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THE CHALLENGE OF CHANGE

by Pierre Vinde,
Deputy Secretary-General, OECD

The OECD area's potential for economic growth seems greater now than at any time in the recent past, yet OECD economies are failing to make good that promise. Rigidities which have built up gradually in the decades since World War II make good economic performance increasingly difficult to achieve and to sustain. Governments now face the challenge of eliminating structural imbalances in many key sectors of their economies if a return to high and durable growth is to be obtained.¹

Structural impediments to growth are not a new phenomenon. Indeed, they appear to have been an important factor in the very poor economic performance of the years between the two world wars. During the late 1920s and the 1930s, international trade was virtually stifled by the protectionist policies of industrialized countries. The trade barriers erected after the first World War were subsequently reinforced and expanded, so that by the eve of the second World War the ratio of international trade to world output had been halved from its previous peak. And much of the trade that did take place was governed by state-to-state agreements.

Government protectionism encouraged the general cartelization of domestic and international industry. In most European countries and Japan, domestic cartels controlled markets for products ranging from cigarettes to coal, and effective international cartels operated in many world markets. International capital flows were also subject to a tightening web of private and public controls, so that foreign direct investment, a key vehicle for technology transfer and new competition, declined from 4-5 per cent of total world investment at the turn of the century to well

1. *Structural Adjustment and Economic Performance*, OECD, to be published.

The articles that follow were written by members of the OECD's Structural Adjustment Task Force.



under 1 per cent on the eve of World War II. Together, these restrictions in product and factor markets drastically curtailed productivity, making the vicious spiral of slow growth and rising unemployment all the more resilient.

Sources of Sustained Growth

A number of these barriers were swept away in post-war reconstruction. By the late 1950s many trade restrictions had been removed, with most quantitative limits abolished and tariffs reduced by around 10 percentage points on average. The formation of the European Economic Community, which in time became the world's largest common market, gave a further impetus to the free trade movement. The liberalization process extended to capital movements, too, as controls over foreign direct investment were eased considerably. The move to freer trade heralded the demise of domestic cartels, reinforced by the adoption of more active competition policies in many countries.

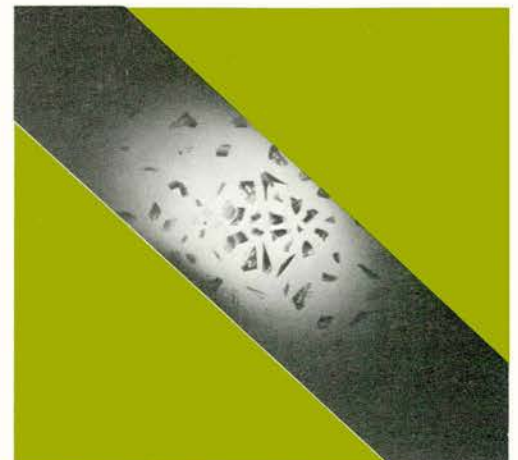
The exposure to competition forced both product and factor markets to adapt to changing conditions, underpinning a more than doubling of productivity growth rates. Sustained growth made continuing adjustment easier: low unemployment meant the workforce was more prepared to accept technological and organizational change as well as the redeployment of labour; buoyant demand and the international dimension of many markets encouraged investment in new plant and equipment; all of which further increased productivity, creating scope for wages and living standards to rise without eroding industry's capacity to invest.

By the end of the 1960s, however, increasing strains appeared. Volatile and internationally inconsistent macro-economic policies aggravated inflationary pressures and produced stop-go cycles in the management of aggregate demand. The result was to blur market signals and make steady growth in capital formation more difficult to sustain. In Europe in particular, the late 1960s opened a gap between wage trends and economies' capacity to pay and created new rigidities in the management of labour on the shop floor. Increasing concern about the "social" costs of growth confused public perceptions of the mounting difficulties — allowing the constraints to become tighter and tighter before remedial action was even seen to be necessary.

The External Shocks

The first oil shock in 1973-74 came on top of this legacy, starting a chain reaction which industrialized countries have still not managed to halt. The immediate oil shortage itself was only a minor and shortlived brake on growth, but the price effects were far greater and more lasting. Inflationary pressures strengthened and most countries ran into balance-of-payments problems as the deterioration in the industrialized world's terms of trade reduced real national income.

Experience led governments to react more quickly and drastically to the second oil shock. Fearing a renewed boost to the wage-price spiral, they adopted less accom-



modating monetary policies. While these succeeded in containing inflation and reduced the margin between actual wage increases and the rate of productivity growth, there was a high price to pay in terms of lost jobs and foregone output, especially in Europe.

Why has the price been so high? In part it is because the external shocks themselves undermined the efficiency of markets and eroded their capacity to effectively deploy and redeploy resources.

The combination of high inflation and low real interest rates distorted financial markets by encouraging the creation of new financial instruments designed to provide a hedge against unexpected increases in price levels. Persistent inflation obscured shifts in relative prices and drained company accounts of much of their meaning — making it all the more difficult for industry to adjust. At the same time, rising unemployment left the labour market less responsive as workers became more reluctant to leave their current jobs in order to seek others, reducing labour mobility and exacerbating the adjustment problems of industries and regions in difficulty. Last but not least, public spending continued on an upward path, fuelled by the demand for steadily growing entitlements; but the slowdown in economic activity almost automatically widened the gap between these trends in public spending and the levels of government revenue and expenditure appropriate to the new macroeconomic circumstances.

But the high price paid after the second oil shock also reflected the way governments responded to changing circumstances. Particularly in the microeconomic area, government policies did nothing to alleviate the impact of the deteriorating economic context on the efficiency and responsiveness of markets. All too often, short-term problems dominated policymaking; and the search for immediate solutions masked the need for longer-term adjustment of product and factor markets.

A Programme of Reform

By the beginning of the 1980s, therefore, the industrial economies faced adjustment problems which made slow growth and high unemployment persistent. Dealing with these problems requires economic reform across a broad range of areas. But while many governments have sought systematically to review their microeconomic policies and improve the functioning of markets, progress to date has been uneven and further determined action is needed if prospects for sustained growth are to be significantly improved.

To begin with, measures must be adopted to allow the full play of competition in product markets — in agriculture, the whole gamut of manufacturing industry, and in services.

OECD countries' agricultural policies are quite simply unsustainable (p. 9). Subsidies and protectionist measures adopted at a high and rising cost to consumers, have encouraged massive overproduction, much of it dumped at artificially low prices in the few international markets which remain open to competition. These problems cannot be solved unless agriculture is exposed to market forces, although continued income support may well be justified to



assist poorer farmers, especially those in regionally, environmentally or strategically important areas.

Industrial policies (p. 12) have often hindered adjustment in smokestack industries and other sectors under threat from growing international competition. Direct and indirect assistance to textiles, shipbuilding and steel as well as to energy-intensive industries like base chemicals, non-ferrous metals and transport have imposed a heavy burden on consumers and taxpayers without rendering these sectors necessarily more viable. At the same time, the results of policies aimed at promoting high-technology industries have often been disappointing, especially when they have attempted to artificially "create" comparative advantage in sectors considered strategic (frequently resulting in excessive concentration of technological capability in areas catering for public sector needs at the expense of others). A shift to more neutral industrial policies, based on creating a favourable environment for industrial activity, would better serve broader economic goals.

Ultimately, the most effective means of maximizing efficiency and stimulating adaptation to change is to expose domestic industry to international competition (p. 15). Liberal trade is more than a device for reallocating economic resources; it is the key to securing the consumer interest in an efficient and high-income economy that provides all goods and services on the best terms. The scope for improving living standards through international trade is likely to increase in the future and large unexploited gains remain to be derived from further economic integration. It is in the vital interest of OECD members and developing countries alike to strengthen and extend the multilateral trading system and to reverse the protectionist tendencies of recent years.

If a return to steady, job-creating growth is to be achieved, the efficiency of factor markets must also be enhanced – ensuring that resources are not only employed to the best purpose in existing uses, but also diverted into new opportunities as these arise. Governments have a continuing role to play in improving the responsiveness and resilience of financial markets, notably by adapting prudential supervision procedures to the realities of the international market-place.

As far as labour markets are concerned (p. 19), institutional reform of collective bargaining procedures may be needed to ensure that the wage-setting process does not compromise the growth of output and employment; policies are required to facilitate the movement of human resources towards high growth activities. Education and training systems will also have to be adapted (p. 22) to ensure a broad diffusion of knowledge and skills – the key to economic and social change.

Finally, the efficiency and effectiveness of the public sector itself will have to improve (p. 28) if economies are to achieve the greatest possible gains in performance from more open and responsive product and factor markets. This will entail reviewing the ways in which the public sector operates, especially in its regulatory functions. Regulations may need to be relaxed or radically altered where they constrict needed economic flexibility. At the same time, governments' basic responsibility for protecting health, safety and the environment must not be



relinquished. Social policies will also need to be brought into line with demographic and economic trends, and new ways will have to be found of meeting social objectives while limiting the growing burden of health services and pension payments.

These changes on the expenditure side should be accompanied by measures to reduce the distortionary consequences of taxation (p. 32) – by broadening the tax base and cutting marginal tax rates when too high, rationalizing the interactive effects of taxation and welfare entitlements, shifting, where appropriate, from income to consumption taxes, and exploiting opportunities to reduce tax burdens overall.

Achieving Change

These reforms are not designed just to attain goals of economic efficiency. They also comply with generally shared principles of fairness and will serve to promote greater equity and social progress. Many of the policies implemented in recent years are fundamentally unfair, in that they transfer the costs of change from those with jobs to those without, for instance, or place the greatest burden of taxation on those who have few opportunities to evade. Moreover, history has proved time and again that inequities are eliminated, or at least diminished, most rapidly and the negative effects of adjustment most readily alleviated in economies capable of sustained, non-inflationary growth. Economic and social goals are therefore the complementary keys of a strategy of reform.

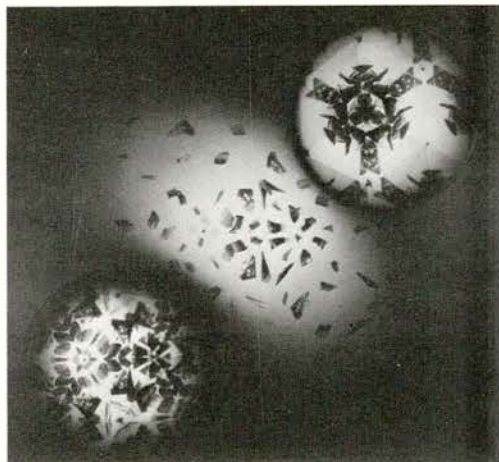
There are two essential conditions if reform is to be implemented and these goals achieved.

First, a bold approach to reforming microeconomic policy is needed, an approach based on a willingness to take determined action across a broad spectrum of issues. Transparency in the process of reform and continued social dialogue about policy initiatives will help capture the public imagination and provide the motivation to take full advantage of the possibilities that change opens up.

Secondly, the international dimension is of paramount importance in the conception and implementation of economic reform. An open and effective international economic system is vital for domestic microeconomic policies to succeed. Cooperative action can not only create an international environment conducive to expansion, but also help each country in mobilizing domestic pressure for change.



The last decade has been a period of disappointments. The economic promise of the late 1960s and early 1970s has given way to persistently slow growth and high unemployment. Today, the objective conditions for better performance are there. But exploiting this potential will require a willingness to tackle the complex and far-reaching problems of microeconomic reform; for unless those problems are solved, a return to sustained economic growth is unlikely and the gap between outcomes and the legitimate expectations of OECD communities will remain unacceptably large. ■



Cutting a Swath Through Farm Subsidies and Surpluses

OECD countries' agricultural policies, consisting mainly of price and income support, have boosted supply well beyond demand in many markets and have required taxpayers and consumers to finance heavier and heavier subsidies to the farming industry. More market-oriented policies are called for if the sector is not to collapse under the weight of its own surpluses and is to adjust to a more rational mode of economic behaviour.

While government intervention in agriculture is not a 20th century phenomenon, dating back as it does to the second half of the last century, the farm policies pursued by most OECD countries today were fashioned during the world depression of the 1930s. But the general economic environment and the responsiveness of agricultural markets and the farming industry have improved considerably over the past 50 years. As a result, there is less need for governments to substitute state controls for market forces.

The cost of agricultural policy has shot up astronomically, both for the taxpayer and for the consumer (see table). Policy priorities have shifted away from balancing supply and demand towards maintaining farmers' incomes, with the result that price stabilization schemes have run up increasingly large losses instead of being self-financing.

In most OECD countries now, price and income support absorbs fully two thirds of total government spending on agriculture, and that estimate does not take account of either tax concessions to farmers or the cost to consumers through the higher prices they have to pay. Figures for the 1979-1981 period show that OECD consumers and taxpayers together spent an average amount equivalent to 68 per cent of the sector's value added on agricultural policies, with the percentage rather greater in the EEC and Japan. That was a lot more than 10 years earlier, and the figure has certainly increased considerably since then.

term since the one thing they have achieved is an excessive surge in output. That has forced governments to accumulate ever larger stocks of surplus products and has driven prices down in the international market-place.

Price and income supports encourage the most productive farmers to increase production, while less efficient producers still earn enough to remain in the industry. The gap between the most and least efficient farmers is growing with productivity rising by 1.6 to 2 per cent a year as technical progress has induced the substitution of machinery and other inputs for labour.

The industry has become increasingly concentrated, therefore, as the biggest farmers account for an ever growing proportion of output and income. Hence, while margins vary enormously and many producers operate at a loss, the bulk of output

is produced at an economic profit. In the United States, for instance, 60 per cent of all farms recorded a loss in the 1980-82 period, but 94 per cent of total farm output was produced by the 40 per cent that made a profit. Hence, even at prices that are below cost for the majority of producers, the biggest and most profitable farmers still have an incentive to maximize production.

A major consequence of price and income support policies is to raise the value of land, as part of the funds poured into the industry were capitalized into land values. In the United States, it is estimated that about half the transfers to the farming sector have been absorbed through such increases, and the proportion may be higher in the EEC.

Rising land prices do not, of course, discourage increases in output especially when these come from higher yields.

COST OF AGRICULTURAL POLICY – SOME INDICATORS
Average 1979-1980-1981

	Cost (billion ECU)	ECU/ha	ECU/ per holding	ECU/per agric. worker	Compared with			EUC/per capita
					GDP %	GVA %	FVAP %	
United States	26.2	61.3	10,810	7,453	1.3	42.1	22.1	115
Canada	2.5	35.9	10,248	4,203	1.2	42.6	23.7	103
Australia	0.6	1.3	3,708	1,558	0.5	9.2	6.1	43
New-Zealand	0.2	17.0	3,458	1,778	1.4	13.7	8.5	79
Japan	23.8	4,361.5	5,110	4,090	2.9	104.3	57.6	204
Austria	1.4	384.2	4,584	4,786	2.6	60.4	39.9	188
EEC	56.5	613.4	11,437	7,465	2.8	93.2	49.9	208

GDP = Gross domestic product at market prices.

GVA = Gross value added by agriculture at market prices.

FVAP = Final value of agricultural production.

Note: The cost of agricultural policies is defined as the sum of public budgetary expenditures on agriculture (the "taxpayer costs") and of the subsidies to production financed by consumers (the "consumer costs"). For details, see report.

Sources: OECD Secretariat estimates.

Basic statistics: OECD, National Accounts; Labour Force Statistics; unpublished data on agricultural accounts; FAO, Production Yearbook, 1983; EEC, The Agricultural Situation in the Community, 1984.

Growing Concentration

Not only are OECD farming policies highly costly, they are also counter-productive except in the literal sense of the

Increasing support prices in the late 1970s and early 1980s prompted even faster growth in the output of some products, such as milk in the United States. Reversing that process is not easy; if productivity growth is fast enough, even absolute reductions in support prices will not curb output growth. In the EEC, for instance, milk prices were actually cut by 1.5 per cent a year from 1975 to 1981. But as productivity in dairy production rose at an annual rate of 2 per cent, the real returns to dairy producers continued to increase with the income of the most efficient ones rising the most rapidly. So overall output continued to grow at over 1 per cent a year.

Policies for Curbing Production

The net effect of support prices has been to keep supply growing faster than demand, since the trend annual growth rate in the OECD's demand for agricultural products is only about 0.5 per cent. In the past two or three decades, gross agricultural productivity has risen by some 4 per cent a year, while employment in the sector has declined by an annual 2 per cent, resulting in a trend annual growth rate of output of 2 per cent. For that output to be absorbed, prices would have to have fallen in real terms by 6 per cent a year; in fact they fell on average by about 2 per cent.

The goal of domestic self-sufficiency that many countries set for themselves has thus been grossly over-achieved in many product categories, leading governments to restrict imports as well as to accumulate stocks that far exceed those needed for the normal functioning of markets. The enormous cost of subsidizing production and storing surpluses has not even contributed to an appreciable improvement in the welfare of farming communities. Income and wealth disparities have if anything widened, with big farmers getting wealthier and small producers' share of after-tax income declining in many countries. That has been accompanied by an increasingly unequal regional distribution of farm incomes, especially in the EEC where substantial disparities subsist both within and between countries.

