See also Hiroko Kamata and Teresa Peters, 'A Consensus on Cryptography', **The OECD Observer**, No. 207, August/September 1997.*

3. For further information, the Competition and Consumer Policy Division of the OECD Directorate for Financial, Fiscal and Enterprise Affairs maintains a website at: http://www.oecd.org/daf/ccp/cons/.



economy and the development of a secure and reliable cyber-marketplace.[3]

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Government, industry and consumer groups must work together to promote the development of industry-driven initiatives on electronic commerce; to apply existing laws and develop new ones, if necessary, to establish consumer-protection mechanisms; to harmonise approaches to consumer protection in e-commerce; to create an information network for consumer-protection where consumers can have access to information and guidance; and to foster international co-operation in the enforcement of laws against fraudulent or misleading conduct. ■

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Infrastructures for Electronic Trade

Jurgen Spaanderman and Dimitri Ypsilanti

The development of high-speed global communication infrastructures can be expected to alter fundamentally the way market transactions take place. Policies have to foster the diffusion of such infrastructures, nationally and on a global scale, and ensure access by service providers and users.[1]

Rapid change in communication switching and transmission technologies, including the digitalisation of networks, is enhancing the capability of infrastructure to support a range of services and applications. It is also leading to convergence between computer, communication and broadcasting technologies and new services and applications that allow networks to be used for economic transactions.[2] Such electronic commerce is at its early stages; its spread depends on the availability of the physical and software building-blocks provided by these networks and the different layers of software and applications, which provide the basic services, and the terminal equipment connected to them.

Regulatory structures are equally important. In most OECD countries the communication industries which provide these services – telecommunication and broadcasting – are highly regulated, with limitations placed on market access, even though liberalisation is opening telecommunication markets to full competition. These restrictions will condition the incentives to invest and thus the expansion of infrastructure capacity. They will also largely influence the framework for service providers and users to access and use communication infrastructures for e-commerce.

At present, most households or business customers are connected to communication networks by a pair of copper wires, the 'local loop', which is part of the 'public switched telecommunication network' (PSTN), and which is used to provide voice-telephone services. The local loop also gives access to public and private 'packet switched data networks', which provide data

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1. ***Global Information Infrastructure – Global Information Society: Policy Requirements***, *report endorsed by the OECD Meeting at Ministerial Level, 26–27 May 1997, OECD, Paris, 1997, available free of charge from the Information, Computer and Communications Policy Division of the OECD Directorate for Science, Technology and Industry or on the Internet on the ICCP home page, at http://www.oecd.org/dsti/gd_docs/gdlist_e.html.*

2. *Andrew Wyckoff, 'The Growth of Network Computing',* ***The OECD Observer****, No. 206, June/July 1997.*

D. Cohen/Jerrican

Existing infrastructures may not be able to cope with the surge of data that new – and still unforeseen – applications are bound to produce.

services, mostly for business subscribers. These basic infrastructures will, to a large extent, provide the support for e-commerce. The Internet, based on packet switched data networks, has been hailed as the medium for the rapid development and diffusion of e-commerce, and these networks are now employed for voice and data communication, as well as a number of multimedia services. But they do not have the capacity to handle the many new applications that require transfers of substantial amounts of data, such as video and graphics, or to meet consistently high demand without loss in quality.

The ideal environment for e-commerce is one where every household and business customer, confident of secure applications,[3] is connected through a high-speed multimedia computer or other terminal device and a high-speed local loop to a computerised communication network. Instantaneous access to all types of e-commerce applications (for finance, trade and travel, for example) would be available, even when downloading, or interacting with, complex graphics or video applications. The attainment of this ideal will require substantial investment in upgrading networks.

Although the digitalisation of the PSTN has increased rapidly, from an average in the OECD of around 40% of main access lines in 1990 to 83% by 1995,[4] the networks have been engineered for services like telephony and would be inadequate for services which demand higher speeds. In addition, the necessary terminals, such as PCs or network computers and 'smartcard' readers, are not yet widely enough diffused among the public to reach the critical mass for a dynamic electronic market to emerge.

Alternative infrastructures are coming into consideration, too. Cable-television networks, currently providing one-way communication, are being upgraded in some countries for two-way traffic; and they are capable of transporting large volumes of data. Other networks include those used for mobile communications and satellite networks. Connections made over today's cellular mobile networks are made only at very low speed and thus place severe limits on e-commerce applications, although new techniques are becoming available to assign high-speed connections on demand. As technologies evolve, these and other networks will become interoperable and more and more thoroughly integrated, thus providing a widespread international platform for e-commerce.

The speed of local loops and total network capacity are likely to play a crucial role in the rapidity with which e-commerce applications are diffused through the economy. Sophisticated e-commerce applications will have to rely on relatively high-speed data transfers to respond to demands for accessibility by the public and service providers and to ensure sufficient quality of service. Indeed, the technical reliability of e-commerce transactions depends to a large extent on network capabilities.

3. See pp. 11–13.

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

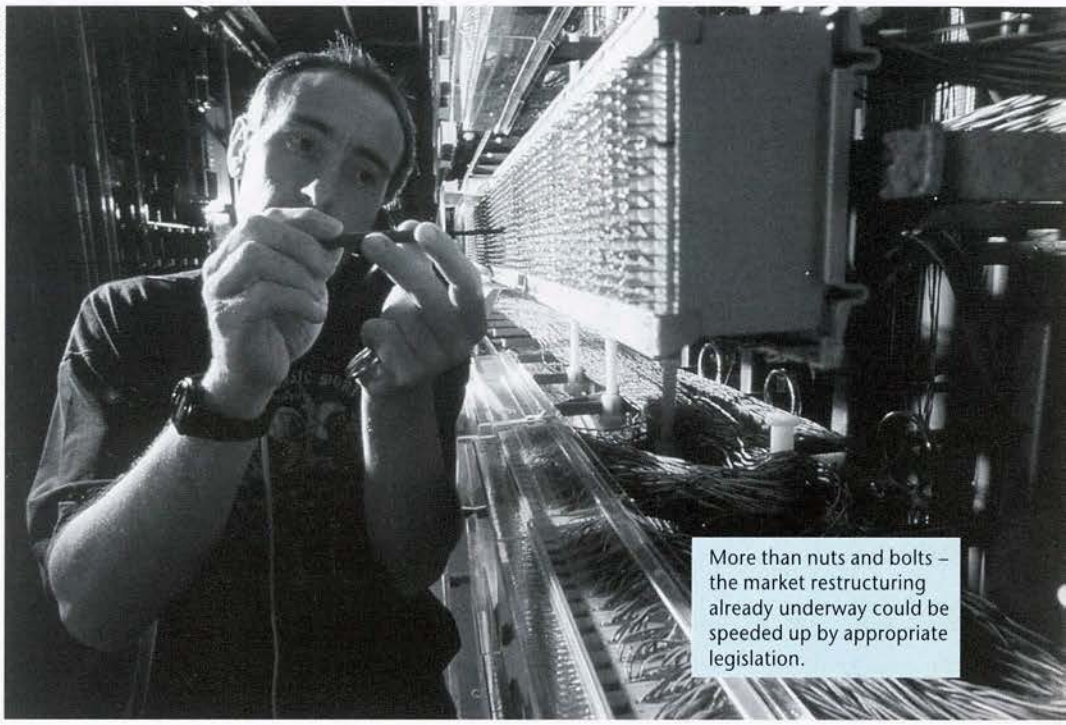
A number of additional network services will become important: the addressing used to identify consumers and users in electronic commerce, the availability of electronic mailboxes, a secure electronic payments system, and information systems to control transactions. For some of these services additional network systems or terminal equipment are necessary, such as transaction management systems and smartcard readers for security.

Access and Use

A structural feature of a networked economy is that multiple services and users share widely available common resources to access each other. But since telecommunication infrastructures have been opened to competition only in some OECD countries, with most others exposing their markets to competition only at the beginning of 1998, access has been limited to date. Restrictions on competition is also a characteristic of most broadcasting markets, with the result that some service suppliers have not been able to obtain access.

The economic inefficiencies which often occur with limited competition in infrastructure can retard the growth of e-commerce applications and limit the economic and social benefits they can provide. Regulators ought therefore to accelerate and extend the process of market restructuring already underway and thus allow the development and integration of generic networks that can provide and support all types of services, including entertainment, telephony and e-commerce. Allowing such a convergence in networks will require a change in present day regulations away from those specific to broadcasting and telecommunication markets, and towards frameworks which place emphasis on open access to networks for all services. Network and service providers would be subject to fewer regulatory restrictions than is the case at the moment.

Competition between different network technologies, particularly for local loops, will ensure that users and service providers have a choice in the way they access e-commerce applications, or obtain access to their customers. Although important economies of scale and scope may result from using networks to provide a number of different services, they would give incumbent operators even more market power than they have at present since their existing networks give them near-universal access to all households and most businesses. Regulatory safeguards therefore remain important to ensure that new entrants are not faced with barriers to entry that prevent them from developing their infrastructure and building-up their customer base.



Benoit Decout/RÉA

More than nuts and bolts – the market restructuring already underway could be speeded up by appropriate legislation.

New Pricing Structures

Prices charged for e-commerce applications will be influenced by those levied for access and use of communication networks. The pricing structures currently used in most countries for many of the burgeoning e-commerce applications, such as those available on the Internet, are usually unsuitable for heavy use of network resources: they were developed for the world of telephony where use of networks was limited to around thirty minutes a day, or under, for residential customers, and perhaps several hours a day for business users. Customers using e-commerce applications will remain on the network for long periods – shopping, interacting with their bank, sending messages, obtaining information, accessing entertainment services. Existing pricing structures which are based on the time spent in using the network may be too expensive to stimulate demand for some of these applications. New pricing structures, related to bandwidth or service, will emerge much more rapidly where there is sustained competition in the provision of infrastructure and service.

■■

The successful launch of competitive e-commerce applications requires a more open and competitive access to the many communication networks already in place and investment in high-bandwidth services through competition in network infrastructures. Regulation specific to telecommunication and broadcasting communications and to certain types of networks will limit the rapid convergence necessary for the widespread diffusion of e-commerce. ■

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What Chance for the Virtual Taxman?

Jeffrey Owens

Freddy Cats

The American writer Lewis Mumford, faced with a series of challenges, said that he was 'very optimistic about the possibilities but pessimistic about the probabilities'. Many tax authorities feel the same way about the Internet, which is opening up novel avenues for tax evasion and avoidance. The challenge for tax administrations is to maximise the potential efficiency gains of the Internet and at the same time protect their revenue base without hindering the development of the new technologies.

There are several ways in which tax administrations stand to benefit from the new information technologies. They will increase efficiency: intranet-type networks, for example, may open up new possibilities for tax authorities to exchange information in a more timely and secure way, and to improve the quality of their dealings with taxpayers.

But there are many characteristics of the Internet that worry the tax authorities. Because it allows public and private global communication systems which are secure and inexpensive

to operate, a huge range of small and medium-sized enterprises will be able to engage in international commerce for the first time. Tax authorities will thus see a rapid expansion in cross-border activities.

The process of 'disintermediation' via the Internet will, as the word suggests, substantially reduce the role of intermediaries: financial and other information, for example, may become available without the intervention of banks and similar institutions, with the result that the tax authorities will no longer be able to rely upon them to collect withholding taxes. The development of encrypted information may mean, furthermore, that governments have no access to the content of messages sent on the net. They will neither know what type of transaction is taking place nor be able to assess its value for taxation.

The Internet also increases the scope for the integration of business functions. Private intranets are now widespread in multinational enterprises (MNEs) and today are more important than public ones. The resulting 'internalisation' of transactions will make it progressively more difficult to identify the functions carried out by related enterprises. It will also allow more flexibility in the choice of organisation: MNEs may come to prefer branches to subsidiaries, resulting in different tax treatment under tax treaties.

The fragmentation of economic activity compounds these problems: the physical location of a given transaction becomes less important and it becomes more difficult to determine where it is carried out.

There are yet further characteristics with substantial implications for the operation of tax systems. One is the lack of any central control. Users of the Internet in general have no idea of the path travelled by the information over the Net. Registration requirements are minimum, as is proof of identity. An added difficulty for tax authorities is weak traceability: it is easy to arrange the untraceable use of an Internet site.

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The correspondence, furthermore, between the Internet address (the computer 'domain name') and the location where the activity is supplied, carried out or consumed is tenuous: although the address will tell you who is responsible for maintaining that site, it may not tell you anything about the computer that corresponds to the actual Internet address, or even where that machine is located.

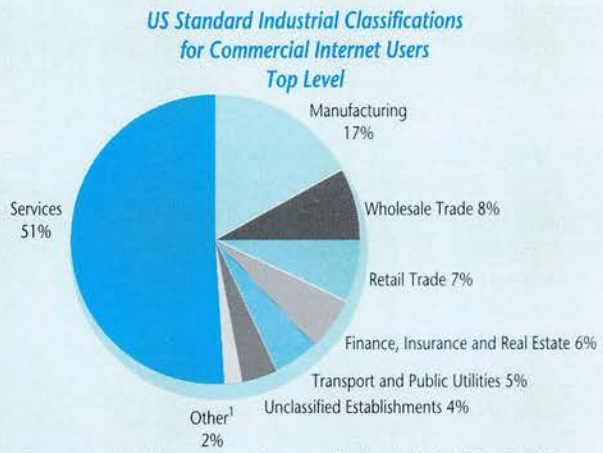
Disappearing Taxpayers?

The Internet will also change the environment within which tax administrations operate. Traditional – paper – audit trails may disappear, and tax administrations will encounter difficulties tracing transactions because of the lack of links between electronic entities and their physical counterparts. Verification of the identity of taxpayers will also become practically impossible. Individuals and entities engaging in electronic commerce will be able to establish an Internet address in almost any taxing jurisdiction regardless of the location of their residence or the source of their activities.

Obtaining acceptable documentation of proof will become harder. Where books and records are maintained in a tax haven, for example, it is unlikely that the tax authorities will be able to gain access to them: few countries have treaties with tax havens. It is also unclear whether the evidence that tax administrations would be able to produce on transactions in cyberspace would meet the documentation and evidence standards set by tax courts.

Disintermediation will remove convenient 'taxing points'. And the elimination of 'middlemen' could force tax administrations to collect smaller amounts of revenue from a larger number of taxpayers, raising the costs of collection. Withholding taxes, particularly on financial transactions, and certain consumption taxes (stamp duties, for example) may become less viable sources of revenue.

Figure
Major Commercial Users of the Internet



1. Construction (1.14%); Agriculture, Forestry and fishing (0.26%); Mining (0.2%).

Top Ten Second-level Standard Industrial Classifications

1. Business Services (26.2%)
2. Engineering, accounting, research, management and related services (10.86%)
3. Wholesale trade: durable goods (6.17%)
4. Printing, publishing and allied industries (5.4%)
5. Non-classified establishments (3.86%)
6. Educational services (3.41%)
7. Membership organisations (3.12%)
8. Communications (2.88%)
9. Electronic and electrical machinery equipment, except computers (2.72%)
10. Industrial and commercial machinery and computing equipment (2.45%)

Source: The Internet Group

Tax havens and off-shore banking facilities will be used more readily. The 'average' taxpayer will find it increasingly easy to use offshore financial centres. Internet banking will offer simple access, low transaction costs, a degree of anonymity and an immediacy of transferability of funds – all attributes which are not available today. If they can be combined with well-run off-shore institutions in an environment which provides security, it can reasonably be expected that a much wider clientele will be attracted to these services than use them today. It can also be expected that governments will not stand back in the face of this development.

Whither Consumption Taxes?

Taxes on consumption now account for an average 30% of tax revenues in the OECD area and 27 of the 29 member countries use value-

What Chance for the Virtual Taxman?

added taxes (VAT; the two exceptions are Australia and the United States). Trade in cyberspace raises a number of problems for VAT, although many of them would apply also to other forms of sales taxes.

The concept of 'place of supply' is important in VAT systems. In broad terms, places of supply rules fall into two categories: those which depend upon the identification of a relevant establishment (the supplier's in some cases, the customer's in others) and those which are based on the place of performance or enjoyment. Since electronic commerce makes much more opaque the links between the place of supply, the place where the enterprise is located and that where the service is used or consumed, the Internet offers business consumers new opportunities to evade or avoid VAT by turning to suppliers who are not registered for it.

How can tax authorities respond? One option under examination is to maintain the current rule on 'place of supply' but to broaden the definition of fixed (or permanent) establishment to cover cabling, switching and other technical resources required to deliver such services. Another response would be to change the 'place of supply' rule to apply where the service is consumed. That might appear an attractive alternative, but it raises the fundamental question of how tax would be levied on non-business consumption – on, for example, reverse-call systems used by households for international telephone calls. And financial institutions (which are usually subject to exemption under VAT systems and therefore cannot claim credits for inputs) might still be able to avoid the tax by arranging their affairs so that the 'customer' is an associate who is not established in the taxing jurisdiction. Another idea is to require non-resident service suppliers to register or have a fiscal agent in the country of the consumer.

