OECD Economics Department Working Papers No. 378

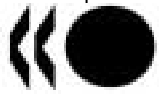
Policies Bearing on Product Market Competition and Growth in Europe

Carl Gjersem

https://dx.doi.org/10.1787/346707867476

OECD

Unclassified **ECO/WKP(2004)1**



Organisation de Coopération et de Développement Economiques
Organisation for Economic Co-operation and Development

12-Jan-2004

English - Or. English

ECONOMICS DEPARTMENT

ECO/WKP(2004)1
Unclassified

POLICIES BEARING ON PRODUCT MARKET COMPETITION AND GROWTH IN EUROPE

ECONOMICS DEPARTMENT WORKING PAPERS NO. 378

by
Carl Gjersem

All Economics Department Working Papers are now available through OECD's Internet website at: http://www.oecd.org/eco

JT00156557

Document complet disponible sur OLIS dans son format d'origine
Complete document available on OLIS in its original format

English - Or. English

ABSTRACT/RÉSUMÉ

Policies bearing on product market competition and growth in Europe

The strength of product market competition plays an important role in economic growth as it affects economic efficiency and the allocation of resources, and can also lead to improved labour market performance. This paper examines product market competition and economic performance in the European Union. The Community's competition rules, which apply whenever anti-competitive practices have an implication for cross-border trade, are enforced primarily by the Commission's Directorate General for Competition, and complement national competition legislation. Reforms have been adopted recently to sharpen the toolkit and to increase the role of national authorities in the enforcement process. However, the toolkit could still be made more effective. Competition policy is complemented by, and partly overlapping with, the regulation of newly liberalised network industries. Despite the EU's commendable efforts in this area, competition is still undermined by dominant incumbents in some sectors. At the same time, the dispersion in prices and the price level differences with other countries suggest that the full scope for efficiency gains has not yet been fully exploited.

JEL codes: K21, K23, F15, F13, O47, O50

Keywords: European Union, euro area, competition, antitrust law, regulated industries, regulatory reform, integration, protection, trade negotiations, aggregate productivity and growth

******

Politiques pour la concurrence et la croissance sur les marchés de produits en Europe

La vigueur de la concurrence sur les marchés de produits joue un rôle important dans la croissance économique, influence l'efficience économique et l'allocation des ressources, et peut aussi induire de meilleurs résultats sur le marché du travail. Cette étude examine la concurrence sur les marchés de produits et la performance économique dans l'Union Européenne. Les règles de concurrence communautaires, qui s'appliquent chaque fois que des pratiques anticoncurrentielles ont une incidence sur les échanges transfrontières, sont mises en œuvre principalement par la Direction générale de la concurrence de la Commission et viennent compléter le droit national de la concurrence. Des réformes ont été adoptées récemment pour affiner le dispositif et renforcer le rôle des autorités nationales dans le processus d'application. Toutefois, l'efficacité des instruments en place pourrait être encore améliorée. La réglementation des industries de réseau récemment libéralisées complète la politique de la concurrence, mais les deux dispositifs se chevauchent partiellement. Malgré les efforts louables de l'UE en la matière, dans quelques secteurs la concurrence est toujours contrariée par les opérateurs dominants. En même temps, la dispersion des prix et les écarts de niveau de prix par rapport à d'autres pays donnent à penser que les possibilités de réaliser des gains d'efficience n'ont pas encore été pleinement exploitées.

Classification JEL : K21, K23, F15, F13, O47, O50

Mots clés : l'Union Européenne, la zone euro, concurrence, loi anti-trust, industries réglées, réforme de réglementation, intégration, protection, négociations commerciales, productivité globale et croissance

Copyright: OECD 2003

Applications for permission to reproduce or translate all, or part of, this material should be made to:

Head of Publications Service, OECD, 2 rue André-Pascal, 75775 Paris Cedex 16, France.

TABLE OF CONTENTS

Overview 5
Competition enhances potential growth 6
Competition legislation is being reformed 10
Antitrust cases 10
Merger review 12
The enforcement of competition law 15
State aid by member countries is under Community surveillance 17
Regulatory policy 20
The network industries 21
Railways and postal services 23
Telecommunications 24
"Necessary" public services? 28
Regulators 28
Other policies to promote competition and growth 29
The external trade regime influences concentration and competitive pressures 29
Introducing competition in public procurement 31
Changes are taking place in the financial markets 33
Scope for further action 34

Glossary of Acronyms 41

Bibliography 42

Annex
Indicators of market power 47

Tables

Table 1. Review of literature on price dispersion in Europe ... 8
Table 2. Average value of imposed sanctions relative to the turnover in affected industries ... 16
Table 3. Agriculture: total support estimate (TSE) ... 20
Table 4. Liberalisation of electricity and gas markets ... 21
Table 5. Import penetration ... 30
Table 6. Entry into banking ... 34

Annex

A1. Estimated industry wage premia ... 57
A2. Hirschman-Herfindahl indices of industry concentration ... 58
A3. Import penetration ... 59

Figures

Figure 1. Relative price levels and GDP per capita ... 7
Figure 2. State aid and GDP ... 18
Figure 3. Market share of the largest generator in the electricity market ... 22
Figure 4. Telephone charges in OECD countries ... 26
Figure 5. Telecommunications market shares ... 27
Figure 6. Published public procurement ... 32

Boxes

Box 1. Price dispersion ... 7
Box 2. The block exemption for the automobile industry ... 11
Box 3. The judgements of the Court ... 14
Box 4. Agriculture: A sector with its own competition framework ... 19

POLICIES BEARING ON PRODUCT MARKET COMPETITION AND GROWTH IN THE EURO AREA

by Carl Gjersem[1]

Overview

1. Competition matters for growth and consumer welfare as it raises the pressure on businesses to allocate and utilise their resources in the best way, while tending to improve the functioning of labour markets. It also pushes enterprises to improve processes and to innovate. Competition may be enhanced by legislation that makes anti-competitive behaviour less likely, by policies that ensure that competitors can enter a market, by separating inherently monopolistic parts of utilities from those that are not and exposing the latter to competition, by eliminating subsidies that do not tackle market failures, and by transparent public procurement rules. In the European Union, competition policy is among the few common policies and aims at ensuring a level playing field in the single market. In addition, member countries have competencies in the competition field and can influence competitive pressures via regulation.

2. The *first* section of the paper provides an overview of the links between competition and growth. The *second* reviews the institutional set-up: the split in responsibility between the Commission and national institutions as regards the enforcement of competition legislation, and the important concepts and the framework for handling individual cases. The *third* section highlights the approach to enhance competitive pressures in the network industries. The *fourth* section reviews other areas that are important for competition, such as trade policy. The bite of the policies in place differs across areas and there is considerable room for improvement in some of these. The *last* section sums up and presents a set of recommendations.

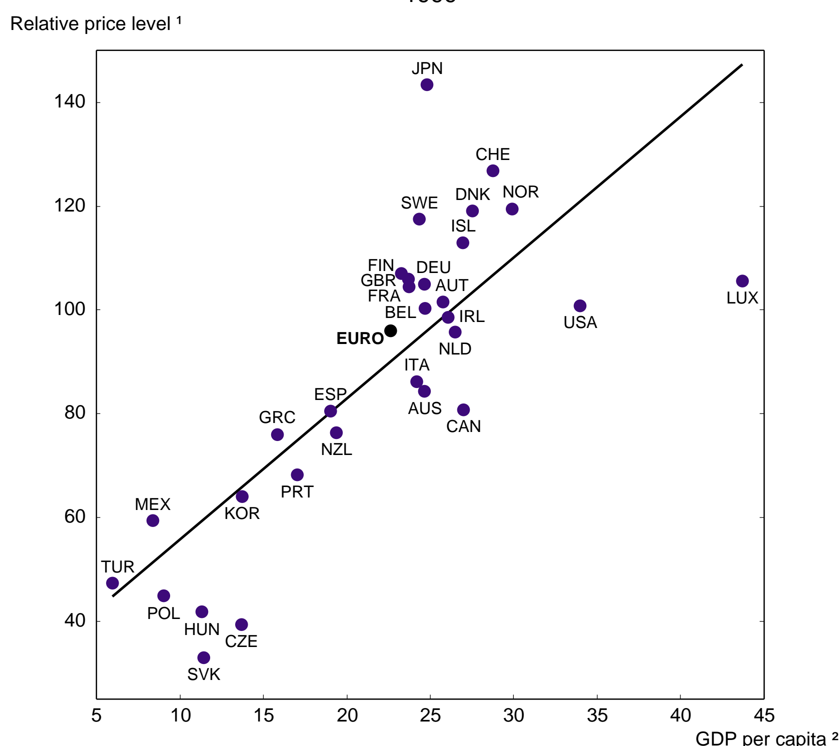
1. This paper was originally prepared for the *OECD Economic Survey of the Euro Area 2003*, which was published under the authority of the Economic and Development Review Committee. The work was carried out while the author was seconded to the OECD Economics Department from the Norwegian Ministry of Finance. The author would like to thank Andrew Dean, Jørgen Elmeskov, Peter Hoeller, Laurence Boone, Steen Daugaard, Jens Hoj, Mike Wise and Andreas Reindl for comments and drafting suggestions, to thank Desney Erb and Isabelle Duong for statistical assistance and likewise to thank Miki Noguchi and Celia Rutkoski for technical assistance.

Competition enhances potential growth

3. Over the last decade, the euro area's economic performance has been disappointing. While catching up with the United States' GDP per capita for decades, the convergence process was reversed during the 1990s. Decomposing the gap in GDP per capita *vis-à-vis* the United States into labour productivity and the quantity of labour utilised, the euro area lags the United States on both counts with the labour utilisation gap twice as large as the labour productivity gap (OECD, 2002*a*). While trend labour utilisation in the euro area has picked up somewhat in recent years, the United States, as well as Canada, Australia and New Zealand outperformed the euro area in this respect. A breakdown of this trend suggests that growth in the number of employees in the euro area is partly offset by the continued decline in the number of hours worked per employee. As employment growth remained positive until mid-2002, labour productivity growth in the euro area, was practically nil after having already slowed sharply in the second half of the 1990s.[1] While other factors are present, these trends have certainly also been affected by unintended spill-overs from structural policies. In the longer term, labour productivity growth is to some extent affected by capital deepening and more importantly by technical progress and the speed of diffusion of new technologies and improvements in management.[2] At the firm level, the key issues are achieving both an efficient resource allocation and to raise the pace of innovation. The degree of competitive pressure is among the factors, which is decisive for the efforts being put into each of these.

4. One indicator of competitive pressure is the relative aggregate price level with respect to other countries. After adjusting for differences in living standards, the EU's price level is far below the Japanese, but above the United States price level (Box 1). Furthermore, market power can be gauged by the mark-up of prices over cost. Sauner-Leroy (2003) finds that up to 1993 (*i.e.* the run-up to the introduction of the single market), mark-ups in manufacturing fell as price effects dominated cost developments. Later, though, mark-ups increased again as falling unit costs started dominating price developments. Increasing mark-ups may point to weaker, rather than stronger competition. Additional indicators of the competitive stance are discussed in a separate Annex.

Figure 1. Relative price levels and GDP per capita
1999



1. Purchasing power parities (PPPs) divided by the exchange rate, OECD = 100.
2. In thousand USD, converted using PPPs.

Source: OECD.

Box 1. Price dispersion

The degree of competitive pressure in an industry or a market is reflected in the degree of market power. Price level comparisons across countries, commodities and services can identify where prices are exceptionally high, an indicator of possibly weak competition in domestic markets. The aggregate price level is lower in the euro area than in Japan and also slightly lower than in United States. The euro area price level is close to the US level while GDP per capita is substantially lower (OECD, 2003a). Adjusting for differences in GDP per capita, *i.e.* the vertical distance in Figure 1, the Japanese prices are very high while US prices are low compared to prices in the euro area.

The dispersion between the EU countries, though, is still rather high. Several studies have documented price convergence across Europe by reviewing the development of price dispersion over the last decade (Table 1). Overall, price dispersion has fallen over this period, the changes having been biggest in the beginning of the decade. Later, the process appears to have lost steam. ECB (2003a) also find that the degree of inflation dispersion (*i.e.* an indicator of the change in price level dispersion) in the euro area fell strongly from 1990 through 1993, and then subsided gradually towards a low and stable level from the start of European Monetary Union in January 1999.

The reduction of dispersion varies depending on the products and services covered. With regard to traded goods, dispersion across member states has fallen towards US levels, but remains higher than within member states. For non-tradables, dispersion fell to a much lesser extent, but again this is not at odds with the US experience (although the evolution of US non-tradables is highly sensitive to the evolution of housing prices, and as such might not be a good indicator). Thus, the introduction of the Single Market seems to have had an immediate and strong effect on price dispersion in the early 1990s, but it remains higher across borders than within countries, which suggests that there is still room for further reductions as markets become more integrated and competitive pressures increase.

Table 1. Review of literature on price dispersion in Europe

Authors	Period	Scope	Results
European Commission (1996)	1980-93	Price indices for detailed product/service categories collected by Eurostat through regular surveys of final price levels in the 15 EU member states.	Convergence accelerated following the launch of the Internal Market programme.
Dresdner Kleinwort Benson Research (DKBR, 1999)	..	Price surveys for EU and US cities, 56 products.	For all but four products, price dispersion is greater in the European Union than in the United States.
Engle and Rogers (2001)	..	Aggregate CPI for 55 cities across 11 euro area countries.	Border effects have declined over time and can be largely explained by exchange rate fluctuations.
Haskel and Wolf (1999 and 2001)	1998	IKEA products in 25 countries, including 11 EU countries.	Price differences are mostly due to the local level of competition.
DKBR (2000)	1999-2000	..	Price dispersion is about twice as high across EU member states than between them.
Financial Times (2000)	November 2000	Cost of living index in 155 cities.	Dispersion of price levels across 15 EU capital cities is 9.8 per cent, whilst it is 7.5 per cent in the euro area and 5.8 per cent in the United States.
European Commission (2001a)	..	Price Survey on groceries. 68 product categories including branded and non-branded products.	Cross country dispersion is on average four times higher than dispersion inside countries. Large differences in dispersion across countries for different products.
European Commission (2001b)	..	Comparison of price dispersion in the European Union with that in the United States (1985-99).	Higher price dispersion in the European Union mainly the result of higher price dispersion for tradable products.
European Commission (2001c)	..	Price surveys of fresh foods and consumer electronics.	Brands and consumer tastes explain up to 40 per cent of the price dispersion for a given product.
OECD Economic Surveys: Euro area 2001 (OECD 2001a)	June 1998	Survey of European Consumers' organisation.	The dispersion of prices in the European Union remains on average around 20 to 25 per cent higher across borders than within countries, after taking into account the distance between cities.
Rogers, Hufbauer and Wada (2001)	1990s	Economist Intelligence Unit for 165 goods and services.	Dispersion of prices in the euro area has declined from 0.12 in 1990 to 0.10 in 1999, but for traded goods from 0.11 to 0.05. There is no evidence of such changes in the United States, but the dispersion for traded goods is just slightly higher in the European Union; for non-tradables it is higher in the United States mainly due to housing prices.
Veugelers, *et al*. (2001)	1993-97	..	Price dispersion has declined, but speed depends on the concentration ratio.
European Commission (2002a)	..	Purchasing power parities of 58 categories of goods and services within private consumption, capital investment, and exports.	Aggregated price levels converged until 1997/98, but dispersion has since stagnated.
Rogers (2002)	1990-2001	Economist Intelligence Unit cost of living index data for 25 European cities and 13 US cities.	The dispersion of traded goods prices in Europe has converged to a level very close to the United States; much of the convergence has taken place in the first half of the nineties.

Source: OECD.

5. Economic performance can be stimulated by enhancing product market competition, with effects materialising through a number of channels and interactions with other markets (OECD, 2002b). Such gains may be categorised into one-off efficiency improvements and ongoing gains in productivity. One-off, or static, gains are made through less slack in the use of inputs and better resource allocation in response to competitive pressures. Following regulatory reforms in previously sheltered industries, productivity has often been observed to improve and prices to fall. An important example is the liberalisation of network industries. The implication is that in these sectors, regulatory restrictions on competition tend to be accompanied by excess use of inputs. A main reason for a lower effort in these firms is the imperfectly competitive situation where there is less opportunity to compare firm performance, while firm survival is not threatened by inefficient practices (OECD, 2002b).