Faced with the failure of their policies and the mounting imbalances in the supply and demand of many commodities, governments have sought to reduce agricultural output while retaining the broad structure of price supports. The means they have used range from reducing production capacity and imposing production and marketing quotas to introducing multiple pricing systems providing for guaranteed

prices to fall once production exceeds a given threshold.

Acreage Retirement Programmes

Whilst these are one of the most widely used methods for controlling output in OECD countries, and have been a feature of U.S. farm policy for the best part of 50 years, they have been largely ineffective and have not significantly restrained the volume of agricultural production. Within a regime of high support prices, such programmes do not override the incentives for efficient farmers to produce more. Only the least productive land is retired and the farmer is free to cultivate his remaining acres more intensively.

Production Quotas

These have proved relatively effective, on the other hand, so long as they are rigorously enforced. Output growth has been curbed, but only at a high cost to the consumer since price levels tend to remain above those that would normally clear the market. Moreover, quotas introduce cer-

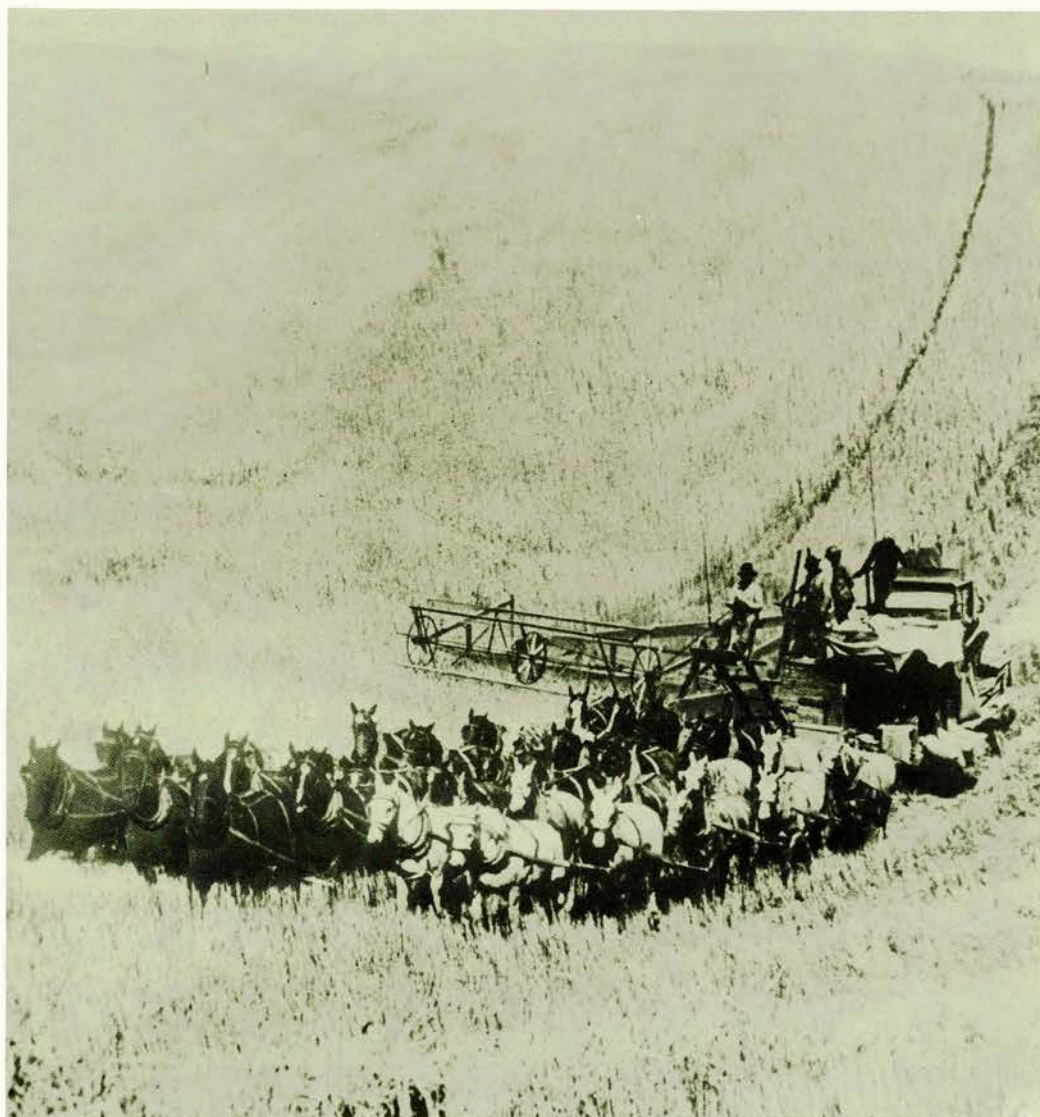
tain rigidities that discourage structural adjustment, even when quota rights can be bought and sold. It is once again the biggest and most profitable producers that benefit, since these rights are bid up in line with support prices so they offer the greatest gains to producers with the highest margins.

Multi-Part Pricing Systems

The shortcomings of other measures have aroused increasing interest in these devices. Examples include the EEC's "co-responsibility levies" on milk products introduced in 1977 and the more recent "super-levy" scheme, also for dairy products, that came into effect in 1984. Neither of these schemes has significantly curbed the growth in EEC dairy production, however.

Yet again, these schemes embody a fundamental flaw insofar as the prices offered to producers are still an incentive to maximize output. With support prices very high relative to the level that would clear the market, the marginal reductions, once the output threshold is reached, have been

A combined harvester in the United States at the time of the great world economic depression of the 1930s, the period when OECD countries' agricultural policies were largely formulated.



insufficient even to prevent the level of EEC dairy stocks from rising. While the scheme imposes upon producers that exceed their quotas a tax equivalent to the support price (which would theoretically remove any incentive to over-produce), in reality, as a result of various exemptions, the tax usually amounts to about 30 per cent of the support price. Hence, producers can market an unlimited additional quantity of milk at 70 per cent of support prices, which still enables efficient farmers to make a profit. As a result, in the 12 months to March 1986, EEC butter production rose by 10 per cent and milk powder production was up 20 per cent, while stocks of both commodities increased at an even faster rate.

Adjusting to a Freer Market

The magnitude of the OECD's agricultural imbalances is such that none of these measures is likely to be effective, especially as they entail hefty administrative costs

and are open to fraud. The gap between the objectives and outcomes of government policies is indicative of the problems involved in trying to substitute centralized control for market forces. Prices determined by the political process stand little chance of balancing supply and demand in any market. In the case of agriculture, moreover, government policies may be doubly misguided since the modern farmers that benefit most from them need neither subsidies nor probably protection against market forces.

Although agriculture has become more vulnerable to macroeconomic forces, its internal workings have become inherently less unstable. Farmers can react more quickly to changing circumstances than they used to, so that market forces could correct rather than amplify imbalances if they were allowed to operate. Furthermore, farmers are now more capable of dealing with whatever endogenous instability remains. That is partly because the main farming units are relatively large and have a strong financial base; but it is also because of the emergence of an increas-

ingly integrated agro-food chain, in which processors and producers alike have an interest in stability and predictability. Finally, farmers now have the possibility of using the financial markets to help them pool, spread and diversify their risk through the development of options and future markets.

It would be complicated, and possibly very expensive, to compensate farmers directly for income losses arising from the liberalization of markets. Income support might be necessary in certain cases, e.g. to maintain farming activities for regional, environmental or security reasons. A more viable general approach would be to *gradually* phase out all price supports and to introduce some *immediate* changes that would reduce distortions in terms of production incentives. One essential prerequisite of a gradual transition is a firm and credible timetable with sound political commitment in the face of special pleading.

An international approach to the problems of the agricultural sector would also have substantial economic advantages. The changes in world trade patterns brought about by a coordinated strategy would minimize the adjustment burden on any single producing country and would maximize the gains for the world economy as a whole.

The primary requirement of any immediate policy initiatives is that they be consistent with the medium-term reorientation of agricultural policies both domestically and internationally. They should also comply with certain criteria to ensure they are balanced and effective:

- Firstly, no overhang from previous policies should be allowed to distort the future operation of agricultural markets.
- Secondly, to prevent a recurrence of surpluses in industrialized countries, agricultural output must be reduced; but it must be reduced first and foremost in those OECD countries where costs of production are highest.
- Thirdly, if imbalances are to be reduced on a lasting basis, then domestic support prices must be brought progressively into line with world market prices. Cuts in output do not have to be brought about solely by reducing guaranteed prices, but no efforts to limit production are likely to work so long as prices provide a continuing incentive to over-production.

Moves in these directions would create a favourable context for reforming agricultural policies, and reform is essential because current policies are basically unsustainable. Their high costs clearly exceed their biased benefits and they are an aberration in economies whose other industries have to cope with the realities of the market-place and international competition. ■

It is the consumer that mainly finances agricultural subsidies by having to pay higher prices for the end product.



Adapting Industrial Supply to Changing Demand

by Jean Guinet

Some 15 years ago the world economy entered a period of instability. Hardest hit was manufacturing industry, which has been in constant transformation on an unprecedented scale since the early 1970s.

The need to adjust industrial structures was engendered by a number of developments — the oil shocks, the slowdown in growth, progressive market saturation in the case of certain traditional industries, fiercer international competition and the changing competitive climate resulting from the emergence of the newly industrializing countries (NICs), the advent of new technologies, the development of manufacturing-related services and, more generally, increased interdependence and uncertainty.

Against that background, industrial firms were obliged to reconsider their product range, production technology, geographical location and marketing strategies.

Government Steps In

The economies of OECD countries have gone through three phases since the end of World War II. The reconstruction period in Europe and Japan was followed by one of strong growth, mainly generated by the expansion of international trade; the current structural adjustment phase began before the 1973 oil shock when the first signs of overcapacity in a number of highly capital-intensive sectors appeared.

But the industrial adjustment which thus became necessary created or accentuated disequilibria in economic and social structures, which in turn implied a need for further adjustment. These disequilibria concerned employment (loss of jobs, changes in skills and training needs), regional imbalances (geographical concentration of crisis industries), the social system and current account imbalances.

In response to these upheavals, governments initially stepped up their assistance

and direct intervention. State subsidies proliferated (government aid to industry as a percentage of industrial value-added more than doubled between 1973 and 1983) and trade barriers multiplied (import quotas, voluntary restraint agreements, complex certification procedures).

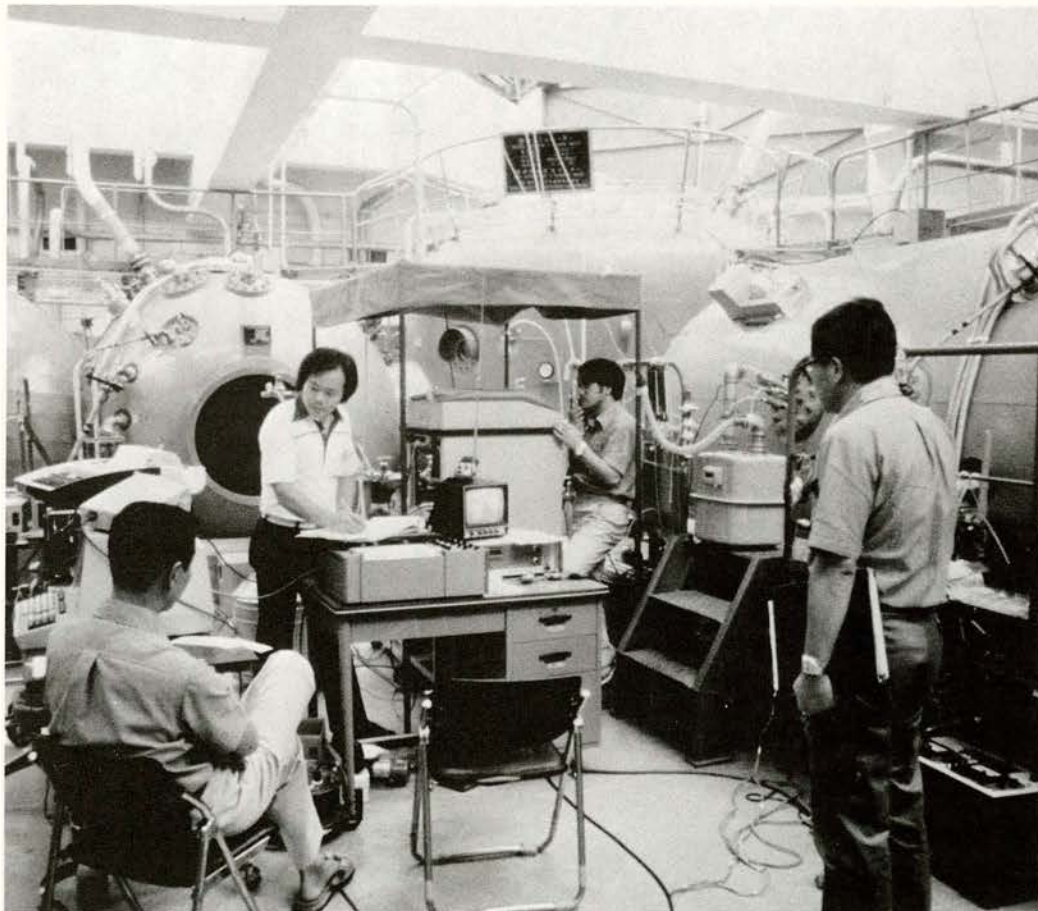
Government intervention sought to reduce the negative social and political effects of adjustment in the short term. It was also intended to offset the weakening regulatory

mechanisms governing the macro-economic environment (instability of exchange rates and interest rates) and the real or supposed shortcomings of the market-place.

Adjustment in Practice

Industrial adjustment has not been a uniform process. Given the variety of

Japan faces new challenges in new niche markets. Below: research into life under deep water.



national contexts, it has taken a widely differing course, with correspondingly disparate effects and success rates.

In Japan...

Japanese industry, which adapted well to the technological conditions of the 1970s and 1980s, now enjoys an unquestionable comparative advantage. Its success is the outcome of the right mix of technological innovation and organizational change, partly due to the underlying characteristics of the Japanese economy. These include: shortage of space, which is an incentive to streamline production chains; an industrial structure traditionally based on a blend of competition and cooperation which has synergistic benefits; a system of lifetime employment in large diversified companies, which is conducive to job mobility and to investment in training; dependence on imported energy, which is an incentive to switch resources to light industry, and so on.

The fact remains, though, that the exceptional vitality of Japanese industry over the past 15 years has been based on the exploitation of a comparative advantage

in the production of "manufacturing know-how-intensive goods" (sophisticated manufactured goods with a high creative content), encouraged by the demand of Japanese consumers for the most up-to-date products.

But Japan must now take up a new challenge arising from the combined effect of three factors. First, its growth can no longer be based to the same extent on continuous penetration of foreign markets (because of changes in demand trends but also for political reasons); second, competition from the NICs (such as South Korea, Taiwan and, to some extent, Brazil) is becoming keener, especially with the steep rise in the yen; third, this reduced growth potential requires a stronger position in niche markets (aerospace, advanced computers) where competitive factors (importance of basic research facilities) and the conditions for market entry (importance of government contracts) are not the same as in those sectors where Japan is in a strong position. Both government and industry in Japan have already sized up this new challenge and placed the emphasis on technological development and fundamental research.

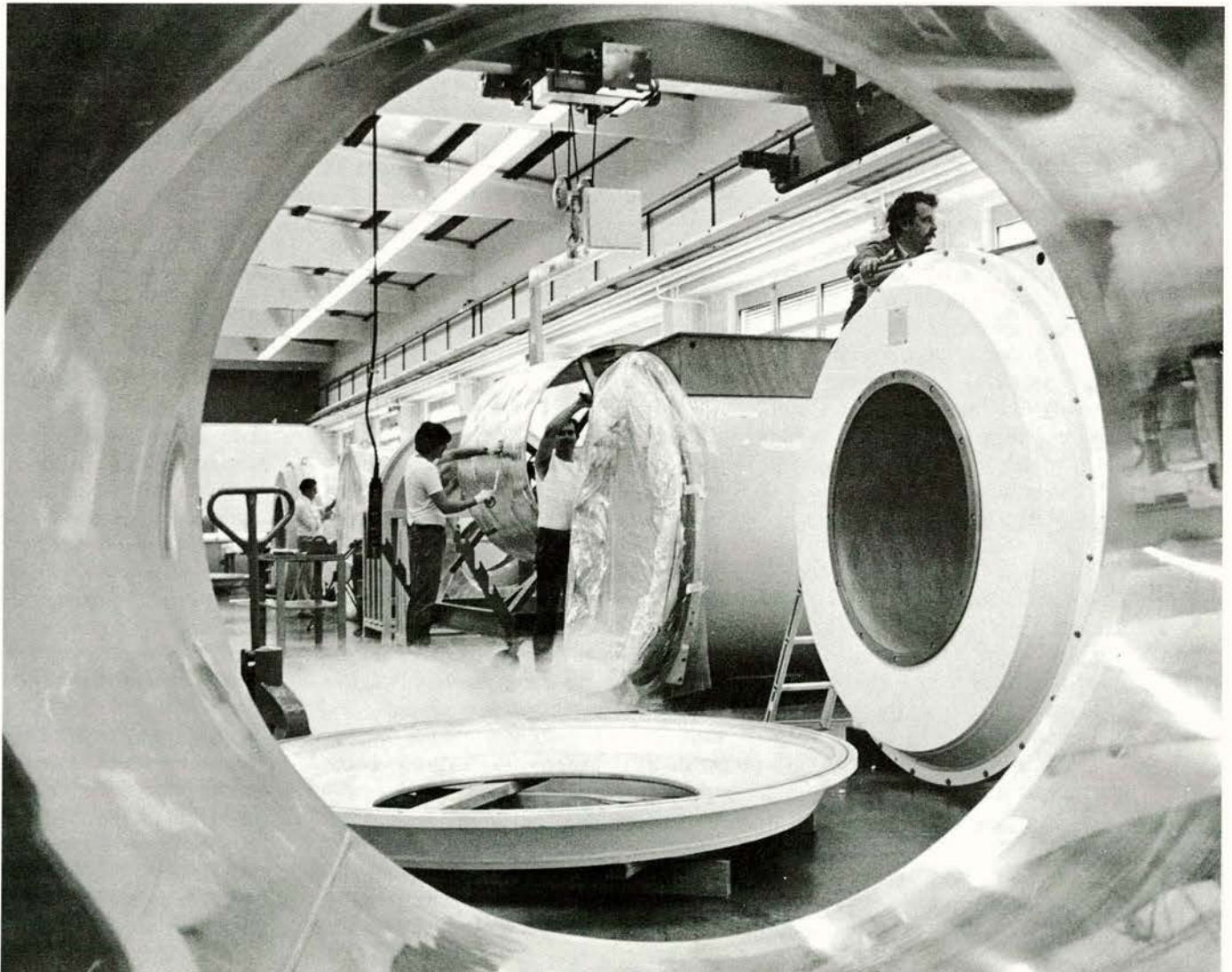
... in the United States...