Redefining Tax Treaties?

The Net will pose tricky problems for the negotiators of tax treaties. Can existing concepts – such as that of permanent establishment and royalties – be adapted to cover activities on the Internet, or should the tax authorities be undertaking a more fundamental review?

A central element in determining taxing rights in tax treaties is that of 'business presence', employed to establish whether a permanent establishment exists. Whether or not the operations of an establishment located in a country rise to the volume that makes it 'permanent' is primarily a question of fact. The OECD Model Convention (which is the basis for bilateral tax treaties) gives a definition and some guidance; a permanent establishment is a 'fixed place of business through which the business of an enterprise is wholly or partly carried on'. Some types of limited presence are not enough to draw an enterprise within the taxing jurisdiction of a country. For instance, a permanent establishment does not include 'the use of facilities solely for the purpose of storage, display or delivery of goods or merchandise belonging to the enterprise'. Treaty negotiations will now have to

1. ***Transfer Pricing Guidelines for Multinational Enterprises and Tax Administrations: 1997 Update***, *OECD Publications, Paris, 1997.*

apply these concepts to the new ways of doing business. A group of tax-treaty experts meeting at the OECD is expected to issue clarifications on the status of web sites, services, and so on in the autumn.

Implications for Transfer Pricing?

In principle, the communications revolution presents no new problems, no fundamentally or categorically different dimensions, for transfer pricing (the prices charged for transactions that take place between the different parts of an MNE). The development of private intranets within multinationals puts pressure on the traditional approach by stimulating the fuller integration of MNE operations, particularly in the organisation and provision of services. It will then become even more difficult than at present for tax authorities to determine what a given transaction actually is, and find a third-party transaction about which enough is known to conclude that it is comparable to a similar transaction between independent enterprises. The OECD Guidelines on Transfer Pricing[1] direct a functional analysis to assess comparability, but with electronic commerce and intranets it may be difficult to know who is doing what.

Indeed, transfer pricing will increase in complexity, particularly if an MNE is purposefully attempting to shift income among related parties. The deeper integration may often also bring benefits of synergy over and above the directly measured contribution of the participants. This raises the difficult question of how such benefits should be divided up between the related enterprises – which is only one of the issues currently under consideration by the OECD's Group of Experts on Transfer Pricing.

What Can Governments Do?

The response of governments to these developments has been one of caution. Some broad statements of principle emerged from the EU conference on electronic commerce, held in Bonn at the beginning of July, and the statement made the week before by President Clinton, which argued for the Internet as a tariff-free zone. But no national government to-date has issued new laws or regulations on how to apply existing concepts to activities carried out on the Internet.

This cautious approach may dismay the private sector which is looking for more certainty in this area, but it is the right position to take at the moment. Because of the global nature of the Internet and the speed of current changes, it is essential that globally accepted principles are agreed on how to tax activities carried out in cybermarkets.

Such an agreement will only be reached once the designers of tax policy have come to a common understanding of how the Net functions, and agreed upon which existing tax arrangements have to be reviewed, upon the process by which any existing mechanisms will be changed and upon the nature of these changes. The dialogue about these issues must include a range of government bodies and the private sector. Contact must also be established between the agencies responsible for income taxes and consumption, or businesses will find themselves caught between conflicting rules.

Only if all of these conditions are met will we achieve a stable tax environment which will enable the Internet to develop its full potential but at the same time protect the revenue base. Even at this early stage, several criteria that should apply to determining the way in which the Internet should be taxed can be formulated (box).

These criteria will conflict. A simple system may not be equitable and may not be sufficiently robust to protect the revenue base. All involve an element of judgement – on what is a fair distribution of the tax base, for example. And when conflicts do arise, governments and businesses are likely to take different views on what the trade-offs should be. But most would agree on these seven criteria and, one hopes, on the importance of reaching an international consensus. Maintaining it will allow the Internet to develop to its full capacity and at the same time enable tax authorities to obtain the income on which a government depends. ■

FOCUS

Seven Criteria to Judge Proposals to Tax the Internet

- *The system should be equitable: taxpayers in similar situations which carry out similar transactions should be taxed in the same way.*
- *The system should be simple: administrative costs for the tax authorities and compliance costs for taxpayers should be minimised as far as possible.*
- *The rules should provide certainty for the taxpayer so that the tax consequences of a transaction are known in advance: taxpayers should know what is to be taxed and when – and where the tax is to be accounted for.*
- *Any system adopted should be effective: it should produce the right amount of tax at the right time and minimise the potential for tax evasion and avoidance.*
- *Economic distortions should be avoided: corporate decision-makers should be motivated by commercial rather than tax considerations.*
- *The systems should be sufficiently flexible and dynamic to ensure that the tax rules keep pace with technological and commercial developments.*
- *Any tax arrangements adopted domestically and any changes to existing international taxation principles should be structured to ensure a fair sharing of the Internet tax base between countries, particularly important as regards division of the tax base between developed and developing countries.*

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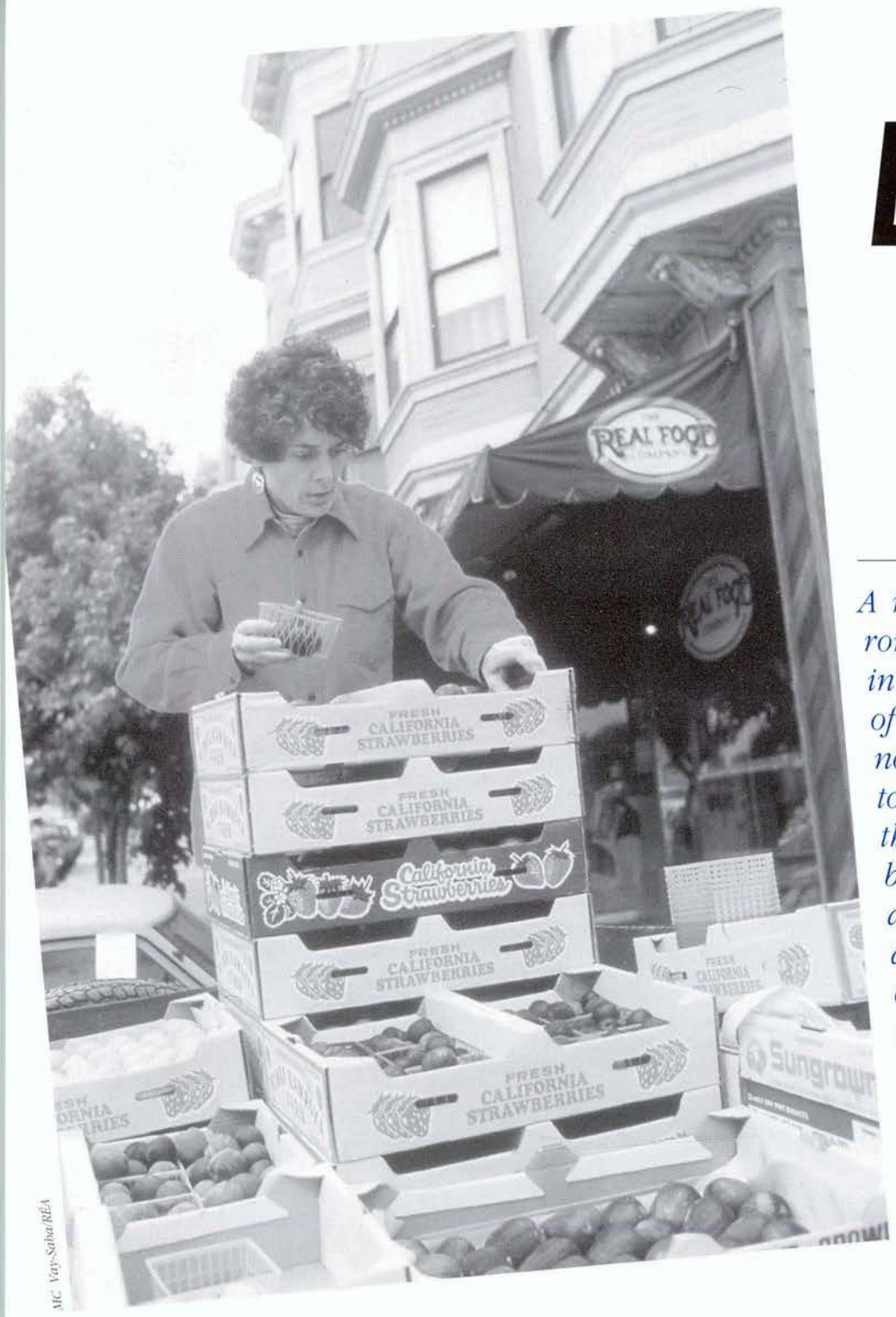

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Electronic in the

David Blandford and Linda Fulponi

A new and more competitive environment is emerging for agriculture in OECD countries. With the reform of agricultural policies, farmers are no longer able to rely on governments to provide a guaranteed outlet for their products. Instead, they are being obliged to meet consumer demands for product quality, diversity and timely delivery. These changed conditions require new ways of doing business. The growth of electronic commerce is playing an increasingly important role in facilitating the transition to the new economic environment by creating opportunities for marketing agricultural products.

Electronic commerce is creating a revolution in agriculture through the development of on-line, 'virtual' markets unconstrained by time and space. At any time of the day or night, without leaving the comfort of home, consumers can buy organic onions from California, rice from Japan, or arrange for a farm vacation in Italy. Without stepping beyond the farm gate, a Dutch horticulturist can sell bulbs and seeds across the world and purchase the supplies necessary to produce them. Virtual markets in agriculture are being made possible by the revolution in information technology, particularly the development of the World Wide Web (WWW). In agriculture, virtual markets range from Internet sites devoted to the direct marketing of farm products or 'agritourism' services to consumers to electronic exchanges or 'trading floors' for such items as livestock, farm machinery and meat. Private initiative is leading to the global spread of electronic commerce in agriculture – from Australia to the United States, and from Brazil to Indonesia – offering opportunities for expanding present markets and for the creation of new ones.

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In a world of electronic commerce, the effective market area is limited only by transport costs and the logistics of delivery of products or services. Via the Internet, individual consumers or firms can compare prices and products across a

Markets Agro-food Sector

large number of suppliers, often spreading across international boundaries. The savings in time and money that result mean that many traditional market centres or auction floors will be gradually replaced by computer screens. The only requirement to be able to participate in this new form of marketing is a connection to the network on which the virtual market exists.

Virtual markets will change the ways of doing business in agriculture. That does not mean that farms will become even more homogenous in terms of size or the products they offer; indeed electronic commerce is particularly well-suited to small-scale ventures selling 'speciality' products or services. Many farmers currently find it difficult to create a viable business with these characteristics because of limited access to consumers. In the world of virtual markets, small scale is no barrier and diversity is an asset. For producers of speciality items, such as 'organic' foods, foie gras and regional cheeses, the world rather than the local area becomes the market place. For rural areas remote from large centres of population, electronic commerce provides a means for increasing market size and hence commercial viability. Transaction costs, particularly transportation costs, are reduced since there is no necessity that goods and their buyers and sellers be physically present at a given location in order to make a transaction. Product wastage is reduced. The costs of advertising and showcasing products are substantially lower when done electronically. For consumers, expanded access to a larger range of products, increased price transparency and competition are some of the benefits to be derived from the growth in electronic commerce.

Recent growth in virtual commodity markets has been dramatic, with new sites appearing almost weekly (box, right). Interactive virtual commodity exchanges on the Internet are one exciting development for business and com-

FOCUS

Some Examples of Sites

A growing number of individual Internet sites are being developed for marketing of farm products, both retail and wholesale, around the world, 24 hours a day. A few additional examples are provided as an indication of the range of sites available on the Internet. Their inclusion should not be construed as an endorsement of the products or services offered.

Chiantiferie *(http://www.ats.it/chiantiferie/cferie.html). Looking for holiday accommodation? A consortium of 17 farms in the Chianti area of Tuscany, Italy, offers a wide choice of accommodation as well as the possibility of purchasing farm-produced olive oil and wine.*

Agritourism in Garfagnana *(http://www.lunet.it/aziende/garfprod/agriit.htm) also offers farm accommodation in a secluded northern Tuscany location, allowing one to explore many of the less frequently visited medieval towns of the area.*

100% Made in France *(http://www.webcom.com/galileo/100pc/welcome.html). This site groups together a variety of agriculture speciality products for direct sale by producers. The products range from wine, honey and jams to pickled onion preserves.*

From Costa Rica to your Home *(http://www.nacion.co.cr/netinc/meseta/). If you are particularly concerned about the origin of your coffee, you can order your coffee directly from producers in Costa Rica. Coffees are shipped all over the world in airtight packings. You can also try out* ***Kona coffee from Hawaii*** *via their producers' site (http://www.pete.com/coffee).*

Pibbin Pinot Noir *(http://www.winetitles.com.au/auswine/wineries/pibbin/pibbinhome.html). Australian wines are becoming more and more appreciated by wine connoisseurs the world over. You can familiarise yourself with these products by examining this site, operated by one of the producers, or by looking up other producers on the parent site, at: http://www.winetitles.com.au).*

If You Run Out of Rice *(http://village.infoweb.or.jp:80/~fvgd3820/pe410000.htm). For rice lovers who want to indulge their tastes, this producer offers five puffy rice varieties in ten-kilo packages shipped anywhere in the world.*

Summer Isles Food *(http://www.highlandtrail.co.uk/highlandtrail/fish1a.html). Without going to the Scottish Highlands, you can have traditional smoked salmon, sweet or whiskey cured, on your table through sites such as this one. If you prefer smoked trout, try out the site: http://highlandtrail.co.uk/highlandtrail/fish2.html. Both ship to Europe and the United States.*

Virtual Machinery Forum *(http://www.farmshow.ca/chat/machinery). This Canadian site provides an opportunity for buyers and sellers to post machinery requests and offers; replies are also posted directly on the site. And for those who would also like to buy a farm to go with the machinery, the* ***Farm and Ranch Net*** *(http://www.psnw.com/~webcity/resident/fmranloc.html) provides international listings of farms for sale, particularly in the Americas (North, South and Central).*

Electronic Markets in the Agro-food Sector

FOCUS

Electronic Commerce and Rural Development

Tourism in rural areas has been growing in recent years, not only in more traditional holiday spots such as Provence in France but also in more remote areas such as the Abruzzo in Italy. Increasingly, tourism services are being offered via the Internet, providing access to potential tourists across the globe at relatively low cost. Tourism linked to agriculture, so-called 'agritourism', ranges from the provision of self-catering farmhouse or cottage accommodation, through simple bed-and-breakfast facilities, to more elaborate hotel-style lodgings with meals and maid service. Recreational facilities, ranging from hiking or riding to golf and tennis, are often promoted. The marketing of local farm products is frequently associated with tourist sites. Images and descriptions of attractions and facilities, including accommodation, can be provided. Some sites provide for on-line reservations.

Prospective tourists enjoy cheap access to a range of information on destinations and can organise their visit. Local communities benefit from the income and employment that tourism generates. Off-farm income, or that generated on the farm but not directly connected to farming, is a major factor in the continued economic viability of many farms in OECD countries. By expanding the income from such activities, the Internet has a substantial role to play in rural economic development.

merce. For example, the Australian Meat and Livestock trading 'floor' links exporters, importers and processors world-wide (http://www.aginfo.aust.com). Offers to buy and sell specific products or commodities are posted on an electronic bulletin board. The site has an average of roughly 10,000 visits ('hits') per week and has been used by traders from over 70 countries since it was initiated in late 1996. Product requirements are specified in terms of quality, quantity, point of delivery and the basis for pricing. Replies are posted directly on the site, and bids and offers can be viewed by all. This openness reduces transaction costs, increases transparency and enhances competition. The site also provides optional services for a fee, such as links to company home pages and on-line conference rooms through which exporters and importers conduct trading behind protected security screens, complete with free fax facilities.

Clajed/REA

Another example is the *Livestock Marketplace* (http://www.pellcom.com). Operating from the United States and involving traders from 44 countries, it provides a database on cattle prices in various auction markets, as well as a clearing house for buyers and sellers of cattle. Traders who register on the system can post groups of animals for sale (lots). Communication between buyer and seller is by electronic mail. Transaction costs are low and access to a wide geographical market is facilitated. For instance, the price of a comprehensive listing of a lot for sale is $20 for 30 days for both nation-wide and international dissemination, compared with $12 for only a few lines of description in a local/regional or specialised trading publication. Some sites are free of charge, such as the *Virtual Ranch* (http://www.cattleweb.net/VirtualRanches/) or *C.O.W.* (Cattle Offerings World-wide: http://www.cattleofferings.com). *C.O.W.* is also a database system which provides a clearing house for genetic material as well as animals. Comprehensive contact information is provided for buyers and sellers to facilitate communication by electronic mail, fax or other media. Similar sites exist for selling farm equipment, farm properties and even fishing vessels.

