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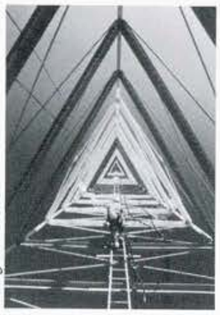

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191
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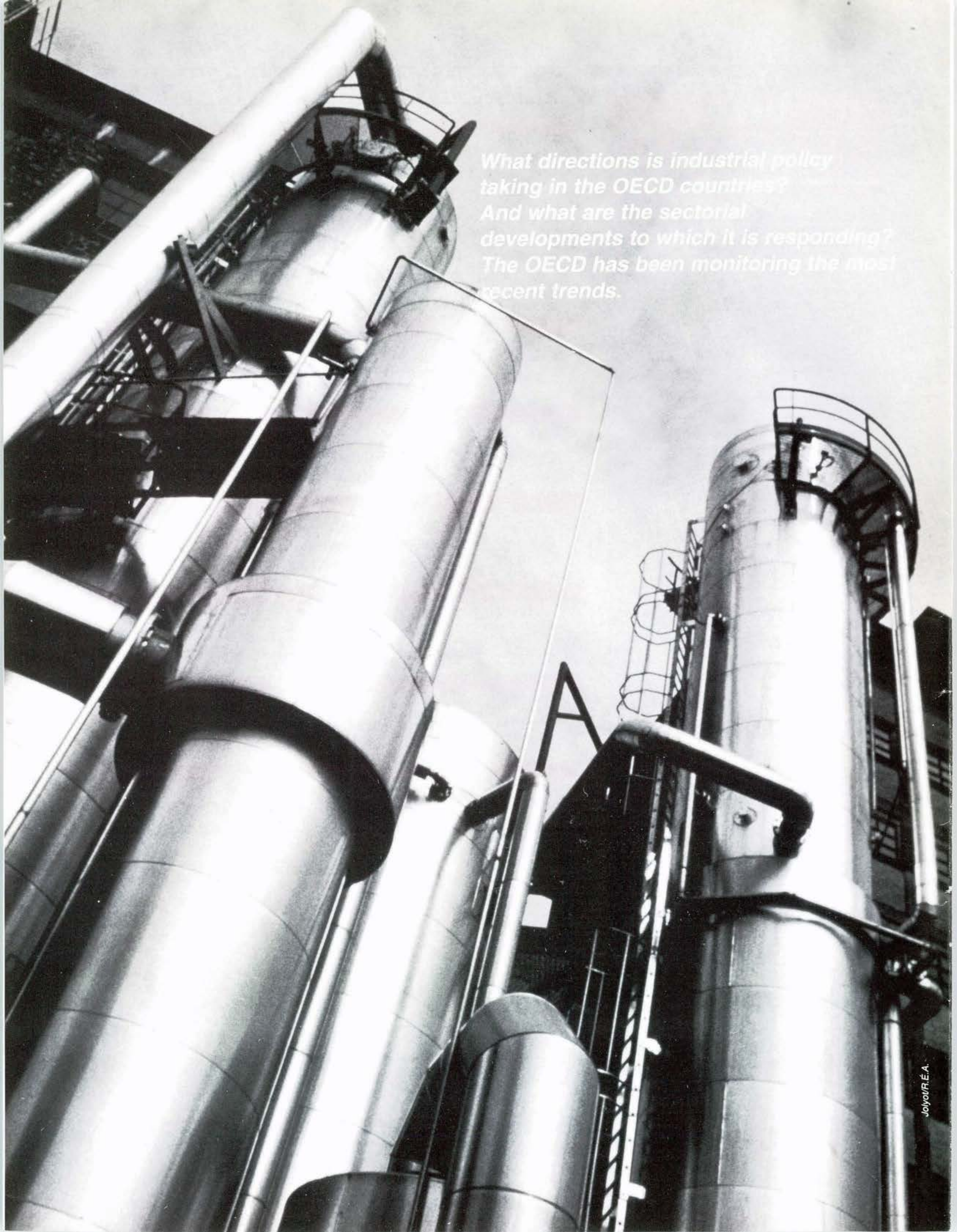
Cover
How have the industrial policies of the OECD countries changed over the last few years, and what are the recent patterns of activity that underlie them?
The telecommunications market is one that has shown rapid expansion over the last few years.

What directions is industrial policy taking in the OECD countries? And what are the sectorial developments to which it is responding? The OECD has been monitoring the most recent trends.

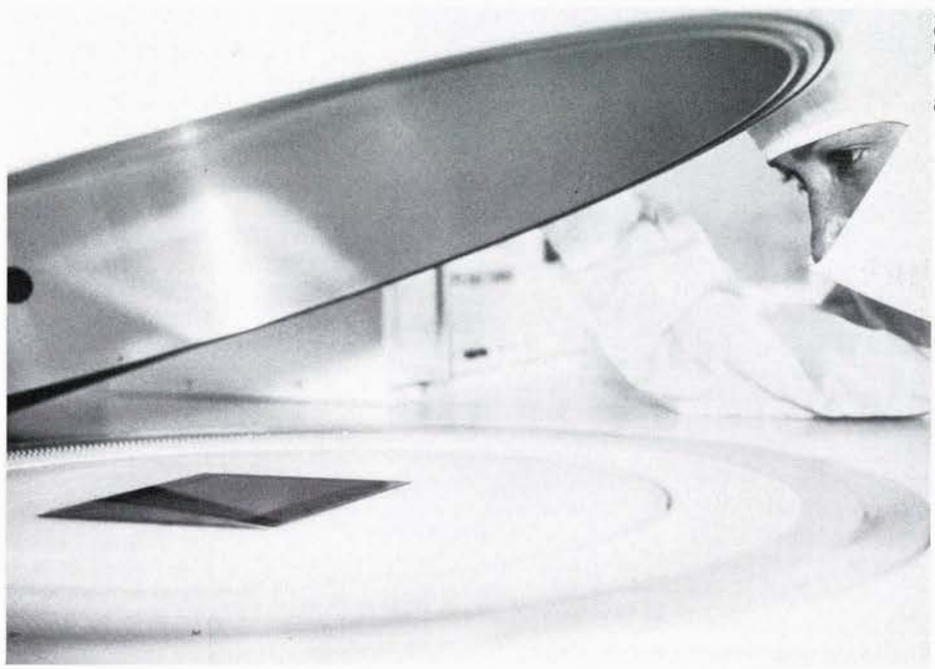


Jolyot/R.É.A.

The Patterns of Industrial Policy

Graham Vickery

Over the last few years industrial policies in OECD countries have remained focused on improving the conditions underlying the competitiveness of firms – technology, skills and the business environment. There has been little new direct government intervention to support individual firms or industries, although some aid has been directed at civilian R&D and the commercial development of products in a range of new activities.[1]



Charvet/R.E.A.

Large-scale intervention by government has in recent years been relatively absent from the industrial policies of the OECD countries, for two main reasons. The first is the prevalence of budget constraints, with high and/or rising ratios of government debt to GDP in most countries. The second is that direct intervention during the recession of the early 1980s was not particularly successful, and led to distortions that impeded structural adjustment. Increasing transparency in government assistance has resulted from improved information and mutual examination (in fora such as the OECD) of various kinds of direct support. But it has also expanded the potential for trade conflicts and encouraged governments to shift focus, for example, to giving support to trailing activities (in R&D, regional development, improvements to infrastructure and the environment, small firms), towards indirect help through broad tax reform, or to indirect trade measures.

Structural change towards more dynamic sectors and activities is being underpinned by policies aimed at improving the business environment, upgrading the infrastructure and enhancing the skills of the labour force, instead of the industry-specific measures that characterised earlier intervention in the 1970s and early '80s.

The main sectorial reasons for these shifts have been declines in traditional industries in many countries, to the point where they have disappeared (many labour-intensive activities – low-priced clothing and footwear, for example) or have been restructured into more competitive firms (motor vehicles and engineering are obvious instances). Simultaneously, the policy focus has shifted towards potential growth activities where there are rapidly expanding new applications (multimedia and communications), where demand expands disproportionately with increasing incomes (health-care and other personal services), or where there are numerous new products or production methods (biotechnology, advanced design, production and distribution technologies).

Nevertheless, continued support for individual sectors remains prominent in some countries – not least for textiles and clothing, wood and furniture, shipbuilding, steel, motor vehicles, and information technologies, as well as some service sectors, such as air transport.

A continuing and major direction of policy is the liberalisation and deregulation of product and factor markets,

Graham Vickery analyses industrial and sectorial policy in the Industry Division of the OECD Directorate for Science, Technology and Industry.

1. **Industrial Policy in OECD Countries: Annual Review 1994**, OECD Publications, Paris, 1994.


Serge Attal

Car manufacturing has been made more efficient by competitive pressure.

and the privatisation of enterprises, breaking-up monopolies, promoting new entrants, increasing flexibility in potential growth activities, and using markets to guide the allocation of resources and improve economic performance.

With growing global competition, the competitiveness of firms is in part determined by prices and availability of local inputs, where service costs and quality are increasingly important components. Many governments are therefore encouraging new entrants and innovative approaches in previously highly regulated, government-owned or monopolistic service sectors, including telecommunications,[2] transport and energy. These reforms are expected to have major impacts on business capabilities and performance.

In general, the privatisation of public utilities, liberalisation of supply of inputs and services into the economy (under what are known as 'supply-side' policies), and the shift to increasing competition in infrastructure services such as telecommunications and transport, all provide business opportunities – but they also make the promotion of competition an ever more important part of industrial policy. Furthermore, the globalisation of industrial production, sourcing and technology and the pervasive character of international inter-firm co-operation demand that growing attention be paid to national competition policies, and that increasing attention given to the harmonisation of these policies to ensure that global competition is not undermined.[3]

The role of government procurement is also changing. Privatisation and increased recourse to the market or to market-type mechanisms such as contracting-out, have fundamentally changed the organisation of health and welfare, education and many other government services. In industry, the decline of military expenditures and other areas of government procurement has heightened the search for new roles for established suppliers to governments. It also increases regulatory and oversight responsibilities in government or specially created independent regulatory bodies.

The Impact of Globalisation

Two contrasting forces are affecting the shape of industrial globalisation. First, a growing number of countries are opening their markets to investment and trade. Second, restrictions on foreign investment, 'managed trade' and protectionism in various guises remain prominent features of the international economy and require continuing attention from governments.[4]

The main directions of recent policy moves, in an attempt to cope with globalisation, are:

- reduced constraints on inward foreign investment and ownership, coupled with the use of fiscal and other incentives to attract foreign capital
- bilateral agreements for access to markets in specific product areas and for opportunities to compete for public procurement contracts
- assistance for firms to internationalise their investment and sales and increase their exports.

Policies of liberalisation and non-discrimination in trade and investment are fundamental to competition and the creation of open and contestable markets which help maximise the benefits from globalisation. But they are increasingly combined with policies to strengthen the capacities of firms and economies to deal with rapid change and growing competition, by improving the business environment and infrastructure, upgrading skills and strengthening capabilities of small firms. Policies targeting 'domestic' beneficiaries are becoming less effective because of increasing global interlinkages of firms, technology, production, sourcing and distribution.

A Higher Profile for Technology

All OECD countries have given technology a higher profile through promotion of R&D, innovation and flexibility in industry. More efforts have also been made to link technological development to economic growth and employment by, for example, promoting investments in R&D in industries of long-term 'strategic' importance (the current interest in the information infrastructure is the latest example), improving the links between industry and university, and overhauling support to innovation to enhance its effectiveness. But the integration of

2. See pp. 13–16.

3. Andrew Wyckoff, 'The International Expansion of Productive Networks', **The OECD Observer**, No. 180, February/March 1993.

4. See pp. 31–34.

technology policy into other areas of industrial policy still has to be improved, particularly in rationalising and co-ordinating support for intangible investments – training and skill formation, software and market development.

A few commercial high-technology areas are being increasingly promoted following the decline in government support for defence-related activities in aerospace, electronics and communications. In North America, Europe and Japan attention is currently focused on the communications, computing and information infrastructure and related markets, including components and selected sectors of electronics. Substantial growth is foreseen in these activities, as deregulation and liberalisation in communications and broadcasting stimulates innovation and expands consumer demand. There is also continuing support for other generic technologies (biotechnology in health-care, food supply and processing, advanced materials, environmental and energy technologies), co-operative research, and the technological development of small firms.

By contrast, there have been relatively few changes in the incentive structure for investment in plant, equipment and facilities, the major incentives being declining real interest rates and improving consumer demand. Physical investment used to be heavily supported through the tax system (favourable depreciation rates, special allowances, tax credits and the like). Tax reform in all countries during the 1980s and early '90s eliminated many of these incentives but provided lower rates of taxation, so that tax structures became broader and flatter, allowing more choice in the allocation of profits to investment or other uses. Tax incentives have tended to be retained in technology support (deductions for R&D and special categories such as advanced manufacturing technologies), environment and energy-related investments, and where special support is considered appropriate to overcome economic or financial handicaps (equity funds for start-ups, support for small firms and regional development) or to

COI, London

Traditionally seen as a laboratory science, biotechnology is becoming a high-volume industry.

promote training and human resource development.

Promoting Employment

Widespread declines in manufacturing employment and slow growth or declines in employment in services in the last recession have placed jobs at the top of the policy agenda. Enhancement of company performance, productivity growth and technological potential are central aims of policy with the goal of underpinning long-term growth and employment.

OECD countries have implemented a variety of schemes to stimulate employment. Industry-related measures have focused on:

• promoting firm start-ups, growth and re-structuring which result in hiring and/ or training of workers

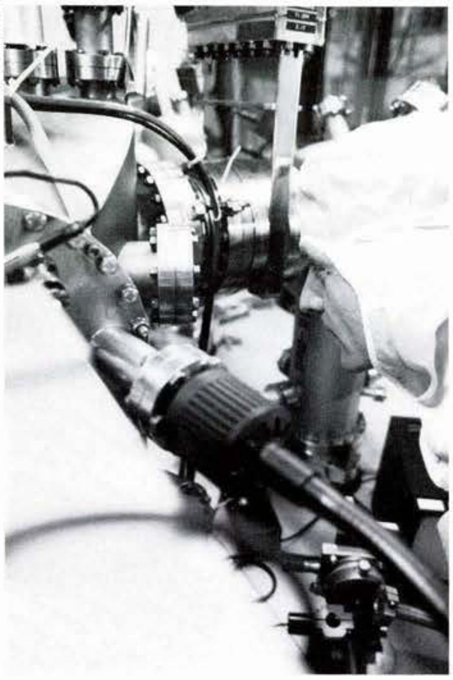
• improving the performance of enterprises (supporting efficiency-enhancing investments, product innovation and quality, exploiting the potential for more effective networking, encouraging experiments with the more effective organisational forms often associated with lean management, sub-contracting, and so on, expanding systems that extend industrial technology)

• developing human resources and training (overhauling and expanding vocational education, increasing the range of options, improving standards, transferability of skills and qualifications and subsequent educational opportunities, and building local and sectorial partnerships to upgrade skills)

• reducing labour costs for firms (reducing social-security contributions, improving the mobility of labour, encouraging diffusion of innovations in the work-place and flexibility in hours and conditions of work).

SMEs, the Regions and the Environment

A further part of industrial policy is aimed at improving the distribution of resources and enhancing performance in lagging parts of the economy, in an attempt to boost aggregate growth. Small firms constitute one strand. Governments have continued to help small and medium-sized enterprises (SMEs) adjust their activities to a rapidly



Leynse/R.É.A.

An important shift in policy focus has been to try to enhance the skills of the labour force.

changing domestic and international environment. The most recent focus has been on the contribution that they can make to employment – by, for example, introducing programmes to foster entrepreneurship and stimulate the growth of existing small firms. A primary objective of government support has been to improve the financial situation of SMEs and accelerate tax and regulatory reform. Through lack of resources and because of their small size, SMEs may face impediments in broadening their activities internationally, and measures have been introduced to reduce risks and improve support for small firms to expand overseas.

Regional development forms another strand. Because of persistently high unemployment in many peripheral areas, governments are beginning to change their approach to regional policy. Priority is increasingly accorded to the development of infrastructure, the transfer of funds and responsibilities to sub-national tiers of government so that they are closer to customers and clients, focusing more clearly on expanding economic benefits from regional clusters of inter-related firms with similar specialisations, and helping to eliminate inter-regional trade barriers.

New pre-occupations have emerged in industry-related environmental policies. In the design of regulations and incentives, there is increasing interest in the industries supplying environmental goods and services, to ensure that new requirements can be met effectively.[5] The links between international trade and environmental protection are eliciting some of the most active international concern.[6] And much more attention is being given to improving the amount, and quality, of information on the interactions between the environment and the economy.

■ ■

Industrial policy faces new challenges as manufacturing and services pull out of recession. Net investment in many countries remains subdued, and one of the main pre-occupations linked with unemployment has been how to improve the quality of investments in human resources and raise skills over the long term. The new communications and computing infrastructures that will underlie future growth require large investments, and equity considerations demand that peripheral regions, the poorer countries and other trailing areas receive renewed attention.

A common approach of industrial policy is that governments have been turning to the market with policies that foster competition. But the globalisation has complicated the implementation of many of these policies and made their impacts more complex. For example, national choices to increase the number of suppliers of communications-related services across a broader range of technologies provides opportunities to both domestic and international competitors, and helps to shape choices and technological development in other countries. Stimulating competitiveness and building a strong domestic industrial base must increasingly take into account the international diffusion of resulting technologies and the expansion of global activities of the firms that benefit. Globalisation reinforces the message that broad-based economic growth is built both on a strong supporting business environment in which enterprises can operate, and on their internal efficiency. ■

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

6. Candice Stevens, 'Do Environmental Policies Affect Competitiveness?', **The OECD Observer**, No. 183, August/September 1993.

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A Profile of Industrial Trends

George Papaconstantinou

The trends now apparent in industrial production in OECD countries point to a consolidation of recovery in the United States and Canada, an upswing in Europe and signs of a turn-around in Japan. But poor employment performance is still causing concern, particularly in Europe. The recession accentuated structural shifts in production and employment, investment and international trade. These shifts are now continuing, driven by longer-term processes of adjustment linked to technology and globalisation.[1]

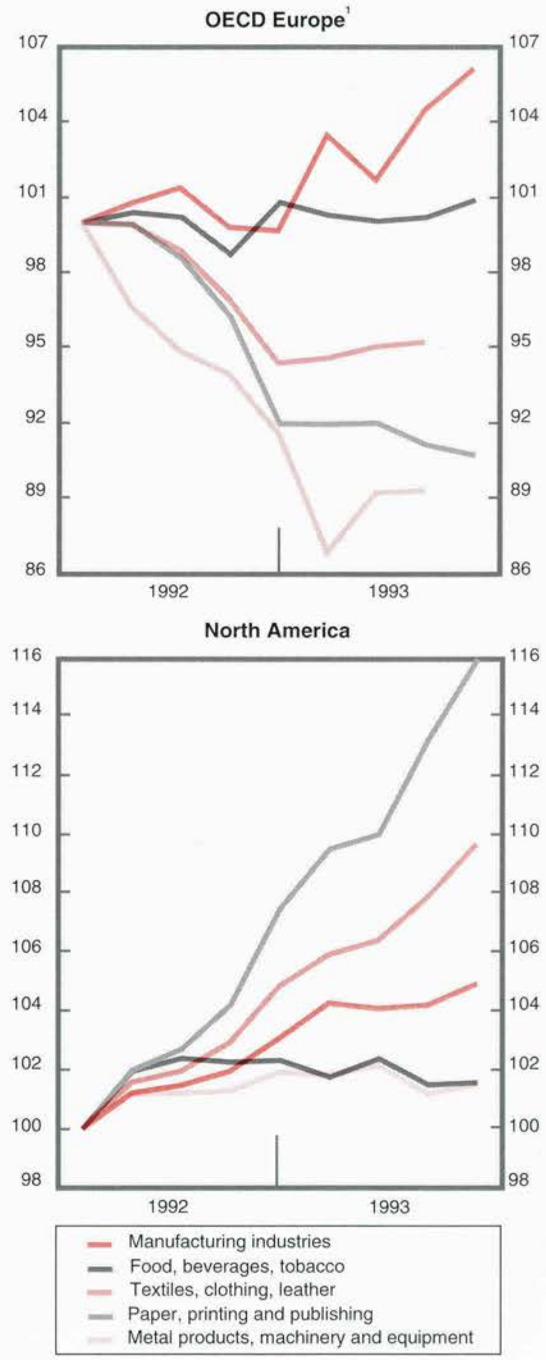
For the OECD area as a whole, industrial production declined only slightly in 1993. This general picture hides very different national trends, with severe declines in Japan (the steepest in the OECD in 1992 and 1993) and most countries of the European Union (EU), and expansion in the United States, Canada, the United Kingdom, Ireland, Australia and New Zealand and in most of the EFTA countries (particularly Finland, Norway and Sweden).