6. The dynamic gains caused by intense competition stem from enhanced efforts to innovate and a faster diffusion of innovations. Recent empirical work by the OECD has found a clear positive effect of innovation activity on output by including aggregate R&D intensities as a proxy for innovation effort in pooled cross-country time-series regressions of growth in GDP per capita (Bassanini and Scarpetta, 2001). Expenditure on R&D is often used as a crude indicator for innovation. A target for R&D spending to approach 3 per cent of EU GDP was set at the 2002 Barcelona Council, of which two thirds should be company financed. However, total R&D spending in the euro area – at 1.9 per cent of GDP – has been lagging behind the United States and Japan and the gap has widened over the 1990s. Private R&D still only represented 1.2 per cent of GDP in 2000.[3] This ambitious aim is held back by forces such as less than excellent universities, an unfriendly business climate etc (see the *Economic Survey of the Euro Area 2003* for an analysis). Other work points to a significant inverse relationship between the strictness of anti-competitive product market regulations and R&D intensity in the business sector (Nicoletti *et al.,* 2001; Bassanini and Ernst, 2002). It also suggests that non-tariff trade barriers have a negative impact on R&D.[4] Scarpetta and Tressel (2002) show, within industries, important interactions between product market regulation and the size of the technology gap, the distance to the technological frontier. By including indicators for product market restrictions in cross-country regressions explaining differences of multi-factor productivity at the industry level, they find that a more competition-conducive regulatory framework has a significant positive effect in the long term. According to their estimates, an alignment of the regulatory stance in OECD countries to that of the least regulated countries could reduce the technological gap in most countries. For the large continental European countries, the increases in the total factor productivity level could range from 2 to 6 per cent.

7. Job creation is stimulated to the extent lower profit margins and corresponding real wage gains reduce structural unemployment, and/or call forth additional labour supply. Furthermore, reduced rent-sharing may reduce labour market segmentation and more elastic product demand may affect wage bargaining – in both cases reducing unemployment. The OECD has published numerous documents presenting estimates of the impact of structural reforms on aggregate performance. In particular, recent work has highlighted how reforms affect productivity and employment. For instance, Nicoletti and Scarpetta (2003) show that changes in productivity induced by a change in product market regulation (by privatisation, entry liberalisation and by removing industry specific barriers) are sizeable. Exploring these results in the OECD Interlink model to take account of spill-over effects, OECD (2003a) suggests that even modest reforms in product and labour markets could strongly affect medium-term economic performance in the euro area.[5] In a scenario combining several reforms, underlying euro-wide growth is raised by about half a percentage point. This would be close to US potential growth in per capita terms in the OECD's medium-term baseline. On the other hand, even partial progress would enhance employment and growth prospects significantly. Summing up, pushing ahead with reforms would launch a virtuous circle where growth and employment are rising, inflation declines, and tax reductions are possible, whilst at the same time the budget restrictions imposed by the Stability and Growth Pact easily can be respected.

Competition legislation is being reformed

8. The competition policy framework developed under the Treaty of Rome. It aims at "a system ensuring that competition in the internal market is not distorted" (Article 3(g) of the EC Treaty). Articles 81 to 89 deal with competition issues, defined as antitrust, liberalisation, state aid and international co-operation. These provisions are implemented by *Regulations* issued by the Council and by the Commission, *judgements* by the European Court of First Instance and European Court of Justice, *Notices* issued by the Commission (statements of policy that are not legally binding), and Commission decisions.[6] Article 81(1) prohibits agreements that prevent, restrict or distort competition, such as price fixing or market sharing, and Article 82 prohibits abuses of dominant positions. Both prohibitions apply to practices that may have an appreciable impact on trade between member states. Article 81(3) permits some of the restrictive agreements that fall under 81(1), if they produce sufficient countervailing efficiencies and consumers get a fair share of that benefit.[7]

Antitrust cases

9. Under the current enforcement regime (set up by Regulation No 17/62), the Commission can take three types of decisions in antitrust cases: *first*, if they do not infringe the prohibition, the Commission may grant "negative clearance" upon receiving notification. *Second*, if an infringement is found, it can impose remedies to bring the infringements to an end and it can impose fines on companies or their associations for past infringements. In 2001, fines were imposed in ten cases. Any arrangement based upon agreements that breaches Article 81(1) is automatically prohibited and legally unenforceable under Article 81(2). *Third*, under Article 81(3) an exemption can be granted, if certain criteria are satisfied. For certain types of agreements, "block exemption regulations" are available.[8] The block exemption for the automobile distribution and repair network is discussed in Box 2. If there is no block exemption the parties may seek an individual exemption.[9] At present only the Commission can exercise the power to exempt restrictive agreements. Agriculture is subject to its own special regime (Box 4).

10. The number of new cases based on Articles 81 and 82 fell from around 500 in 1998 to below 300 in 2001. Around 90 per cent of these were closed after informal procedures by way of "comfort letters". The requirement to notify agreements to obtain negative clearance or exemption is regarded as a burden for both businesses and for the Commission which has to examine cases which often do not raise problems but involve a lot of work (European Commission, 1999a). This workload demands resources that could have been used more gainfully on more important cases. These pressures will increase with the enlargement of the Union in 2004. Following a consultation process, changes to the antitrust enforcement rules were adopted in December 2002.[10] The core features of this reform are a shift away from the current system of notification and prior authorisation, to a system where Article 81 as a whole is directly applicable.[11] For the Commission, the elimination of notifications should free up resources. Further, the national competition authorities and the national courts will get the power to apply Article 81 in its entirety, including the exemption contained in Article 81(3). The national competition authorities and the national courts will thus be obliged to take decisions based on European Union law from 2004 when the agreements and practices in question may affect trade between member states.

Box 2. The block exemption for the automobile industry

Block exemption regulations exist for specialisation agreements, R&D co-operation, technology transfer, vertical (supply and distribution) agreements, insurance, liner shipping consortia and air transport. Some of these are or have recently been under review. One of these concerns the EU's block exemption for the automobile industry. The block exemption was introduced in 1985 and updated in 1995. It allowed car producers exclusive distribution networks and had the effect that producers could to a large degree control the pricing of their models across markets. One factor that justified the exemption was that road safety requires good quality repair and maintenance of vehicles with selective and exclusive dealer networks being deemed the best way to ensure this. Such exclusive car dealer networks involve vertical agreements that result in market foreclosure (*i.e.* denying market access to new entrants) (OECD, 1996). This exemption has contributed to, *inter alia*:

- Very limited intra-brand competition in the European Union, with only marginal volumes of retail sales across national markets.
- A marked price dispersion for cars: the divergence among pre-tax prices expressed by the standard deviation between national markets was 10.1 per cent in November 2002 (European Commission, 2003a). Price differences for individual models up to 59.5 per cent higher were recorded.
- An industry that operates below the efficient scale: in the European Union, just 300 cars are being sold per outlet and 60 cars per salesperson compared to 800 and 120 in the United States (McKinsey, 2003).

In its Report on the evaluation of the previous block-exemption, the Commission had concluded that the restrictive nature of distribution systems which virtually all car manufacturers established across Europe no longer met the conditions for an automatic and sector wide exemption. The Commission was also concerned that applying the general block exemption governing vertical agreements would not have remedied the competition problems identified in this sector.[1] The Commission's policy towards vertical agreements warrants a stricter approach when, in particular, very weak intra-brand competition is not disciplined by inter-brand competition. Consumers, who spend around 16 per cent of their budget in purchase and maintenance of their cars, do not derive sufficient benefits from an exemption and when distribution is organised along the same patterns virtually by all competing suppliers in a relevant market. These conditions were met in the motor vehicle sector.

A new sector-specific block exemption was thus adopted in July 2002, with stricter provisions than those applied to distribution agreements in other economic sectors. For instance, from October 2003, manufacturers willing to be covered by the block-exemption will no longer be able to operate both exclusivity (*i.e.* continue to grant sole and protected territories to distributors) and selectivity (*i.e.* to establish standards for authorised distributors whilst preventing them from selling to unauthorised distributors), but will have to choose one approach. Nor will dealers be prevented from selling or repairing competing makes. Independent repairers must be given access to the technical information, tools and spare parts, which are indispensable to provide safe and reliable repair services to consumers. As of 1 October 2005, virtually all dealers will be free to establish outlets elsewhere in the EU.

In sum, the Commission aims to change from a regulation that installed a laxer competitive environment in the industry to one that aims at a stricter environment than in other sectors. It remains to be seen how strict the new regulation is, and whether the use of a strict block exemption regulation to instil more competition in an industry sector will work. The effects of the new block exemption are yet to materialize and difficult to predict given the transitional period that is available.[2] The Commission's latest report on car prices shows that price differentials for new cars are still substantial (*Commission Press Release – IP/03/1117 – 25.07.2003*) and that positive impact of the new block exemption is yet to come. The ability of the new rules to integrate national markets, to strengthen competition, and to bring about substantial consumer benefits, in particular in the form of lower prices, will be the key to assess their adequacy.

1. The general block-exemption on vertical restraints (Block Exemption Regulation No. 2790/1999) applies in the absence of sector specific rules.

2. The new Block Exemption Regulation No. 1400/2002 on the motor vehicle sector provides for a transition period until 1 October 2003 for certain provisions and until 1 October 2005 for others. The exemption will not be reviewed before 2010.

11. The Community competition rules apply in parallel to relevant national competition legislation if an agreement affects trade between member states. For example, restrictive agreements between enterprises in one and the same state will have to be examined under the Community competition rules if they restrain imports. If a restrictive practice only affects trade within a member state, only that country's national competition rules apply. This holds for all agreements that have no appreciable effect on trade between states within the Community. With the new Regulation (Regulation No 1/2003), national competition laws can continue to apply in parallel to the Community competition law, but as regards agreements, the outcome under national law may no longer diverge from that under Community law (obligation of convergence). The success of the reform will to a large degree depend on co-operation and the exchange of information between national competition authorities, and between national competition authorities and the Commission. The new regulation also calls for the establishment of a network of European competition authorities (the European Competition Network, ECN). Inside this network the cases will be allocated to the best placed authority to act. The Commission will always be able to unilaterally assume jurisdiction over a case, even after a national authority has started its investigation. However, with the Treaty's framework on anti-competitive agreements (*i.e.* Article 81) already followed by a majority of member countries, currently 13 and the framework on abuse of a dominant position, (*i.e.* Article 82) followed by 11 member countries, formal convergence at least is already on its way.

Merger review

12. The Commission may block a merger if it creates or strengthens a *dominant position*, thus impeding effective competition in the Union or in a substantial part of it. The concept of dominance is defined by what enables a company to act independently from its competitors and customers, and prevents effective competition on the relevant market. While the competition policy framework has been in place since the 1960s, the regulation concerning merger surveillance was not issued until the end of 1989.[12] Reasoned decisions are issued in every case, aiming at transparency and legal certainty. The Competition Directorate General (DG Comp) has up to 2003 administered merger control through a special unit, the *Merger Task Force*. The Commission has blocked 18 of the around 2 100 merger cases it has examined since 1990, approximately the same share as the United States authorities. In December 2001 the Commission presented a Green Paper on possible directions for reform of the merger control system, and a year later a merger control reform package was adopted. The package consists of a proposal for revision of the Merger Regulation, draft guidelines on the appraisal of horizontal mergers and a series of non-legislative measures intended to improve the decision making process (in the merger, antitrust and state aid fields). Among the changes proposed to the Merger Regulation are the possibility for notification prior to the conclusion of a binding agreement, more time in complex cases (and if remedies are proposed), simplification of the system for referral of cases from the Commission to member state competition authorities (and vice versa), and a strengthening of the Commission's fact-finding powers. The latter includes the possibility of imposing higher fines for failure to supply information.

13. The proposed new Merger Regulation includes a clarification to the long-running discussion of the substantive standard for merger competition analysis in European Union competition law (European Commission, 2001d and Kühn, 2002). The European Union's concept of "dominance" for scrutiny of mergers differs from the United States' "substantial lessening of competition" doctrine. The draft Regulation seeks to make clear that situations of oligopoly which may give rise to competition problems are covered by the definition of the Regulation. Although this approach differs in text from the test in United States law, the two approaches often produce the same result and the practical consequences will not influence the large majority of mergers (or remedies). The non-legislative measures include a post of Chief Competition Economist in DG Comp with a team (directly below the Commissioner), to strengthen economic analysis as well as the creation of a post of Consumer Liaison officer, also within DG Comp, to focus on consumer issues.[13] In addition, more support staff will be available to the Commission's Hearing Officers. Moreover, so-called advocacy activities, *i.e.* the promotion of a competitive environment by means of non-enforcement mechanisms such as closer relationships with governmental entities that set

economic and regulatory policies and the nurturing of popular support for competition policy, may be established more broadly after the setting up of these functions. An internal system of peer review panels has also been created, to be used in merger, anti-trust and state aid cases. The panels, composed of officials from DG Comp, will be used in complex and high-profile cases to scrutinise the case team's conclusions with a "fresh pair of eyes". Further measures are aimed at strengthening the parties' procedural rights in merger cases, in particular for the merging parties to have access to their file earlier. While the reform package came after the judicial review of cases that received rather strong media attention (Box 3), and some observers saw a strong relationship between these two issues, its contents does not seem to have been affected much since the Green paper a year earlier.

14. As in other systems based on administrative adjudication, which combines the functions of investigation, accusation, decision-making, and sanctioning, the system in the European Union has also been criticised for lacking checks and balances. Regarding the analysis of mergers, it has been suggested that the Commission's decisions have relied too much on "qualitative judgements and hunches" (Burnside, 2002; Kühn, 2002 and Box 3).[14] Thus, the establishment of a separate economic analysis function and of review panels for case handlers is welcome.[15] Kühn (2002) also suggests that the Commission process, *inter alia,* results in a "self-confirming bias" in merger analysis. This issue may also be made more acute to the extent that expense and delay could discourage appeals to the courts.[16] As regards the Commission, recent developments at DG Comp, such as strengthening the Hearing Officer and the introduction of review panels and a Chief Economist post, address the risk of "self-confirming bias." And at least in "fast track" cases, judicial oversight has become a more realistic possibility at the Court of First Instance level. However, the ability of the review panels and other measures designed to increase checks and balances during the control process to take into account advice from outside observers and make the decision process more effective should be regularly assessed.

Box 3. The judgements of the Court

Two important merger cases

In October 2002, the Court of First Instance ruled on two merger cases that for several reasons should be regarded as very important. In the case of a merger between the two French companies Schneider and Legrand, the Court of First Instance concluded that the Commission's economic analysis was deficient and overturned the decision. In its verdict, the Court noted that it found "several obvious errors, omissions and contradictions in the Commission's economic reasoning" and also "a serious infringement of the rights of the defence, which leads it to annul the prohibition decision."

A few days later, in the case of a merger between Tetra Laval of Sweden and Switzerland and Sidel of France the Court stated that the Commission had failed to prove its "bundling" theory (or portfolio theory, *i.e.* that companies with a large presence in one market can use a merger to become increasingly dominating in a neighbouring market as well). That argument was also used earlier in the Commission's decision to veto the merger between General Electric and Honeywell; however, the Court also stated that this "decision does not discredit the bundling theory as a whole". That said, the Court judgement included such phrases as "The economic analysis is based on insufficient evidence and some errors of assessment", a very critical tone. The Court's judgements created doubt about current practice and heightened concerns over the need to introduce controls into the framework.

The "fast track procedure"

In both these cases, the companies were able to go on with their merger processes after the Court had overturned the first decision. That was partly due to the "*fast track procedure*" which was created with the aim of allowing this possibility, but also due to measures taken by the firms. This was thought to be very significant, as it is the first time European businesses having successfully faced a judicial review process following a merger actually still managed to merge. The fast track thus initially seemed to work very well in these cases. Certainly, the fast track procedure itself is both fast and efficient.

Developments following the judgements by the Court

- Tetra Laval's attempt to take control of Sidel was originally notified on 18 May 2001. On 13 January 2003, the Commission decided not to oppose the acquisition by Tetra Laval B.V., which belongs to the Swiss-based Tetra Laval Group (Tetra Laval), the owner of the Tetra Pak packaging businesses, of the French packaging company Sidel S.A., subject to compliance with a commitment and other obligations. Following the annulment on 25 October 2002, by the Court of First Instance of the Commission's decision dated 30 October 2001 prohibiting the transaction, the Commission had re-commenced its examination of the proposed operation.
- Following the Court of First Instance's judgement in the Schneider/Legrand case, the Commission re-initiated the procedure focusing on France. In order to address the competition concerns raised by the Commission for the French markets, Schneider proposed commitments. In November, a French appeals court upheld an earlier ruling that the commitments proposed by Schneider violated an agreement to sell businesses belonging to Legrand only with the approval of its management. Schneider decided to abandon the deal in December 2002 when the Commission opened an in-depth inquiry into the concentration on the basis that the proposed commitments were, in particular taking into account the French judgments, not able to remove the competition concerns for the French markets.