The situation is quite different in the United States, where international competition has had a double effect: it has led traditional industries into difficulties and it has speeded up the shift to high-growth, high-technology activities. The latter are markets in which the United States has been able to take advantage of its vast pool of scientific and technical know-how, the close ties between universities and industry, and the high mobility of R & D personnel between firms.

The development of leading-edge activities, however, is not enough to offset the deterioration of traditional sectors, particularly as regards trade balances with the rest of the world. And the decline in some manufacturing know-how is dangerous inasmuch as a technological lead may afford only precarious, fleeting advantages. If these are to be exploited, they entail growing dependence on foreign markets.

... and in Europe

Germany, like Sweden and Switzerland, has managed to hold its ground in sectors of average R & D-intensity (like motor



Germany's strength in sectors of medium technological intensity has not prevented it from entering hi-tech activities. Right: a special magnet for medical diagnoses.

manufacturing, engineering and chemicals). As a result, although it has lost market share in sectors requiring a high degree of manufacturing know-how or advanced technology, it has stepped up its penetration of European markets for these traditional goods.

Germany's "poles of competitiveness" are not unassailable, however. First, because growth in the above-mentioned industries depends on an increase in technological content, a development that German industry sometimes finds hard to manage, and secondly because competition from the NICs and East European countries in the heavy sectors of industry is becoming a threat. The concentration of technological research in a few strong sectors may handicap others. At the same time, the proliferation of specialized training and apprenticeship schemes can hardly meet the current need for labour flexibility and adaptability.

Medium-size countries such as France, the United Kingdom and Italy are finding it difficult to take their place on the new international industrial scene. Unlike the big three economies, they do not have any

firmly established or sufficiently distinctive strengths, so the emphasis they place on the development of particular activities does not provide an adequate stimulus to the rest of the economy. Furthermore, some of their export markets are not very dynamic. In addition, their adjustment policies have often been hesitant (particularly in France), with specific sectors being singled out to the detriment of overall consistency. Lastly, the system of creating elites and the weight of tradition in these countries explain their predilection for large-scale programmes devised by administrative agencies very attached to a concept of national interest that is sometimes far removed from criteria of economic efficiency. For these countries, greater international cooperation and adaptation of training systems are vital.

As for the less developed OECD countries, which are under pressure both from the NICs and from the trading practices of the dominant countries, they must develop their scientific and technical infrastructure as a matter of urgency if they are to respond to the general rise in the technological content of industrial products.

The Snags of Industrial Policy

Several reasons can be given for the failure of certain government measures. In providing support for ailing sectors, the confusion between industrial policy and social policy (for example, making subsidies conditional on preserving jobs) has usually been damaging. Moreover, the types of support provided have often had perverse effects, missing the target and raising the economic costs involved. For instance, protectionist measures designed to safeguard traditional industries have either benefited distributors (as in the textile sector in France), or increased capital intensity and thus hastened the loss of jobs. In addition, sectors in which the workforce is strongly organized have often managed to obtain a substantial share of government handouts, which has scarcely improved the competitiveness of the firms concerned.

The promotion of growth sectors, too, has been compromised as a result of debatable policies, especially in Europe. Policies aimed at creating competitive

THE RANGE OF INDUSTRIAL POLICIES

Policies adopted by individual governments to direct and expedite the adjustment process have differed considerably, but they do have certain features in common. For instance, the worldwide impact of the oil shocks led most countries to provide assistance for the energy sector in addition to taking action to develop alternative energy sources. Then, as international competition intensified, export support snowballed. Moreover, the extent of the upheavals led to the adoption of defensive strategies that resulted in a proliferation of selective measures, with substantial resources being concentrated in a limited number of sectors.

In the early 1980s, another major shift in adjustment policies took place. The interventionist stance of the 1970s was relaxed, and emphasis shifted towards government disengagement to the benefit of market forces. Deregulation is under way, either in the form of selective economic deregulation (to revive and stimulate competition in certain sectors), blanket economic deregulation (progressively doing away with all price and exchange controls), or "social" deregulation (easing protection and reducing controls). Moreover, in countries with extensive public sectors,

a move to privatize nationalized enterprises is now under way.

The fact remains, though, that government policies are implemented in fundamentally different ways.

In the United States, the country's political and administrative system makes it practically impossible for the federal government to implement a policy of direct, selective and coordinated intervention in industry. Regarded as having the task of ensuring that the macroeconomic climate remains healthy and that the microeconomic ground rules are observed, the government intervenes only through horizontal measures (tax concessions) or selective measures that concentrate benefits but spread costs (e.g. trade measures). Lastly, the federal government has no means of imposing its own structural reforms on the private sector.

In Japan, on the other hand, where the government plays an essential role in formulating industrial strategies, it does so more by acting as a catalyst in the search for a consensus than by being the boss of so-called Japan Inc. It does not intervene directly and has no entrepreneurial role, but seeks to promote competition and provide the best possible environment overall. In short, by endeavoring to foresee changes, it directs the private sector's extraordinary capacity to respond to opportunities.

In Europe, however, for historical, cultural and geographical reasons, central government tends to be omnipresent in the economic sphere, as both entrepreneur and provider of assistance on a very large scale. The governments of Europe's two major economies nonetheless pursue quite distinct policies.

In France, traditional centralization compounded by rivalry among the various administrative authorities help explain why for a long time government tended to overshadow private initiative; it also accounts for the variety of industrial policies, as well as for a certain slowness in reaching decisions and a sometimes questionable method of application.

In Germany, policy bears both an interventionist bent and a liberal slant. The effectiveness of its market mechanisms is in any case curtailed by cooperation amongst the various private sector participants and by continuous consultation among government agencies, employers and trade unions. Central government intervention is in fact most evident in regional policy matters and the promotion of R & D activities.

advantages in sectors designated as strategic (a common approach in France and the United Kingdom) entail practices that seriously affect the results of the measures introduced — centralization of procedures, direct government involvement, administrative allocation of resources and the concentration of support on a small number of firms sheltered from competition, and so on. Moreover, large-scale technological programmes have had a crowding-out effect: the substantial resources allocated to them have been diverted from other sometimes crucial areas.

The Keys to Success

It is possible, however, to provide effective support for ailing sectors, either through isolated measures — provided that assistance is given for a strictly limited period and with strings attached (the rescue of Chrysler in the United States), or through broader strategies.

Japan is a good example of the latter. The Japanese authorities, in close cooperation with the firms concerned, brought about an orderly adjustment of industry by planning technically efficient capacity reductions that were shared fairly among the various players. To that end, cartels were legalized in order to restructure supply in the reorganized sector, while controls over imports were made easier by the relations between producers and trading houses. Adjustment was sometimes very rapid: in the case of aluminium, primary processing capacity was reduced by 55 per cent in three years. It went very smoothly thanks to the dynamism of the sectors offering alternative employment, the existence of major groups with highly diversified interests, and the high-quality, all-round training provided for workers to be redeployed. But this success was also due to other factors: industrial and social aspects were treated separately; flexible policies allowing differentiation between sectors were adopted and all parties (including trade unions) were closely associated in the decision-making process.

When it comes to promoting growth sectors, the golden rule is that government intervention must not inhibit the forces of competition. In that respect, the United States has shown what can be achieved in the most advanced sectors. Government R & D support programmes (especially in defence fields) are designed to ensure the participation of a large number of private firms and government contracts are awarded to a wide variety of private sector concerns. That kind of approach is a prerequisite for the wide diffusion of technology. ■

Removing the Barriers to International Trade

by Michael Toen

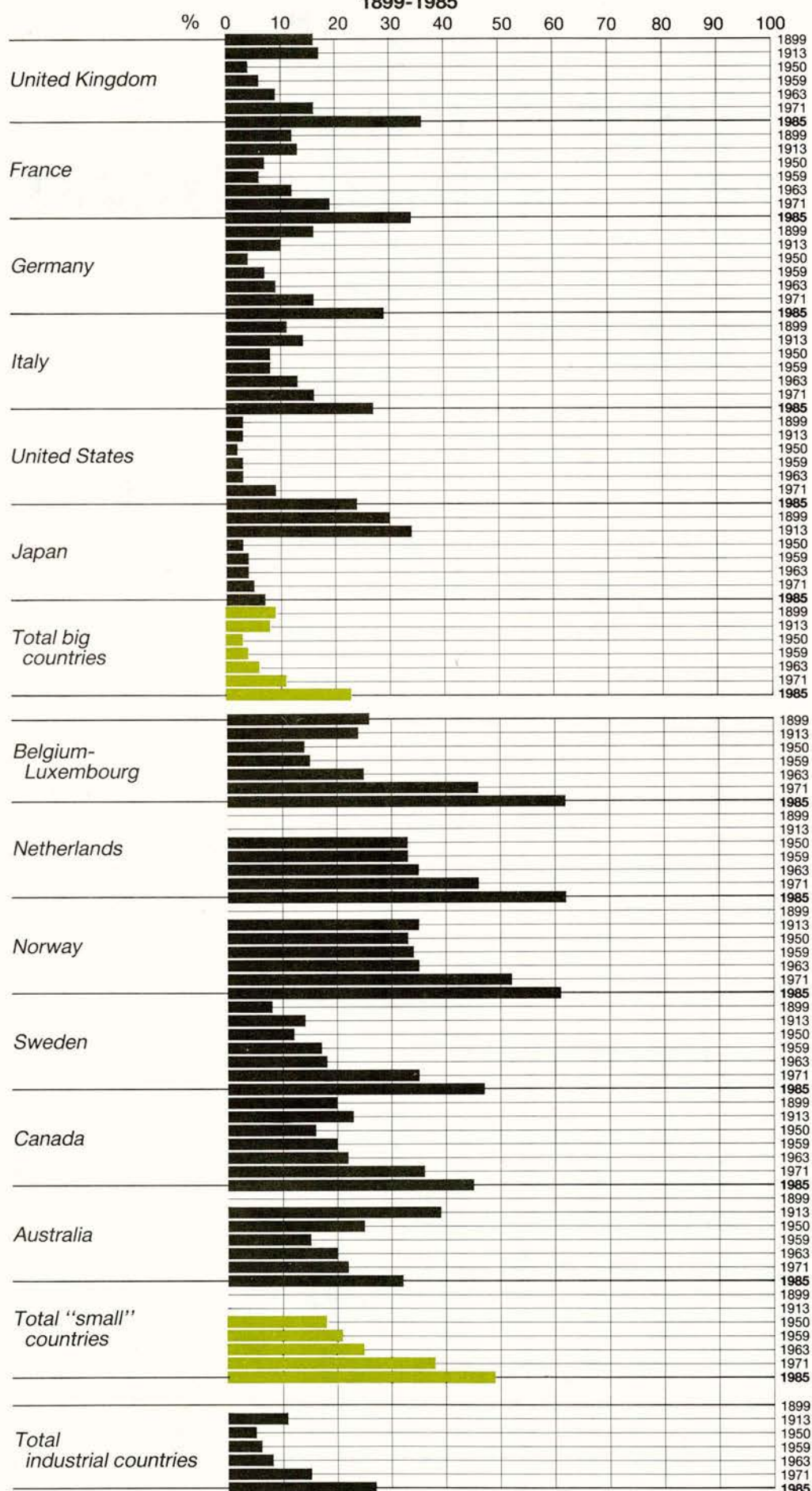
Trade provides an unrivalled impetus to structural adjustment, since it removes the option not to respond to change and offers considerable incentives for developing new and more efficient products and processes. The process of breaking down trade barriers in a multilateral framework was one of the outstanding successes of post-war international economic cooperation. But protectionist pressures have been mounting in recent years and a renewed determination is needed to move another step towards a fully integrated world economy.

The boom in world trade after the second World War was reflected in a fourfold increase in the proportion of OECD countries' supplies of manufactured goods met by imports, from 5 per cent in 1950 to 25 per cent by 1985. But that development was not driven by

nations' exploitation of any particular comparative advantage, leading them to concentrate their efforts on certain sectors whose output they exported, while remaining dependent on imports of other products in which their trading partners specialized. Rather, this process of eco-

Little by little industrialized countries have ended up by selling each other similar products. Below: the coaches and electrical equipment of these small trains in New Mexico, U.S. are of European origin.



IMPORT CONTENT OF SUPPLIES OF FINISHED MANUFACTURES¹
1899-1985

1. For definitions, see report.

Source: Estimates by Maizels A., *Industrial Growth and World Trade*, Cambridge 1963, for 1899-1959 (1955 prices); by Batchelor R.A. et al., *Industrialisation and the Basis for Trade*, Cambridge 1980, for 1963 (1955 prices); by the OECD, *National Accounts* for 1971 and 1985 (current prices). Australia is not included in total "small" countries nor in total industrial countries in the Maizels and Batchelor figures.

economic interdependence coincided with a tendency for industrial countries' output and trading patterns to converge, with most countries increasingly producing and exchanging similar commodities.

Over and above any comparative advantage individual countries may have in national endowments of natural resources, labour or capital, OECD countries as a whole have been capitalizing on other types of strength. Three particular trends can be identified.

Firstly, OECD trade increasingly comes from sectors that benefit from significant economies of scale, whose products are highly differentiated and have a substantial scientific and technological input.

Secondly, OECD countries have tended to specialize within industries rather than between them, as the global market-place enables a large number of competing suppliers to subsist because many differentiated products can be produced without any undue loss of economies of scale.

Lastly the geographical structure of OECD trade has shifted considerably since the 1950s and 1960s, when it expanded primarily amongst industrialized countries or between countries within the same region. That trend was partially reversed in the 1970s and early 1980s when Japan emerged as a major exporter and the United States started importing manufactured goods on a massive scale. At the same time, OPEC countries boomed briefly as markets for manufactured products while the Newly Industrializing Countries (NICs) started making major inroads into OECD markets, accounting for 8 per cent of their total manufactured imports by 1985.

These new trends did not alter the underlying pattern of world trade, however. Almost 40 per cent of OECD manufactured imports from the NICs are products of industries enjoying substantial economies of scale or producing highly differentiated goods rather than of labour- or resource-intensive sectors. Moreover, fully 31 per cent of the OECD's manufacturing trade with the NICs was in intra-industry trade in 1985, showing that the latter have been drawn into the same two-way trade dynamic as the former.

Less Than Free Trade

Growing international economic integration has been made possible by the breakdown of both tariff and non-tariff trade barriers. At the end of World War II, dutiable manufactured imports into industrialized countries faced an average tariff of around 30 per cent, although trade was more determined by various bilateral agree-



The Multifibre Agreement is a stain on the face of international trade, since it entails costs both for Third World producers and for the economies and consumers of industrialized countries.

ments, preferential systems and quantitative restrictions than by import duties. By the early 1960s, most of these non-tariff barriers had been removed or relaxed, while tariffs on dutiable manufactures had been cut to around 13-18 per cent on average. The Kennedy Round reduced that spread to 8-11 per cent, while the subsequent Tokyo Round brought it down to 6 per cent or less.

Not all markets have been opened up to foreign trade, however. The most flagrant exception to this post-war free trade movement is agriculture, where the situation has got worse if anything, as well as a number of labour-intensive industries. Services as a whole have not yet established themselves as international industries the way most manufacturing sectors have, while some resource-intensive industries like petrochemicals and aluminium have tended to be protected by high tariffs.