Disparities could be seen also in the evolution of manufacturing production from industry to industry (Figure 1). Some capital and consumer goods began to rebound (motor vehicles and food processing, for example), while 'intermediate' goods (that is, goods used in production processes) were still in early 1994 on the decline, especially in basic metals (particularly steel and aluminium), machinery and building materials. Production in the iron and steel, glass-making, mechanical engineering and non-ferrous metals industries suffered; the sharpest decline in 1993 was in textiles. In contrast, beginning in the summer of 1993, some sectors (automobiles, appliances) and consumer industries (agro-food, printing/press/publishing) began to rebound, but in proportions and at speeds that varied from country to country, in some cases involving relapses.

Manufacturing Employment

The restructuring of production capacities in the OECD countries over the last few years has wiped out many manufacturing jobs. Indeed, the general slowdown in economic activity, coupled with 'mismatches' between the skills available and those sought by

Figure 1
TRENDS IN PRODUCTION BY INDUSTRY
January 1992 = 100



1. Includes western Germany only.
Source: OECD

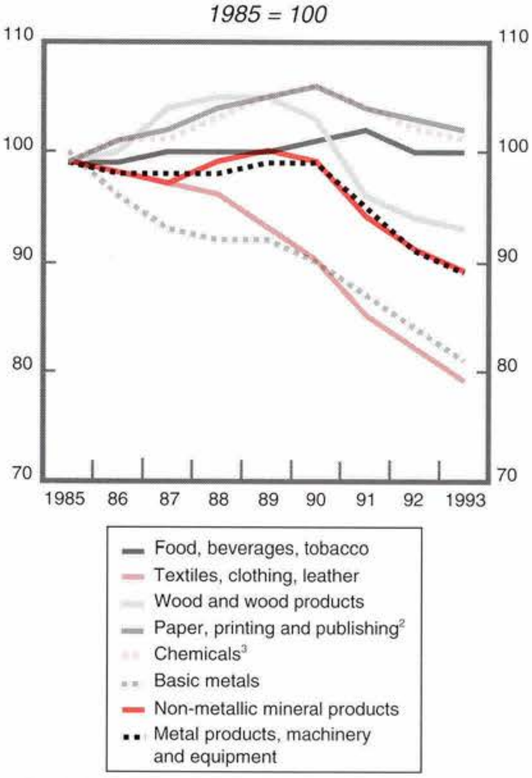
George Papaconstantinou works in the Economic Analysis and Statistics Division of the OECD Directorate for Science, Technology and Industry.

1. **Industrial Policy in OECD Countries: Annual Review 1994**, OECD Publications, Paris, 1994.

Figure 2

OECD MANUFACTURING EMPLOYMENT BY INDUSTRY[1]

1985 = 100



1. Includes western Germany only; excludes Belgium, Greece, Italy, Spain.
2. Also excludes Portugal.
3. Also excludes Ireland.
Source: OECD

employers, have meant that jobs lost in manufacturing have not been fully compensated by those gained in the service sector. In the OECD manufacturing sector, employment declined by 3% in 1993, slightly more than in 1992, even though the situation has improved in many countries since mid-1993. This trend was apparent in all industries; the sectors hardest hit (Figure 2) were textiles, apparel and leather, basic metals, fabricated metal products and non-metallic mineral products (stone and glass).

In most OECD countries manufacturing employment has been stagnating or falling, both relative to services and in absolute terms, at least since the early 1980s – by 1992, for example, the OECD area as a whole had 10% fewer manufacturing jobs than in 1980. But this trend has not been uniform in all manufacturing industries; it has instead been accompanied by substantial shifts in the composition of manufacturing employment, with low-technology, low-skill and low-wage jobs being shed and high-technology, high-skill and high-wage manufacturing employment continuing to expand.

The high-technology part of manufacturing industry (aerospace, computers, semiconductors, pharamaceuticals, electrical machinery and scientific instruments) accounts directly for only a small but rising part of total employment. It represents around 20% of total OECD employment in manufacturing, an increase of 5 percentage points since 1970. Both output and employment in this sector have increased considerably in the majority of OECD countries, but rapid increases in productivity have meant that growth in employment has lagged behind growth in output. But because of its small base, the high-technology sector should not be expected to contribute much – at least not directly – to total employment in the future.

Nevertheless, high-technology jobs may be more important than the mere number of jobs in high-technology manufacturing suggests since such jobs are also in evidence in medium and low technology manufacturing industries as well as in services; under such a broader definition they account for a large part of job creation in a number of countries. Similarly, employment in manufacturing industries which chiefly require skilled employees has increased, while jobs in industries staffed mainly by unskilled workers (such as textiles, wood, or rubber and plastics) declined by about 1% a year. Furthermore, this divergence appeared only in the 1980s: during the 1970s, skilled and unskilled employment evolved in a similar fashion.

A Hesitant Recovery in Investment

The volume of physical investment remained subdued in most OECD countries in 1993 and early '94. The decline in investment for the business sector in the OECD countries in 1991 and 1992 eased in 1993, with capital spending staying virtually flat for the OECD as a whole. But there has been a rapid upturn in physical investment in countries pulling out of the recession – most prominently in the United States and some smaller countries. This mixed picture reflects the uneven return to growth – led by the United States and other economies which went into recession first – and the lingering stagnation in continental European economies and Japan. Prospects for 1994 remain equally divided: plant and spending on plant and equipment in North America was expected to grow, while surveys in the European Union suggest variation from country to country; and Japanese surveys of fixed investment projected an overall decline, although at more moderate rates than in 1993.

Industrial R&D

Investment in R&D by the business sector has slowed appreciably in recent years, declining in real terms in a number of large countries, particularly in the United Kingdom, in the United States until 1992, and in France and Germany since 1992. This situation is unprecedented in the last twenty years, a period when R&D investments continued to increase even in recessions and were in effect – at least in the 1980s – decoupled from output and physical investment in most major economies (indicating a shift to more knowledge-intensive production and the increasingly important role of R&D in competitiveness). That has prompted the question of whether the current situation is a cyclical or structural decline.

The increase in R&D investment in the countries that have already come out of the recession suggests that the decline in R&D is cyclical and, further, that R&D is likely to track output and physical investment more closely in the future. From the late 1980s onwards, R&D has behaved much more like physical investment over the business cycle, with wide fluctuations in expenditures as business decisions focused more on the outputs and impacts of R&D (and related intangible investments), rather than on simply boosting R&D inputs.

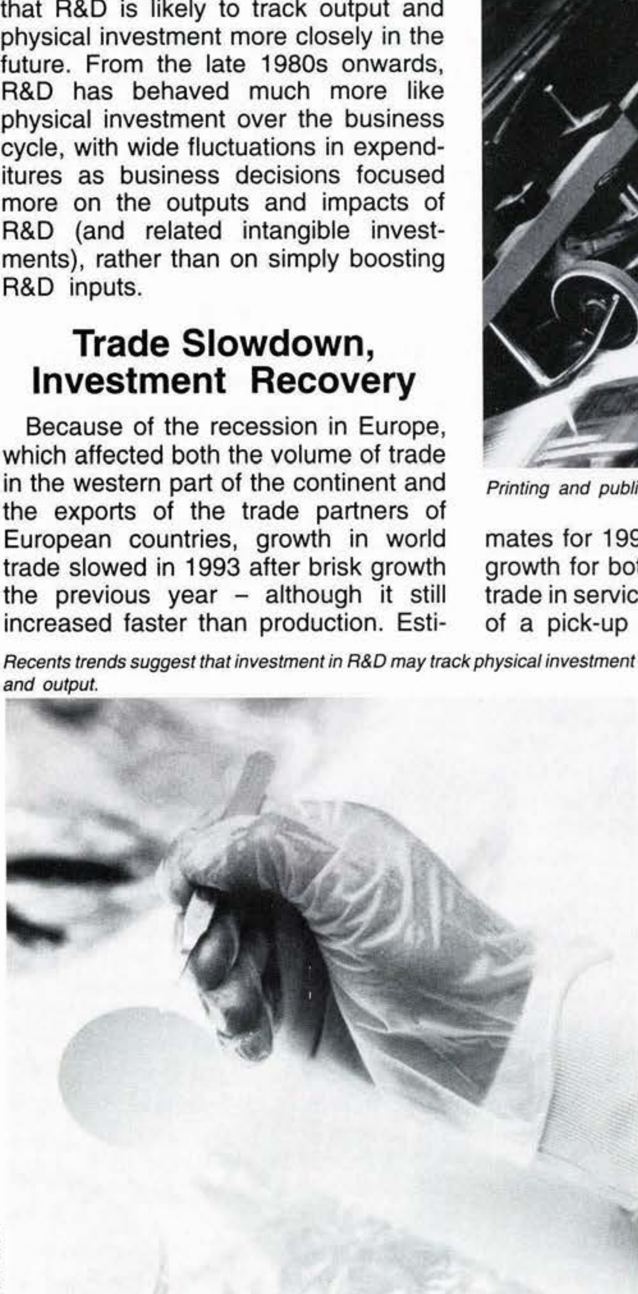
Trade Slowdown, Investment Recovery

Khalifi-VF/R.É.A.

Printing and publishing are showing signs of recovery.

Because of the recession in Europe, which affected both the volume of trade in the western part of the continent and the exports of the trade partners of European countries, growth in world trade slowed in 1993 after brisk growth the previous year – although it still increased faster than production. Estimates for 1994 indicate higher rates of growth for both merchandise trade and trade in services, based on expectations of a pick-up in economic growth, especially in Europe. In the United States, the trade deficit in manufactured goods widened in 1993 for a third consecutive year; the trade surplus in manufactured goods in Germany edged down, while that in Japan expanded.

Recents trends suggest that investment in R&D may track physical investment and output.



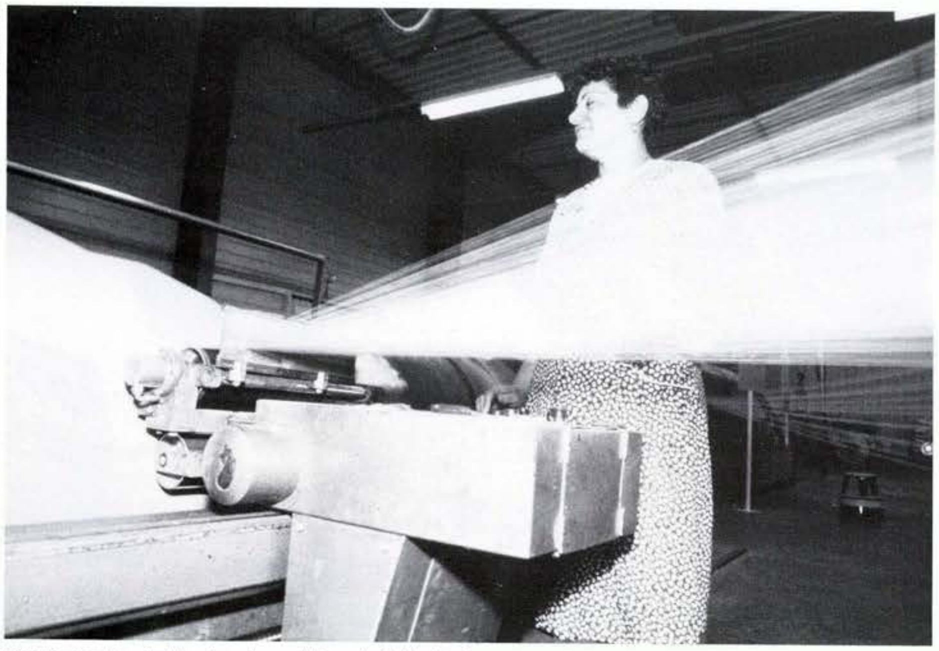
Leynse/R.É.A.

After substantial declines in 1991 and '92, foreign direct investment (FDI) by the OECD countries picked up slightly in 1993, largely because of the United States and the United Kingdom, which moved first out of the recession. Outward investment from other EU countries fell slightly, Japanese FDI declining more substantially. After shrinking in 1990–92, inward investment picked up again to the same extent as outward investment. Again, the recovery can be explained by the surge of foreign capital into the United States, which became once more in 1993 both the main beneficiary of FDI flows and the main provider of outward investment. The EU countries as a whole attracted less capital in 1993, with investment flows to the United Kingdom declining. After picking up in 1992, capital invested in Japan fell again in 1993.

The same general trends are also confirmed by transborder acquisitions of firms from OECD countries, which in 1993 rose over 1992 but did not reach the record figures of the 1980s. Some countries now seem to be increasingly popular targets. In Russia, minority acquisitions by foreign investors rose nineteen-fold in 1993 while China proved to be the biggest attraction for investors, and became the leading country after the United States for investment in the form of minority shareholdings, overtaking the United Kingdom.

Substantial changes have occurred during the last two decades in the

Bartoli/R.É.A.



Employment in textiles has been hit particularly hard.

composition by commodity of world merchandise trade – which increasingly consists of trade in manufactures – and in the way that countries have adapted to these changes. The share of world exports in primary products – not least food, oils and fats, and especially minerals – declined during the 1980s, and that of chemicals, machinery and transport has increased steadily. Exports of machinery and transport products in particular have shown the largest increase, accounting in 1990 for over a third of all exported products, up from a quarter in 1980. In this product group, developing economies have doubled their share of world exports during the 1980s, with Asian countries increasing their share from 4% to over 10%.

High-technology Exports

A particular characteristic of the changing composition of trade in commodities is the increased importance of high-technology products, which have been some of the fastest growing in the 1970s and '80s. With an annual growth rate of over 20% in current prices, computers have been the single fastest-growing product in OECD exports from 1970 to 1992. Semiconductors, telecommunications equipment, pharmaceuticals and aircraft are also in the top ten fastest-growing exports.

Japan has made large gains in the export of high-technology products, reinforcing its already strong specialisation in these growing markets. The share of the United States has declined, even though it continues to be relatively specialised in such products. In contrast, and with the exception of markets such as aerospace and pharmaceuticals, the EU countries have become less specialised in high-technology products.

Indeed, since 1980 substantial shifts in export-market shares can be observed. Japan's gains can be ascribed to a specialisation in growing markets and products coupled to a capacity for adaptation. A number of countries, such as Denmark, Ireland, Portugal, Spain and Turkey made overall gains by capturing markets in specific commodities (Ireland in computers, for instance), and despite the fact that their exports were originally concentrated in commodities whose importance declined in world markets and in serving markets whose weight in world trade diminished. Losses in overall market share by the United States and the United Kingdom can be blamed on lost markets in products such as computers or aircraft, while losses in share of export markets in natural-resource countries (such as Australia, Finland, Iceland, New Zealand and Norway) are due to a large extent to the fact that they initially specialised in the export of products (primary materials, foodstuffs, energy) whose weight in world trade has declined.

■ ■

Most OECD countries have now pulled out of recession, even though job gains have been slow to accompany higher industrial production. The extensive structural shifts and restructuring of production activities that have taken place in the last few years should be expected to continue even in this more favourable economic environment. ■

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Telecom Tariffs and the Move to Markets

British Telecom plc

Yuji Kato and Sam Paltridge

The growing economic importance of telecommunication is focusing attention on how, and how much, telecom companies charge for their services. What have been the recent trends – and in what way has the advent of competition changed relative prices?[1]

Analysis of tariff trends in telecommunication markets in different countries, which allows comparisons of relative efficiency and the impact of regulatory reform, is increasingly important for telecommunication operators (TOs) and policymakers. Five years ago the OECD began comparing telecommunication tariffs, building up a database to permit this kind of analysis of prices. Every year the price of calls made at different distances and times of day charged by the leading TOs in each OECD country are surveyed, as are their charges for installing and renting a telephone line. These data are used to calculate the cost of a 'basket' of telecommunication services to an average business and residential user. This basket indicates how much it costs to get a telephone line connected, and maintain and use it over the course of a year.

Comparing tariff baskets has generally revealed little correlation between national telecommunication charges and market structure (Tables 1 and 2, pp. 14 and 15). The least expensive baskets are found in a mixture of competitive and non-competitive markets. One reason is that until as recently as the mid-1980s, virtually all countries had monopoly provision of 'public switched telecommunication network' (PSTN) services, sometimes referred to as 'voice telephony'. The starting point for the wave of liberalisation that began in the mid-1980s was thus a world of relatively efficient or inefficient monopolies with a vast array of pricing that bore little relation to underlying costs.

Beginning with the United Kingdom and the United States in 1984, a growing number of countries have liberalised their telecommunication markets. These two countries have since been joined by Australia, Canada, Finland, Japan, New Zealand and Sweden. Most other European countries plan to liberalise voice services in 1997, following a directive from the European Union, although some countries with less fully developed networks may defer this date by several years. Is this a wise course; indeed, should the OECD countries that have still to embrace liberalisation think about bringing it forward? An indication of the cost to consumers of delay in introducing competition in telecommunication infrastructure can be gauged by comparing price performance in liberalised and monopoly markets.

The biggest price reductions have occurred in the most competitive segments of telecommunication markets, generally in national and international usage charges. Recent developments in the United Kingdom, the country leading the development of local PSTN competition through the introduction of telephony services offered by cable

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1. **Communications Outlook 1995**, OECD Publications, Paris, forthcoming 1994.

Table 1
OECD BASKET OF BUSINESS TELEPHONE CHARGES, 1 JANUARY 1994
average annual spending by a business user, in 1993 PPP[1]

	Fixed Charge	*Usage Charge*	*Total*
Australia	232.63	888.39	1,121.02
Austria	148.97	1,103.82	1,252.79
Belgium	123.51	590.38	713.89
Canada	349.24	597.69	946.93
Denmark	125.98	269.43	395.41
Finland	154.61	235.02	389.62
France	154.92	809.53	964.45
Germany	131.12	855.66	986.78
Greece	142.19	885.73	1,027.91
Iceland	99.57	214.57	314.13
Ireland	219.85	969.92	1,189.77
Italy	164.27	1,093.91	1,258.18
Japan	170.00	669.18	839.18
Luxembourg	..	..	..
Netherlands	156.22	337.77	493.99
New Zealand	472.26	463.80	936.06
Norway	138.45	307.63	446.08
Portugal	161.43	1,309.32	1,470.75
Spain	161.67	1,060.82	1,222.49
Sweden	187.39	218.61	406.00
Switzerland	160.00	711.59	871.59
Turkey	60.01	1,791.44	1,851.45
United Kingdom	239.62	570.06	809.67
United States	219.77	740.42	960.19
OECD average	181.46	725.86	907.32

Note: The usage charge includes a basket of 2,694 calls.
.. not available
1. Purchasing power parities (excluding tax).
Source: OECD

television companies and new wireless companies, are propitious for telecommunication users throughout the world. Since the end of the duopoly of BT (formerly British Telecom) and Mercury in 1992, the price of BT's residential basket has decreased by 8.4% in real terms, pushing it below the OECD average.