While the fast track judicial process as such is efficient and follows strict time limits and companies should be able to restart their merger processes if the Court overturns the first decision, these cases suggest that other issues may arise and bog down the companies' merger process even following a successful appeal. The merging companies may not have gained much from faster judicial process. While the merger itself is an issue separate from the workings of the fast track procedure, it is clearly the central reason for operating the procedure. Based on this recent experience, an assessment should be made of the usefulness of the Court spending its given resources on choosing and pursuing special cases in this way, rather than pursuing an effective and expeditious judicial control in all cases. The assessment should take into account that, as EU legislation is based on case-law, some social gains may be present anyway. Given the Court's limited resources, the faster procedures can only be used in cases where there is a genuine and pressing need for the Court to come to a decision speedily. Adequate resources should be made available to ensure that all cases that require expedited review run faster and smoother.

* Further, while the Commission thus received its second and third negative judgement by the Court in the space of one working week, the first notable case was in June 2002 with the overturning of the decision to prohibit the proposed merger between Airtours and First Choice.

The enforcement of competition law

15. The enforcement of competition law could be strengthened by refining the use of instruments that already have proven their role. In particular:

- The Commission has been active in cracking down on hard core cartels. In 2001, a record year for the Commission's anti-cartel programme, ten large cartels were prosecuted and fines totalling EUR 1 836 million were imposed.[17] In general, financial penalties of 0 to 5 per cent of turnover in individual industries have been imposed (Table 2). For individual businesses, fines have been much higher. However, fines based on realistic assumptions about the level of unjustified gains, detection and punishment might have to be very high, but the extent of unjustified gains is hard to evaluate and the risk of detection and punishment is also far from clear. This makes the optimal level of fines hard to assess. However, recent work by the OECD (2003b) suggests that fines imposed on anti-competitive conduct usually falls short of levels that would result from applying economic models of deterrence, *i.e.* approximately three times the level of unjustified gains from the unlawful cartel.[18] Over time the fines imposed on cartels have been getting bigger, and have reached a level similar to those imposed in the United States. However, not only has the EU authority fined some of the world's biggest firms, reflecting that fines should be high if only for that reason, but in addition the competition authorities in the United States have access to substantially more instruments than just fines which sets the EU authorities at a disadvantage. While the sanctions are already high, their deterrence effect should be assessed regularly.
- Leniency programmes that provide for reduced sanctions for companies that co-operate with the investigators may be helpful in breaking up hard-core cartels, and the level of sanctions that may be imposed is a strong determinant of their effectiveness (OECD, 2002c). Such programmes may also provide incentives for individuals to co-operate, due to the possibility of leniency from individual sanctions rather than sanctions imposed on enterprises only. While a leniency programme exists in the Union, the availability of pressing charges against individuals is not a Community-wide tool.[19] The leniency programme for corporate offenders now has all the features for an effective programme in place. But because the Community's jurisdiction does not extend to individuals (including criminal penalties), some tools are not available. Further strengthening of the leniency programme could go in the direction of increasing co-operation with jurisdictions that have these tools.
- National law determines the conditions for private suits. Some common aspects of national judicial processes may discourage private actions in competition cases. The difficulties include the need to prove causation and damage in some detail. There are two main advantages of private actions: those who are harmed and sue get the compensation they deserve and it draws private resources into the enforcement process (DTI, 2001). However, the legal framework has to be well-balanced in order to avoid strategic use of private suits by competitors. In the United States, 90 per cent of competition cases are private actions, while the number is negligible in the member states. This allows the United States authorities to focus on more important cases, leaving less significant cases to be pursued privately. Strengthening deterrence and enforcement by facilitating private actions will require action by the individual member states, but this should be supported by the Union. Especially, greater transparency and predictability could be established concerning the availability and rapidity of remedies, and about the calculation of damage relief.

- Moreover, the approach to competition issues should be more systematic. The enforcement agenda is partly explained by the rather stable historical experience and the distribution of complaints. In addition, DG Comp has undertaken initiatives such as in the industries undergoing deregulation. Enhanced knowledge of the welfare effects of measures in different markets would also help. Even rather simple applied general equilibrium models could provide important information regarding such effects. Some national authorities, *e.g.* Denmark, have already integrated this approach into their planning framework (Konkurrencestyrelsen, 2000).[20] Recently, the Commission has started a study that will evaluate the various tools in this area.

- The Commission's enforcement policy focuses on goods markets, while paying less attention to services.[21] Services only count for 20 per cent of cross-border trade in the Union, less than it did a decade ago (European Commission, 2003b). Business sector services contribute close to 49 per cent of total value added in the euro area, behind the United States at 55 per cent and much more than manufacturing at 20 per cent. However, local suppliers of services are often able to deter entry. The internal market in business services remains segmented, particularly services covered by widely divergent national regulations, such as accountancy, auditing and technical testing. The European Commission (2001e) estimates that eliminating barriers to cross-border trade in business services alone – they represent only a third of all services – would increase EU-wide GDP by up to 4.2 per cent. Community action to implement a single market in services (see *Economic Survey of the Euro Area 2003*), especially at the national level should be strengthened and supported by competition policy.

Table 2. Average value of imposed sanctions relative to the turnover in affected industries

Decided in 2002 by the European Commission

Case	Ratio in %: final amount of the fine/ total world-wide turnover	100% immunity granted to one undertaking
Industrial gas	5.11	No
Plasterboards	3.43	No
Reinforcing bars for concrete	3.33	No
Speciality graphite	2.51	Yes
Austrian banks	0.87	No
Methionine	0.53	Yes
Fine art auction houses	0.30	Yes
Food flavour enhancers	0.12	Yes
Methylglucamine	0.05	Yes

Source: European Commission.

16. Competition enforcement in OECD countries is now typically entrusted to independent institutions, to insulate individual decisions from political and budgetary interference and capture by interest groups.[22]

- The European Commission considers the situation to be different at the Community level, however, as the European Commission Treaties give the Commission a legitimacy as a "supranational" institution invested with ensuring compliance with Community law as an impartial arbiter independent from the Member States' governments. The Commission considers this legal framework to have contributed to a particular standing of the competition area inside the structure of the Commission; and that the Commission has in DG Comp strong in-house expertise in competition matters, which it advocates also in other Community policies aiming at the creation and completion of the free internal market.

- While the Commission is an independent institution, it is not clear that the pressures that arise on competition enforcement agencies in other jurisdictions could not also arise at the Community level. DG Comp is part of the Commission's bureaucracy, the Commission is a member of the Commission, and the Commission itself is the decision-making body. Among all of the competition enforcement bodies in the OECD, whether administrative or judicial, the European Commission is the only one that submits every important competition enforcement decision to the formal vote of the entire "government," that is, the Commission, rather than entrust all or most of those decisions to an official or entity that is in some important sense clearly separated from it, through protected tenure, status, legal guarantee, or similar measures. Pressures on competition enforcement initiatives can therefore arise from the influence of other policies, advanced by other parts of the Commission.[23] It is, moreover, not always clear whether the competition authority expresses views as independent adviser or those of the college of Commissioners.

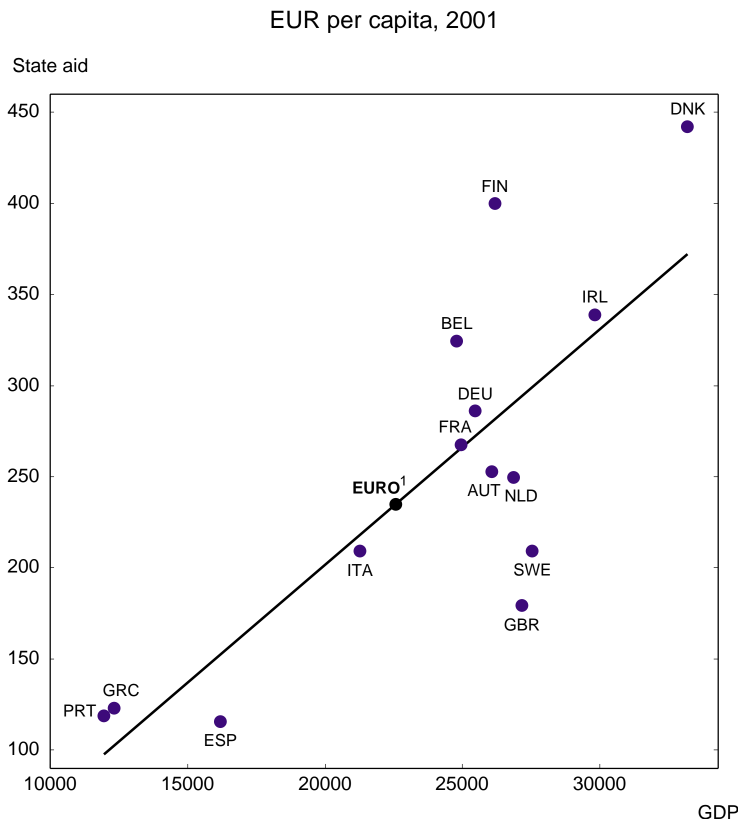
State aid by member countries is under Community surveillance

17. Contrary to other jurisdictions, the Community has rules on state aid as a central plank of its competition policy framework (Articles 86-89 of the EC Treaty). Member state authorities may not grant state aid that distorts competition in the Union by favouring certain undertakings or sectors unless such aid is notified to the Commission and found to meet the conditions (these are spelled out in Article 87 of the EC Treaty). Such aid can, *inter alia*, take the form of grants, interest and tax relief, state guarantee or holding, or provision of goods and services on preferential terms. Under the rules on state aids, the member states must notify the Commission if they intend to grant aid. The Commission will investigate and grant clearance or commence proceedings that finally grant or refuse clearance. At present, the Commission evaluates about 1000 notifications on state subsidies a year, while the Court of First Instance receives between 50 and 60 cases per year and the average time for it to decide a case is a couple of years.[24] The state aid provisions apply not only to member state governments but also to local authorities and other public sector bodies. The Commission also has the power to order the repayment of illegal aid already granted. However, the EC Treaty (Article 87) allows exceptions where the proposed aid schemes may have a beneficial impact for the Union as a whole.[25]

18. Reported state aid has declined by a quarter between 1997 and 2000, to 1 per cent of EU GDP. In 2001 the euro area member states granted more than EUR 71 billion in state aid (within the EU, the total amount exceeded EUR 86 billion).[26] However, twelve out of the fifteen member states reduced national state aid between 1997 and 2001. Of the total national state aid, the sectors comprising agriculture, fisheries and transport received 59 per cent, with transport receiving the largest share.[27] While aid levels fell significantly in the manufacturing, coal and service sectors, the amount of aid to the railway sector increased substantially in 2001. The latest figures also show that in 2001 there were around 1 000 state aid cases registered by the Commission. Around 44 per cent were in the manufacturing and service sectors, 38 per cent in agriculture, 10 per cent in fisheries and 8 per cent in transport and energy. They also show that of all the final decisions taken by the Commission, only 7 per cent were negative ones. Beside the reduction there has also been a re-orientation of state aid following the Councils in Stockholm and Barcelona, with policy focusing increasingly on reducing state aid and reorienting it towards horizontal objectives of common interest, such as support for R&D, SMEs or the environment. However, there is currently little effort to evaluate the effectiveness of aid and its economic impact except for the Commission's assessment of the potential effect on competition. Member countries should, however, attempt to go beyond making their aid conform to the EU rules and rather make every effort to evaluate and reduce market-distorting state aid and subsidies.

Figure 2. State aid and GDP

EUR per capita, 2001



1. Excluding Luxembourg.
Source: European Commission and OECD.

19. Countries with a high level of state aid should try harder to reduce them. Figure 2 illustrates the relationship between national state aid and GDP per capita. Further, the numbers presented in the Commission's scoreboard do not include subsidies provided by the Community, such as the huge transfers to the agriculture sector and transfers by the structural funds. These transfers are not counted as state aid under community rules. The structural fund regulations require that all support for revenue earnings must comply with the same rules as state aid. The scoreboard thus does not fully capture the actual level of state resources that potentially distort competition by favouring the production of certain goods (Box 4). Midelfart-Knarvik and Overman (2002) show that while states and regions in the European Union are becoming more specialised, national subsidies to industry appear to have little effect for either good or ill and their effectiveness at attracting economic activity and employment is limited. European Structural Funds, by contrast, are found to have an effect on the location of industry, notably by attracting industries that are intensive in research and development. However, this effect has mostly countered states' comparative advantage by encouraging R&D-intensive industries to locate in countries and regions that have low endowments of skilled labour.

Box 4. Agriculture: A sector with its own competition framework

In the agricultural sector, Article 34 of the Treaty sets out, *inter alia* that individual agricultural markets need to be organised with common rules on competition depending on the product.[1] The rules are set out in Regulation 26/62. Moreover, state aid for this sector is large. In 2002, total agricultural support in the Union is estimated at EUR 112 billion, equal to 1.3 per cent of GDP (OECD, 2003c). The Community is not alone in subsidising farming and in fact the total support per farmer is slightly lower than in the United States (Table 3).

Subsidies are both provided by the Community and member states. A part of these subsidies boosts production, making it necessary to shelter production in the Union from foreign competition and to subsidise exports of the food surplus. As it is accompanies by trade barriers it reduces imports also from poorer countries (recent measures in this area do not seem to have changed much). As a sizeable share of subsidies is still linked to production, it benefits big farmers more. Moreover, it traps resources in a low productivity sector, while consumers pay high prices for food. The price incentives under the existing system of production support also produce negative environmental effects by rewarding intensification and expansion (Beaufoy, 2000). Soil erosion is a potential problem in cases where vegetation is removed. In regions with scarce income alternatives various types of agricultural production have been expanded. This may have been a consequence of price incentives under past European agriculture policy. Due to the erratic rainfall pattern in these regions production has been intensified through drip irrigation. On these intensified plantations the vegetative cover has been removed in order to allow modern tilling practices not appropriate for the ecological conditions. These practices have in turn contributed to soil erosion. However, a significant part of the land affected by erosion is non-irrigated grassland and to a lesser extent areas of permanent crops (OECD, 2001b). Further, the intensive production brings problems of water pollution in many countries from fertiliser, pesticide and livestock manure run-off. However, the 1992 and the AGENDA 2000 reforms have led to a shift from price support towards direct payments with favourable effects on consumers, on trade and on the intensity of production. In addition, legislation to limit the livestock density and/or to reduce problems of manure has been introduced at the Community and at member state level.

Community spending on the first pillar of the CAP (market support and direct aids) will only increase by 1 per cent annually in nominal terms based on the 2006 actual spending level to reach EUR 48 billion in 2013 for the EU-25 following the agreement at the Brussels European Council in October 2002. While it seems probable that farmers in existing member states may have to accept small reductions in their subsidy payments after 2007, the agreement does not include a commitment to limit expenditure on rural development measures, giving further potential room for spending growth.

In January 2003, the Commission presented further proposals to reform the Common Agricultural Policy (CAP) to the Council, with the aim of reaching agreement by the end of the Greek Presidency (June 2003). Main features of the proposals are the further "de-coupling" and "cross-compliance", *i.e.* a single farm payment independent of production linked "to respect for environmental, food safety, occupational safety and countryside stewardship", the reduction of direct payments according to farm size and the establishment of a stronger rural development policy. In addition, reforms in some specific markets are proposed (Commission press release DN: IP/03/99 of 22/01/2003). However, a number of agricultural markets (including sugar, olive oil and others) are not yet covered by policy proposals. The recent reform has made production subsidies conditional on the development of good farming practices, which should further contribute to improving environmental outcomes.

Public support of certain industries may be well-founded if it internalises positive external effects. At the margin, the support should equal the value of the external effect, and if the external effects are separate from production, the result is "de-coupling". However, supporting an individual industry will usually be inferior to more general support, as distortionary effects are lower. At least some of the goals in the reformed CAP, such as the protection and development of rural livelihood, could be attained by more general measures aimed at all industries in rural regions. For example, rural development in the Union mainly focuses on farmers' incomes. As measured by the OECD Producer Support Estimate, the European Union has reduced the share of producer support arising from its most production and trade distorting policies from 96 per cent in 1986-88 to 69 per cent in 2000-02. The recent reform will lead to further decoupling of support from production, but the options each of the EU member countries will choose are not yet clear, and there is flexibility in implementing the agreement across the EU member countries. The reform requires compliance under "good farming practice" in order to be eligible for the single farm payment laid down in a total of 38 regulations addressing environmental, animal health and welfare and food safety requirements.[2]

Box 4. Agriculture: A sector with its own competition framework (*cont.*)

1. However, not all aspects of business behaviour in the agriculture sector are covered by the exceptions. In April, the Commission fined six French farmers' associations a total of EUR 16.7 million for fixing beef prices following the mad-cow crisis in 2001.

