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The Imperative of Free Trade

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The Chinese Giant

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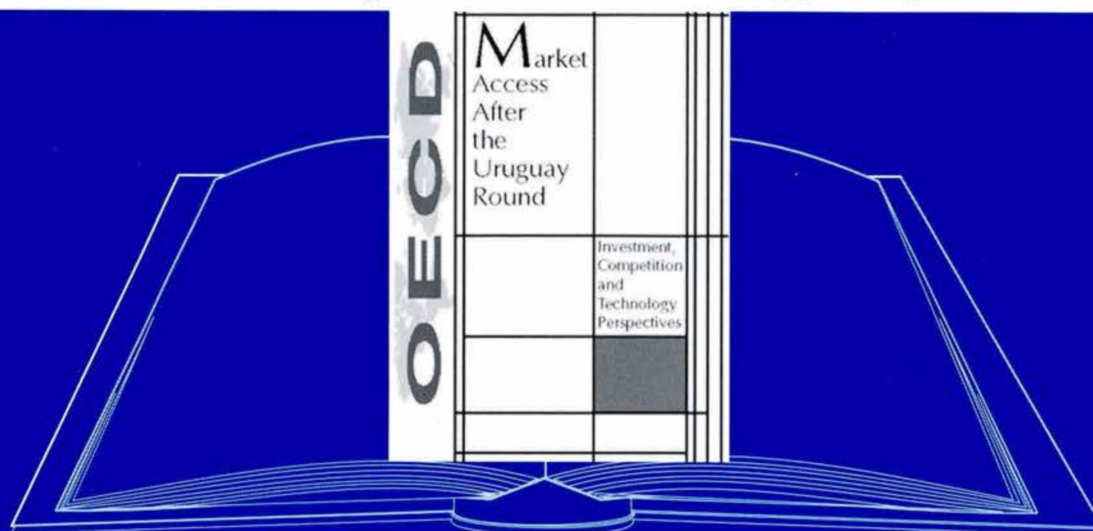
Market Access After the Uruguay Round: Investment, Competition and Technology Perspectives



How can policy-makers best promote and secure the openness of markets to global competition today? As globalisation deepens economic integration, the boundaries of the trading system are reaching deep inside national borders. Policy-makers therefore have to take a much broader, integrated and co-ordinated approach to market access than that which prevailed even as recently as during the Uruguay Round. Such an approach must both meet the functional requirements of globally active firms and promote general economic efficiency by encompassing the continuum of trade, investment and competition policies and the domestic regulatory conduct of nations. To improve the benefits from the competition-enhancing objectives of the multilateral trading system, this new approach to market access aims to roll back and ultimately remove the anti-competitive practices, both public and private, that unduly restrict the ability of firms to contest markets on a world-wide scale.

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Governments have to explain to their citizens the advantages of an open, rules-based trading system – particularly when there are protectionist calls for adjustment and innovation to stop.
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The Imperative of Free Trade

Donald J. Johnston, Secretary-General of the OECD

The liberalisation of trade and foreign investment has stimulated innovation, encouraged efficiency and promoted growth. Open trade has been a driving force for stability and prosperity. It has been a precondition for the fourteen-fold expansion in world trade in goods since 1950 and a six-fold increase in world product-ion. As closed trade ushered in depression and war in the 1930s, open trade has paved the way for continued post-war growth and prosperity. It has brought immense gains for consumers in terms of new products and pro-ducts of better quality and lower price. It has forced producers to adjust, but those adjustments are necessary to reap the benefits from trade and technological change. The winners by far outnumber the losers in this process.

Managing such change and dealing with the human anxieties that go with it require special efforts. Governments have to explain to their citizens the advantages of the open, rules-based trading system, particularly when there are protectionist calls for adjustment and innovation to stop. The arguments against open trade that tend to be heard in the developed economies often raise the spectre of massive job losses to 'unfair' low-wage competitors in developing countries. But trade with those countries in fact offers enormous opportunities and, as with all trade, mutual benefit.

OECD economies have made efficiency gains from their access to lower-cost suppliers, and they have found new and dynamic markets for their own goods and services. Moreover, growth in the developing and trans-ition economies offers enormous markets for the future. By 2010, for instance, there will be more than a billion consumers in developing countries with per capita incomes exceeding those of some OECD countries today. The developing world already absorbs about a quarter of OECD exports. By early next century that figure should rise to about a third.

From its inception the OECD has been committed to contributing to the expansion of world trade on a multilateral, non-discriminating basis, as well as contributing to sound economic growth in member as well as non-member countries. The OECD must continue the solid analytical work which can help the World Trade Organisation (WTO) to move forward on trade liberalisation, stressing the importance of ensuring that the non-OECD countries, particularly those in transition, become fully integrated into the global trading system. But it is also important for the OECD to help governments to sell the message of the benefits of free trade not only to bureaucracies and politicians but to others who shape public opinion. Ultimately it is the citizen who has to be reached – and to be reassured both that trade-induced

changes are beneficial for society and that society is committed to helping those faced by adjustment.

The importance, and inevitability, of change has been stressed in many aspects of OECD work, including the OECD Jobs Study. *In the context of jobs and unemployment, OECD countries have committed themselves to a series of macro-economic and structural-policy recommendations to improve job prospects. These recommend-ations take account of the necessity that economies, industries and firms adjust, but also stress the import-ance of helping individuals to adapt through better education and training policies in the context of life-long learning.*

The OECD also has an important role to play in recognising that the nature of trade is changing and is thereby throwing up new issues that require discussion and agreement. The trade agenda of the future must move well beyond the traditional issues of trade between national economies to meet the demands of a globalising one.

Investment issues are at the forefront. Firms invest to trade and trade to invest. About a third of all trade in goods across borders takes place within firms. The old model of manufacture in one country and sale in another has given way to an international process of manufacture, assembly, finishing and marketing which leap-frogs national boundaries. This makes the old concept of goods of national origin less and less relevant, a change reflected in the way that firms do business. The decisions on whether to set up a business in a foreign market (market presence) or to export your product there (market access) depends on the global strategy of the firms concerned. That calls for rules of the game that provide for national treatment of both foreign and domestic suppliers and non-discrimination between foreign suppliers for both market access and market presence.

There has already been a partial multilateral response in the form of the incorporation of investment-related disciplines in the General Agreement on Trade in Services (GATS) and the Trade Related Investment Measures (TRIMs) Agreement in the WTO. The OECD was also asked in 1995 to launch negotiations on a Multilateral Agreement on Investment (MAI) within the OECD with the aim of reaching an agreement by mid-1997. The MAI would provide a comprehensive framework for foreign direct investment, widening the scope of existing liberalisation and providing legal security for international investors. The proposed agreement would seek to ease market access, essentially by embodying the principle of national treatment (foreign invest-ors having the same legal treatment as national companies) in a multilateral context. The MAI would be open to all OECD countries, and to non-member countries, who are being consulted during the negotiation process. In view of the importance of investment to the development process, it is to be hoped that the agreement will be subscribed to by a large number of countries. Investment, after all, like trade, is to the advantage of both the provider and recipient alike.

The OECD is uniquely adapted to carry forward this kind of work. Its analytical capacity is proven. And it has already shown that it can apply that analysis to practical ends. The emphasis has to move from theory to practice, where international trade is an issue of the most pressing global concern. That is why the OECD has to focus its efforts on the new trade agenda. The work initiated on new dimensions of market access, the MAI, trade and competition, trade and the environment, trade, employment and labour standards, and bribery will help develop credible policies and approaches to facilitate further liberalisation. It will also encourage confidence in the communities of the OECD countries that trade liberalisation is indeed in their interests.

Globalisation, Trade and Competition

Crawford Falconer and Pierre Sauvé

The globalisation of markets has confronted governments with the importance of promoting the values and principles of competition – both domestically and internationally – and of developing a much broader understanding of the concept of market access than that which applied even as recently as the Uruguay Round. This approach has to embrace the continuum of trade, investment and competition policy, its chief focus being on stemming anti-competitive practices – public or private – that impede and distort the openness of markets to international competition.

Almost a decade has elapsed since the inception of the Uruguay Round. During that time, political and economic changes – most spectacularly in a large number of transition and developing economies but also within the OECD area – have emphasised the values of market-based competition. In developed and developing countries alike, the domestic policy framework has centred on a number of initiatives directed at enhancing market forces by redefining the boundaries of government intervention, regulation and encouraging structural change in major economic sectors, not least through privatisation, flexibility of the labour market, and the reform of tax, social-security and other related policies.[1]

Those ten years have also seen an important world-wide push towards the liberalisation of trade and investment regimes and, through the adoption of outward-oriented strategies, genuine efforts to integrate the transition and developing economies into the world economy. Many of these countries have also signalled their commitment to reform by instituting laws and policies to stimulate competition. By choosing market-based approaches, they increasingly share with the industrial countries a high stake in ensuring the functioning of competitive markets across the globe. Without discounting the differences which still exist in the way countries understand the notions of 'efficiency' and 'competition', the overriding principle of this converging policy framework has been the promotion of increased efficiency through competition, both domestically and internationally, with a view to providing a sounder basis for sustainable and employment-creating economic growth.[2]

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Trade and Investment

Together with the move to the market, another defining feature of the world economy is the increasing globalisation of business operations. Linking production, technology and marketing along value-added chains in an increasingly borderless environment, it has sharply heightened competition in product and factor markets throughout the world, stimulating improvements in productivity and growth. Policies directed at protecting and supporting 'domestic' firms and products have become more difficult to implement, not least because of the difficulty of identifying 'national origin' with any real meaning in a globalising world. The growing – and mutually reinforcing – links between trade and investment as means of doing business are a fundamental characteristic of globalisation. This development has altered the scope and meaning of 'market access' which, in the period after the Uruguay Round, is increasingly viewed as defining the conditions governing the access to foreign markets and the presence there of goods, services, investments, ideas and business people alike.[3]

As a result, a more coherent and internally consistent set of non-discriminatory trade and

1. ***Assessing Structural Reform: Lessons for the Future***, *OECD Publications, Paris, 1994.*

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

3. *Americo Beviglia Zampetti and Pierre Sauvé, 'New Dimensions of Market Access: An Overview', in* ***New Dimensions of Market Access in a Globalising World Economy***, *OECD Publications, Paris, 1995.*

4. *Robert Z. Lawrence, 'Towards Globally Contestable Markets', in* ***Market Access After the Uruguay Round: Investment, Competition and Technology Perspectives***, *OECD Publications, Paris, 1996.*

5. Multilateral Agreement on Investment: Progress Report by the MAI Negotiating Group, *available free of charge from the Capital Movements, International Investments and Services Division of the OECD Directorate for Financial, Fiscal and Enterprise Affairs; see also the 1996 OECD Ministerial Communiqué,* ***The OECD Observer***, *No. 200, June/July 1996.*

6. *See pp. 25–28 and Sam Paltridge, 'Upwardly Mobile Telephony',* ***The OECD Observer***, *No. 196, October/November 1995.*

7. *Donald A. Hay, 'Anti-competitive Practices, Market Access and Competition Policy in a Global Economy' and Merit E. Janow, 'Public and Private Restraints That Limit Access to Markets', in* ***Market Access After the Uruguay Round: Investment, Competition and Technology Perspectives***.

investment disciplines is required with which the activities of globally active firms can be underpinned. The promotion of such neutrality between trade and investment – access and presence – as means of doing business marks the realisation that they have become inherently complementary means of contesting markets.[4] Coming in the wake of the last decade's surge in cross-border investment activities (Figure, p. 8), this recognition played a fundamental role in prompting the OECD countries to launch negotiations aimed at reaching a high standard Multilateral Agreement on Investment (MAI) by mid-1997, an objective the central importance of which was re-affirmed at the Ministerial meeting of the OECD Council in May this year.[5] An effective MAI would also help pave the way for the eventual incorporation of a comprehensive set of investment disciplines within the multilateral trading system.

Bocquel/RÉA

Regulatory Impediments

Another central feature of the global economy is the growing international importance of a series of issues previously considered to be mainly or entirely the business of domestic policy or regulation. Such implications have already arisen, or are likely to arise, in a number of policy domains, including industrial, taxation, labour and environmental policies. In particular, the conduct of governments in activities such as the regulation of telecommunications networks[6] and services, the granting of support for regional development or R&D, the design and/or enforcement of health, safety and environmental standards or the application of licensing requirements to service providers may exert a strong impact on conditions of access to and presence in markets.

Many countries, particularly in the OECD area, have for a number of years tried to enhance efficiency by reforming domestic regulation. Yet the market-access implications of such changes – that is, the degree to which domestic regulatory conduct promotes or inhibits trade and investment opportunities – have only recently begun to elicit closer international scrutiny. The OECD has therefore embarked on an ambitious inter-disciplinary study aimed at investigating the economy-wide implications – on growth, employment, innovation, market access, consumer welfare and government efficiency – of domestic regulatory conduct. The central objective of this analysis, whose main findings are also to be presented to OECD Ministers in 1997, is to ensure that regulatory reform leads to lasting improvements in economic performance while retaining the benefits of the regulation.

Competition Policy

A further set of issues arises from the impact of anti-competitive activities by businesses – conducted with or without government involvement, support or control – in the global economy. Such behaviour includes, *inter alia*, exclusive arrangements between manufacturers and retailers, predatory practices, market foreclosure (through control of distribution channels or essential facilities, for example) and strategic conduct to deter entry (for instance, 'deep discounting' for a short period or fidelity rebates which exclude new entrants), all of which can affect the international competitive process and impair opportunities for market access and presence.[7]

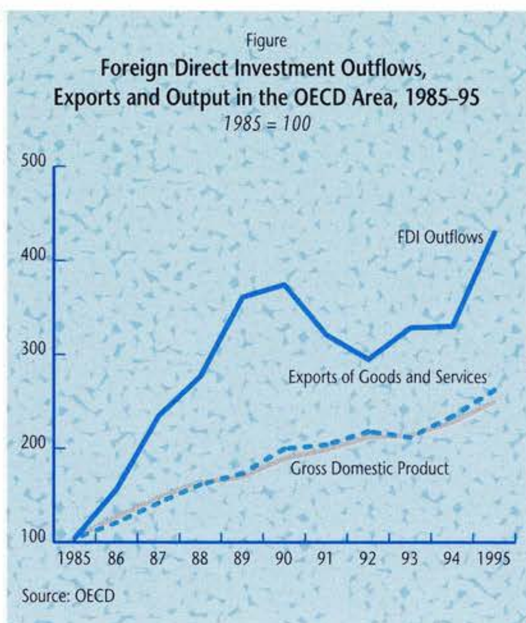
Various market structures, such as strategic alliances and joint-ventures in high-technology sectors (aerospace, pharmaceuticals, computers and information technology, for example), as well as interactions between private companies and government – not least the operation of public monopolies, standard-setting procedures, statutory or *de facto* exceptions to the application of competition law, and state aids – may have

similar effects. Furthermore, corruption and its impact on global business have also become prominent in international debates, reflected most recently in the OECD Ministerial decision on bribery.

Fostering competition is ultimately in the interest of the consumer. Such an objective typically falls within the purview of domestic public policy, of competition law in particular, and should represent a unifying theme for domestic policy-making as a whole. Although there has been a recent trend towards convergence in domestic competition regimes and in their coverage, especially within the OECD area, there are still differences that may affect market access and competition.[8] And it is obviously desirable that there be as much coherence as possible between domestic and multilateral policy objectives. It may therefore be timely to examine seriously whether a measure of coherence in international rules is feasible and desirable.[9] Indeed, the emphasis on market-based approaches and competition values in domestic policy is equally desirable internationally. Moreover, lack of (or constraints on) market competition can give rise to international friction.

In recognition of the central complementarity of trade and competition policies in a globalising environment, the OECD governments at the 1996 Ministerial meeting approved the establishment of a Joint Group on Trade and Competition. Its work programme will mainly tackle further analysis of how the coverage, substantive criteria and enforcement of competition laws can affect conditions of access to and presence in markets, examine the effects of trade measures and policies on competition, and consider options on how best to strengthen the coherence between trade and competition policies.

The common element linking these issues is their effect on the nature and patterns of international trade and investment flows, and hence the quality or degree of access to and presence in markets. The evolving economic landscape is exerting a strong influence on much of what has been termed the 'new trade agenda' emerging after the conclusion of the Uruguay Round. This agenda gives rise to a series of related policy



challenges:

- how to raise the prominence of competition values and principles in the design and operation of the multilateral trading system
- how to strengthen the multilateral trading system through the development of a credible and comprehensive set of disciplines on investment protection and liberalisation
- how to deal with government policies and actions that affect or distort the conduct of international business and, in particular, those policies previously considered mainly domestic in nature
- how to deal with business practices and market structures that have the same effect
- how best to strengthen public support for, and enhance confidence in the benefits derived from, an open and rules-based trading system.

A Competition-oriented Trade Agenda

Widespread unilateral and regional liberalisation of trade and investment regimes, and the substantial widening and deepening of the multilateral trading system achieved in the Uruguay Round, have much increased efficiency and welfare in the world economy. Indeed, the central objectives pursued by the international trading regime – eliminating discriminatory treatment in international commerce and progressively dismantling impediments to trade and investment – aim at promoting global welfare through increased trade and growth. By striving (although with still too many loopholes and exceptions) towards progressively freer conditions of doing business globally, the multilateral trading system furthers competition and a more internationally efficient allocation of resources. Nonetheless, a number of other desiderata, ranging from environmental protection to the promotion of employment, social development or technology diffusion, are usually taken into account in domestic policy-making and have to be reflected in the objectives, design and operation of the trading system.

For all the genuine progress achieved during the course of the Uruguay and preceding GATT Rounds, the multilateral trading system continues to be confronted with a host of unfinished traditional issues and with new and potentially conflicting demands. Beyond the commitments undertaken in the Uruguay Round (the so-called 'built-in agenda'), much remains to be done to equip the system with the range of instruments and institutional flexibility required both to mediate the tensions, new and old, which may arise or be intensified in a globalising business environment and to promote the efficiency-enhancing objectives of trade and investment liberalisation.

Recent years have indeed revealed a widening gulf between the considerably broadened scope of issues prospectively appearing on the trading system's agenda – ranging from calls to

8. *See pp. 10–12.*

9. Competition Policy in the New Trade Order: Strengthening International Cooperation and Rules – Report of the Group of Experts, *Commission of the European Communities, Brussels, 1995.*

10. *Sylvia Ostry,* New Dimensions of Market Accesss, *Occasional Paper No. 49, Group of Thirty, Washington DC, 1995.*

11. *Rauf Gönenç, 'A New Approach to Industrial Policy' and Hanspeter Gassmann, 'From Industrial Policy to Competitiveness Policies',* **The OECD Observer**, *No. 187, April/May 1994.*

address the market-access asymmetries caused from differences in regulatory philosophies or practices, to enshrining the right to contest a market through an established presence, or to disciplining private anti-competitive behaviour – and the still limited range of instruments with which to tackle them. Rolling-back impediments to market access and presence may therefore prove increasingly difficult in the absence of a more balanced and comprehensive approach to multilateral disciplines. The potential 'assignment problems' that result from the growing discrepancy between policy objectives and instruments is now one of the central challenges confronting the multilateral trading system.

A Broader Approach

One way of tackling these challenges is to consider how best to adapt the multilateral trading system to the evolving reality of deep integration and thus help sustain international business activities. The pursuit of the core objectives of the system clearly enhances competition and welfare. But the scope of impediments, *de jure* and *de facto*, to market access and of distortions in the international marketplace has nonetheless grown.[10] New dimensions have emerged which go beyond the confines of the traditionally understood concept of market access, which had primarily to do with a range of governmental barriers at the border. It may thus be desirable to focus the attention of governments on a more comprehensive, targeted and co-ordinated approach to market access, one that aims to promote the openness of markets to global competition.

The purpose of this broader approach is to deal more effectively with the realities of the new dimensions of market access, not least the wide range of 'behind the border' obstacles that impede or distort the international flow of goods, services, ideas, capital and business people. Such a focus would require the adoption of a balanced approach to the broad range of potential public or private impediments to effective access to and presence in markets, so that the removal of impediments in any one area is informed by, co-ordinated with and complementary to efforts in other areas. For example, the liberalisation of cross-border trade in consulting engineering services under the General Agreement on Services (GATS) could be complemented by liberalisation commitments in the areas of investment, government procurement, duty-free (temporary) entry of professional 'tools' of the trade (computers and software packages or technical equipment, for example), mutual recognition of professional licensing regimes and the temporary entry of service suppliers.

Such a competition-oriented approach to market access would, of course, cover traditional border barriers, both tariff and non-tariff, about which much of the pre-Uruguay Round trading system was concerned and which remain important despite the progress registered during the Round. But in a world of deepening economic integration, conditions of effective access and presence are increasingly affected by investment restrictions, domestic regulatory conduct and structural differences in the functioning of markets, as well as by private anti-competitive practices.

It is, of course, unrealistic to expect the conduct of business across borders to be fully immune from barriers to entry or presence as there are a number of obstacles that cannot simply be legislated out of existence – differences in culture or tastes, for example, and advantages of scale deriving from being first in a market. But the distinction has to be defined more clearly and consistently than it has to date in multilateral fora. Securing the openness of markets thus requires some effort to ensure that the competitive process prevailing in a domestic market is not unduly distorted by anti-competitive governmental or business activities. Foreign goods, services, ideas, investments and business people thus have to be able to benefit from opportunities to compete in that market on terms equal or comparable to those enjoyed by local producers.

Not only, then, should anti-competitive government or private action not impair access to the domestic market; neither should similar actions confer 'artificial' competitive advantages to domestic firms. For instance, the strategic or discriminatory use of government assistance may provide a competitive edge to domestic firms, effectively excluding or impairing the ability of new competitors (domestic or foreign) to gain access to or maintain a presence in a national market.[11] It may then also prove necessary to introduce international disciplines to control anti-competitive behaviour by business.