The beneficial impact of local competition in the United Kingdom is prompting a number of other OECD countries to increase competition across all segments of the telecommunication market. But this is not a policy simply for countries with developed networks: the OECD's newest member, Mexico, is currently examining how competition can be applied in local markets to extend telephone penetration beyond the current 8 lines per 100 people.

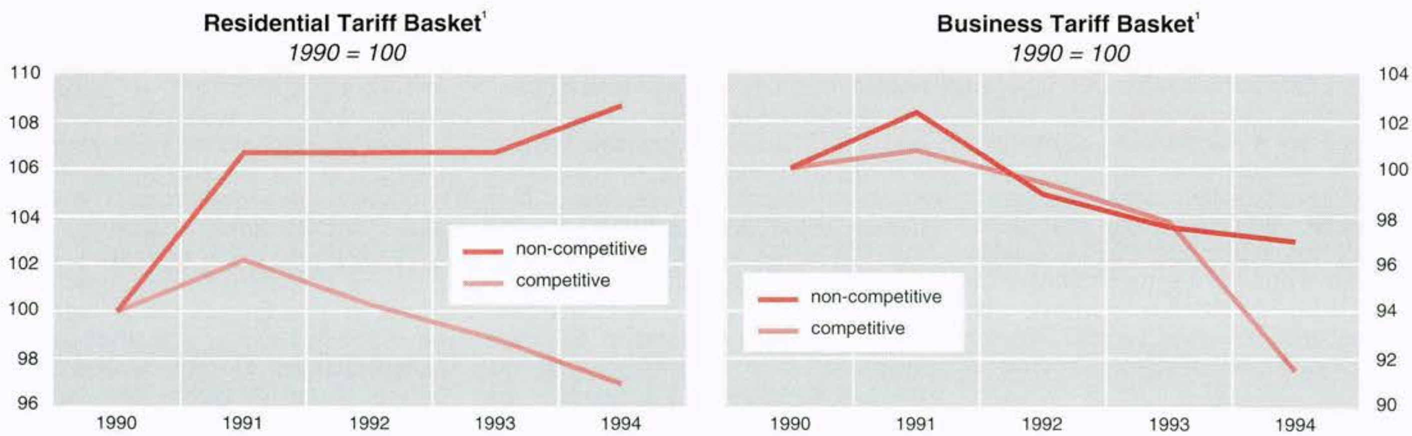
The Price Effect of Reform

Between 1990 and 1994 the average cost in the OECD area of a standard basket of telecommunication services for a business user declined from \$924 to \$844, a decrease of 8.5% in real terms. This trend is also evident for residential users – the weighted average fell from \$341 to \$332, a reduction of 2.0% in real terms over the same period. That raises the question of which policies have contributed most to achieving these gains. Three aggregate trends are evident in the evolution of telecommunication tariffs since 1990.

First, as might be expected, the average of relative gains, in the form of lower prices, for business users in countries with competitive markets outstripped that in countries without competitive markets (Figure 1). Although there is no uniform pattern in countries with a particular competitive or monopoly market structure, between 1990 and 1994 the business price index for countries with competition declined in real terms by 8.6% and by only 3.1% in non-competitive markets. And the index of the residential basket for countries with competitive markets shows a decrease of 3.1% in the same period. In countries with monopoly provision, by contrast, the residential index increased 8.7% in real terms in the same period.

This trend is in marked contrast to earlier fears, expressed by opponents of market liberalisation, that the cost of a standard residential basket would increase in competitive markets to the detriment of universal service. Instead, both business and residential consumers have benefited from lower prices,

Figure 1
THE IMPACT OF COMPETITION ON PRICES



1. Total basket (fixed charge and usage charge).
Source: OCDE

Table 2

OECD BASKET OF RESIDENTIAL TELEPHONE CHARGES, 1 JANUARY 1994

average annual spending by a residential user, in 1993 PPP[1]

	Fixed Charge	Usage Charge	Total
Australia	131.13	272.67	403.80
Austria	148.97	338.73	487.70
Belgium	130.15	203.54	333.69
Canada	111.23	154.72	265.94
Denmark	157.48	103.56	261.04
Finland	202.54	94.04	296.57
France	91.99	275.33	367.32
Germany	131.12	226.39	357.51
Greece	90.34	338.80	429.15
Iceland	123.96	76.95	200.91
Ireland	255.02	290.41	545.44
Italy	101.44	289.29	390.73
Japan	111.99	208.64	320.63
Luxembourg	..	..	..
Netherlands	156.22	99.12	255.34
New Zealand	273.21	122.05	395.26
Norway	168.91	121.58	290.49
Portugal	187.26	390.07	577.33
Spain	185.92	289.61	475.53
Sweden	121.92	96.64	218.56
Switzerland	160.00	217.60	377.60
Turkey	32.20	538.47	570.67
United Kingdom	187.93	181.90	369.82
United States	171.33	218.27	389.60
OECD average	149.23	223.84	373.07

Note: The usage charge includes a basket of 966 calls.
.. not available
1. Purchasing power parities (including tax).
Source: OECD

either through competition or regulatory safeguards. Safeguards are built into competitive markets (for example, through price controls such as price caps) where competition is not yet well enough established to regulate the market on its own.

The OECD business and residential baskets are calculated using standard published tariffs. A host of tariff options is available to business users, and increasingly to residential users, in competitive markets that could reduce the cost of service. The discounts available can be expected to have a larger impact on the business basket because the market is more competitive. For example, using one of the discount plans of BT a business user in the United Kingdom might reduce the cost of his basket by around 5% from the price shown in the OECD comparison. Under pressure from new market entrants, TOs are increasingly tailoring pricing packages to fit the requirements of individual users rather than imposing standard tariffs on all customers.

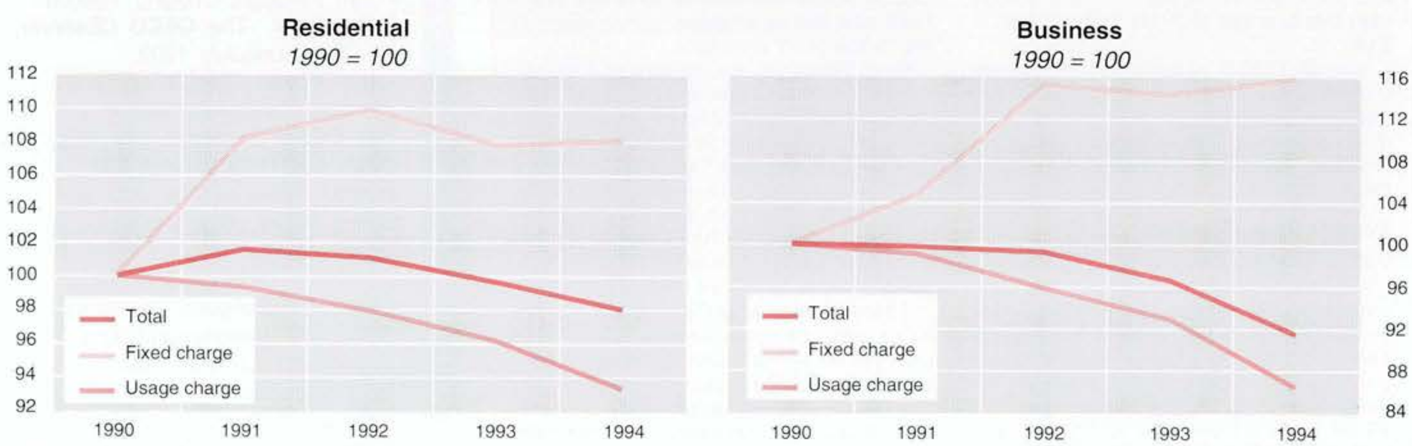
Second, there is a general trend toward rebalancing the structure of the prices paid by telecommunication users. There are two types of charges: usage and fixed (box, p. 16). Between 1990 and 1994 the balance between the two in the business basket changed markedly throughout the OECD area, with a rise in fixed charges but a decline in usage charges (Figure 2); for residential users the same trend is widely evident. The TOs themselves report that the new pricing structure, brought about by tariff rebalancing, more accurately reflects underlying costs.

There has also been a change in the balance between the two components of fixed charges, the connection charge and the monthly subscription. The main strategy of TOs has been to maintain connection charges at the same price and raise subscription charges. Between 1990 and 1994 the average monthly subscription for business users in the OECD area rose by 5.5% in real terms, and the average residential monthly subscription rose 15.5% in real terms; the average connection charge remained constant. Fixed charges are rising faster in non-competitive markets than competitive ones, probably reflecting a degree of catching-up, since on average fixed charges are higher in competitive markets – reflecting an earlier period of rebalancing. But the higher fixed charges in competitive markets are offset by a strong trend toward lower call charges, which are coming down faster where there is competition than where there is not.

Third, TOs in the OECD area are also rebalancing tariffs according to distance,

Figure 2

EVOLUTION OF THE TARIFF BASKETS



Source: OECD

Table 3

THE IMPACT OF COMPETITION ON USAGE-CHARGE REBALANCING

1990 = 100

	1991	*1992*	*1993*	*1994*
OECD[1]				
Local	110.81	138.12	137.35	137.35
27 km	102.19	96.72	94.94	87.21
110 km	98.16	89.32	84.85	76.21
490 km	93.78	88.27	83.30	74.42
Competitive Markets[2]				
Local	99.38	118.66	117.56	114.86
27 km	77.05	81.38	76.49	65.03
110 km	97.62	84.30	82.54	69.62
490 km	97.95	101.08	92.01	82.48
Non-competitive Markets[2]				
Local	113.79	119.41	118.19	119.49
27 km	99.94	89.01	87.44	85.64
110 km	98.73	88.60	87.59	88.19
490 km	96.73	88.16	88.01	85.91

Note: The number of calls is the same as in the 1990 basket. The calculation is based on Purchasing Power Parities (PPPs).

1. Weighted average.

2. Simple average.

Source: OECD

in large part because technological change is driving down costs. Table 3 shows the relative change in the price of local calls and three long-distance tariffs between 1990 and 1994. In the OECD as a whole the trend is to increase the price of local calls and reduce tariffs for long-distance calls, although between 1992 and 1994 the price of local calls remained constant while long-distance rates continued to fall. And in competitive markets the price index of local calls recently fell, in part because BT abolished its peak rate for calls made in the morning and applied a standard daytime rate while most TOs in other competitive countries held their charges steady.

Several patterns are evident in long-distance charges. TOs in competitive markets are reducing tariffs at a relatively faster rate than non-competitive markets, and implementing the biggest reductions over shorter distances. The reductions in non-competitive markets appear to be much more evenly applied, although they are being introduced at a slower pace without competitive pressure. In other words, the full benefits are not being passed to consumers in most monopoly markets. Tariffs for international services are likewise being reduced, an average 22% in real terms between 1990 and 1994 throughout the OECD area, but are still well above cost.

■ ■

Analysis of tariff trends clearly shows major benefits are attainable through the application of competitive telecommunication markets and that the costs to business and residential users of delaying reform are substantial. Indeed, there is mounting evidence that those EU countries that have been granted delays beyond 1997 are precisely the ones with the most to gain by bringing forward telecommunication liberalisation. ■

THE STRUCTURE OF CHARGES

Fixed Charges (Installation and Subscription)

Fixed charges comprise the price to a user for connection to the network and the rental of a line to a local exchange. In the OECD area the average cost of a new connection, sometimes called an installation charge, is $136 for a residential user; the average installation cost for business users is $148. The average cost of a monthly rental, on subscription, is $10 for a residential user; for a business user the average monthly subscription is $14.

Not all OECD countries differentiate between business and residential fixed charges. In those countries where there is a difference, the average charge for residential users is 64% of that for business users.

Usage (Call) Charges

Usage charges can be broadly categorised into three groups: prices for local calls, long-distance calls and international calls. The average price for a local call in the OECD area is around $0.04 per minute at 12km. OECD averages for calls over longer distances range from $0.08 to $0.21 over 20 to 75 km, and from 75 km to 490 km prices average $0.21 to $0.29. There is, of course, a wide variety of charges for international calls, but an average of all charges between OECD countries is $1.15 per minute.

Balance between Fixed and Usage Charge (Tariff Structures)

The term 'tariff structure' defines the balance between fixed and usage charges in the customer's total bill. In OECD countries the contribution to revenue from fixed and usage charges varies according to the tariff structure.

New Zealand, for instance, has retained a system of uncharged local calls for residential users and relies on higher fixed charges, which is why the percentage of New Zealand Telecom's revenue from fixed charges is much higher than many other PTOs in the OECD area. Turkey, on the other hand, has fairly low fixed charges and derives the vast bulk of its income from call charges.

There is also a tariff structure within fixed and usage charges. For fixed charges it is the balance between the connection charge and the subscription charge; for usage charges it is the structural relationship between tariffs for calls over different distances and times of day.

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Three Sources of Good Teaching

Andrzej Szafran/CIRIC

David Hopkins and David Stern

Most OECD countries have recently enacted major educational reforms, in an attempt to raise standards of student performance and, in many cases, to give local schools more control over their own programmes. These policies, and underlying social changes, are placing more demands on teachers. To provide a direct account of the connections between central policies, individual teachers and local schools, the OECD has undertaken a series of case studies in 11 countries.[1]

The quest for quality in teaching has taken different forms in different countries, but there are similarities. Higher standards are being imposed by the national curriculum and associated tests in the United Kingdom, by the Goals 2000 act in the United States, and by a requirement in Italy that middle-school teachers compile a record of achievement for each pupil. In another common approach – in Australia, Finland, New Zealand, Sweden, the United Kingdom and elsewhere – schools have been given more authority over deployment of resources and adaptation of the curriculum to local circumstances.

David Hopkins, who teaches at the University of Cambridge Institute of Education, was a consultant to the OECD on the case-studies project on teacher-quality; David Stern works in the Centre for Educational Research and Innovation of the OECD Directorate for Education, Employment Labour, and Social Affairs.

1. **Quality in Teaching**, CERI/OECD Publications, Paris, 1994. The countries that took part in the OECD case-studies were Australia, Austria, Finland, France, Italy, Japan, New Zealand, Norway, Sweden, the United Kingdom and the United States.

To describe how teachers are, or are not, being helped by this array of policies designed to improve school performance, an OECD study has sought out cases of best practice. Teachers and schools with excellent reputations and evidence of effectiveness were selected to identify the factors that create quality in teaching. While these case studies may not be representative of widespread movements, they indicate a trend which is receiving increasing support from policy-makers throughout the OECD.

Giry/R.É.A.

The increasing diversity of shoolchildren calls for pupil-centred pedagogy.

High-quality Teachers in Action

The case studies in different countries produced portraits of high-performing teachers that display strong similarities. Perhaps the most important is an intense commitment from the best teachers to finding ways for all students – gifted and less gifted – to learn.

Disruptive or recalcitrant pupils have always been a major problem for teachers, but now social factors, including the higher frequency of single parents, drug abuse and unemployment, have increased the number of troubled children. Teachers must work harder to maintain order and keep students motivated.

Partly in response, more teachers have taken up methods of co-operative learning, which enable students to work together in small groups (typically four to a group). The exact prevalence of co-operative learning is unknown, but it is thought to be more common in English-speaking countries and in Scandinavia. The case studies in the United States and New Zealand found numerous instances of small-group learning. In Norway, pupils' co-operative activities are endorsed in national curriculum guidelines. It is remarkable that some individual teachers have adopted co-operative learning methods on their own, without any central policy directives or even, in some instances, without any help from the school administration. One Italian middle-school teacher, for example, grouped students in various ways, and also developed a system for students to tutor one another in particular subjects.

More widespread use of co-operative learning is part of a broader movement toward pedagogy centred more directly on the pupil, which also includes more autonomous learning by individual students. A group of French teachers participating in the study indicated that the teacher now is 'centred on the pupils and their learning methods, [...] puts himself at the service of the pupil, varies his methods, is a guide, a mediator in the acquisition of knowledge'. The dominant philosophy of teaching is also reported to have changed in Finland: 'At the beginning of the '80s curricular goals defined the teaching. At the end of the decade the pupil became the centre and the deciding factor'.

To use pupil-centred pedagogy more, and to communicate with students who are increasingly diverse, teachers must make more efforts to get to know them as individuals. Here Italy has undertaken the most systematic policy, requiring a record of achievement to be compiled for every middle-school student (ages 11 through 13). Teachers write a general assessment of each pupil at the beginning of the year, with recommendations for his or her programme of instruction. Performance in each subject is recorded at intervals during the year, and another general assessment is written at year-end.

As part of their increasingly complex and challenging work, high-quality teachers are engaging in more deliberate analysis of what they do. It is now more commonly expected that teachers will develop their own practices and philosophies rather than follow ready-made procedures handed to them by others. Collaboration with colleagues in writing school plans, developing the curriculum, or designing professional development activities provides opportunities for teachers to advance their ideas. Increasingly, teachers are also involved in making presentations to workshops or conferences, and in writing articles about improvements in professional practice.

The Importance of the School

The efforts of individual teachers account for much of their distinctive performance. But another set of important factors operate in the school itself. The case studies offer some insights into how some schools nurture quality in teaching.

A clear, uncluttered vision of good teaching and learning appears to be one common characteristic. Devolution of responsibility to individual schools encourages each one to articulate its own definition of quality in education. For example, a principal in one of the US schools examined displayed in his office a piece of paper he had used in a meeting with teachers when he first arrived at the school: 'Good instructional practices: variety of learning experiences, reasons for activities, frequent checks for understanding, risk taking'.

Dominique Cordier/Ag. Fovea: Sequoia

Teachers are spending much more time working together.

The organisation of teaching and learning follows from the school's vision and values. Where schools are given more autonomy, they may make major changes in customary procedures. The timetable, for instance, may be modified, or drastically altered. An Australian secondary school constructed its entire curriculum on the principle of 'self-directed learning': instead of the standard sequence of courses ordered by year, it now offers dozens of modular units and gives every student wide leeway in choosing six units to study in each ten-week term.

The timetable affects not only the structure of students' learning, but also the degree to which teachers can collaborate. Schools in Austria, New Zealand and Norway have arranged for pairs of teachers to observe each other's classes and offer mutual advice. In Japan, a formal programme of teacher induction, now to be required nation-wide, gave first-year teachers 60 periods of instruction by more experienced colleagues in their schools, covering topics such as reading methods and student guidance.

Teamwork is also becoming more important for teachers, a main point to emerge from a survey of teachers in France. To prepare new teachers to work in teams, the new French university institutes for teacher training, which have replaced the *écoles normales*, are forming trainee teachers into small groups who work and study together. Swedish law, too, has since the 1980s required schools to group teachers into 'working units'. Since collaboration is not always easy, special training or consultation is sometimes provided in schools to facilitate teamwork.

Three-point Synergy

The case studies demonstrate how much teacher quality springs from individual teachers and schools, whatever the role played by external policies enacted by local, regional or national education authorities. How can the different kinds of initiative – spontaneous and imposed – complement and reinforce each other, not conflict and compete? The case studies illustrate the interactions among three distinct sources of quality in teaching.