These exceptions to the free trade rule have had a negative impact on cooperative political initiatives. The Tokyo Round of Multilateral Trade Negotiations, however, did succeed in reducing tariffs overall and

produced agreements on issues that had not previously been effectively covered by the General Agreement on Tariffs and Trade (GATT), such as public procurement, technical barriers to trade, customs valuation, anti-dumping and countervailing duties. But the world trading system was already deteriorating in terms of the range of commodities subject to controls and governments' general willingness to comply with the basic principles of the GATT.

In the case of agriculture, mounting overproduction brought about by domestic support policies has resulted in home markets being increasingly protected from foreign sources of supply and domestic surpluses being dumped on the narrow markets open to international trade. As for labour-intensive industries, like clothing and textiles, tariffs have remained relatively high but have in any case been progressively overshadowed by the spread of

quantitative restrictions as a result of the introduction of "special regimes". These Multi-Fibre Agreements date back to the 1950s, having been renewed at regular intervals ever since at the behest of importing countries. The latter have effectively imposed import restrictions unilaterally, arbitrarily revising product classifications to intensify the restrictiveness of the provisions and even cutting agreed quotas during the lifetime of bilateral agreements. Such behaviour, while not actually infringing the rules of trade, has eroded the value of the Generalized System of Preferences, with preferential tariffs granted at the outset being withdrawn without compensation when shipments of particular products have reached significant proportions.

Although labour-intensive industries have been the most affected by quotas and non-tariff barriers, other manufacturing industries have not escaped this trend. On the best available estimates, at least 27 per cent of the imports of the 16 major industrial countries are now subject to non-tariff barriers. Unlike the Multi-Fibre

Agreements and Generalized System of Preferences, these discriminatory quantitative restrictions often apply to intra-OECD trade and now cover sectors like automobiles, steel and electronics in which trade was traditionally unhampered. In addition to quotas, moreover, governments have resorted increasingly to devices such as "contingent" protection and anti-dumping and countervailing duties. Even within the Common Market, there is evidence to show that member countries have been making more frequent use of administrative measures that distort trade.

It is not the quantitative restrictions themselves as much as the uncertainty created by such government policies which are the biggest worry for exporters. The transparency of trading relations was particularly damaged in the late 1970s by government subsidies to exports (especially of capital goods), which distorted competitive conditions. Subsidization through mixing aid with official export credits is still widespread. Furthermore, government support to domestic industries in difficulty (such as textiles, automobiles, steel and shipbuilding) have also indirectly subsidized their exports. And while support to these sectors has fallen back recently, assistance to new "high technology" industries, like electronics, has continued.

Reduced Competition

In the last 10 years, therefore, protectionist tendencies have prevailed, wiping out part of the substantial benefits created by the free trade movement of the 1950s and 1960s. With confidence on the part of producers and exporters such an important factor, economic performance is highly sensitive to both open and protectionist orientations in government trade policies.

There is powerful evidence to demonstrate the economic advantages of free trade. At a microeconomic level to start with, it is estimated that the creation of an integrated European market enabled the major EEC countries to increase productivity by nearly 12 per cent as a result of economies of scale, five to 10 times more than expected at the time the Treaty of Rome was signed.

In macroeconomic terms, a striking feature of economic developments since the war is that small countries (which are most dependent on international trade) have generally grown faster than bigger countries. Their growth was largely derived from sectors that generate the greatest economies of scale, moreover, in which small countries could not attain a competitive level of operation without access to foreign markets. At the same time, trade enabled consumers in small countries to

benefit from the wide variety of products available in larger countries.

It is particularly significant that small countries which opened their markets the most to international trade (such as the Scandinavian states) recorded far higher rates of manufacturing productivity growth than more closed economies (such as Australia and New Zealand), since they were able to specialize more both within industries and between them. Above all, openness has not made small economies more vulnerable to shocks (as is often claimed) but less, since it allows them to spread risks over a larger and more diverse set of markets.

Protectionist measures may have limited the growth of OECD imports of labour-intensive products from developing countries but they have done nothing to enable OECD producers to be more competitive in these sectors. The difference in production costs between OECD countries and developing countries remains enormous. In other sectors, too, trade restrictions entail significant costs, whether in terms of reduced scale economies, narrower product differentiation or R&D productivity. The fragmentation of the European telecommunications equipment market, with its widely varying technical standards and regulatory requirements, is estimated to have increased R&D costs for certain products by as much as 40 per cent.

Ultimately, however, the greatest costs associated with protectionism probably come from the erosion of competitive forces. The growing concentration of manufacturing industry in the OECD area over the past 20 years, as technology has pushed firms to increase the size of their operations, has created oligopolistic conditions in many markets, so that the only pressures for raising productivity, upgrading products and processes and reducing prices now come from international competition. Import controls have had a devastating effect on the ease with which foreign suppliers can enter markets, whether on the strength of lower prices or more innovative products.

The large macroeconomic imbalances that have built up over the past 10 years — high unemployment, burgeoning balance-of-payments deficits and widely fluctuating exchange rates — are both a consequence of and a pretext for protectionism. While it may be legitimate for governments to take steps to alleviate particular problems in specific sectors, the generalization of such measures cannot solve underlying economic problems; at best, trade policies have redistributed the burden of these difficulties, at worst they have exacerbated them by slowing down the adjustment process.

Fair and Equal Treatment

Technological developments are enhancing the potential benefits of interdependence by opening a plethora of new product opportunities across many industries. Goods and services will become increasingly differentiated, because new design and production technologies are making smaller production runs more cost-competitive so that the specific needs of individual customer groups can be better catered for. Even so, the larger the markets available, the more efficiently these new opportunities can be exploited.

It is essential, therefore, that the international trading system be as open and broad as possible, with a minimum of exemptions. For that, the first prerequisite is to dismantle the protectionist measures which, having been introduced to ease immediate sectoral difficulties, have become a permanent part of the landscape. Trade in agricultural commodities has to be facilitated on a multilateral basis to allow one man's feast to ease another man's famine. Above all, the Multi-Fibre Agreement with all its ancillary restrictions stands out as a blackspot in the world trading arena.

Removing existing protectionist measures will not be enough to restore the confidence of traders and investors, which is another vital requirement. If they are to be assured of open access to foreign markets on a long-term basis, all trading partners have to commit themselves to abiding by international obligations (such as the provisions of the GATT). Granting foreign competitors the same treatment as that accorded domestic producers must remain the overriding principle of national trade policies.

Finally, the full benefits of interdependence require some modification of the world trade regime to bring it into line with changing technological imperatives. If products and processes based on new technologies are to be developed and diffused as rapidly and widely as possible, the protection of intellectual property will have to be safeguarded and the establishment of technical norms and standards determined in an international context.



Such measures would preserve and reinforce the role of trade as a powerful agent for structural change. They should be politically feasible given the general consensus on the damage caused by trade restrictions, but they would require governments to liberate their trade policies from the pressures exerted by sectoral interest groups.

Cutting Unemployment Through Labour-Market Flexibility

by Henry Ergas and Jeffrey Shafer

Large pools of unemployed represent an enormous waste of resources in OECD countries, and they exact a high toll in personal hardship.

At the same time, the inefficient use of labour has held back the growth of real incomes. Well-oiled labour markets are thus needed to reduce unemployment, contain wage increases within non-inflationary levels and facilitate structural adjustment towards greater productivity.

Labour markets are called upon to contribute to a variety of economic and social objectives: to establish an equilibrium between wage levels and the capacity of employers to pay, without which high employment and low inflation cannot be sustained; to allocate workers with diverse skills across the range of jobs; to facilitate the shift of workers from declining industries to high growth activities; to satisfy aspirations for stability of employment, which would encourage the acquisition and utilization of skills; and to enable workers to have a say in conditions of employment and work.

These objectives conflict in some respects. No labour market can achieve all of them at once, and a balance has to be struck. In this respect, labour markets in some Member countries have done better than others. In all countries, especially in Europe, improvements in labour-market institutions – the structure of collective bargaining and the regulatory framework for employment and work – are needed if unemployment is to return to acceptable levels and the institutions themselves are to retain their social legitimacy. Some progress has been made and traditional practices are under pressure, but complex and contentious problems remain.

The Emergence of Labour-Market Tensions

High strike rates reflected growing tension in the labour markets in some Member

countries, even during the period of high growth and relative price stability in the late 1950s and early 1960s. The problems spread and took root towards the end of the 1960s; in the early 1970s, labour unrest grew and wage settlements outstripped productivity gains, while attempts by a number of governments to control inflation through incomes policies proved unsustainable.

The major macroeconomic changes that were to follow – sharply higher oil prices together with a general slowdown in the combined productivity growth of labour and capital – reduced economies' capacity to pay. To at least some degree in every country, labour markets tended to sustain earlier real wage trends in the face of these changes, leading to accelerating inflation, a squeeze on the profitability of investment and rising unemployment. Where the momentum of real wages was greatest, these problems became most acute. At the same time, obstacles and blunted incentives to the redeployment of labour slowed industrial adjustment.

Industrial Relations Systems

Collective bargaining is an important feature of labour markets in all OECD countries. The scope of wage bargaining, the rules of the game, and the role of governments in different countries have therefore been key determinants of labour-market developments. Broadly speaking, there are three distinct institutional approaches to collective bargaining.

Centralized...

In the countries of Northern Europe, bargaining tends to be broad and focused on wages, with a relatively small number of agreements covering most workers in the economy, often with the government participating, albeit indirectly, in the process. Outcomes in these systems have been relatively good in macroeconomic terms. Wage increases have been for the most part contained so as not to price workers out of jobs, especially as labour movements have recognized the importance of maintaining competitiveness in economies that are highly integrated into international markets.

While inflation rates rose in the 1970s in these countries as elsewhere, their inflation record was no worse than average, and for some it was considerably better. But narrowing wage differentials and the uniformity of wage-setting across the economy has eroded signals and incentives for workers to improve their skill levels or to seek careers in the fastest growing sectors. Increasingly, too, the dissatisfaction of skilled workers with the weakened links between wages and skills has strained the unions' common bargaining front. Moreover, relatively favourable macroeconomic outcomes have at times been achieved only through government compensation in the form of tax cuts in exchange for wage moderation. Thus, highly centralized systems are under pressure and the challenge is to preserve their macroeconomic advantages while enhancing their microeconomic effects. ►

... decentralized...

In North America and Japan, on the other hand, bargaining tends to be more decentralized, with wages negotiated for the most part at company or even plant level. Another distinguishing feature is that collective agreements cover a smaller proportion of the workforce in these countries than elsewhere. Nevertheless, where collective bargaining takes place in North America, its scope often extends far beyond questions of wages to details of the conditions of work. In Japan, these are most often decided in less confrontational consultation between workers and management in the workplace.

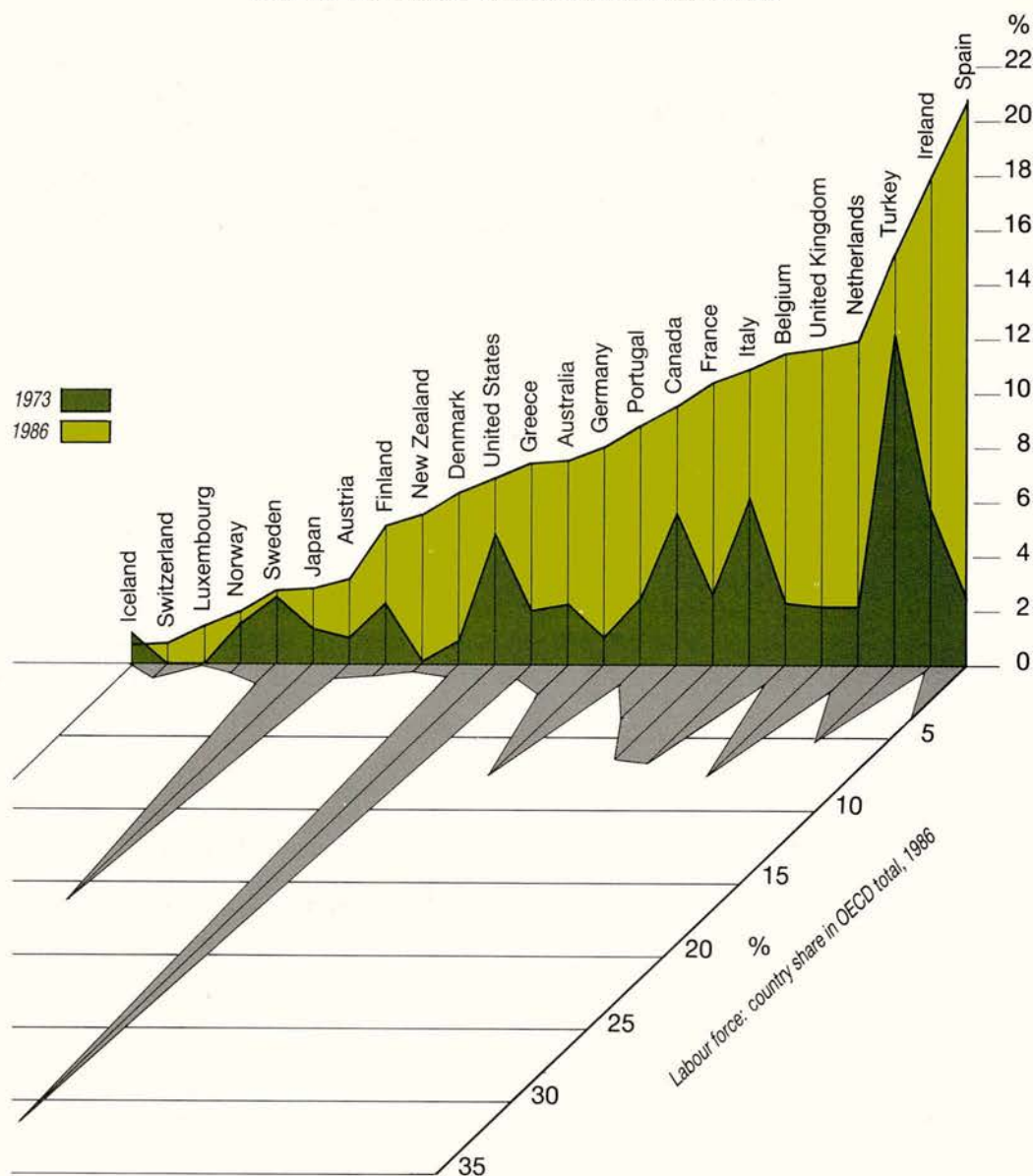
Decentralized bargaining has proven responsive to changes in the macro-economic environment since the bargaining stance of employers has reflected their capacity to pay and unions have moderated wage demands when that was necessary to maintain jobs. The presence of large non-union sectors has also moderated wage demands, especially in times of labour-market weakness. As a result, unemployment has either remained lower or come down more quickly following recessions than in many European economies.

Labour markets in these countries have also been more responsive to changing industrial structures as firms have remained relatively free to adjust employment levels. The exercise of union power to push up wages in some declining sectors has, however, intensified the displacement of workers and led to exaggerated wage differentials within the U.S. economy. Within firms, the U.S. practice of embedding detailed work rules in collective bargaining agreements has hampered the pursuit of higher productivity in some sectors of that economy. In this respect, the Japanese approach of dealing with wages and workplace matters separately has facilitated the acceptance of improved production methods by workers.

... and fragmented

A third form of collective bargaining has led to consistently poorer labour-market performance – notably in the United Kingdom, France, Italy and Belgium. While these countries differ in many respects, they all have, to varying degrees, fragmented bargaining systems. The basic legal framework for bargaining has been poorly spelt out in terms of the rights and responsibilities of labour and management; this has contributed both to fragmentation and to relatively high levels of industrial conflict. A multiplicity of overlapping and competing levels of bargaining has not fostered the wider recognition of economic and social responsibilities

UNEMPLOYMENT RATES IN 1973 AND 1986



Source: OECD Labour Force Statistics.

that shape the negotiating positions of the social partners in more centralized systems, nor have participants been subject to the constraints inherent in decentralized systems. Consequently, these economies have been more prone to inflationary spirals or to an upward drift of unemployment or to both. In addition, adjustment has been impeded, both within firms and between sectors, by competition between unions with narrow and insecure bases of membership.

The Prospects for Lowering Unemployment

The slowdown in productivity growth and the deterioration in labour-market mechanisms have tended to push up the minimum rates of unemployment that are sustainable without accelerating inflation.

OECD economists, like their counterparts elsewhere, have attempted to measure this non-accelerating-inflation rate of unemployment (NAIRU) for various countries. While these estimates are imprecise, they are indicative of the extent to which the poor functioning of labour markets constrains prospects for reducing unemployment. NAIRU estimates for the 1980s (abstracting from the effects on inflation of favourable or unfavourable developments in import prices) are generally higher than for the early 1970s, with the largest increases occurring in European countries. The estimates of OECD economists show NAIRUs in the mid-80s to be about 2½ per cent in Japan, 6 per cent in the United States, Germany and France, about 7 per cent in Italy and about 9 per cent in Canada. Below such unemployment levels, there is a risk that inflation could accelerate.