2. The key elements of the reformed CAP are a single farm payment for EU farmers, independent from production; limited coupled elements may be maintained to avoid abandonment of production. This payment will be linked to the respect of environmental, food, safety, animal, and plant health animal welfare standards, as well as the requirement to keep farmland in good agricultural and environmental condition ("cross compliance"). Further, a strengthened rural development policy with more EU money, new measures to promote the environment, quality and animal welfare and to help farmers to meet EU production standards in 2005, direct payments for bigger farms to finance the new rural development policy will be reduced ("modulation") and a mechanism for financial discipline to ensure that the farm budget fixed until 2013 is not overshot introduced. Some further revisions to the market policy of the CAP are asymmetric price cuts in the milk sector, reduction of the monthly increments in the cereals sector by half while the current intervention price will be maintained, and reforms in the rice, durum wheat, nuts, starch potatoes and dried fodder sectors.

Table 3. Agriculture: total support estimate (TSE)

	Level in 2002[1] million EUR	In % of GDP		In EUR	
		1986-88 average	2002[1]	Per capita	Per farmer[2]
European Union	112 564	2.7	1.3	323	19 000
Australia	1 736	0.8	0.4	89	5 000
Canada	6 334	1.7	0.8	204	16 000
Japan	59 087	2.3	1.4	464	28 000
United States	95 785	1.4	0.9	336	41 000

1. Provisional data.
2. In full-time equivalents.
Source: OECD (2003c).

Regulatory policy

20. Following European Union-wide liberalisation efforts, national authorities have gradually restructured "network activities" – those industries where a high-fixed cost infrastructure is needed. Where feasible, network industries have been or are in are the process of being opened up to competition. For example, the local loop in telecommunications, electricity and gas transmission and distribution, and rail track, are all characterised by large fixed costs, which give rise to a natural monopoly that must be handled by the design of pro-competitive regulatory mechanisms.[28] Liberalisation and state intervention fall under Article 86 in the competition chapter of the Treaty (and also Article 31). For two decades, European Union policies have promoted a continuing sequence of favourable supply shocks stemming from these industries. In general, performance results in these sectors indicate that the benefits from competition and incentives from structural separation outweigh any loss in efficiency due to foregone economies of scope (OECD, 2001c). However, while regulatory reform trends over the past two decades increased the reliance on market mechanisms, regulations continue to hinder and distort market forces in many sectors with detrimental effects on economic performance while not always achieving their objectives. This section reviews regulations and reforms in a selected group of network industries: electricity, gas, railways, post and telecommunications.

The network industries

Electricity and gas

21. The 1996 Electricity Directive laid down the minimum market opening to be achieved in every member state. In the gas sector, a Community directive was adopted in 1998 (98/30/EC) requiring a minimum market opening from 2000, increasing to 33 per cent by 2008. The member states are free to open up a larger share of their market and almost all member states have chosen to do so (Table 4). The Commission then proposed in December 2002 to reform the Electricity and Gas Directives to improve access to transmission, increase cross-border capacity, and fully open the electricity and gas markets. These extensions include open markets to all business consumers by July 2004 and to households by July 2007. In addition legal separation between producers and transport network managers will be compulsory by July 2004, and legal separation between producers and managers of distribution networks will be compulsory in July 2007. Merger activity in the energy sector continued in 2002, and the main area of concentration took place in the generation and supply of electricity and in the trading business. No full, in-depth investigation was undertaken into electricity mergers during 2002 (European Commission, 2003c).

Table 4. Liberalisation of electricity and gas markets

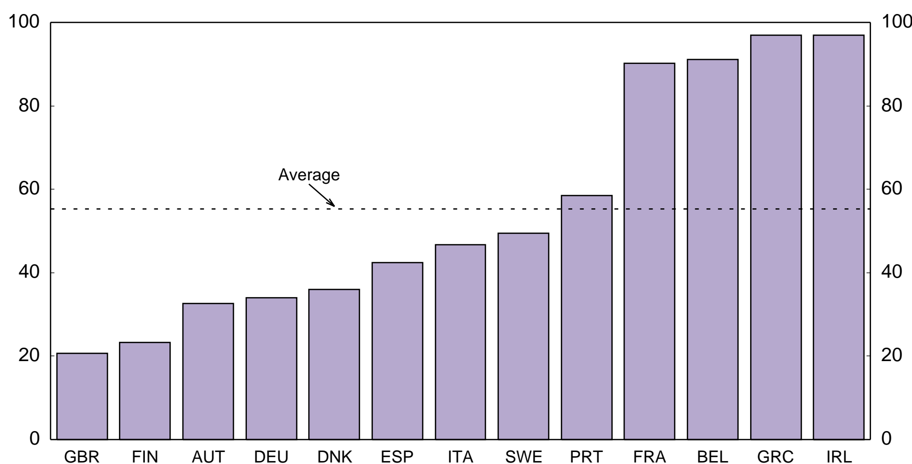
	Electricity		Gas	
	Degree of market opening[1] (2002, %)	Year of full opening to competition (declared)	Degree of market opening[1] (2002, %)	Year of full opening to competition (declared)
Austria	100	2001	100	2002
Belgium	52	2003/07	59	2003/06
Finland	100	1997	Derogation	..
France	30	..	20	..
Germany	100	1999	100	2000
Greece	34	..	Derogation	..
Ireland	40	2005	82	2005
Italy	45	Industry 2004	96	2003
Luxembourg	57	Derogation	72	..
Netherlands	63	2004	60	2004
Portugal	45	2003	Derogation	..
Spain	55	2003	79	2003
Denmark	90	2003	35	2004
Sweden	100	1998	47	2006
United Kingdom	100	1998	100	1998

1. Theoretical percentage of demand opened to competition.
Source: European Commission (2002b).

22. The trend is towards unbundling of generation and retail activities from transmission, while separation of ownership of the transmission grid already applies in five member states. Still, the incumbents are dominating in most member states (Figure 3). At the distribution level unbundling is still very limited, and the existing requirements are only for legal unbundling and not for vertical disintegration. Moreover, cross-country and regional market segmentation persists. The low level of integration is reflected in intra-Community trade in electricity, which still represents only 8 per cent of electricity production. Thus there is no internal electricity market. New players should be welcomed as they could introduce inter-connection between the existing markets, and allow arbitrage between the different markets. Integrated markets do exist and they deliver low prices. The UK was a forerunner with regard to using the market in the electricity sector. The NordPool, which comprises Denmark, Finland, Norway and Sweden, is currently regarded as the blueprint for a pro-competitive market organisation (IEA, 2001). After 1993, electricity prices for end-users in OECD Europe (as measured by the OECD index of energy prices) began to slide downwards, and continued to decline through 2000. However, in 2001 average real electricity price increased by 2.9 per cent (IEA, 2002). Electricity customers in the UK market are benefiting from the fourth lowest prices in the EU, and a typical domestic customer in the UK pays around 27 per cent less than in Germany, around 19 per cent less than Italy and 11 per cent less than French customers (EA, 2003). In the industrial market, prices under contract also represent good value for the customer as UK prices are down 6 per cent on last year (at 3.72 pence per kilowatt hour, compared with 6.37 pence in Italy, the most expensive in Europe). Similarly, Swedish and Finnish electricity prices derived from the NordPool exchange are systematically among the lowest prices in the Union (INRA, 2002). The European authorities should take steps to learn from these arrangements and facilitate further cross-border markets. New lines should be constructed across borders with limited interconnection, preferably by allowing private players to reap the transitory gains from price differences in the currently separate markets.

Figure 3. Market share of the largest generator in the electricity market

Per cent of total generation, 2000



Source: European Commission/Eurostat.

23. Gas prices in the European Union have mostly been rather stable over the last decade, but rose from 1999 to 2001 by around 30 per cent for households and by more than twice that for industrial users. As for electricity, competition in the gas sector has been affected by incumbents' strong position in the gas distribution network. Long-term import contracts have also favoured the incumbent operators. Further, given the importance of storability for gas, ownership of and the availability of long-term contracts for storage facilities has reduced new entrants' access. Thus, downstream competition has been restricted and

competition has not been effective. To reduce cross-subsidisation and increase transparency, separate accounts now must be kept for the natural gas transmission, distribution and storage activities, and consolidated accounts for non-gas activities. Still, this accounting separation should be replaced by complete ownership unbundling of horizontally and vertically integrated companies to create pro-competitive market structures. Further, the widespread public ownership should be reduced and divestitures and restrictions on cross-holdings considered. In the gas sector, there is still a long way to go at the national level before activities open to competition are separated from the operation of the network infrastructure and access conditions to essential facilities set in a way that does not bar entry.

24. The application of competition law contributes to the energy market liberalisation process by ensuring that state measures which prevent the creation of a common market are not replaced by measures taken by market operators. In the antitrust sector, the Commission focuses on aspects of supply competition and network issues. As regards gas supply competition, a main case in 2002 was the settlement of the GFU case on joint marketing of Norwegian gas through a gas negotiation committee (GFU). Further, in the Synergen case the incumbent Irish electricity producer ESB undertook to make electricity available by means of auctions or direct sales. As regards network access, the Commission carried out a number of investigations, most of which have not yet been concluded. The investigation of the UK-Belgium gas inter-connector was concluded after it became clear that the companies concerned had taken or would take certain measures in the near future facilitating third party access (European Commission, 2003c).

Railways and postal services

25. While production has grown slightly (but fallen slightly as a share of all transport), employment in the railway sector has fallen strongly over the last decade, and by more than in the United States and Japan.[29] The Community has no comprehensive common policy on rail transport, even though transport is a common policy, but rather a diverse set of individual elements. Since 1991, steps like requirements for a budget and a system of accounts, separate from those of the state have been taken, along with separate accounting for railway infrastructure (*i.e.* track and related equipment) and the operation of transport services. A soft version of rights of access for rail transport operators in other member states was introduced, (*i.e.* for international groupings and international combined transport services, but not for passenger and freight transport generally) to open up the Community markets. In 1995 common rules for allocation of railway infrastructure capacity were introduced through an Infrastructure Manager and guiding principles for the charging of fees for infrastructure. However, the stated European Union aims of "revitalising railways" (European Commission, 2001f) must be set against a starting point that was the result of subsidisation and inefficient resource use, and as such cannot serve as a reference point. Thus, while there is plenty of scope for making the railway industry more effective, a return to old levels of traffic and employment in all its parts is certainly not feasible.

26. 2001 brought the "Rail Infrastructure Package", three directives to be implemented in national legislation by March 2003 followed by a "Second Railway Package" of proposals in January 2002 intended to speed up the opening of rail freight markets and the improvement of inter-operability by several further measures. These steps go in the right direction but progress is slow. Several countries had not adopted the necessary rules or set up bodies qualified to issue the safety certificates and allocate train paths by the first railway infrastructure package's date of entry into force. This state of affairs was already pointed out in the Implementation Report some time ago. Further, steps that have been taken for freight transport should also be implemented for passenger transport. The European Commission announced in 2003 that it intends to publish proposals for market opening for international rail passenger services. The Commission in 2002 also continued with antitrust proceedings against the rail companies Ferrovie dello Stato (FS) and Deutsche Bahn (DB). Both cases concern discriminatory and exclusionary behaviour by the incumbents towards a new entrant. The Commission opened formal proceedings in 2001 (European Commission, 2003c). There has been limited experience of railway liberalisation within the European Union. The United Kingdom was

a front-runner in this area. Further evaluation of the UK liberalisation will benefit other EU countries undertaking liberalisation (OECD, 2002d).

27. Horizontal integration of networks with other European countries would boost the railways' competitiveness compared with other transport forms. For instance, the technical specifications, including such items as type and strength of power, track gauge and train command and control systems for interoperability are being elaborated and implemented for upgraded and new rail lines. However, all member states need to adhere to this process for real progress to take place. The lack of inter-operability makes interconnection hard and also hampers rail transport on medium and long distances where its advantages should be greatest.[30] Individual systems should be dimensioned according to the common and not to the national markets. Moreover, the economic incentives to exploit all economies of scale and scope from interconnection are much higher for a vertically disintegrated network owner than for an integrated firm.[31] Work by the OECD (OECD, 2001d) suggests that gains from improved interoperability based on vertical separation more than outweigh the cost of increased co-ordination in western Europe with its small, open and traffic-intensive economies.

28. Postal services in the European Union are estimated to handle 135 billion items per year, generating a turnover of about EUR 80 billion or about 1.4 per cent of GDP. About two-thirds of this turnover is generated by mail services and the remainder by parcels and express services, which are competitive. Overall, postal services are estimated to employ directly approximately 1.7 million people of whom 1.3 million are employed by the universal service postal operators. Since 1997, a very gradual process has been leading towards more open markets in member countries. The latest step was the adoption of the New Postal Directive in June 2002, which liberalises (from January 2003) the delivery of letters weighing more than 100 g (or costing more than three times the price of a standard letter) and all outgoing cross-border mail (except for member countries that prefer not to), to be followed three years later for letters weighing more than 50 g (or costing more than two and a half times the price of a standard letter). Far in the future, the new Directive sets 1 January 2009 as a possible date for the creation of an internal market for postal services, but this will require later confirmation (or can be changed) by co-decision procedure. These measures have safeguarded the universal postal service in the member states, according to an evaluation of the 1997 Directive (European Commission, 2002c) that especially notes that the effort this far has contributed to "a safe, gradual and controlled opening of the postal market at a time of rapid market development". However, to let consumers benefit from competition, the authorities should rather speed up the opening of these services as already has been done partly in Sweden and the Netherlands. In the meantime, increasing investment in incumbents and the practice of signing long-term public service contracts with partly liberalised operators should be discouraged. At a minimum, governments should withdraw from the parts of universal postal service providers that show no public service properties. Cost-effective solutions to public service obligations should be established, for instance, by contracting out to the most efficient bidders.

Telecommunications

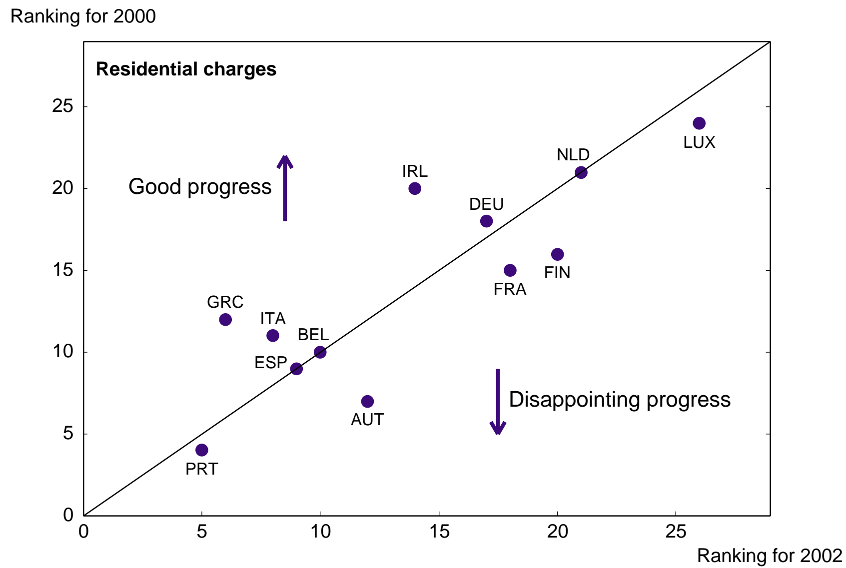
29. With the opening of telecommunications markets in most member states from January 1998, a long process was completed. In the following years, new services have appeared in the telecommunication markets, quality has improved and the prices of many services have been falling. Mobile communications and internet services are growing strongly, as companies compete with each other with new offers and packages, cheaper second phone lines, as well as new pricing formulae. In all member states, national regulatory authorities (NRAs) for telecommunications have been established. They have been given a range of tasks by the European Union regulatory framework and their national governments: they grant new mobile and fixed network licences; approve interconnection prices and agreements; police retail prices and prices charged to customers for changing operators; and deal with the allocation of numbers to new market players.[32] In July 2002, the Commission established the European Regulators Group for Electronic Communications Networks and Services. National competition authorities are also scrutinising the

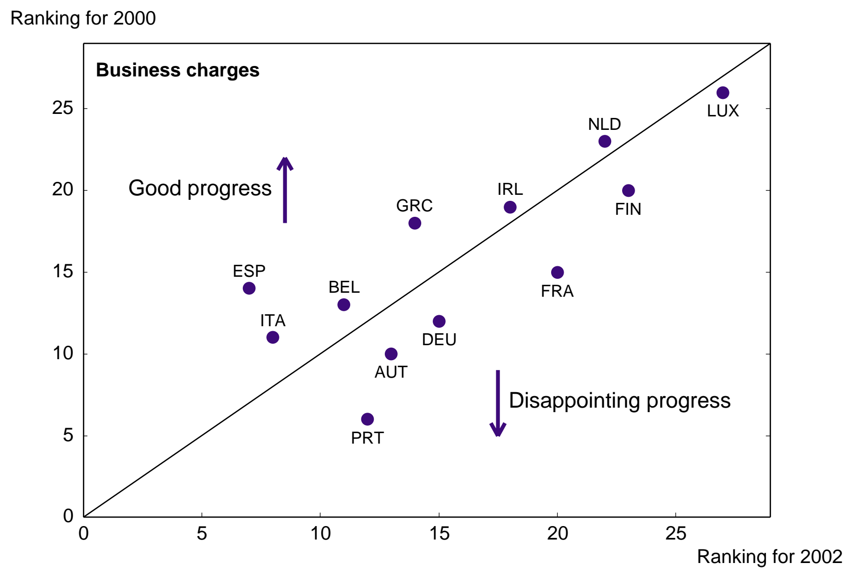
telecommunication markets. The main recent development in the telecommunication field is the adoption of a new regulatory framework, to come into force in July 2003.[33] The new framework aims at reducing the regulatory burden by limiting the imposition of *ex ante* obligations to situations where there is no effective competition and simplifying the conditions for obtaining general authorisation. The national regulators assess the market power on the markets where *ex ante* regulation is warranted, in accordance with the Commission Guidelines (European Commission, 2002d). For those operators deemed to have significant market power, a concept that is aligned to the notion of dominance under competition law, at least one regulatory obligation must be imposed. Differing from the general competition framework, the measures that can be imposed are wider.