The Individual Teacher

It is essential, first, to protect and encourage gifted individual teachers, who can create excellence almost regardless of what is going on around them, orchestrating classroom activities with ease and fluidity, pacing the lesson, using a variety of teaching strategies and controlling the tempo of learning to meet the requirements of individuals and groups. With these teachers pupils feel challenged but secure, excited and motivated by the learning opportunities they face, in a classroom with a vibrancy and a physical adaptability expressed in the flexible arrangement of furniture and in the ever-changing displays that celebrate the work of students. Safeguarding the source of quality embodied in such teachers would imply:

- rigorous selection procedures which admit only talented and highly motivated entrants to the profession
- pre-service teacher education that is short, challenging and, as far as possible, practice-based
- pay that is generous enough to prevent talented individuals haemorrhaging to other professions
- career opportunities that both reward excellence and keep good teachers in the classroom
- individual choice among classes, workshops, and other in-service training activities
- school organisation that fosters individual autonomy
- incentives for individual teachers to seek continuous improvement
- central policies that offer opportunities rather than impose rules.

The School Framework

Schools that support good teachers safeguard the primacy of teaching and learning (not interrupting classes with administrative announcements, for example); put teachers in charge of curriculum development, in-service planning, and other instructional matters; and create a climate that fosters commitment, by sustaining norms of mutual assistance and continuous improvement.

As observed in the case studies, this kind of school displays evidence of success and a feel for the school's values in the exhibits of students' work hung in hallways and other shared spaces. The students will remark that it is a friendly place, that they enjoy coming to school and that they feel 'pushed' in their lessons. The teachers speak well of the students and their colleagues. They are clear about their purpose, and collaboration with colleagues is habitual. Administrators attempt to reduce the hierarchy so common in many schools; teams and a developmental approach to appraisal are evident. Meetings on bureaucratic matters are kept to a minimum, with more time being given to discussion of pupils' requirements, curriculum and teaching, and professional development.

Macon/R.É.A.

Schools which support teachers don't allow administrative announcements to interrupt classes.

This kind of school uses its planning procedures and structures for developmental work, and is keen to adapt initiatives from the outside – not least experiments that have worked in other schools – but for their own purposes. External opinions are usually favourable: inspectors report consistently high-quality teaching, an orderly environment and good management systems; and parents report high expectations, as well as staff involvement.

Fostering this kind of school would imply:

• school participation in the pre-service training of new teachers, including placement of trainees in the school itself for much of the time
• decentralisation of management and budget to the school
• incentives for schools to pursue continuous improvement
• a responsive system of support from external authorities, including both inspection and advice
• creation of networks of like-minded schools to exchange information and support
• opportunities for schools to participate in curricular decisions and to adapt mandated curricula to local circumstances
• the encouragement of self-evaluation and planning in the school
• flexibility in provision of in-service teacher-education and staff development.

The Policy Environment

Teacher-quality can be enhanced by coherent and well-tested policies on pre- and in-service education, curriculum development, assessment of students and appraisal of teachers. If a public consensus exists about what the correct policies are – which is not always the case – and if these policies are faithfully implemented, educational excellence becomes less dependent on the talents of individual teachers or the initiatives of local schools. For the central authorities that means:

• creating or maintaining a strong central agency to formulate detailed curricula, procedures for assessing students and methods for evaluating teachers
• pre-service and in-service teacher training that support those central methods.

■ ■

There are clear tensions between these different approaches. For example, individual teachers will necessarily forfeit autonomy if they are required to adhere to central policies on curriculum and methods of instruction, or if they are required to participate with colleagues in seeking consensus about values and practices.

Relying on central policy to sustain and improve the quality of teachers implies more consistency of practice but a slower rate of change because of the inertia of large systems. Relying on individual teachers and schools, by contrast, allows continuous change and experimentation, but also permits some schools and teachers to lag far behind. The challenge is to improve the terms of such trade-offs by channelling together these three different sources of teacher quality. ■

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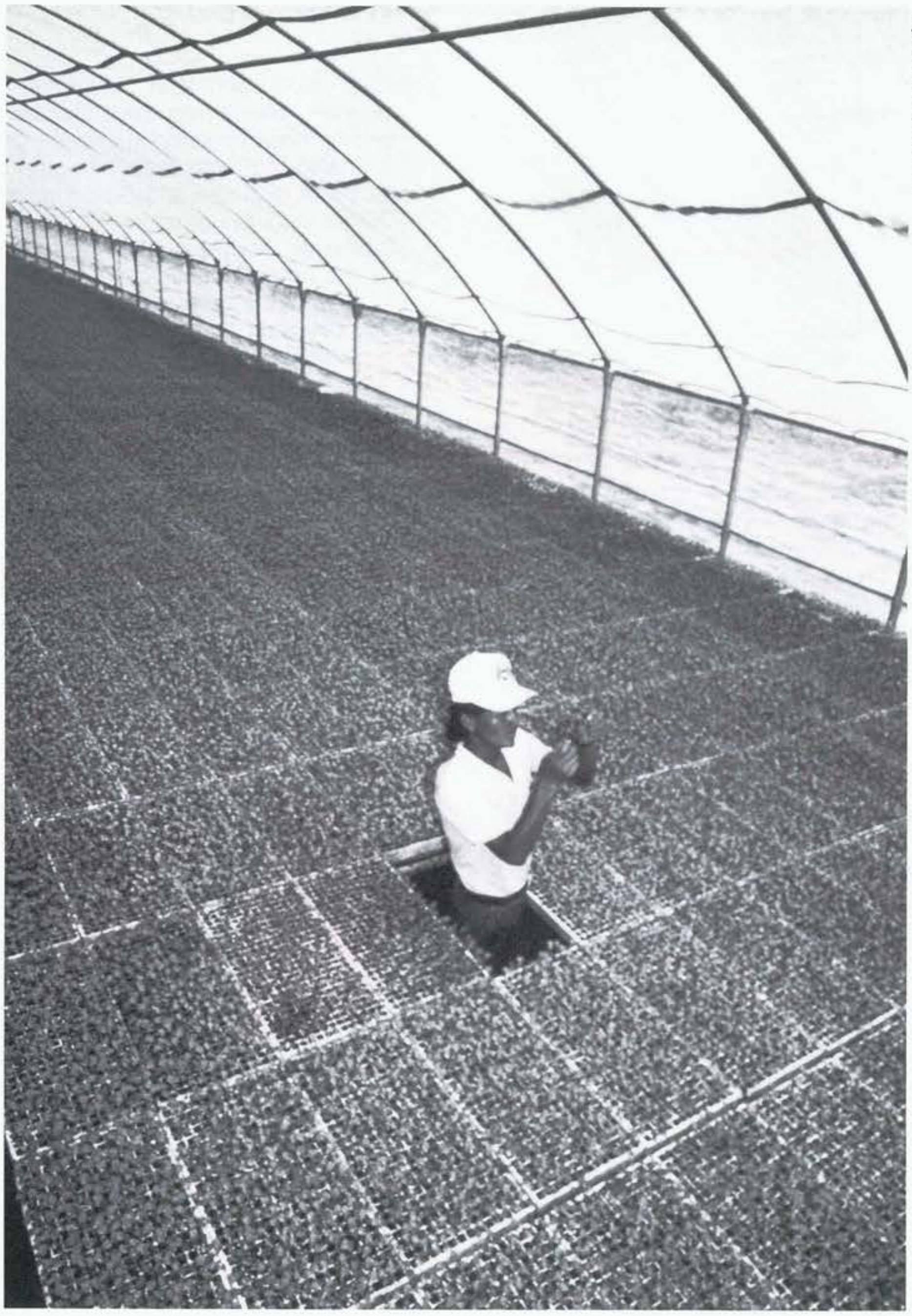
Radical Reform in Mexican Agriculture

Javier Bonilla and Gérard Viatte

Agriculture, like most other areas of the Mexican economy, has been undergoing a radical transformation, to convert it into a more viable, market-oriented sector. The challenge to policy is to achieve efficiency and competitiveness in agriculture while securing equity across the economy.



Dannemiller/SABA/R.É.A.

Throughout the first half of this century, agriculture was one of the most dynamic and prosperous sectors in the Mexican economy although, as in many other OECD countries, the relative importance of agriculture diminished with industrialisation (Figure 1, p. 22). Yet pervasive government intervention, coupled with an excessively regulated system of land tenure and support mechanisms that distorted prices, which was maintained until well into the 1980s, slowed down migration to urban centres and suppressed the efficient restructuring of the agricultural sector. As a result, agricultural output grew more slowly than the rural population, concentrating poverty in rural areas.

One of the most notable developments in Mexico during the administration of President Salinas (1988–94) has been the far-reaching, market-led reform of agricultural policy and land tenure (including the relaxation in foreign ownership of land and other agricultural assets) – part of the general restructuring of the Mexican economy during the last decade. The reforms are being boosted through Mexico's increasing integration into the global economy, especially through the North American Free Trade Agreement (NAFTA), and consolidated within the framework of the recent GATT Uruguay Round agreement.[1]

But there are still formidable social and economic problems to be addressed, underscored by the importance of rural employment in the Mexican economy. Almost a third of the Mexican population of 85 million continues to live and work in rural, largely agricultural

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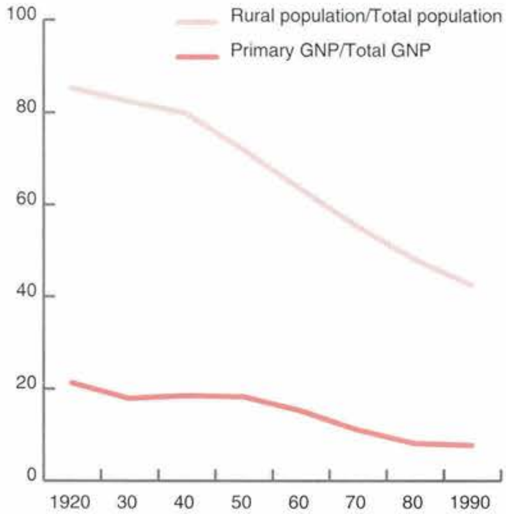
Figure 1
SHARE OF PRIMARY SECTOR[1] IN POPULATION AND GNP, 1920–90
%



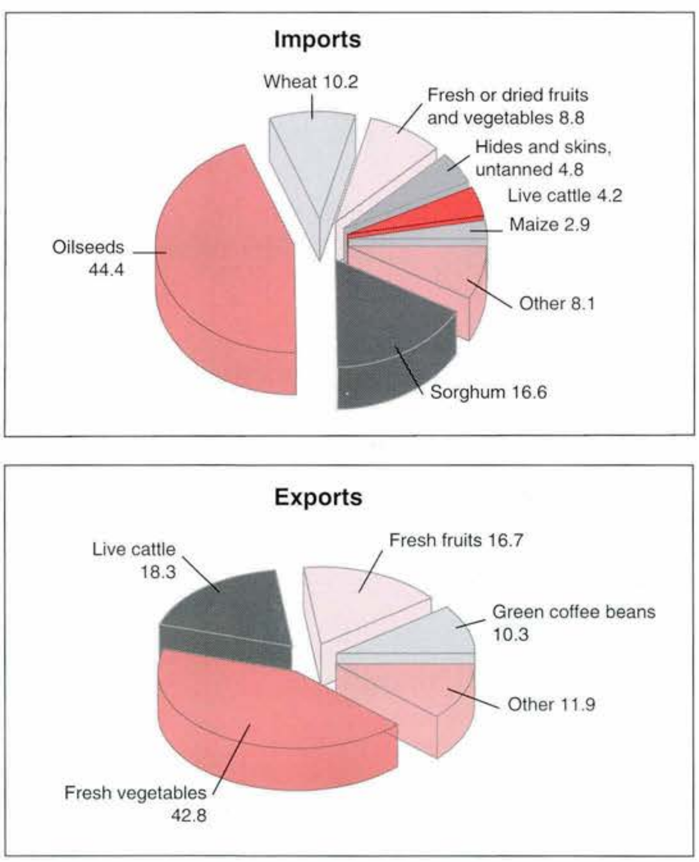
1. Agriculture, forestry and fishing.
Source: Central Bank of Mexico, Banamex

areas. Nearly a quarter of the total workforce still depends on farm incomes for a living – but produces only 7% of national income.

Mexico's wide range of soil and climatic conditions allows the production of a large variety of crops throughout the year and the extensive raising of cattle. About two-thirds of Mexico's surface area is arid or semi-arid, and over half of Mexico's cropland is located in the rain-fed central highlands. In other regions, irrigation has allowed the adoption of intensive production technologies and boosted yields and productivity. Of Mexico's total cropland 21% is irrigated, with more than a third of the irrigated area concentrated in north-western states.

The crop sector, dominated by beans, cereals and oilseeds, accounts for three-fifths of total agricultural production. It has undergone substantial changes in composition over the last decade. The share of cereals and oilseeds has fallen, and that of industrial crops (coffee, sugarcane, cocoa, cotton and so on), fruits and vegetables and ornamental crops has risen. Maize, the main staple, has remained the single most important crop, accounting in 1992 for 29% of the total value of crop production and, because of policies maintaining high domestic prices, has increased in importance; it is also the most important crop in terms of land use and rural employment, occupying around 27% of cultivated land, and involving a third of the rural labour force. Production of beef cattle is the main activity in the livestock sector, accounting for two-fifths of the value of livestock production. Most of Mexico's forestry resources have not yet been developed, with only a quarter of the total forest area that has the potential for commercial exploitation being currently used.

Figure 2
AGRICULTURAL TRADE, 1993
%



Source: Ministry of Agriculture, Mexico

For the last 15 years, Mexico has been a net importer of agro-food products. Trade patterns have been highly unstable, largely because of macro-economic instability, especially in exchange rates. Since the mid-1980s, imports of agro-food products have grown at an annual rate three times faster than exports, in large part because of a rapid increase in beverages and manufactured foods. In addition, imports of beverages and manufactured foods accounted for 5% of total imports. Agricultural exports – mainly fresh fruit and vegetables, live cattle and green coffee beans – accounted for nearly 5% of total merchandise exports in 1993, while imports accounted for nearly 4% of total merchandise imports, mainly of cereals and oilseeds (Figures 2 and 3).

The continued deterioration of the balance of agro-food trade can be attributed to:

- trade liberalisation initiated in 1986 with Mexico's accession to GATT
- poor competitiveness of the domestic livestock and food-processing industries, partly because of inappropriate domestic policies
- growth in domestic demand for agro-food imports
- loss of dynamism in agricultural production
- a drop in the volume of world demand and world prices for some products
- distortions in world agricultural markets because of agricultural and trade policies.

Although in the late 1980s the macro-economic climate became more stable, favouring agricultural modernisation, it became clear that sectorial policies for agriculture and the rural economy had to be thoroughly rethought to set the stage for the development of a modern and efficient agricultural sector. The aim of the new policy approach is to enhance the market orientation of the agro-food sector as a whole, by reducing government intervention and the policy distortions that prevent agriculture developing efficiently, and by improving the targeting of policy, to combat poverty in particular.

Overcoming Historical Hurdles

The 1910 Revolution had agrarian roots, and one of its main results was land reform. Peasants fought for the right to own a plot of land, against a system of *latifundia* in which less than 5% of the population owned more than 90% of the land. The Mexican Constitution of 1917 established new forms of land ownership in its Article 27: the *ejido* and the 'agrarian communities', with the aim of promoting equality in the distribution of land (box, p. 24).

But the system had poorly defined property rights and imposed excessive restrictions on land mobility and on the establishment of contracts. It also severely limited farmers' access to credit, since the land was state-owned and thus could not be used as collateral. Furthermore, under the pressure of an increasingly landless rural population for scarce farm land, private holdings were increasingly expropriated, and plots in *ejidos* were subsequently subdivided. By the end of the 1980s the average farm size had shrunk to an uneconomical 3.5 hectares.

Recent reforms to Article 27, together with the 1992 Agrarian Law, constitute a new legal framework for land tenure and property rights. The intention is to improve agricultural productivity through the establishment of property rights, the elimination of restrictions to private investment in agricultural, livestock and forestry activities, better access to agricultural credit, and the development of rural land markets that will allow the consolidation of small plots into viable commercial farms.

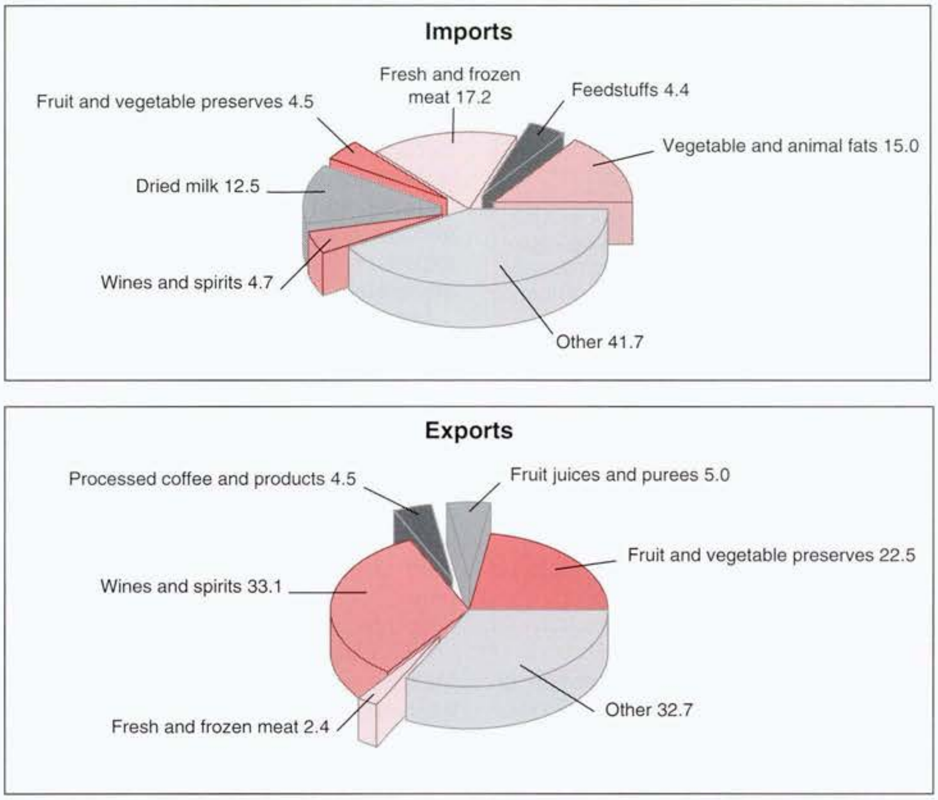
It was clear that the new legal framework for land tenure had to be complemented with a consistent set of policies regulating the use of water. A long history of water subsidies, user charges that did not reflect the costs of operation and maintenance, the absence of a system of user-rights, and the non-transferability of quotas resulted in inefficient use, the exhaustion of water resources in many areas, and a series of related ecological problems, including the salinisation of soil and the intrusion of sea water into fresh-water aquifers. Irrigation water, moreover, was traditionally distributed among producers according to farm size. The new law has changed this situation by establishing a transparent system of fully transferable user-rights and a Public Registry of Water Rights, and by setting up a system of cost-based user fees (although around 60% of the area under irrigation still benefits from some federal subsidy). In addition, water quality is now protected through the regulation of releases of residual water into rivers, lakes and oceans.