Current unemployment rates in the European countries mentioned above are significantly higher than these estimated NAIRUs. Thus there appears to be some room for macroeconomic expansion to reduce unemployment without reigniting inflation in European countries. But if unemployment is to be brought down and kept down, the functioning of labour markets must be improved. This is not only a matter of forestalling wage pressures likely to reappear as unemployment is reduced, but also of enhancing the flexibility and productivity of labour. It is through higher productivity

policies. Usually pressures have built up when such an approach has been taken, and a period of wage moderation has been followed by a new round of inflationary wage increases. Moreover, wage differentials have generally been compressed in periods of imposed wage constraint, thereby distorting incentives to acquire and use skills.

Third, government regulations in the shape of minimum wages, mandatory wage indexation, regulation of working time, and restrictions on labour force adjustment, while well intended, should be

and pass on the costs to consumers.

That said, while governments have an important role, it is above all a matter for employers and labour to find flexible approaches to bargaining. There are no easy answers to the problems that have appeared in the functioning of labour markets, especially in fragmented collective bargaining systems.

Comparisons of alternative approaches suggest that a gradual move towards bargaining at the firm or industry level with a reduction in the number of levels of bargaining and the number of competing



Collective bargaining at whatever level plays a decisive role in the operation of labour markets.

that the aspirations of workers for higher standards of living can be realized.

Progress in the Private Sector

As existing systems of industrial relations differ, so too must priorities for reform. But four principles would seem to apply generally.

First, governments must establish fair rules of the game in which labour and management have defined rights and responsibilities, without which disruption, fragmentation, and irresponsible bargaining are likely to occur.

Second, governments should avoid intervening directly in negotiations between labour and management in the private sector and in the imposition of wage settlements in the context of incomes

handled with care as they have often discouraged firms from taking on workers, especially those with few skills. So too have high non-wage costs. The costs to the young and less skilled are particularly heavy.

Fourth, governments must bear in mind that their policies in other areas have a strong effect on the functioning of labour markets. In particular, ensuring that markets for goods and services are competitive, including the maintenance of openness to foreign competition, is one of the most important ways in which governments can see to it that incentives and constraints facing labour and management reflect economic requirements. Where they are not exposed to competition, company managements (or employers' associations, depending on the system) may all too easily yield to excessive wage demands

unions could improve labour-market functioning. This would require a supportive legal framework. But it ultimately requires both sides of industry to recognize the benefits of conducting industrial relations within systems that impose constraints and provide appropriate incentives. Only then can they reach agreements that offer good prospects for sustained growth and high employment over the medium term.

Labour and management also need to seek arrangements that make the collective interest in greater flexibility and higher productivity more tangible to individual workers. Profit-sharing is one arrangement with some promise of doing this; productivity provisions in wage contracts are another. Governments might encourage experimentation with such innovative collective bargaining agreements that promise gains for both sides. ■

Educating and Training Tomorrow's Workforce

by Anders Reuterswärd

Economies that are in constant technological and structural evolution need labour forces not only suitably trained in the skill requirements of today but also possessing the general aptitude to adapt to the changing demands of the market-place. Educational and training systems need to be reformed to ensure they help create a social environment that is favourable to technical progress and the reorganization of the working methods.

The pace of change in modern economies makes it unrealistic to predict the demand for particular skills decades in advance. Education and training systems cannot be designed to produce a given supply and composition of skilled labour entering the job market within a particular time frame. Instead, they can only be expected to give a basic educational foundation on which more specific occupational training can be grafted as and when the individual requires it.

Educational systems have the challenge of providing society with suitably trained youngsters who are not only employable as soon as they enter the labour market but remain employable throughout their working lives. Institutions must have the necessary internal flexibility to shift resources between various subjects and types of education in response to technological change and the demands of a continuously evolving economy. Training colleges also have an urgent responsibility in dealing with today's unemployed and with adult workers whose jobs are threatened by structural change; the high level of unemployment in some countries coincides with an acute shortage of certain skills.

Balancing Academic and Vocational Education

Educational and training systems have been found wanting in many countries in recent years. In some cases, they have simply failed to produce sufficient numbers of young people educated to secondary and post-secondary standards; in others they are not making fast enough progress in overcoming the skill shortage problem and are not contributing as much as they could and should to the retraining needs of the long-term unemployed. Their difficulties have in many instances remained despite government initiatives aimed at alleviating the situation of unemployed school leavers and the long-term unemployed. Such initiatives often entail the

proliferation of training programmes that are not part of the existing system and are poorly coordinated with it. On top of all that, educational and training establishments of all kinds have faced budgetary limitations; they have thus found it hard to improve the quality of their service despite the overall decline in school rolls.

In fact, those demographic trends offer certain opportunities to countries where the numbers remaining in secondary education after the compulsory minimum period and the proportion going on to higher education are relatively low. These countries (including the United Kingdom, France, Spain and Italy) also have the highest unemployment rates in the OECD area, which would provide an added incentive to youngsters to stay on at school rather than risk joining the ranks of the unemployed as their first taste of adult life.

A particular problem at the upper-secondary and post-secondary levels is to provide a balanced mix between vocational training and academic education. Some European countries (especially the Netherlands and Scandinavia) have sought to break down the traditional separation between vocational and academic streams at the post-secondary level and give vocationally trained students access to regular universities. But, in spite of differences in selectivity, European countries as a whole still lag behind North America and also Japan in terms of the proportion of upper secondary school leavers that go on to university.

Targeting the Disadvantaged

Higher numbers in upper-secondary education could exacerbate a quality problem which is already serious in some countries – namely, the wide variations in educational attainment of pupils at schools that are all supposed to provide the same variety and standard of education within a unified system.

A carrot-and-stick approach to the resource allocation process among education sectors may be called for, so that it provides an incentive for schools and training establishments to enforce their own standards and adapt to demand trends. There is also a case for reform so as to offer increased parental choice and greater diversification of courses, both within the public sector and as between public and private institutions. Any shift towards a wider choice has to be accompanied by measures to ensure equity and promote equal opportunity, however. That includes providing relatively greater resources to schools in disadvantaged areas and for the education of social groups that tend to fail in the school system and subsequently in the labour market.

Educating and Retraining Adults

More attention needs to be focused on adult education in many OECD countries,

especially as regards retraining the long-term unemployed and others affected by structural change. This demand is currently being met by special government retraining schemes that fall outside the established system, which in many countries lacks the flexibility to cater for the widely varying needs and educational backgrounds of the unemployed. There is no intrinsic advantage in providing such courses outside the formal education system; in any case they should meet established educational standards wherever possible, so that the retrained jobless can compete on an equal footing with other candidates in the labour market.

Another requirement for adults is recurrent education, which is particularly important now for at least two reasons. First, economies are undergoing increasingly rapid structural change; second, working populations are growing only very slowly, or even declining, so that additions and retirements from the labour force will no longer regulate the supply of skills.

Some countries have already taken

steps to improve facilities for adult education, for example through the provision of part-time and evening classes and the introduction of selected courses for adults not wishing to take full degrees. In certain countries, such as the United States, Canada and Australia, a relatively high proportion of post-secondary students are now adults taking advantage of the opportunity to improve or broaden their educational attainment.

Tapping New Sources of Funds

Improving the quantity and quality of education and training may entail substantially higher expenditure, and new sources of finance will have to be explored. Private sources could make a greater contribution in many OECD countries. Vocational training can often be provided efficiently by industry; students in higher education could quite reasonably be asked to pay higher fees to the extent that they tend to end up in better paid jobs. ➤

A key problem, especially in Europe, is how to increase the proportion of young people that continue their education after the compulsory minimum period.



PATTERNS OF POST-COMPULSORY YOUTH EDUCATION AROUND 1984^a

	Enrolment of 17-years olds %					Youth obtaining credentials for entry into higher education %	Entrants into higher education %		Persons taking post-secondary degrees %	
	School education		Appren- tice- ship part-time, etc.	Post- secon- dary, etc.	Total	Universities	Universi- ties	Other	"Bach- elors"	Lower
	General	Voca- tional								
Germany	32	18	46	1	97	28	17	9	12	8
Japan	63	27	0	0	90	92	26	12	24	11
United States	81	0	n.a.	6	88	73	28	34	24	34
Netherlands	35	41	10	0	86	50	10	24	6	18
Belgium	78	0	8	0	86	20	12	20	15	n.a.
Sweden	32	51	2	0	85	77	36	0	15	15
Switzerland	20	7	55	0	82	14	n.a.	n.a.	n.a.	n.a.
Austria	14	20	44	0	78	13	17	n.a.	16	n.a.
Canada	67	0	n.a.	9	76	75	n.a.	n.a.	23	13
France	25	38	10	2	75	29	18	12	13	12
Norway	38	36	1	0	75	70	18	n.a.	18	42
Denmark	35	33	6	0	74	25	22	13	14	11
Italy	22	25	23	0	70	51	27	1	11	1
Australia	37	0	20	9	66	43	31	17	16	6
United Kingdom	18	12	35	0	65	37	31	0	15	12
Spain	34	15	n.a.	0	49	25	17	12	8	6
New Zealand	34	11	0	1	46	n.a.	15	9	11	4
Portugal	38	0	3	0	41	19	12	2	n.a.	n.a.

a. Countries are ranked in order of total enrolment at 17. Enrolments and percentages in this table are estimates compared to total population in relevant age groups.

Note: Caution should be exercised when comparing figures both between and within countries as data come from different sources; for details, see report.

Source: OECD Educational Data Bank and national statistical publications.

There are a number of good reasons for encouraging industry to play a bigger part in the provision of occupational training. Germany has taken the lead here with its highly developed system of apprenticeship through which generalized standards for training and skill levels have been established. In other countries, governments may have to provide financial support to expand industrial training as well as lay down standards and regulations to guarantee the quality of in-house training.

As far as higher education is concerned, most countries finance it largely out of public funds; the main exceptions are the United States and Japan where more than half the cost is met by the private sector. The fact that a relatively large proportion of the population passes through college or university in these two countries indicates that the individual is not discouraged by having to cover a higher share of the cost than in other countries. In Europe and Australia, in fact, the main limit on the numbers entering post-secondary education lies not in the cost but in the proportion obtaining the minimum level of upper secondary matriculation.

With government spending still subject

to tight restrictions, it seems desirable for any additional public funds to be channelled mainly into primary and secondary education in order to raise the level of secondary attainment where it is relatively low. Any consequent expansion in the demand for higher education should to a certain extent be financed from private sources. While higher student fees would require increased public support to students from less well-off families, such assistance could be provided in the form of loans rather than grants.

Introducing Competition

The obstacles to change in existing education systems, such as a concern to protect capital vested in buildings and equipment and the training and employment conditions of teachers, are bound to cause rigidities, but they are often compounded by administrative inertia and by the absence of incentives to adjustment. Decentralization and increased competition amongst different educational institutions could be beneficial, reducing the need for central planning and encouraging rapid adjustment to changing circumstances.

That could be achieved to some extent by encouraging private alternatives to public institutions, but similar results could be sought through modifications to the way public systems work, such as by allowing parents a greater choice between schools in different districts.

Competition carries with it the risk of endangering social equity, and special measures are needed to counteract that possibility. The tendency for pupils from disadvantaged families to be concentrated in schools in the districts where they live must be reversed in ways that go beyond giving special government support to establishments in "problem areas". Educational standards and goals have to be standardized at both primary and secondary levels to ensure that individual schools' decision-making complies with the stated objectives and criteria of a unitary and transparent education system.

These are so many reasons for governments in all OECD countries to explore both conventional and unconventional avenues towards overcoming present-day problems and matching the standards of the best education systems. ■

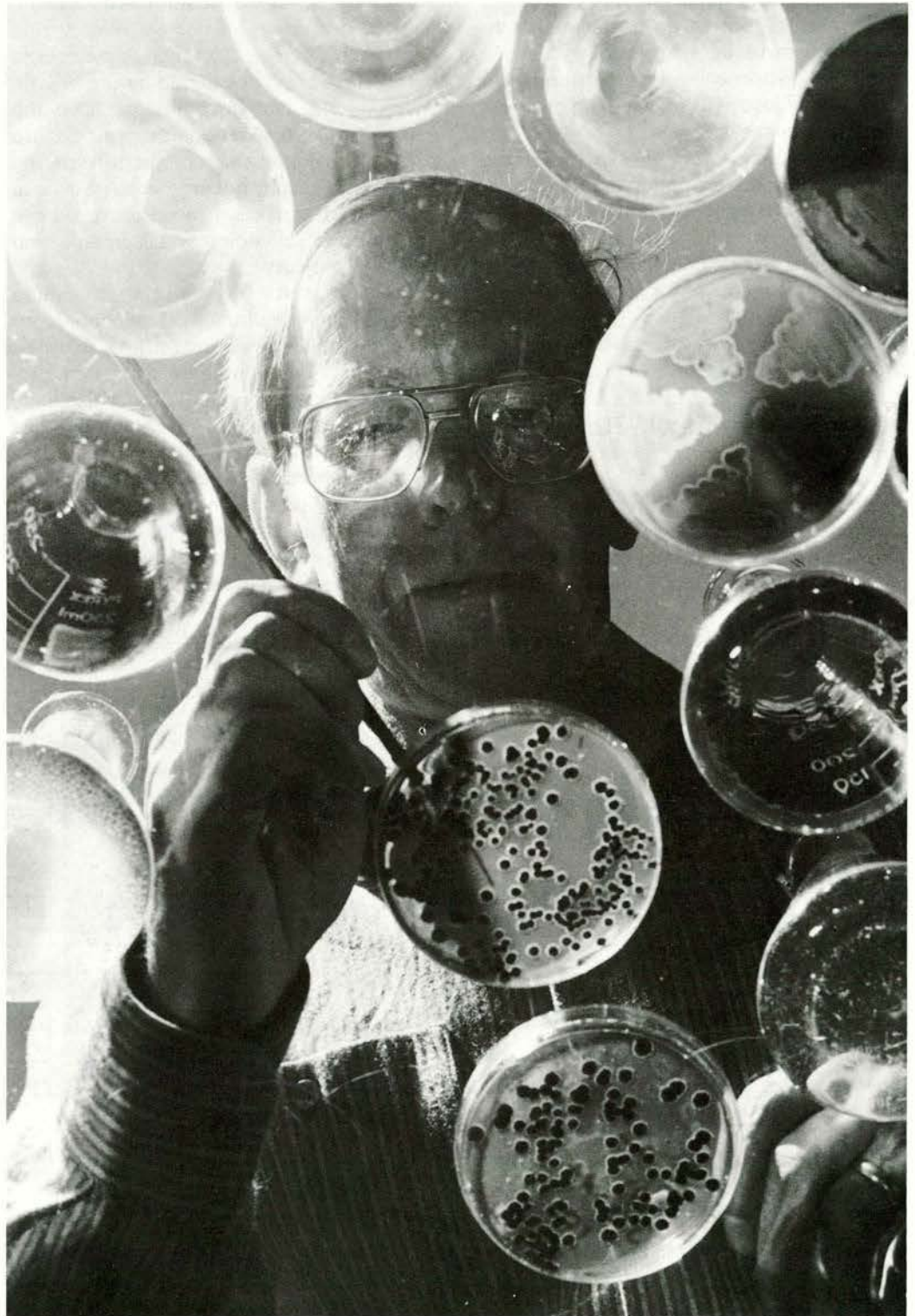
Raising and Allocating Funds for Long-Term Research

by Andreas Lindner

Government financing of basic research has failed to keep pace with rising research costs, especially as regards the funding of university laboratories in many countries. Hence there is a need to find new sources of funding and to establish a more flexible structure for allocating resources among competing projects and institutions.

The importance of scientific and technological innovation is growing and the speed and depth of its dissemination are major factors determining the overall vitality of economic systems, their capacity to adjust to new conditions and their competitiveness in the international market-place. Governments have a key role to play in ensuring that national research efforts are as effective and productive as possible within the limits of the funds available.

The new production and process technologies developed and applied in industry are the result of an ever closer relationship between science and technology. Basic scientific research is vital for industry to



continue making technological advances. Hence, a strong scientific base increases any country's potential to not only make better use of existing technologies but also provide a seedbed for mastering future technologies.

The frontier between basic and applied research is becoming increasingly blurred by the gradual involvement of "users" in basic research. At the same time though, most basic research and a growing proportion of applied research are inherently long-term in nature. This makes it all the more essential for OECD economies to maximize innovation by bridging basic and applied research. The best means for achieving that is not simply to undertake more research but to do *better* research, which will serve as a basis for industry's continued response to new opportunities in a world of adjustment to changing patterns of competitiveness.

Past experience has shown, however, that governments' attention and policy are too often focused on the immediate needs of the moment rather than on laying the groundwork for future advances. The temptation to concentrate on the short term at the expense of the long term is greatest in periods of rapid structural change.

Governments' Role

In almost all countries, governments play a major if not dominant role in funding basic research; they account for about 75 per cent of total spending in the OECD area as a whole. Governments' heavy

involvement in basic research stems partly from the development of state financed university systems as centres for scientific activity. Higher education systems perform over half the basic research carried out in OECD countries.

Governments have traditionally provided funds for university research within their overall higher education budgets, and to a large extent universities have been free to decide how they spend their funds. State support for basic research derives from governments' own needs. In the years before and after World War II in particular, the growing number of strategic applications of science-based technologies precipitated a sharp rise in government research funding, especially in nuclear energy and aerospace. These new technologies could hardly have been developed by the private sector alone, and governments filled the gap by setting up "national laboratories" to carry out major research projects in specific areas. As a result, governments now have the task of allocating research resources both among scientific establishments and between projects.