The Internet also provides farmers the opportunity to reach a wide and growing set of consumers through direct marketing. Products may be marketed individually or through thematic or regional sites. *Epicuria* (http://www.epicuria.fr), a server of French gastronomy, is a thematic site with links to several producers; sites such as *Montana Organic Cereals* (http://www.webcom.com/infinet/wheat.html) or the *Ferme Betrine* (http://www.promin.com/fr40/bertrine.htm) are individual sites advertising speciality products, wheat and foie gras respectively. Orders are submitted through electronic mail and payments are made by credit card.

In the past, the success of many private initiatives for the development and sale of speciality products has been limited by location and/or costs of advertising. These limitations can be overcome as market size is expanded through electronic commerce. The use of the Internet to promote agritourism, combined with sales of regional products, also offers enormous potential for less favoured rural areas by stimulating economic activity. The development of alternative or complementary economic activities to agriculture is vital to the future economic viability of many rural communities, though by no means a solution to their structural problems (box, left).

What the Future Holds

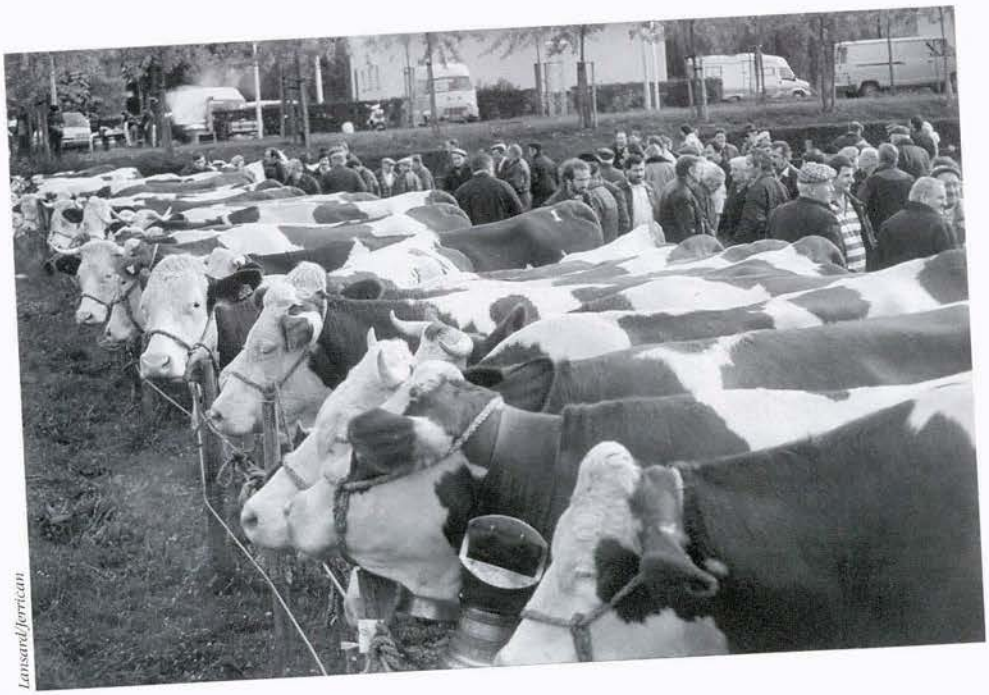
With the growing number of Internet users, electronic commerce in agriculture is likely to increase both in terms of the products offered and the range of marketing arrangements. Virtual markets (trading bulletin board sites, for example) are likely to be extended to a wider range of agricultural products. As food processors and retailers adopt more efficient purchasing practices, such as 'just-in-time' and 'direct store delivery', they will have to co-ordinate information on the availability of supplies from producers in terms of quality, quantity and timing. By providing rapid and efficient communication and transactions between producers, processors and retailers, computer networks can facilitate co-ordination between production processes and consumer requirements. That will accelerate the spread of vertical co-ordination in agriculture which is already making major inroads into the production and marketing of fruits and vegetables as well as some meat and poultry products.

Electronic commerce is likely to alter the operation of markets for financial services in agriculture. As governments reduce their involvement in setting prices, futures and option markets will become the principal mechanisms used by farmers in managing price risks. The flow of up-to-date information necessary to participate in such markets, once difficult and costly to maintain, is now easily achievable via the Internet. For instance, the Chicago Board of Trade now provides a free update on futures/options prices for its contracts every 15 minutes during the trading day. Electronic trading systems, such as Globex or Project A which extend trading hours so as to permit continual trading 24 hours a day from anywhere in the world, contribute to the broad participation and high liquidity necessary for financial markets to function efficiently. Advances in information/communication technologies may make it technically feasible for farmers to access markets directly to buy/sell contracts, although present institutional arrangements do not allow it. Nevertheless, it is extremely likely that such on-line access to trading in futures and options will be developed in the years to come.

■■

Electronic commerce offers unprecedented opportunities for farmers and more broadly for rural areas. In general, its development is best left to private initiatives, although some assistance through public or co-operative bodies may be useful in the initial stages, particularly in training. But a number of other issues still have to be resolved if the full benefits are to be realised.

Although electronic commerce facilitates the marketing of agricultural commodities from remote rural areas, once sales are made products must be delivered. The system can only work if the necessary infrastructure, particularly for transport, is available. Another constraint lies in insufficient physical access to electronic networks in rural areas and the costs of such access, although service may be expected to expand and its costs to fall over time. In the meantime, there may be a risk of growing inequality of opportunity between producers/firms which could accentuate a drift to 'two-speed agriculture', with those unable to exploit the information technologies operating in an increasingly disadvantaged commercial environment. Government co-operation with the private sector, particularly in training in the use of information technologies could be useful in helping to increase their use, especially in more disadvantaged rural areas or by older farmers. The rapid development of electronic commerce in agriculture nonetheless attests to the dynamic and creative capacities of the private sector in meeting the challenges and exploiting the opportunities of the changing economic environment. ■



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From Theory to Practice in Education

Donald Hirsch

Every year, some 10,000 educational researchers descend on one of America's larger cities for the annual jamboree of the American Educational Research Association. Five days and several thousand learned papers later, they return to their universities to reflect on the latest findings, to pursue their own specialised strand of research and to prepare students of education to go out and teach – in more or less the same way as they did the year before. Why the inertia?

Advances in the understanding of education are introduced in a far less straightforward way into the classroom than, say, advances in medical knowledge are applied in the doctor's surgery. The difference arises partly because there is no educational equivalent of penicillin – an easily administered new remedy that will make a clear and immediate difference to performance. It is also because educational reform can be made to work only by teachers, who have to take on board the spirit of any change *en masse*.

But teachers in many countries are extremely conservative in their classroom practice. Where they have adopted new norms, such as in the 'progressive' teaching movements of the 1960s and '70s, it has tended to be more in response to contemporary fashion – expressed through political and administrative initiatives – than as a direct result of solid research on what works and what doesn't.

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Can governments and teachers learn to use the evidence of what works in education more effectively? There are good reasons to do so, one of them being that the pressure on education to raise its performance is growing. Both governments and individuals – and voters and consumers – believe that education is more important than ever before, and yet too many children leave school with inadequate skills.

This divergence between opinion and fact has caused some people to ask whether education is far too conservative in terms of its basic *modus operandi*. Will the age-old model of a teacher standing in front of a class of 30 children serve for the 21st century? The potential for a radical departure from such long-established practice is bigger now than ever. And ideas about restructuring schools can be linked to the power of new information technology as a means of tailoring learning to the requirements of each individual pupil.

The classroom of the future, for example, may have several teachers looking after a large number of pupils, who draw on self-operated computer technology and the skills offered by different teachers to chart their own course. Learning may also be structured more flexibly over the school day or week, with students taking more responsibilty for allocating time to meet their own programme rather than fitting into a rigid school timetable.

Decentralisation – particularly of management and budgetary decisions to school-based managers – is making the influences on education systems more diffuse. In Sweden, for instance, where powerful, research-related ideas (such as the desirability of comprehensive education) were once implemented directly by a National Board of Education, municipalities and individual schools now take the initiative in allocating resources and driving educational reform.

Indeed, knowledge about education is now itself highly diffuse, involving much more than the evidence of the type exchanged annually by America's army of educational researchers. There is growing interest in understanding what makes some education systems more effective than others. Both national and international interest in, and the availability of, quantitative indicators of educational performance have risen sharply in recent years.[1] Yet such indicators have to be used in conjunction with a qualitative understanding of educational developments in each country. The expansion of upper-secondary education in most OECD countries during recent decades, for example, can be understood only in relation to important changes in its content: in many countries, rather than being narrowly focused on abstract academic subjects, it has brought in a wide variety of applied and vocational studies, at least as options.

Getting Ideas to the Classroom

Two important changes therefore have to be made. The first is to improve the contacts between researchers and policy-makers in education. Each side has tended to blame the other for the weakness of this relationship: policy-makers for ignoring the findings of research, and researchers for failing to make their findings clear, timely or relevant. In fact, it is often the case that research findings that have been known for years will be implemented only when the politi-

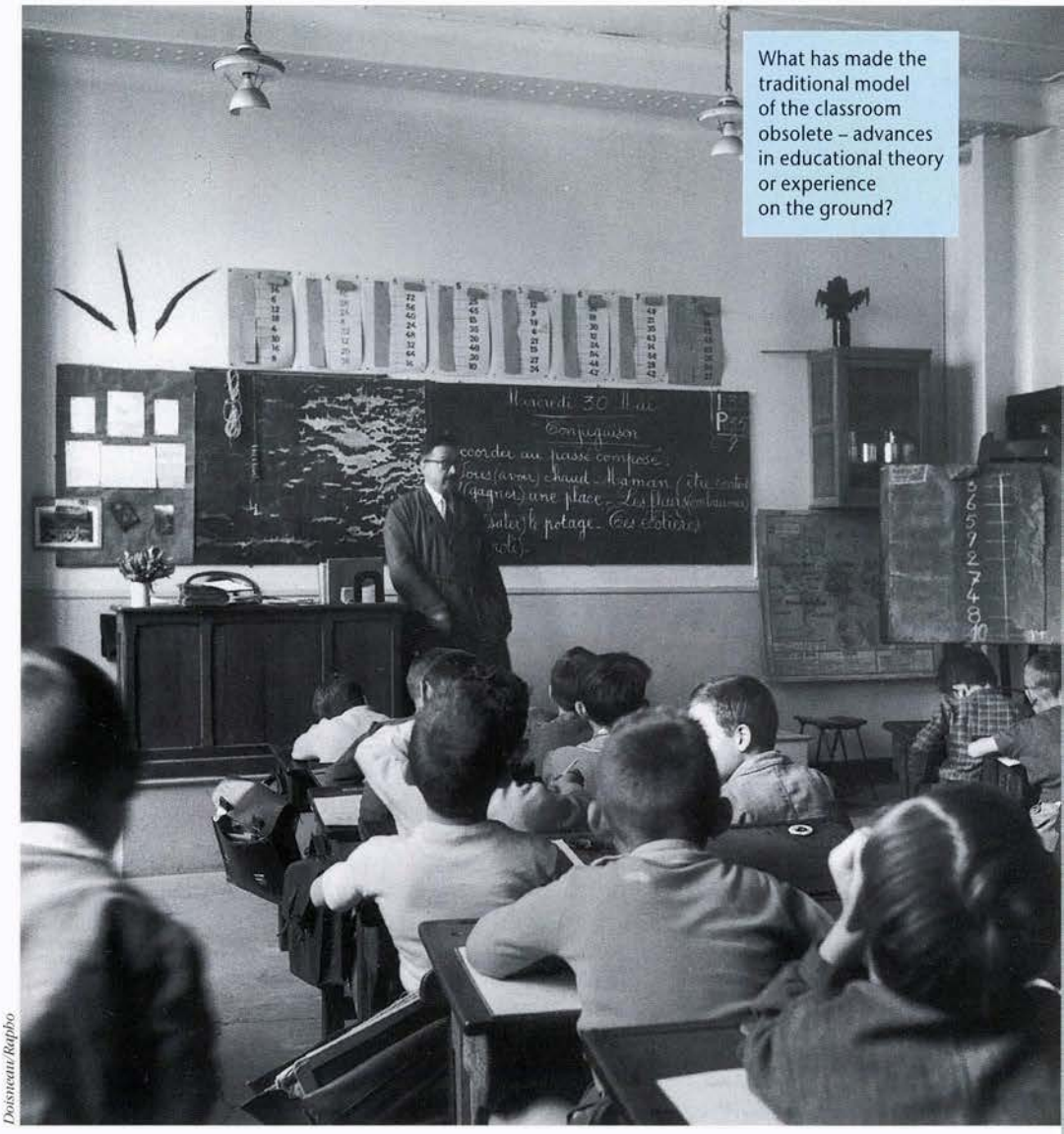
cal atmosphere is right – techniques for teaching reading, say, or the role of school leaders in educational decision-making.

It has long been known that over-reliance on 'alternative' methods for teaching reading, such as trying to get children to recognise whole words rather than learning to spell them out, is ineffective for some children. But only recently, in countries where these techniques have caught on, have they started to be modified.

And research dating from the late 1970s has demonstrated the crucial role of head teachers in making schools effective, and yet many countries have only made modest and very recent steps to give more managerial powers to school leaders. The new empowerment of head teachers is nonetheless very strong in some countries, where they have increased control over everything from the hiring of their staff to the setting of the curriculum to the allocation of budgets.

This sort of structure necessitates a second type of change in the way in which knowledge is disseminated, one that allows administrators and teachers to make sense of the mass of information available. An advantage of a decentralised decision-making environment is that practitioners can devise strategies based on knowledge derived from their own experience: they can quickly see if a particular technique is not working with their own students. A disadvantage is that it becomes harder to look to improve one's understanding by drawing on knowledge from a wider base than one's own school, which is an advantage of large-scale research projects.

Intermediaries will be required to meet these challenges. An increasing number of consultants, policy-advisers and research co-ordinators within ministries is emerging to help bridge the gap between knowledge and practice. Such people can help channel information more effectively to where it is required. It is unrealistic to expect a researcher to be directly on hand to present the results of long-running study at the moment that a policy-maker is looking for it. So ministries of education have to be served by intermediaries who have their fingers on the pulse of research but who also understand policy priorities.



What has made the traditional model of the classroom obsolete – advances in educational theory or experience on the ground?

Doisneau/Rapho

It is relatively straightforward to hire intermediaries to help bridge the divide between 'knowledge-production centres' (such as universities and other research institutions) and education ministries; many countries already do so. But it is harder to construct a framework to service the information requirements of teachers and others working in schools themselves, who want to know what teaching techniques are effective. A school principal can afford neither the time to read all the learned journals nor the money to hire someone to summarise them.

It is particularly important that knowledge about education systems is transmitted across national boundaries. Otherwise each senior official will have to rely only on his or her own patchy understanding of what is happening elsewhere, in trying to lift the performance of the country involved to international norms. A good example is the transfer of Germany's successful

1. ***Education at a Glance, Analysis*** *and* ***Education at a Glance, OECD Indicators****. OECD Publications, Paris, 1996.*

From Theory to Practice in Education

G. Monico/Rapho

In the classroom of the future children will rely on a mix of computers and the presence of a number of different teachers.

apprenticeship model to other countries. Although it is impossible to recreate all the aspects of German culture and institutions that have made this model a success, some countries have started to emulate certain aspects of it, in particular the close co-operation between educational institutions and employers. But where countries have tried to set up training schemes that address unemployment simply by labelling trainees as 'apprentices' without working on these public-private links, they have tended to achieve little.

Inspectors to the Rescue?

One promising way of disseminating innovative ideas in school systems is in conjunction with school evaluation. Like many other professionals, educators have recently come under close scrutiny. Local authorities, governors and headmasters, who are under pressure to show that education systems are performing well, and to keep track of a decentralised system, have become much more pre-occupied than in the past with evaluating quality and outcomes in schools themselves.[2] School authorities are thus finding themselves pushed to develop common positions on matters such as teaching methods and the best way to organise schools, and even to produce benchmarks of what constitutes good performance in the context of the latest research and comparisons.

In some countries, such as New Zealand, the United Kingdom and the United States, evaluation was introduced first and foremost to improve schools' accountability for their performance. Of course, simply checking up on somebody does not in itself produce the instruments that will help them improve. But the cohorts of school inspectors who examine schools could also serve as knowledge intermediaries: to help schools develop practices that have worked elsewhere. Going into a school and criticising the maths department is all very well; working with them to implement a successful technique for teaching numeracy is more satisfactory.

■ ■

Educational researchers have been at their least effective when, taking strength in numbers, they create their own 'knowledge communities' based around university departments of education. The interest taken in educational effectiveness by the world at large offers a new set of avenues for translating knowledge about education into real improvement. The academics who publish learned articles and attend conferences of other academics could now make a far more direct impact than they have done in the past. But to do so, they will have to work in partnership with many others concerned with the development and use of knowledge in education. ■

2. ***Schools Under Scrutiny***, *OECD Publications, Paris, 1995.*

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Education and Social Exclusion

David Istance

There are now grave risks that, as the speed of change in knowledge-driven societies increases, individuals who are already in a marginal position in education and in social and economic life may find themselves excluded.[1]

Hugues de Wurstemberger/Agence Vu

In spite of the considerable expansion of opportunities, particular social backgrounds can still have a decisive influence on educational outcomes.