30. Telecommunication prices for household and business services declined over the last decade in most EU countries, indicating greater competition. Telecommunication prices for a basket of household services in previously lagging countries, such as Germany (OECD, 2002e), are now comparable with those in the earliest opened markets in Europe, like the UK, Scandinavia and the Netherlands. On the other hand, business prices based on the OECD basket of telephone charges and measured in a common currency in six of the euro area member countries (and seven of the EU member states) have not come down to the OECD average (OECD, 2003d).[34] In Figure 4, these baskets of telephone charges are adjusted for Purchasing Power Parities and the OECD member countries are ranked. Both the positions and changes from 2000 to 2002 for the euro area members suggest divergent developments among these countries. Regarding residential telephony prices, five euro area countries have moved towards a lower position in the rankings while four have moved towards a better position. For business prices, the euro area countries are split evenly among those moving downwards and upwards. The early European Union wide price developments reflected improvements in fixed-line telephony that to a large degree were brought about by regulatory measures, but the stalling of price declines may reflect that the market is characterised by an inherent risk of abuse of dominant position (OECD, 2002e). As Figure 5 shows the incumbent operators still enjoy overwhelmingly dominant shares in fixed telephony, with market shares between 80 and 100 per cent for local calls in most countries and 50 per cent for long distance and international calls. The market structure for mobile services is also dominated by a few companies, and the incumbents, or incumbents' subsidiaries, now seem to have managed to slow the market share losses they suffered in earlier years (Figure 5). Recent steps towards increasing competition in the latest physical stage of delivery, which are crucial to reduce the market power of the incumbent that arises from control of the local loop, have not been very successful with less than 900 000 lines unbundled.

Figure 4. Telephone charges in OECD countries

Rankings of OECD basket of telephone charges in descending order (highest price = 1)[1]



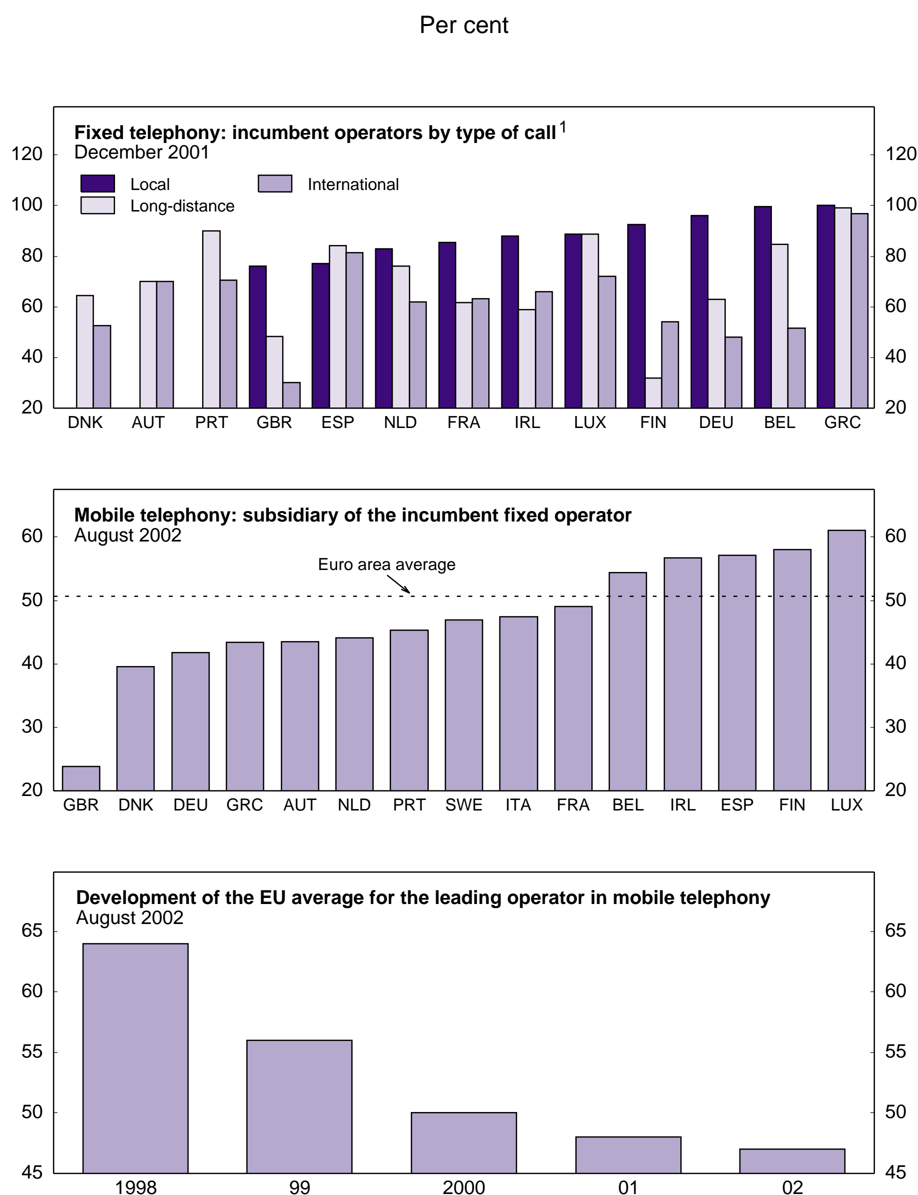


1. Ranking for 29 OECD countries excluding Slovakia. Charges are adjusted using current purchasing power parities.

Source: OECD.

Figure 5. Telecommunications market shares

Per cent



1. Estimates of outgoing minutes. Due to national differences in practices and measurements these numbers are not fully comparable. For details see chart 12 of the document referenced below.

Source: European Commission, 2002e.

31. The large price differences between countries suggest that further regulatory efforts are clearly needed.[35] The establishment of competing networks would erode these dominant market positions, thus ensuring a competitive market structure, as would more cross-border supply. This reinforces the need for ensuring development of Universal Mobile Telephone System (UMTS), or 3G, networks, whose data-transmission capabilities combined with their portability element make them potentially close substitutes to the existing fixed line and mobile phone networks. Still, the new UMTS licences illustrate the lack of European integration, as they follow national markets rather than the pan-European market. In that sense, the lack of a common licence illustrates the need for more integration.

"Necessary" public services?

32. Concerns have been raised that liberalisation may have detrimental impacts on public service. The limited energy liberalisation measures in France were accompanied by an agreement that the Commission would prepare a report on whether new legislation should protect essential services, or whether market opening should be prevented from interfering with the provision of essential services in their current form. Indeed, liberalising the provision of public goods has to be accompanied by appropriate measures to deal with equity objectives. However, the authorities should separate issues concerning public service obligations from the mode of delivery. The optimal mode of delivery will change along with technology and changing market structures. The sequencing of liberalisation and regulatory reform may alone ensure that liberalised markets deliver on important public service obligations. Rather than sticking with old modes, action should continuously be taken to improve delivery, and to bring it in line with best practice.

Regulators

33. A key problem in securing competition in network industries is to ensure unrestricted access at commercial or non-discriminatory charges, requiring regulation capable of adapting to market developments. This implies market surveillance, and either sector-specific regulators or combined regulators and competition law authorities (such as in the Netherlands). Nonetheless, the ultimate goal is to move away from regulators and closer to competition law enforcement in the sectors open to competition**.** While the regulators and competition authorities share the methodologies of analysing markets – see, for example, the "2003 Regulatory Framework" in telecommunications – their relationship is complex in practice. The rules aim at avoiding overlap and to distribute powers for different situations. Regulatory authorities have *ex ante* responsibility for evaluating structural factors in non-competitive markets and impose appropriate structural remedies, while the competition authorities have power to decide infringements on competition law in this sector (which can also imply structural remedies, but *ex post*).

34. Indeed, the liberalisation of network industries has created new issues that should be reflected in the institutional architecture:

- As regulators must operate according to national law, regulators are by necessity local in nature. For the time being, also the relationship between the sector-specific authorities and the government varies across sectors and countries. European Commission legislation now requires operational separation and independence of action by NRAs. However, to create and sustain a common market, the practices and routines must develop coherently. The demands put on networking between national regulators become very important. The new regulatory framework creates procedures for co-operation between NRAs themselves, between these authorities and the Commission and between the national regulatory and competition authorities. All of these have extended their work into Community-wide networks, which still lack evaluation procedures. To avoid a self-enforcing growth of regulatory authorities, strict rules for continuous re-evaluation of regulatory needs should be introduced.
- A fundamental practical issue is the need for a clear institutional design specifying the responsibilities of the multiple players. The number of actors in most jurisdictions, especially in the regulatory field is expanding rapidly. Also, the resource allocation differs between individual countries. The question of whether a regulator should handle competition issues that competition authorities handle in other sectors, such as deciding in whether a player holds "significant market power," *i.e.* a dominant position, or whether they should be left to the competition authorities has not been given enough weight, when deciding on the institutional set-ups up to now. While the regulator will have the detailed technical insight and thus is well qualified in these matters, the general authority is more trained in analysing competition issues and has a broader supporting

structure. Co-operation may produce good results, as national competition authorities and regulators can utilise each other's comparative advantage but its demands will raise cost and practical issues.

Other policies to promote competition and growth

35. Deregulation, whether pursued by member countries or inspired by European Union-wide initiatives has progressed. At the same time, subsidies to a large number of sectors have declined, the agricultural sector being an important exception. While regulatory reform has increased the reliance on market mechanisms, regulations continue to hinder and distort market forces in many sectors with detrimental effects on economic performance. Jean and Nicoletti (2002) find that labour market rents in the form of wage *premia* are relatively higher where regulations restrict competition most and that product market competition tends to curb wage differentials. Calculated as an average of the available euro area countries, wage *premia* are comparable to the United States in most manufacturing industries. However, outside manufacturing, wage *premia* tend to be higher than in the United States for wholesale and retail trade, hotels and restaurants, and sale and repair of motor vehicles sectors. Individual estimates are only available for seven euro area countries, however (see details in Annex). [36] The Community has common policies in some of these areas, but in others the subsidiarity principle means that both goals and policies are set at the member country or local level.

The external trade regime influences concentration and competitive pressures

36. Concentration indicators and indicators of openness to trade can identify areas where product market competition is potentially weak. Compared to the United States, concentration ratios in the euro area are higher in most sectors (see details in Annex). Outside manufacturing, concentration levels are high in the utilities sectors, which also signal potential problems with competition. Veugelers *et al.* (2001) find that concentration in manufacturing has declined slightly in the European Union since the introduction of the Single Market. Further, the study finds productivity growth to be lower in industries where concentration and price dispersion are higher. The market presence of foreign firms or openness to international trade also affects concentration.[37] The import penetration rate varies considerably across euro area countries, the average level in manufacturing being 29 per cent when intra-area trade is included. However, for the area as a whole the ratio is much lower at 17 per cent (Table 5). While that is somewhat below the comparable ratio of 20 per cent in the United States, it is clearly above the 9 per cent observed in Japan. Thus, the numbers confirm that the common market has boosted trade between the member countries while the effect of the extra-border regime on trade is comparable to that of the United States. At the industry level, import penetration would appear to be lower in the low-R&D sectors, whether segmented or not. However, measured against the United States the segmented low-R&D sectors are roughly at the same level, and only a few sectors (wearing apparel, and leather, leather products and footwear) have lower import penetration (see Annex for details). In the high R&D sectors, import pressure is clearly lower than in the United States (as also suggested by Europe's lagging record for innovation activity (see the *OECD Economic Survey of the Euro Area 2003* for an analysis)). However, overall, this indicator does not seem to suggest areas with systemic strong weakness with product market competition in the euro area. On the basis of the economy-wide indicators, weak competition is easier to identify at the level of individual countries than in aggregate data and it is difficult to establish general patterns. This probably reflects the fact that the "relevant market" is still the local level, reflecting the relatively high degree of market segmentation that still exists. Forthcoming *OECD Economic Surveys* of euro area countries will shed more light on these issues.

Table 5. Import penetration

Imports as a percentage of the sum of production and imports, latest year of data available1

	Euro area[2]	United States	Japan
Total manufacturing	17.1	20.0	9.2
High R&D			
Segmented	22.7	28.0	9.4
Fragmented	19.2	23.2	8.8
Low R&D			
Segmented	11.6	11.0	8.8
Fragmented	11.8	15.1	9.8

1. 2000 for the euro area and Japan, 2001 for the United States.
2. Excluding intra-zone imports; using 1999 data for Portugal, and excluding Ireland and Luxembourg.

Source: OECD, STAN and ITS databases, April 2003; and OECD calculations.

37. The gains from removing trade protection, even unilaterally, are sizeable. The conclusion of the Uruguay round continued the reduction in average bound Most Favoured Nation (MFN) tariff rates in the OECD area but the average level of rates remains different across countries and trading blocks:

- The level of tariff protection is slightly higher in the European Union than in Japan and the United States: simple average bound duties for all products is 4.1 per cent, and for non-agricultural products only 3.9 per cent, whilst the averages for MFN statutory applied duties for agricultural and non agricultural products stand at respectively 4.4 and 4.3 per cent. However, these averages take only the *ad valorem* part of the import duties into account, and, hence, neglect specific tariffs, which are frequently used on agricultural and food products. When converting specific duties to *ad valorem* equivalents, the simple average of bound tariffs on major agricultural commodities in the European Union amounted to 60 per cent in 2000, compared with 28 per cent in the United States and 191 per cent in Japan (OECD, 2002f). However, any country's tariffs can only be properly analysed if the effect of preferential access for developing and least developed countries is taken into account.

- Non-tariff barriers (NTBs) span measures to control import prices and/or volumes.[38] Although "tariffication" of some NTBs, such as quantitative restrictions, has taken place in some sectors, notably agriculture, non-tariff measures may have become relatively more important as tariffs have been reduced over time for most products. Complaints tend to focus on technical standards perceived as strict, or SPS measures perceived as onerous. Along with excessive use of anti-dumping and other trade remedy measures, these appear to be the main areas of complaints for other developed countries.

38. Limits on parallel imports may weaken domestic competition in branded goods. As such, the emergence of the common market itself raised competition as national rules granting the right to block imports between member states were largely abolished. However, while Community law protects parallel trade between member states, parallel imports of branded goods from third countries into the European Union can, as a general rule, be impeded through the use of trade mark law. However, where such restrictions have an impact on the competitive market structure in the European Union, they might be incompatible with Community competition rules. This is an area where the three main jurisdictions, Japan, the United States and the European Union, have different policies: In the European Union, trademark laws may be used to prevent parallel importing from third countries while the possibility of parallel trade between member states is rightly considered to be vital for the functioning of the internal market. This approach ignores the effect of competitive pressure brought about by parallel imports from the rest of the world on the efficiency of the single market.