Forestry, too, called for a new legal framework, consistent with reforms in land tenure and the environmental protection law. The new Forestry Law of 1992 is based on sustainable management. All forestry operations, to gain approval from the Ministry of Agriculture and Water Resources, must be based on management plans that guarantee the conservation and replenishment of forest resources and foster the participation of the private sector in conservation. The Law reduces the role of the

Figure 3

TRADE IN BEVERAGES AND PROCESSED FOODS, 1993

%



Source: Ministry of Agriculture, Mexico

LAND TENURE IN MEXICAN AGRICULTURE

Mexico has three types of agricultural landholding: private, 'communities', and *ejidos* – rural communities with usufruct rights to land and water resources conferred to it by the government.

Ejidatarios and *comuneros* (users of communal lands) comprise the majority of agricultural producers in Mexico. There are approximately 29,900 *ejidos* and 'communities', with 3.5 million members who hold rights to approximately 50% of the grazing, agricultural and afforested land; and 85% of *ejidatarios* and *comuneros* work plots of land on an individual rather than on a collective basis. Although their farms are 9.4 hectares on average, 58% of the plots are of five hectares or less. On the other hand, there are approximately 1.2 million private farmers, with generally larger farms, which average 68 hectares; 56% of the farms have 5 hectares or more.

state and, through the deregulation of production and marketing activities, facilitates the direct use of the resources by those who own or possess rights to use them. It also takes into account the long growing period involved and the possibility of economies of scale, by allowing the development of commercial plantations up to 25 times the size of individual holdings (up to 20,000 hectares).

Since its accession to the GATT in 1986, Mexico has substantially reduced its tariffs and removed import-permit requirements for most products, including most agricultural ones. Since 1989, import requirements have been eliminated for rice, sorghum, oats, soybeans and other oilseeds, although beans, maize, wheat, barley, malt and sugar cane still require permits. Some livestock and dairy products still require import licenses. At the end of 1990 the import permit for sugar was replaced by a variable levy, set as the difference between the world price and a domestic price.

The NAFTA, which came into effect in January 1994, has particular relevance for Mexico. Nearly 90% of the value of Mexican agricultural exports is destined to its North American neighbours, and more than 70% of its agricultural imports originate there. The NAFTA agreements on agriculture include separate provisions on market access for trade between Mexico and Canada and for that between Mexico and the United States, domestic support, export subsidies, and sanitary and phyto-sanitary measures.

Market-access agreements recognise asymmetries between the agricultural sectors of the three countries. Provisions on domestic support leave enough freedom to each country to channel support to its agricultural sector, but establish the commitment to move toward non-distorting mechanisms. Similarly, NAFTA provisions on export subsidies create mechanisms intended to prevent unfair competition between the NAFTA countries and third parties.

As in many other OECD countries, Mexico implemented policies which intervened heavily in the agro-food sector, leading to a misallocation of resources and surpluses of some commodities. By the mid 1970s, it was clear that policies which artificially depressed domestic prices were making domestic demand for beans, cereals and oilseeds increasingly dependent on imports.

In 1980, an ambitious programme called the Mexican Food System (SAM), was implemented to try to achieve self-sufficiency in beans, cereals and oilseeds by 1985. Another objective was to use revenues from oil exports to improve the diet of a target population of 19 million, through the distribution of a 'basic-food basket' at subsidised prices. The large subventions to producers it entailed achieved little in terms of increased production, since the real appreciation of the peso made it difficult to compete with imports and worsened the competitiveness of Mexican agricultural exports. With the end of the oil boom and the rise in international interest rates, the SAM could no longer be sustained, and it was terminated after 1982. Subsidies and public investment in agriculture were quickly cut back, and the goal of self-sufficiency in food was

The share of sugar cane in total agricultural production has risen over the last decade.

Lehman/SABA/R.É.A.

replaced by one of efficiency in production. The economic crisis also meant that food subsidies were targeted only to lower-income groups.

Government intervention in the sector nonetheless remained pervasive throughout most of the 1980s. In particular, consumer and producer prices for major agricultural products were still set or strongly influenced by the government, through direct control of consumer prices, government procurement from producers at guaranteed prices, export and import controls, and direct subsidies to private and semi-public food processors.

During the last six years, there has been progress in the privatisation or liquidation of most state-owned enterprises, including those in the agricultural sector. The Ministry of Agriculture has been restructured and decentralised. Public investment in infrastructure has been targeted on the rain-fed areas and small-scale irrigation projects. Intervention in the marketing of agricultural products has been shifted towards targeted schemes, based on direct payments and the dissemination of information. Subsidies to input prices have been reduced or totally eliminated. The agricultural credit institutions have been made more efficient and specialised, and private-sector participation encouraged.

But a substantial share of the federal budget is still directed to agriculture. From 1989 to 1993, total transfers to the agricultural sector have represented, on average, 1.6% of GDP – more than in the United States, Australia and New Zealand, and comparable to the share in Canada and Sweden. It is thus significant that, in autumn 1993, Mexico started the implementation of a system of direct payments to cereal and oilseed producers, called Procampo. Procampo will fully replace the existing system of price support for maize, beans, oilseeds and other cereals by 1996. The goals of Procampo are:

• to transfer income to producers, as compensation for the effects of the elimination of barriers to trade through the NAFTA and other trade agreements, and in view of distorted world markets
• to ensure that domestic prices reflect those in the world market.

Because payments under Procampo are 'decoupled' from commodity production, its promotion of the more efficient use of resources will help reduce distortions in the use of water, land and chemicals. The programme will therefore foster the protection of natural resources and the environment. Its design also means that, consistent with the Uruguay Round Agreements and NAFTA, it will not distort trade.

Procampo will have important effects on income-distribution, for both producers and consumers. Because payments are not related to the volume of production, support will be redistributed towards low-income, subsistence farmers.[2] Because domestic prices for cereals and oilseeds will be allowed to fall to

HOW PROCAMPO WILL WORK

Figure

PROCAMPO: SUPPORT PAYMENTS AND PRICES, 1993–2010

SS: Spring/Summer
AW: Autumn/Winter
Source: Ministry of Agriculture, Mexico

Under Procampo, the new system of direct support to Mexican agriculture, payments are given on a per-hectare basis, and are granted only to farmers who have grown, in a defined base period, one or more of a specified set of crops, mainly cereals and oilseeds (the area eligible being the average area cultivated with these crops during the base period). No new land will be incorporated into the programme, although beneficiaries are free to grow the product of their choice, or to dedicate their land to forestry, soil conservation, or any other activity that generates employment, to lessen rural migration.

Support is given on approximately 75% of the crop surface (around 14 million hectares), and to an estimated 3.6 million producers. Payments are granted to producers (individuals or corporations), whether they are owners or not of the land eligible for support. Degrees of support per hectare are differentiated by region, according to productivity, and are based on actual average regional yields – and increases in productivity will not result in higher payments.

Payments have been set so that a minimum degree of support is guaranteed for producers with the lowest productivity. There is also a cap on payments per hectare, and an upper limit on the amount of eligible land (100 hectares for individuals or 2,500 hectares for corporations), based on the legal limits established by the Constitution.

Procampo will come into full force in 1995–96. During the transitional phase now underway, current price support will be gradually phased out as direct payments are phased in, so that producers receive clear market signals without having the composition of their income radically changed. At the end of this phase, in 1996, domestic prices for eligible base-area crops will have been aligned with world prices. The programme will have a duration of 15 years. Payments will be fixed in real terms for a period of ten years, thereafter being phased out.

Although the budget of US$3.5 billion for Procampo in 1994 is $1.6 billion more than the financial support programmed through the traditional mechanisms of support, transfers from consumers (around $.8 billion in 1991), and the fiscal cost of consumption subsidies will be substantially less.

2. Since the pattern of land-ownership means that over 60% of maize producers are also net maize buyers, high domestic prices for maize act as a consumption tax higher than the subsidy they receive as producers. The situation has been exacerbated for landless workers, for whom production subsidies have only been partly reflected in higher wages, and who have had no access to the consumption subsidies available in urban areas.

Lehman/SABA/R.É.A.

The market-access measures in the NAFTA recognise the asymmetries between Mexico and its North American neighbours.

those obtaining on the world market, food expenditures for low-income 'final' consumers, 70% of whom live in rural areas, will also be reduced (box, p. 25). This movement towards the use of direct payments instead of price support is in line with the principles for policy reform to which OECD countries are committed.[3]

These policy reforms have set the stage for the modernisation and market-orientation of Mexican agriculture. But the structural effects will take time to emerge, particularly as highly distorted prices still prevail in world agricultural markets; they will depend also on a stable macro-economic climate. Moreover, the private industries 'upstream' and 'downstream' from agriculture, supplying inputs and processing food, are still underdeveloped because of years of government intervention; land markets are only beginning to emerge; and in many regions production technologies are backward. The costs of adjustment are therefore higher for agriculture than for other sectors of the economy, and programmes such as Procampo are intended to ease the process.

Investment programmes are also required, to generate productive employment in rural areas affected by reform, and to develop further communications, transport and irrigation infrastructure; the provision of a social safety net for the rural poor is also a priority. The agricultural financial system has to be restructured so that it can service the existing demand for credit while maintaining its financial viability.

Moreover, the success of reforms will depend on the strong support of farmers' organisations; and appropriate public institutions will also have to be put in place, with a high degree of decentralisation to facilitate policy implementation. Efforts will have to be moved from direct intervention to systems of policy monitoring and control. The development of agricultural policies in Mexico, and the outlook for its agricultural sector, will be closely evaluated by the OECD.

■ ■

Mexico's ambitious programme of reform of policies for its agricultural sector and rural communities will require not only a stable economic environment but also a range of complementary domestic policies to allow markets to function efficiently; they are essential elements in providing the general framework to allow reform to succeed. The results will take time to emerge. The achievement of a modern, efficient agricultural sector and a prosperous rural economy will be a continuing challenge for the new Mexican administration that comes into office in 1995. ■

Land reform will allow the average size of farms to regain economical proportions.

Lehman/SABA/R.É.A.

3. Wilfrid Legg, 'Direct Payments for Farmers?', **The OECD Observer**, No. 185, December 1993/January 1994; **Agricultural Policy Reform: New Approaches. The Role of Direct Income Payments**, OECD Publications, Paris, forthcoming 1994.

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Taxation and Household Saving

Ribolowsky/R.É.A.

Jeffrey Owens and Mark Robson

The 1970s and the early '80s saw a fall in saving in the OECD countries, which together are by far the largest source and user of global savings. It coincided with increased demand for capital from the demands of aging public-sector infrastructure, from environmental objectives and, later, from the investment necessary to transform the centrally planned countries into market economies. There is no 'right' policy in the tax treatment of saving since each government has to tailor its policy to its own social, institutional and economic conditions. What options are available to governments to achieve their specific goals in savings?[1]

Individuals save for a variety of reasons: the fear of loss of employment or of serious illness, for example, or the desire to buy a car, go on holiday or to provide for retirement. Insufficient saving, obviously, can lead to individual hardship. But if the population of a country as a whole does not save enough capital to support investment and growth, then volumes of output, productivity and income will fall relative to those of a more frugal economy. Individuals may thus have to pay a price of lower standards of living in the future, as a result of earlier collective profligacy.

For a single country, of course, savings can be attracted from abroad so that a shortfall of national saving may not necessarily constrain domestic investment. But such a possibility does not exist for the global economy: lower saving throughout the world will inevitably produce a decline in global investment.

Not surprisingly, such concerns have prompted many governments to examine specific policy changes in tax regimes which might improve both the volume and the allocation of savings between different uses, to ensure that investments are channelled into activities which yield the highest return for society. Much of this attention has focused on the influence of taxation on household savings because for most countries it is the largest source of saving, exceeding corporate saving and saving by the public sector (in the form of budget surpluses).

Different Taxes Different Effects

There is no clear evidence that taxation does affect the volume of household saving. *A priori*, very high rates of taxation on capital income might be expected to discourage saving. Certainly, the enthusiasm for cuts in taxes on capital income among many OECD governments in the 1980s suggests a conviction that household saving would increase as tax rates were reduced. But with lower taxes, individuals have to save less to reach a given target.

Some recent studies of savings plans for retirement in the United States and Canada suggest that a large proportion of saving in this form is new, so that schemes which subsidise saving for retirement seem to have had the effect of raising the volume of total household saving (at least, for the duration of the schemes). Yet can this effect be ascribed entirely to the way that tax breaks have increased the post-tax rate of return? Empirical analysis of several countries' experiences indicates that other factors – the matching of contributions by employers, for instance, information campaigns, or the structure of the social-security system as it affects provision for old age – may be more important than tax treatment in influencing household decisions on saving for retirement.

Increasing national saving may not be the only goal of taxation policy. Influencing the timing of consumption –

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1. **Taxation and Household Saving**, OECD Publications, Paris, 1994.

encouraging people to save for their old age – may be as important. Furthermore, it has been argued in a number of countries (most prominently the United Kingdom and the United States) that resources are likely to be more efficiently used in the private than in the public sector. By this argument, even if the volume of saving did not increase, reducing taxes so as to leave more post-tax income in the hands of households would improve the allocation of resources. In the case of saving for retirement, in particular, national economic welfare might be improved even if national saving declined – if, for example, the switch from state to private pensions led to a more efficient allocation of resources. Judgment on this point depends on one's view on equity, since unlike state systems, private pension schemes cannot be used for redistribution.

GOAL: TO INCREASE TOTAL HOUSEHOLD SAVING

Policy instruments	*Advantages*	*Disadvantages*
Introduce general exemption of capital income	• administratively simple • not sensitive to inflation	• no evidence that it works • high loss of tax revenue • in progressive tax systems, favours those with high incomes and has no direct effect on non-payers
Introduce low flat-rate taxation at source	• administratively simple • limits the loss of revenue	• in progressive tax systems, favours those with high incomes and has no direct effect on non-taxpayers • remains sensitive to inflation
Introduce limited exemption for capital income, up to low threshold	• limits maximum benefit per household • limits the loss of revenue	• administratively difficult to police • favours those on higher incomes • sharp discontinuity in marginal tax rates, so no incentive for those with large savings
Introduce limited exemption for capital income, up to a low threshold, but restricting relief to a low flat rate	• limits maximum benefit per household • limits the loss of revenue but in principle, gives same benefit to all taxpayers	• administratively complicated
Index capital-income receipts for inflation	• promotes neutrality (comprehensive income tax)	• admistratively and technically complicated • high loss of revenue unless the tax rate is raised (increasing other distortions)
Use non-tax subsidy (interest-rate premium, for example) instead of a tax concession	• limits maximum benefit per household • limits the loss of revenue but also benefits non-taxpayers • administratively easier in some respects	• requires machinery for giving grants alongside the tax system

Neutrality in the taxation of savings – that is, the principle that the tax system should not discriminate unduly between different forms of saving – minimises tax-induced distortions in household desions. Perfect neutrality between different savings instruments can be achieved by a tax based on either 'comprehensive income' or on expenditure. Under a comprehensive income tax, not only all income in the conventional sense but all increases in the value of assets would be taxed each year. Saving would be out of income which had already been taxed; the income earned on savings would be taxed as well, but withdrawals from savings would be tax-free. In practice such a system is very difficult to achieve.

By contrast, under an expenditure tax only income which was consumed would be taxed, so that income saved instead would be tax-free. Income earned from savings would also be tax-free, but all withdrawals would be taxed in full. For pensions, for example, expenditure-tax treatment implies that pension contributions are fully deductible from taxed income, that the return earned by the pension fund is untaxed, but that payments made to pensioners are fully taxed as income. If the marginal tax rates at the time of contributing and at the time of drawing the pension are the same, this system results in a 'zero effective tax rate', that is, the rate of return at the margin is unaffected by the tax regime. In the event, this is the system, at least for certain types of pensions, that operates in Canada, France, Germany, Iceland, Netherlands, Spain and the United States.

Between the two extremes of a comprehensive income tax and an expenditure tax, a flat rate of income tax may also assist in achieving neutrality. Several OECD countries now apply a flat rate of tax at source to income from interest, regardless of the total income of the taxpayer.

Equity or Efficiency?

Public policy in all countries is concerned with equity as well as efficiency. Capital income tends to be concentrated on those with high incomes. Any measure which reduces taxes on income from capital relative to income from labour may therefore produce a less progressive tax system, which hits the poor harder than the better-off. In some countries (France, for example) it has been found difficult to urge wage restraint whilst cutting taxes on returns from investment. Governments may therefore wish to devise measures which reduce taxes for small savers but not for those with higher incomes from capital – which explains why many savings incentive schemes are subject to a ceiling (for example, contributions to a pension scheme may be tax-deductible up to a proportion of earnings or an absolute limit per year).

If tax measures are introduced to encourage saving in particular assets (say, pensions), it should first be asked why saving in those assets by particular groups is considered insufficient. The empirical studies available from several countries all show strikingly that, even if taxes do not affect the overall volume of household savings, they certainly do affect the decisions of households on the composition of their portfolios.

The higher the tax incentive to save, the bigger the potential distortion in individuals' choices. In some cases, the effective tax rate on assets is negative, that is, the tax system provides a subsidy to households who save in this form. With pensions, for example, this situation occurs wherever saving is tax-deductible, the pension is tax-exempt, and the return to pensioners is either not taxed in full or is taxed at a lower rate than that at which the contributions were deducted from income. Negative tax rates can also sometimes occur with home-ownership. In such cases there is an effective subsidy from taxpayers in general to those who save in particular ways, which has implications for both efficiency and equity.

Guiding Decisions to Save?

Governments have designed a variety of special schemes to encourage particular forms of savings. These schemes can generally be grouped into five broad categories.

Flat-rate Tax Schemes

Such schemes have found favour in many countries in recent years, for investment income generally or for particular types of saving. A flat (single) rate of tax is applied to the income, normally at source. This solves many of the problems associated with high tax rates and is easier to administer than alternative systems of taxation or relief, especially if deducted at source and final – that is, no further tax is due from those with higher incomes, or tax repayable to those on low incomes. There may therefore be reservations about 'vertical equity': if income is taken as a measure of ability to pay taxes and, as in most countries, progressive rates apply to income from work, why should the same principle not apply to investment incomes? But investment is more mobile than labour, and if the result of steeply progressive marginal rates is that savings migrate abroad and become in effect exempt from tax, such progressive rates may be counter-productive. The answer depends in large part on current and expected inflation, which is largely irrelevant to taxation of labour income but does have marked effects on investment income because it erodes the value of capital. The higher the rate of inflation, the higher the effective rate of tax on investment income, because the whole of the nominal yield, not only the real return, is subject to income tax. Higher inflation can therefore make more difficult the task for the authorities of enforcing taxation effectively.

Most governments will be concerned about the effects of inflation and vertical equity on the distribution of the tax burden. When inflation has previously been high but then becomes and is expected to stay low, the argument for flat-rate taxes may be reversed, particularly in countries where taxes on wealth and inheritance do not exist or only apply at very low rates. Taxing investment incomes according to progressive schedules may then become attractive once again. Precisely this argument has recently been followed in Denmark.

Special Schemes for Interest

The use of specially designated, tax-free deposit accounts, which has been tried in a few OECD countries, seems to have two main disadvantages. Many individuals who are already saving will simply divert their savings to the new accounts in order to enjoy the tax relief, so that the so-called 'deadweight loss' of tax revenue is high; and second, the tax authorities have to ensure that individuals do not open several accounts to breach any ceiling. That may require special auditing and reporting arrangements by the institutions taking the deposits, thus increasing their costs and lowering the rate of return offered, and

The tax treatment of pensions is often much more generous than that of other assets.

Damoret/R.É.A.

Sittler/R.É.A.