The central importance of education, learning and the acquisition of knowledge and skills can never have been more widely recognised. It is now common to talk of OECD countries as 'knowledge economies'.[2] With rapid change, and hence the continual requirement for new knowledge, few people now adhere to the old assumptions that an initial schooling or apprenticeship is an adequate preparation for working life. Life-long learning has come to be widely acknowledged as essential, not only in education, but in a wide armoury of economic and social policies; it forms a central plank, for instance, of the OECD Jobs Strategy.[3]

The links between learning and 'economic health' for individuals are now firmly established, and the acquisition of knowledge, skills and qualifications are acknowledged as vital in today's highly competitive world. And parallel lessons can be drawn for enterprises (as 'learning organisations'), as well as for entire industries, geographical areas and national economies. Education, training and learning do not themselves guarantee success, but they are more and more a necessary ingredient of it.

There is a serious, obverse side to these developments: the consequences for those individuals, organisations or communities who fall behind in learning become the more profound, and can be dire – dire enough, indeed, for the term 'exclusion' to have entered into the lexicon of mainstream policy discourse. People on very low and precarious incomes or in poverty, many of whom are out of the labour market with limited prospects of securing a foothold in

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1. ***Education and Equity in OECD Countries***, *OECD Publications, Paris, 1997.*

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

3. ***Implementing the OECD Jobs Strategy: Lessons from Member Countries' Experience****, OECD Publications, Paris, 1997; see also 'Lessons from Implementing the OECD Jobs Strategy',* ***The OECD Observer****, No. 207, August/September 1997.*

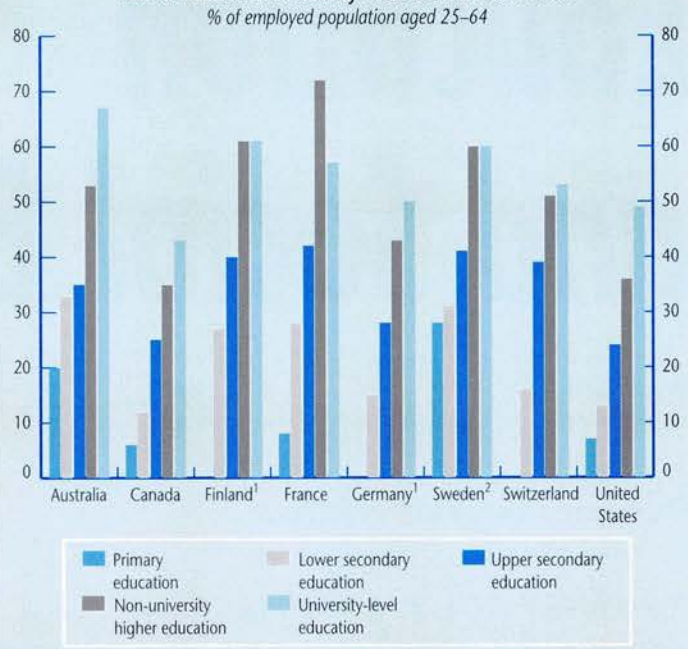
Education and Social Exclusion

it, and who live in poor housing and communities, are among those to whom this term most obviously applies.

The Social and Economic Environment

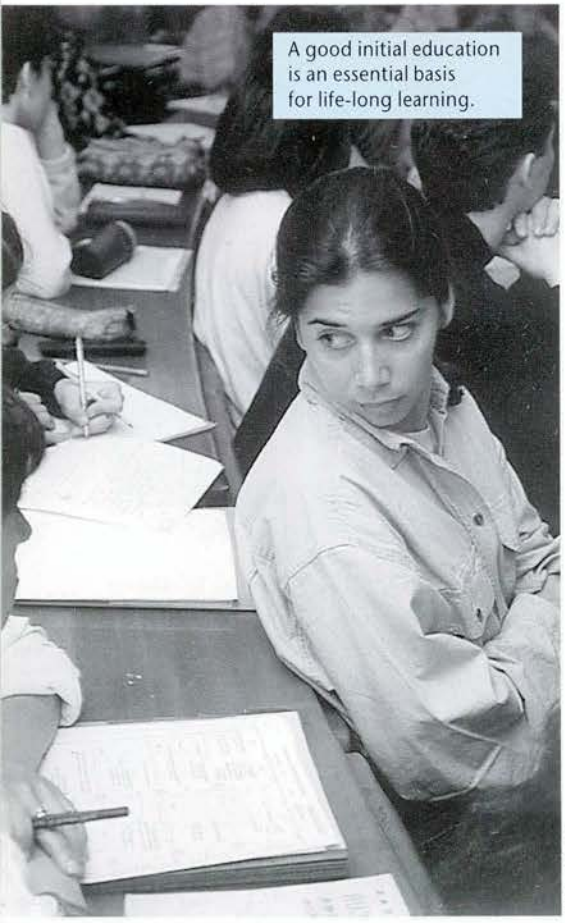
The situation of the disadvantaged is shaped by the evolving social and economic environments of OECD countries, not merely by the effectiveness of education policies. Alongside continued growth and the relative affluence of OECD countries, the speed of structural change (itself a prime argument for life-long learning) has produced a generalised sense of insecurity even among people whose qualifications and educational attainments are relatively high. So it is hardly surprising that the sense of exclusion among individuals with a weak foundation is acute, especially in the light of the more direct indicators relating to exclusion.

Figure 1
Participation in Job-related Training over a 12-month Period by Educational Attainment
% of employed population aged 25–64



1. Lower-secondary includes primary.
2. Over a 6-month period.
Source: OECD

Unemployment is high, especially in Europe, and has remained at well over 30 million across the OECD area as a whole over recent years. In most countries over half the unemployed have been jobless for more than six months, and in some cases, such as Belgium, France, Germany, Greece, Italy, the Netherlands, Portugal, Spain, Turkey, and the United Kingdom, that proportion is much higher. Cross-national analyses of earnings and income show that the long-term trend towards equality were often reversed in the 1980s and '90s. Inequality of income, for example, widened during the 1980s in the majority of the ten countries where data permitted comparisons over time, especially in the Netherlands and Sweden, and still yet more markedly in the United Kingdom and the United States.[4]


A good initial education is an essential basis for life-long learning.

BSIP Laurent

The distribution of poverty has changed, putting new groups – children and parents in single-parent families and elderly women, for example – at particular risk of exclusion. New configurations of family and community life, sometimes the result themselves of rapid economic structural change, have meant that traditional sources of support – 'social capital', in the words of the sociologist James Coleman[5] – have also been eroded for many in situations of marginality. This form of capital, expressed as community values and networks that underpin learning, Coleman regarded as a vital factor behind successful attainment in education, over and above the individual and material circumstances of the student.

Indeed, historical comparative analyses of social mobility have not endorsed the argument that societies became more open in the process of industrialisation and post-industrialisation; instead, the evidence is mixed.[6] This conclusion is reinforced by an historical comparison of the importance of social influences on educational attainment. In only two of 13 countries in a recent major study – the Netherlands and Sweden – has the trend been clearly towards the loosening of the bonds between social background and educational career.[7] Thus, despite the massive expansion of educational opportunities over recent decades, there is no universal trend across OECD countries for the powerful sway of social advantage and privilege to diminish.

Progress in Policy, Problems in Practice

Some elements of the policy environment suggest that exclusion is receiving the attention it merits. The awareness of educational rights and entitlements as defining elements of citizenship, for specific sections of the population (including minority interests), can never have been as highly developed across the OECD countries as today. Many recent national and international policy statements have endorsed agendas that are intended to tackle educational disadvantage and social exclusion: a recent conference of

OECD education ministers, for instance, called for 'life-long learning for all'.[8] And the OECD Ministerial meeting in May this year recognised that 'the gap between the 'haves' and 'have nots' within some OECD countries may have widened', and that 'there is a need to prevent people from drifting into long-term unemployment and social exclusion'.[9]

There has also been considerable attention to initiatives and approaches that bear practical improvements.[10] Far more is known about certain widespread aspects of under-achievement and learning disadvantage that until recently were barely acknowledged except by specialists: the International Adult Literacy Surveys, which the OECD is actively involved in organising, have shown that low degrees of adult literacy are a concern in all countries.[11]

These encouraging signs in policy discussion do not yet offer much practical ground for comfort. The bold, inclusive agendas of elevated policy meetings reflect where ministers and others would like to be, not where matters currently stand. The reality is that not all individuals participate in life-long learning. Indeed, recognition of the phenomenon of social exclusion stems from the perception that the associated problems are growing.

Further, although there is no necessary conflict between the pursuit of educational excellence and equity, many of the steps taken in countries as part of the drive to improve quality – a watchword for educational policy for the past decade or more – may serve to widen the distance between the 'included' and the 'excluded'. Augmenting diversity in schooling and the exercise of parental choice, for instance, may valuably help to reduce public resentments of schools and teachers and bridge some of the divide between producers and consumers in education.[12] Yet the benefits will often be felt by the families most able to exercise choice, and such quasi-market arrangements in education may well have widened existing social gaps.

These developments are illustrations of the broader trend away from the earlier welfare-state precepts that underpinned social policy, including education, in many countries in the third quarter of the twentieth century. There is a growing complexity of learning provision and decision-making – as is evidenced, for example, by the wide variety of informal and non-public sources of education for life-long learning, especially after initial education: short and long training courses; informal learning in high-skill work environments; individual initiatives; learning through networks, community and voluntary activity, the media and multi-media, in addition to the organised programmes of formal education in schools, colleges, and universities.

These changes particularly disadvantage people who are already disadvantaged. Keeping up in information, knowledge, skills and qualifications is increasingly dependent on being able to operate comfortably in these diverse settings. The disadvantage confronted by the socially excluded, whose experience of education has been largely one of failure, is thus doubly daunting. To begin with, there is the considerable challenge of rectifying under-achievement for the sizable minority of students who in each generation have ended up with little to show for their education. But even that provides only the basics on which the life-long learner builds. It is thus particularly important to ensure that all individuals receive an equally productive initial education.

As the supply of learning has become more diverse, a growing share of influence lies outside conventional governmental mechanisms. As the agendas become more inclusive and ambitious, the capacity of government mechanisms to deliver them is reduced. There is here an unresolved tension for public policy in

Figure 2
Unemployment and Educational Attainment, 1994
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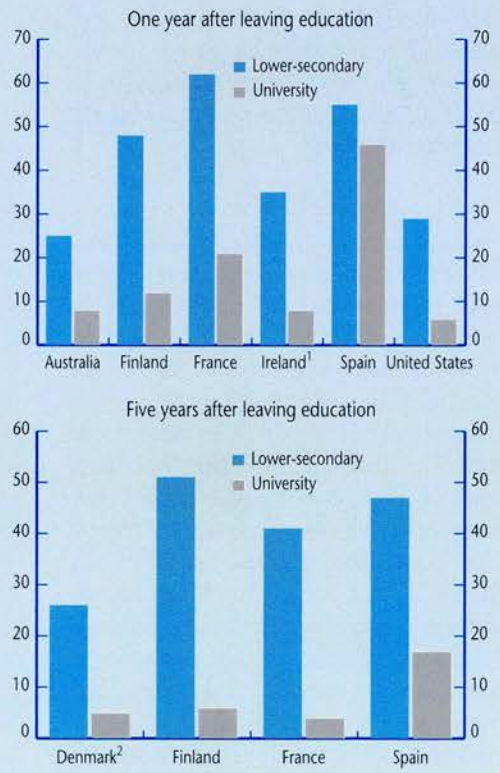

1. 1995 for university.
2. 1993.
Source: OECD

4. ***Income Distribution in OECD Countries***, *Social Policy Studies, No. 18, OECD Publications, Paris, 1996;* ***Employment Outlook***, *OECD Publications, Paris, 1996; see also pp. 38–41.*

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BSIP/DPA

If enterprises are to become organisations where learning is a continuous process, workers are going to have to be able to absorb a range of different types of knowledge.

addressing disadvantage. It is vital to maintain a focus on the requirements of the socially vulnerable and marginal, as in training programmes intended to help them enter the labour market. But that may serve to reinforce the stratification of the 'learning market', undermining the very inclusiveness the programmes are seeking to achieve. This tension suggests that equity considerations are just as important, if less well understood, in the emerging market arrangements and new public/private partnerships for learning as they are in the public provision of education and training.

■■

Some main points emerge from this analysis. First, there is the urgency of addressing the problems of exclusion and learning. There has to be a broad understanding of inclusion and exclusion, so that individual initiatives to help the disadvantaged are not isolated examples, nor individual policies unwittingly in conflict with others. The benefits of economic growth and dynamism can easily be squandered if the complementary goal of social cohesion is not assured.

Second, the importance of laying the foundations for life-long learning, on which later involvement in learning activities of all sorts so depends, re-emphasises the pivotal role of initial education and training. It is also where there is widest scope for action by education authorities themselves. Combating social exclusion calls for an improvement in the quality of schooling, focused especially on the students and communities where achievements are currently weakest.

Third, the aim must be to address and mitigate the tendency across OECD countries whereby those with the firmest start to learning in childhood and early adulthood participate in education and training later on while many others never return to learning, thus widening existing inequalities over the life-cycle. 'Life-long learning for all' should mean what it says. ■

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Involving in

Caroline St John-Brooks

The relationship between families and schools in OECD countries is shifting. Both are intimately involved in children's education, but the aspects for which they are responsible, and how that responsibility is delineated, varies over time and cultures, and changes with the economic and political climate.[1]

Three factors are combining to make the roles of family, school and community in education more widely recognised. Formal education is becoming ever more important; its methods are more diverse and its purposes more complex; and the awareness is spreading that in the future most people will have to keep learning throughout their lives is spreading.[2] Parental involvement in the education of their children is now associated with higher achievement. That perception complements other trends: a general movement towards decentralisation and local autonomy, with many governments now wanting to make state schools more accountable to their

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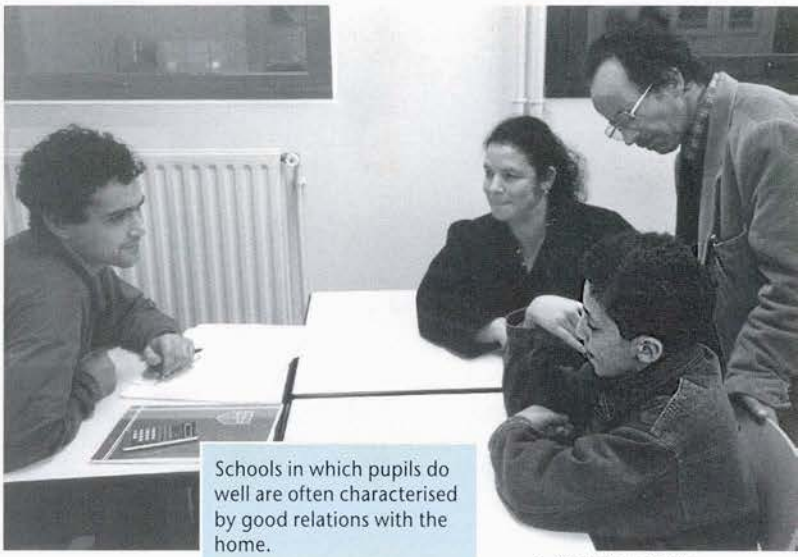
Parents Education



Schools in which pupils do well are often characterised by good relations with the home.

J. Windenberger/Rapho

'clients', and more parents exerting pressure on politicians for a wider choice of schooling.

In many countries parents see their involvement as a democratic right; in some, indeed, like France, Germany and Denmark, it has been a legal entitlement for decades. And the idea of accountability – making more public both the financial arrangements and the successes and failures of individual schools – has been embraced more or less enthusiastically in the United Kingdom, Canada and the United States. The aim of this shift in policy is to make schools more responsive to the demands and wishes of the parents who entrust their children to them, and to the taxpayers who fund them.

Governments have a number of reasons for encouraging parental involvement. There are efficiency effects. A belief in consumer choice insists that parents, as consumers, should be able to choose schools, and to influence the way in which they operate. The underlying assumption is that if parents think of themselves as consumers, they are more likely to be clear about what they want, and to be more critical of what they are being offered – thus pushing schools into responding to their demands more effectively.

Governments are also aware that parental involvement can be a lever for raising standards. Findings from large-scale studies in Australia, the United Kingdom and the United States show that schools in which pupils do well (in terms of both academic attainment and positive attitudes to learning) are characterised by good relations between home and school.

Involvement can also tackle disadvantage and improve equity[3] when the performance of individual children is raised by showing their parents how to support them more effectively at home – a consideration that is particularly important when there are cultural differences between the values of the education system and those of the family. In some countries, including Canada, England and Wales, France and the United States, policy-makers are turning to schools for solutions or help with issues such as drug and alcohol abuse by teenagers, sexual promiscuity and teenage pregnancy, child abuse, violence and gang-based street-cultures.