39. Nagarajan (1999) found that the potential welfare gains for the European Union from a comprehensive trade round comprising market access and trade facilitation could amount to a welfare improvement of as much as 1½ per cent. Messerlin (2001) estimates that the cost of protection by the Union comes close to 7 per cent of European Union-wide GDP. This underscores the importance of current international trade negotiations to capture potential welfare gains. Trade Ministers will review progress at the next global trade summit in September 2003, taking up, among other things, two controversial issues: a proposed international investment agreement and proposals for multilateral rules on competition policy. The European Union's approach includes the establishment of a basic multilateral framework agreement on competition law and policy, including agreements on core principles for national legislative frameworks, provisions for combating hard core cartels and modalities for international co-operation between national competition authorities. This would be complemented by technical assistance programmes. As suggested in the previous *Survey*, this round represents an opportunity for the Union to use the measures included in the Financial Services Action Plan to form the basis for European Union proposals and pre-commitments in the on-going set of General Agreement on Trade in Services (GATS) negotiations.

Introducing competition in public procurement

40. Government procurement is a substantial part of the economy.[39] The Commission has published procurement indicators starting in 1993 to measure market trends and the impact of public procurement policies. They show that total public procurement in the Community fell slightly as a share of GDP since the mid-1990s but is still above 16 per cent of GDP, varying from 12 per cent in Greece to 21 per cent in the Netherlands.[40] Procurement is subject to significant barriers and restrictions, and there is as yet no hard evidence that large savings have been made through the internal market. Applying the estimates of possible savings from the Cecchini Report (European Commission, 1988) to the current level of procurement, the potential from greater transparency and increased openness of public contracts would reduce the Community-wide government deficit by ¾ per cent of GDP.

41. Preferential procurement practices, such as outright exclusion of competing firms, choice based on preferential price margins, domestic content requirements or simply opaque bidding and tendering procedures, result in increased profits and in shifting profits to local or national firms. The reactions from the Commission to hinder preferential practices consist of requiring notifications followed by "reasoned opinions" in case of suspected infringements. If there is no satisfactory response, the Commission must refer the member state to the European Court of Justice as a next step.[41] Based on the available statistics, only 15 per cent of the value of total procurement, equal to 2½ per cent of GDP, is advertised throughout the Community (Figure 6). While rising since 1995, this ratio is still very low and does suggest non-transparent and discriminatory bidding procedures. The dispersion between countries is big, with Greece advertising 35 per cent while Germany is at a low 6 per cent. Finally, the share of imports for public contracts remains very modest: for direct cross-frontier business, they rose from 1.4 per cent in 1987 to 3 per cent in 1995; and for purchases made through importers or local subsidiaries, they increased from 4 per cent of the total contract value in 1987 to 7 per cent in 1995.

Figure 6. Published public procurement

Value of public procurement which is openly advertised1, 2001

1. Public procurement published in the Official Journal.
Source: European Commission/Eurostat.

42. Public procurement is governed by the "Government Procurement Framework", consisting of six directives. The directives require the entities to publish both tender and award notices in the Official Journal. The most visible effect of the Directives has thus been a major increase in the transparency of contract award procedures. Proposals to simplify and modernise these have been made, but they are not yet adopted. As the current framework consists of a cumbersome set of rules, the new proposals should be adopted quickly. However, one should be careful about introducing new goals, such as the proposals for integrating environmental and social considerations into public procurement. European institutions have recognised the importance of information and communication technologies (ICT) for public procurement and the potential benefits from introducing such systems. However, electronic public procurement has a long way to go. A simplified electronic system, as operated in private markets, appears incompatible with the existing legal, auditing and policy frameworks. Continued efforts to increase the use of ICT in public procurement could achieve cost savings, especially regarding transaction costs. However, better and more uniform information is a key to make cost savings in procurement on both the demand and supply side. Purely practical efforts aimed at training for public employees both in their obligations with regard to and in procedures for procurement should be increased. The Commission should also start a programme for standardisation of procurement processes and contracts, to simplify the task of good procurement for the individuals involved. The issues involved are the same in all jurisdictions of the Community, and the correct administrative level for initiating such efforts is the centralised one.

Changes are taking place in the financial markets

43. Euro area financial market integration was the special topic of the *OECD Economic Survey of the Euro Area 2002*, and the changes that are taking place as a result of market pressure and from the measures in the FSAP are also reviewed in Gjersem (2003). From a competition point of view, market integration should increase competitive forces.[42] However, the backbone of the equity and other securities markets, the clearing and settlement industry, has been lagging the dismantling of financial borders. The sources can be found, *inter alia,* in national differences in technical requirements and market practices; in national differences in taxation; in issues relating to legal certainty; and in the existence of large incumbent players. The Giovannini Group (2001) has suggested a number of measures to reduce the differences in requirements and practices and thus increase legal certainty. Some of these, such as the framework for collateral, are FSAP proposals that are adopted and will be implemented by the member states in the coming months. The questions related to taxation are still open. Further, the Group has recently proposed alternative arrangements allowing for improved cross-border clearing and settlement arrangements (Giovannini Group, 2003). The competition authorities should play a stronger role in this area, working towards ensuring that competition concerns are integrated into proposals by vetting them.[43]

44. European business finance is still dominated by bank finance. In addition, in some states a close connection between governments and banks has raised concerns related to state aid, resource allocation within the banking industry and political influence on business decisions. In 2002, the French government reduced its ownership in the main French banks. Explicit German government guaranties to local banks will be ended by 2005, while similar guaranties are being dismantled in other countries. This development towards less public intervention and better pricing of risk will reduce distortions to competition and lead to a better allocation of resources. In 2002 the Commission adopted two antitrust decisions relevant to the financial markets, the first giving a conditional exemption to Visa International's multilateral interchange fee (for cross-border payment transactions) and the second fining eight Austrian banks for their participation in a wide-ranging price cartel (European Commission, 2003c).

45. The restructuring in European banking has over the years resulted in a falling overall numbers of banks, but not in a similar reduction in branches suggesting that branches may serve as a deterrent to entry (OECD, 2002a). Neven and Röller (1999) investigated corporate and household loan markets in Europe and found significant collusive cartel-like conduct in these markets. One measure for competition pressure in banking is entry of new banks. Table 6 shows that new banking licences are fewer in the Community than in the United States and in a number of other OECD member countries outside EU, suggesting that competitive pressures may be higher in these countries. Recent empirical United States studies have pointed to a link between bank competition and entry rates among small and medium-sized businesses. Moreover, empirical work confirms that less competition in the credit market lowers the incentive to finance new-comers (Cetorelli, 2002). Banking market structure and competition may thus have heterogeneous effects across firms within an industry. The competition authorities should play a stronger role in this area, adding competitive pressure in banking, thereby supporting the development of new businesses and be represented alongside the solidity arguments often raised by the financial sector supervisors.

Table 6. Entry into banking

New bank charters1

	Number of banks	Entry (per cent of existing banks)		
		Domestic	Foreign	Total
Euro area	7 046	2.9	1.6	4.5
Australia	51	13.7	37.3	51.0
Canada	55	1.8	10.9	12.7
Japan	294	4.8	7.5	12.2
New Zealand	17	0.0	47.1	47.1
United States	10 500	9.5	0.0	9.5

1. Latest year available 1998 or 1999.
Source: World Bank Research, Bank Regulation and Supervision database (Barth et al., 2001) and OECD.

Scope for further action

46. Making the common market work better by an active competition policy and liberalisation has been high on the policy agenda for a long time. The new goal – agreed upon three years ago at the Lisbon European Council – of turning the Union into the most competitive and dynamic economy in the world by 2010, makes this an even more important task. Community-wide competition policy performs well in many areas. However, further reform efforts should focus on three groups of issues: *i)* sharpening the toolkit; *ii)* improving the planning and ensuring that social gains actually emerge; and *iii)* aligning national and common interests. This section discusses a number of suggestions for policy action under these headings.

47. Several instruments in the competition policy toolkit could be strengthened. In summary:

- The European competition authorities have been active in cracking down on agreements and hard-core cartels, with high sanctions being imposed. These sanctions may, however, still be too modest in relation to the unjustified gains. Their deterrent effect should be regularly assessed.

- The introduction of leniency *vis-à-vis* "whistle blowers" has added greatly to the Commission's effectiveness in the area of competition policy. However, there are tools in leniency programmes elsewhere that are not available. The options for making the leniency programme even more attractive should be explored.

- In other jurisdictions, the role of private suits is far more developed and reduces the work-load of the authorities. The Community authorities should encourage its use, to free up resources from investigating the less important cases.

- The Commission has been criticised for being judge, jury and prosecutor in one. The ability of the review panels and other measures designed to increase checks and balances during the control process to make the decision process more effective should be assessed.

- The experience from the few cases that have been through the recently introduced fast track procedure for judicial review suggests that the procedure fulfils its task: it is both efficient and expedient. However, the outcome thus far is that mergers still may get bogged down. One should assess the need to raise resources to bring all cases that require accelerated review to a faster conclusion.

48. The enforcement agenda is partly explained by the rather stable historical experience and the distribution of complaints. In addition, DG Comp has undertaken initiatives, for instance, in the industries undergoing deregulation. Measures should be taken to facilitate a long-term focus in planning and resource allocation, by taking into account the following issues:

- Community action to implement a single market in services should be strengthened and supported by competition policy, especially at the national level. Especially with regard to the cross-border supply of services, competition policy is important, as local suppliers still are often able to deter entry. Also, in addition to the swift implementation of the Financial Services Action Plan, the competition authorities should be given a larger role in the development of the common financial services market.

- More generally, the priority setting for competition enforcement should be driven to a greater extent by economy-wide welfare losses associated with adverse competition practices. This would require the use of a broader range of analytical instruments.

- While having been reduced, there is certainly still scope for reducing state aid further. Its distortive effects undermine national comparative advantage. This need is already recognised by the European Council, which in Barcelona in 2002 stated that less and better aid is a key part of effective competition. A particular problem is related to agriculture, the most heavily subsidised sector in the Union, which leads to heavy welfare losses.

- Further steps are needed to reduce the cost of public procurement, as local authorities often restrict procurement to local providers and only a small share of all contracts are advertised across the Union.

49. Competition policy is complemented by, and partly overlapping with, the regulation of newly liberalised network industries. Despite the European Union's commendable efforts in this area, competitive conditions in these sectors are undermined by dominant incumbents. Price declines stemming from liberalisation of network industries have become smaller, while new entrants no longer seem to gain market share from the incumbents in some markets. The dispersion in prices and the price level differences with the United States also suggest that the full scope for efficiency gains has not yet been fully exploited:

- The tendency to act too slowly in liberalising the network industries and over-regulating other sectors should be counteracted. The incumbents typically deter market entry through business practices that are seen as "regular" (*e.g.* rationing access to common storage facilities in the gas industry for newcomers). For European Union policies to promote a continuing sequence of favourable supply shocks stemming from these industries, careful separation of integrated utilities to limit the risk of network owners controlling entry at other stages of production should be required, to reduce the market power of incumbents and to speed up the process in the lagging industries. Furthermore, the focus on establishing common markets rather than national ones should be strengthened.

- Regulators in the network industries are getting tasks related to those of the competition authorities. This is increasing the number of contact points, especially the number of networks, and will over time start to strain the system. There should be a clearer division of tasks where the Commission's responsibility for competition policy should be very clear. Also, these institutions should be scrutinised regularly to make sure they are needed and that their present form is optimal, especially to guard against conservation of national markets at the expense of the common market.

50. To support growth, other measures should also be taken. Despite having a rather liberal trade regime, the remaining gains from trade liberalisation could be sizeable. Further liberalisation would enable the Union to capture a sizeable share of these, and should be pursued in the current international trade negotiations. And while parallel imports are the rule for the internal market, the technicalities of trademark law that hinder parallel imports from third countries weakens domestic competition in branded goods. The competitive pressure brought about by parallel imports from the rest of the world on the efficiency of the single market is beneficial, and the rules should be amended. Finally, as the long-term gains from an active competition policy are usually not immediately apparent, while the short-term costs are, an important task for the Commission services is to make these gains more visible and to divert the debate away from short-term issues dominated by transition costs.

NOTES

1. The euro area unemployment rate was stable at 8 per cent through 2001 and crept up to 8½ per cent by the end of 2002. By the middle of 2003 it was just below 9 per cent (OECD, 2003a).

2. In addition, the quality and composition of inputs are important but hard to measure.

3. In the US, private R&D rose from 1.9 per cent in 1993 to 2 per cent in 2000.

4. Other recent research has found a hump-shaped relationship, *i.e.* indicating that neither high concentration ratios nor perfect competition are the most conducive to innovation (Aghion *et al*., 2002). This evidence suggests that, beyond a certain point, market power may tend to reduce the incentive to adopt and develop new technologies.

5. In the scenarios presented in the *Economic Survey of the Euro Area 2003*, it was first assumed that product market regulation in the euro area became as competition-friendly as in the United States, improving multi-factor productivity by almost 2 percentage points over ten years. Stronger productivity growth boosts activity, whilst triggering a decline in inflation. This would improve the sacrifice ratio, as stronger growth would go hand in hand with lower inflation. The other scenario shows combined reforms in product and labour markets that result in a 1 percentage point rise in the employment rate (whether caused by a decline in the structural unemployment rate or by increased labour force participation). The level of real activity is boosted by about 1.5 per cent, whilst inflation decreases by around 1 percentage point. A reduction in euro wide public deficits occurs in both cases. In both exercises, most of the improvement in public finances is structural. Lower inflation would allow monetary policy to be more supportive. The area-wide budget deficit would decline by between 1 and 2 per cent of GDP, depending on the simulation and monetary policy assumption, half of the improvement appearing after about four years.

6. The Commission investigates cases following complaints by interested parties, such as member states or competitors, consumer groups or customers of companies involved, or on its own initiative. The enforcement set-up, originating in the 1960s, is concentrated in the Commission's Competition Directorate General (DG Comp). DG Comp employs about 610 persons, complemented by resources from other parts of the Commission. However, any final Commission Decision on an alleged infringement of European Commission competition law is made by the college of Commissioners as a whole and not just DG Comp or the Commissioner for Competition.

7. In contrast, Article 82, which prohibits abuse of dominance by any undertaking, is without such exceptions.

8. The block exemption regulations specify conditions under which certain types of agreements are exempted from the prohibition on restrictive agreements laid down in Article 81(1). When an agreement fulfils the conditions set out in a block exemption regulation, individual notification of that agreement to the Commission is not necessary to ensure that the agreement is valid and enforceable.

9. Agreements should not be regarded as infringing the prohibition of Article 81(1) if they are of minor importance (the de minimis principle). Since the end of 2001 the de minimis principle is based on a market share ceiling of 10 per cent for horizontal agreements and 15 per cent for vertical agreements (but the agreements cannot include certain hard-core restrictions, such as price fixing). Such agreements are considered incapable of affecting competition within the Common market.

10. Council Regulation (European Commission) No. 1/2003 of 16 December 2002 on the implementation of the rules on competition laid down in Articles 81 and 82 of the Treaty will replace Regulation 17/62 when it comes into force in May 2004. Until then, Regulation 17/62 remains in force.

11. Making Article 81 in its entirety directly applicable will have the result that restrictive agreements are ab initio null and void if they do not fulfil the conditions for compatibility under Article 81(3) and, vice versa, are valid ab initio without requiring a Commission decision authorising such agreements if they fulfil those conditions.

12. The existing merger regulation consists of rules under Council Regulation 4064/89, as amended by Regulation 1310/97 and Commission implementing Regulation 447/98 of 1 March 1998.

13. The position of Chief Competition Economist has been filled since September 2003, and the Consumer Liasion Officer post since December 2003.

14. See Kühn (2002) for a critical discussion of the recent use of leverage and foreclosure arguments.

15. Also, other observers have suggested that DG Comp needs to be more careful and thorough in its procedures and controls. Episodes such as the annulment in September 2003 by the Court of First Instance of a fine of EUR 273 million in the TACA case (the highest amount ever imposed on undertakings in a collective dominant position) is an example. In this case, the Court of First Instance upheld both the Commission's finding that the shipping conference TACA infringed the competition rules and its refusal to grant exemption to the member companies, but it set aside the fine, *inter alia*, due to infringements on the rights of defence (*Judgement of the Court of First Instance – Press Release no. 78/03 – 30 September 2003*).