Over the past 10 years or so, the share of government budgets allocated to research and development has declined (although it has continued to rise moderately in absolute terms). But priorities have shifted, with research on energy sources and environmental problems accounting for a growing share in the 1970s, while in the 1980s priority has been given to economic development (except in the United States where defence has been the main growth area in recent years). Almost

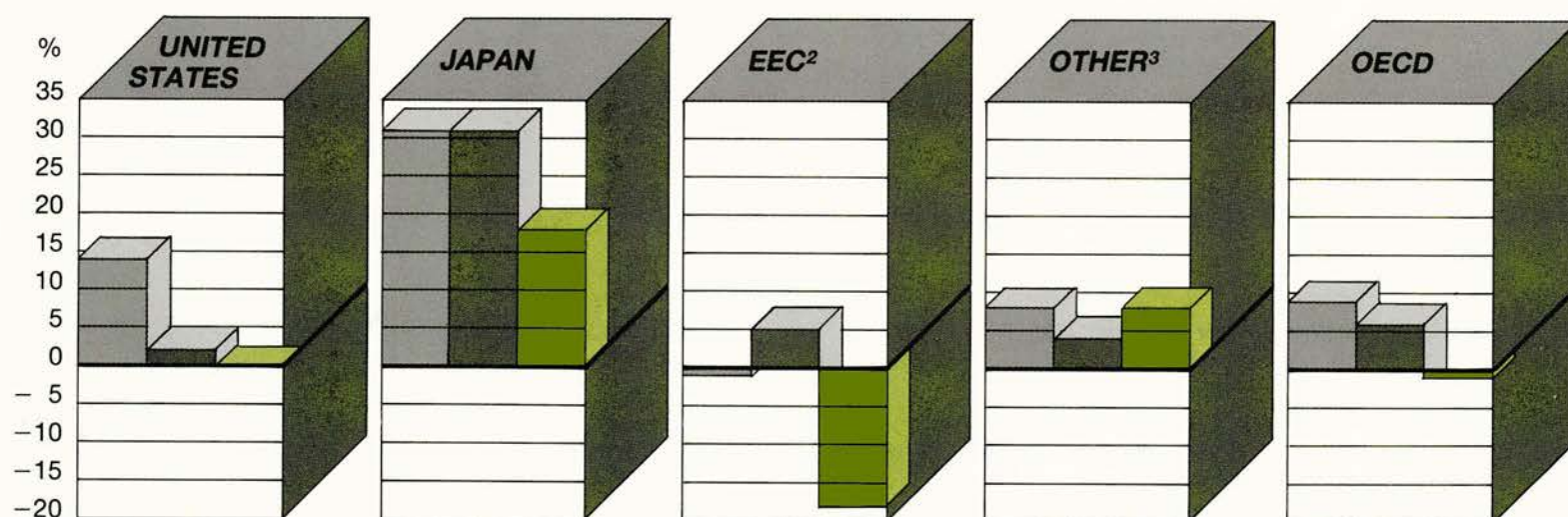
everywhere there has been a decline in the share of government R & D spending on the general advancement of knowledge, of which university research is the biggest component.

At the same time, the cost of basic research has risen more rapidly than the general inflation rate, both because of the growing sophistication and complexity of scientific instrumentation but also because of the growing need for ancillary facilities, such as access to data banks and the installation of more stringent security systems.

Universities Lose Out

For all these reasons, funds available for basic research in general and university laboratories in particular have been tight, with almost no increase in resources per researcher in higher education between 1975 and 1983. Since current spending has continued to rise, albeit at a slower rate than before, savings have mostly been made in capital expenditure, especially for apparatus and instrumentation; the share of capital outlays in university research spending was cut by around half in little more than a decade. The gradual erosion of universities' capacity to conduct research using up-to-date equipment was particularly marked in EEC countries, where funds per researcher were cut by almost 20 per cent in less than 10 years (see chart A). These restrictions, combined with the general deceleration in the growth of higher education enrolments in almost all OECD countries, have led to a substantial ageing

A. PERCENTAGE CHANGE IN R&D RESOURCES¹ PER RESEARCHER 1975-1983



1. Labour costs and other current costs, instruments and equipment, land and buildings.

2. United Kingdom and Greece excluded.

3. New Zealand and Turkey excluded.

Source: OECD Secretariat estimates.

Government
Industry
Universities

of academic staff, with late retirement and low mobility rates limiting job opportunities for new entrants.

In a bid to provide additional funds both for upgrading equipment and for creating posts for younger researchers, funding allocations in higher education have shifted away from block grants towards project financing. As a result, the share of basic research in the total research effort of higher education establishments has declined, as resources have been shifted towards applied research and even experimental development.

At the same time, resource allocation mechanisms have been under increasing strain, especially the process of "peer review" (project assessment by panels of experts in a particular discipline or disciplines). This approach is not useful for selecting between disciplines; it also has a strong conservative bias, with well-established lobbies advancing their causes at the expense of new competitors. It has thus proved impractical for determining areas in which funding should be discontinued altogether.

Institutional characteristics have also complicated resource allocation. It has been especially difficult to reallocate resources among competing projects and establishments in countries where government laboratories account for a large share of public sector research resources. That is the case in certain EEC countries (notably France and the Mediterranean countries) and in Australia (see chart B). The problems of resource allocation have been partly due to the reputation and scientific record of the bigger government laboratories as well as the large scale and long-term nature of their capital investments. Such rigidities have been compounded, however, by the close links that typically exist between these research establishments and the agencies responsible for allocating resources. In countries such as France and the United Kingdom, responsibility for resource allocation and for administering public research institutions is not always clearly separated, so that government-run facilities have often been given preferential funding treatment at the expense of external laboratories, especially university establishments.

Supporting Basic Research

However limited the funds may be, the effectiveness of a country's research effort can only be improved in a system that can shift resources in line with changing needs, that succeeds in diffusing the results of R & D widely and is responsive to the stimuli coming from applied research, not

to mention one which derives the maximum benefit from international cooperation.

Greater Flexibility

Creating a more flexible research system requires not only improvements in resource allocation mechanisms but also in the structure of the institutional framework.

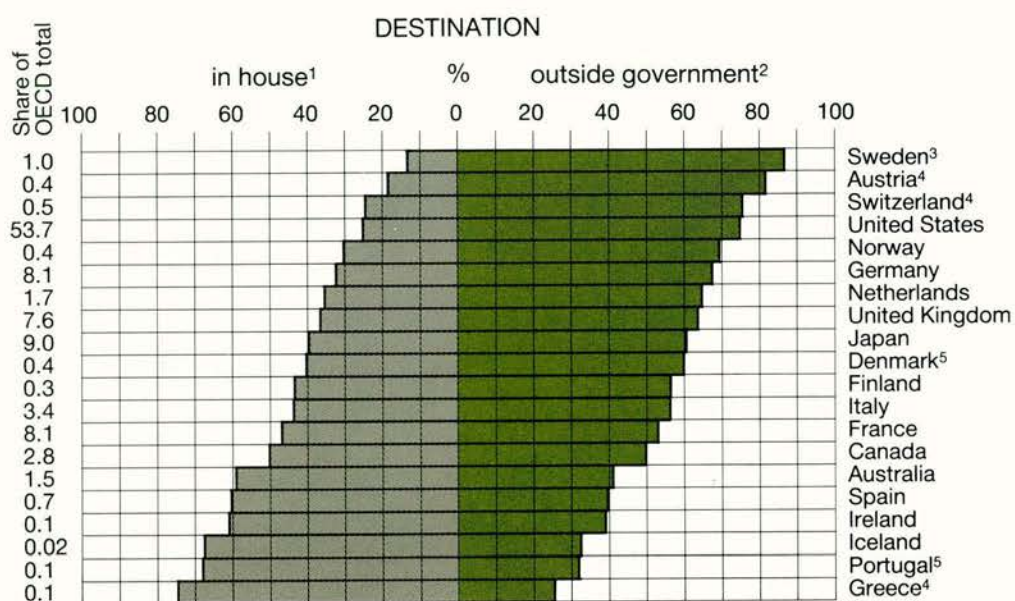
As regards structure, in those countries that are heavily dependent on government laboratories for long-term research, there is

post evaluation as a complement to the selection of new projects. Above all, perhaps, a greater degree of selectivity in research funding would prevent resources from being spread too thinly.

Stronger Links with Industry

Universities need to assert their role in overall national research efforts by acting increasingly as catalysts for the transfer and diffusion of new knowledge into industry.

B. PUBLIC R&D FUNDS IN 1983



1. Institutions at all levels of government plus those entirely or mainly financed and controlled by government, except public enterprises.

2. Industry, universities, non profit organizations.

3. Natural sciences and engineering only.

4. 1981.

5. 1982.

Source: STIID Data Bank, OECD.

a strong case for developing alternative centres for this type of research and for ensuring that funding agencies are impartial in their allocation of resources. While there are areas of research where reliance on government laboratories is virtually inevitable, it would still be desirable for such establishments to have their mandates reviewed periodically.

A more flexible structure would enable resource allocation procedures to be more effective in redirecting research efforts as priorities change. As well as putting greater emphasis on project funding, governments should improve peer review systems in three respects. Greater use should be made of objective performance indicators in evaluating projects and research teams; peer review groups should, wherever possible, include a number of "outsiders" to the local research community being appraised; and there should be increased reliance on ex-

Advances in science and technology hinge more and more on channelling the results of scientific research into commercial applications, and here universities could play a major part in promoting a nation's capacity to absorb new knowledge.

That will require a number of policy changes in OECD countries, including modifications in the treatment of property rights to facilitate the industrial exploitation of the results of scientific research.

Closer International Cooperation

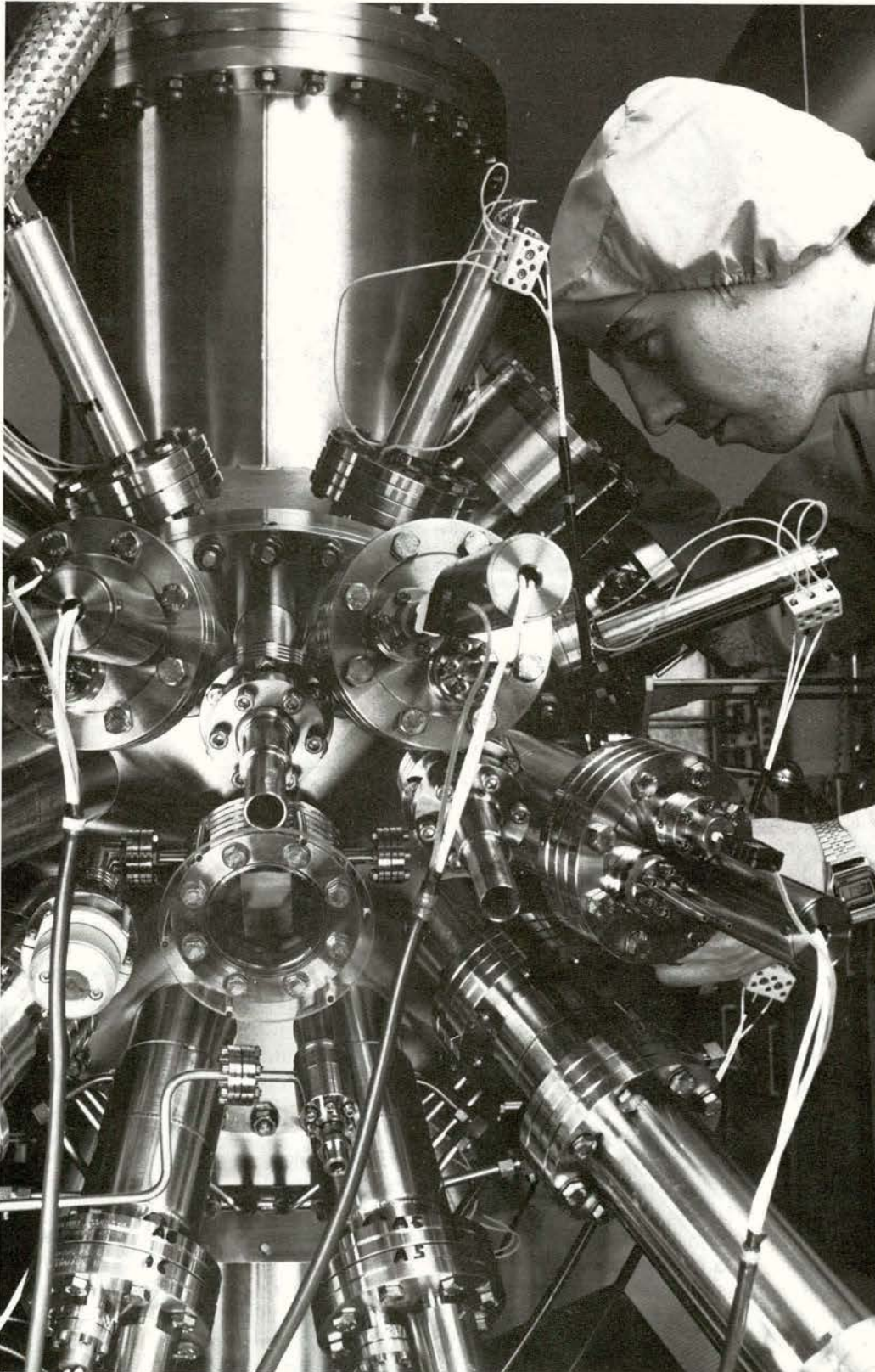
Even the largest and wealthiest industrialized countries are now experiencing difficulties in meeting the costs and ensuring the optimal utilization of the large, capital-intensive facilities increasingly required for many fields of basic scientific research – such as particle physics and astronomy. International cooperation in the provision and operation of such facilities

would not only spread the financial burden of basic research but also raise the return on research activity through a broader and more rapid dissemination of scientific information and the establishment of international research teams.

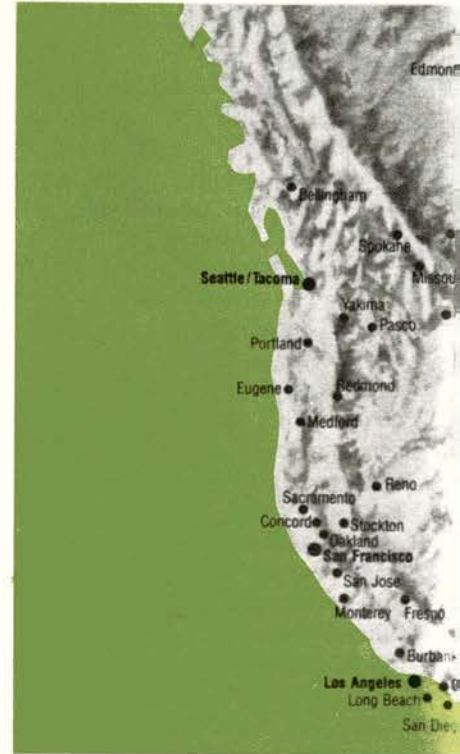
While there is always a risk of reduced flexibility in international facilities, they could be a means for individual countries to reconcile conflicting domestic pressures

arising from a desire to preserve across-the-board scientific competence while lacking sufficient funds to implement such a policy objective. That is particularly important for smaller countries as the lead time between scientific discovery and commercial development diminishes and the economic potential to be derived from rapidly harnessing new technologies grows. ■

Research using this kind of equipment, which is capable of producing semi-conductor layers only a few atoms thick, could lead to the development of a new generation of computer chips. This machine is installed at the Cavendish laboratory in Cambridge, U.K.