Whether, or how far, interest on borrowing is tax-deductible helps determine how much the tax regime affects owner-occupation.

in turn preventing the full benefit of tax exemption from passing to the saver. So it is unsurprising that few countries have adopted this policy. Instead, several have introduced fairly high tax thresholds for interest (and in some cases also dividends) received from all sources, limiting the benefit that may be received by those with very high capital incomes but exempting the majority of savers from tax on capital income.

Special Schemes for Shares

Schemes involving a tax deduction for the cost of shares, but no corresponding tax charge on sale, require a minimum holding period for the investment, typically between three and eight years. In this case, the tax system offers a state subsidy that falls over time. If the shares were purchased out of borrowed funds, with a tax deduction for interest payable, the effective tax subsidy would be increased even further. Even subject to a minimum holding period, there is normally a constraint on the maximum amount each taxpayer is allowed to invest each year.

Pensions

A similar problem arises if contributions to pension funds are tax-deductible, investment income of the fund is accumulated free of tax, and part or all of the pension can be received free of tax – or, more commonly, at lower tax rates than when it was invested. The state is then providing a subsidy to save in this form. Abuse can be checked by a requirement for a minimum holding period – not allowing the pension to be received before a minimum retirement age, and perhaps also not granting tax relief on contributions made later than a minimum period before retirement age. Alternatively, countries apply ceilings, either defined in absolute amounts or calculated as a proportion of annual earnings, or they attempt to restrict the rate at which contributions receive tax relief to that at which the pension will eventually be taxed. Nonetheless, in view of the very generous tax treatment for pensions relative to most other assets, it is hardly surprising that in many countries pension funds are the dominant investors, especially in shares.

Housing

The effect of the tax regime that applies to owner-occupied housing depends critically on whether interest on borrowing for purchase is tax-deductible and, if so, how the benefit in terms of the opportunity cost is calculated (what would the borrowed funds otherwise have been invested in?). But unlike other tax incentives involving an initial tax deduction, effective tax rates on housing are generally positive. The exceptions occur in a few countries where owner occupation is entirely unaffected by the tax system (so there is a zero effective rate) or even negative rates can arise because the purchase price of the house may be tax deductible (not least in Germany) or interest paid is deductible from earned income at tax rates which are higher than those applying to interest income.

When registration or transfer taxes and local property taxes which do not apply to other assets are taken into account, the effect of tax incentives is reduced. In general, the widely held view that owner-occupied housing often receives very privileged tax treatment (because imputed income and capital gains are not taxed) does not appear to be supported in many countries.

■ ■

Although the recent removal of many obstacles to the free flow of capital has resulted in 'tax competition' between countries in some areas, it seems unlikely that, in the foreseeable future, there will be a dramatic convergence in the tax treatment of savings instruments in different OECD countries. But governments can learn from the experiences of other OECD countries as to which policies are most likely to achieve their goals and which have failed elsewhere. In general, there is still a strong presumption in favour of neutrality – that governments should be sceptical about attempts to use the tax system to influence saving behaviour, and that generous tax breaks are justified only in very special circumstances. ■

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How Open is World Trade?

Anthony Kleitz and Americo Beviglia Zampetti

With the conclusion of the Uruguay Round and the coming transformation of the General Agreement on Tariffs and Trade into the World Trade Organisation, the OECD is examining the extent to which national economies are actually open to one another. So far it appears that some of the major impediments now arise less from traditional barriers at the border than from domestic policies and structures the international implications of which have been exacerbated by new patterns of production and marketing. Policy-makers may be called upon to address these issues in the near future.[1]

During the Uruguay Round of world trade negotiations initiated in 1986 and concluded in April of this year, the term 'market access' was used in connection with efforts to liberalise government measures which restricted trade by affecting the ability of foreign goods to cross a national border (tariffs, quotas, and so on). Broad liberalisation was achieved in the Uruguay Round on these traditional trade barriers – developed countries, for example, will reduce their industrial tariffs by an average of 38%.

Fotokhronika Tass

But even in the short period since the negotiating mandates were established, the concept of market access has considerably expanded, as it has come to be recognised that trade effects arise not only from border measures but also from government and business actions inside the border. Some of these actions were already examined in the Uruguay Round negotiations. These other subjects of negotiation included regulations affecting the provision of services, government procurement, technical and safety standards and intellectual property rights. Yet other measures or structures that are now seen as substantial problems – trade-related issues arising in environment policy and labour standards, for example – were not perceived as such when the agenda of the Uruguay Round was established in 1986, and these changing perceptions led some governments in the closing days of the Round to press for their belated inclusion.

The open multilateral trading system has been a major cause of the economic growth the world has enjoyed since 1945. It is a system of national rights and obligations, designed to ensure that markets are dependably, mutually open. The success in progressively widening these rights and liberalising trade reflects an underlying international consensus on the benefits of the system and suggests that it may prove the best basis for finding solutions to the new generation of trade problems. But some adjustment is becoming increasingly urgent as potential areas of friction loom as deeper integration and global interdependence are linking national economies.

Globalisation Blurs Borders

Business today is increasingly global, forming an evolving pattern of cross-border inter- and intra-firm operations which involves virtually all the activities of a company, with ownership, design, production, sourcing and marketing dispersed across the globe. In their search for economic efficiency, more and more firms are using new combinations of investment, trade and collaborative agreements to expand internationally, enter new markets and exploit technological and organisational advantages as widely as possible. These new patterns of industrial activity involve ever-increasing international flows of

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1. **New Dimensions of Market Access,** 'OECD Documents', OECD Publications, Paris, forthcoming 1994.

goods, services, investment, technology and people. Although not completely new, and not felt to the same extent by all firms or countries, globalisation has thus come to be recognised as a major factor in the world economy.[2]

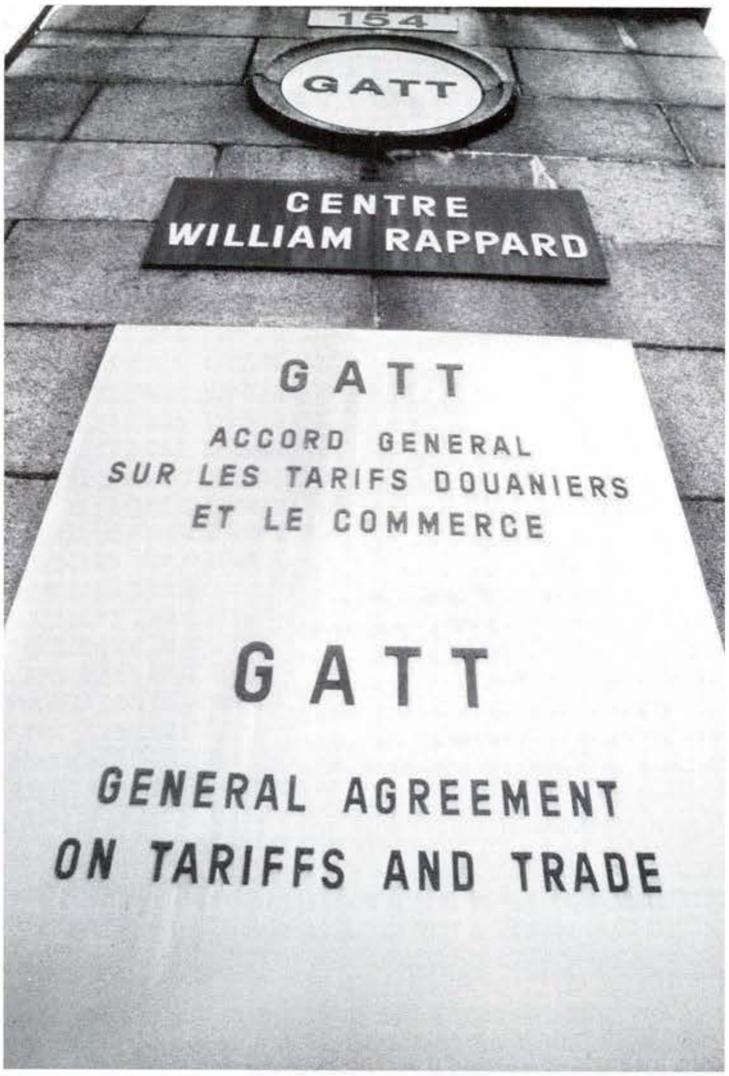
'Global corporations' – in the automobile[3] or consumer-electronics[4] sectors, for instance – operate on the basis of world-wide strategies and through various information and production 'networks', aiming to take advantage of the best elements available in their many multinational locations, in terms of technological, production and marketing capabilities. In this way they create systems capable of optimising economic efficiency. This development is a distinct change, away from the kind of multinational enterprises prevailing in the 1960s and '70s (and still in existence today), which were generally organised as groups of affiliates, replicas of the mother company, spread around the world.

International Efficiency

Global companies tend to operate in markets where the number of competitors is limited by economies of scale and scope. Many of these sectors are R&D-intensive, with firms deeply engaged in process and product innovation and differentiation – obvious examples are telecommunication and pharmaceutical products.[5] In these circumstances, efficiency depends on close links with suppliers and/or customers: the dual necessity of turning over large volumes of products (to obtain economies of scale and to recoup high R&D expenditures) and of establishing close links with customers and suppliers makes issues of market access and presence centrally important to global firms.

As global companies move inputs and outputs among geographically dispersed facilities, the national origin of end-products becomes increasingly blurred.[6] Production of and trade in technology- and investment-intensive components and sub-assemblies have become particularly important, enhancing backwards and forwards linkages among firms along the production chain. Often in the electronics sector, for instance, an 'imported' product contains a higher proportion of local content than a competing 'domestic' product. Similarly, the nationality of corporations themselves has become more difficult to ascertain in the wake of far-reaching investment liberalisation and increasing interconnection of capital markets around the world.

The economic relations between nations as well as between firms have thus become more complex than in the past. Although governments may still be tempted to adopt 'strategic' policies to defend what they see as the interests of their national industries, above all in high technology, such policies are apt to be increasingly wasteful and counter-productive as the industries globalise.[7] It is in fact more difficult for government support to target 'purely' domestic firms and, moreover, such policies may induce other governments to retaliate. Instead, a compelling case can be made for looking closely at the international implications of domestic policies – not only of traditional trade policies applied at the border – in order to understand the determinants of access to foreign markets. The central challenge to trade policy will thus be to build on the progress achieved in trade and investment liberalisation by adapting the multilateral trading system to cover the broader range of factors which now determine market access. That will require a policy- and rule-making framework to enhance the deeper integration that global companies have brought about through their strategies. By re-



Nascimento/R.É.A.

The Uruguay Round has left a series of trade-policy problems that still have to be tackled.

ducing the costs of doing business world-wide while ensuring open competition, such a framework would contribute to promoting efficiency and thus global welfare.

The successful conclusion of the Uruguay Round reflects a willingness to adapt the multilateral trading system to the new realities of doing business globally. In addition to substantial cuts in 'traditional' barriers to market access, the Round began the process of looking beyond to such issues as the protection of intellectual property, services and investment, all of which profoundly affect the ability of global firms to compete internationally. For example, the inclusion in the Uruguay Round of an agreement on Trade-related Intellectual Property Rights (TRIPs) reflects the recognition that the protection of intellectual property in foreign countries provides confidence and is thus an important determinant of trade and investment decisions. The agreement aims to address many of the problems linked to inadequate patent, copyright and trademark regimes, which have been a growing source of international tension, and substantially enhances the protection afforded to firms investing, producing and trading in research-intensive goods and services, as in, say, pharmaceuticals or information technology.

From Subsidy to Friction

Many new areas of concern are derived from domestic regulatory regimes which affect the conduct of international business, above all in high-technology sectors. These have been a source of increasing frictions in recent years, as when governments act to support their 'national' industries in these sectors. Examples can be found in standards-related issues, not least in questions of environmental protection. Government procurement and 'buy national' policies continue to pose serious problems of market access and presence in many goods and services sectors, particularly among the 'Triad' countries (the United States, European Union and Japan). And subsidies may distort competition, effectively exclude foreign suppliers from the market and even displace trade in third markets.[8]

Trade policy is also occupied more broadly by structural differences among 'national systems', such as business organisation and practices, systems of corporate governance, relations between banks and industry, capital and labour markets and regulatory regimes – including government-sanctioned monopolies, tax systems, the setting of standards and a host of other measures of industrial policy which influence patterns of international business and conditions of market access and presence.

In view of the importance of technology in enabling firms to compete globally, national technology policies have likewise become a matter of increasing international concern. Although policies to help national firms are becoming less effective, many countries are engaged in multifaceted efforts to foster the development of domestic firms in high-technology, high-growth sectors (as information technology or semiconductors). Sometimes these policies also involve an attempt to shield the 'national champion' from foreign competition by impeding or restricting the access of foreign competitors to domestic markets. Issues arising at the intersection of trade, investment and competition policies deserve particular attention for the impact they have on international business (the regulation of mergers and acquisitions, for instance).

International trade and investment in goods and services are now linked in a complex and increasingly complementary fashion. With the spread of operations world-wide, companies find that their presence in key markets is an increasingly necessary ingredient for effective competition: it allows them to stay abreast of developments in technologies as well as in consumer requirements. In particular, local establishment may be indispensable to be eligible to participate in government-funded research programmes. Moreover, in sectors characterised by global oligopolistic competition, access and presence in the major markets are essential to realise the economies of scale and scope that are necessary to be competitive.

Although national investment regimes, both within and outside the OECD, have in recent years been growing more liberal, there is still a plethora of investment barriers, above all in developing countries, in the form of screening devices, limitations on foreign equity or ownership, local-content requirements, obligations for foreign investors, restrictions on commercial presence in numerous service sectors, from telecommunication to financial services, limitations on payments and transfers, and so on.

A number of public policies, moreover, covering trade, industry, technology and other domestic topics, including taxation, environment, land use, access to service and distribution networks, as well as licensing and certification for service providers, can be applied in a discriminatory fashion so as to discourage foreign investment. Yet it is also quite common to use the same policies to attract foreign investment – opening up the possibility of arbitrary distortion of the conditions of normal competition.

As firms attempt to improve or maintain their competitive position in this increasingly open environment, they may take actions aimed at locking competing

2. Andrew W. Wyckoff, 'The International Expansion of Productive Networks', **The OECD Observer**, No. 180, February/March 1993.

3. Maarten Smeets, 'The Car in the World Economy', **The OECD Observer**, No. 180, February/March 1993.

4. Americo Beviglia Zampetti, *Globalisation of Industrial Activities: A Case Study of the Consumer Electronics Sector*, OECD Working Paper, No. 44, 1994, available free of charge from the Economics Department of the OECD.

5. Claudio Casadio Tarabusi and Graham Vickery, 'Globalisation and Pharmaceuticals', **The OECD Observer**, No. 185, December 1993/January 1994.

6. Graham Vickery, 'Global Industries and National Policies', **The OECD Observer**, No. 179, December 1992/January 1993.

7. See pp. 5–8.

8. Candice Stevens, 'Industrial Internationalisation and Trade Friction', **The OECD Observer**, No. 173, December 1991/January 1992; Rauf Gönenc, 'A New Approach to Industrial Policy', **The OECD Observer**, No. 187, April/May 1994.

imports or foreign investors out of their domestic market. A number of practices can be used to this end. Dominant firms acting in concert may engage in predatory and exclusionary behaviour through, for example, cartels or boycotts aimed at impeding the access of foreign competitors to the home market. Distribution restraints, for instance, by providing certain firms with exclusive marketing rights for particular products or geographical areas, can also be a means of foreclosing market opportunities for foreign goods and services. Strategic alliances are becoming increasingly common, especially in the high-technology sectors where R&D costs are enormous; they may enhance efficiency but may also provide a means to acquire a dominant market position, or a monopoly on key technologies as well as a framework for collusion and the segmentation of markets. Issues of market access involving the operation of business practices and market structures are becoming increasingly important and are giving rise to new commercial frictions, as it is shown in the protracted discussions between Japan and the United States.

In addition, differences across jurisdictions in competition law and its enforcement, as well as in the scope of existing exemptions and derogations, may pose problems of market access and provide local producers with allegedly 'unfair' competitive advantages. This may happen, for instance, when restraints affecting foreign competitors, as well as collusion between domestic firms to exploit foreign markets, remain unchallenged. These situations may turn into international frictions, and trade policy is often called upon to restore 'fair' trading conditions. Often, its existing instruments are not well suited to address competition-related issues. Indeed, trade restrictions of a retaliatory nature create additional distortions without providing an effective solution.

These issues of market access, in both their more 'traditional' forms and newer dimensions relating to domestic regulations and business practices, have in recent years led to heightened friction between countries. In response to domestic pressures, governments may be tempted to target policies to aid local industries. In so doing, they often by-pass the multilateral fora established for the purpose in favour of unilateral or bilateral measures, which seem to produce clearer, or at least quicker, results. Regional agreements have also been viewed with increasing favour as means to achieve deeper integration.[9] But in the light of cross-border linkages in production and marketing processes, these approaches have limited effectiveness. Ultimately, it seems without question that open and non-discriminatory market access for goods, services and investment remains central in ensuring the global competitiveness of firms and to promoting a more efficient allocation of resources and the contestability of markets.

■ ■

The difficulties currently encountered in market access suggest several paths of action. First, the new dimensions of market access should be studied to assess their relative importance in the trade agenda after the Uruguay Round and to determine the best means of tackling real or potential problems. Second, consideration has to be given to the multilateral rules and institutions which will best guarantee open market access and the maximisation of world economic welfare.

The existing range of trade-policy instruments and rules appears ill-equipped to address the new dimensions of market access adequately. A more integrated and horizontal approach across policy areas now appears crucial to both multilateral and domestic policy-making – so that full account can be taken of not only traditional trade and investment issues but also all relevant domestic policies, structural issues and company practices which increasingly affect global competition. ■

9. Nicholas Vanston, 'What Price Regional Integration?', **The OECD Observer**, No. 181, April/May 1993.

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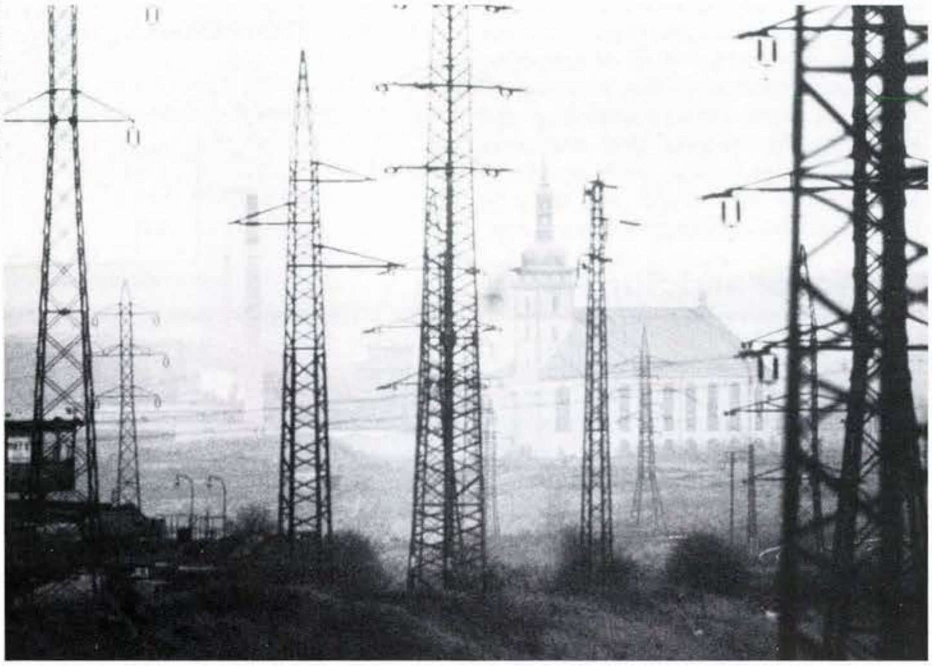
Changing Czech Energy Policy

Jeffrey D. Pierson

Westpool/Sipa Press



The Czech Republic has made considerable headway in its efforts to link its economy more closely to the global energy market. It has begun to implement a major programme of energy-policy reform, including initiatives to reduce the role of the state in commercial energy activities, reverse the forty-year legacy of unchecked pollution and diversify connections to international oil and gas pipelines and electricity networks. But in some areas, the scope and pace of reform – and the policy that guides it – are unclear. Domestic prices for energy, though they have risen considerably since 1989, may not be fully in line with world prices for a few more years yet. The extent to which the government will relinquish ownership control to private (including foreign) investors in state energy companies appears to be undecided. Nor is a regulatory framework defining the role of government, regulators, and utilities in place.[1]

During four decades of communism, Czechoslovakia followed an energy strategy which was fairly typical of the countries of central and eastern Europe. Industrial development, geared toward heavy industry, required unusually large amounts of energy. The economy remained insulated from market forces through major distortions of prices, state control over resource allocation and a marked reliance on trade with CMEA trading partners. With limited domestic energy resources, Czechoslovakia's energy strategy was thus based on low-priced energy imports from the Soviet Union, the development of nuclear power and artificially cheap energy for residential and industrial users.