16. As to judicial review, Monti (2002) discusses a wide number of concerns that were raised about the lack of effective judicial review in the public comments on the Commission's merger control reform proposal.

17. The highest price-fixing fine is the EUR 900 million imposed on makers of vitamins in 2001. The fine can never go beyond 10 per cent of a company's world-wide turnover (Article 5(2) of Regulation No 7). Fines are not set with reference to a company's turnover, however, but take into account the gravity of the infringement, its duration and any aggravating or mitigating circumstances. Where an infringement involves several companies (e.g. cartels), it might be necessary in some cases to apply weightings to the basic amounts determined on the basis of the gravity to take account of the specific weight and the real impact of the offending conduct of each company on competition. This in particular where there is considerable disparity between the sizes of the companies committing infringements of the same type. As the basis for the comparison of the relative importance of a company in the market concerned, the Commission uses in general the product's turnover in the last year of the infringement.

18. A recent survey of the financial sanctions imposed on 10 hard-core cartels in the OECD area shows that they ranged from 3 to 189 per cent of the estimated harm done, and in only four cases was it clear that the fines exceeded the illegal gains (OECD, 2002c).

19. There are currently six member states that foresee criminal law penalties for this sort of infringement (with a possibility for company executives to serve prison or being imposed individual fines). These are Germany (up to 5 years), Austria (up to 3 years for bid-rigging only), France (4 years), Ireland (2 years), and the United Kingdom. In Greece, the criminal liability of corporate executives does not entail prison, but individual fines. Recent work by the OECD has shown that such sanctions are used very seldom. Only Germany has imposed sanctions on natural persons among the EU countries recently (OECD, 2003b).

20. As an example, calculations with the Danish general equilibrium model MobiDK showed that distortions caused by recommended prices in retail distribution raised prices by 2 to 10 per cent above the competitive level. It also resulted in distortions in other sectors with total welfare effects of around DKK 1 000 (EUR 135) per household. The Danish authorities took action in this area.

21. The sectors dominating recent cartel decisions are all offering industrial goods: plastics, paper, cement and construction materials (European Commission, 2002f). However, among the sectors where a high number of complaints are received are also postal and banking services.

22. However, in several EU countries, the ultimate decision making authority in merger cases lies with the government and not the competition agency. In France and Spain, the government decides, and may or may not consult the independent tribunal, while in Ireland, UK, Germany, Greece, Ireland, Netherlands and Italy government reserves some power to intervene in merger decisions in exceptional cases.

23. Commissioner Monti has described the “advantages” of the current system as enabling him to “trade votes with other Commissioners” (Financial Times, 2002)

24. The expansion of the Union in 2004 will result in a sizeable increase in the number of such cases.

25. This is defined as aid having a social character, granted to individual consumers: aid to make good the damage caused by natural disasters or exceptional occurrences; aid designed to promote the economic development of underdeveloped areas (regarded as particularly backward in accordance with Community criteria); aid that promotes the implementation of an important project of common European interest or to remedy a serious disturbance in the economy of a member state; aid to facilitate the development of certain activities or areas, or promote culture and heritage conservation.

26. The EU Scoreboard on State aid with updated statistics on State aid was published on April 30, 2003 by European Commission, DG Comp.

27. It should be noted that the definition of state aid also comprises measures to alleviate CO2 taxes and reclassification of certain fiscal advantages to state aid.

28. Under the designation of “services of general economic interest”, these are allowed under the Treaty either to enable the undertakings responsible for such services to perform their tasks, or on the basis of public health and safety. The Single Act and the Maastricht Treaty added economic and social cohesion, consumer protection, and trans-European networks to this list. In these markets, liberalisation is an ongoing process.

29. In the European Union, employment in the main railways fell from 1.3 million in 1990 to 766 800 in 2000. In comparison, in the United States it fell from 216 400 to 168 400 and in Japan from 193 800 to 172 200 over the same period (European Commission, 2002g).

30. Due to technical, administrative and legislative barriers, trains lose most of the travel time at boundaries. The average speed of international rail freight haulage is only 18 km/hour (European Commission, 2001f).

31. A vertically disintegrated network owner maximises revenues from (regulated) user fees and therefore has an incentive to get a maximum number of trains on his network. In a vertically integrated firm such a strategy would cost market shares to the in-house transport service branch and joint profit maximisation would account for the trade-off between the market share of own transport services and revenues from third-party access.

32. While national regulators' powers are generally adequate, the Belgian regulator is clearly understaffed (OECD, 2002g), questions have been raised about the regulator's effectiveness in Germany (OECD, 2002e), while there are some shortcomings in the Netherlands and Finland.

33. The New Framework comprises five Directives, plus Recommendations and Guidelines.

34. This generally accepted "basket" methodology takes into account both fixed and usage charges (OECD, 2003d).

35. In November 2002, the Commission decided that concerns relating to high prices and issues of possible discrimination in the leased line sector were now being adequately addressed, and closed the antitrust inquiry it had launched in 1999. As a part, the Competition Directorate-General had opened five investigations into possible excessive prices and/or discriminatory behaviour in the provision of leased lines in Belgium, Italy, Greece, Portugal and Spain during 2000. Two years later, the Commission found a considerable decrease in leased line prices across the EU. A second important outcome was the pro-active stance on the part of NRAs regarding the provision of leased lines and pricing for such lines. Given the evidence of significant improvements in the competitive situation in Belgium and Italy, the Commission closed its investigations regarding those Member States. The Spanish case may also be closed while the situation in Portugal and Greece is to be closely monitored (European Commission, 2003f).

36. See also the *Economic Survey for the Euro Area 2003* concerning services, the financial sector, retail distribution, the airline industry and port services.

37. Penetration rates may also reflect industry-specific characteristics unfavourable to international trade, e.g. high transport costs or the presence of highly competitive domestic firms. However, what matters most for market forces may not only be actual competition in the market but also potential market entry.

38. The "core NTBs" include various price control measures and quantitative restrictions such as import bans, non-automatic licensing or export restraints.

39. For the OECD area, the ratio of total procurement (consumption and investment expenditure) for all levels of government is close to 20 per cent of GDP (Audet, 2002). Of these, one third is potentially open to international trade. Procurement by sub-central government is larger than procurement by central government by about two to three times.

40. As the EU's indicators for procurement include procurement by public utilities (whether public or privately owned), they are not directly comparable to the OECD indicators.

41. The Commission has recently referred France, Portugal, Spain and Germany to the European Court of Justice concerning, respectively, French legislation on public procurement for major construction projects; Portugal's failure to implement correctly the Directive on remedies for tenderers who think they have been unfairly treated; Spain's failure to ensure the rules are applied properly for the procurement of health services; and two cases in Germany where waste management contracts were awarded without EU-wide tendering. The EU executive has also sent formal requests to Ireland, Italy and Finland to change their practices. It says that this is because public procurement contracts have been awarded in ways that do not comply with the EU Treaty and/or with the Public Procurement Directives. On average, procurement infringement proceedings have been started against 12 countries each year since 1996.

42. As pointed out in the previous Survey, for consumers, a so basic cross-border service as transferring money from one country to another has been much more expensive than transferring money within a country. A survey commissioned by the Commission (IEIC, 2001) show total costs for international transfers were up to three times as high from some countries as from others. In response to the lack of progress in reducing the costs of cross-border payments, cross-border transfer fees have been regulated.

43. Also, the effect on cross-border financial trade from clearing and settlement institutions should be taken seriously. For example, in 2003 the merger between Clearnet and London Clearing House, which dominates clearing at the London Stock Exchange, was looked into by the Office of Fair Trading in UK but not by the Commission. But LSE's rival Euronext owns 80 per cent of Clearnet clearly suggesting that this issue is pan-European due to both the importance of LSE and LSH in European trading, and to the LSE and Euronext ownership interest domination.

Glossary of Acronyms

CAP	Common agricultural policy
DG Comp	Directorate General for Competition
EC	European Community
ECOFIN	Economic and Financial Affairs Council
EU	European Union
EUR	Euro
g	Gram
GDP	Gross domestic product
ICT	Information and communication technology
MFN	Most favoured nation
NRA	National regulatory authority
NTB	Non-tariff barrier
PPP	Purchasing power parity
R&D	Research and development
UK	United Kingdom
UMTS	Universal mobile telephone system
US	United States
USD	United States dollar

BIBLIOGRAPHY

Aghion, P., N. Bloom, R. Blundell, R. Griffith and P. Howitt (2002), "Competition and Innovation: An Inverted U Relationship", The Institute for Fiscal Studies, *Working Paper,* No. 2002/04, http://www.idei.asso.fr/Commun/Conferences/Internet/OSS2002/Papiers/Aghion.pdf

Audet, D. (2002), "Government Procurement: A Synthesis Report", *OECD Journal on Budgeting*, Vol. 2, No. 3.

Barth, J., G. Caprio and R. Levine (2001), "The Regulation and Supervision of Banks Around the World: a New Database", World Bank Research, Bank Regulation and Supervision Database, World Bank, http://wbln0018.worldbank.org/html/FinancialSectorWeb.nsf/SearchGeneral?openform&Banking+Systems&Databases

Bassanini, A. and E. Ernst (2002), "Labour Market Institutions, Product Market Regulation, and Innovation: Cross-Country Evidence", *Economics Department Working Papers,* No. 316, OECD, Paris, http://appli1.oecd.org/olis/2002doc.nsf/linkto/eco-wkp(2002)2/$FILE/JT00119533.pdf

Bassanini, A. and S. Scarpetta (2001), "The Driving Forces of Economic Growth: Panel Data Evidence for the OECD Countries", *OECD Economic Studies*, No. 33, http://www.cf.ac.uk/carbs/econ/matthewsk/OECDEconSt33a.pdf

Beaufoy, G. (2000), "The Environmental Impact of Olive Oil Production in the European Union: Practical Options for Improving the Environmental Impact", *European Forum on Nature Conservation and Pastoralism and Asociación para el Análisis y Reforma de la Política Agro-rural*, http://europa.eu.int/comm/environment/agriculture/pdf/oliveoil.pdf

Burnside, A. (2002), "Comments on Reforming European Merger Review: Targeting Problem Areas in Policy Outcomes", *Journal of Industry, Competition and Trade*, Vol. 2, No. 4, http://ipsapp009.kluweronline.com/content/getfile/4852/5/2/fulltext.pdf

Cetorelli, N. (2002), "Life-cycle Dynamics in Industrial Sectors. The Role of Banking Market Structure", Federal Reserve Bank of Chicago, *Working Paper*, 2002-26, http://research.stlouisfed.org/conferences/policyconf/papers/Cetorelli.pdf

DTI (Department of Trade and Industry) (2001), *A World Class Competition Regime*, White Paper, United Kingdom, http://www.archive.official-documents.co.uk/document/cm52/5233/5233.htm

EA (Electricity Association) (2003), International Electricity Prices, Preliminary Issue 27, Electricity Association, London.

ECB (2003), *Monthly Bulletin*, April 2003, Frankfurt.

European Commission (EC) (1988), “The Cost of Non-Europe in Public Sector Procurement”, WS Atkins Management Consultants.

European Commission (1999), “White Paper on modernisation of the rules implementing Articles 85 and 86 of the Treaty - Commission programme”, No. 99/027, COM (1999)101, April 1999, http://europa.eu.int/comm/competition/antitrust/wp_modern_en.pdf

European Commission (2001a), Report on the Functioning of Community Product and Capital Markets, http://europa.eu.int/comm/internal_market/en/update/economicreform/index.htm http://europa.eu.int/comm/internal_market/en/update/economicreform/docs/com-2002-743_en.pdf

European Commission (2001b), *European Economy*, Price levels and price dispersions in the European Union, Supplement A, July, http://europa.eu.int/comm/economy_finance/publications/european_economy/2001/a2001_07_en.pdf

European Commission (2001c), Internal Market Scoreboard, May 2001, Brussels, http://europa.eu.int/comm/internal_market/en/update/score/score8.htm

European Commission (2001d), “Green Paper on the Merger Review (Green Paper on the Review of Council Regulation (EEC) No 4064/89)”, COM(2001) 745/6 Brussels, http://europa.eu.int/comm/competition/mergers/review/green_paper/en.pdf

European Commission (2001e), “Economic Reform: Report on Product and Capital Markets”, COM(2001) 736, Brussels, http://europa.eu.int/comm/internal_market/en/update/economicreform/cardiff02en.pdf

European Commission (2001f), “European Transport Policy for 2010: Time to Decide”, White Paper. Brussels, http://europa.eu.int/comm/energy_transport/library/lb_texte_complet_en.pdf

European Commission (2002a), *Report on the Functioning of Community Product and Capital Markets,* http://europa.eu.int/comm/internal_market/en/update/economicreform/index.htm http://europa.eu.int/comm/internal_market/en/update/economicreform/cardiff02en.pdf

European Commission (2002b), “Second Benchmarking Report on the Implementation of the Internal Electricity and Gas Market”, SEC(2002)1038, http://europa.eu.int/comm/energy/electricity/benchmarking/doc/2/sec_2002_1038_en.pdf

European Commission (2002c), “Report from the Commission to the European Parliament and the Council on the Application of the Postal Directive”, (97/67/EC Directive)/COM(2002) 632 Final, http://www.europarl.eu.int/meetdocs/committees/rett/20030120/COM_COM(2002)0632_en.pdf

European Commission (2002d), “Commission guidelines on market analysis and the assessment of significant market power under the Community regulatory framework for electronic communications networks and services”, Official Journal of the European Communities 11.7.2002, http://europa.eu.int/eur-lex/pri/en/oj/dat/2002/c_165/c_16520020711en00060031.pdf

European Commission (2002e), "Eighth Report on the Implementation of the Telecommunications Regulatory Package", COM(2002)695 Final, Brussels, December, http://europa.eu.int/scadplus/leg/en/lvb/l24217c.htm

European Commission (2002f), *European Union Energy and Transport in Figures 2002*, European Commission Directorate-General for Energy and Transport in Co-operation with Eurostat, Brussels, http://europa.eu.int/comm/energy_transport/etif/etif_2002.pdf

European Commission (2002g), *XXXIst Report on Competition Policy 2001*, Brussels. http://www.europa.eu.int/comm/competition/annual_reports/2001/en.pdf

European Commission (2003a), *Press Release from the European Commission* - IP/03/290 - 27.02.2003.

European Commission (2003b), "Internal Market Strategy. Priorities 2003-2006," COM(2003)238Final, Brussels, http://europa.eu.int/eur-lex/en/com/cnc/2003/com2003_0238en01.pdf

European Commission (2003c) XXXII Commission Report on Competition Policy in 2002, SEC(2003) 467 Final, http://www.europa.eu.int/comm/competition/annual_reports/2002/report_short_en.pdf

Eurostat (2003), "Electricity statistics", *Statistics in focus, Environment and energy*, Theme 8 - 4/2003, http://europa.eu.int/comm/eurostat/Public/datashop/print-catalogue/EN?catalogue=Eurostat&collection=02-Statistics%20in%20Focus&product=KS-NQ-03-004-__-N-EN

Financial Times (2002), Interview with Mario Monti (page 2), 14 January 2002, London

Gjersem, C. (2003), "Financial Market Integration in the Euro Area," Economics Department Working Papers, No. 368, OECD, Paris. http://www.olis.oecd.org/olis/2003doc.nsf/linkto/eco-wkp(2003)22

Giovannini Group (2001), "Cross-Border Clearing and Settlement Arrangements in the European Union", Brussels, November 2001, http://europa.eu.int/comm/economy_finance/publications/giovannini/clearing1101_en.pdf

Giovannini Group (2003), "Second Report on Cross-Border Clearing and Settlement Arrangements in the European Union. Report of the Giovannini Group", European Commission, Brussels, April, http://europa.eu.int/comm/economy_finance/publications/giovannini/clearing_settlement_arrangements140403.pdf

IEA (International Energy Agency) (2001), *Competition in Electricity Markets*, IEA, Paris.