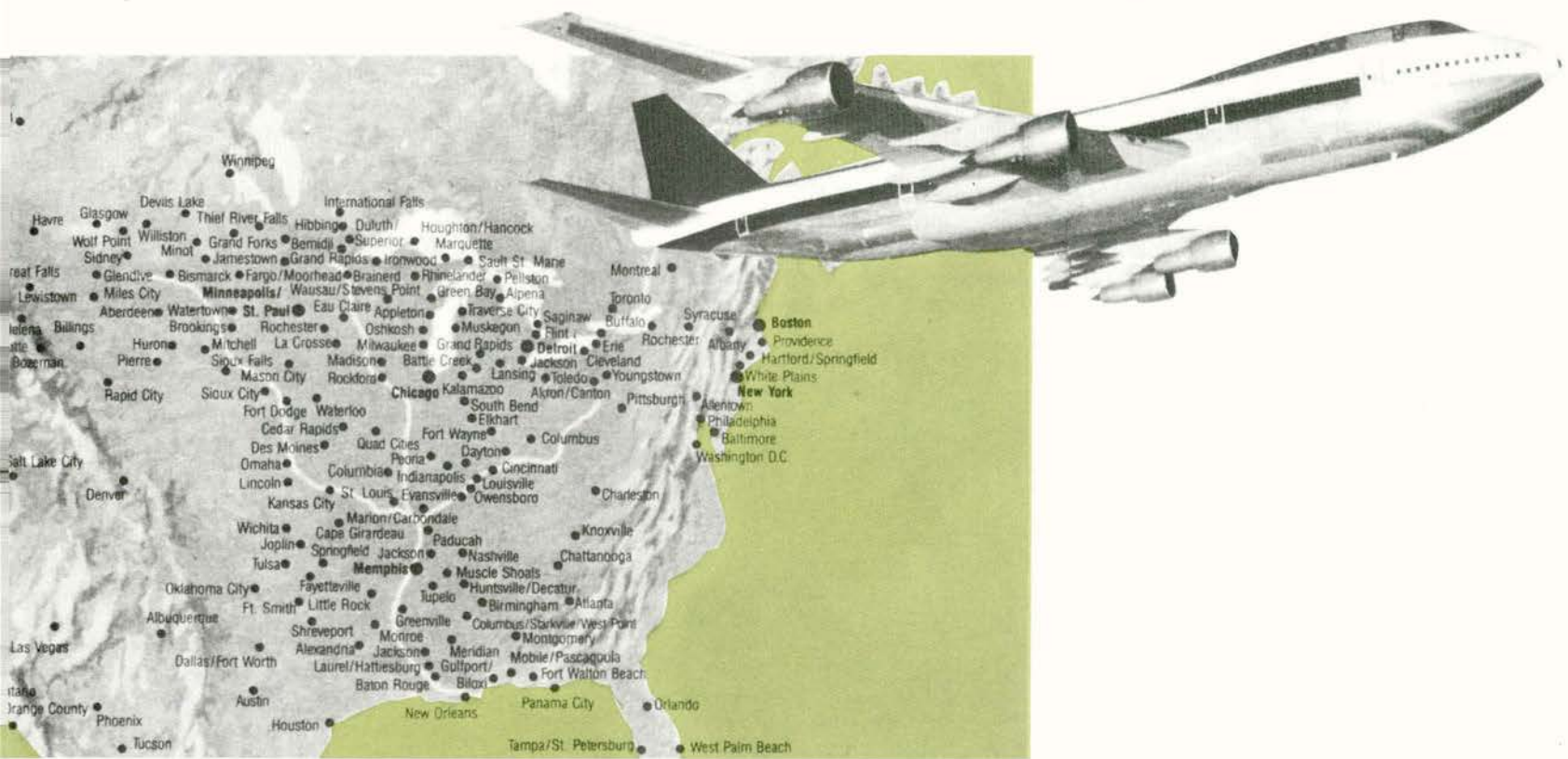


Breaking



Deregulating economic activities that in the past have been regarded as "natural" monopolies has not only introduced greater competition and reduced the cost to the consumer but has also improved the range and quality of services in many cases. Further reform may be called for in governmental regulation of industry to ensure maximum efficiency and market-driven innovation.

Down Unnatural Monopolies



State control of the major public services — electricity, gas, water, transport and communications — used to be taken for granted, whether it was exercised through direct ownership or through statutory regulation. These industries bulk very large in OECD economies, accounting on average for 10 per cent of value added and for only a slightly smaller percentage of total employment.

Public utilities have traditionally been regarded as natural monopolies because they are assumed to offer significant economies of both scale and scope if the service is provided by a single operator. Yet some of these industries, especially those in the transport sector and increasingly the communications sector, are not really natural monopolies at all and the argument that competition in the supply of these services would be “destructive” or “unfair” has been shown to be unfounded.

That is why some countries now regard state control as neither inevitable nor desirable while others are taking a fresh look at the nature and scope of regulation with a view to allowing market forces to operate to some degree.

Transport Services

In virtually all OECD countries, transport services are subject to considerable gov-

ernment control over not only the entry of firms but also pricing and the range and quality of service. Government regulation has tended to spread across the whole transport industry as new modes of transport have in their turn been controlled to prevent them from threatening the viability of established, already regulated, services. Yet the transport industry is made up of a heterogeneous range of modes, some of which (such as rail) offer substantial economies of scale while others (road freight, bus services and air transport in general) do not. The latter can be regarded as “structurally competitive”, especially as there is a large degree of competition between modes of transport.

Although in some cases (especially rail transport) prices have been kept below average costs, the general effects of regulation have been to push up prices to levels above those that would have prevailed in a competitive market. That reflects the inflated costs of some of these protected services arising from operating inefficiencies and higher-than-needed input prices. Both the consumer and the taxpayer (through subsidies of one kind or another) have to pay the excess costs of regulation, therefore.

Price structures have also been distorted by government control, although the resulting cross-subsidization generally favours poorer, remote areas by providing

them with services at prices only slightly above or even below long-run marginal costs. At the same time, the structure of supply has been distorted insofar as certain service providers, especially the railroads, have been required to retain unprofitable capacity in use, especially in rural areas where demand has diminished. That has resulted in persistent excess capacity, which has been very costly to the community.

Finally, regulation has also put a brake on technological progress, since there have been inadequate incentives to innovation and out-of-date working practices have been allowed to continue. Service providers have tended to invest in areas where regulation enables them to make the highest returns, not in activities where the potential economic benefits of innovation are greatest.

Two Examples of Deregulated Transport

American Airlines

All restrictions on entry, exit and pricing in the United States’ airline industry were abolished on 1 January 1983. The result has been considerable gains to the consumer, with the real price of air travel having fallen by some 13 per cent since then and the frequency of flights having increased on

almost all routes. In particular, the shift towards hub-and-spoke networking has led to an increase in the number of points served, especially small communities. The cost of federally-subsidized services to small communities has been substantially reduced as well, as the entry of new "commuter" airlines providing short-haul links has intensified competition in these services.

These gains were obtained through greater efficiency and more rational route structures. Capacity utilization has improved as a result, leading to higher profitability (the heavy losses incurred in 1983

having been due to macroeconomic factors). Employment has also grown, despite the considerable productivity improvements; earnings, however, have not risen overall (and in the case of pilots have decreased significantly in real terms).

One direct consequence of deregulation has been a major restructuring of the airline industry. While in the first phase a large number of new companies entered the market, in the last two years there have been many mergers and takeovers, and the resulting concentration has reduced the number of competing carriers. Even so, there appears to be a sufficient degree of

rivalry within the business for prices to remain very close to their competitive level.

British Buses

Strikingly similar results have been produced by the deregulation of bus services in the United Kingdom. Government controls over long-distance (over 30 miles) coach services were ended in 1980, while all local bus services outside London were deregulated in 1985 (the only remaining regulations relate to safety).

Before deregulation the industry was in decline, with the number of long-distance journeys dropping by 40 per cent between 1975 and 1980 and the number of local journeys decreasing by 20 per cent. Despite rising fares, bus operators' net income declined sharply, while public subsidies to maintain services soared between 1972 and 1982.

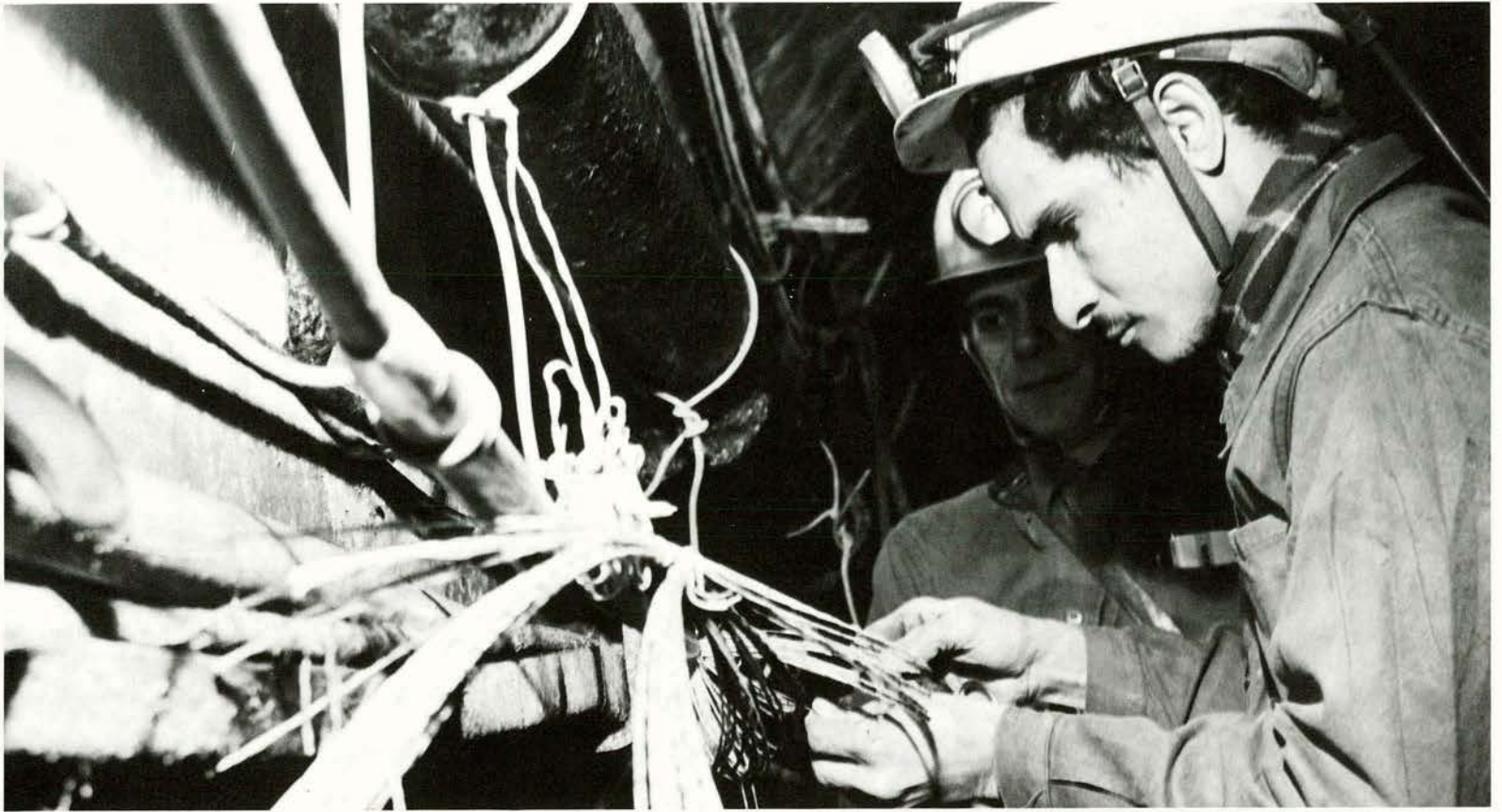
These trends have been at least partially reversed by the shift to competition. More efficient routing arrangements and the resulting cost advantages enabled the National Bus Company (the dominant carrier) to increase overall inter-city services by 17 per cent in two years, providing more frequent services on some routes and reducing fares. The overall effect was to boost the number of long-distance bus passengers from 9 million in 1980 to 15 million in 1985.

At the local level, the consequences are difficult to assess definitively as yet, but it is already clear that the range and quality of services have been enhanced. In particular, small operators have sprung up using mini-buses to provide fast point-to-point travel even on low-density routes. The fact that local authorities are now required to put subsidized routes out to competitive tender has had two results. Firstly, it has been demonstrated that over two thirds of existing routes (in mileage terms) are commercially viable. Secondly, subsidy costs have been cut by 70 per cent while the level of service has been maintained.

Deregulation of transport services in both the United States and the United Kingdom has shown the extent of the inefficiencies that existed when these activities were protected by government controls, resulting in low cost-effectiveness and a lack of innovation. Market-responsive pricing and service supply have brought benefits to consumers and suppliers alike. Indeed, the inventiveness of new entrants to deregulated markets in finding profitable ways of meeting what had previously been assumed to be un-



Inter-city services in the United Kingdom were given a new lease on life by deregulation.



Telecommunications' services are a classic example of an area where there is considerable scope for competition. Above: installing cables in the sewers of Paris.

economic demands has brought greater efficiency gains than expected, as well as a wider range of services.

Competition in Telecoms

Public services that really are natural monopolies – those which can most efficiently be provided by a single supplier – will continue to require government regulation but the approach to state control needs to minimize bureaucratic constraints and rigidities and maximize utilities' responsiveness to market forces and technological innovation. In framing their policies on the regulation of such public natural services, governments should allow greater competition, design control mechanisms for maximum simplicity and transparency and subject state corporations as far as possible to the disciplines of the financial markets.

While there is little scope for competition in an activity such as water supply, which is a textbook case of natural monopoly, in the telecommunications industry there is considerable potential for competition in the supply of both equipment and services. Telecom monopolies started to be broken down in the late 1970s when a number of countries (especially France and the United States) introduced a measure of competition into the supply of customer premise equipment (CPE). So far, liberalization seems to have brought considerable benefits in terms of the cost and sophistication

of equipment. The American market took a substantial lead in the utilization of digital private switchboards and the prices of this equipment are 20 to 30 per cent lower in the United States (and other liberalized markets) than in Germany, for instance.

Competition has neither detracted from the quality of services nor harmed the public network, yet many countries maintain tight controls over CPE supply. While it takes only about six weeks for new products to be certified in the United States, the official approval process takes from six months to a year in Germany. In Europe, the problems are compounded by significant differences in technical standards and regulatory requirements from one country to another, moreover.

There is similarly plenty of room for competition in the provision of value-added network services (VANs) – services that provide amenities over and above the simple transmission of data. These services are usually dependent on lines leased from the monopolistic network operator, which in most countries is a state-owned telecommunications administration. In some countries, though, the provision of leased circuits has now been deregulated, and those are the markets where the VAN industry has expanded most.

The Ownership Question

Even if more competitive conditions are established, some regulation will be

required to prevent the abuse of dominant market positions. One approach for encouraging efficiency of supply which is an incentive to keep costs low is to set a maximum rate at which the price of services can rise relative to the retail price index. That kind of regulatory device might be particularly appropriate to privately-owned monopolies, which have become more numerous recently with the trend towards privatization in certain countries.

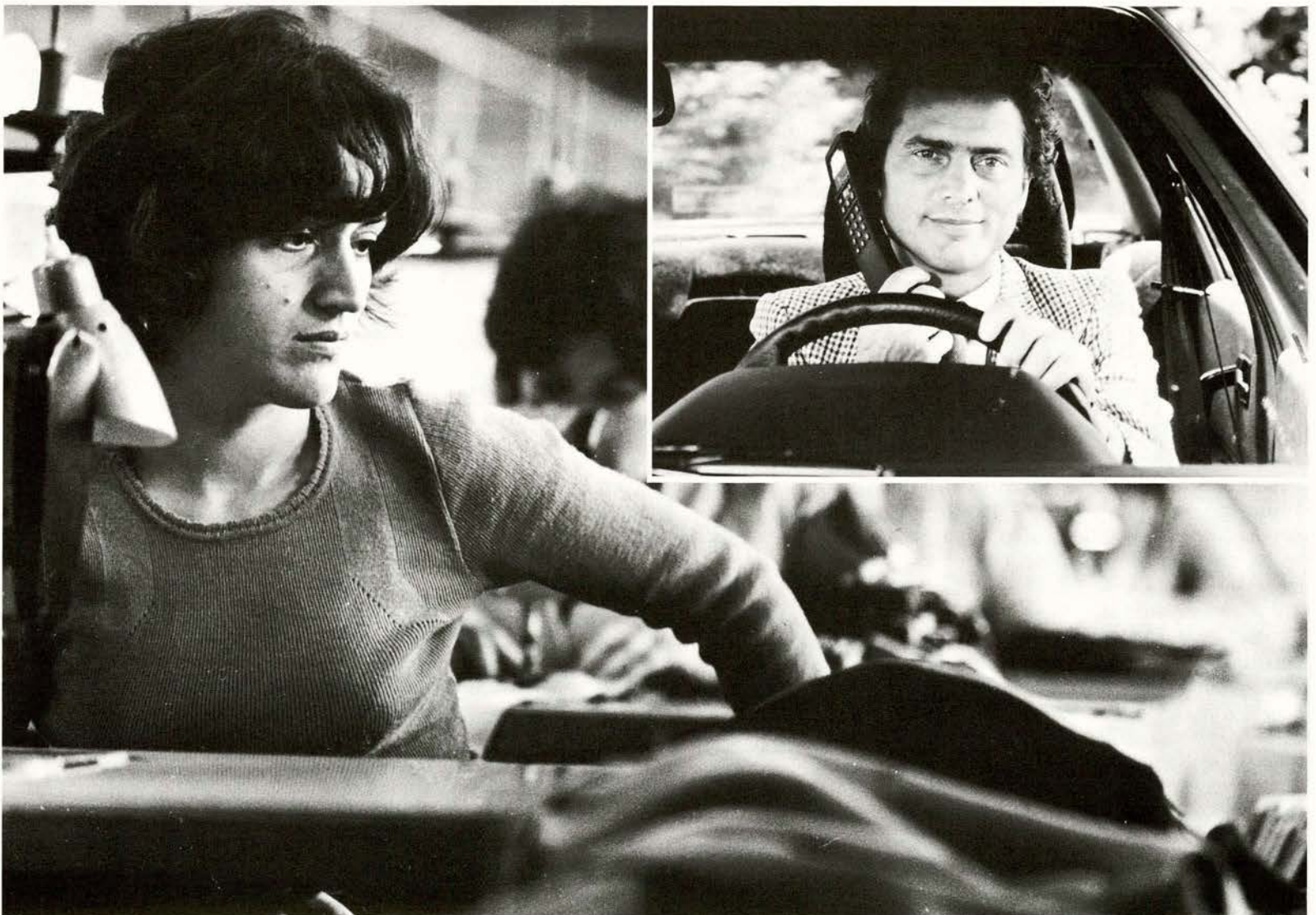
Ultimately, the ownership of these enterprises matters far less than the efficiency of their operations, and to that end it is vital to create a more competitive environment for public utilities. That could be accompanied by measures to put state corporations on to a more commercial footing, by giving them greater operational autonomy, clarifying the functions and objectives of their boards and strengthening their accountability through more transparent financial arrangements.