By underlining the importance of the efficiency objectives pursued by the multilateral trading system, globalisation raises the crucial question of the extent to which the world's governments are prepared to see competition values assume more prominence in policy- and rule-making. A compelling case exists for enhancing the 'competition-friendliness' of the multilateral trading system. OECD and non-OECD countries alike will have to build a consensus along these lines in the coming years. Their deliberations will be supported by work undertaken over the last few years, both within the OECD and in various other fora, that points to a broader understanding of the 'new' dimensions of market access within the policy-making community. ■

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Antitrust Policy and Market Access

Barry E. Hawk

Guaranteeing access for foreign competitors to domestic markets is one of the most important functions of a liberal trade policy. But competition policy can also be involved, since the application of competition laws to business practices that restrict market-access can help moderate trade disputes. How effectively can these laws redress such concerns?[1]

The relative strength or weakness of national competition laws is a function of four factors. First, there are substantive rules, governing specific business practices and arrangements – for example, prohibiting price-fixing agreements between competitors. Second, there is the extent to which such rules can be enforced. Third, there is the scope of sectorial coverage of laws and, fourth, the degree to which they can be applied to government bodies, state enterprises and the conduct of private firms encouraged or sanctioned by governments.

It has been argued that a number of practices hinder the access of foreign competitors to markets. There are 'horizontal' arrangements among competitors, such as boycotts of foreign firms, exclusion from trade associations, predatory use of standards (as when standards are set by domestic producers with the aim of excluding foreign competitors from the market) and collective exclusive dealing (when competing producers organise collectively the conditions under which downstream sellers will deal exclusively with them). There are also 'vertical' restraints, not least exclusive dealing between a supplier and a distributor that keeps out competitors. There can be abuse of dominance by single firms or producer associations, leading to behaviour intended to exclude competition, such as predatory pricing and fidelity rebates involving foreclosure (since the rebates system can be organised with a view to closing the market to new entrants).

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One difficulty with the use of competition law to resolve trade disputes is that it can be applied (or withheld) either for protectionist reasons or for 'legitimate' objectives of competition policy. Most vertical and abusive practices are condemned under competition laws usually only after a fact-intensive analysis of their competitive benefits and harms in a particular case (for example, an exclusive-dealing contract). There is also considerable debate about whether, and under what kind of circumstances, pricing practices and other 'aggressive' business behaviour should be condemned.

In contrast, 'cartel' practices are more unequivocally undesirable from the perspective of competition policy and do not raise the same kinds of ambiguity as vertical restraints and 'predatory' practices by single firms. A government which applies competition law to cartel practices in a comparatively relaxed manner is more likely to do so from protectionist motives.

But differences in the treatment of vertical restraints and alleged predatory practices can also rest on entirely reasonable differences about competition policy (and economics) or the factual circumstances and market conditions in a particular case. The EU's strict position on distribution restraints, for instance, is partly based on the importance it attaches to the goal of integration, a consideration absent in other competition-law systems.

Determining 'Legitimacy'

It is no easy task to determine in practice whether competition laws are relaxed for reasons accepted under competition policy or for protectionist ones. That in turn raises the hoary question of what operational criteria are 'legitimate' in the enforcement and application of competition laws.

Agreement between countries on the 'legitimacy' of the criteria of competition laws is complicated by shifts in economic theory that can explain differences in the ways these laws are applied without necessarily suggesting that protectionist motives are involved. Moreover, circumstances can vary considerably from country to country (for instance, some markets may be more open and competitive than others, leading to different judgements on particular practices).

'Legitimacy', indeed, is a fundamental issue in the policy debate on market access and competition and more work should be devoted to identifying and defining internationally agreed operational criteria. Several that would warrant discussion of their legitimacy (or otherwise) can be identified immediately.

1. ***Antitrust and Market Access***, *OECD Publications, Paris, forthcoming 1996.*

The first, and least controversial, is the question of neutrality (or non-neutrality) in the way that the law treats domestic and foreign firms. Second, companies may obtain monopoly profits in foreign markets, but competition authorities might not feel concerned unless the domestic market is also affected. Third, some countries will argue that their 'national champion' in a particular market deserves protection. Fourth, would it be 'legitimate' to impose costs on foreign competitors (for example, through 'excessive' prices)? The 'legitimacy' (or otherwise) of a criterion based on the favourable effects of particular practices on exports or balance of trade should also be considered. Finally, there is the question of the absence of foreign competition (including imports) in domestic markets where there is strong competition on world markets.

Enforcement and Coverage

The usefulness of competition laws in redressing concerns about market access depends on the extent to which they are enforced. Indeed, much of the international debate has so far focused on the perceived lack of enforcement rather than on substantive principles or limitations in sectorial coverage.

An examination of the comparative degrees of competition-law enforcement raises a host of complex and elusive factual and conceptual issues. The sectorial coverage of competition laws – that is, whether or not it allows exceptions – is another barometer of their usefulness. One extremely important implication for trade policy is that the trend toward liberalisation, deregulation and privatisation will make markets substantially more accessible. The increase in market access will occur for several reasons, including the diminishing degree of government intervention (which will reduce both the temptation and the opportunity to restrict market access) and the introduction of competition law and principles to liberalised sectors, such as telecommunications.

The coverage of competition law can be limited in a wide variety of ways, ranging from total or partial express legislative exclusion to relaxed application or deliberately opaque administrative practices. Indeed, the interpretation of the law is so important that the true extent of coverage cannot be determined simply from legislative texts. Case law, administrative practice and government enforcement-policy must also be taken into account. But, other than questions of employment relations (trade unions, for example, are organisations of workers that are usually not submitted to the general ban on cartels), total sectorial exclusions appear rare. Moreover, where the ordinary rules of competition law are relaxed, it is often done only for precisely defined activities, subject to various conditions and often also to the intervention of the competition authority or the courts.

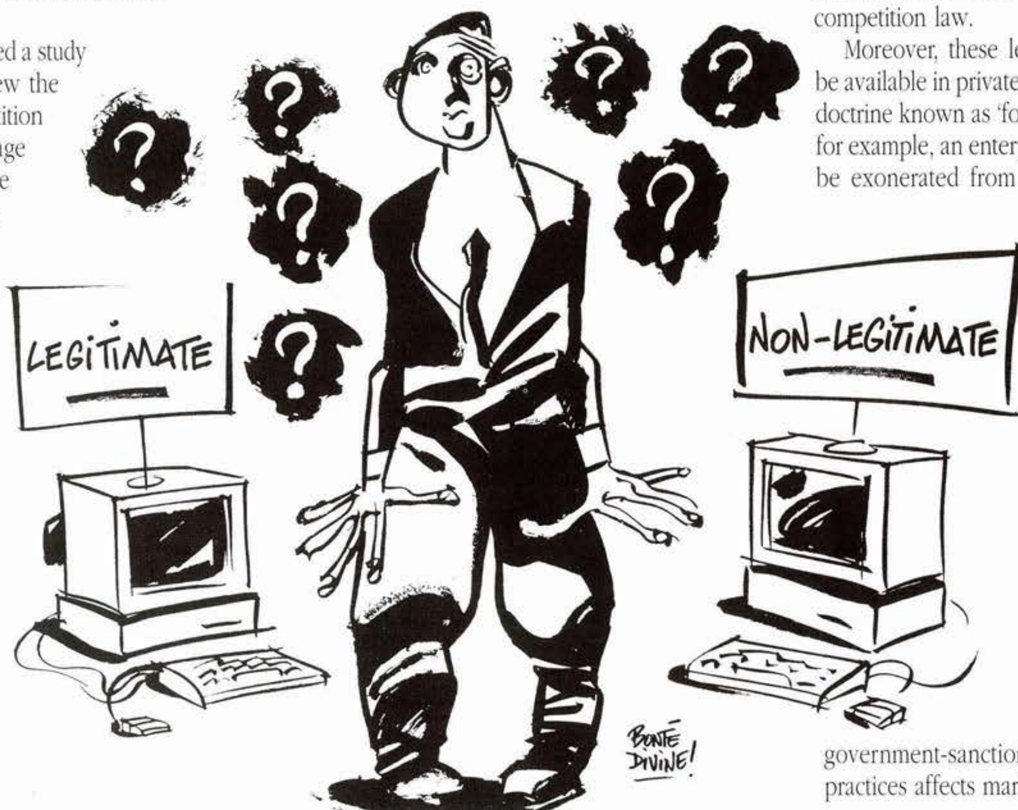
Comparative judgements about legal 'jurisdictions' – the areas within which sets of laws apply – should be made only with considerable caution, for several reasons. First, the degree of enforcement is crucial. Second, the coverage of competition laws can be limited by the competition authority or the courts, and not only through legislative action. Third, the sectorial coverage is considerably complicated by the broad vari-

Antitrust Policy and Market Access

ety of regulatory systems and interaction with competition principles.

The OECD commissioned a study of 11 'juridictions' to review the extent to which the competition laws limit their own coverage of particular sectors of the economy, examining Canada, France, Germany, Hungary, Japan, Mexico, Portugal, Sweden, the United Kingdom, the United States and the European Union. The findings suggest the following groups of sectors require attention, in ascending order of coverage:

- labour/employment-related activities
- agriculture, fishing, forestry and horticultural products
- energy and utilities
- postal services
- transport
- communications
- defence
- financial services, insurance and securities
- media and publishing
- cosmetics, medicines and pharmaceuticals, natural resources, spirits, sports and other miscellaneous products.



Government Conduct Matters, Too

An important factor in assessing whether competition laws can be used to redress concerns of market access is the extent to which they can be applied to government-related conduct. For example, they generally do not apply to 'voluntary export restraints' which, although privately applied, are mandated by the trade authorities of different governments.

The competition laws of most countries do apply also to their state enterprises. One useful task for the OECD (and a likely part of future work) would be to clarify to what extent this is generally the case in practice and, if so, how competition laws should be amended so as to apply clearly and in the same manner both to private firms and state enterprises.

Unfortunately, the application of competition laws to conduct by private (or state) firms regulated, encouraged or sanctioned by governments raises complex legal issues that do not lend themselves to a simple legislative resolution. The legal limitations of competition laws governing specific government-encouraged or -sanctioned business practices (boards governing the importation of coal or petroleum, for instance) might have important implications for the issue of market access. Government agencies (probably different from the competition authorities) that wish to encourage or sanction business practices that hinder market access may be able to rely on legal defences to help free domestic firms from the constraints of competition law.

Moreover, these legal defences may be available in private actions. Under the doctrine known as 'foreign compulsion', for example, an enterprise's conduct can be exonerated from competition laws when it acts upon a state order. Such doctrine could prevent competition law from tackling business practices of this sort. Another useful task for the OECD could be to examine such legal doctrines and how far non-application of competition law to government-sanctioned or -mandated practices affects market access.

▪ ▪

Where difficulties are found to arise from exceptions or differences at the juncture of trade policy and competition law, the OECD is identifying and assessing options to strengthen the coherence between both policy areas so as to resolve such difficulties. With more and more calls being made for competition rules that have international validity, the promotion of expertise in these new issues is increasingly important. ▪

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Valérie Winckler/Rapho

Paying for Care for the Elderly

Patrick Hennessy and Joshua Wiener

Until recently, few OECD countries had an identifiable policy for long-term care of the elderly. When necessary, health care in hospitals was often extended to provide accommodation. Old-people's homes provided a refuge for the indigent and frail whose families could not provide for them. The families that did provide care had little access to services such as home helps, meals-on-wheels and respite care. Social policy towards the elderly focused on supporting their incomes, and on providing minimum housing and health standards. As the aging of the population has created a large new constituency of very elderly people, long-term care has emerged as a major new issue on the social policy agenda.[1]

During the course of the 1980s a remarkable boost in the percentage of the population over 80 years of age, together with the realisation of continued projected growth in this age group, forced the issue of their long-term care onto the policy agenda of the OECD countries (Figure, p. 14).[2] Reforms to programmes of long-term care have been instigated in the past decade in Australia, Austria, Finland, Germany, Japan, New Zealand, Sweden and the United Kingdom; and other countries, such as Canada and Denmark, have modified existing programmes substantially. A number of trends in services have been discernible, and can be expected to continue in future years until a new balance of services is reached.

First, a consensus has emerged that wards in general hospitals are not appropriate settings for long-term care, on either social, professional or financial grounds. Hospitals have usually proved to be among the most expensive forms of long-term care, and do not provide the best environ-

1. ***Caring for Frail Elderly People: Policies in Evolution***, *OECD Publications, Paris, forthcoming 1996.*
2. *Patrick Hennessy, 'Who Looks After the Elderly?',* ***The OECD Observer***, *No. 188, June/July 1994.*

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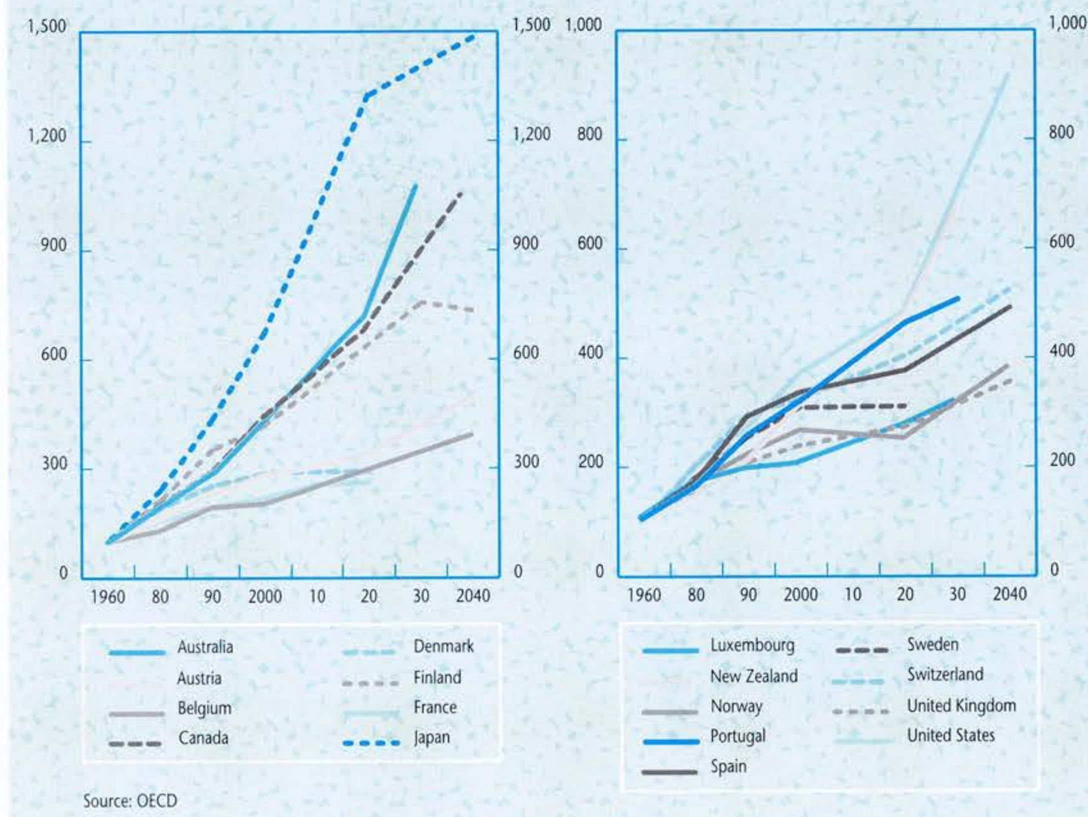

specialised small-scale hostels for five or six people are increasingly preferred to larger institutions where experience has shown that sufferers become more confused.

Fourth, many countries are now including the families of frail elderly people within their care plans. For example, there has been a fairly rapid growth in provision of respite care, whereby elderly people spend short periods in residential care to provide a break for family care-givers.

Although the infrastructure of supportive services has grown, earlier hopes that they could divert a large number of the most disabled elderly people from expensive nursing homes have been scaled down. There are a number of reasons. First, there are many more disabled elderly people already living in the community than are likely to enter nursing homes, most of whom will have some entitlement to receive the new services; so far, 'targeting' those most at risk has had only limited success. Second, maintaining disabled elderly people at home usually requires the 24-hour surveillance and support of other family members and does not rely solely on formal services. Family support of elderly people is already extensive and unlikely to be able to be further expanded. Indeed, one of the more welcome trends in home-care services has been the increased security for family carers who hitherto received little help from services.

In most countries, therefore, the goal of home and community-based care is now couched in terms of providing better services than hitherto, at broadly similar cost, rather than finding a low-cost alternative to nursing homes.

Entry to nursing homes, furthermore, often occurs not after a long period of decline in personal functioning but with a sudden loss of faculty because of injury or illness, followed by a spell in hospital to receive acute care. Many

ment for those who have to receive care in an institution. Here social and fiscal priorities have been pointing in the same direction, and in most countries the number of long-term hospital beds has declined. In the United States, for example, the number of elderly people receiving long-term care in hospital is now less than a quarter of that in 1980, despite the growth in the elderly population.

Second, in most countries there has been an expansion of the number of beds in nursing homes, as an alternative to hospital-based services. But recently the rate of growth has been below that of the very elderly population and, as a consequence, nursing homes have become more specialised, catering for an increasingly older and more disabled population which requires constant care. Systems of pre-admission assessment have been improved, diverting less demanding cases to other services, such as sheltered housing or home-visiting services. Systems of reimbursement have also been changed to provide different amounts of funding for residents requiring different degrees of care.

Third, 'traditional' old-people's homes, those which provide social care to the less handicapped, are being reduced in numbers, at a dramatic rate in countries such as Norway, Sweden and the United Kingdom – with, in the early 1990s, reductions in the number of beds at around 10% a year. They are being superseded by improved housing and by services such as day-care centres and visiting services that enable elderly people to remain in their own homes. For old people who develop senile dementia and are at too high a risk if left alone,

placements to nursing homes are therefore made from the hospital rather than directly from the community. As a result it has become clear that health services, such as post-acute care and rehabilitation, as well as community social services, are necessary to prevent long-term institutionalisation. But in most OECD countries these health services have not yet received the priority they deserve, perhaps because aging is still seen as a process of slow and inevitable decline. But their scope for curbing escalating social and fiscal costs may be considerable.

The type of service infrastructure which will be required in a society with many more very elderly people, and its potential and limitations, is thus now becoming clearer, and there is a considerable degree of consensus emerging around the pattern that is evolving. Yet there are considerable and as yet unresolved differences around an equally pressing issue: who will pay?

Formal services are not enough to maintain disabled elderly people at home – it usually requires the 24-hour surveillance of a family member.

Reforms in Financing

The growing demand for long-term care, especially in the expanding nursing-home sector, has led to considerable pressures on traditional funding mechanisms, not least on hospital budgets and programmes of social assistance. In recent years many countries have considered the options for reform, often at a time of severe fiscal pressures. That has not made the process of reform any easier: there is no surplus for distribution to new services, and a deliberate and sometimes painful process of trade-off has resulted. And there are difficult choices ahead if the OECD countries are to develop a new infrastructure for long-term care that will be capable of supporting the burgeoning numbers involved.

Private insurance for long-term care has grown more important in some OECD countries, especially Japan and the United States, during the past decade. But the first ten years' experience of private insurance in the United States has revealed a number of barriers, both in supply and demand, which appear likely to curtail the growth of individually purchased insurance.[3] In particular, the cost of the policies, the length of time they must be held before benefits will be paid, and the experience of a high rate of drop-out by policy-holders before maturation, all suggest that private individual insurance will remain a relatively limited element in the financing of long-term care. Although governments may be able to encourage new models of private insurance (employer-sponsored plans, for example), that itself may be not without public costs, either in tax expenditures or in more generous terms of public financing to reduce the degree of risk to the insurer (and hence the cost to the purchaser). It appears likely that public systems will have to continue to bear most of the cost burden, and, in this light, a number of OECD countries have embarked on a programme of long-term care reform.

The reforms have tended to fall into two groups, broadly divided by whether the country concerned has a system of mainly tax-funded health and social services (Finland, New Zealand, Sweden and the United Kingdom, for instance) or whether it has a health system based mainly on social-insurance contributions levied on employers and employees (such as Austria, France, Germany and Japan). In the first group, issues of efficiency and effectiveness for tax outlays have been paramount. In the second, identification of new sources of finance for long-term care has been a matter of growing policy debate. In both groups, the importance of keeping some control of total costs has been a severe constraint on these discussions.

Several of the countries where health care is tax-funded have opted for a system of block grants to cover most long-term institutional and community services, to enable both general cost control and a supply of services that is more closely related to individual requirements. That has entailed moving away from specific subsidies to local governments for nominated services (in the Nordic countries) and away from a social-assistance entitlement linked to institutional care (as in the United Kingdom) towards a more flexible system, whereby the finance that is available may be used to 'buy' from a range of services depending on the requirements of the client. In New Zealand, the health-care system has been restructured to provide similar flexibility in supply of services.[4]

This system is sometimes referred to as a 'capped budget' one, but the description is only partly correct. The authorities concerned are free to redirect finance from other services for which

3. For fuller details, see Joshua Wiener, 'Private Sector Initiatives in Financing Long-term Care', in ***Caring for Frail Elderly People: New Directions in Care****, OECD Publications, Paris, 1994, and Joshua Wiener, Laurel H. Illston and Raymond Hanley,* Sharing the Burden: Strategies for Public and Private Long-Term Care Insurance*, The Brookings Institution, Washington DC, 1994.*

4. Hannes Suppanz, 'Spotlight on New Zealand: Reform of the Public Sector', ***The OECD Observer****, No. 200, June/July 1996.*

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they are responsible (for local governments, for instance, from education, housing; and for health authorities, from hospital services), but receive a capped grant from central government, based on a population formula, to cover all these services. There is therefore flexibility within a wider financial package rather than a budget cap for long-term care. But although services for long-term care are not themselves budget-capped, neither are they protected from other pressures on expenditure. More flexibility has been achieved, but at the cost of some vulnerability of 'soft' services, such as those to the elderly, in the face of competing demands.