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The legacy of central planning remains pervasive. The Czech Republic – which came into being when the Czech and Slovak Federal Republic split into its component parts in January 1993 – imports about one-third of its total energy requirements, including nearly all its oil and gas from the former Soviet Union. Energy use is declining but is still very high in relation to industrial output, about 2–3 times higher than in OECD countries.

The Czech Republic has a relatively poor endowment of energy resources. Coal – especially low-grade, high-sulphur lignite – dominates the Czech Republic's domestic energy production (Figure, p. 36). Nuclear power manages to provide about a quarter of electricity supplies but additional safety improvements are required to meet internationally accepted standards. The country has virtually no oil and gas reserves (less than 1% of total consumption), and a limited amount of hydro power (about 6% of electricity generation). Energy production is projected to drop by a quarter by 2000, driven by a rapid decline of the coal market. Some coal mines, not least for surface lignite, may have to be shut down permanently, creating the long-term problem of how best to create practical, alternative employment for 30–40,000 miners.

Energy demand has fallen sharply since 1989, primarily because of indus-

1. **Energy Policies of the Czech Republic – 1994 Survey**, IEA/OECD Publications, Paris, 1994.

trial restructuring and the collapse of CMEA trade, requiring energy products now to be bought and sold on a commercial basis. But in 1995 energy consumption may well grow mainly because of increases in demand for gas and electricity. The pace at which demand recovers depends on a number of factors, including GDP growth, the extent and speed of price decontrols and industrial restructuring, and the ability to introduce energy-efficient technologies.

The most effective method of encouraging energy conservation will be the complete liberalisation of the energy prices paid by both industries and households. The Czech government has introduced various economic incentives to promote energy conservation, including grants, subsidised loans and tax rebates. Adequate means of collecting data and measuring the subsequent impact of these new programmes still have to be developed. Until energy is sold at market prices, such economic and financial instruments are likely to have a limited impact on consumption.

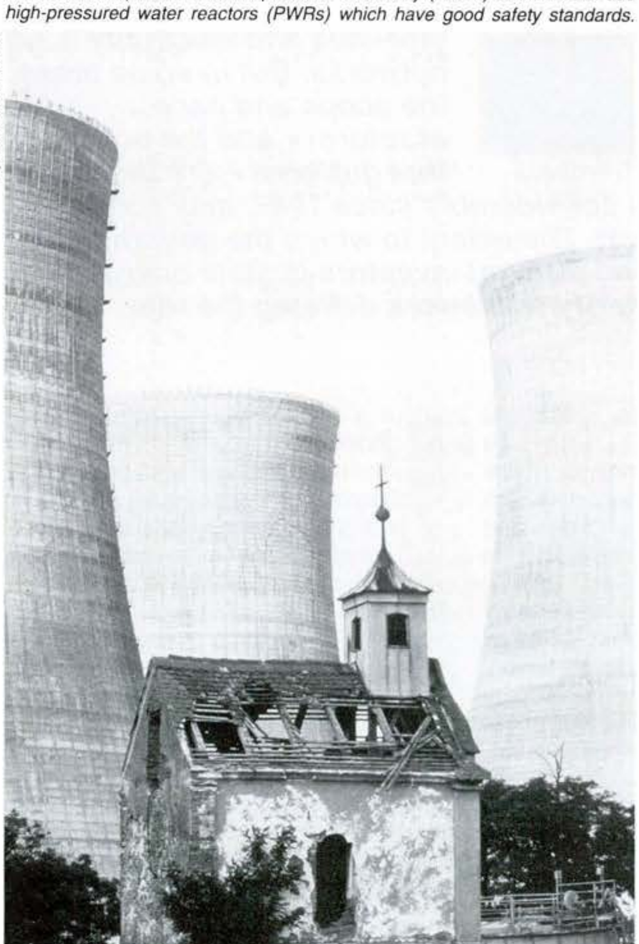
Trade and Supply Diversification

Russia continues to supply the lion's share of the Czech oil and gas imports, and pipeline connections still mostly face east. The closure of the Adria pipeline in September 1991 because of the war in what was Yugoslavia has thwarted efforts to buy oil from sources other than the former Soviet Union, although with the approval of the construction of the Ingolstadt oil pipeline linking two major refineries to German sources of supply, the country's first oil supply line from the West could be established by early 1995.

Located at the crossroads of the main pipeline system delivering Russian gas to western Europe, the Czech Republic will continue to benefit from gas transit arrangements. The only source of Czech gas supply likely to prove competitive with Russia in the near term is Kazakhstan, although deliveries of Kazakh gas will depend on the same pipelines as Russian supplies. Connection of the Czech gas system to the planned 'Europol' pipeline through Belarus and Poland could diversify supply routes but not sources of gas.

The Czech Republic's nuclear plants of Dukovany (below) and Temelin use high-pressured water reactors (PWRs) which have good safety standards.

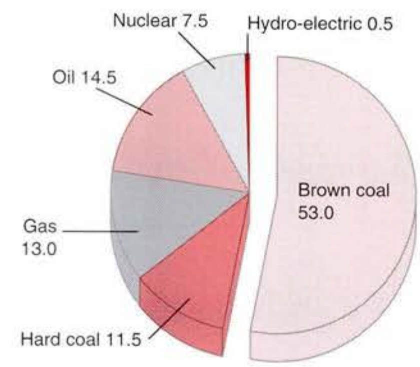
Sherbell/SABA/R.É.A.



Figure

PRIMARY ENERGY SUPPLY IN THE CZECH REPUBLIC, 1993[1]

%



1. Estimates.

Sources: Czech Statistical Office, Ministry of Industry and Trade, IEA estimate

The Politics of Price Reform

Price reform is no doubt one of the most difficult tasks facing the Czech government. Advocating higher prices in what was a centrally planned economy means asking consumers to pay for commodities they previously received free or on a highly subsidised basis. Nonetheless, removing distortions in energy prices, among other things, makes the economy more open, allows businesses to pass on energy costs and helps identify enterprises which are not commercially viable.

Energy prices have been subsidised in order to dampen both their inflationary effects and potential public opposition, especially for households, where fuel and electricity prices are still well below cost. Petrol and diesel have generally reached OECD prices. Industrial consumers are paying somewhat higher prices for coal, fuel oil and natural gas.

Covering production costs – combined with a phasing-out of remaining subsidies – has become increasingly urgent as energy companies are privatised. A clear plan for increasing prices would ensure that energy companies recover higher costs for their fuel, reduce the uncertainty faced by potential investors and send more accurate price signals to consumers.

The government has to work especially hard to eliminate the disparity between residential and industrial energy prices. Those for household gas, electricity and heat remain considerably lower than the prices charged to industrial users, creating major problems in accurate cost-accounting for companies used by the state to supply consumer subsidy. Such 'cross-subsidies' prevent the imposition of financial discipline on gas, power and heat companies and the development of price regulations which reflect the true costs of demand.

Restructuring and Privatisation

Privatisation has gathered considerable momentum. The state still has a majority holding of many of the energy enterprises, although in most cases, shares in these newly formed joint stock companies have been sold to both foreign and domestic investors. It is unclear to what extent the government will stay out of company management and allow private investors to own majority shares. Moreover, it is not yet known how Czech gas and electric utilities will be supervised to protect consumers against monopolistic behaviour and to improve company operations.

The government has to clarify the basic approach envisaged for supervising gas, power and heat companies. In the interest of fairness and openness – and to re-assure potential investors – it should establish the scope and limitations of its powers to intervene in major decisions on tariffs, licensing, investment and management control. Detailed intervention in these kinds of decisions could reintroduce some of the inefficiencies of central planning.

The government also has yet to clarify its position on privatisation in the oil refining and marketing sector, as it has not decided whether to accept any foreign bids to modernise the refineries. At present, the two main refineries (at Litvinov and Kralupy) have joined the state-owned oil distributor Benzina and formed a larger holding company, with a majority share held by the state's National Property Fund. This arrangement, conducted under the banner of privatisation, does not appear likely to break the monopoly maintained by state enterprises on refining, marketing and distribution of gasoline and other oil products.

Another critical issue between government and industry is the reliability of company records and accounting. The Czech energy companies, such as the power company CEZ and the gas company Transgas, have been developing more sophisticated balance-sheets and income-statements. Accurate financial reports in the energy industry are essential to helping Czech banks evaluate loans properly and enabling government decisions on privatisation of state energy companies and supervision of public utilities.

Safer, Less Polluting Power

The government has responded to the challenge of altering its energy mix to produce and use electricity in the safest, least-polluting way it can. The Czech Republic will continue to rely on nuclear power, and the existing Dukovany nuclear plant will be upgraded to meet international standards. The new Temelin nuclear plant will be completed with the help of Western contractors.[2] This new capacity will allow early closure of additional coal-fired power plants in heavily polluted regions. Remaining coal-fired plants will be equipped with emissions controls. The timetable for retiring coal-fired plants might be accelerated if additional, non-nuclear capacity became available through independent power and industrial co-generation projects.

Table

BASIC ENERGY DATA FOR THE CZECH REPUBLIC

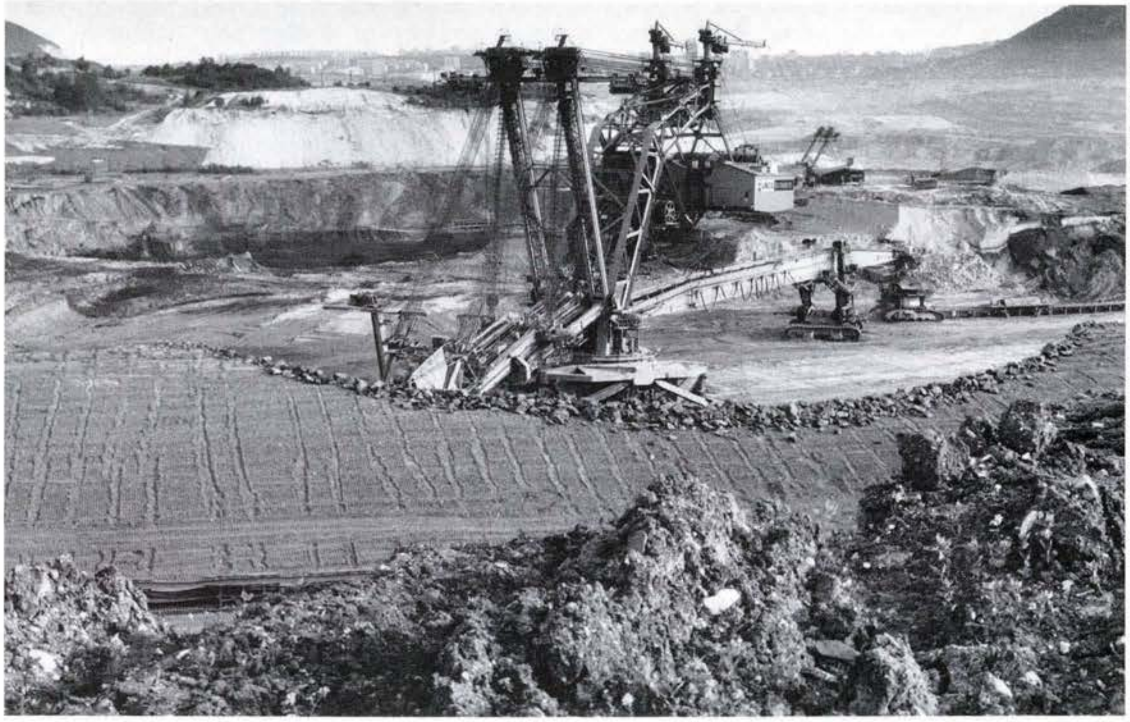
	1989	*1990*	*1991*	*1992*	*1993*[1]	*% Change 1989–93*
Coal (mmt)						
Production	112.1	100.9	96.1	86.5	86.1	-23
Net Exports	14.5	11.5	9.8	11.4	6.8	-53
Consumption	97.5	91.6	86.9	76.9	75.8	-22
Gas (bcm)						
Production	0.2	0.2	0.2	0.2	0.2	..
Imports	6.4	5.9	6.8	6.0	6.9	0.4
Consumption	6.2	6.5	6.2	5.9	6.2	..
Oil (mmt)						
Production	0.05	0.05	0.07	0.08	0.07	1.4
Net Crude Imports	8.7	7.1	6.3	6.6	6.0	-3.1
Refinery Output	7.1	6.6	6.2	6.0	6.0	-25
Product Consumption	9.0	7.9	6.9	7.0	7.0	-22
Electricity (TWh)						
Production	65.1	62.5	60.5	59.1	58.7	-10
Net Exports	2.8	0.7	2.5	3.0	2.1	-25
Consumption	62.4	62.0	58.0	56.1	56.6	-9
Total demand (mtoe)	33.5	31.7	29.2	28.1	27.6	-18.5

1. Preliminary.

Source: Czech Statistical Office, Ministry of Industry and Trade, CEZ, CPP/ Transgas, IEA database

Environmental legislation has been passed to help achieve the targets for improving air-quality and reducing energy-related pollution. Air pollution from coal use is less severe than it was five years ago, but the big gains will materialise in the several years ahead. The burden of meeting stringent new emissions standards under a relatively

2. Unlike the 'Chernobyl-style' graphite-moderated reactors (RBMK) which have been the subject of intense public scrutiny, both Dukovany and Temelin have pressurised water reactors (PWRs) which are common throughout the world and are considered by the International Atomic Energy Agency to have good safety characteristics.



Coal still dominates energy production.

tight schedule will hit hardest those polluters with least ability to pass on the compliance costs (that is, heavy industry and a number of thermal power plants). Adjustments to the regulations for companies that fail to comply with emissions limits are likely.

The sophisticated power system of the Czech Republic is a major supplier of electricity in central Europe. Supplies are more than adequate to meet domestic demand; indeed, the collapse in industrial demand (not least from Slovakia) has created an over-capacity of around 30%. Once the Temelin nuclear plant is in operation, the Czech Republic will not have to expand its power system until sometime at the beginning of the next century. Moreover, synchronous interconnection of the UCPTE (western European) power system with the Hungarian, Polish, Czech and Slovak grids as a group is planned for 1997.[3]

Natural gas will play an increasingly important role in meeting Czech energy demand. Small-scale use of coal in urban areas – which remains a serious health problem – is likely to be phased out and replaced with natural gas. Environmental considerations, too, may drive the conversion of some lignite-fired combined power and heat plants to gas.

District heating companies, whose plants have largely been fuelled by local (brown) coal or lignite, must find the means to meet new, stricter standards on pollution; they also face increasing competition from gas and electricity enterprises. Yet despite the potential substitution of electricity to meet end-user heating requirements, the Czech government will continue using district heating systems – now under predominantly private ownership – to supply heat to urban residents and industries.

■ ■

The evolving energy situation in the Czech Republic will remain important for a number of reasons. Regional energy balances will be affected by the country's future energy requirements and those of its neighbours. The two energy mainstays of the region – heavily polluting, low-quality coal and Soviet-built nuclear power – remain problems of worldwide concern. About a quarter of the gas supply for western Europe from Russia passes through the pipeline in the Czech Republic. And the pace and shape of the restructuring and privatisation of the energy industries is being watched both by governments grappling with their own plans for reform and by potential investors eager for a more open, competitive business environment. ■

3. See Philip Swanson, 'Electricity: East Meets West?', **The OECD Observer**, No. 187, April/May 1994.

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INDICATORS

AUSTRALIA

	1993	1994	1995
Gross Domestic Product	4.1	*4.0*	*4.3*
Consumer Prices [a]	1.9	*1.8*	*2.5*
Unemployment Rate	10.9	*10.0*	*9.2*
Current Balance [b]	–3.8	*–3.9*	*–4.3*

AUSTRIA

	1993	1994	1995
Gross Domestic Product	–0.3	*1.8*	*2.7*
Consumer Prices [a]	3.6	*2.7*	*2.1*
Unemployment Rate	4.2	*4.5*	*4.6*
Current Balance [b]	–0.5	*–0.6*	*–0.6*

BELGIUM

	1993	1994	1995
Gross Domestic Product	–1.3	*1.5*	*2.6*
Consumer Prices [a]	2.8	*2.4*	*2.2*
Unemployment Rate	11.9	*12.8*	*12.7*
Current Balance [b]	4.9	*5.1*	*5.4*

CANADA

	1993	1994	1995
Gross Domestic Product	2.4	*3.7*	*4.3*
Consumer Prices [a]	1.5	*0.7*	*2.1*
Unemployment Rate	11.2	*10.8*	*10.2*
Current Balance [b]	–3.5	*–3.2*	*–2.8*

DENMARK

	1993	1994	1995
Gross Domestic Product	1.2	*4.0*	*3.5*
Consumer Prices [a]	1.5	*2.0*	*2.6*
Unemployment Rate	12.2	*11.0*	*10.5*
Current Balance [b]	3.9	*2.6*	*2.5*

FINLAND

	1993	1994	1995
Gross Domestic Product	–2.6	*1.9*	*4.7*
Consumer Prices [a]	3.7	*1.5*	*2.0*
Unemployment Rate	17.9	*18.5*	*17.7*
Current Balance [b]	–1.2	*3.0*	*3.7*

FRANCE

	1993	1994	1995
Gross Domestic Product	–0.9	*1.8*	*2.9*
Consumer Prices [a]	2.1	*1.7*	*1.4*
Unemployment Rate	11.7	*12.3*	*12.2*
Current Balance [b]	0.9	*1.4*	*1.6*

GERMANY

	1993	1994	1995
Gross Domestic Product	–1.3	*1.8*	*2.6*
Consumer Prices [a]	4.0	*3.1*	*1.9*
Unemployment Rate	8.9	*10.0*	*10.0*
Current Balance [b]	–1.1	*–0.7*	*–0.2*

GREECE

	1993	1994	1995
Gross Domestic Product	–0.1	*1.0*	*1.6*
Consumer Prices [a]	14.0	*10.8*	*9.0*
Unemployment Rate	9.8	*10.7*	*11.0*
Current Balance [b]	–1.0	*–1.3*	*–1.6*