The transfer of public enterprises to private ownership has to be seen in that context. Privatization not only reduces the scope for political interference but also subjects companies to the scrutiny and judgement of the equity markets. It is too early as yet to draw any firm conclusions about the merits and drawbacks of privatization, however. ■

Paying the Public Sector's Bills

by Michael McKee

The rapid growth in public spending over the past 20 years has to a large extent been financed by higher taxes on both income and consumption. Marginal income tax rates have reached a point in many countries where they are now a major disincentive and are holding back sustainable economic growth. While it remains vital to keep a tight lid on public expenditure, governments could considerably enhance the vitality of national economies by reforming tax systems even where no overall reduction in the tax burden is possible.



The disincentive effect of existing tax systems could be reduced by cutting high marginal tax rates both on large individual incomes and on the "second income" of a household.

OECD governments are today facing the uncomfortable reality that there is no such thing as a free lunch in the public sector any more than in the private sector. A growing part of their annual budgets is absorbed by repayments of borrowings for past expenditure, putting growing pressure on current spending.

The explosive growth in the public sectors of most OECD countries during the 1970s was financed not only by increased taxes but also by borrowing, so that by the beginning of the 1980s alarm was spreading about the high levels of public debt. General government deficits have increased as a proportion of GNP to the point where servicing the accumulated debt will mean a further sharp rise in the ratio of public debt to output between now and the end of the century in all the major OECD countries except France.

Deficit financing was an attractive and convenient method of funding a rate of public expenditure growth that could not be paralleled by any increase in an economy's taxable capacity. But there is no escaping the fact that public expenditure has to be paid for by taxation sooner or later; deficit financing is only a device for

putting off the evil day when taxes have to be raised.

In addition to this unavoidable price, government borrowing may have some other unwelcome macroeconomic consequences. Though it may temporarily be less of a damper on economic activity than high taxes, it is likely to raise the future rate of inflation. But more importantly, in the short term the government's borrowing requirements may absorb funds that might otherwise flow into productive investment — a phenomenon known as "crowding out". There are widely varying views as to the extent to which the public sector crowds out the private sector, but there is evidence to show that growing public deficits do increase long-term interest rates.

Accommodating Fiscal Drag

The public sector has mushroomed in all OECD countries since 1965 and now accounts for over 40 per cent of GDP on average, with the proportion topping 60 per cent in Sweden and Denmark. That development has been accompanied by a sharp slowdown in economic growth over

the last 12 years, complicating the problem of financing the relentless increase in government spending.

When government spending first began to take off in the early 1960s, there was little resistance to the growing tax burdens that were the direct consequence, since economies were growing healthily, living standards were rising and it was accepted that governments had a useful role to play in relieving poverty and stimulating industrial investment. In all countries, government revenue as a percentage of GDP has increased substantially since 1965 by as much as 15 percentage points in a number of cases. Tax rates peaked in 1984 almost everywhere, and since then have tended to stabilize, although since 1980 only six countries have succeeded in reducing the volume of tax receipts as a proportion of GDP.

Inflation kept the effective tax take growing to start with, as rising nominal incomes pushed wage-earners into ever higher tax brackets. Individuals thus faced higher real tax burdens without the government having to increase rates of income tax at all. That process, known as "fiscal drag", brought a steady rise in tax revenue up to

RECEIPTS FROM MAIN TAXES AS PERCENTAGE OF GDP 1965, 1975 AND 1985^a

	Total tax receipts			Personal income taxes			Corporation income tax			Employees' social security			Employers' social security			General consumption			Excises, etc.		
	1965	1975	1985	1965	1975	1985	1965	1975	1985	1965	1975	1985	1965	1975	1985	1965	1975	1985	1965	1975	1985
Sweden	35	44	51	17	20	19	2	2	2	1	•	•	3	8	12	4	5	7	5	4	5
Denmark	30	41	49	12	23	25	1	1	2	1	••	1	1	••	1	3	7	10	8	6	6
Norway	33	45	48	13	14	11	1	1	8	•	2	3	3	8	7	7	9	9	5	5	7
Belgium	31	41	47	6	13	16	2	3	3	3	4	6	6	8	8	6	7	7	3	3	2
France	35	37	46	4	5	6	2	2	2	2	3	6	9	11	13	8	9	9	4	2	3
Netherlands	33	44	45	9	12	9	3	3	3	5	7	9	4	8	8	4	6	7	3	3	2
Luxembourg	30	39	43	8	11	11	3	6	8	4	4	4	6	6	6	4	5	5	3	3	4
Austria	35	39	42	7	8	10	2	2	1	4	4	6	4	5	7	6	8	9	3	3	3
Ireland	26	32	39	4	8	12	2	2	1	1	2	2	1	3	4	1	5	8	10	8	7
United Kingdom	31	35	38	9	13	10	2	2	5	2	2	3	2	4	3	2	3	6	7	4	5
Germany	32	36	38	8	11	11	2	2	2	4	5	6	5	7	7	5	5	6	3	3	3
Finland	30	35	37	11	17	17	2	1	1	•	•	•	1	3	3	6	6	8	4	4	5
Greece	21	25	35	2	2	5	••	1	1	n.a.	n.a.	5	n.a.	n.a.	5	2	5	6	4	3	5
Italy	24	25	35	3	4	9	2	2	3	n.a.	2	2	n.a.	9	9	3	4	5	4	3	2
New Zealand	25	31	34	10	17	21	5	4	3	•	•	•	•	•	•	2	3	4	3	3	3
Canada	25	32	33	6	11	12	4	4	3	1	1	2	1	2	3	5	4	4	2	2	2
Switzerland	21	30	32	6	11	11	1	2	2	1	3	3	2	3	3	2	2	3	2	2	2
Portugal	18	25	31	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	2	3	3	2	5	5	•	3	4	3	3	5
Australia	23	28	30	8	12	14	4	3	3	•	•	•	•	•	•	2	2	2	4	3	4
United States	26	29	29	8	10	10	4	3	2	2	3	3	2	4	5	1	2	2	3	2	2
Spain	15	20	29	2	3	6	1	1	2	1	2	2	3	8	9	3	3	4	1	••	n.a.
Japan	18	21	28	4	5	7	4	4	6	1	2	3	2	3	4	•	•	•	3	2	3
Turkey	15	21	16	4	7	5	1	1	2	••	1	••	••	1	1	•	•	5	3	4	1
OECD average (unweighted)	27	33	37	7	11	12	2	2	3	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	3	4	6	4	3	3

n.a. not available • no such tax is levied •• less than 0.5%

a. Countries are ranked in order of 1985 total tax receipts.

Source: Revenue statistics of OECD Member countries - 1965/1986, OECD, Paris, 1987.

the mid-1970s, but after that many countries indexed tax rates to allow for fiscal drag, so income tax receipts have grown more slowly since then.

To compensate for that, many governments turned to consumption taxes such as value-added tax (VAT). Countries which did not have such taxes introduced them, others broadened their base and/or increased rates to generate higher receipts. At the same time, in many countries there was a growing gap between contributions and expenditure commitments in social security regimes, with the shortfall in many cases being met out of central government funding despite increases in contributions.

Reducing Distortions

In the labour market, the difference between what employers pay and what employees receive as effective disposable income is absorbed by income taxes, social security contributions, payroll taxes and

consumption taxes. To the extent that these taxes together distort economic decisions, they have an effect on the supply, demand and productiveness of labour and capital, and recent evidence shows that these effects could be great enough to affect economic performance significantly. Moreover, the adverse impact of taxation arises disproportionately from the highest rates of tax, so bringing down the top rates would go a long way to undoing the damage. Reducing high *marginal* tax rates, not only on individuals with high incomes, but also on second income earners, the unemployed and recipients of state benefits, would remove much of the disincentive effect.

Reducing discrimination in favour of special groups is also desirable to ensure more uniform and equitable tax treatment of all individuals. It is important for a tax system to be regarded as fair and reasonable if evasion is to be minimized. After all, it is a simple and observable fact that people do their best to avoid paying taxes, and the

higher the tax rates the greater the effort to avoid them.

Taxation of investments and unearned income in general varies considerably from country to country and as between different categories of savings and investment within countries. The complexity of existing tax systems has major implications for the pattern of capital formation. The overall level of savings may be reduced and the productivity of investment will not be maximized since savings will be attracted to uses and investment vehicles that enjoy favourable tax treatment rather than those that yield the highest economic returns. Furthermore, appropriate tax rates should be agreed multilaterally to avoid competitive measures and moves should be made towards establishing a system of taxation that is sustainable in the long term.

Reforming Income Tax

In view of the disincentive effects and the anomalies of treatment in existing

Savings may be attracted to types of investment that enjoy favourable tax treatment rather than support wealth-creating economic activities such as small and medium enterprises. Below: a mail order company.



income tax systems, there is a strong case for countries which have not already done so to shift the balance of their tax structures from income-based towards consumption-based taxation. The most widely adopted consumption tax is VAT, which is an effective revenue raiser because it is relatively hard to evade and covers the supply of services as efficiently as the production of goods.

One criticism of VAT, however, is that like all consumption taxes it is regressive and is therefore not an equitable alternative to income tax. It is possible to devise progressive consumption taxes though, which would overcome that drawback, and in general it can be said that they do constitute an attractive alternative to income-based taxation, especially as they have a more neutral impact on economic decisions.

Nevertheless, the immediate focus of attention is not on replacing income tax systems but on reforming them. The three main objectives of such reform are to

remove or reduce much of the panoply of tax reliefs currently allowed, to restructure the rates of tax into fewer brackets and bring down the top rates, and to give more equal treatment to different sources of income, both as between earned income and unearned income and between different types of investment income. As regards taxes on business, reform is sought in terms of widening the tax base, removing provisions that bias investment decisions, bringing corporate tax rates more into line with personal tax rates and reducing the existing discrimination against distributed profits.

The recent comprehensive reform of the United States' tax system embodied a number of those measures and thus provides an example of the results that could be expected from such an approach. Independent estimates suggest that the reform will bring tangible benefits and, in particular, that economic performance will improve even if the rate of capital formation declines.

Compressing the Public Sector

Tax reform will not change the overall level of government revenue requirements but merely shift the burden within the body of taxpayers, private and corporate. While tax reform alone can improve economic efficiency, the sheer weight of the public sector may in itself comprise an excessive burden on the wealth-creating sectors of the economy.

Above all, therefore, the quality of public expenditure needs to be carefully and constantly reviewed to ensure that the benefits obtained justify the total costs. Those countries with the highest tax rates and the largest public sectors have the most to gain from cutting back the total tax take and simultaneously rationalizing tax systems. For all countries though, reducing public spending requires hard economic and political choices and may call for a complete rethinking of the role and responsibilities of government. ➤

In view of their more neutral effect on economic decisions, consumption taxes (VAT, for example) are increasingly being regarded as an interesting alternative to income tax.



THE SOARING COST OF SOCIAL POLICIES

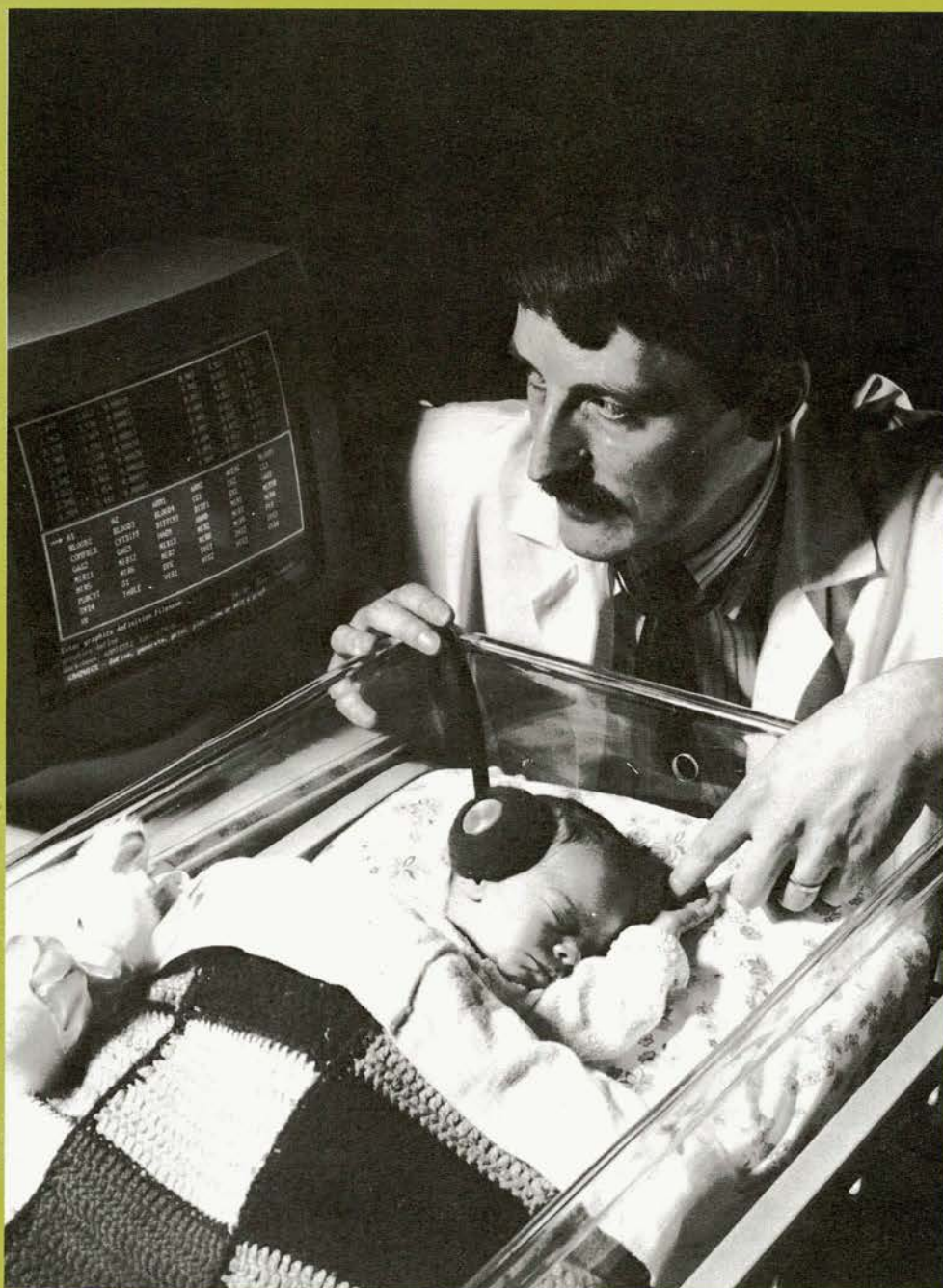
Social spending of all sorts — on health services, retirement pensions and unemployment benefits — absorbs the lion's share of government budgets in all OECD countries. A major concern everywhere today is that welfare commitments are incompatible with current demographic trends and the limits of present and future taxable capacity.

Health services now represent 7 to 8 per cent of GNP in OECD countries and the demand for medical treatment is rising all the time. Within the confines of what society can afford, governments have to find a balance between giving citizens fair and equal access to health care with the growing potential available through advancing technology.

The most promising approach for improving the economic effectiveness of health services seems to lie in a shift to greater competition combined with better information and increased charges to the consumer, which would provide more direct incentives for containing costs and improving the quality of service. Vertically integrated insurance and health organizations like the Health Maintenance Organizations (HMOs) in the United States, represent an interesting innovation in this respect.

State pension schemes face particularly serious problems as a result of the ageing of populations. Commitments look like outrunning resources even if GDP growth rates recover substantially. If pension payments have to be trimmed in consequence, that could lead to political and economic tensions pitting pensioners against the working population. Steps need to be taken now to forestall future difficulties, placing the emphasis on increasing the funded component of pension schemes. While that could be done in the context of state schemes, private pension plans may prove more effective as savings vehicles and ensure the most efficient investment of pension funds. Greater reliance on private schemes would require an appropriate regulatory framework, however, and would make the portability of private pensions essential.

Unemployment compensation has already become a big drain on public resources and the prospect of continuing high rates of joblessness pre-



sents governments with both financial and social problems. Long-term unemployment is growing while benefits have become less generous for many categories, creating severe hardship for both those out of work for long periods and for new would-be entrants to the labour force. There is little scope for further reductions in unemployment compensation, though in some countries the disincentive effects of benefits could be reduced by making them taxable.

At the same time, however, there is a need to provide better training and retraining facilities for the unemployed, especially in countries where unemployment has fallen particularly hard on the unskilled while skill shortages persist. From a budgetary point of view, therefore, there are probably few savings to be made in policies for the unemployed, with any curtailment of compensation outlays needed to finance positive efforts to get the unemployed back to work. ■

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