Several of the countries with a health and welfare system which is broadly based on a social-insurance model have adopted a different approach. There, the lack of insurance coverage for long-term care on a broadly similar basis to other health services has emerged as a major political issue, with strong demands from the people at risk (or the following generation) for new forms of coverage. This public pressure is unlikely to diminish in an aging population; it is estimated, for example, that by 2020 over 50% of the electorate in the European Union countries will be aged 50 or over. Pressures from the costs of long-term care that fall on other budgets (social-assistance or hospital budgets, for instance) have also led to demands for new forms of financing from those responsible for these policy sectors.

These changes have occurred in a wide range of countries. In 1993, Austria replaced the existing set of federal and local cash allowances for care with a unified system of long-term care allowances. In 1994, Germany legislated for a new branch of social insurance to cover long-term care, to be introduced over 1995 and 1996. Last year France announced an extension of the existing care allowances, to be payable to people both looked after at home and in institutional care, to be introduced in 1997. Luxembourg has declared in favour in principle of an extension of funding for long-term care services and is currently considering a model for an extension to social insurance. And in Japan, the Council on Aging has conducted an enquiry into the available tax and benefit options, and their report is being considered by the authorities.

It seems likely that extended public financing of long-term care will be a feature of the welfare system in all of these countries by the end of the decade, despite current fiscal constraints requiring retrenchment in other parts of the welfare state.

Whither Change?

The options that countries are considering will be influenced by many factors – among them, current structures, fiscal constraints and political priorities. But it is possible to propose a number of goals by which reforms should be judged. All are important, but they are not all mutually reinforcing; indeed, some trade-offs will be required.

First, the most important goal is to treat long-term care as a normal risk of living and of growing old. Findings from welfare systems as different as those of Sweden and the United States suggest that the probability that someone aged 65 will need to enter a nursing home at some point is around 40%; the risk of needing other, less intensive, forms of service would be far higher. For too many elderly people in OECD countries, the pain and anxiety of becoming disabled are compounded by worries about paying for care. A first priority is therefore to establish reliable mechanisms of payment for care, so that people will know how they will pay for services should they need them.

Second, the available finance should be focused to provide coverage against the catastrophic costs of long-term intensive care. In particular, the financial impact is considerable when families have to meet nursing home fees. All health systems are having to re-consider their priorities, but those which provide generous help to younger people but require high payments when the patient is old and chronically sick could be judged to be failing on a fairly fundamental basis.

Third, reform should aim at creating a more balanced delivery system, so that demand is not channelled into particular types of care merely because places are available. In particular, the balance should tilt towards services – such as home health care, personal domestic care, meals-on-wheels and day-care services – that support people in their own homes. At present, public expenditure on long-term care is in all countries overwhelmingly for nursing home rather than home care.

Finally, any new reform system must be affordable in terms of both public and private spending. Expenses that fall in the private sector are expenses nonetheless even if they fall heavily on individual families rather than being pooled across the tax base as a whole.

The obstacles in the way of long-term care reforms that require new resources should not be underestimated. The example of the United States, where health-reform proposals failed to be enacted in 1994, indicates the difficulties to be encountered when fiscal constraints require trade-offs in which existing beneficiaries may lose. In many countries, proposing tax and contribution increases may be politically impossible, and, when compensating savings are required for new benefits, it is clear that voters with entitlements do not relinquish their benefits lightly. But the demand for long-term care is increasing and will continue to increase. Postponing the policy response may simply store up bigger problems for the future. ■

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Why Promote Renewable Energy?

Jane Ellis

All the member countries of the International Energy Agency promote renewable energy in some form or other, although its relative importance, the type of energy targeted, and the strength of promotion varies from country to country. Some variation is also seen in the mix of promotional policies employed by different countries, although particular policy types – such as financial incentives and a guaranteed market for renewable electricity – are more prevalent than others. But despite recent reductions, the cost of renewable energy is relatively high and will have to fall further if it is to become fully competitive with alternative forms of supply.[1]

Renewable energy can be derived from a variety of sources – geothermal, wind, solar, tidal, wave, biomass, municipal and industrial waste.[2] Renewable energy has been promoted in some OECD countries since the 1970s. But although the concerns for energy security and the heavy dependence on oil – the main initial stimulants for development of renewable energy – still have relevance today, the world has changed radically. The IEA countries[3] have moved from an era of high prices for energy and concern over energy (and particularly oil) supplies to one of relatively low prices and more transparent global energy markets. Moreover, one of the most important aspects of 'renewables', electricity generation, is undergoing a period of rapid change as electricity markets are liberalised.

The environmental concerns that emerged in the 1980s (acid rain) and 1990s (climate change) are now the most commonly cited reasons behind the promotion of renewable energy, although issues of flexibility and diversity in the supply of energy, economic concerns such as regional development and the export potential of renewable-energy technology (such as 'stand-alone' photovoltaics to help meet electricity demand in Asia[4]) are also important.

Renewable energy is often more expensive than more traditional sources, and the higher costs of harnessing it have prompted government intervention to promote it, often through government expenditure on R&D and/or by introducing favourable economic or fiscal measures such as capital or output subsidies, tax breaks, and so on. Technical improvements and larger markets for renewable energy have indeed succeeded in lowering costs, sometimes dramatically, over the last decade. But low energy prices mean there is still a price differential between most forms of renewable energy and other energy sources, especially the low cost and flexibility of electricity production from combined-cycle gas-turbines.

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A Basket of Policies

The use of renewable energy and the relative importance of different renewable sources vary substantially between countries, the main influences being:

- the domestic availability and cost of non-renewable energy sources – coal, oil, gas and nuclear power, as well as hydropower
- the rate of growth of demand for electricity and other energy sources
- the national policy framework for renewable energy
- the physical, economic and market potential of renewable energy (in turn related to country size, climate and geography).

Since the beginning of the 1990s many IEA governments have introduced policies intended to create a more favourable climate for renewables. Although the mix varies (the box, p. 18, gives examples of policies used to promote wind and solar electricity), some are more widespread than others. In general, measures taken to promote renewables fall into eight categories.

A range of economic and fiscal incentives aims to stimulate markets for renewable energy, either

1. ***Policy Aspects of Renewable Energy in IEA Countries***, *IEA/OECD Publications, Paris, forthcoming 1996.*

2. *Hydropower is excluded here as the policy questions surrounding large hydro schemes (which account for most hydropower in the IEA area) are different from those surrounding other renewable energy projects. Small-scale hydro projects are also excluded in this overview as IEA statistics do not distinguish between the two.*

3. *The IEA includes all OECD countries except for the Czech Republic, Hungary, Iceland and Mexico.*

4. *See pp. 21–24.*

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FOCUS

Encouraging Wind and Solar Electricity

Austria

Photovoltaic systems benefit from a subsidy of 80,000 schillings per installed kW (from 1992) and premium buy-back rates in some areas of Austria.

Denmark

Capital subsidies of 15% (capped at 200,000 crowns) are available to replace obsolete wind-turbines. An output subsidy of 0.27 crowns per kWh is paid for all wind electricity.

Germany

Buy-back rates of 90% of average consumer end-prices are available for wind-energy installations below 500 kW. The rates for larger installations are 65%.

Italy

Premium buy-back rates (varying by renewable energy source) are available for the first eight years of operation. Guaranteed minimum rates are subsequently available.

Japan

Rooftop photovoltaic systems up to 4kW benefit from a capital subsidy of 50% for residential buildings and 67% for commercial buildings (up to a maximum of ¥900,000 per kW). Guaranteed buy-back rates for photovoltaic electricity are set at consumer end prices. Ambitious targets for renewable energy use in 2000 and 2010 have been set out by the government.

The Netherlands

Two pilot projects for 'green electricity' have been set up, and the government has set ambitious targets for future use of renewable energy.

Sweden

Wind-energy systems benefit from a capital subsidy of 35% (up from 25% in 1991–93) for turbines of less than 60 kW. There is an output credit of 0.09 crowns per kWh and guaranteed electricity tariffs (not yet fixed).

United Kingdom

Renewables orders under the Non-Fossil Fuel Obligation pay premium rates for a guaranteed period. (Rates vary for each project but ranged from 3.98–5.29 pence per kWh in the latest order).

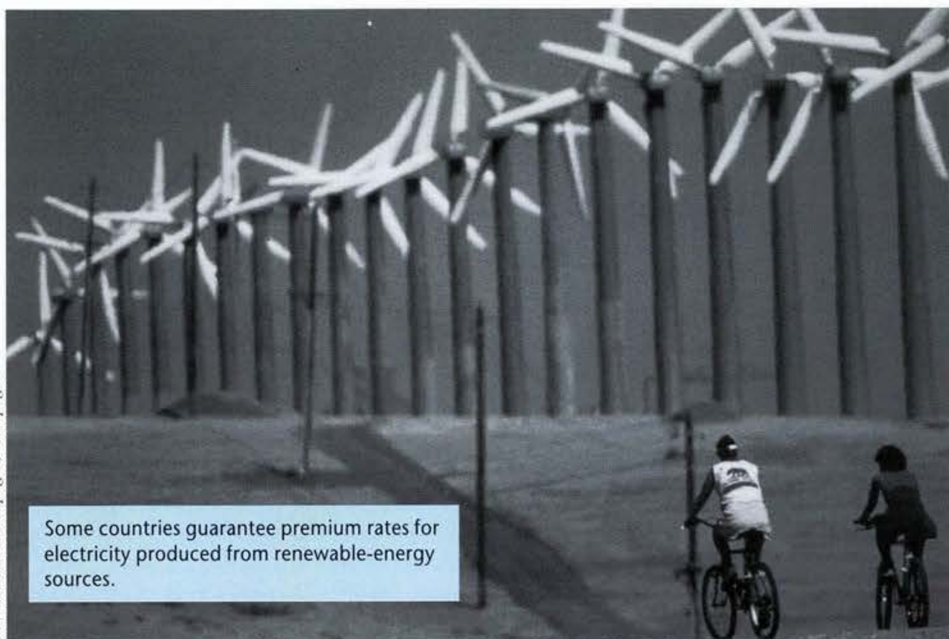
by making its economics more favourable for investors or by encouraging consumers to buy it by keeping the price low. These are the most common measures used by governments to promote renewable energy in the short term; indeed, experience to date has shown that they can have a significant short-term stimulus on the amount of renewable energy harnessed.

Capital subsidies on the purchase and installation of renewable energy systems are available in some IEA countries, frequently set up as a capped percentage subsidy – 50% of rooftop photovoltaic systems in Japan, for example, and 35% of wind turbines in Sweden. Some governments have used capital subsidies as a means for 'pump-priming' specific technologies and have discontinued this incentive after a period of time (as with wind energy in Denmark, where capital subsidies were phased out a decade after their introduction).

Other financial incentives including tax exemptions, credits and deferrals, are in common use in several IEA countries (not least Canada and Japan). Some countries also provide incentives for feasibility studies for renewable-energy projects.

Second, favourable and/or guaranteed electricity markets are also important. Buy-back rates – the tariff that independent power-producers obtain for sales of electricity to the grid – and the regulations governing these rates have a major influence on development of renewable electricity markets. How high (or low) payment for renewable and other electricity is varies between countries (and sometimes within a country). Some countries guarantee a market for a certain amount (up to 100%) of renewable-generated electricity at a minimum rate, sometimes the 'avoided cost' when utilities do not have to produce electricity themselves. Other countries pay a subsidy per kWh produced, as well as offering guaranteed markets for the electricity produced (as in some parts of the United States, for example). As a result, some countries guarantee premium rates for renewable electricity, others only parity with prices for electricity generated from other sources, or less. Germany, for example, pays premium prices for wind electricity, under the Electricity Feed Law (EFL), as does the United Kingdom, where the Non-Fossil Fuel Obligation guarantees predetermined electricity prices for certain government-selected renewable-electricity projects – recently, for example, electricity from small wind turbines was guaranteed a market until 2014 at a price that averaged 5.3 pence/kWh. Unsurprisingly, premium prices have proven effective in increasing the interest of independent producers in such projects. But the cost can be high: the EFL in Germany was estimated to cost utilities DM170 million in 1994 and DM225 million in 1995 for wind-electricity payments alone.

Third, 'green' pricing-schemes, whereby consumers can opt to pay more for renewable electricity, are being set up in Australia, the Netherlands, Switzerland and the United States. This is obviously a financially attractive measure for governments and utilities, as it involves only limited financial commitment on their part. The Netherlands has reported genuine interest in the pilot schemes set up, even though the financial implications for consumers are substantial. Nonetheless, since all these projects are relatively new and, moreover are available only in parts of a handful of IEA countries, their global impact on the uptake of renewable energies is likely to be limited.


Some countries guarantee premium rates for electricity produced from renewable-energy sources.

J.-P. Bouchard/Campagne, Campagne

Regulations, standards and planning measures are a fourth means of encouraging increased use of renewable energy. For example, deregulation of the electricity industry has facilitated access for independent producers of renewable power to the distribution grid, which is a prerequisite to encouraging renewable-electricity production through favourable buy-back rates. Some countries (Italy and Japan, for instance) have also initiated measures to facilitate the planning/siting of renewable-energy systems, since the absence of standardised planning requirements can mean that each turbine has to be approved individually, resulting in lengthy procedures and discrepancies in standards.

Fifth, voluntary actions can range from formalised and binding negotiated agreements between government and industry or utilities to more informal approaches aimed at encouraging renewable energy[5] and are increasingly being used as part of the mix of measures in place to promote renewable energy. The range of VAs is extremely diverse: some emphasise increased dissemination of information; others take the form of more formal or binding agreements (such as the requirement of the Dutch electricity companies to produce 3% of electricity from renewable sources by 2000).

Sixth, information and education programmes to promote renewable energy have been initiated by more than half of the IEA countries. But the scale of such campaigns varies enormously, and most are either general in nature or aimed at domestic uses of renewable energy, such as solar water-heaters or heat-pumps.

A seventh policy measure is found in the use of targets for future renewable-energy use and have been set by over half of the 23 IEA governments. The targets vary in nature and can be expressed in terms of renewable energy use (as in Greece), relative importance (in the Netherlands the percentage of renewables in the total energy supply, and in Japan the total fuel used in transport), generating capacity (Japan) or number of units installed (Switzerland). The presence of a centralised plan and/or target for many renewable sources may in itself encourage increased use of renewables, by (for example) centralising sources of information on financing, and may also help to co-ordinate public and private decision-making on renewable energy. Targets may indirectly help renewables by raising general awareness (of the public or of financiers) towards renewable energy.

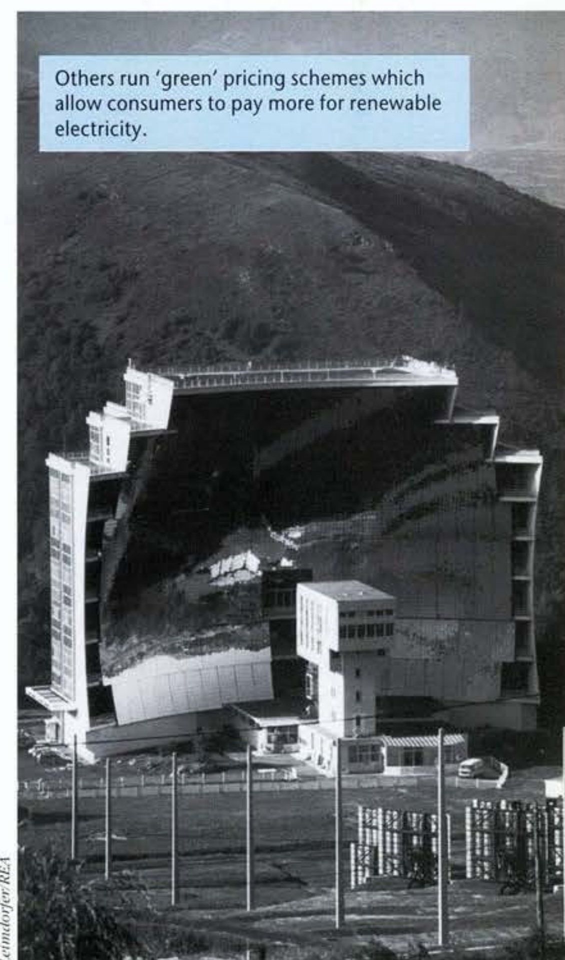
*5. **Voluntary Actions for Energy-related CO_2 Abatement**, IEA/OECD Publications, Paris, forthcoming 1996; Lee Solsbery and Peter Wiederkehr, 'Voluntary Approaches for Energy-related CO_2 Abatement', **The OECD Observer**, No. 196, October/November 1995.*

6. The costs of renewable energy – unlike other forms – are highly site-specific, so that it is difficult to quantify the average cost gap between renewable and other energy supply.

Lastly, national R&D programmes for renewable energy are in place in all IEA countries except Luxembourg, although wide disparities exist between countries both in the extent of funding and the energies supported. In 1994, the total of national R&D for renewables in the IEA countries stood at $700m (almost 8% of total energy R&D), the majority of which was spent on solar energy applications.

Barriers to Growth

The largest barrier to increased use of renewable energy is its cost, despite the reductions achieved over recent years.[6] But other obstacles, particularly for renewable electricity, include


Others run 'green' pricing schemes which allow consumers to pay more for renewable electricity.

Leimdorfer/RÉA

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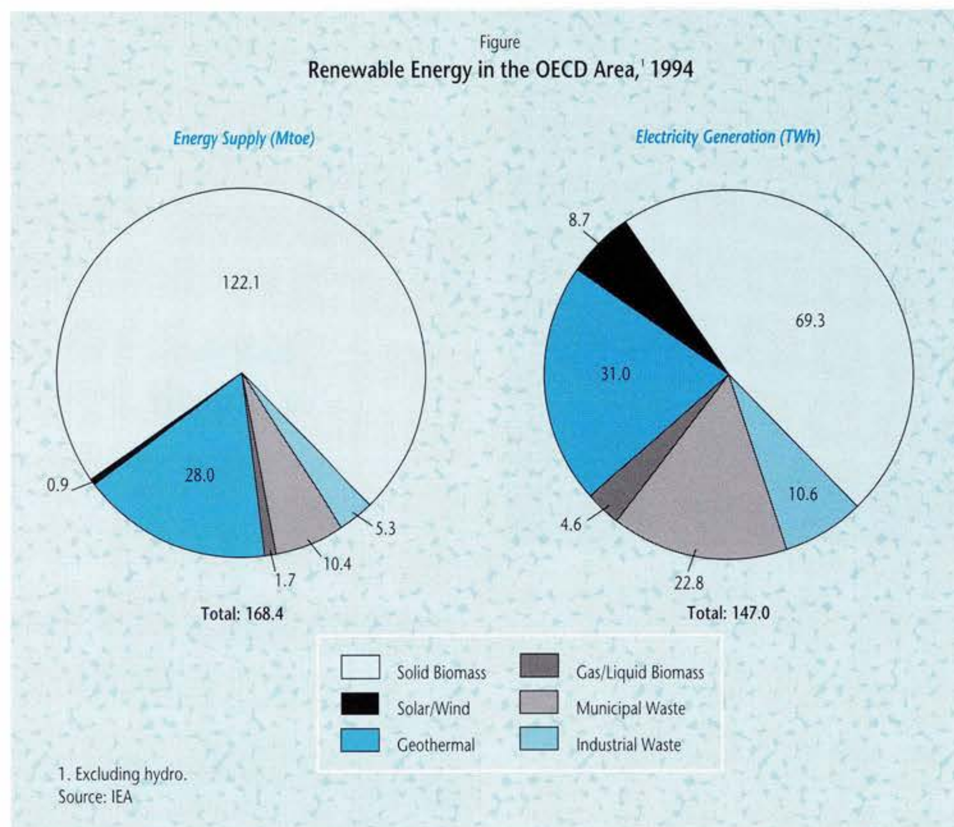

subsidies and other support for competing conventional fuels (especially coal and nuclear power). Lack of full-cost pricing when determining the cost of competing energy supplies also hinders the development of renewable energy since the cost of environmental impacts are usually not included in energy prices. High discount rates disadvantage projects with high capital costs but low running costs (such as renewable electricity schemes). And the increasing deregulation of the electricity industry in many of the IEA countries is stimulating competition between electricity suppliers, sometimes on a short-term price basis. Since renewable electricity is often more expensive than electricity from other fuels, that could hinder its development (unless, of course, governments set up other schemes, such as protected market shares). And there are costs from system integration and capacity backup.[7] Other, non-cost barriers, especially the imperfect flow of information and the lack of integrated planning procedures and guidelines, also inhibit the uptake of renewables.

The contribution of renewable energy to the total primary energy supply of the OECD is small, but the amount of renewable energy harnessed has been growing over recent years to stand at 155.2 Mtoe (million tonnes of oil equivalent) in 1994 (3.6% of total energy supply). This amount is made up mainly of biomass (Figure), wastes and geothermal energy. Wind and solar energy currently account for only a tiny proportion of it, but are the fastest growing renewables in the IEA area. In Germany, for example, the generation of electricity from wind has grown from 113 GigaWatt hours (GWh) in 1990 to 1,428 GWh in 1994 (enough to light more than 4 million German households for a year), and the growth rate for wind energy in the United Kingdom was almost 250% a year over the same period.

Some policies, particularly premium prices guaranteed over several years, have succeeded in increasing renewable-electricity production and capacity rapidly, showing that investors will invest in such projects under favourable economic conditions, despite regulatory barriers. Recent policies have also demonstrated that competition can bring down the costs of renewable electricity substantially over a short period of time. But sharp increases in electricity production from renewables have, to date, been achieved only at a cost and often with distortions to energy markets.

Governments have to improve the environmental performance of the energy sector while maintaining a low-cost and reliable energy supply. Whether the newer policy approaches to promote renewables can help achieve this aim in an era of increasing pressure on national energy budgets has yet to be determined. But the impetus for more widespread use of renewable energy may increase if new commitments to limit or reduce greenhouse-gas emissions beyond the year 2000 are introduced. In that event, governments may choose to accelerate or strengthen policies that promote renewable energy. ■

7. System integration includes the cost of connecting (sometimes remote) generating systems to the electricity grid. Capacity back-up is required because some sources of renewable energy (wind, for example) are intermittent – if there is no wind, there is no electricity. Since electricity cannot easily be stored, generation has to equal instantaneous demand. When wind electricity fails, supply from some other source (coal or gas, for example) has to replace it. These stations are necessarily on stand-by even if they do not generate any electricity.