There are also financial considerations. Not only do parents raise extra funds for schools, but they can be a very cost-effective way of mobilising resources in other forms: as helpers on school visits, for example, as coaches or assistants in sporting activities, or as teachers' aides in the classroom.

Associative Action

The extent of parental involvement varies considerably from country to country, most being strong in some aspects and weak in others, and governments encourage it to different degrees in the different tiers of education. Legislation can achieve only a limited amout, of course, although it can encourage parental participation in policy-making and governance, both nationally and locally. They can give parents the legal right to form parents' associations. They can offer parents a wider choice of school (although complete freedom of choice is never really possible without retaining an uneconomic number of spare places in the system). They can require local authorities and schools to communicate particular kinds of information to parents. In England and Wales, for example, schools must give parents certain details concerning the curriculum, the academic performance of the school in relation to the national average and of other schools in the area, and information on their children's progress in comparison to national norms.

Denmark, France, Germany, Ireland and Spain all have parents sitting on important policy-making committees in national or state governments. In Canada, a number of provinces have recently set up parent advisory committees, and similarly some US states have parental representation on the advisory committes of district school boards. In England and Wales and Japan, by contrast, parents are not represented on either kind of board.

Parental participation in schools themselves takes a wide variety of forms. Recent OECD research on education indicators estimated the extent to which parents are involved in decision-making processes within primary schools.[4] In the 12 countries covered by the survey, 57% of primary pupils are judged to be in schools in which parents participate in financial or organisational decisions. Fewer than one in four attends a school where parents have influence over staffing.

1. ***Parents as Partners in Schooling***, *OECD Publications, Paris, 1997. Nine OECD countries were covered by this study: Canada, Denmark, France, Germany, Ireland, Japan, Spain, the United Kingdom (England and Wales only: Scotland has a separate educational system) and the United States.*

2. *Jean-Claude Paye, 'Strategies for a Learning Society' and Edwin Leuwen and Albert Tuijnman, 'Life-long Learning: Who Pays?',* ***The OECD Observer****, No. 199, April/May 1996.*

3. *See also pp. 27–30.*

4. ***Education at a Glance: Analysis, 1996 Edition*** *and* ***Education at a Glance: OECD Indicators, 1996 Edition****, OECD Publications, Paris, 1996.*

Involving Parents in Education

The extent to which parents are active as school governors differs according to how far countries treat schools as autonomous units. In Japan, Germany and France, for example, individual schools do not have governing bodies; in Germany, though, the school councils – on which parents are represented – can sometimes influence the appointment of a school principal. In Denmark, Ireland and Spain, schools are seen as more autonomous and their school boards, on which parents sit, have real influence on decision-making. The process is probably most advanced in England and Wales, where the governing bodies (which include parents) of individual schools make virtually all the important non-curricular decisions.

In almost all the countries in the study, there are national parents' associations of various kinds, the bulk of them built up through a system of councils or associations based in individual schools. Such associations are not compulsory in any of the countries, although in recent years most governments have begun to encourage them. Some parents' organisations, by contrast, are of very long-standing and – in France and Japan, for example – are part of the local political establishment; indeed, they are an accepted way for people to enter the political process in general. In Denmark, France, Germany, Ireland and Spain, members of parents' associations sit on national committees and give their opinions. In England and Wales parents are not represented on such bodies, although important policy documents are normally circulated to the National Confederation of Parent-Teacher Associations as part of a routine consultation process.

In Denmark, France, Germany and Spain class councils are a common form of participation, but elsewhere they are barely known. The usual structure is simple: all the parents of the children in a given class, as a group, have regular meetings with the teacher. In Denmark, where teachers often stay with the same class of children throughout the Folkeskole, parents and teachers can come to know one another very well, and parents often have a powerful voice in aspects of school life.

Most governments are also keen to encourage closer relationships between schools and local communities and have put in place an array of impressive pilot projects and local links. But in most instances, the policy has not moved much beyond rhetoric, and what efforts there are tend to be one-off experiments that are rarely built into the fabric of the education system. And yet schools can offer a means of building community spirit – providing, for example, facilities for sports, meetings, adult education classes and other forms of personal and social development, especially in rural areas.

Partnerships between schools and local employers can also be an important source of energy, resources and good will.[5] A recent examination of integrated services for children at risk of failing in school (estimated at 15–30%) provided numerous examples of successful co-operation between schools and a variety of local services.[6] There are three examples of innovative central-government initiatives: Ireland's Home-School-Community Liaison Scheme (which serves pupils and supports parents in disadvantaged areas), the Danish policy of designating about one in ten Folkeskoles as local cultural centres for the community, and the French ZEPs (education priority zones).

Apart from Canada and the United States, every country in the study has a national curriculum, which lays down what should be taught in schools – but its rigidity varies considerably. In Denmark, Ireland and Spain, parents are represented on the national curriculum committees which establish or revise the curriculum; and in Germany, every state has a Parents' Council which advises the Ministry of Culture on educational issues. In other countries, such as England and Wales and Japan, parents have no say in national fora on the content or structure of the curriculum. In Canada and the United States, curricula are established by state or provincial governments, without, normally, any input from parents. But many Canadian provinces are currently restructuring their political institutions, and some are setting up Parent Advisory Committees which will be consulted on such matters.

Individual Initiatives

In contrast with these various means of acting in concert, action by individual parents is more widespread, has more direct impact on instruction, and usually targets three particular activities.

The first is direct participation in the classroom – usually as unskilled help or as teachers' aides – which often arouses a degree of controversy. Not all teachers take the idea of partnership seriously, and many parents are unaware of their new respectability. A number of initiatives (in, for example, Canada, England and Wales, Ireland and the United States) demonstrate that both teachers and children can benefit from this kind of co-operation, especially when the children are young. By contrast, primary education in, for example, France, Germany and Japan is delivered very effectively with virtually no parental input of this kind. In these three countries there is a strong consensus as to the purposes and processes of education. Parents are not, of course, any less interested in their children's schooling in these countries, although there may be a more clearly defined demarcation between what takes place in the classroom, and is thus seen as the responsibility of teachers, and home and parental responsibilities.

The importance of parents helping their children at home is now undisputed. The latest figures collected for the OECD's education indicators project suggest that about three-quarters of primary pupils (in the 12 countries surveyed) go to schools which regularly engage parents in actively supporting their children's learning at home. For example, children may be instructed to read passages from a particular book to their parents every night; parents may be asked to sign a notebook when a certain task has been completed; the school may encourage parents to take their children to the public library and show them how to find information for school projects; evening workshops may take place at

5. ***Schools and Business: A New Partnership***, *OECD Publications, Paris, 1992.*

6. ***Successful Services for Our Children and Families at Risk***, *OECD Publications, Paris, 1996 and Peter Evans, 'Co-ordinating Services for Children at Risk'*, ***The OECD Observer***, *No. 202, October/November 1996.*

Bernnes/Taif/REA

Policy-makers are beginning to examine how schools can be enlisted to help fight drug abuse and other social problems.

the school, to explain to parents how they can help their children to develop their understanding of individual subjects.

The most widespread form of communication between home and school is, of course, reporting to parents on the progress of their children, usually two or three times a year. Normally, schools can and do offer more frequent updates, and parents can request a discussion with the child's class teacher. There are also newsletters from school to home, and two-way homework journals – in which the child details what homework has been set, and the parent signs to confirm that it has been completed; and parents and teachers can communicate by writing notes in the journal. Home visits by teachers are common in some countries (such as Denmark and Japan) but rare in others, where it tends to be seen as a sign of serious problems.

Schools themselves can also offer parents various forms of 'psycho-social' support. Wanting to help their child improve his or her performance can encourage parents to attend classes (at the school or elsewhere) covering aspects of the curriculum, good parenting, joint literacy activities, and so on – and they may even go on to take further courses or education programmes on their own account, resulting in increased, and more effective, involvement with the school, sometimes even extending to direct influence on the curriculum (the European Parents' Association, for example, gave their Alcuin Award to a Danish teacher for developing the curriculum for her class in close co-operation with her pupils' parents). Especially in areas of socio-economic disadvantage, such courses can increase the confidence and competence of young parents, and encourage them to become more involved – and also to move on to more demanding educational programmes to improve, for example, their own literacy or numeracy, often gaining formal qualifications.

■ ■

Five central messages emerge for governments wishing to maximise the benefits of involving parents in schools. The first is the publicising and dissemination of examples of successful practice. In those countries which have committed themselves to increasing parental involvement, there is an impressive range of successful projects or experiments that offer concrete examples of what works. Second, successful strategies have to be replicable to allow parents, students and teachers elsewhere to benefit from them instead of simply re-inventing the wheel.

Third, genuine partnership entails mutual respect. Much successful parental involvement comes down to individual teachers and parents learning how to negotiate with each other, to handle differences of opinion and to understand the other's role. Fourth, a clear legal framework should set out rights and responsibilities, supplementing them with training, most fruitfully for teachers and parents training together.

Finally, to make best use of the energy and resources of parents, their educational agenda has to be clearly identified. Consultation with a wide range of community groups and agencies would help policy-makers tap into a broad cross-section of views and experience. It should not be assumed that parents will always want what the government of the day thinks best. ■

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Finland
Reforming the Pension System

Paul van den Noord

The Finnish public pension system recently underwent a far-reaching reform, prompted by concerns about the aging of the population, the low effective retirement age of workers and the erosion of the tax base after the slump in the early 1990s. The reform, which is based on a consensus between government, employers and unions, strikes a balance between preserving income security for the elderly and strengthening the link between individuals' life-time earnings and pensions. By so doing, the reform is deemed to enhance labour-force participation and career development. There is nonetheless scope for improvement.[1]

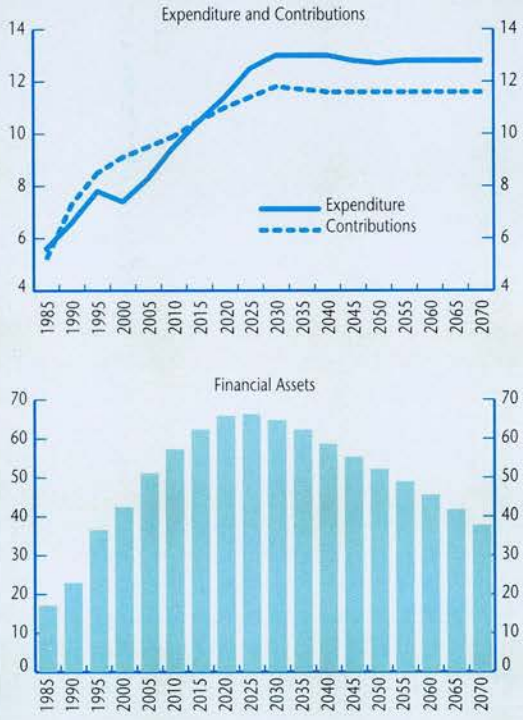
Since the early 1960s the public pension system in Finland has consisted of a universal national scheme complemented with a compulsory employment scheme granting earnings-related benefits. The combined pension is limited to 60% of the pensionable wage on a pre-tax basis, although this ceiling will be attained only when the employment pension scheme reaches maturity by the year 2002. The statutory retirement age is 65 years, but on average workers retire at 58 years through disability or similar programmes. The national scheme is centrally administered; the employment scheme, by contrast, is managed by over sixty private pension institutions, each covering an industry, company or group of companies. Both schemes are financed from contributions paid by workers and employers, even though the employment scheme is partially funded: financial assets cover roughly one-third of the present value of its pension obligations.

A combination of shocks in the early 1990s – the collapse of the Soviet Union, the world recession and a banking crisis – risked undermining the welfare system in Finland, adding to concerns about the cost of population aging: official projections at the time indicated that pension expenditure would increase from 10% of GDP in 1990 to 19% of GDP by the third decade of the next century. Such prospects prompted a far-reaching reform, the thrust of which was to promote longer working careers, reduce benefits and improve the management of the pension funds – while maintaining the inherited structure of the system.

The reform has been introduced in successive packages:

- 1993 – favourable pension treatment of civil servants discontinued
- 1994 and 1996 – measures introduced to improve the pensions of older workers who remain active in a lower-paid or part-time job and to reduce those of people who retire early
- 1996 – the pensionable wage redefined to include the last ten years rather than the last four years of every employment contract; indexation of benefits also changed, lowering pensions in relation to earnings; decision to phase out the national scheme for individuals with sufficient coverage from an employment pension, to the extent that its cost would fall

Figure
Financial Sustainability of the Employment Pension System[1]
% of GDP



1. Assumptions: rate of labour-productivity growth 2%; real discount rate 3%; inflation rate 3%.
Source: OECD

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from 4% of GDP in 1995 to 1% in the long run

• 1997 – the pension institutions authorised to expand their solvency margins to allow them to undertake more risky investment, with a view to raising the rate of return.

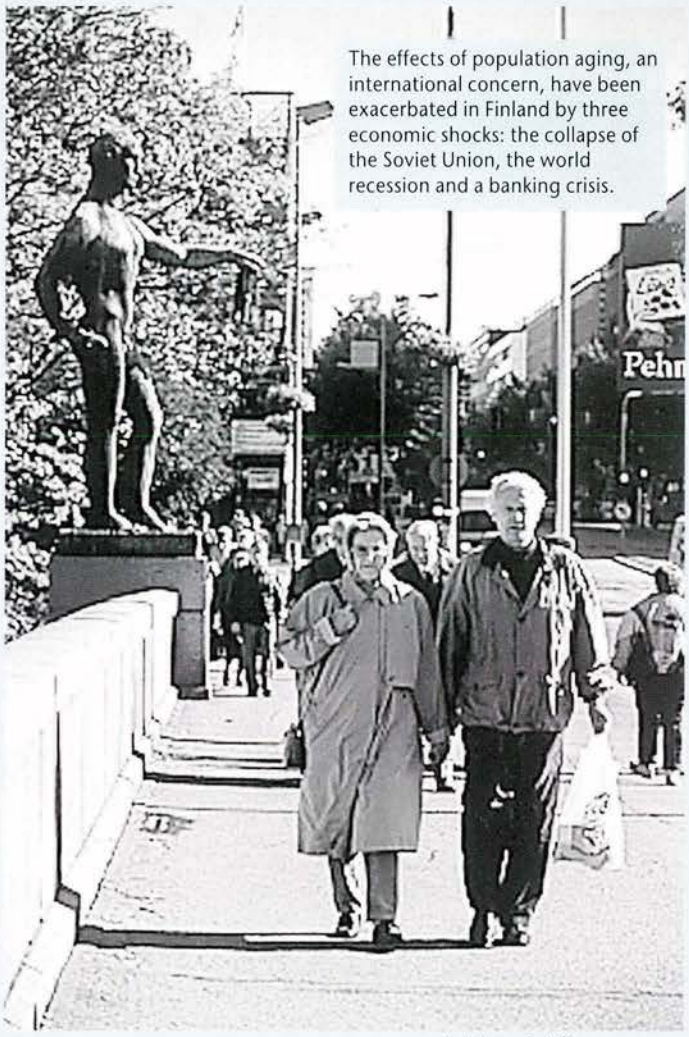
The OECD has run a modelling simulation on the employment pension scheme, which thus appears to be financially sustainable under the new rules, at least on the assumption of a 3% real rate of return on assets (Figure). Although expenditure would rise from 8% of GDP in 1995 to 13% by 2030, an increase in employment-pension contributions from around 8½% to almost 12% of GDP over the same period would raise the financial assets of the scheme from 37% of GDP to 65%, which will then start to be depleted. The assumed rate of return on the assets of the pension funds is central to these calculations.

Further Options

An alternative model simulation suggests that an improvement of two percentage points in the rate of return would double the financial assets by the year 2030 to 130% of GDP, allowing pension contributions to be reduced by 1% of GDP once and for all. This step would be worthwhile on its own account; and experience in the Netherlands and the United Kingdom shows that even higher rates of return are possible on a sustainable basis – which would require the funds to have a much larger weight of shares (as opposed to other savings instruments, which in Finland include loans to employers paying into the funds) in their portfolios than is currently the case.

1. ***OECD Economic Surveys: Finland***, *OECD Publications, Paris, 1997.*

2. *Lans Bovenberg and Anja van der Linden, 'Pension Policies and the Aging Society',* ***The OECD Observer****, No. 205, April/May 1997.*



The effects of population aging, an international concern, have been exacerbated in Finland by three economic shocks: the collapse of the Soviet Union, the world recession and a banking crisis.

Lehtikuva Oy/REA

More ambitious portfolio-management could be encouraged by allowing the pension institutions to compete for clients on the basis of investment performance, although that would call for regulation to avoid excessive risk-taking. The admission of foreign entrants in the Finnish market for statutory pension insurance could help reinforce such competition, as would the removal of penalties on employers who switch institutions (for instance, they lose the right to take out loans against contributions paid in the past).

On current assumptions the implicit rate of return Finnish workers expect to achieve on their contributions is likely to be small, if not negative, as their contributions are high relative to the benefits because of the aging population. As a result, workers – and their employers – may seek ways to minimise contributions and maximise benefits, thereby undermining the sustainability of the system.