ICELAND

	1993	1994	1995
Gross Domestic Product	0.8	*–0.6*	*1.4*
Consumer Prices [a]	4.9	*1.3*	*0.7*
Unemployment Rate	4.3	*6.0*	*6.2*
Current Balance [b]	0.1	*0.3*	*0.2*

IRELAND

	1993	1994	1995
Gross Domestic Product	2.3	*4.1*	*4.5*
Consumer Prices [a]	1.9	*2.5*	*2.5*
Unemployment Rate	16.6	*15.7*	*15.4*
Current Balance [b]	5.7	*5.5*	*5.7*

ITALY

	1993	1994	1995
Gross Domestic Product	–0.7	*1.5*	*2.6*
Consumer Prices [a]	4.8	*3.9*	*3.0*
Unemployment Rate	10.4	*11.7*	*11.9*
Current Balance [b]	1.3	*2.0*	*2.5*

Notes: Figures in *italics* are OECD projections
Data for Mexico are not yet available
a. Private consumption deflator; b. As % of GDP (GNP for Turkey)

Source: OECD Economic Outlook, No. 55, June 1994;
for further information, contact **The OECD Observer**

INDICATORS

JAPAN

	1993	1994	1995
Gross Domestic Product	0.1	*0.8*	*2.7*
Consumer Prices [a]	1.0	*0.3*	*0.3*
Unemployment Rate	2.5	*2.9*	*2.8*
Current Balance [b]	3.1	*2.8*	*2.5*

LUXEMBOURG

	1993	1994	1995
Gross Domestic Product	0.3	*1.5*	*2.6*
Consumer Prices [a]	3.5	*2.8*	*2.5*
Unemployment Rate	2.1	*2.7*	*2.5*
Current Balance [b]	4.9	*5.1*	*5.4*

NETHERLANDS

	1993	1994	1995
Gross Domestic Product	0.2	*1.4*	*2.8*
Consumer Prices [a]	2.1	*2.1*	*2.0*
Unemployment Rate	8.1	*9.8*	*9.5*
Current Balance [b]	2.8	*3.3*	*3.5*

NEW ZEALAND

	1993	1994	1995
Gross Domestic Product	4.8	*3.9*	*3.5*
Consumer Prices [a]	1.4	*1.0*	*1.8*
Unemployment Rate	9.2	*8.7*	*8.1*
Current Balance [b]	−2.1	*−1.2*	*−0.5*

NORWAY

	1993	1994	1995
Gross Domestic Product	2.2	*4.3*	*2.9*
Consumer Prices [a]	1.9	*1.4*	*1.8*
Unemployment Rate	6.0	*5.6*	*5.2*
Current Balance [b]	2.3	*2.2*	*2.9*

PORTUGAL

	1993	1994	1995
Gross Domestic Product	−0.5	*1.2*	*2.3*
Consumer Prices [a]	6.7	*5.7*	*4.4*
Unemployment Rate	5.5	*6.4*	*6.9*
Current Balance [b]	1.4	*2.2*	*2.1*

SPAIN

	1993	1994	1995
Gross Domestic Product	−1.0	*1.2*	*2.7*
Consumer Prices [a]	5.1	*4.5*	*3.4*
Unemployment Rate	22.7	*24.5*	*24.4*
Current Balance [b]	−0.8	*−0.5*	*−0.8*

SWEDEN

	1993	1994	1995
Gross Domestic Product	−2.1	*2.7*	*2.9*
Consumer Prices [a]	6.1	*2.4*	*3.3*
Unemployment Rate	8.2	*8.0*	*7.8*
Current Balance [b]	−0.2	*2.8*	*4.0*

SWITZERLAND

	1993	1994	1995
Gross Domestic Product	−0.6	*1.5*	*2.5*
Consumer Prices [a]	2.9	*1.0*	*2.5*
Unemployment Rate	4.5	*4.5*	*3.8*
Current Balance [b]	8.0	*7.3*	*6.8*

TURKEY

	1993	1994	1995
Gross National Product	6.8	*0.6*	*4.3*
Consumer Prices [a]	51.9	*106.0*	*82.0*
Unemployment Rate	8.7	*12.6*	*14.0*
Current Balance [b]	−5.5	*−2.3*	*−2.5*

UNITED KINGDOM

	1993	1994	1995
Gross Domestic Product	1.9	*2.8*	*3.2*
Consumer Prices [a]	3.5	*2.9*	*2.9*
Unemployment Rate	10.3	*9.6*	*8.9*
Current Balance [b]	−1.7	*−2.1*	*−2.3*

UNITED STATES

	1993	1994	1995
Gross Domestic Product	3.0	*4.0*	*3.0*
Consumer Prices [a]	2.7	*2.1*	*3.1*
Unemployment Rate	6.8	*6.3*	*5.8*
Current Balance [b]	−1.7	*−2.1*	*−2.1*

Notes: Figures in *italics* are OECD projections
Data for Mexico are not yet available
a. Private consumption deflator; b. As % of GDP (GNP for Turkey)

Source: OECD Economic Outlook, No. 55, June 1994;
for further information, contact **The OECD Observer**

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OECD Documents

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Proceedings of a Workshop held in Costa Rica, 9–11 November 1993
September
The capacity of societies to respond to changing environmental circumstances and to act upon environmental problems is widely recognised as a fundamental principle of sustainable development. OECD countries acknowledge this as a particular area of concern for development co-operation. Since December 1991, they have pursued a programme of work to contribute to enhancing the environmental capacity of developing countries.

A joint workshop was organised with colleagues from developing countries in November 1993, focusing on capacity development in environment as an issue in the larger framework of technical co-operation. The workshop addressed three main questions. What is capacity development in environment? How does it develop? What are the challenges for donors? This report presents the cumulative responses of the workshop participants, and ideas for further action.
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Centre for Educational Research and Innovation (CERI)

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See Martine Safra and Richard Yelland, 'Infrastructure for Rural Schools', **The OECD Observer**, No. 184, October/November 1993.
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Energy

IEA (International Energy Agency)

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October
Extensive reform of the electricity industry is underway worldwide. New, more competitive and often more complicated structures are emerging. The pace of change is so rapid that

it can be difficult to keep up with developments, much less to assess their consequences – yet their implications for electricity, the fastest growing source of energy in the OECD, are profound.

Electricity Supply Industry: Structure Ownership and Regulation examines the evolution of structure, ownership and regulation, analyses the driving forces and discusses the implications for fuel choice and investment, security of supply, energy efficiency, the environment, prices and risk sharing. It also presents a detailed profile of the electricity supply industry in 24 OECD countries.

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ENERGY POLICIES OF IEA COUNTRIES 1993 REVIEW

October

Energy policies in IEA countries and the international energy situation are highlighted in this 1993 edition. It reviews recent trends and developments in energy demand, conservation and efficiency, supply of primary fuels, environment, technology and R&D. This year's Review also gives an overview of significant developments in important policy areas since the IEA's creation, on the occasion of its 20th anniversary.

Member countries' energy policies are reviewed in depth on a four-year cycle. In-depth reviews of the energy policies of Austria, Denmark, Germany, Greece, the United Kingdom and the United States were conducted in 1993; energy-policy developments and trends in supply and demand for the other 17 countries are updated from the previous in-depth reviews and summarised in this volume.

(61 94 18 1) ISBN 92-64-14199-5, 528pp.
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ENERGY POLICIES OF THE CZECH REPUBLIC 1994 SURVEY

October

See pp. 35–38 of this **OECD Observer**.

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October

A major international compilation of energy prices in all markets: import prices, crude oil spot prices, oil product spot prices, industry prices and consumer prices. The statistics cover main petroleum products, gas, coal and electricity, giving for imported products an average price both for importing country and country of origin. Every issue includes full notes on sources and methods and a description of price mechanisms in each country.

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INDUSTRY ATTITUDES TO COMBINED CYCLE CLEAN COAL TECHNOLOGIES
Current Status and Survey

October

This publication points at coal-burning technologies that will improve environmental performance of coal, particularly for those used for power generation. Beyond the evolutions of the well-established steam cycle approach aimed at achieving higher thermal efficiency and lower emissions, other approaches use technologies that are essentially new to the coal-fired generating sector.

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'Energy and Environmental Policy Analysis' Series

BIOFUELS

September

Transport fuels from crops seem to be an elegant solution to several problems: the growing surplus of agricultural products in OECD countries; the dependence of the transport sector on petroleum-derived liquid fuels; the anticipated rise in energy use and hence greenhouse-gas emissions.

This new IEA report gives a thorough analysis of the costs, energy use and greenhouse-gas emissions involved in producing and using ethanol from maize, wheat and sugarbeet, biodiesel from rapeseed oil and methanol from wood. It compares these options with generating electricity from wood. Assumptions and methodology are clearly presented so that readers can draw their own conclusions.

See Laurie Michaelis, 'The Real Costs of Liquid Biofuels', **The OECD Observer**, No. 190, October/November 1994.

(61 94 26 1) ISBN 92-64-14233-9, 80pp.
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NATURAL GAS TECHNOLOGIES: ENERGY SECURITY, ENVIRONMENT AND ECONOMIC DEVELOPMENT
Proceedings

October

Natural gas, with its current economic and environmental advantages, has the potential to meet much of the growth in demand for primary energy in OECD countries towards the turn of the century and beyond. To realise this potential, new and improved technologies have to be developed and applied along the entire natural-gas chain, from exploration and supply, to conversion and use in the power-generation, industrial, domestic, commercial and transport sectors.

These conference proceedings contain an extensive assessment of the status of technology and trends for future progress. An up-to-date presentation is given of natural-gas technology and R&D projects, of measures for overcoming barriers to effective deployment of technology into the market, while opportunities and means are suggested for enhanced international programme co-ordination and new collaboration.

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STOCKDRAW AND EMERGENCY RESPONSE POLICIES AND MANAGEMENT
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October

Emergency stocks are a vital element in the IEA emergency response. In its recent history, the 2.5 million b/d IEA Contingency Plan during the Gulf crisis of 1990–91 demonstrated their effectiveness and importance. Maintaining emergency stocks and member countries' stockholding and stockdraw policy are a central element in IEA emergency response. As IEA net oil imports – notably from the Middle East – rise inexorably, issues of oil-supply security will demand increasing attention from IEA countries.

Reflecting these concerns, the IEA Workshop on Stockdraw and Emergency Response Policies and Management was held in February 1994, in Kagoshima, Japan, co-sponsored by the International Energy Agency, the Government of Japan and Japan National Oil Corporation. Some 150 government, stockholding agency and industry experts participated to discuss current issues in technical, management and policy aspects of emergency stockholding operations as well as future challenges.

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NEA (Nuclear Energy Agency)

NUCLEAR SAFETY RESEARCH IN OECD COUNTRIES

October

The international nuclear safety community shares a range of specific safety concerns, and continuing research is necessary to address many of them. In this report, senior experts review the safety research currently being performed and set down their views on likely future requirements and priorities. They have identified a number of research topics of outstanding importance to which priority should be given.

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IN SITU EXPERIMENTS AT THE STRIPA MINE
Proceedings of the Fourth International NEA/SKB Symposium Stockholm, Sweden 14–16 October 1992
OECD Nuclear Energy Agency (NEA) and Swedish Nuclear Fuel and Waste Management Company (SKB)

September

The International Stripa Project was launched in 1980 under the auspices of the OECD Nuclear Energy Agency at the disused Stripa iron-ore mine in Sweden to study the ability of crystalline rock to isolate radioactive waste. The project is now completed and the final symposium was held on 14–16 October 1992 in Stockholm. These are the fourth and final proceedings from a series of symposia held to review progress in the three main areas covered by the Project: the development and improvement of site-assessment methods and concepts; characterisation of the Stripa granite and validation of concepts for groundwater flow and radionuclide transport through fractures;

and techniques and materials for the engineered sealing of possible groundwater flow paths through crystalline rock.
(66 94 02 1) ISBN 92-64-14225-8, 468pp.
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OECD Documents

POWER GENERATION CHOICES: COSTS, RISKS AND EXTERNALITIES
Proceedings of an International Symposium, Washington (USA) 23–24 September 1993

September

Power generation choices depend on the costs, risks and externalities associated with the technologies under consideration. These proceedings present a comprehensive review of the total cost of electricity generating technologies, with particular emphasis on nuclear power.

Some papers concentrate on the political, economical and social aspects of power-generation choices in a number of OECD countries (Canada, France, Germany, Italy, Japan, Sweden, Switzerland, the United Kingdom and the United States). Others present the state of the art in economic analysis from a perspective of total cost within a pragmatic decision-making context, including environmental and health issues, trade, security of supply, risks related to public acceptance, as well as the criteria to be used in economic comparisons. Safety issues, as well as macro-economic and strategic considerations – have also become part of the decision-making process in technology choices.
(66 94 08 1) ISBN 92-64-14236-3, 410pp.
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CLEAN AND EFFICIENT USE OF COAL AND LIGNITE
Proceedings

October

Energy and electricity demand in the Asia-Pacific region shows an extraordinary growth rate which is expected to continue towards the turn of the century and beyond. Coal and lignite resources are available in several countries and represent a major energy option.

Environmental consequences can be a limiting factor unless clean and efficient coal and lignite production and conversion technology is developed and deployed into the market. To face such a challenge, practical measures are urgently required. These proceedings contain detailed proposals for promoting coal technology progress while reducing environmental impacts. Specialised papers cover all the technology aspect of the coal and lignite use chain.
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The quality of the environment and the sustainable management of natural resources is a national and international policy issue. Policy-makers have traditionally relied on regulatory instruments, such as regulations and standards, in environmental and resource management. Currently, intensified interest exists worldwide in applying economic, or market-based, instruments to environmental policies, often in conjunction with regulatory instruments.

The papers in this volume review experiences in OECD countries and in several Asian and Latin American economies in implementing economic and other policy instruments to address environmental and resource management issues.
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Investment Guides

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September

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CCET (Centre for Co-operation with Economies in Transition)

ASSESSING INVESTMENT OPPORTUNITIES IN ECONOMIES IN TRANSITION

October

High-level officials from the OECD, central and eastern European countries (CEEC) and the New Independent States (NIS) of the former Soviet Union met in Warsaw in July 1993 to discuss investment patterns of companies based in OECD countries that have already invested in, or have demonstrated a serious interest in investing in the CEEC/NIS region. They evaluated the investment climate in CEECs and the NIS and identified the major barriers to investment, both real and perceived. Concrete steps were recommended to improve the investment climate. The case studies presented at the meeting and a summary of the proceedings are also included in this publication.
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Industry, Science and Technology

INFORMATION TECHNOLOGY OUTLOOK 1994

October

The **Information Technology Outlook 1994** is a general compilation of internationally comparable data and commentary on the information-technology (IT) sector, concentrating on the OECD countries. Using data from both private sector and government sources, this publication reviews the most recent developments in the markets for hardware, software and computer services as well as the underlying trends of the 1980s and the role played by the IT-producing sector in the production, investment, international trade and R&D of OECD countries. It also examines national support programmes for IT development, patents and standardisation, as well as legal provisions for information systems security and privacy protection.
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CCET (Centre for Co-operation with Economies in Transition)

SCIENCE, TECHNOLOGY AND INNOVATION POLICIES FEDERATION OF RUSSIA Volume II: Background Report

October
This volume completes the **Evaluation Report** published at the beginning of 1994.
See Jean-Eric Aubert, 'Science in Russia: Implosion and Rebirth?', **The OECD Observer**, No. 186, February/March 1994.
(14 94 12 1) ISBN 92-64-14239-8, 260pp.
France: FF140; elsewhere: FF180 US$35 DM55

Labour Market and Social Issues

The OECD Jobs Study

THE OECD JOBS STUDY EVIDENCE AND EXPLANATIONS PART I: Labour Market Trends and Underlying Forces of Change PART II: The Adjustment Potential of the Labour Market

October
This book follows an initial overview report, **The OECD Jobs Study: Facts, Analysis, Strategies**, which sets out the facts that depict today's unemployment, analyses the fundamental factors that produced it and recommends strategies to foster job-creation and prepare people for the new jobs.

This companion report provides the detailed empirical and analytical underpinning to that overview. It looks at labour markets and analyses how unemployment has been affected by factors such as macro-economic management, competition from low-wage countries, faster technological change and slow adjustment to new jobs and skills.

The OECD Jobs Study: Evidence and Explanations pursues the finding that much unemployment is the unfortunate result of the failure of societies to adapt to a world of rapid change and intensified global competition. Rules and regulations, practices and policies and institutions designed for an earlier era have resulted in labour markets that are too inflexible today. It explores how policy can better address wage formation; active rather than passive approaches to getting people back into jobs; improving skills and competences; design and management of unemployment benefit systems; and taxation.
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See Barrie Stevens, 'The Social Fabric under Pressure', **The OECD Observer**, No. 189, August/September 1994.
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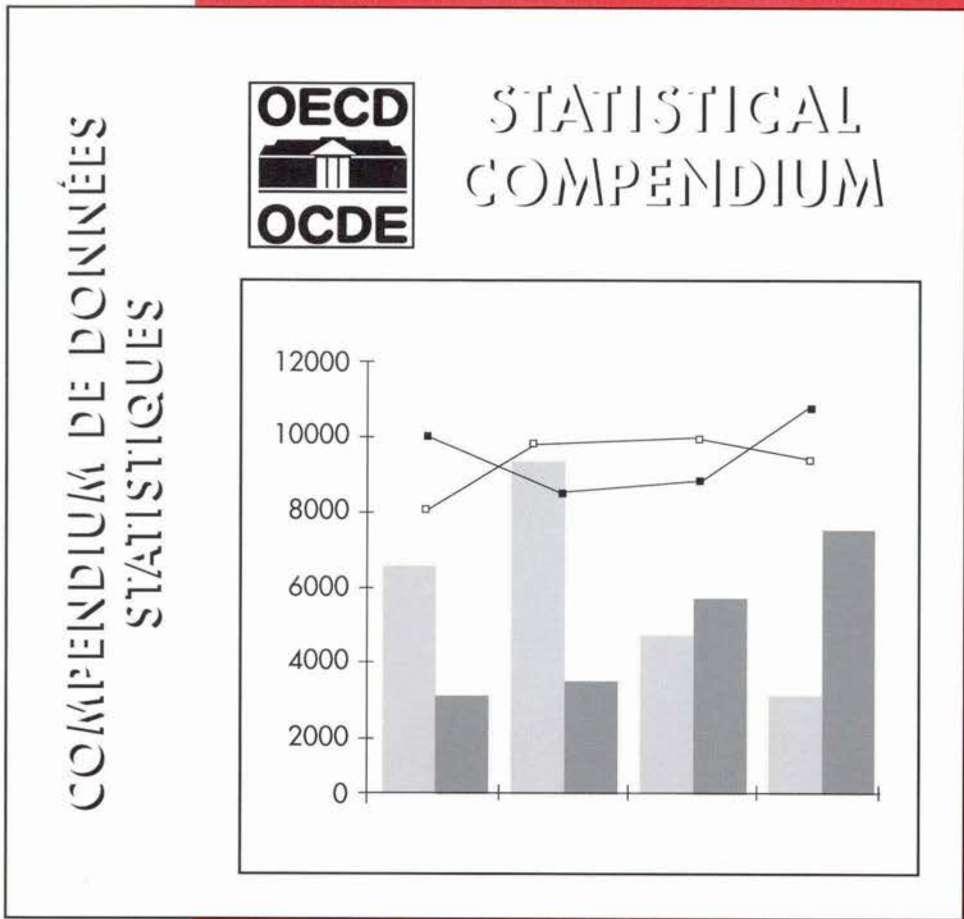

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