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Long-term Trends in Asian Energy

Fatih Birol and Tomohiko Inui

The rapid growth of many Asian economies is likely to have a substantial impact on energy markets, both domestically and abroad. There are also implications for the environment policies and investment patterns of the OECD countries.[1]

China, East Asia and South Asia – the dynamic Asian regions (DARs) – have a remarkable record of high economic growth, stronger, indeed, than any other region of the world during the last decade with an average annual 8%, compared with 2% elsewhere. And the three major developing countries with the largest populations – China, India and Indonesia – are in the process of implementing structural reforms aimed at linking them more closely to the global economy.

The importance of the DARs in the global economy is also growing rapidly: 25% of world GDP in 1995, approximately twice as high as in 1973. The Chinese economy, measured in terms of purchasing power parities, is already the second-largest in the world. And since the 1970s, the DARs' share in world population has been more than 50%, with around 3 billion people, China alone accounting for 1.2 billion.[2]

Accompanying the substantial growth in economic activity has been a rapid increase in energy consumption, which, coupled with the rich coal, oil and gas reserves with which some of these countries – not least China, India, Indonesia and Malaysia – are endowed, makes them one of the most important regions in international markets.

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The DARs currently account for about 18% of total primary energy demand, implying a substantial gain of almost 10 percentage points in the last two decades (Table 1), mainly because of their rapid economic development. Total primary energy demand in China increased threefold in the last two decades, and that of East Asia fourfold. The DARs have the lion's share of world demand for solid fuels, not least because China consumes so much coal. It increased to more than 30% in 1993, up from 18% in 1973. The DARs as a total have also experienced very high growth in oil and gas consumption, the demand for each growing three and nine times respectively between 1973 and 1993. Total electricity generation has increased more than five times in the same period. And the DARs now account for more than a fifth of the world's carbon emissions, compared with a tenth in the 1970s.

1. ***World Energy Outlook***, *IEA/OECD Publications, Paris, 1996.*

2. *See pp. 28–32.*

3. *These projections refer only to the commercial energy sector and exclude the consumption of traditional fuels or biomass, such as fuel wood, animal and vegetal wastes, and bagasse. Indeed, one of the striking features of the energy markets of the DARs is the continuing extensive consumption of traditional fuels. Although estimates vary widely, it is known that biomass continues to meet a substantial proportion of the region's energy demand, particularly in households – especially in rural areas, where a large part of energy demand is met by traditional fuels, although it is true also of a large number of the urban poor. The poor quality of data on the use of traditional fuels and biomass prevents its inclusion in energy analysis.*

Since their strong economic growth can be expected to continue, the long-term implications for trends for energy consumption are likely to be substantial, as is the impact on a series of related issues, such as environmental problems, investments in energy infrastructure, security of supply and trade. Developments in these energy markets, moreover, are expected to have a growing impact on international ones. As with any projection, a number of assumptions have to be made, in this instance combining those on baseline GDP and population growth with rising world energy prices and historical trends in energy-efficiency (Figure 1).

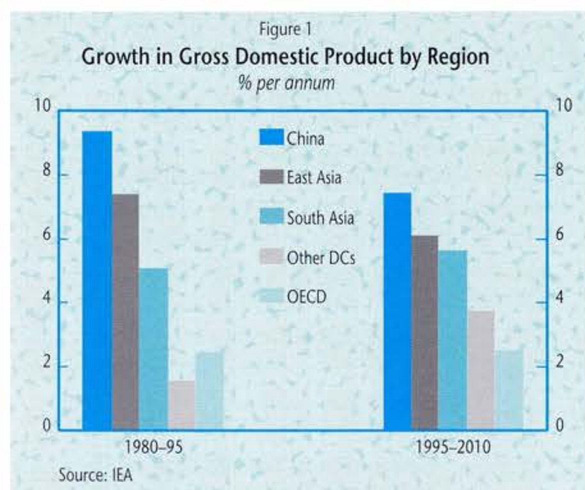
One of the major results of projections made by the International Energy Agency (IEA) is the strong increase of energy demand in the DARs, with energy demand up by 5% a year to 2010 – a substantial market gain in total world demand, and 45% of the increase between now and then. The share of DARs could thus exceed a quarter of world energy demand by 2010. In absolute terms total primary energy demand in China is expected to double over the projection period, and the increases in East and South Asia to increase by more than that.[3]

Table
Shares of the Dynamic Asian Regions in the World
%

	1973	1993	2010
GDP in PPPs[1]	13	23	36
Population	52	53	53
Primary Energy Demand	8	18	26
Solids	17	34	47
Oil	6	15	23
Gas	1	5	11
Nuclear	1	5	11
Hydro/Others	1	3	7
Electricity Output	6	15	23
CO_2 Emissions	10	22	31
Net Dependence on Imported Oil	12	37	65

1. Purchasing Power Parities.
Source: IEA

Long-term Trends in Asian Energy



In spite of the strong increase in primary energy demand, one of the notable – and enduring – aspects of the DARs' energy profile in aggregate terms is the very low energy-consumption per capita. The expected average energy consumption per person in 2010 in China and East and South Asia will be 1.1, 1.2 and 0.4 tonnes of oil equivalent (toe) respectively – substantially lower than that of OECD countries in the 1970s (about 4 toe per person) or the current OECD figure of 4.6 toe (even allowing for traditional fuels).

There are some exceptions. Per capita energy consumption in several of the higher-income economies of East Asia currently exceeds that of some OECD economies: South Korea, Hong Kong and Chinese Taipei, for example, consume more energy per person than Portugal, Greece and Turkey. Generally, there is a very strong relationship between per capita energy consumption and GDP in the DARs, as in most of the developing economies.

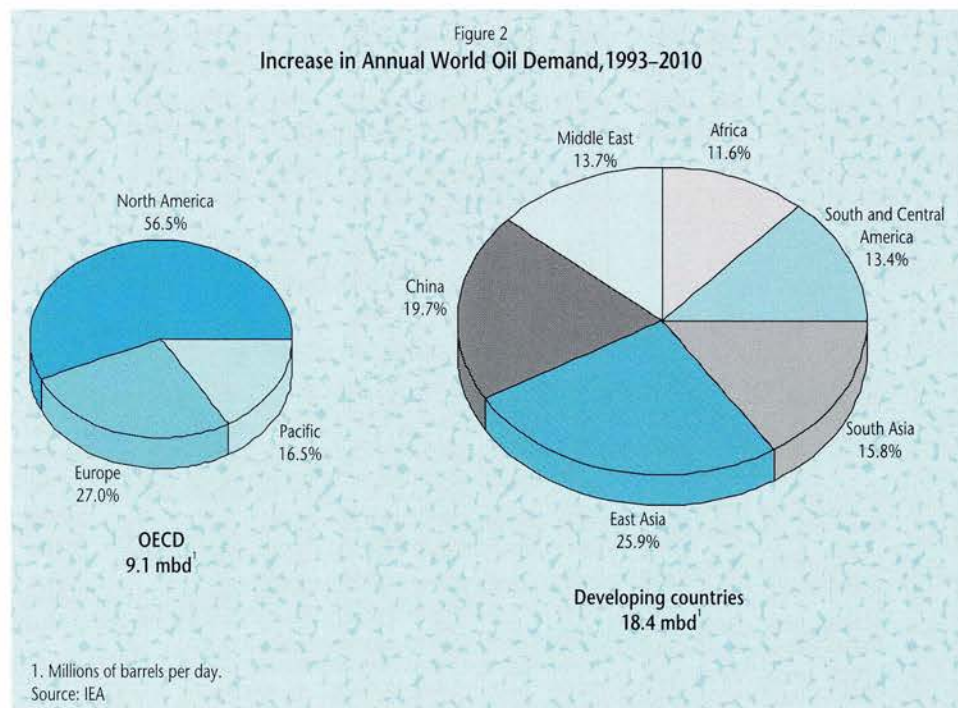
Fuel Profiles

Coal and oil will continue to dominate markets for primary fuels, with more than 80% of primary energy demand in 2010. On a global scale, it is projected that the current share of the DARs in world demand for solid fuels will increase from a third to about a half by 2010. China plays a special role in both DAR and world demand for solid fuel, particularly since the current quarter-share of China in world coal consumption is expected to reach nearly a third by 2010. Similarly, India, also a major producer of coal (third after the United States and China), is projected to contribute to some 17% of the region's solid fuel demand in 2010. Most coal use in the region is expected to be in industry, in particular for iron and steel production, as well as in power generation – with severe environmental implications, both regionally and globally.

Another important outcome of the projections is the long-term oil outlook of the region. The oil demand of the DARs is expected to increase substantially up to 2010, with an average annual growth rate close to 5%. The DARs will account for about 60% of the increase in developing-country demand for oil between 1993 and 2010 (Figure 2). Since their oil production is expected to be sluggish, their dependency on imported supplies is likely to increase. The DARs currently import around 40% of their oil consumption, a figure expected to grow to 65% in 2010, the bulk of it from the Middle East.

East Asia currently consumes the most oil of all developing regions, with demand expected to rise rapidly by around 4% as an annual average, resulting in a demand for over 10 million barrels per day (mbd) in 2010, by when the current regional dependency on oil imports of 50% is expected to rise to over 75%. South Korea is the largest oil consumer in East Asia, and, since it has no reserves of its own, it is one of the major oil importers in the world, with an import volume of crude of around 1.6 mbd in 1994 and a dependency that year on imports from the Middle East of 77%. Korea's dependence on Middle Eastern oil is likewise expected to increase substantially.

Indonesia and Malaysia are the two largest oil-exporting countries in the region. Indonesia is a mature oil-producing country, with only a limited potential for increasing its current capacity of around 1.5 mbd. Crude-oil production in Indonesia will gradually decrease, and its impact on the oil market will decline. Malaysia, which



produced 0.8 mbd in 1995, is facing fast-growing domestic demand, threatening its status as an exporter.

The current volume of oil production of all countries in the region is about 6.4 mbd, a figure expected to grow to 7.6 mbd by 2010. This increase in oil supply is quite low compared to the expected high increase in demand in the region. Most of the projected increase is therefore going to be met by imports. The current dependency of South Asia on imports – 61% of total demand – is therefore projected to increase to almost 90%. India, as an important oil producer and the largest consumer in the region, is expected to become increasingly dependent on imports, its current 55% dependency projected to grow considerably, imposing a serious foreign-exchange burden on the economy.

Oil demand in China is also expected to grow strongly, at 5% per annum. The projected oil demand in China, at around 7 mbd by 2010, combined with the projections for oil production, suggest that the country may have to import over 2 mbd of oil in 2010. The shift in the sources of Chinese crude imports is therefore important. Before 1992 China's imports primarily came from Asia, but since 1993 the volume of crude imports from the Middle East exceeded those from Asia. China thus becomes a more important player in the world oil trade.

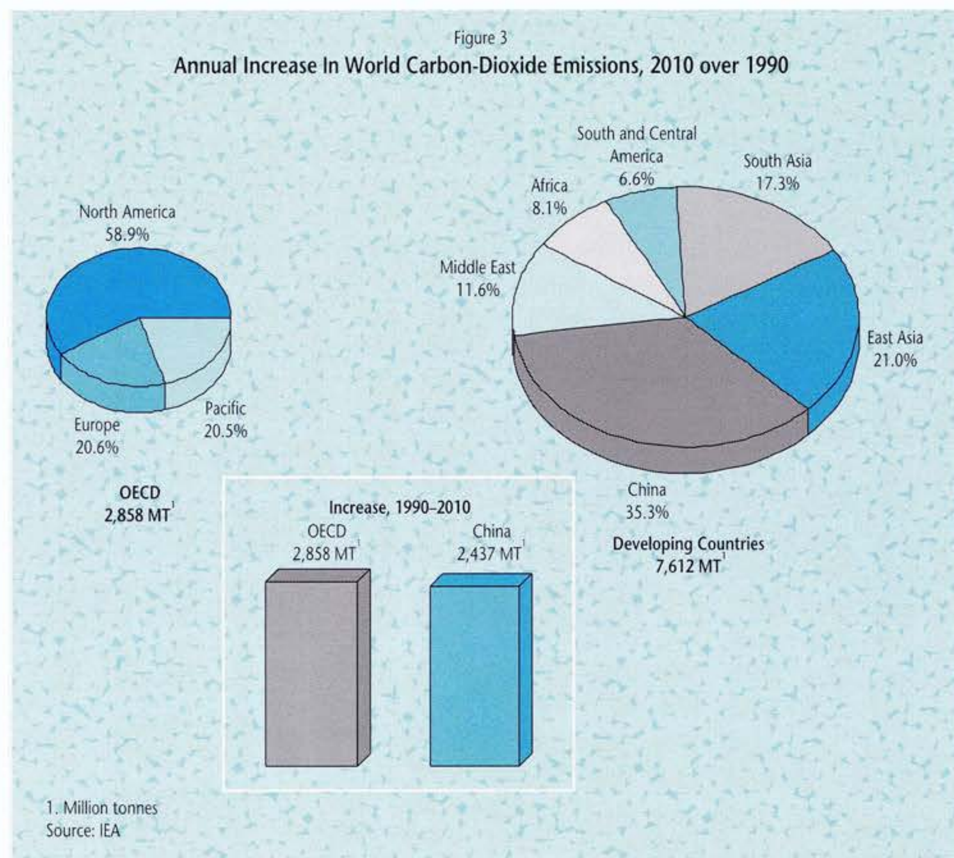
The main factors behind the strong growth in oil demand are, obviously, strong economic growth, urbanisation and the growing desire for mobility. But there are other reasons, among them the absence of gas infrastructure in most of the countries and relatively low prices for domestic petroleum products. In contrast with the OECD countries, oil will continue to be an important fuel in all end-use sectors, particularly in buildings and transportation. The transition from traditional fuels (wood, animal and vegetal waste, and so on) to modern ones (electricity, oil, gas and coal) helps to explain the high growth of demand in the buildings sector. But the main determinant of the expected high growth in transport is the low rate of vehicle ownership.

Electricity consumption in the DARs is likewise expected to continue to increase substantially. The projected growth rates for demand

Serge Attal

Rising incomes bring a growing desire for mobility – and a steep rise in the consumption of oil.

Long-term Trends in Asian Energy



in East Asia, South Asia and China are 6.0, 7.0 and 6.2% per annum between now and 2010 – even higher than the rates for total primary energy demand as a whole. As a result, the DARs' share in world electricity generation – predominantly from coal – is expected to rise from the current 15% to around a quarter by 2010.

A large amount of new generating capacity will therefore have to be built, requiring substantial investments. The total power-generation capacity in the region could increase by around 580 GW by 2010, necessitating investments of at least $450 billion. Even though a sizable proportion of investments is now being devoted to the power sector, in the absence of new policies many countries in the DARs may have difficulty generating enough funds to permit the necessary expansion. In most of the DAR countries, the electricity-supply industry is publicly owned and perceived both by governments and consumers to be a public service. As a result, it is dependent on government for investment funds and pricing. Electricity tariffs in some countries are substantially lower than in international markets.

Environmental Implications

A major aspect of the growth in energy demand is its impact on the environment. The long-term trends in the CO_2 emissions of the DARs are of central importance not only for the region itself but also for the world as a whole. By 2010 total CO_2 emissions from the developing regions of the world are likely to overtake those from the OECD area. The DARs are major contributors to global carbon emissions, and their share is likely to increase substantially, accounting over the next 15 years for around 50% of the increase in world emissions of CO_2.

Among all developing countries, China will remain the largest single source of CO_2 emissions and is projected to more than double its emissions (by around 2.7 billion tonnes) by 2010. China's projected increase in emissions (Figure 3) is therefore only slightly lower than the projected increase for the whole of the OECD.

The rapid increase in emissions from the DARs is a result not only of high growth in energy demand but also of the structure of the fuel mix. The energy markets of DARs rely heavily on coal, the most carbon-intensive of all the fossil fuels. And the poor quality of coal and standards of low energy-efficiency exacerbate already high carbon emissions.

The outlook for energy in the DARs to 2010 highlights their growing importance in world energy markets. But the impact will be felt further afield. The dependency of the region on imported oil is expected to reach a very high point, with increasing reliance on the Middle East. And since many countries in the DARs may find it difficult to generate sufficient funds from domestic savings to carry out the investments necessary to expand power-generation systems, they will have to attract foreign funds. This in turn may require a good deal of economic deregulation. The expected dramatic increase in CO_2 emissions of DARs indicates that initiatives by OECD countries alone to reduce global emissions cannot be sufficient to solve this global problem. ■

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How Competition Helps the Internet

Sam Paltridge

Telecommunications policies that allow competition among service-providers are bringing down the cost of access to the Internet and expanding the number of people who use it.[1]

There is growing recognition of the importance of information infrastructure for economic and social development. OECD governments are increasingly formulating policies that aim to harness the potential of the convergence of communication and information technologies to improve services in health, education and other sectors and to boost national competitiveness.

One of the most prominent developments resulting from this convergence of information and communications technologies has been the Internet. For some commentators the Internet has become the harbinger of an information superhighway. There are two reasons that this view is gaining currency. First, the convergence has led to an enormous expansion in the service possibilities accessible through the Internet, including the audio/video capabilities that can be built into applications. The second reason is the growing economic and social activity that is taking place as access to the Internet becomes more widely available. From its origins as a communication technology used by the military and academia, the Internet has now become a tool that can be used by business and the general public (box, p. 27).

A central tenet of most government policies on the information infrastructure is ensuring the widest possible access to services for business and residential users. Although access to the Internet is commonly viewed as rapidly expanding, only a small percentage of people in the OECD area have access to the available services. By January 1996 there were 9.5 Internet hosts per 1,000 people in the OECD area. If these hosts provided access to an average of seven people each[2], it is possible that only one in 15 inhabitants in OECD countries could access some part of the Internet. But averages of this sort tend to obscure the very uneven speed of development across the OECD area.

In the countries leading the development of expanded access to the Internet the ratio of access is more than one in ten inhabitants (Table). For the eight OECD countries with the lowest penetration of Internet hosts, the ratio is below one in 50 inhabitants. If these countries wish to take advantage of the enabling capabilities of networks such as the Internet to achieve the objectives of information-infrastructure initiatives (generally in health, education, and so on), they must urgently address the extent to which their underlying communication policies influence current rates of growth in access.

Commercialisation of the Internet is indeed increasing. But in many countries much of the underlying telecommunication infrastructure remains under monopoly control. From this simple premise stems an enormous range of issues, from the pricing structure, the sheer availability of infrastructure and the potential for anti-competitive behaviour.

Of the 27 member countries of the OECD only eight allow competition in the infrastructure of the public switched telecommunication network (PSTN). In the other OECD countries

Table
Internet Hosts per 1,000 inhabitants, January 1996[1]

Country	Hosts
Finland	41.2
Iceland	33.5
United States	23.5
Norway	20.5
Australia	17.5
Sweden	17.2
New Zealand	15.4
Canada	13.0
Switzerland	12.4
Netherlands	11.4
Denmark	10.0
United Kingdom	7.8
Austria	6.6
Germany	5.6
Luxembourg	4.6
Ireland	4.2
Belgium	3.1
France	2.4
Japan	2.2
Spain	1.4
Italy	1.3
Portugal	0.9
Greece	0.8
Mexico	0.2
Turkey	0.1

1. Weighted by 1993 population; the analysis was undertaken before the Czech Republic and Hungary joined the OECD.
Source: OECD

1. The Information, Computer and Communications Policy (ICCP) Committee home page on the OECD world wide web site is at http://www.oecd.org/dsti/sti_ict.html. The full report on which this article is based, 'Information Infrastructure Convergence and Pricing: The Internet', can be downloaded free from this site.

2. It is impossible to tell how many people have access to the Internet through host computers. The multipliers commonly used range from five to ten; the OECD uses a multiplier of seven.

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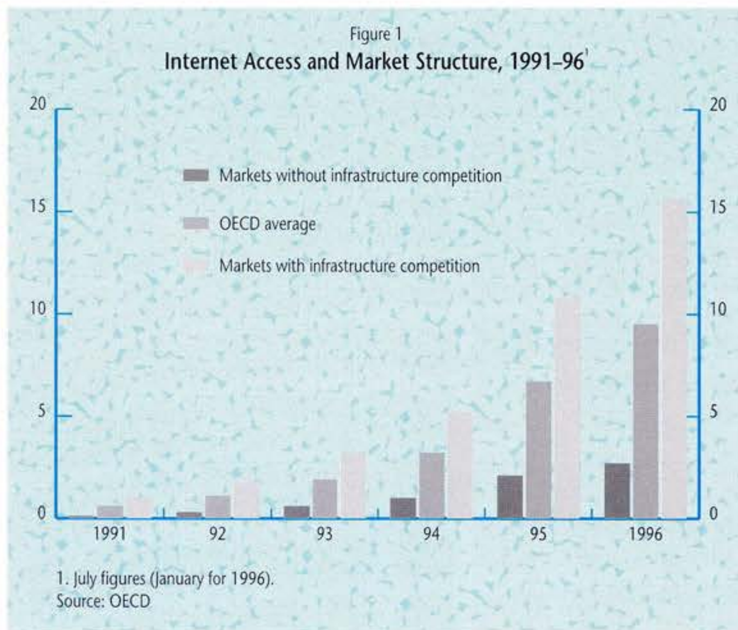
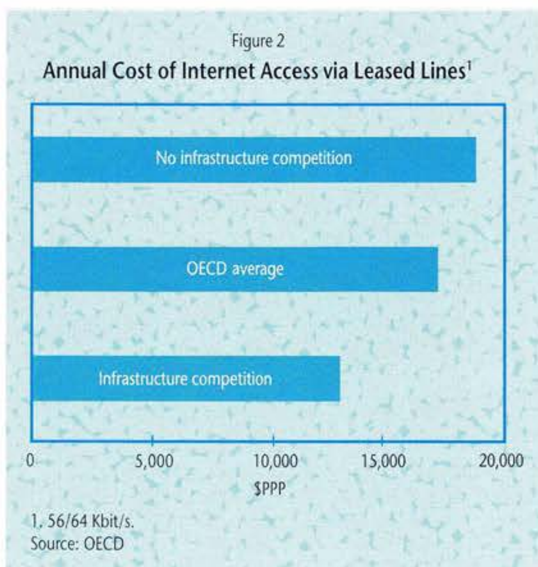
How Competition Helps the Internet

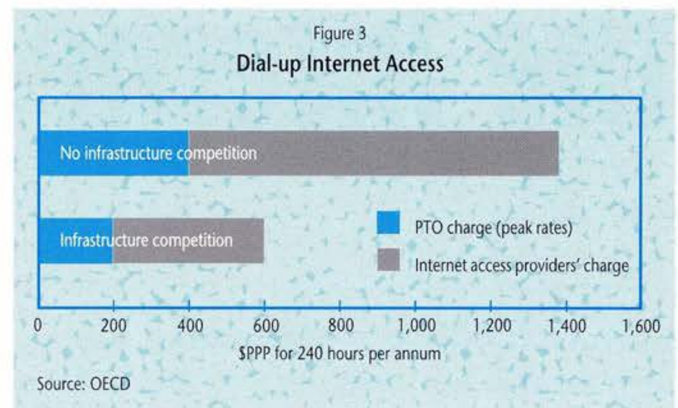


Internet Access Providers (IAPs), and their customers, have no choice in who provides the telecommunication network facilities. This distinction is critical because, on average, the penetration of Internet hosts is five times higher in competitive than monopoly markets – and the gap is growing (Figure 1). One of the main reasons for the gap in performance, as might be expected, is that much lower prices are available in competitive than monopoly markets.