A so-called 'defined-contribution' scheme (with pension annuities financed from individual savings accounts) does not have this disadvantage, as its implicit rate of return depends solely on the yield on the financial investments, irrespective of demographic developments.[2] But defined-contribution schemes have drawbacks. Not only is the management of such schemes relatively costly; they also expose workers to risks from downturns in the financial markets. In addition, the introduction of a defined-contribution scheme would require a transition period in which the existing scheme would have to meet its obligations although the inflow of contributions would have ceased (as workers enter the new scheme). Nonetheless, defined-contribution pensions have enough advantages to make their gradual introduction in Finland seem worth considering. ■

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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 – standardised unemployment rate; national definitions for Czech Republic, Iceland, Korea, Mexico, Poland, 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, September 1997.*

Australia

	period	% change from previous period	year
Gross Domestic Product	Q1 97	0.9	3.0
Leading Indicator	June 97	0.4	4.2
Consumer Price Index	Q2 97	-0.2	0.3
		current period	same period last year
Current Balance	Q1 97	-3.57	-3.62
Unemployment Rate	June 97	8.5	8.5
Interest Rate	July 97	5.08	7.44

Austria

	period	% change from previous period	year
Gross Domestic Product	Q4 95	0.0	0.3
Leading Indicator	Dec. 96	0.1	5.5
Consumer Price Index	July 97	-0.1	0.5
		current period	same period last year
Current Balance	June 97	-0.60	-0.51
Unemployment Rate	May 97	4.4	4.4
Interest Rate	July 97	3.40	3.48

Belgium

	period	% change from previous period	year
Gross Domestic Product	Q1 97	0.3	2.4
Leading Indicator	May 97	0.1	6.0
Consumer Price Index	Aug. 97	0.2	1.9
		current period	same period last year
Current Balance	Q1 97	3.67	3.90
Unemployment Rate	May 97	9.6	9.9
Interest Rate	July 97	3.40	3.30

Canada

	period	% change from previous period	year
Gross Domestic Product	Q2 97	1.2	3.7
Leading Indicator	July 97	0.8	11.1
Consumer Price Index	July 97	0.0	1.8
		current period	same period last year
Current Balance	Q2 97	-3.17	1.79
Unemployment Rate	July 97	9.0	9.9
Interest Rate	Aug. 97	3.63	4.24

Czech Republic

	period	% change from previous period	year
Gross Domestic Product	Q1 97	-24.7	1.5
Leading Indicator		..	..
Consumer Price Index	July 97	3.5	9.4
		current period	same period last year
Current Balance	Q1 97	-1.07	-0.54
Unemployment Rate	July 97	4.5	3.1
Interest Rate	Aug. 97	14.70	12.71

Denmark

	period	% change from previous period	year
Gross Domestic Product	Q1 97	-0.1	2.5
Leading Indicator	July 97	-2.7	2.9
Consumer Price Index	July 97	-0.2	2.3
		current period	same period last year
Current Balance	Q2 97	0.22	0.92
Unemployment Rate	May 97	6.2	7.0
Interest Rate	July 97	3.60	3.90

Finland

	period	% change from previous period	year
Gross Domestic Product	Q1 97	-0.4	4.0
Leading Indicator	Apr. 97	0.9	9.5
Consumer Price Index	July 97	0.0	1.2
		current period	same period last year
Current Balance	June 97	0.38	0.69
Unemployment Rate	Apr. 97	15.9	15.5
Interest Rate	July 97	3.08	3.63

France

	period	% change from previous period	year
Gross Domestic Product	Q1 97	0.2	1.1
Leading Indicator	July 97	0.9	0.9
Consumer Price Index	July 97	-0.2	1.0
		current period	same period last year
Current Balance	May 97	3.52	1.53
Unemployment Rate	May 97	12.6	12.4
Interest Rate	Aug. 97	3.43	3.96

Germany

	period	% change from previous period	year
Gross Domestic Product	Q1 97	0.4	2.8
Leading Indicator	June 97	1.0	9.6
Consumer Price Index	July 97	0.5	1.9
		current period	same period last year
Current Balance	June 97	2.26	-0.52
Unemployment Rate	May 97	9.8	8.9
Interest Rate	Aug. 97	3.26	3.29

Greece

	period	% change from previous period	year
Gross Domestic Product	1995		2.0
Leading Indicator	July 97	0.1	4.3
Consumer Price Index	July 97	-1.9	5.4
		current period	same period last year
Current Balance	Apr. 97	-0.66	-0.67
Unemployment Rate		..	..
Interest Rate	Aug. 97	9.50	12.70

Hungary

	period	% change from previous period	year
Gross Domestic Product		..	..
Leading Indicator		..	..
Consumer Price Index	July 97	-0.1	18.1
		current period	same period last year
Current Balance		..	..
Unemployment Rate	June 97	10.7	10.9
Interest Rate	June 97	20.50	24.00

Iceland

	period	% change from previous period	year
Gross Domestic Product	1995		1.2
Leading Indicator		..	..
Consumer Price Index	Aug. 97	0.3	1.5
		current period	same period last year
Current Balance	Q1 97	-0.02	0.00
Unemployment Rate	July 97	4.7	4.9
Interest Rate	July 97	7.10	6.50

Ireland

	period	% change from previous period	year
Gross Domestic Product	1995		10.7
Leading Indicator	June 97	2.7	20.1
Consumer Price Index	July 97	-0.1	..
		current period	same period last year
Current Balance	Q1 97	-0.62	-0.31
Unemployment Rate	May 97	10.8	11.9
Interest Rate	July 97	6.26	5.57

Italy

	period	% change from previous period	year
Gross Domestic Product	Q1 97	-0.2	-0.4
Leading Indicator	June 97	1.2	6.2
Consumer Price Index	July 97	0.0	1.6
		current period	same period last year
Current Balance	Mar. 97	2.15	2.94
Unemployment Rate	Apr. 97	12.4	12.0
Interest Rate	July 97	6.89	8.75

Japan

	period	% change from previous period	% change from previous year
Gross Domestic Product	Q1 97	1.6	2.6
Leading Indicator	July 97	0.2	2.1
Consumer Price Index	July 97	-0.4	1.9
		current period	same period last year
Current Balance	June 97	8.90	6.00
Unemployment Rate	July 97	3.4	3.4
Interest Rate	July 97	0.67	0.68

Korea

	period	% change from previous period	% change from previous year
Gross Domestic Product	Q4 96	0.8	7.3
Leading Indicator		..	..
Consumer Price Index	Aug. 97	0.7	3.8
		current period	same period last year
Current Balance	June 97	-0.36	-1.31
Unemployment Rate	June 97	2.5	2.1
Interest Rate	July 97	11.90	12.80

Luxembourg

	period	% change from previous period	% change from previous year
Gross Domestic Product	1995		3.8
Leading Indicator	June 97	1.6	13.1
Consumer Price Index	July 97	0.2	1.3
		current period	same period last year
Current Balance		..	..
Unemployment Rate	May 97	3.7	3.2
Interest Rate		..	..

Mexico

	period	% change from previous period	% change from previous year
Gross Domestic Product	Q2 97	4.5	8.9
Leading Indicator	July 97	1.6	6.0
Consumer Price Index	July 97	0.9	19.7
		current period	same period last year
Current Balance	Q1 97	-0.41	0.05
Unemployment Rate	June 97	3.9	5.7
Interest Rate	July 97	19.40	31.66

Netherlands

	period	% change from previous period	% change from previous year
Gross Domestic Product	Q2 97	2.1	2.8
Leading Indicator	July 97	0.6	4.6
Consumer Price Index	July 97	0.5	2.3
		current period	same period last year
Current Balance	Q4 96	7.28	6.86
Unemployment Rate	Apr. 97	5.4	6.4
Interest Rate	July 97	3.25	3.08

New Zealand

	period	% change from previous period	% change from previous year
Gross Domestic Product	Q1 97	-0.9	1.2
Leading Indicator		..	..
Consumer Price Index	Q2 97	0.1	1.1
		current period	same period last year
Current Balance	Q1 97	-0.50	-0.01
Unemployment Rate	Q2 97	6.7	6.0
Interest Rate	July 97	7.79	10.12

Norway

	period	% change from previous period	% change from previous year
Gross Domestic Product	Q1 97	-0.7	0.5
Leading Indicator	July 97	0.8	8.2
Consumer Price Index	July 97	-0.2	2.2
		current period	same period last year
Current Balance	Q2 97	1.96	2.71
Unemployment Rate	Q2 97	4.4	4.9
Interest Rate	Aug. 97	4.04	5.02

Poland

	period	% change from previous period	% change from previous year
Gross Domestic Product		..	..
Leading Indicator		..	..
Consumer Price Index	July 97	-0.2	14.8
		current period	same period last year
Current Balance	Apr. 97	-0.74	-0.38
Unemployment Rate	July 97	11.1	13.9
Interest Rate	July 97	21.52	20.17

Portugal

	period	% change from previous period	% change from previous year
Gross Domestic Product	Q2 96	3.2	3.6
Leading Indicator	June 97	0.2	-3.8
Consumer Price Index	July 97	0.0	1.7
		current period	same period last year
Current Balance	Q1 97	-1.09	-0.96
Unemployment Rate	May 97	7.2	7.4
Interest Rate	July 97	5.82	7.33

Spain

	period	% change from previous period	% change from previous year
Gross Domestic Product	Q1 97	0.9	2.9
Leading Indicator	June 97	0.4	5.8
Consumer Price Index	July 97	0.2	1.6
		current period	same period last year
Current Balance	June 97	-0.23	-0.42
Unemployment Rate	May 97	20.8	22.2
Interest Rate	July 97	5.27	7.25

Sweden

	period	% change from previous period	% change from previous year
Gross Domestic Product	Q2 97	0.8	2.3
Leading Indicator	July 97	0.7	12.7
Consumer Price Index	July 97	0.0	0.6
		current period	same period last year
Current Balance	June 97	0.70	0.67
Unemployment Rate	May 97	10.9	10.3
Interest Rate	Aug. 97	4.17	5.17

Switzerland

	period	% change from previous period	% change from previous year
Gross Domestic Product	Q1 97	0.0	-0.7
Leading Indicator	July 97	1.5	12.7
Consumer Price Index	Aug. 97	0.3	0.5
		current period	same period last year
Current Balance	Q2 97	4.54	4.63
Unemployment Rate	July 97	5.2	4.6
Interest Rate	July 97	1.42	2.52

Turkey

	period	% change from previous period	% change from previous year
Gross Domestic Product	Q1 97	2.6	6.5
Leading Indicator		..	..
Consumer Price Index	July 97	6.3	85.2
		current period	same period last year
Current Balance	Q1 97	-1.32	-0.68
Unemployment Rate	Q2 96	6.3	7.2
Interest Rate	July 96	95.58	66.98

United Kingdom

	period	% change from previous period	% change from previous year
Gross Domestic Product	Q2 97	0.9	3.5
Leading Indicator	July 97	0.2	1.5
Consumer Price Index	July 97	0.0	3.3
		current period	same period last year
Current Balance	Q1 97	2.38	-1.85
Unemployment Rate	May 97	6.9	8.3
Interest Rate	Aug. 97	7.15	5.75

United States

	period	% change from previous period	% change from previous year
Gross Domestic Product	Q2 97	0.9	3.5
Leading Indicator	July 97	1.1	5.6
Consumer Price Index	July 97	0.1	2.2
		current period	same period last year
Current Balance	Q1 97	-40.97	-32.88
Unemployment Rate	July 97	4.8	5.4
Interest Rate	Aug. 97	5.60	5.40

The OECD Employment Outlook

Low-wage Jobs: Stepping Stones or Traps?

Three years after the OECD published its major work on the *Jobs Study*,[1] there is good news and bad news on the employment and unemployment front.[2] The good news is that some countries – Ireland, the Netherlands, New Zealand and the United Kingdom – have managed to reduce structural unemployment significantly having implemented comprehensive reforms over the past decade in line with the *Jobs Strategy*; in most cases, this has gone hand-in-hand with good aggregate employment performance. Other countries, such as Japan, Norway and the United States, have had low aggregate unemployment and relatively high rates of labour-force participation.

The bad news is that structural unemployment has continued to drift upward and employment growth has been very weak in many other countries, especially in continental Europe. Today, there are about 36 million persons unemployed in the OECD area, an unemployment rate of 7½%. Through 1997 and 1998, the unemployment rate is expected to drop slightly to around 7%, or 35 million persons unemployed. Many more would like a job, but are not actively searching for one because they have become discouraged. Low-skilled and less-experienced workers have been particularly hit by these adverse labour-market developments. Their employment rates have dropped in most countries, absolutely and relatively, particularly among adult men, though less so among adult women.

In terms of medium-term trends in earnings and incomes, there have been real declines at the bottom of the earnings distribution, in some countries, such as New Zealand and the United States. In others (for example, Australia, Ireland and the United Kingdom), although real earnings at the bottom have not declined, the gap between the top earners and those at the bottom has often widened considerably. In some cases, this has gone hand-in-hand with increases in the dispersion of family and household incomes.

The OECD *Jobs Study* underscored the necessity of increasing the capacity of OECD societies to adapt rapidly to structural changes in order to reduce high and persistent unemployment through sustained employment growth and increases in real living standards. The *Jobs Study* set out a wide-ranging and balanced set of recommendations for achieving these goals, including, wherever possible, assisting workers to find jobs where they can be highly productive and earn wages that are sufficient to keep them and their families free from poverty. Experience shows that the *Jobs Strategy* can work if the recommendations are implemented in a coherent and consistent way, coupled with the political will to do so. But many countries have not yet done so. There are many

1. ***The OECD Jobs Study: Facts, Analysis, Strategies***, *OECD Publications, Paris, 1994.*

2. ***Employment Outlook 1997***, *OECD Publications, Paris, 1997.*

reasons for this hesitation, but a major one is concern that implementation of all the recommendations, especially those calling for more labour- and product-market flexibility, will threaten social cohesion by leading to growing earnings inequality and poverty.

Low Salaries and the Labour Market

There are several potential policy responses which seek to resolve the labour-market difficulties faced by low-paid, less-educated and less-skilled workers. Many workers are trapped in a cycle of low pay and no pay, with potential adverse consequences for poverty and their productive capacity, as well as that of the economy as a whole. It is for this reason that a central topic for debate at the forthcoming meeting of OECD labour ministers in October 1997 will be policies to assist low-paid workers and less-skilled job-seekers.

The magnitude and characteristics of the problems posed by high and persistent unemployment, inequality and low pay, and lack of job opportunities and skills vary across countries. For example, the incidence of low-paid jobs, defined as jobs with full-time earnings of less than two-thirds of median earnings, ranges from less than one in ten full-time workers in Sweden and Finland to as many as one in four in the United States. Women, youth and workers with few educational qualifications are more likely to be in low-paying jobs compared with men and older workers in all countries.

Yet this static view gives an incomplete picture of low-wage jobs. Such jobs are often stepping stones into better ones. There is detailed evidence of considerable upward mobility in the earnings distribution, with many workers moving out of low-wage jobs. This is encouraging, but optimism must be tempered by the fact that 'escaping' from a low-paid job can be a temporary phenomenon. For example, among workers who were continuously employed over the period 1986–91, those in low-paid jobs at the beginning of the period spent, on average, four years in them in the United Kingdom and the United States, and two to three years in Denmark, France, Germany and Italy. There is also evidence of a 'carousel effect' in all countries for which data are available: many workers seem to move back and forth from low pay to no pay.

Table
Average Cumulative Years in Low-paid Employment, 1986–91
continuously employed full-time workers low-paid in 1986[1]

	Denmark	France[2]	Germany	Italy	United Kingdom	United States
Men	1.4	2.6	2.2	2.7	3.3	3.8
Women	1.9	3.1	3.4	2.9	4.0	4.2
Total	**1.8**	**2.8**	**2.8**	**2.8**	**3.8**	**4.1**
Age:						
under 25	1.6	2.6	2.4	2.5	3.1	4.0
25–34	1.6	2.8	3.0	2.7	4.1	3.9
35–49	2.2	3.0	3.5	3.5	4.6	4.2
50–64	2.0	3.3	5.1	3.8	5.1	4.2
Education:						
less than upper secondary	2.1	..	2.9	..	..	4.8
upper secondary	1.6	..	2.9	..	..	4.0
non-university tertiary	1.0	..	1.2	..	..	3.8
university degree	1.0	..		..	..	2.7

.. not available.
1. Low pay defined as below 65% of median earnings of weekly/monthly earnings of all full-time workers.
2. 1984–89.
Source: OECD

Life-long Learning

Although a low-paid job is not synonymous with a low-skilled job, the cornerstone of an overall strategy to tackle many of the problems associated with low pay is, in fact, a broadly based one of life-long learning, continuously upgrading the skills and competencies of populations and work forces. Preparation for employment can no longer be a once-and-for-all process that stops with initial education and training, vital as that is. In all countries, some 80% of the workforce ten years from now is already working and many of them have low educational attainment. If OECD societies are to generate more higher-productivity, higher-skill and higher-wage jobs, they must develop effective strategies for ad-

dressing the barriers that prevent firms and workers from investing in and using skills and competencies. Life-long learning, with on-the-job learning building on sound initial education that creates both the motivation and the capacity to adapt and upgrade skills, can provide firms with enhanced flexibility and increase workers' capacities to benefit from new forms of work organisation and technology.