The two most common ways users are currently accessing the Internet are through dedicated connections (leased lines) and dial-up connections (using a personal computer, a modem and the PSTN). In 1995 the average price for leased-line access to the Internet in countries with monopoly provision was 44% higher than where there was competition (Figure 2). The impact of higher leased-line prices in monopoly markets not only raises the cost of direct connections to the Internet but the entire cost of the underlying infrastructure. When IAPs have to pay steep charges to public telecommunication operators (PTOs), they must pass these costs on to business and residential users.

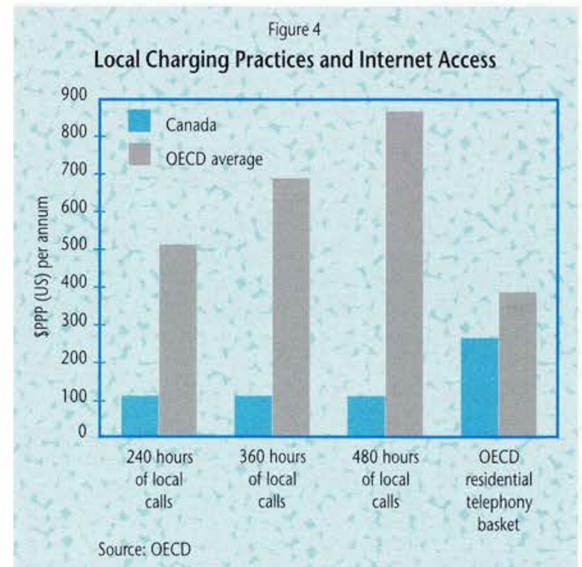


In 1995, IAP prices for dial-up services were on average nearly three times more expensive in countries with monopolies than those with competitive markets (Figure 3). Experience has shown that lower prices are not the only benefit of a competitive market; innovation and responsiveness to customer demand have proven equally important.[3]



If the Internet, or similar services, are to play a central role in information infrastructure, the evidence indicates that new pricing structures for use of communication networks are necessary. Pricing structures built around use of networks for voice telephony are often unsuitable for the new environment. With current structures, indeed, many of the aims outlined by OECD governments could be implemented only at very high cost.

The charging practices in monopoly telecommunication markets can discourage business from locating outside urban centres, employees from opting for tele-work and rural communities from benefiting from information infrastructure, because they have to pay long-distance rates



to access services. In competitive markets, by contrast, solutions are being found. IAPs in the United Kingdom, for example, are providing 'virtual points of presence' through arrangments with long-distance carriers to carry traffic to central points, so that their customers don't have to pay long-distance rates to access their facilities if not located in the local calling area. As a result, callers in all parts of the country can reach the Internet at the cost of a local call.

The Cost of Monopoly

Traditional use of telecommunication networks does not produce widespread variations in the cost of telephony in the OECD area, based on different charging practices for local calls, because most telephone calls are relatively short. But some users of the Internet can pay PTOs up to ten times more than others for five hours of local calls per week. For example, a user in Canada, where local calls are unmeasured, can access the Internet for an indefinite time for a fixed charge. Consumers in other countries, because timed local charges exist in the majority of OECD countries, pay far more for the same service (Figure 4). Accordingly, although there is little difference between the price Canadian users pay for ordinary telephony (a mix of local and long-distance calls) and the OECD average, they can go on-line at much lower cost than consumers in most other OECD countries.

The cost of a standard basket of on-line services is therefore increased by the current trend of rebalancing call tariffs, which lowers long-distance charges and raises local charges. Users in monopoly markets are worst affected, even though the additional price they pay is already far higher than the average for competitive markets.[4]

3. ***Mobile Cellular Communication: Pricing Strategies and Competition***, *ICCP No. 39, OECD Publications, Paris, 1996; Sam Paltridge, 'Upwardly Mobile Telephony',* ***The OECD Observer***, *No. 196, October/November 1995.*

4. *Yuji Kato and Sam Paltridge, 'Telecom Tariffs and the Move to Markets',* ***The OECD Observer***, *No. 191, December 1994/January 1995.*

BACKGROUND

A Quantum Leap in Communication

The Internet is an interconnection of more than 50,000 public and private networks world-wide that use a common communication protocol. Over 90% of these networks are in the OECD area. The Internet has been grafted onto the world's public and private telecommunication networks through a myriad of leased lines. The 'backbone networks' of the Internet are overwhelmingly made up of capacity owned by the world's public telecommunication operators (PTOs). The communication protocol which provides a common language for inter-operation between networks is called TCP/IP (Transmission Control Protocol/Internet Protocol).

The origins of the Internet began with the Advanced Research Projects Administration (ARPA) of the US Department of Defense in the late 1960s. The TCP/IP technology was developed to provide a standard protocol for ARPAnet users to communicate and share computing resources. In the mid-1980s the US National Science Foundation (NSF) adopted the same protocol when it created the NSFnet in order to provide high-speed communication between supercomputer centres. At this time interest was growing among other US government agencies, the wider educational community and business. As the controls were relaxed over who could join the Internet, a growing number of universities, research laboratories and commercial enterprises from around the world were connected.

The relaxation of the so-called 'acceptable use' policy encouraged many organisations operating as not-for-profit providers of Internet connections to make the transition to providing links for commercial enterprises and access for residential users. These organisations became the first commercial Internet Access Providers (IAPs) by leasing capacity from PTOs to provide transmission services from their facilities to Internet backbone networks such as NSFnet. Business customers who require leased line access to the Internet, by way of IAP facilities, generally buy this capacity from PTOs. This enables, for example, a dedicated link for a service provider to create home pages that can be accessed by users. Residential and small business customers mostly use a personal computer (PC) equipped with a modem and access services through the PSTN – known as dial-up Internet access.

A major turning-point in the development of the Internet came with the creation of user-friendly navigational tools over the World Wide Web (WWW). These 'browsers' enable users to treat data on Internet as a cohesive whole by fetching data, determining what it is and configuring it for display. In 1993 the first such tool to have a major impact on the growth of the Internet, named Mosaic, was developed by the National Center for Supercomputing Applications at the University of Illinois. Mosaic created a graphical interface for users that simplified Internet navigation and the research prototype – distributed free over the Internet – gained an estimated two million users in the following year. In April 1994 the principal architect of Mosaic was one of the founders of a commercial company, Mosaic Communications (renamed Netscape Communications in November 1994).

In July 1991 there were 535,000 hosts connected to the Internet. Internet hosts are computers acting as an information and communication server with a direct connection to the Internet. By January 1996 there were more than 9.1 million Internet hosts in OECD countries.

There is growing evidence that monopolies do not encourage innovation in pricing policy and responsiveness to new demands as quickly as markets with infrastructure competition. Moreover, monopoly rents for PTOs may be so high that they have little incentive to develop the required infrastructure in a timely fashion; or, if it already exists, they may not make it available at low-cost rates because it could provide a platform for competition from alternative service providers.

Regulation should be modified to reflect both current technological capabilities and market realities. Otherwise, the PTOs and other service suppliers will face bigger obstacles in restructuring to take advantage of new opportunities and converging markets. In addition, new network patterns of use, and the resultant rebalancing of prices, will require an increase in PTO efficiency.

Governments have to adopt policy frameworks that encourage innovation in pricing and responsiveness to the demands of users. Introducing competition to incumbent PTOs, through cable-television networks offering Internet and other telecommunication services, for example, is one tool available to boost efficiency and encourage innovation. Without these changes, sizable barriers to the development of widespread access to information infrastructure, and the new applications made possible by very rapid technological change, will remain in place.■

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China Enters

Barrie Stevens

The embrace of policies to liberalise markets has started China on a path of rapid growth. Further reforms would accelerate this economic transformation – a process in which China's trading partners have a role to play.[1]

In only a decade and a half, China has transformed itself from a dormant, introspective giant into a dynamic powerhouse of major potential significance to the world economy. Output has expanded at an average rate of nearly 10% and total exports at 17% annually. With an estimated one-fifth of the world's population, China now accounts for almost 4% of world merchandise trade and a substantial share of global production.

This is a remarkable accomplishment by any standards. It is the fruit of a strategy, initiated in 1978, to embark on far-reaching economic liberalisation and to integrate China into the world economy. Following the success of experiments with market reforms, most notably in the agricultural sector, and with the increased exposure of the economy to foreign investors and freer trade in special geographical zones, China's door has swung further open. A sustained series of reforms has continued the process, including most recently the declared intention of the Chinese government to allow convertibility of the currency well ahead of schedule, step up reforms of the state-owned enterprises, and press ahead vigorously with tariff reductions.

The reforms have been able to build on, and interact with, a range of critical economic and social assets. Standards of literacy among the workforce were high, reserves of coal huge, the agricultural base was strong, and reforms quickly led to rising farm incomes which permitted higher rates of saving among the rural population in the first years of reform. Indeed, it was high saving rates by households which helped to sustain the high investment rates (around 40% of GDP in the early 1990s) on which rapid growth has fed. Moreover, large inflows of foreign direct investment (FDI), totalling $34 billion in 1994, have been an important source of foreign technology and improved management techniques.

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The foundations for continued expansion of the Chinese economy thus appear to be in place. But can current rates of expansion be sustained, and what are the implications both for China and the world economy?

Structural Obstacles

Infrastructural deficiencies are likely to prove important stumbling blocks. It is estimated that bottlenecks in transport already cost around 1% of GDP, and little improvement is likely in view of a decline of investment in transport infrastructure from 1.7 to 1.0% of GDP between the 1980s and early '90s. Similarly, demands on energy production will rise substantially, and particularly electricity generation, where it could grow at up to 6–7% per year to 2010.[2] In terms of financial infrastructure, the difficulty to be faced is that, although China has emerged as a major player on global financial markets, its domestic capital markets, banking sector and financial services are underdeveloped.

The volume of capital inputs is unlikely to pose a problem in the coming years provided that saving rates hold up. China has to move up the specialisation ladder away from simple labour-intensive products (such as textiles and

the 21st Century

clothing, footwear, toys, travel goods) towards more sophisticated high-quality goods (not least telecommunications equipment, electrical equipment, machine tools) across a wide range of advanced technologies and industries. That will require a considerable investment in human resources over the next 10–20 years to secure the necessary indigenous scientific and technological foundations, the broad base of skills and the organisational expertise.

Even at rates of growth slower than those currently experienced, China faces serious environmental problems. Most of the costs of pollution are borne internally: for example, only about 20% of industrial waste and 15% of sewage flowing into China's rivers is treated. But there is also considerable cross-border pollution, mainly because of the heavy reliance on coal and the consequent emissions of carbon and sulphur. The Chinese government has made substantial efforts since the early 1980s to reduce environmental damage.[3] But given the prospect of continuing population pressures, rapid industrialisation, a tripling of power generation (from 150 GW in 1991 to 430 GW in 2010), and a doubling of car-ownership by the end of this century, the probable environmental impact will pervade every sector of the Chinese economy.

Serge Attal

The Chinese market has over one billion potential consumers with growing incomes – a solid basis for economic expansion.

There are also a large number of institutional issues to be tackled. The legal framework is not well adapted to a rapidly expanding, increasingly market-based and internationalising economy; corruption is widespread; and continuing reform of state-owned enterprises suggests that the social functions and responsibilities they hitherto assumed in healthcare, education, pensions, housing and employment will have to be replaced by alternative approaches. Moreover, considerable effort will have to be expended in maintaining an appropriate balance between the powers and resources of the centre and the provinces – many of which now have more capacity, and indeed ambition, to determine their own economic strategies, often quite independently of the views and wishes of central government.

A number of additional factors may also prove to have a considerable influence on China's transition, in particular the social and economic risks inherent in widening regional differentials, the prospect of large-scale joblessness, and the potential volatility of the macro-economy. In the longer term, the implications of an aging population will also have a bearing on China's growth trajectory.

International Influences

Beyond these domestic challenges there is the important question of the extent to which the external economic environment will shape the Chinese economy. The prevailing view among experts seems to be that continuing high growth rates depend substantially on steady and wide-ranging progress towards China's integration into the world economy. A more hospitable international context for China will play a pivotal role in encouraging further reliance on market mechanisms. Specifically, FDI inflows and continued trade liberalisation are two of the central international factors likely to influence how China grows. Access to international markets will help to meet vital technological requirements and overcome strains and potential shortages that might arise in domestic markets for raw material, energy and food; and Chinese imports of foreign financial and physical capital could offset potential trade imbalances arising from China's strong export performance in specific, primarily labour-intensive, manufacturing sectors.

Some experts consider that China would exhibit high growth even with trade frictions

1. ***China in the 21st Century: Long-term Global Implications***, *OECD Publications, Paris, 1996; based on a conference held under the auspices of the OECD 'Forum for the Future'.*

2. *Karen Schneider, 'Energy Demand in Developing Countries',* ***The OECD Observer***, *No. 190, Ooctober/November 1994; see also pp. 21–24.*

3. *Michel Potier, 'China Charges for Pollution',* ***The OECD Observer***, *No. 192, February/March 1995.*

China Enters the 21st Century

Pascale/Campagne, Campagne

Regional crop specialisation could bring market increases in yields across China – just as well, in view of the burgeoning population.

beyond those currently experienced and slower integration into the global economy. They see opportunities for a rapid productivity pay-off with the end of command planning and the overall expansion of China's domestic market. A general view that is emerging is that on balance, the Chinese economy will probably continue along a high growth path of around 8% a year. Even if external and internal factors were to combine to create a much less favourable overall climate, it seems unlikely that growth rates would fall below 4–6%.

The Future of Manufacturing

The overall prospects for growth in China's domestic consumer markets for manufactured goods are promising. With over one billion potential consumers, the Chinese market is huge and growing incomes will provide a solid basis for dynamic demand, and especially for mass-produced, technologically advanced consumer goods. In export markets, China will probably continue to build on its past industrial strength but shift more output towards more technologically sophisticated, if still labour-intensive, products. It is therefore widely expected that, if global conditions are conducive, China will become a major supplier of world markets for a broad range of technologically advanced goods, from televisions to machine tools. Lured in part by China's immense domestic market, joint ventures by highly export-oriented foreign multinationals will provide a strong base for China's global reach. But the pace of the industrial revolution will depend, in part, on the success in addressing a range of existing and potential constraints.

To begin with, two obstacles will have to be overcome in order to ensure adequate supplies of skilled labour: the intense competition for qualified personnel amongst the many pressing and profitable projects outside the industrial sector (particularly large-scale infrastructure) may create a severe shortage of skilled labour; and if the pace of reforms slows down, there is a danger that the formation of managerial skills will be impeded as the lessons of hard budget constraints and accountable corporate governance are left by the wayside.

Second, further reform of the financial sector would help firms put their internal capital allocation on a more strategic footing, not least by directing the high domestic savings to their most efficient uses. Reform of the state-owned enterprises, though aimed at reducing the balance-sheet problems of the banking sector (not least by rescheduling bad debt), would also help set the stage for the development of more efficient capital markets.

Third, much will depend on China's capacity to modernise its telecommunications and transportation networks. Upgrading the phone system, for instance, is expected to require more than doubling the number of installed circuits, from 61 million in 1994 to 140 million by the year 2000.

Fourth, liberalising prices in factor markets and modernising corporate legal systems will enable allocative decisions to exploit past investments in technology and human capital so that Chinese industry can continue to move up the ladder of technological sophistication. Continuing export growth, particularly in labour-intensive manufactures, is unlikely to pose insuperable difficulties of adjustment for global markets. On the assumption that Chinese exports will continue to grow at roughly the same rate as in the reform period and that global trade grows at its average for the past fifteen years, China could account for only 6% of the world's merchandise trade by 2010 – close to Japan's share in 1980 and considerably less than the share of the other newly industrialising economies in 1990.

But to what extent does China's emergence raise difficulties for world markets in other areas of economic activity – not least in agriculture and energy?

Can China Feed Itself?

With 22% of the world's population and yet only 7% of the arable land, China's agriculture is faced with a daunting task. The country's 1.2 billion population will increase by a further 200 million by 2010, and 300 million by 2025; the trend to urbanisation is set to continue; and per capita incomes are likely to rise by between 2.5 and 4.5% annually – all of which can be expected to bring about important changes in food consumption patterns. The net result is that total demand for grain could increase from its present volume of about 400 million metric tonnes (MMT) to well over 500 MMT by 2010 and close to 600 MMT by 2020.

Will China be able to meet this surge in demand? There are several causes for concern. There have been serious losses of arable land to non-farm uses (through urban sprawl, for instance) in recent years. Environmental degradation of land and shortages of water (partly because of underpriced synthetic fertilisers and supplies of water for irrigation priced at a fraction of true costs) are becoming increasingly worrying. Inefficiencies and delays during harvesting, threshing, drying, storage and transport account for annual losses of an estimated 60–100 MMT of grain. And investment in agricultural research fell sharply during the 1980s, thereby weakening the basis for further productivity gains, at least over the medium term. As a result, the more pessimistic forecasters predict a substantial shortfall in China's grain supplies over the next 20 years or so, which in the worst case could, by the end of this period, be 100–200 MMT, with important implications for grain prices on world markets.

Yet the outlook may not be as bleak as it first appears. Under-reporting may mean that farmland areas, and in some cases yields, are probably substantially larger than the official records suggest. Yields of some major crops are still below global averages, and there is also a huge potential for yield increases through crop specialisation across the various regions of China. Losses during harvest, storage and transport could be considerably reduced. And substantial gains in efficiency could be expected from higher investment in agricultural research and irrigation. More moderate estimates therefore put the likely annual shortfall in grain (mainly wheat) at about 40 MMT, an out-turn which would probably not affect world food prices unduly, in view of the large scope for expanding grain production elsewhere in the world.

A Bottleneck in Energy Supply?

Will China be able to meet rapidly rising demand for energy with indigenous supplies? China possesses the world's third-largest coal reserves, on which the economy will mainly rely for its energy supplies in the coming decades. Primary coal demand (which currently accounts for more than two-thirds of total primary energy demand) is expected to increase at a rate of over 3% a year to satisfy rising growth in industrial output and mounting demand for electricity. Raising output to adequate volumes will involve substantial investment in the modernisation of existing mines and the development of new ones, many of which will take time to come onstream. If, in addition, bottlenecks in rail transport were to intensify (coal accounting for 40% of rail freight) and/or the cost of extracting the coal were to rise significantly above world prices, China's position could change from that of net exporter of coal to net importer.

Similarly, demand for oil is likely to surge over the next 15 years from its current figure of about 3 million barrels a day (mbd) to around 6.5 mbd, suggesting imports of about 2.8 mbd by 2010. Faster, more effective exploitation of potentially important oil fields, such as in the remote, hostile environment of the Tarim Basin, could help to reduce the gap by up to

China produces over a tenth of the world's emissions of greenhouse gas, not least because energy prices do not reflect true costs.

Nicole Lejeune/Campagne, Campagne

China Enters the 21st Century

China has emerged as a major player on global financial markets but its domestic capital markets, banking sector and financial services are underdeveloped.

1 mbd, but this would still leave a shortfall of some 1.5 mbd. Such developments could increase the vulnerability of world markets for crude oil to short-term shocks, but it is unlikely that their long-term impact on global oil prices would be dramatic, in view of the capacity of the world economy to curb energy consumption, introduce substitutes and bring new sources on line.

Improved efficiency and technological advances – for which FDI is a vital ingredient – could help considerably to reduce potential domestic demand and supply imbalances in energy. At the same time, it could help to alleviate global pollution. China ranks as one of the largest producers of greenhouse-gas emissions (11%) in the world, and its contribution over the next two or three decades will in all probability continue to be extensive. For both energy-efficiency and the environment, pricing plays an all important role, but most energy prices, and especially electricity tariffs, are well below economic cost. In 1993, for example, average electricity tariffs for industry in China were approximately one-tenth of Japan's, less than one-third of India's, and half of South Korea's. There is thus little incentive to conserve energy and lower emissions.

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China's integration into the world economy is likely to generate substantial benefits over the coming decades, both for China itself and the international economy. But, for this to happen, the integration process will have to unfold in a context of enhanced co-operation with China across a broad range of interrelated issues, not least in the development of transportation, energy and communication infrastructures and in environmental issues. To meet its massive infrastructure demands, estimated to be in the range of $1,000 billion for energy alone over the next twenty years, China will have to rely on both technological and financial flows from the rest of the world. Such co-operation presents an important opportunity to speed-up the integration of China's domestic economy and points towards an era of increased international interdependence. But progress along this path will depend heavily on reforms that continue the movement towards market incentives, more responsive prices and a regulatory framework that encourages transparency and predictability.

On balance, there is little likelihood that China's growing importance as an exporter will lead to prolonged structural surpluses. Short-term trade and balance of payments imbalances may occur, but over the long run the import requirements of China's fast growth and its FDI approach will likely offset its export strengths. Although trade frictions are bound to arise as firms adjust to the competitive implications of international differences in comparative advantage, resolving such transitional problems is expected to occur within the context of current and evolving rule-based institutional systems. What will matter from a policy perspective is that China pursue a consistent, market-oriented trade regime and that other countries abide by international rules and mechanisms when it comes to disputes over activities such as dumping. It is important that growth should foster a rapid convergence of Chinese domestic methods for regulating the economy towards the rule-based functioning of the international trade regime. The key to achieving these objectives lies in building trust and confidence through dialogue and co-operation that contribute to mutual understanding and the recognition of shared responsibilities. ▪

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Fiscal Consolidation and Monetary Policy

John Thornton

Most of the OECD economies are reducing – or are planning to reduce – their fiscal deficits, mainly by cutting state spending. That leaves monetary authorities with some delicate decisions. Should the money supply be eased to accommodate the resulting 'fiscal shock'? If so, by how much? And what are the likely implications for inflation?

The prospect of a sustained and simultaneous fiscal consolidation in OECD countries is unique in recent history. There have been episodes of quite large year-to-year fluctuations in the structural fiscal balances of individual countries over the past two decades, but these have been relatively minor for the OECD area as a whole, averaging about 0.3 percentage points of OECD GDP a year over the period 1974–95 – and they have rarely taken the same direction for more than two years in succession. In contrast, if reasonable success is achieved in implementing current objectives, a fiscal 'shock' equivalent to about 3 percentage points of GDP is possible between 1996 and 2001. Indeed, about 1.4 percentage points of this figure could occur in 1996–97, as European economies try to satisfy the fiscal criteria of the Maastricht Treaty (a fiscal deficit of a maximum of 3% of GDP). An important challenge for economic policy is therefore to determine whether fiscal consolidation pursued simultaneously in a number of countries poses a risk of deflation and, if so, whether an active monetary policy can mitigate this risk without reigniting inflation.

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Determining the appropriate response for monetary policy is complicated because most countries have not outlined how and to what extent they intend to reduce their fiscal deficits. This makes it difficult to assess how seriously governments intend to go about the exercise and thus to judge the size of the likely demand 'shock' to the economy and the possible response of the private sector, as reflected in the behaviour of private savings and investment and the financial markets. These assessments will be crucial in determining the timing and scope of any easing of monetary policy.

Interest and Exchange Rates

An open economy responds to changes in monetary and fiscal policy in a fairly straightforward way. The short-run direct effect of fiscal consolidation is to reduce aggregate demand, by lowering spending by the public sector or by the private sector, because of tax increases and transfer reductions. This puts downward pressure on interest rates and, with high international capital mobility, the exchange rate depreciates. The extent to which the direct adverse effect of fiscal contraction on demand may be offset by lower interest rates or a depreciated exchange rate depends mainly on the size of the economy, the degree to which other (especially larger) countries are pursuing similar policies, and the exchange-rate regime. Three particular considerations emerge.

First, large open economies can stabilise aggregate demand in the face of fiscal contraction by easing monetary policy, the effects on output of the two policies tending to cancel each other out. The difference between the larger and smaller countries is in the relative importance of net exports and domestic demand: in small open economies with independently floating exchange rates, fiscal contraction results in lower interest rates and an exchange-rate depreciation which pulls in net exports to stabilise aggregate demand.

Second, small open economies operating with fixed exchange rates run the risk of deflation since they are unable to ensure non-inflationary growth of aggregate demand with lower interest rates through net export unless other partners in the co-operative exchange-rate arrangement also ease monetary policy.

Third, fiscal and monetary policies undertaken by a large country have knock-on effects on other (smaller) countries through movements in real exchange rates even if the changed policy mix does not reduce total domestic demand in the large country (for example, fiscal contraction and monetary expansion in a large country are likely to reduce net exports and aggregate demand in smaller countries).

These basic rules of thumb are subject to several qualifications. First, the expectations of households and firms can affect the timing and direction of the net effect of programmes of fiscal contraction. For example, a credible announcement of fiscal consolidation might lead to an immediate depreciation of the exchange rate (under a regime of floating exchange rates) and

Wim van Capellen/Reporters-RÉA

To maintain their credibility, central banks have to stand guard on the money supply – without risking deflation.

an increase in net exports before the fiscal consolidation gets underway. Second, the interdependence of economies means that a simultaneous shift towards fiscal consolidation and easier monetary policy in a number of countries may limit the scope for changes in exchange rates to affect net exports and hence aggregate demand. Fiscal and monetary policies, moreover, appear to affect aggregate demand with different time-lags.

The Role of Monetary Policy

The theoretical and empirical literature suggests (with many qualifications) that fiscal consolidation is likely to reduce aggregate demand in the short run but that this effect can be counteracted by easing monetary policy. Results from a series of simulations using the OECD's large-scale macro-economic model ('Interlink') suggest that three particular considerations for monetary policy if fiscal consolidation takes place simultaneously in the major OECD economies.

First, since – logically – not all countries can benefit at the same time from the increased net exports resulting from a currency depreciation associated with cuts in fiscal deficits (an important factor in single-country consolidation), simultaneous fiscal consolidation is likely to largely rule out the exchange rate as a mechanism for increasing net exports to stabilise aggregate demand. Second, a given degree of monetary easing in one country in the face of fiscal consolidation is less successful in stabilising aggregate demand when other countries are also pursuing fiscal consolidation, mainly because of the limited scope for increasing net exports. Third, the choice between tax increases and expenditure cuts in implementing fiscal consolidation may have important implications for aggregate demand in the short run, and hence for the response of monetary policy. In particular, to the extent that increases in indirect taxes are reflected in future wage-settlements and in prices as a whole, they reduce the scope for real depreciation of the exchange rate to crowd in net exports.

As a result, the burden falls largely on lower interest rates and domestic demand to generate the recovery in aggregate demand, and monetary policy may have to be eased more aggressively than in the case of single-country consolidations if excessive deflationary pressures are to be avoided in OECD countries. But achieving an aggressive easing of monetary policy is complicated in practice by the fact that it is precisely the countries likely to undertake the largest fiscal consolidations – Japan and some of the European countries – that have the least room for manœuvre in monetary policy.

Some simulation results for Japan suggest that the adverse direct effect of fiscal consolidation on aggregate demand is disproportionately large – initially because the consolidation is assumed to take place later than in the United States and Europe so that the yen appreciates against these currencies and Japan's net exports decline. Moreover, Japan was assumed to consolidate by raising indirect taxes which may boost inflation (although from a very low rate) as the result of higher wage-settlements and other costs. In Europe, many countries are members of the Exchange Rate Mechanism (ERM) and intend to form a monetary union and thus have little scope for easing monetary policy on an individual basis. The situation is further complicated by the position of Germany, whose currency is widely perceived to be the anchor of the exchange-rate arrangement. The fiscal deficit and the debt-to-GDP ratio are less of a problem in Germany than in a number of other European countries and it may have to undertake relatively less fiscal consolidation in the short term. Hence, taking only domestic considerations into account, Germany may require less monetary easing than may be appropriate for other ERM members.

The contractionary effects of fiscal consolidation for OECD economies could be mitigated by mechanisms linking OECD and non-OECD economies. In this way lower real long-term interest rates in OECD countries should stimulate demand in non-OECD economies by reducing the cost of serving their external debt and by encouraging capital inflows from OECD economies. In turn, higher economic growth in non-OECD economies should maintain their demand for OECD exports. In theory, moreover, the OECD economies as a group could achieve some real depreciation of their exchange rates *vis-à-vis* non-OECD countries, who would then rely on capital inflows from the OECD area to maintain their domestic demand.

Monetary Complications

The main issues for monetary policy are whether easing should take place in advance of, or in line with, fiscal consolidation, and how much easing will support aggregate demand without endangering medium-term inflation objectives. The main difficulties in answering these questions are in assessing the size of the likely fiscal shock and determining the response of the private sector.

The exact size of the fiscal shock is unknown because many countries have yet to provide

details of their plans for consolidation. In addition, even when these plans become available, some judgement will have to be made by the central bank as to their credibility in order to determine the appropriate response in monetary policy. There will almost certainly be some slippage between the intentions of the fiscal authority and the outcome itself, with several factors likely to be relevant in assessing the risk of the slippage – for example, whether the consolidation effort emphasises annual targets as opposed to medium-term objectives; whether the focus is on cuts in current expenditure and transfers, rather than cutting public investment and raising taxes; and whether or not there is political pressure to slow consolidation.

The response of the private sector will be conditioned, in part, on the composition of the consolidation and its credibility and on that of the central bank in its implementation of monetary policy. Whether governments place the emphasis on spending cuts or tax increases – and where the cuts fall and which taxes are increased – can have important effects on consumption and investment by the private sector.

The type of measures taken may also bear on the credibility of the consolidation effort. The more credible it is, the further and faster are real interest rates likely to decline and the quicker private investment (and hence productivity and real incomes) is likely to increase. Unfortunately, even if the magnitude of the fiscal shock is known, the short-run effects on the exchange rate and interest rates will not be easy to determine – the empirical evidence available suggests a variety of possible responses, partly depending on the credibility of the consolidation effort and the reputation of the central bank.

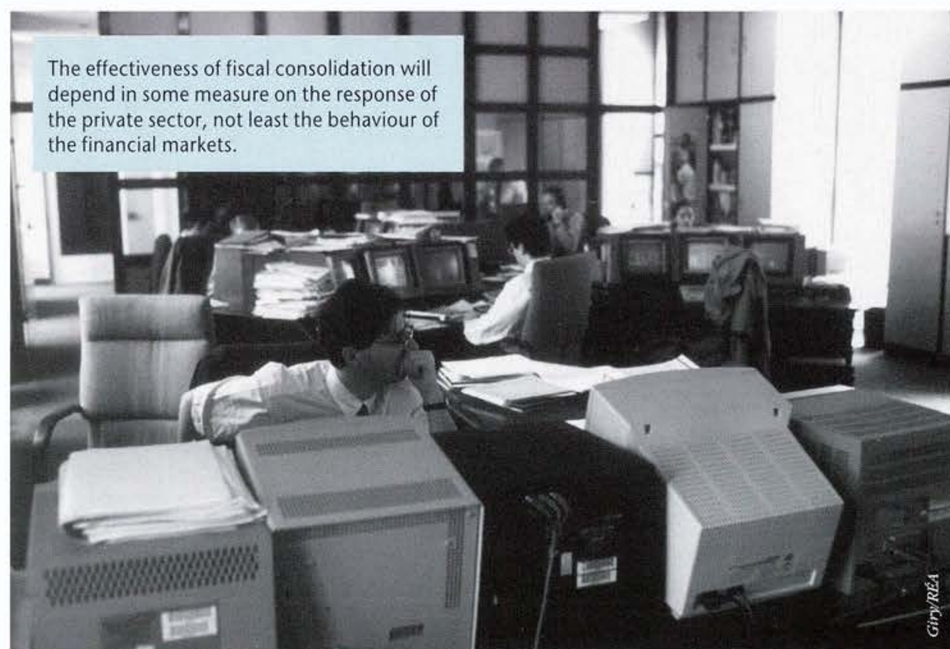
With a fully credible fiscal consolidation, an immediate easing of monetary policy might be appropriate, particularly in view of the deflationary risk involved. It could offer the prospect of an immediate decline in short- and long-term interest rates and an early, investment-driven recovery in domestic demand. But for several reasons it might be advisable to phase the easing of monetary policy in line with the progress of fiscal consolidation.

First, a shift in monetary policy that fully and immediately accommodates the consolidation might not be necessary if it is clear to the financial markets that it will be eased eventually (since expectations could induce a decline in interest rates even before the consolidation took place). Second, plans for consolidation often are not implemented in full. There is thus a risk that the central bank will get ahead of the fiscal authorities and have to reverse course if the fiscal goals are not achieved, with potentially damaging effects on private investment and consumption. Third, such a shift in monetary policy would put the central bank in a position of having to ratify the credibility of the consolidation and could raise questions about operational independence and credibility of the central bank.

Even if a central bank responded immediately to an announced policy of fiscal consolidation, it might not be able to offset the short-run effects on aggregate demand because monetary stimuli appear to take longer to affect aggregate demand than fiscal stimuli. The empirical evidence suggests that fiscal actions have their biggest effects in the initial quarters, while the average lag of the effects of a monetary action is 12–15 months. A credible fiscal consolidation would support an easing of monetary policy sooner rather than later and could be consistent with achieving monetary-policy goals and also combating deflationary pressures.

■ ■

With virtually all countries undertaking fiscal consolidation, the shock to aggregate demand in the OECD area is potentially large and unique in recent history. There may be scope for monetary policy to stabilise aggregate demand without jeopardising inflation objectives. But because there is limited scope for exchange-rate depreciation to boost net exports when OECD countries are pursuing fiscal consolidation simultaneously, monetary policy has to act mainly through reductions in interest rates and an associated increase in domestic demand. The timing and extent of any easing in monetary policy will be crucial in stabilising aggregate demand. Although the size of the likely fiscal consolidation and the long time-lag until monetary policy affects aggregate demand suggest that the easing should happen early, this might be complicated by concern for the credibility of the policies involved. Moreover, the countries pursuing the largest fiscal consolidations appear to have the least room for manœuvre with respect to monetary policy. ■



The effectiveness of fiscal consolidation will depend in some measure on the response of the private sector, not least the behaviour of the financial markets.

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Portugal
Reforming the Social-security System

Flavia Terribile

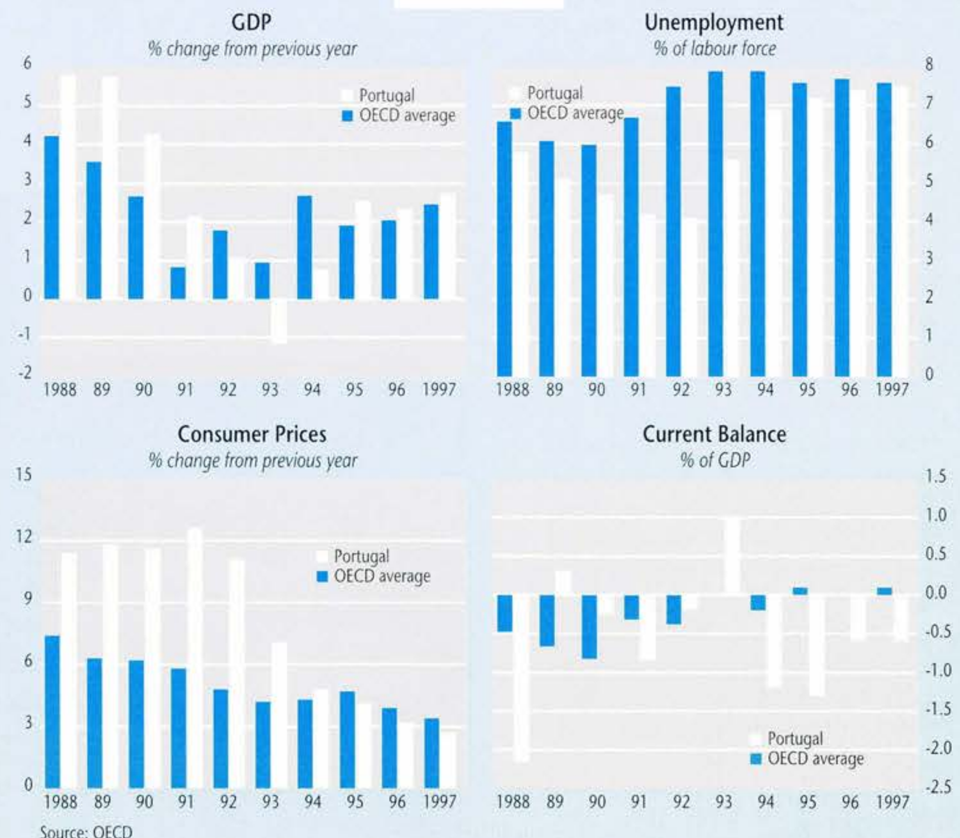
In Portugal, as in other OECD countries, the gap between social-security expenditure and contributions seems set to widen over the medium run, enlarged by deteriorating demographic trends and what appears to be the emergence of higher non-cyclical unemployment. The corrective measures that have recently been taken may not be adequate to restore financial equilibrium. Reforms may thus be required to ensure the viability of the social-security system. To this end, the new government has appointed a special commission to prepare a white paper for June 1997. Two broad sets of issues are involved. The first is one of financial sustainability, insofar as steps have to be taken to ensure that the funding of pension commitments does not result in an unacceptable increase in taxation or borrowing. The second is derived from the structure of benefits and contributions, which may have to be redesigned so as to reduce any adverse effects on efficiency and equity deriving from current institutional arrangements.[1]

Portugal's pay-as-you-go system comprises two main regimes: the general system, covering private-sector workers, and the system for public-sector employees. With 2.3 million pension beneficiaries and 4.3 million contributors, the general system is by far the more important. It has three basic schemes.

The general contributory scheme covers dependent and self-employed workers outside the public sector (3.8 million in 1994). Payments made by this regime include pensions for old-age, invalidity and survivors; insurance against a temporary loss of income due to sickness, occupational diseases, maternity and unemployment; and non-income-tested welfare benefits. Outlays under the general contributory scheme are fully covered by social-security contributions.

The voluntary social-insurance scheme provides protection to people not compulsorily covered by the general contributory scheme (for example, housewives and nationals who work abroad). Benefits comprise old-age, invalidity and survivors' pensions, death grants and family allowances.

Indicators



Source: OECD

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The non-contributory scheme provides minimum protection to persons not covered by any of the other two schemes, whose monthly income is below a certain limit and who are suffering economic and social hardship. In addition to the 'social pension' for old-age and invalidity, the other benefits are not income-tested and include family allowances, subsidies to young people and benefits for the disabled. Payments are revalued once a year by government decree. Pensioners numbered 156,000 in 1994, while family-allowances beneficiaries totalled 21,000. The non-contributory scheme is funded by transfers from central government.

The system for public-sector employees covers one million people. Pension benefits are higher than those disbursed under the general contributory scheme, although employee contribution rates are similar. The government funds the difference between contributions and pension expenditure. Budget transfers also finance forms of insurance against a temporary loss of income due to maternity, work injuries and occupational diseases.

Pension Provisions and Financing

Old-age, invalidity and survivors' pensions account for two-thirds of current expenditure under the general system. In line with trends observed in other countries, pension outlays have steadily increased relative to GDP, reaching an estimated 6.1% in 1994, compared with 4.9% in 1986. Pension benefits in the general contributory scheme are earnings-related. They are calculated on the basis of a fixed accrual rate, the reference income (income of the contributor over a specified period of time before retirement) and the number of years of contributions. The accrual rate is a flat 2%, which is high by international comparison. Since the reference income is the highest ten-year average income of the last 15 years, there is a weak link between benefits and contributions. Overall, pensions cannot exceed 80% of assessed income.

1. *OECD Economic Surveys: Portugal*, OECD Publications, Paris, 1996.

In the general system, the current retirement age is 65 years for men and 63 years for women. A minimum of 15 years of contributions is required to qualify for an old-age pension at retirement age. The total contribution rate corresponds to 34.75% of the gross wage, of which 23.75% is paid by employers and 11% by employees. This global rate is among the highest in Europe and covers contributions for pensions, work-related benefits and welfare payments, with no differentiation being made for different categories of insurance. Contribution rates for the self-employed and special categories of dependent labour are lower. But both the high amounts and structure of contributions may have stimulated tax avoidance and evasion, with arrears amounting to 2.6% of GDP in 1994. Countries with similar contribution rates tended to collect much larger amounts of social-security contributions than Portugal. In 1994, cash contributions in the private sector totalled 7.4% of GDP, sufficient to cover outlays under the general contributory scheme. Expenditures under the non-contributory regime, funded by transfers from central government, amounted to 1.5% of GDP.

In order to narrow the gap between contributions and outlays in the private sector, the government introduced a number of reforms in 1994–95, including:

- a change in the pension formula, lengthening from ten to 15 years the period which determines the reference income, and lowering the accrual rate from 2.2 to 2%
- a gradual rise in the retirement age for women from 62 in 1993 to 65 years by 1999
- a reduction in the contribution rate paid by employers of 0.75 percentage points, offset by a rise in VAT rates of 1 point, receipts of which are earmarked for social security
- a reform of the social-security scheme for the self-employed
- tighter eligibility controls on invalidity and sickness benefits
- payment facilities for firms with contribution arrears
- administrative controls and more effective methods of collection, making evasion of social-security contributions a crime punishable by imprisonment.

Guy/Campagne, Campagne

An aging population is expected to put growing pressure on Portugal's pension schemes.

Pension provisions in the public-sector system have been much more generous than their private-sector equivalent. For employees hired before September 1993, the reference income is the income of the contributor in the last month of service. The retirement age is 60 years, compared with 65 years in the general system. The minimum contribution period is five years, against 15 in the general contributory regime. A public employee with 36 years of service earns a pension equal to the salary of the last position held, a replacement ratio of 100%, which is exceptional by international standards. In 1995, pension payments per beneficiary were more

Portugal

Reforming the Social-security System

Serge Attal

Reducing social-security contributions would increase the demand for labour.

than twice as large as those made under the general contributory scheme, and pension outlays amounted to 2.7% of GDP, up from 1.1% in 1986.