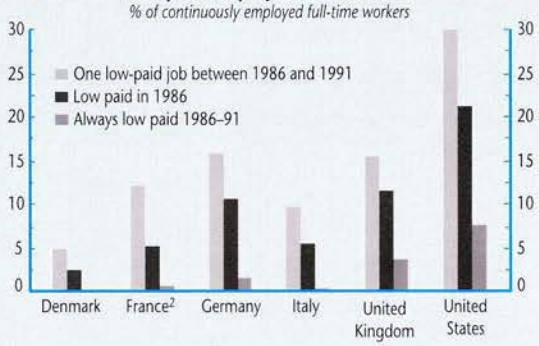
In a life-long learning strategy, it is especially critical to assist less-qualified workers in upgrading their skills and getting them into jobs that use those skills. Many receive very little employment-related training on their jobs. Those who require these opportunities most are often inhibited from individually undertaking the necessary investments because of the cost and the risk that it may not pay-off in terms of getting them into good, well-paid jobs. This can also serve to lock them into low-wage jobs and, for the economy as a whole, surely results in some loss of potential output. The potential size of this loss is currently impossible to assess since there are no reliable estimates of the social rate of return to investment in further education and training.

There are many open questions as to the best way to implement strategies which support life-long learning. It is usually accepted that market forces alone are unlikely to overcome the considerable barriers facing firms and workers considering investment in skills, ranging from the capital-market constraints facing individuals to the problem of firms free-riding on the training undertaken by other firms by poaching trained workers. Although proper incentives to overcome these market failures have to be put in place, the best way to do this is still unclear. Options such as training levies and individual training vouchers have been explored, but with mixed success. One avenue that would deserve further exploration is the establishment of national certification/recognition arrangements as one way of improving the functioning of the labour market. The development of systems for the assessment and recognition of acquired skills would assist in getting a better balance towards broader and portable skills, especially for adult learning. Indeed, some countries are making efforts at developing national qualifications and assessment standards, often in the context of consultations with the business community and worker organisations, each having an interest in the definition and regulation of standards. Certification systems can play a positive role in improving the market for adult training if the criteria are generally agreed upon, properly monitored and regulated. Such systems must necessarily be flexible enough to respond quickly to rapid changes in technology.

Figure

Low-paid Employment,[1] 1986–91

% of continuously employed full-time workers



1. Low pay defined as below 65% of weekly/monthly earnings of all full-time workers.
2. 1984–89.
Source: OECD

Effective reforms in education and training policies are central to improving the situation of many of the low-paid and the less qualified, and many countries have stepped-up their efforts at reforms. But such reforms may not work for everyone and it is unrealistic to think that increasing the supply of skills will necessarily lead, at least in the short to medium-term, to a proportionate increase in high-productivity jobs. Moreover, for those individuals for whom further education and training are effective, it takes time to bear fruit. Hence, other policy measures are essential to assist the low-paid.

Poverty and Benefits

It is argued that concern about the poverty consequences of low-paid jobs can be dealt with by a judiciously designed system of employment-conditional benefits. These income-tested benefits top up the income of those in low-paid jobs, thereby giving them strong incentives to seek work; the benefits are phased-out as earnings rise. Such schemes are available in various guises in six OECD countries: Canada, Italy and New Zealand and also in Ireland, the United Kingdom and the United States, where they have recently been extended. Currently, outlays for them are running at 0.5% of GDP in the United Kingdom and 0.2% in the United States. For the United States, it has been estimated that the Earned Income Tax Credit provides benefits to roughly six million working taxpayers with incomes below the

3. ***Employment Outlook 1996***, *OECD Publications, Paris, 1996.*

official poverty line and lifts the income of about one million of them above that line.

Although employment-conditional benefits have many attractive features, they are not a panacea for low-paying jobs – for reasons examined in the *Employment Outlook* in 1996.[3] They are likely to be most successful in countries where the existing earnings distribution is relatively unequal, where benefits are kept low relative to average earnings and are tightly targeted on families with children.

Employment-conditional benefit schemes designed to top-up low pay from work may prove very costly to the public purse, exacerbating already difficult fiscal positions in most countries, particularly if they take the form of a general payment to people with low earnings and earnings inequality continues to widen at the bottom of the distribution. This is the main reason for means-testing and targeting such benefits, although the United Kingdom is currently experimenting to find out the effects of widening such subsidies to all the low paid. But means-testing and targeting inevitably lead to poverty traps for some groups where there is little or no gain in income from working more. Recent reforms in Australia may provide a partial answer to this problem. Australia has moved from a family resource-based means-tested system to one more conditional on individual circumstances. Although the evidence is not yet definitive, this 'individualisation' of the benefit system appears to have had some success in ensuring that, when either partner in an unemployed-couple household takes a part-time or low-paid full-time job, the family income is increased.

Employment-conditional benefits, if they succeed in getting more low-wage workers into jobs, can put downward pressure on wages for the low-paid. To the extent this happens, the benefits can cease to meet their income-support goal, even as public spending increases. Although the fall in wages could encourage employers to hire more low-wage workers, such an effect could also tend to reduce work incentives for those receiving the benefit. Overall, low income will not be reduced to the extent that the first-round effect of the benefit would suggest.

These concerns have lead some countries, particularly in Continental Europe, to favour a policy of wage floors (set either by legislation or collective bargaining) combined with a policy of payroll tax reductions or exonerations targeted on the bottom of the earnings distribution. The goal of these schemes is to guarantee some minimum income from work while ensuring that the cost of labour does not hinder firms taking on unskilled workers. Such a policy stance has been adopted in Belgium, France and the Netherlands.

But this policy option is not a panacea either. A wage floor set at too high a figure will damage the job prospects of low-paid and inexperienced workers. In addition, reductions or exemptions for all jobs paying below some earnings threshold could also be costly to the public purse in terms of forgone revenues. Whether net employment will increase is also unclear because it is well known that such schemes could produce large 'deadweight' losses (that is, many hirings of low-wage workers would have occurred in the absence of the scheme) and substitution effects (firms may substitute lower-paying jobs for higher-paying ones).

Unfortunately, evidence on the effectiveness of these two approaches in ameliorating low pay and raising work incentives is scant. It is, therefore, urgent that knowledge be increased on the effectiveness of such policies on at least two dimensions:

- their impact on individual employment prospects and aggregate employment
- their impact on poverty.

In addition, these issues must also be evaluated within a long-term perspective. Obtaining a job is only part of the battle. Remaining in employment with good prospects of climbing up the earnings ladder proves quite difficult for many low-paid workers, not least women, mature adults and the less-skilled.

■■

The long-run well-being of workers on the bottom rung of the earnings distribution depends heavily on increasing their productivity. Debate on how best to achieve this objective must be seen within the broader issues of policies and institutions to increase the incentives for the production and the effective use of productivity-enhancing skills by both businesses and workers. Although governments have direct responsibility for ensuring that individuals have the foundation skills for lifelong learning, comprehensive strategies to foster high-productivity and high-wage paths will only come to fruition through the support of governments, with considerably expanded co-ordination across ministries, the private sector and, where appropriate, concertation between employers and unions.

10 June 1997

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FF125 US$25 DM40 £15 ¥2,900
(10 97 26 1 P) ISBN92-64-15438-8, 172pp.
Also available as electronic books
1997 Subscription:
FF1,750 US$385 DM550 £240 ¥39,900
ISSN0376-6438

Main Economic Indicators July 1997
Sources and Definitions
August 1997
This publication is the essential source of short-term statistics for OECD countries. It provides a complete and timely picture of the most recent changes in the economies of the OECD countries and puts them in an international context. The indicators selected cover national accounts, industrial production, business surveys, money and domestic finance, deliveries, stocks and orders, construction, domestic trade, labour, wages, prices, foreign finance, interest rates, foreign trade and balance of payments.
FF160 US$32 DM48 £21 ¥3,400
(31 97 17 1 P) ISBN92-64-15602-X, 158pp.

Main Economic Indicators July
July 1997
FF150 US$29 DM45 £19 ¥3,400
(31 97 07 3) ISBN92-64-05222-4, bilingual
Also available on CD-ROM

National Accounts Volume 2 1983/1995
Detailed Tables
August 1997
Two publications provide annual national accounts statistics compiled according to the joint UN-OECD System of National Accounts: Volume I: Main Aggregates; Volume II: Detailed Tables.

Quarterly national accounts statistics, based on each country's own system of national accounts, are published in the OECD quarterly bulletin *Quarterly National Accounts*.
FF670 US$132 DM196 £87 ¥14,100
(30 97 03 3 P) ISBN92-64-05532-0, 666pp., bilingual

Monthly Statistics of Foreign Trade August 1997
Series A
August 1997
FF110 US$20 DM30 £12 ¥2,400
(32 97 08 3 P) ISBN92-64-05207-0, bilingual

Economies in Transition

Short-Term Economic Indicators Third Quarter 1997
August 1997
This quarterly publication complements the *Main Economic Indicators*. It presents a wide range of monthly, quarterly and annual economic indicators covering such topics as industrial production, business surveys, construction, employment, earnings, prices, domestic and foreign finance, interest rates and domestic and foreign trade for 18 transition countries: Armenia, Azerbaijan, Belarus, Bulgaria, Estonia, Kazakstan, Kyrgyz Republic, Latvia, Lithuania, Moldova, Slovak Republic, Slovenia, Tajikistan, Turkmenistan, Romania, Russian Federation, Ukraine, Uzbekistan.

Included in this issue: Annex on Labour-market Indicators
FF100 US$20 DM28 £13 ¥2,200
(07 97 03 3 P) ISBN92-64-05247-X, 170pp., bilingual

Education

Education and Equity in OECD Countries
July 1997
See pp. 27–30 of this issue of **The OECD Observer**.
FF95 US$19 DM28 £12 ¥2,000
(91 97 04 1 P) ISBN92-64-15478-7, 134pp.

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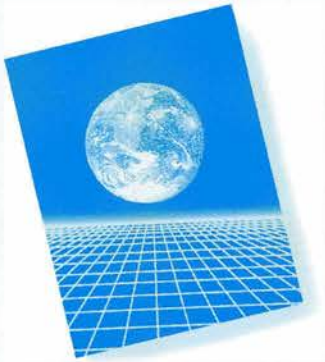

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Parents as Partners in Schooling

August 1997

See pp. 30–33 of this issue of **The OECD Observer**.

FF150 US$30 DM44 £19 ¥3,150
(96 97 02 1 P) ISBN92-64-15492-2, 210pp.

OECD Documents

Manual for Better Training Statistics
Conceptual, Measurement and Survey Issues

July 1997

The stock and accumulation of a country's or firm's human capital is widely considered as one key to economic performance. But, unlike investments in formal education, the best ways to collect, measure and cost the skills acquired through post-schooling training remain uncertain. This manual addresses these issues. It has been prepared to help improve the availability, transparency, accuracy, and reliability of information on training – particularly that linked to the enterprise – and its impacts. The manual should prove of use to all those interested in furthering understanding of the issues, especially so for national statistical agencies who are responsible for undertaking training surveys.

FF180 US$35 DM53 £23 ¥3,800
(91 97 01 1 P) ISBN92-64-15566-X, 290pp.

OECD Proceedings

Implementing Inclusive Education

August 1997

Including students with special educational needs in mainstream schools remains a goal of education policy in most countries. Achieving this goal is not easy. This book provides up-to-date information about developments towards inclusion in 11 countries with very different education systems. It reveals the distances that must still be travelled for inclusion to become anything like a universal reality.

It is widely accepted that a systemic approach is necessary, addressing issues of policy and practice alike. The book elaborates the requirements of change at many strata of the system. It updates the reader on recent developments and covers issues relating to reform, organisation, pedagogy, external support, and accountability and funding with examples drawn from Belgium, Canada, France, Iceland, Italy, the Netherlands, Norway, Spain, Switzerland, the United Kingdom and the United States.

FF95 US$19 DM28 £12 ¥2,000
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Energy

IEA (International Energy Agency)

Oil in Power Generation

July 1997

This book describes the underlying trends and outlook for oil-fired power generation throughout OECD countries. The use of oil in power generation has declined dramatically since the oil shocks of the 1970s. Oil's share of total OECD electric generation declined from over 20% in 1974 to less than 8% in 1993. Yet oil still plays a role in the electricity supply of many countries. Oil-fired power plants are now used

predominantly for meeting peak and intermediate loads. Oil also provides an important measure of flexibility in meeting electricity demand, as illustrated by its role in generating electricity during extreme weather conditions, low hydroelectric production, interruption of other fuel supplies, and in isolated or small electricity supply systems. Although oil in baseload power generation will probably continue to decline in importance in most OECD countries, heavy fuel oil and distillates will continue to play an effective and flexible role in peak and intermediate load electricity supply.
FF135 US$27 DM40 £17 ¥2,850
(61 97 04 1 P) ISBN92-64-15451-5, 96pp.

Coal Information 1996
1997 Edition
July 1997
This volume is a comprehensive reference book on current world coal market trends and long-term prospects to 2010. It contains an in-depth analysis of the 1996 international coal market covering prices, demand, trade, supply and production capacity as well as over 470 pages of country specific statistics on OECD and key non-OECD coal-producing and -consuming countries. The book also includes a summary of environmental policies on climate change and on coal-fired power stations in coal-importing regions, on coal ports world-wide and on emission standards for coal-fired boilers in OECD countries. *Coal Information 1996*, published in July 1997, is one of a series of annual IEA statistical publications on major energy sources; other reports are *Oil Information*, *Natural Gas Information* and *Electricity Information*.
FF790 US$156 DM232 £102 ¥16,650
(61 97 18 1 P) ISBN92-64-15588-0, 740pp.

Electricity Information 1996
1997 Edition
August 1997
This annual publication brings together in one volume basic statistics compiled by the IEA on the electricity and heat production industries in OECD countries. The statistics cover annual OECD data on prices, production, consumption and trade. Detailed electricity and heat statistics are also presented for each OECD country.

The annual data presented in this publication complement the IEA's other statistical reports on electricity and heat. *Electricity Information* is one of a series of annual IEA statistical publications on major energy sources; others are *Coal Information*, *Natural Gas Information* and *Oil Information*.
FF480 US$95 DM140 £62 ¥10100
(61 97 19 1 P) ISBN92-64-15585-6, 704pp.

Oil Information 1996
1997 Edition
August 1997
A comprehensive reference book on current developments in oil supply and demand.

The first part of this publication contains key data on world production, trade, prices and consumption of major oil product groups, with time series back to the early 1970s.

The second part gives a more detailed and comprehensive picture of oil supply, demand, trade, production and consumption by end-user for each OECD country individually and for the OECD regions. Trade data are reported extensively by origin and destination.
FF640 US$126 DM188 £83 ¥13,500
(61 97 21 3 P) ISBN92-64-05533-9, 614pp., bilingual
Also available on diskette:
FF2,500 US$455 DM750 £320 ¥52,700
(61 97 21 3 D) ISBN92-64-14979-1

Energy Statistics and Balances of Non-OECD Countries 1995/1996
1997 Edition
August 1997
Contains a compilation of energy supply and consumption statistics for more than 100 non-OECD countries and regions, including developing countries, central and eastern European countries and the former USSR. Data are expressed in original units and in common units for coal, oil, gas, electricity, heat and combustible renewables and waste. Historical tables for both individual countries and regions summarise data on coal, oil, gas and electricity production, trade and consumption as well as main energy and economic indicators since 1971. Each issue includes definitions of products and flows and notes on the individual countries as well as conversion factors from original units to common energy units. Similar data for the OECD countries are available in the IEA publications *Energy Statistics* and *Energy Balances of OECD Countries*.
FF630 US$124 DM185 £81 ¥13,250
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Energy Balances of Non-OECD Countries
August 1997
Available on diskette only.
FF2,500 US$455 DM750 £320 ¥52,700
(61 97 29 3 D) ISBN92-64-05097-3

Natural Gas Information 1996
1997 Edition
August 1997
A detailed reference work on gas supply and demand covering not only the OECD countries but also the rest of the world, this publication contains essential information on LNG and pipeline trade, gas reserves, storage capacity and prices.

The main part of the book concentrates on OECD countries, showing a detailed gas supply and demand balance for each country and for the three OECD regions: North America, Europe and Asia-Pacific, as well as a breakdown of gas consumption by end-user. Import and export data are reported by source and destination.
FF585 US$115 DM170 £76 ¥12,300
(61 97 22 1 P) ISBN92-64-15592-9, 512pp.
Also available on diskette:
FF2,500 US$455 DM750 £320 ¥52,700
(61 97 22 1 D) ISBN92-64-14980-5

Energy Policies of IEA Countries 1997
July 1997
This volume contains a detailed analysis of energy policy and energy market developments in the member countries of the International Energy Agency.