Public employees' contributions amount to 10% of gross emoluments – 7.5% for old-age and invalidity pensions and 2.5% for survivors' pensions. An additional 1% of gross salary is paid for medical assistance. In 1993–95, contributions only covered around 50% of pension expenditure, the remainder being financed by the central government (1.5% of GDP in 1995). In an attempt to stem the rising tide of social payments, the government downgraded the public pension formula in 1993. Public employees hired after September 1993 are now subject to the same provisions as those applicable to the private sector. But since around 98% of public employees are currently covered by the previous generous provisions, savings from the harmonisation will be slow to materialise, the full effect taking an estimated 40 years.

The Case for Reform

Over the past ten years, social-security expenditure has increased more rapidly in Portugal than in the rest of the OECD, although, at an estimated 11.8% of GDP in 1995, spending was still 3.5 points below the OECD average. At present, the age-structure of Portugal's population does not differ much from the OECD average, but adverse demographic changes are bound to put rising pressure on the system. Simulations show that, despite the 1993–95 reforms, the gap between overall pension spending and contributions will reach 8½% of GDP in 2035, of which nearly 6 points are accounted for by the general system and the remainder by the public-sector scheme. The deficit is projected to widen to more than 10% in 2050. Subsequently, expenditure may decline slightly, although it will stay high. In the process, the equilibrium contribution rate (ECR) – the contribution rate that balances the pay-as-you-go pension system – will rise from 18% in 1994 to 25% in 2020, and further to 43% in 2050. The general contributory pension scheme itself is projected to show a deficit from 2005, rising to 5% of GDP in 2035.

In view of the high global contribution rate, containment of spending has to be the primary means of guaranteeing the solvency of the system. The main avenues for cutting future pension expenditure while maintaining the current pay-as-you-go system would then be:

- to reduce the accrual rate and link pensions to life-time earnings
- to raise the retirement age
- to reduce privileges granted to specific groups of workers, in particular, the highly preferential pension formula applying to public employees hired before September 1993. A measure which lowered pensions relative to earnings by 10% would be roughly equivalent to increasing the retirement age by five years. In either case, the contribution rate that balances the pension system would drop to 15% in 2005, rising to approximately 18% in 2020 (as against 25% in the base scenario) and 32% in 2050 (as against 43% in the base scenario). Aligning the public-sector replacement rate on that prevailing in the private domain would reduce the ECR to 17% in 2005. Overall, the simulations show that none of these measures alone would be sufficient to ensure financial equilibrium, calling for a combination of different approaches.

Measures taken to improve financial sustainability should also enhance both the efficiency and transparency of the social-security system. The guiding principle should be to create a closer link between contributions and benefits. As a first step, more differentiation should be made between income-related and welfare benefits and, as far as contributions are concerned, between pension benefits and provision made for other contingencies such as short-term loss of income. This would call for a new set of institutional financing requirements, taking the provision of welfare programmes other than earnings-related benefits out of the general contributory scheme and financing them with tax revenues. This measure should allow social-security contribution rates to be reduced, with positive effects on the demand for labour.

Contribution rates should also differentiate between insurance categories, with a view to strengthening the perceived link between contributions and benefits. The restructuring should also aim at harmonising rates across different categories of income-earners and lowering employers' contributions relative to employees' contributions. Such a reform would reduce allocative distortions and horizontal inequities, helping to improve labour-market outcomes in the longer run. ■

OECD Bibliography

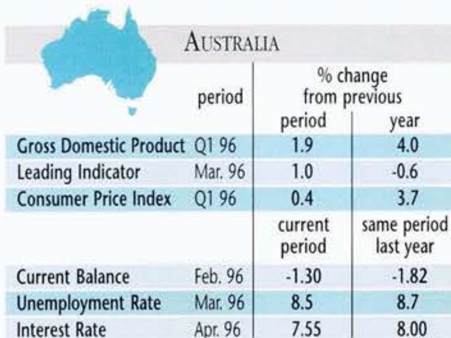
OECD Economic Surveys: Portugal, 1996.

Indicators

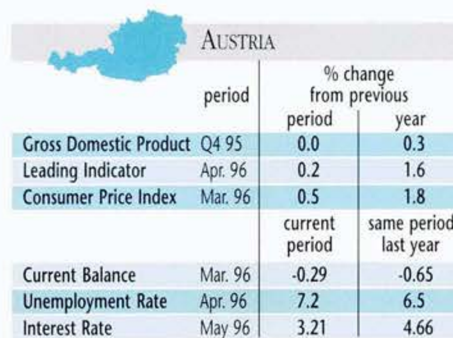
Definitions and Notes

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

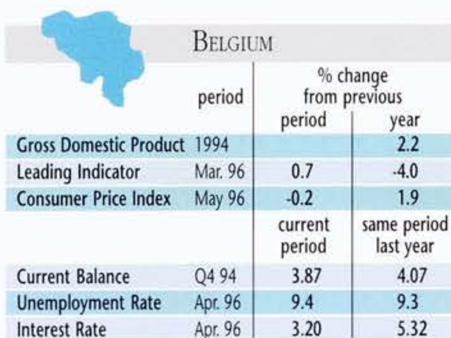
Source: **Main Economic Indicators**, *OECD Publications, Paris, June 1996.*



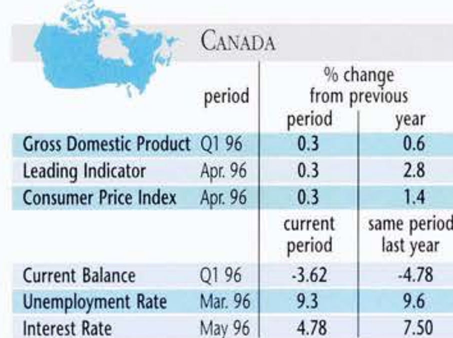
AUSTRALIA	period	% change from previous	
		period	year
Gross Domestic Product	Q1 96	1.9	4.0
Leading Indicator	Mar. 96	1.0	-0.6
Consumer Price Index	Q1 96	0.4	3.7
		current period	same period last year
Current Balance	Feb. 96	-1.30	-1.82
Unemployment Rate	Mar. 96	8.5	8.7
Interest Rate	Apr. 96	7.55	8.00



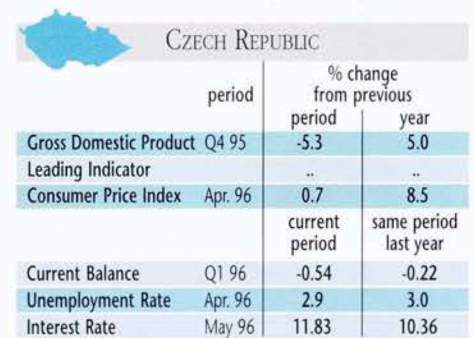
AUSTRIA	period	% change from previous	
		period	year
Gross Domestic Product	Q4 95	0.0	0.3
Leading Indicator	Apr. 96	0.2	1.6
Consumer Price Index	Mar. 96	0.5	1.8
		current period	same period last year
Current Balance	Mar. 96	-0.29	-0.65
Unemployment Rate	Apr. 96	7.2	6.5
Interest Rate	May 96	3.21	4.66



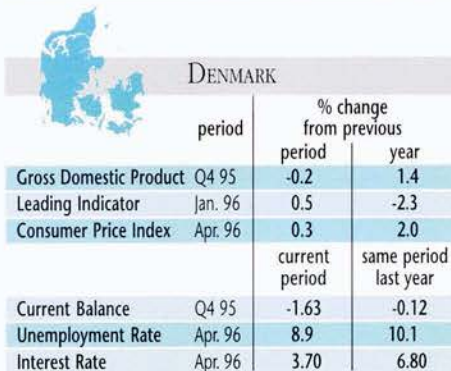
BELGIUM	period	% change from previous	
		period	year
Gross Domestic Product	1994		2.2
Leading Indicator	Mar. 96	0.7	-4.0
Consumer Price Index	May 96	-0.2	1.9
		current period	same period last year
Current Balance	Q4 94	3.87	4.07
Unemployment Rate	Apr. 96	9.4	9.3
Interest Rate	Apr. 96	3.20	5.32



CANADA	period	% change from previous	
		period	year
Gross Domestic Product	Q1 96	0.3	0.6
Leading Indicator	Apr. 96	0.3	2.8
Consumer Price Index	Apr. 96	0.3	1.4
		current period	same period last year
Current Balance	Q1 96	-3.62	-4.78
Unemployment Rate	Mar. 96	9.3	9.6
Interest Rate	May 96	4.78	7.50

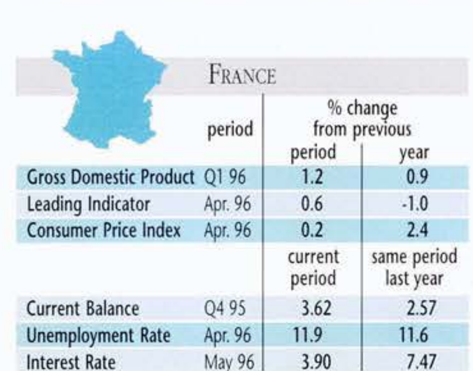


CZECH REPUBLIC	period	% change from previous	
		period	year
Gross Domestic Product	Q4 95	-5.3	5.0
Leading Indicator		..	..
Consumer Price Index	Apr. 96	0.7	8.5
		current period	same period last year
Current Balance	Q1 96	-0.54	-0.22
Unemployment Rate	Apr. 96	2.9	3.0
Interest Rate	May 96	11.83	10.36

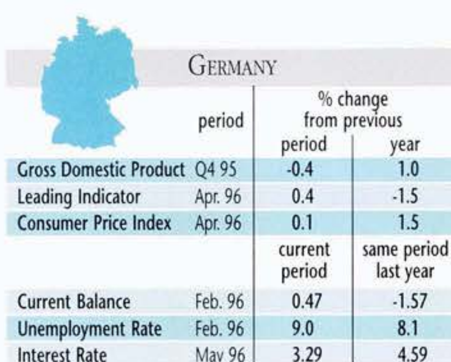


DENMARK	period	% change from previous	
		period	year
Gross Domestic Product	Q4 95	-0.2	1.4
Leading Indicator	Jan. 96	0.5	-2.3
Consumer Price Index	Apr. 96	0.3	2.0
		current period	same period last year
Current Balance	Q4 95	-1.63	-0.12
Unemployment Rate	Apr. 96	8.9	10.1
Interest Rate	Apr. 96	3.70	6.80

FINLAND	period	% change from previous	
		period	year
Gross Domestic Product	Q4 95	-0.4	2.3
Leading Indicator	Jan. 96	-1.2	-7.4
Consumer Price Index	Apr. 96	0.2	0.7
		current period	same period last year
Current Balance	Mar. 96	0.32	0.28
Unemployment Rate	Mar. 96	16.3	16.2
Interest Rate	May 96	3.76	5.87

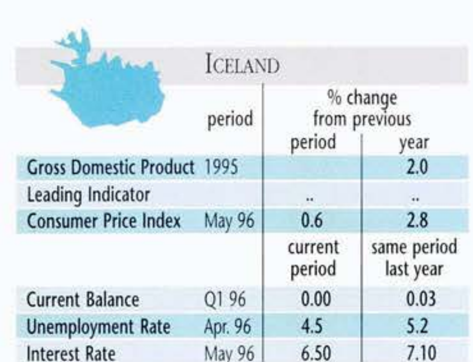


FRANCE	period	% change from previous	
		period	year
Gross Domestic Product	Q1 96	1.2	0.9
Leading Indicator	Apr. 96	0.6	-1.0
Consumer Price Index	Apr. 96	0.2	2.4
		current period	same period last year
Current Balance	Q4 95	3.62	2.57
Unemployment Rate	Apr. 96	11.9	11.6
Interest Rate	May 96	3.90	7.47



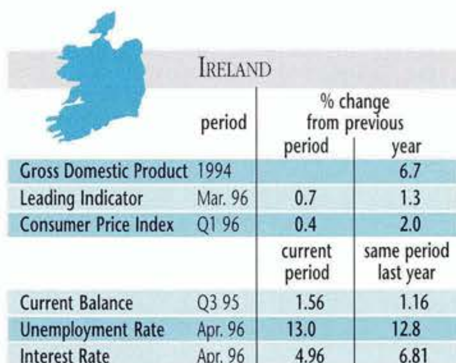
GERMANY	period	% change from previous	
		period	year
Gross Domestic Product	Q4 95	-0.4	1.0
Leading Indicator	Apr. 96	0.4	-1.5
Consumer Price Index	Apr. 96	0.1	1.5
		current period	same period last year
Current Balance	Feb. 96	0.47	-1.57
Unemployment Rate	Feb. 96	9.0	8.1
Interest Rate	May 96	3.29	4.59

GREECE	period	% change from previous	
		period	year
Gross Domestic Product	1994		1.5
Leading Indicator	Mar. 96	-1.3	-1.9
Consumer Price Index	Apr. 96	1.3	9.2
		current period	same period last year
Current Balance	Dec. 95	0.17	-0.13
Unemployment Rate		..	..
Interest Rate	Apr. 96	13.30	16.50



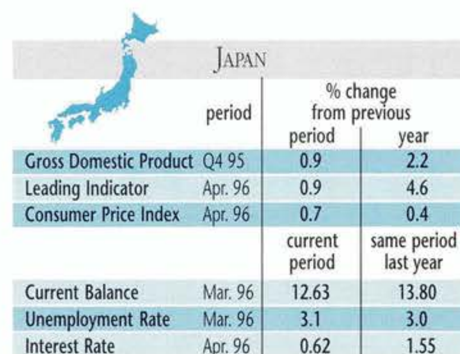
ICELAND	period	% change from previous	
		period	year
Gross Domestic Product	1995		2.0
Leading Indicator		..	..
Consumer Price Index	May 96	0.6	2.8
		current period	same period last year
Current Balance	Q1 96	0.00	0.03
Unemployment Rate	Apr. 96	4.5	5.2
Interest Rate	May 96	6.50	7.10

Note: figures for Hungary are in preparation

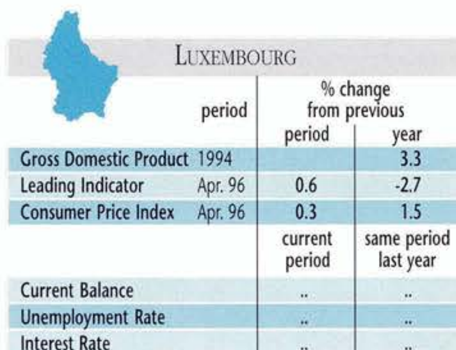


Ireland	period	% change from previous	
		period	year
Gross Domestic Product	1994		6.7
Leading Indicator	Mar. 96	0.7	1.3
Consumer Price Index	Q1 96	0.4	2.0
		current period	same period last year
Current Balance	Q3 95	1.56	1.16
Unemployment Rate	Apr. 96	13.0	12.8
Interest Rate	Apr. 96	4.96	6.81

Italy	period	% change from previous	
		period	year
Gross Domestic Product	Q4 95	-0.9	2.3
Leading Indicator	Apr. 96	-0.7	-2.6
Consumer Price Index	May 96	0.4	4.3
		current period	same period last year
Current Balance	Dec. 95	2.26	2.46
Unemployment Rate	Q3 95	12.1	10.9
Interest Rate	May 96	8.92	10.45

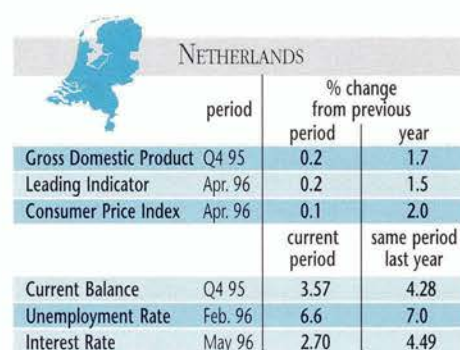


Japan	period	% change from previous	
		period	year
Gross Domestic Product	Q4 95	0.9	2.2
Leading Indicator	Apr. 96	0.9	4.6
Consumer Price Index	Apr. 96	0.7	0.4
		current period	same period last year
Current Balance	Mar. 96	12.63	13.80
Unemployment Rate	Mar. 96	3.1	3.0
Interest Rate	Apr. 96	0.62	1.55

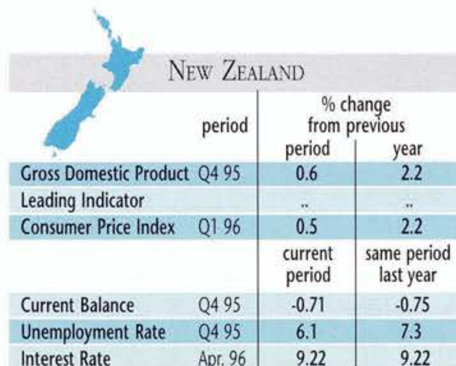


Luxembourg	period	% change from previous	
		period	year
Gross Domestic Product	1994		3.3
Leading Indicator	Apr. 96	0.6	-2.7
Consumer Price Index	Apr. 96	0.3	1.5
		current period	same period last year
Current Balance		..	..
Unemployment Rate		..	..
Interest Rate		..	..

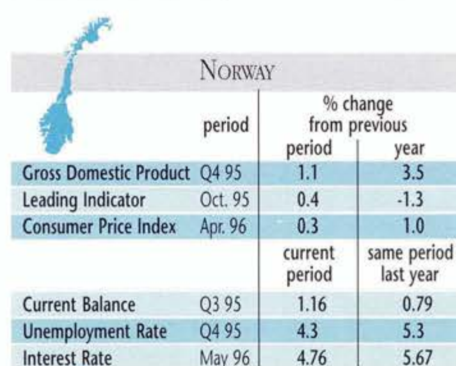
Mexico	period	% change from previous	
		period	year
Gross Domestic Product	Q4 95	2.5	-6.8
Leading Indicator		..	..
Consumer Price Index	Apr. 96	2.8	36.9
		current period	same period last year
Current Balance	Q4 95	-0.46	-7.31
Unemployment Rate	Apr. 96	5.9	6.0
Interest Rate	May 96	31.07	54.71



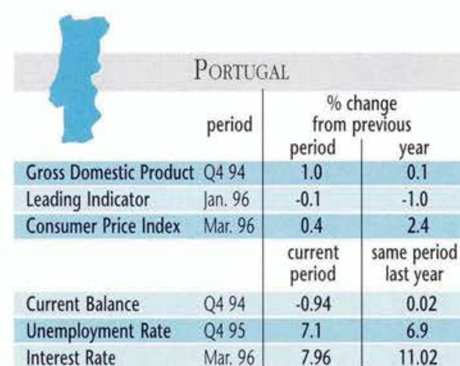
Netherlands	period	% change from previous	
		period	year
Gross Domestic Product	Q4 95	0.2	1.7
Leading Indicator	Apr. 96	0.2	1.5
Consumer Price Index	Apr. 96	0.1	2.0
		current period	same period last year
Current Balance	Q4 95	3.57	4.28
Unemployment Rate	Feb. 96	6.6	7.0
Interest Rate	May 96	2.70	4.49



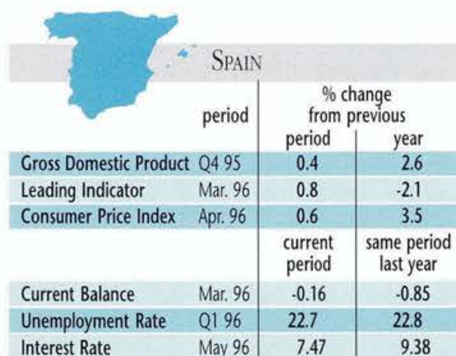
New Zealand	period	% change from previous	
		period	year
Gross Domestic Product	Q4 95	0.6	2.2
Leading Indicator		..	..
Consumer Price Index	Q1 96	0.5	2.2
		current period	same period last year
Current Balance	Q4 95	-0.71	-0.75
Unemployment Rate	Q4 95	6.1	7.3
Interest Rate	Apr. 96	9.22	9.22



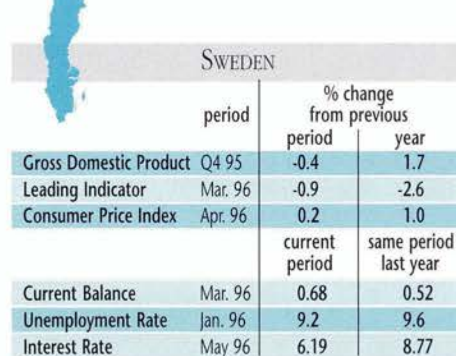
Norway	period	% change from previous	
		period	year
Gross Domestic Product	Q4 95	1.1	3.5
Leading Indicator	Oct. 95	0.4	-1.3
Consumer Price Index	Apr. 96	0.3	1.0
		current period	same period last year
Current Balance	Q3 95	1.16	0.79
Unemployment Rate	Q4 95	4.3	5.3
Interest Rate	May 96	4.76	5.67



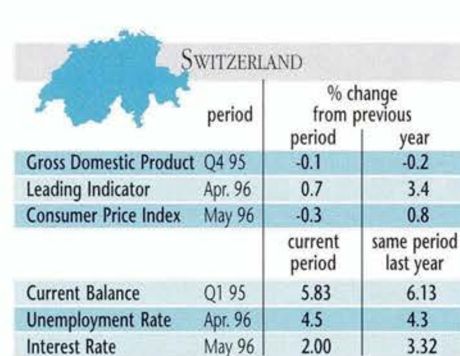
Portugal	period	% change from previous	
		period	year
Gross Domestic Product	Q4 94	1.0	0.1
Leading Indicator	Jan. 96	-0.1	-1.0
Consumer Price Index	Mar. 96	0.4	2.4
		current period	same period last year
Current Balance	Q4 94	-0.94	0.02
Unemployment Rate	Q4 95	7.1	6.9
Interest Rate	Mar. 96	7.96	11.02



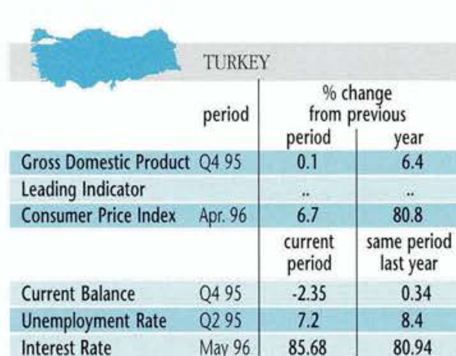
Spain	period	% change from previous	
		period	year
Gross Domestic Product	Q4 95	0.4	2.6
Leading Indicator	Mar. 96	0.8	-2.1
Consumer Price Index	Apr. 96	0.6	3.5
		current period	same period last year
Current Balance	Mar. 96	-0.16	-0.85
Unemployment Rate	Q1 96	22.7	22.8
Interest Rate	May 96	7.47	9.38



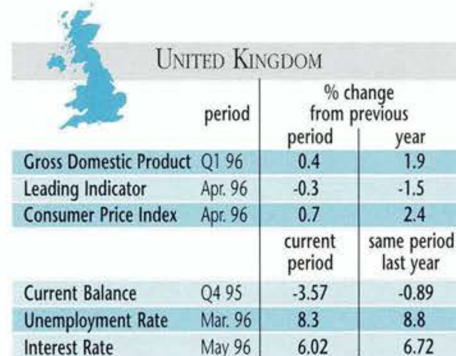
Sweden	period	% change from previous	
		period	year
Gross Domestic Product	Q4 95	-0.4	1.7
Leading Indicator	Mar. 96	-0.9	-2.6
Consumer Price Index	Apr. 96	0.2	1.0
		current period	same period last year
Current Balance	Mar. 96	0.68	0.52
Unemployment Rate	Jan. 96	9.2	9.6
Interest Rate	May 96	6.19	8.77



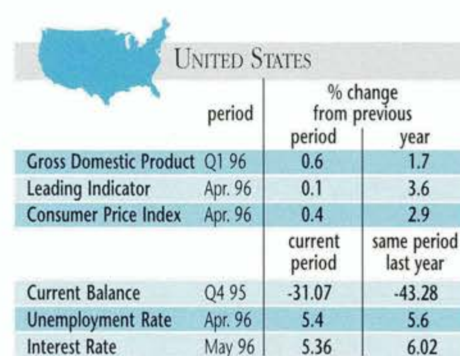
Switzerland	period	% change from previous	
		period	year
Gross Domestic Product	Q4 95	-0.1	-0.2
Leading Indicator	Apr. 96	0.7	3.4
Consumer Price Index	May 96	-0.3	0.8
		current period	same period last year
Current Balance	Q1 95	5.83	6.13
Unemployment Rate	Apr. 96	4.5	4.3
Interest Rate	May 96	2.00	3.32



Turkey	period	% change from previous	
		period	year
Gross Domestic Product	Q4 95	0.1	6.4
Leading Indicator		..	..
Consumer Price Index	Apr. 96	6.7	80.8
		current period	same period last year
Current Balance	Q4 95	-2.35	0.34
Unemployment Rate	Q2 95	7.2	8.4
Interest Rate	May 96	85.68	80.94



United Kingdom	period	% change from previous	
		period	year
Gross Domestic Product	Q1 96	0.4	1.9
Leading Indicator	Apr. 96	-0.3	-1.5
Consumer Price Index	Apr. 96	0.7	2.4
		current period	same period last year
Current Balance	Q4 95	-3.57	-0.89
Unemployment Rate	Mar. 96	8.3	8.8
Interest Rate	May 96	6.02	6.72



United States	period	% change from previous	
		period	year
Gross Domestic Product	Q1 96	0.6	1.7
Leading Indicator	Apr. 96	0.1	3.6
Consumer Price Index	Apr. 96	0.4	2.9
		current period	same period last year
Current Balance	Q4 95	-31.07	-43.28
Unemployment Rate	Apr. 96	5.4	5.6
Interest Rate	May 96	5.36	6.02

For the Record

OECD Economic Outlook Highlights

Cyclical divergence in the economic situations of OECD countries has remained as their economic expansions have evolved: the economy of the United States has experienced a 'soft landing', characterised by sustainable growth and stable inflation; activity picked up in late 1995 in Japan, reflecting supportive monetary and fiscal policies and the correction of the yen's excessive appreciation last year; and growth slowed significantly in key European countries in the second half of the year as domestic demand weakened.[1]

The short-term outlook is for more convergence across the main OECD regions, with continued sustainable growth in the United States, a more sustained recovery in Japan and a pick-up in Europe (Table 1). In the United States, the recent rise in long-term rates will help to hold growth to a sustainable pace. In Japan, short-term interest rates remain low, and the return of the value of the yen to positions more in line with fundamentals has effectively eased monetary conditions. In Europe, short-term interest rates have fallen significantly in many countries; the lagged adverse effects of the worldwide run-up in long-term rates in 1994 and of currency tensions in Europe in 1995 have passed; and the inventory cycle that contributed to weakness in several countries in late 1995 and early 1996 appears to be spent. The recent rise in long rates may nonetheless dampen activity. Outside the OECD area, growth is expected to be buoyant, particularly in the dynamic Asian economies and China, but increasingly in other areas as well; consequently, export opportunities remain favourable.

1. ***OECD Economic Outlook***, *No. 59, OECD Publications, Paris, May 1996.*

Most OECD countries have come close to achieving the medium-term goal of price stability: in 1996, inflation should be below 3% in 19 OECD countries (Table 2). It remains important that monetary policy safeguard the gains made on this front. One of the important lessons from macro-economic management during the past decades is that the primary objective of monetary policy should be the achievement and maintenance of price stability over time: 'fine-tuning' real economic activity runs the risk of compromising this ultimate goal. But in a situation where there is significant slack in output and labour markets, little prospect of inflationary pressures and a pressing necessity for fiscal consolidation – a situation that appears to exist in some key countries in continental Europe – judicious use of monetary easing could help to raise output and employment without generating inflationary pressures.

To avoid possible turmoil in financial markets, such easing can be justified in a way that places it in the medium-term context of price stability. Improved institutional frameworks for monetary policy – including, in some countries, more independence and accountability for the central bank or a more explicit medium-term framework for monetary policy – could help to enhance and sustain its credibility and reduce the risk that a cut in policy-controlled interest rates would adversely affect medium- and long-term market interest rates or put unwanted strong downward pressure on exchange rates. On the other hand, in a situation where the economy is operating, and is projected to remain, at or very close to its potential – as appears to be the case in the United States – the central bank should err on the side of caution, bearing in mind that monetary policy affects the real economy with a long and variable lag and that there is uncertainty about the magnitude of its effects on real activity and inflationary pressures. In Japan, the easy stance of monetary policy should be maintained, given the prospect of continued large output gaps, despite the projected recovery of domestic demand.

The most urgent macro-economic policy requirement in most OECD countries is to intensify the process of restoring the health of public-sector finances. Reducing budget deficits and reversing the rise of debt-to-GDP ratios would re-establish the sustainability of fiscal policies, which will help to reduce long-term real interest rates and ease the persistent tensions that have resulted from an imbalance between monetary and fiscal policy. But the pace of deficit reduction in the short term depends to some extent on current and prospective economic conditions.

In the United States, plans have been formulated to balance the budget by early in the next decade and it will be important that the government and Congress follow through by agreeing on the specific measures that will ensure success. Given the favourable cyclical position of the economy, there would appear to be little short-run risk in implementing such measures as quickly as possible. Indeed, putting concrete measures in place would enhance the credibility of fiscal consolidation, with favourable effects on real interest rates that would be beneficial to the United States and to the rest of the world. Canada has already made significant

Table 1

Growth of Real GDP in the OECD Area

%

	Share in total OECD	Change from previous year			
	1991	1994	1995	1996	1997
United States	36.83	3.5	2.0	*2.3*	*2.0*
Japan	14.85	0.5	0.9	*2.2*	*2.4*
Germany	8.45	2.9	1.9	*0.5*	*2.4*
France	6.45	2.8	2.2	*1.0*	*2.4*
Italy	6.06	2.2	3.0	*1.7*	*2.3*
United Kingdom	5.61	3.8	2.4	*2.2*	*3.0*
Canada	3.25	4.6	2.2	*2.1*	*3.4*
Total/average of above 7 countries	81.50	2.8	1.9	*1.9*	*2.3*
Australia	1.73	5.2	3.1	*3.1*	*3.3*
Austria	0.84	3.0	1.8	*0.8*	*1.5*
Belgium	1.07	2.2	1.9	*1.0*	*2.4*
Czech Republic	0.56	2.6	4.8	*5.6*	*5.8*
Denmark	0.56	4.4	2.6	*1.1*	*2.7*
Finland	0.48	4.4	4.2	*2.4*	*3.5*
Greece	0.62	1.5	2.0	*2.2*	*2.3*
Iceland	0.03	3.5	2.0	*3.6*	*3.4*
Ireland	0.26	6.4	7.7	*6.0*	*5.0*
Luxembourg	0.05	3.3	3.7	*1.9*	*3.0*
Mexico	2.73	3.5	–6.8	*3.0*	*4.0*
Netherlands	1.54	2.7	2.4	*1.6*	*2.6*
New Zealand	0.29	4.1	2.2	*2.7*	*3.4*
Norway	0.49	5.7	3.7	*4.2*	*2.4*
Portugal	0.63	0.8	2.5	*2.3*	*2.7*
Spain	3.08	2.1	3.0	*2.3*	*2.7*
Sweden	0.90	2.6	3.0	*1.3*	*2.0*
Switzerland	0.92	1.2	0.7	*0.5*	*1.7*
Turkey	1.71	–5.5	7.3	*4.5*	*5.0*
Total/average of above 19 countries	18.50	2.3	1.8	*2.5*	*3.1*
Total OECD	100.00	2.7	1.9	*2.1*	*2.5*
North America	42.82	3.5	1.5	*2.3*	*2.3*
OECD Europe	40.32	2.5	2.7	*1.6*	*2.7*
EU	36.60	2.8	2.5	*1.4*	*2.5*
Total/average OECD *less* the United States	63.17	2.2	1.8	*1.9*	*2.7*

Figures in *italics* are provisional.

progress in its ambitious programme of deficit reduction at a time when economic activity appears to be recovering.

In Japan, substantial discretionary fiscal expansion has helped to sustain demand for some time, but the deficits and volumes of public debt that have resulted are unsustainably high and they will have to be corrected over time, particularly in view of population aging, which will strike Japan sooner and more sharply than elsewhere. Deficit reduction should begin soon, and proceed as rapidly as the underlying strength of domestic demand allows.

EU countries have to be firmly and jointly committed to reducing structural budget deficits beyond 1997 to well below 3% of GDP. With such commitments ensuring the credibility of fiscal policy, governments can use automatic stabilisers to deal with short-term economic weakness without undermining the process towards European monetary union.

In many countries, tax burdens and the distortions they cause are already high. When this is the case, the scope for further increases in tax rates is limited and the burden of fiscal adjustment will therefore have to fall to a large degree on expenditures, including transfer programmes. In most countries, increases in transfer payments have contributed importantly to the progressive deterioration of fiscal positions and, in the years ahead, population aging will put significant further upward pressure on some programmes, particularly public pension plans but also, in some countries, public-sector health-care financing. Moreover, in many cases, the design and generosity of transfer systems, as well as the taxes necessary to pay for them, have undermined economic incentives, including the incentives to work, to hire workers and to acquire skills. One result has been an erosion of the tax base and pressure on outlays, contributing to further fiscal deterioration and pressure on tax rates.

It will be important, however, to ensure that fiscal consolidation is carried out in a manner that is fair and efficient. Policies must ensure that the benefits of economic growth are shared by all and, in particular, those most in need must continue to be protected to prevent the emergence or exacerbation of poverty and social exclusion. The quality of public outlays must also be improved. Some government expenditures, including some investments in human capital and infrastructure, promote productivity increases in the longer term. Reforms to the structure of expenditures should be part of a wider effort to improve the performance of the government sector or more generally. Reform of governance and management would help to ensure that government programmes are responsive to social needs and that the public receives the best possible services at the least cost.

Measures to reduce unacceptably high unemployment are also urgently required in many OECD countries (Table 3), particularly in Europe, as described in the OECD *Jobs Study*.[2] Although in several countries unemployment is still cyclical to some degree, the bulk of it is structural in nature and must be dealt with by accelerating the pace of structural reforms. Such reforms include: reducing barriers to employment and labour-market flexibility; reducing both employment costs and the overall disincentives to work by reforming tax and transfer systems; enhancing the effectiveness of active labour-market policies; and promoting dynamism in product markets through increased competition, entrepreneurship and effective innovation.

Structural reform in a broad range of other areas will also be important to raise medium-term growth of output and employment, and to enable OECD countries to exploit the opportunities provided by an increasingly open world economy. Currently, reform has progressed furthest in

2. ***The OECD Jobs Study: Facts, Analysis, Strategies***, *OECD Publications, Paris, 1994*; ***The OECD Jobs Study: Implementing the Strategy***, *OECD Publications, Paris, 1995*; ***The OECD Jobs Strategy: Pushing Ahead with the Strategy***, *OECD Publications, Paris, 1996*.

Table 2
Unemployment in the OECD Area[1]

	Thousands	% of labour force			
	1992	1994	1995	1996	1997
United States[2]	9,611	6.1	5.6	*5.5*	*5.6*
Japan	1,417	2.9	3.1	*3.3*	*3.2*
Germany	2,979	9.6	9.4	*10.3*	*10.4*
France	2,600	12.3	11.6	*12.1*	*12.2*
Italy	2,034	11.3	12.0	*12.1*	*12.0*
United Kingdom	2,801	9.2	8.2	*7.9*	*7.5*
Canada	1,639	10.4	9.5	*9.3*	*9.0*
Total/average of above 7 countries	23,079	7.1	6.8	*7.0*	*6.9*
Australia	922	9.7	8.5	*8.7*	*8.6*
Austria	193	5.9	5.9	*6.2*	*6.5*
Belgium	435	13.1	13.0	*13.2*	*13.0*
Czech Republic	..	3.2	3.0	*3.1*	*3.2*
Denmark	318	12.2	10.0	*9.2*	*9.2*
Finland	328	18.4	17.2	*16.4*	*15.5*
Greece	349	9.6	10.0	*10.2*	*10.4*
Iceland	4	4.7	5.0	*4.4*	*4.0*
Ireland	213	14.2	12.9	*12.4*	*12.2*
Luxembourg	3	2.7	3.0	*2.9*	*2.8*
Mexico[3]	405	3.7	6.3	*6.0*	*5.5*
Netherlands	336	7.6	7.1	*7.0*	*6.9*
New Zealand	169	8.1	6.3	*6.2*	*6.4*
Norway	126	5.4	4.9	*4.3*	*4.1*
Portugal	186	6.9	7.2	*7.4*	*7.5*
Spain	2,789	24.2	22.9	*22.9*	*22.7*
Sweden	234	8.0	7.7	*7.6*	*7.2*
Switzerland	96	4.7	4.2	*4.2*	*4.0*
Turkey[4]	1,662	8.1	7.5	*7.7*	*7.4*
Total/average of above 19 countries	8,767	10.0	9.8	*9.8*	*9.5*
Total OECD	31,846	7.9	7.6	*7.7*	*7.6*
North America	11,655	6.3	6.0	*5.9*	*5.9*
OECD Europe	17,684	10.8	10.3	*10.5*	*10.4*
EC	15,796	11.6	11.2	*11.4*	*11.3*
Total/average OECD *less* United States	22,235	8.6	8.4	*8.6*	*8.5*

.. not available

Figures in *italics* are provisional.

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

financial markets. Even so, further measures to promote efficient transactions both internationally and within countries should be combined with measures to strengthen prudential oversight, competition and consumer protection. In other areas, notably the provision of public services (as well as labour markets), reform is far less advanced, and many regulatory barriers to both domestic and international competition still exist. Further progress in these areas, along with measures to protect those that might be seriously adversely affected by reforms, would improve economic flexibility and performance over the medium term.

The economies of the OECD are becoming increasingly integrated as a result of technological developments and of large increases in flows of international trade, financial capital and foreign direct investment. Many economies in the non-OECD area are also maturing and their role in international trade and finance is growing rapidly. These developments – which have been described by the term 'globalisation' – will continue to have far-reaching implications for economic policy. Restoring the health of public finances and ensuring low and stable inflation will increase confidence in macro-economic policy and help to ensure stability in global financial markets. Reforms to labour and product markets will enable economies better to exploit the benefits of increased international trade and investment opportunities. Multilateral approaches to the reduction of remaining barriers to trade and investment and to the resolution of problems common to OECD (and, increasingly, non-OECD) economies offer the best way to further expand those opportunities.

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Table 3
Private Consumption Deflators in the OECD Area
%

	Change from previous year			
	1994	1995	1996	1997
United States	2.4	2.3	*2.0*	*2.3*
Japan	0.7	–0.5	*–0.4*	*0.6*
Germany	2.8	2.0	*1.6*	*1.5*
France	2.1	1.6	*1.9*	*1.3*
Italy	4.7	5.7	*3.9*	*2.9*
United Kingdom	2.5	2.6	*2.5*	*2.5*
Canada	0.7	1.6	*1.4*	*1.4*
Average of above 7 countries	2.2	2.0	*1.7*	*1.8*
Australia	1.4	2.5	*3.0*	*2.6*
Austria	3.0	2.3	*1.9*	*1.7*
Belgium	3.0	1.5	*2.1*	*1.8*
Czech Republic	10.7	9.1	*8.4*	*8.0*
Denmark	1.7	1.7	*2.2*	*2.5*
Finland	1.4	1.1	*1.5*	*2.0*
Greece	10.8	9.3	*7.8*	*6.5*
Iceland	1.6	1.8	*2.2*	*2.9*
Ireland	2.7	2.5	*2.3*	*2.4*
Luxembourg	1.8	2.0	*1.7*	*1.8*
Mexico	6.6	39.1	*33.0*	*17.0*
Netherlands	2.4	1.0	*1.8*	*1.8*
New Zealand	1.3	1.6	*1.9*	*2.0*
Norway	1.3	2.4	*1.7*	*2.4*
Portugal	4.8	4.1	*3.2*	*2.7*
Spain	4.9	4.6	*3.5*	*3.0*
Sweden	3.1	2.7	*1.8*	*2.8*
Switzerland	1.0	1.3	*0.9*	*1.3*
Turkey	104.1	94.6	*70.0*	*60.0*
Average of above 19 countries	13.3	16.9	*13.6*	*10.2*
Average OECD	4.3	4.7	*3.9*	*3.4*
Average OECD *less* Turkey	2.5	3.2	*2.7*	*2.4*
North America	2.5	4.6	*3.9*	*3.1*
OECD Europe	7.6	6.9	*5.4*	*4.7*
OECD Europe *less* Turkey	3.3	3.0	*2.5*	*2.2*
EU	3.3	3.0	*2.5*	*2.2*
Average OECD *less* United States	5.4	6.1	*4.9*	*4.0*

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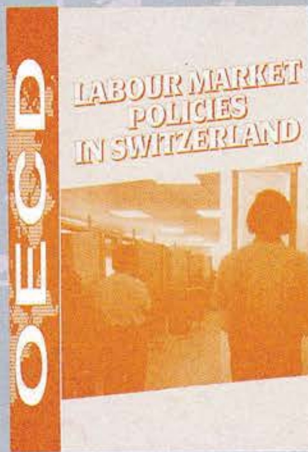

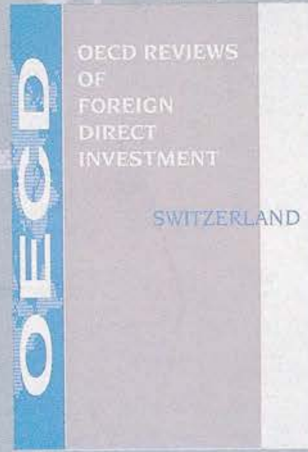

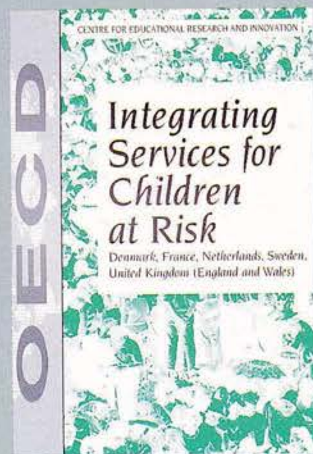

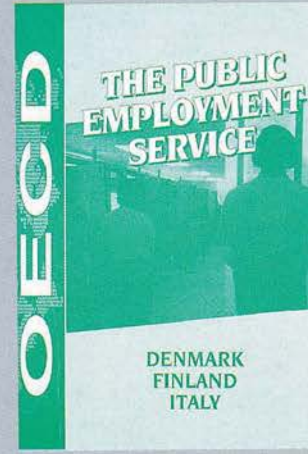

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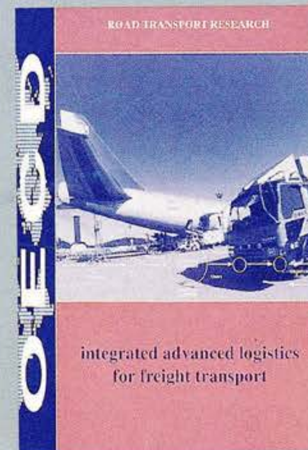

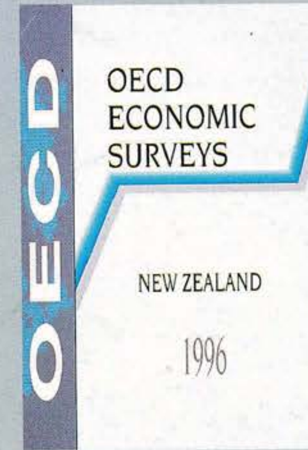

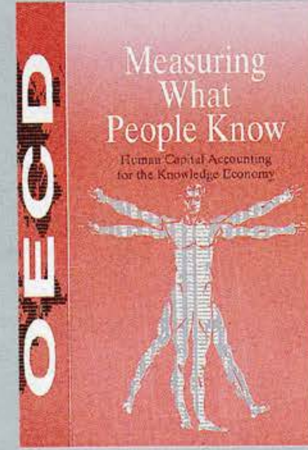

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