Summaries of in-depth reviews of Australia, Belgium, New Zealand and Turkey (the full reviews are published separately); shorter reviews of the other member countries' policy developments – including, for the first time, a review of Hungary, the Agency's newest member.

An overview report synthesising major developments and trends, including: the relations between energy-related CO_2 emissions and GDP; regulatory reform in the electricity sector; and the extension of natural-gas pipelines in Europe.

Full text of the communiqué of the IEA Ministerial meeting in May, 1997.

Statistical tables of key energy indicators over a 20-year period.
FF370 US$75 DM108 £48 ¥7,800
(61 97 25 1 P) ISBN92-64-15610-0, 328pp.

NEA (Nuclear Energy Agency)

Nuclear Safety Research in OECD Countries
Capabilities and Facilities
July 1997
Even though there is an international consensus on nuclear safety research requirements and objectives, there is a strong concern about the ability of the OECD countries to sustain an adequate volume of research. In this publication, senior experts discuss existing and planned capabilities and experimental facilities to fulfil requirements identified in two previous publications: *Nuclear Safety Research in OECD Countries* and *Nuclear Safety Research in OECD Countries : Areas of Agreement, Areas for Further Action, Need for Collaboration*. Practical means are proposed here to address the concerns.
FF140 US$28 DM40 £18 ¥2,950
(66 97 06 1 P) ISBN92-64-15509-0, 104pp.

Management of Separated Plutonium
The Technical Options
June 1997
Stocks of separated plutonium in the civil nuclear fuel cycle are currently increasing. The technologies available to handle, use and dispose of it are of considerable current interest. This volume presents a consensus view of experts on current and possible future technologies, based on over two decades of industrial experience of using plutonium.
FF240 US$47 DM70 £31 ¥5,050
(66 97 01 1 P) ISBN92-64-15410-8, 170pp.

Environment

Environmental Performance Reviews

Korea
July 1997
This report is part of the OECD Environmental Performance Review Programme which conducts peer reviews of environmental conditions and progress in each member country. It scrutinises efforts to meet both domestic objectives and international commitments. Evaluating progress in reducing the pollution burden, improving natural resource management, integrating environmental and economic policies, and strengthening international co-operation is also central to these reviews. The analyses presented are supported by a broad range of economic and environmental data.

Environmental performance reviews of Austria, Bulgaria, Canada, France, Germany, Iceland, Italy, Japan, the Netherlands, New Zealand, Norway, Poland,

Portugal, Spain, Sweden, the United Kingdom and the United States have already been published.
FF180 US$35 DM55 £23 ¥4,140
(97 97 12 1 P) ISBN92-64-15558-9, 153pp.

OECD Proceedings

Sustainable Consumption and Production
Clarifying the Concepts
July 1997
Eco-efficiency, carrying capacity, eco-space, ecological footprints – these are some of the broad concepts that have been advocated to guide industrial economies towards more sustainable patterns of consumption and production. Each concept rests on a specific set of assumptions, offers certain insights and poses particular challenges for policy design and implementation. Each concept also embodies a unique vision of 'sustainability'.

This publication explores some of the current debate around six key concepts and examines their potential value in the development and implementation of policies to promote more sustainable consumption and production. The publication also summarises the conclusions of an expert workshop held in Norway to examine the concepts with the aim of sharpening the conceptual basis for policy development in OECD countries.
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Preliminary Perspectives
August 1997
Globalisation is changing the scale and the structure of economic activities. These changes are likely to impact on the environment, sometimes in positive ways, sometimes in negative ones. This publication examines the globalisation-environment relationship from the perspective of the main changes presently occurring in the global economic landscape: governance, competitiveness, employment, trade, investments, technology and business behaviour. Special attention is also given to those economic sectors likely to generate the largest net impacts on the environment: energy, transport and agriculture.
FF190 US$37 DM56 £25 ¥4,000
(97 97 13 1 P) ISBN92-64-15561-9, 364pp.

Financial, Fiscal and Enterprise Affairs

Institutional Investors Statistical Yearbook 1997
June 1997
Institutional investors (insurance companies, investment companies and pension funds) are major collectors of savings and suppliers of funds to financial markets. The role of institutional investors as financial intermediaries and their impact on investment strategies has grown significantly over recent years along with deregulation and globalisation of financial markets. This publication provides a unique set of comprehensive statistics on institutional saving and investment in the OECD area.
FF265 US$52 DM78 £34 ¥5,600
(21 97 06 3) ISBN92-64-05523-1, 300pp., bilingual
Also available on diskette:
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(21 97 06 3 D) ISBN92-64-05068-X

Revenue Statistics 1965/1996
1997 Edition
August 1997
Data on government sector receipts, and on taxes in particular, are basic inputs to most structural economic descriptions and economic analyses and are increasingly used in international comparisons. This annual publication gives a conceptual framework to define which government receipts should be regarded as taxes and to classify different types of taxes. It presents a unique set of detailed and internationally comparable tax data in a common format for all OECD countries from 1965 onwards.
FF320 US$63 DM94 £41 ¥6,750
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Financial Market Trends 1997
No. 67
July 1997
FF130 US$25 DM39 £17 ¥2,800
(27 97 02 1 P) ISBN92-64-15374-8, 202pp.

Financial Accounts of OECD Countries

United States 1955/1996
August 1997
Part 1. Financial statistics monthly
Section 1: International markets (eurobond issues, foreign bond issues, international bank loans)*.
12 issues per year*
Section 2: Domestic financial markets (security issues, stock exchange turnover and capitalisation, issue of money market instruments, main borrowing and lending flows, consumer credit, interest rates*); interest rates* on international markets.
12 issues per year
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Part 3. Financial statements of non-financial enterprises*
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Annual
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* Also available on diskette
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Financial Statements of Non-Financial Enterprises 1996
August 1997
This publication has the same structure as that above.
Also available on diskette
FF100 US$20 DM29 £13 ¥2,100
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Transfer Pricing Guidelines for Multinational Enterprises and Tax Administrations 1997
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August 1997
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Industry, Science and Technology

Science, Technology and Industry 1997
Scoreboard of Indicators
July 1997
What are the recent trends and structural shifts in technology and industrial performance in OECD countries? This report builds on most recent statistical data and quantitative indicators developed in the OECD to provide international comparisons of the structure and performance in science, technology and industry in OECD countries and its major geographical zones: North America, Europe and Asia-Pacific.

The report is threefold. It first reviews trends in science and technology and particularly those pertaining to financial and human resources devoted to R&D, R&D performed by industry, technology diffusion and patents. Part two examines trends and structural shifts in production, employment and skills in industry, prices and labour compensation, physical investment and productivity. The last part focuses on patterns of globalisation of industry as revealed by trends in international trade and foreign direct investment. An annex provides detailed tables.
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flects general trends and highlights inter-industry relationships, permits the construction of a wide range of industrial indicators (for example, shifting shares of output and employment by industry, investment per worker, import penetration) and enables detailed industrial modelling exercises.
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July 1997
Drawing on existing OECD databases, *Main Industrial Indicators* provides series which highlight trends in industrial structure and performance in selected OECD countries and zones. Designed to mirror the OECD's *Main Science and Technology Indicators* electronic product and complement the biennial *Science, Industry and Technology – Scoreboard of Indicators* publication on paper, it includes a set of indicators covering international trade; production, employment, productivity, physical investment and business enterprise R&D.

The period covered is 1980 to 1995 and indicators are provided for 26 manufacturing sectors, for certain industry groupings, such as those which reflect technology intensity, and for selected service sectors.
Available only on diskette. Further details can be found at http://www.oecd.org/dsti/eas/
FF1,950 US$335 DM570 £200 ¥38,000
(92 97 07 3 D) ISBN92-64-05072-8, bilingual

Labour Market and Social Issues

Main Economic Indicators – Sources and Methods
Labour and Wage Statistics
July 1997
This publication provides a detailed description of the sources and methods used by OECD countries to compile labour and wage indicators published in the monthly *Main Economic Indicators*, the essential source of short-term statistics for OECD countries. It provides a complete and timely picture of the most recent changes in the economies of the OECD countries and puts them in an international context. The indicators selected cover national accounts, production, business and consumer surveys, money and domestic finance, deliveries, stocks and orders, construction, domestic trade, labour, wages, prices, foreign finance, interest rates, foreign trade and balance of payments.
FF275 US$54 DM80 £36 ¥5,800
(31 97 16 1 P) ISBN92-64-15576-7, 230pp.

Employment Outlook July 1997
July 1997
See pp. 38–41 of this issue of **The OECD Observer**.
FF250 US$49 DM73 £32 ¥5,250
(81 97 05 1 P) ISBN92-64-15579-1, 202pp.

Public Management

Public Management Occasional Papers

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August 1997
Transfer programmes represent a large proportion of government expenditures in most OECD countries. Increased attention has been focused on the cost of these programmes as governments proceed with fiscal consolidation efforts.

This report presents a range of case studies that highlight how a number of member countries are designing and implementing transfer programmes in order to control their costs.
FF170 US$33 DM50 £22 ¥3,600
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Consultation and Communications
Integrating Multiple Interests into Policy; Managing Media Relations
No. 17
August 1997
Citizens are demanding more say in the decisions that affect their lives. Governments are responding in the realisation that involving the public directly in decision-making – through public consultation mechanisms – can improve the quality, effectiveness and responsiveness of policies and can enhance democracy. Part one of this report examines public consultation, government relations with interest groups and the possibilities for more direct democracy.

In order to participate, citizens have to be well informed. Yet today most people get their information about government activities via the filter of the news media. Governments must therefore learn to manage the potential of the media as a means to communicate with the public versus the threat of the media as an undue policy influence. Part two of this report examines the 'media issue', how it is affecting the work of government and what governments are doing to improve the management of media relations.
FF35 US$7 DM10 £5 ¥750
(42 97 67 1 P) ISBN92-64-15570-8, 43pp.

Transport

Road Transport Research

Performance Indicators for the Road Sector
August 1997
Transport and highway agencies aim at enhancing the economic performance of a nation, traffic safety and environmental quality. With the larger role of the road administrations, performance indicators are useful for evaluating the most important aspects of a road programme and for helping to identify policy measures that will have the most leverage.

This report proposes a management-by-results model and a classification of performance indicators which recognises the fundamental roles of transport. A subset of sixteen performance indicators has been selected for joint field-testing by OECD member countries. Broad international co-operation will increase road administrations' efficiency through systematic self-assessment.
FF190 US$37 DM56 £25 ¥4000
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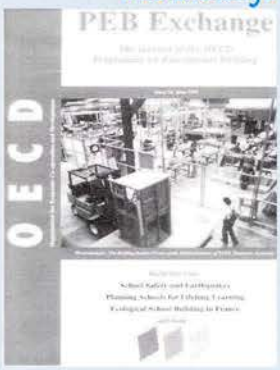

The OECD Programme on Educational Building (PEB) promotes the exchange of ideas, information, research and experience in the field of educational facilities. Its participants include national governments, state and provincial government and research organisations. Its main themes are: improving the quality of educational buildings; management of the physical resources for education; change and its impact on educational facilities. PEB Exchange *gives an international perspective from educators, administrators and architects on educational facility issues in OECD countries, and addresses all issues in a cost-effective way.*

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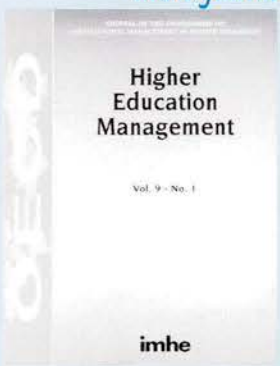

This journal seeks to promote professionalism in the management of institutions of higher education and to disseminate practical management methods and approaches. The articles cover areas such as government and national education systems, internal structures, evaluation and performance indicators, planning, resources and finance, staff policies and training, support services, and much more. Contributors are drawn from a wide range of backgrounds from all OECD countries, providing vast international coverage.

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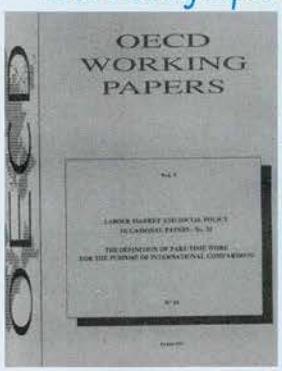

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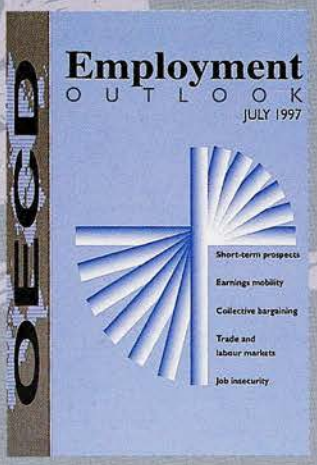

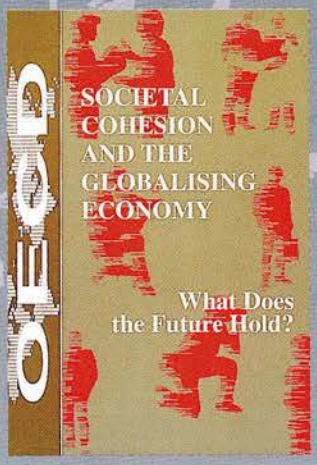

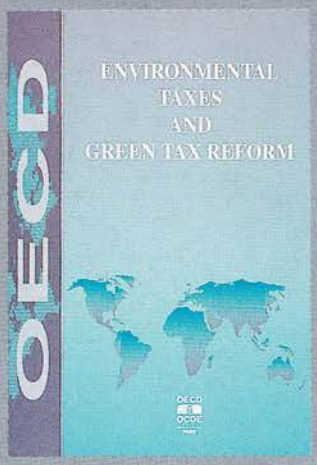

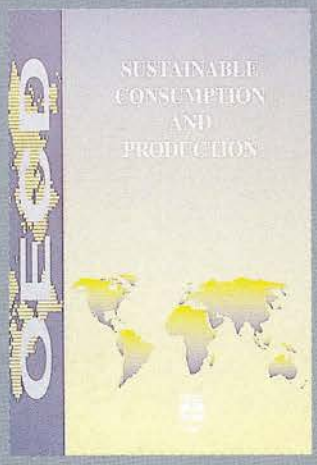

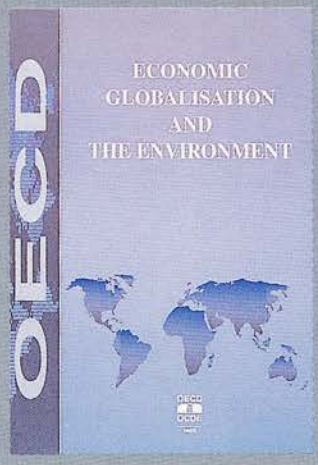

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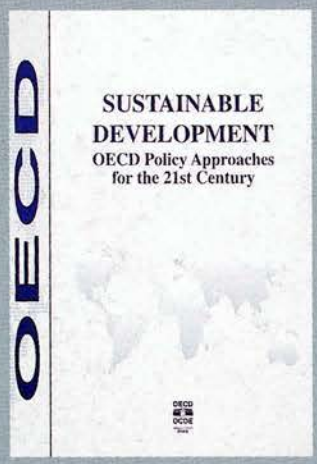

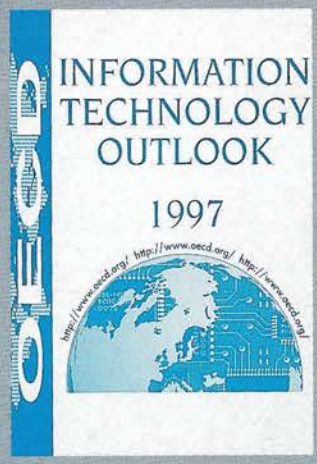

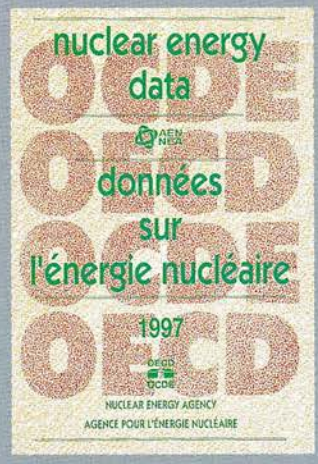

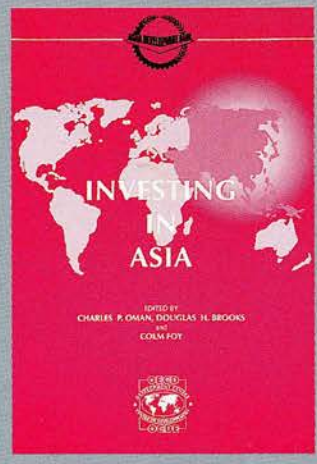

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