IEA (2002), *Electricity Information*, 2002 Edition, IEA, Paris, http://www.iea.org/stats/files/ele.htm

IEIC (*Institut Européen Interrégional de la Consommation*) (2001), "Bank Charges in Europe. Report for the European Commission", Lille, May, http://europa.eu.int/comm/dgs/health_consumer/library/surveys/sur14_en.pdf

INRA (2002), *European Electricity Prices Observatory: Year 2001 Results*, July 2002 http://www.inra.com/press/report2002.pdf

Jean, S. and G. Nicoletti (2002), "Product Market Regulation and Wage Premia in Europe and North America: An Empirical Investigation", *Economics Department Working Papers,* No. 318, OECD, Paris, http://appli1.oecd.org/olis/2002doc.nsf/linkto/eco-wkp(2002)4/$FILE/JT00119737.pdf

Konkurrensestyrelsen (2000), *Konkurrenceredegørelse* 2000, Copenhagen, http://www.ks.dk/publikationer/konkurrenceredegoerelsen/kr2000/

Kühn, K.-U. (2002), "Reforming European Merger Review: Targeting Problem Areas in Policy Outcomes", *Journal of Industry, Competition and Trade*, Vol. 2, No. 4, http://ipsapp009.kluweronline.com/content/getfile/4852/5/1/fulltext.pdf

McKinsey & Company (2003), "Overhauling the European Auto Distribution", *The McKinsey Quarterly*, No. 1.

Messerlin, P. (2001), *Measuring the Costs of Protection in Europe: European Commercial Policy in the 2000s*, Washington: Institute for International Economics.

Midelfart-Knarvik, K.H. and H.G. Overman (2002), "Delocation and European Integration: Is Structural Spending Justified?", *Economic Policy*, Vol. 17, No. 35.

Monti, M. (2002), "Review of the EC Merger Regulation - Roadmap for the reform project", Conference on Reform of European Merger Control, British Chamber of Commerce - Brussels, June 4, 2002,

Nagarajan, N. (1999), The millennium round: An economic appraisal. European Commission Economic Papers Number 139, Brussels.

Neven, D. and L.-H. Röller (1999), "An Aggregate Structural Model of Competition in the European Banking Industry", *The International Journal of Industrial Organization*, Vol. 17(7).

Nicoletti, G., A. Bassanini, E. Ernst, S. Jean, P. Santiago and P. Swaim (2001), "Product and Labour Market Interactions in OECD Countries", *Economics Department Working Papers*, No. 312, OECD, Paris http://intradomino.oecd.org/olis/2001doc.nsf/linkfromhdeng/ECO-WKP-2001-38/$file/JT00118559.pdf

NordPool (2003), The Nordic Power Market, Oslo - Stockholm - Helsinki - Odense, 15 January 2003, http://www.nordpool.no/information/reports/Report-Nordic%20Market.pdf http://www.nordpool.no/information/reports/introduction.html

OECD (1996), "Abuse of Dominance and Monopolization", Competition Committee Roundtable Discussion, OECD, Paris.

OECD (2001*a*), *OECD Economic Surveys: The Euro Area*, May, Paris.

OECD (2001b), Environmental Indicators for Agriculture, Volume 3, Paris.

OECD (2001c), *Restructuring Public Utilities for Competition*, OECD, Paris.

OECD (2001d), *Railway Reform*, ECMT, Paris.

OECD (2002a), *OECD Economic Surveys: Euro Area*, September, Paris.

OECD (2002b), *Economic Outlook*, No. 72, OECD, Paris.

OECD (2002c), *Fighting Hard-core Cartels: Harm, Effective Sanctions and Leniency Programmes*, OECD, Paris.

OECD (2002d), *OECD Reviews of Regulatory Reform: United Kingdom*, OECD, Paris.

OECD (2002e), *OECD Economic Surveys: Germany*, OECD, Paris.

OECD (2002f), Agriculture and Trade Liberalisation, Extending the Uruguay Agreement, OECD, Paris.

OECD (2002g), *OECD Economic Surveys: Belgium*, OECD, Paris.

OECD (2002h), "Product Market Competition and Economic Performance: A Framework for EDRC Reviews", Economics Department, Economic Policy Committee, Working Party No. 1 on Macroeconomic and Structural Policy Analysis, Paris.

OECD (2003a), *OECD Economic Surveys: Euro Area*, October, Paris.

OECD (2003b), *Hard Core Cartels: Recent Progress and Challenges Ahead*, OECD, Paris.

OECD (2003c), Agricultural Policies in OECD Countries: Monitoring and Evaluation, OECD, Paris.

OECD (2003d), *Communication Outlook 2003*, OECD, Paris.

Oliveira Martins, J., Price, T. and N. Mulder (2002), "A Taxonomy of Market Structure Cluster", Economics Department Working Papers, forthcoming.

Sauner-Leroy, J.-B. (2003), « L'impact de la mise en oeuvre du programme de marché unique sur l'efficacité productive et sur les mark-ups dans l'industrie manufacturière européenne », *European Econom*y, Economic Papers No. 192.

Scarpetta, S. and T. Tressel (2002), "Productivity and Convergence in a Panel of OECD Industries: Do Regulations and Institutions Matter?" *Economics Department Working Papers*, No. 342, OECD, Paris.

Veugelers, R., De Voldere, J. R., Rommens, K. Sleuwaegen, L. (2001), "Determinants of Industrial Concentration, Market Integration, and Efficiency in the European Union", Study for the European Commission, forthcoming in the *European Economy*, Brussels.

Annex

Indicators of market power

51. The degree of competitive pressure in an industry or a market is reflected by the degree of market power. At the aggregate level, it can be gauged by international price comparisons. By comparing price levels across countries, commodities and services can be identified where prices are exceptionally high, pointing to weak competition in domestic markets. While aggregate price levels vary across the euro area, they are in most cases close to that of the United States, but much lower than in Japan (see Figure 1). Some countries diverge strongly, especially Denmark and Sweden with high price levels. Portugal, Greece and Spain diverge on the low side. Adjusting for differences in GDP per capita, the euro area is close to the expected value, while the price level in, while the United States is considerably below and the Japanese above.

52. Furthermore, market power can be gauged by the mark-up of prices over cost. As noted previously, Sauner-Leroy (2003) suggests that up to 1993 and before the introduction of the single market, mark-ups in manufacturing fell as price effects dominated. Later, though, mark-ups increased again as falling unit costs started dominating price developments. Notably, the growth in mark-ups in Finland seems to be clearly stronger than in the other euro area countries.

53. The distribution of gains from market power does not necessarily show up as high mark-ups, but can also dissipate in higher wages. Jean and Nicoletti (2002) find that product market conditions appear to be important determinants for wage *premia* (Table A1). Among the euro area countries for which data is available, wage *premia* are estimated to be comparatively high in Greece, mainly due to relatively high *premia* in fragmented low-R&D industries (*e.g.* food, textiles, apparel and leather). Segmented low-R&D industries (*e.g.* tobacco, coke and petroleum products) provide their workers with relatively high wage *premia* in Austria, Greece and Spain. Outside manufacturing, wage *premia* tend to be notably higher than the international norm in air transport in Italy and in the energy sector (electricity and gas) in Spain. Overall, they find that labour market rents in the form of wage *premia* are relatively higher where regulations restrict competition most and that product market competition tends to curb wage differentials.

Table A1. Estimated industry wage premia[1]

	EURO[2]	USA	EURO[2]	USA	
MANUFACTURING					**NON-MANUFACTURING**
Fragmented low R&D					**Utilities and transport**
Textiles	-0.12	-0.09	0.16	**0.28**	Electricity and gas
Wearing apparel	-0.19	**-0.21**	0.09	**0.13**	Water
Leather	-0.21	**-0.15**	0.00	0.03	Land transport
Wood	-0.07	-0.08	0.16	0.05	Water transport
Pulp and paper	0.04	0.08	0.15	**0.11**	Air transport
Printing and publishing	0.07	-0.03	-0.05	0.01	Auxiliary transport activities
Non-metallic mineral products	0.01	-0.01	0.07	**0.14**	Post and communications
Fabricated metal	-0.04	-0.02			
Segmented low R&D					**Other**
Food and beverages	0.00	-0.07	-0.02	**0.13**	Construction
Tobacco	0.17	**0.26**	-0.08	**-0.13**	Sale, repair of motor vehicles
Coke, petroleum products	0.32	**0.19**	0.01	-0.07	Wholesale trade
Rubber and plastics products	-0.02	-0.02	-0.12	**-0.18**	Retail trade
Basic metals	0.07	**0.10**	-0.18	**-0.24**	Hotels and restaurants
Fragmented high R&D					
Machinery and equipment	0.01	**0.08**			
Instruments, watches, clocks	-0.01	**0.11**			
Segmented high R&D					
Chemicals	0.12	**0.10**			
Office machinery	0.07	0.09			
Electrical machinery	0.02	0.06			
Radio, television	0.06	**0.14**			
Motor vehicles	-0.01	**0.20**			
Other transport equipment	0.08	**0.21**			

1. Results of first-step regressions. In logarithm, compared to the economy-wide, employment weighted, average wage. The data concern the period 1994 for France, 1995 for other euro area countries, and 1998 for the United States; ISIC Rev.3 classification. The parameters in **bold** are significant at the 10 per cent level. Parameter estimates of an industry dummy variable in a wage equation where other regressors include employee and employer characteristics.
2. Simple average of data available for Austria, Belgium, France, Greece, Ireland, Italy and Spain.

Source: Jean, S. and G. Nicoletti (2002) and OECD (2002h).

54. Market power may also be detected in indicators of market structure. Thus, concentration indicators and indicators of openness to trade can be helpful in identifying areas where product market competition is weak. Table A2 shows concentration for separate industries, based on fragmentation and R&D effort, and finds relatively high concentration in all clusters in Finland.[1] It is also comparatively high in the fragmented low-R&D industries in Belgium and in both fragmented and segmented high-R&D industries in Sweden. The comparatively higher concentration levels in these cases may signal problems with competition. In non-manufacturing, concentration levels are also very high in the utilities sectors. Of particular note are the concentration levels in Italy in electricity and gas, post and telecommunications that are systematically and substantially higher than in other countries.

Table A2. Hirschman-Herfindahl indices of industry concentration[1]

In selected industries

	AUT 1997	BEL 1997	FIN 1997	ITA 1996	EURO[2]	SWE 1999	GBR[3] 2000	JPN 1999	USA[4] 1997
MANUFACTURING									
Fragmented, low R&D									
Food products	26	31	150	31	59	131	27	2	3
Textiles	88	54	443	7	148	125	19	3	7
Wearing apparel	131	493	341	14	245	244	29	4	9
Leather products	553	2 566	263	22	851	360	134	46	65
Wood products	58	87	167	4	79	76	16	5	4
Paper and pulp products	160	185	352	75	193	218	79	23	14
Publishing and printing	49	40	99	43	58	39	14	18	3
Segmented, low R&D									
Beverages	226	595	2 064	69	738	1 428	..	40	192
Rubber products	790	745	775	291	650	515	..	75	..
Glass products	440	430	1 154	153	544	675	..	105	..
Basic metals	170	299	739	94	326	352	112	46	29
Non-ferrous metals	..	1 059	2 372	280	1 237	517	..	65	..
Shipbuilding and repairs	1 707	242	1 422	646	1 004	249	..	178	..
Fragmented, high R&D									
Machinery and equipment	43	96	98	12	62	70	17	8	8
Medical appliances	..	76	269	31	125	321	43	48	..
Other manufacturing	86	..	178	14	93	233	..	34	11
Segmented, high R&D									
Coke and petroleum products	..	1 083	..	1 127	1 105	917	..	220	76
Chemicals products	207	75	284	44	153	375	44	15	14
Drugs and medicines	490	551	2 175	137	839	2 042	..	51	..
Office and computing machinery	792	387	..	2 208	1 129	367	285	84	18
Electrical machinery	92	209	323	26	163	129	31	22	14
Motor vehicles	476	363	429	238	377	446	90	49	24
Other transport equipment	553	903	753	297	627	663	117	109	..
NON-MANUFACTURING									
Electricity and gas	181	889	154	976	550	156	..	..	..
Post and telecommunications	230	608	559	1 957	839	653	106	..	..

1. European countries are based on enterprise data; Japan and the United States are based on establishment data.
2. Simple average of data appearing in the table.
3. Food products include beverages; leather products include footwear; medical appliances include optical instruments, watches and clocks.
4. Beverages include tobacco and motor vehicles include other transport equipment.

Source: OECD (2002h).

55. The market presence of foreign firms or openness to international trade may also affect the degree of competitive pressure. However, what matters most for market forces may not be only actual competition in the market but also potential market entry. Penetration rates may also reflect industry-specific characteristics unfavourable to international trade, *e.g.* high transport costs for goods with a low value per ton or the presence of highly competitive domestic firms. The aggregate import penetration rate varies considerably across euro area countries, from a high of above 40 per cent of total demand in Belgium and Ireland. The average level in manufacturing is at 29 per cent when intra

area trade is included, but for the area as a whole the ratio is considerably lower at 17 per cent (Table A3). While the extra-border trade measure is somewhat below the comparable ratio of 20 per cent in the United States, it is clearly above the 9 per cent observed in Japan. At the industry level, import penetration would appear to be lower in the low-R&D sectors, whether segmented or not. However, measured against the United States the segmented low-R&D sectors are roughly at the same level, and only a few sectors (wearing apparel, and leather, leather products and footwear) have lower import penetration. Based on more detailed numbers, import penetration would appear to be low in fragmented sectors in Finland and Italy, in low-R&D fragmented sectors in Spain, and in high-R&D fragmented sectors in Germany. Import penetration rates are also comparatively low in segmented low-R&D industries in Spain, and in segmented high-R&D industries in Germany and Italy.

Table A3. Import penetration

Imports as a percentage of the sum of production and imports, latest year of data available[1]

	ISIC Rev.3 code	Euro area[2]		United States	Japan
		Total	Excluding intra-zone imports		
Total manufacturing	15-37	29.4	17.1	20.0	9.2
Segmented, high R&D		37.6	22.7	28.0	9.4
Chemicals and chemical products	24	35.7	18.5	17.0	9.4
Office, accounting and computing machinery	30	73.5	65.6	47.2	21.1
Electrical machinery and apparatus, nec[3]	31	28.6	18.4	35.2	9.2
Radio, television and communication equipment	32	47.8	38.7	31.0	10.9
Motor vehicles, trailers and semi-trailers	34	31.1	12.5	31.9	2.8
Fragmented, high R&D		30.4	19.2	23.2	8.8
Medical, precision and optical instruments	33	42.0	32.2	17.8	29.9
Machinery and equipment, nec[3]	29	28.4	15.7	20.6	5.2
Furniture; manufacturing, nec[3]	36	27.7	19.5	34.7	8.4
Segmented, low R&D		23.5	11.6	11.0	8.8
Coke, refined petroleum products and nuclear fuel	23	21.8	12.4	17.2	11.4
Basic metals	27	36.3	21.4	19.7	6.6
Rubber and plastic products	25	24.5	11.0	10.9	2.8
Food products, beverages and tobacco	15-16	17.6	7.2	5.9	10.4
Fragmented, low R&D		20.9	11.8	15.1	9.8
Textiles	17	31.6	19.1	24.6	29.3
Wearing apparel, dressing and dying of fur	18	38.8	31.6	50.7	26.3
Leather, leather products and footwear	19	36.9	26.0	73.2	50.7
Wood and products of wood and cork	20	19.0	11.6	12.3	23.6
Pulp, paper and paper products	21	28.0	13.5	9.6	4.7
Printing and publishing	22	8.4	3.2	2.4	1.6
Other non-metallic mineral products	26	13.5	5.4	12.7	4.0
Fabricated metal products except machinery and equipment	28	13.5	6.2	8.4	3.1

1. 2000 for the euro area and Japan, 2001 for the United States.
2. Calculated using 1999 data for Portugal, and excluding Ireland and Luxembourg.
3. Nec: not elsewhere classified.

Source: OECD, STAN and ITS databases, April 2003; and OECD calculations.

Pulling results together

56. The indicators presented in this section suggest some areas of potential weakness with product market competition in euro area countries that may undermine their macroeconomic performance. On the basis of the economy-wide indicators on relative price levels and adjusted import penetration, Finland would appear to show signs of weak competition. This assessment is supported by the sectoral-based indicators benchmarked on international averages, where Finland also appears to have weak competition in all sectors except in segmented low-R&D industries. The sectoral indicators also point to potential weaknesses with competition in R&D intensive industries in Germany. Moreover, there are some indications of weak market forces in fragmented low-R&D industries in Italy and in segmented low-R&D industries in Spain. Moreover, concentration is high in most utility industries.

Note

1. Fragmented market structures are characterised by small firms and low sunk costs and entry barriers. In these industries the number of firms typically grows in line with the size of the market. Segmented market structures on the other hand are characterised by large average firm sizes and significant entry barriers associated with high sunk costs (Oliveira Martins *et al.*, 2002).

WORKIN **WORKING PAPERS**

The full series of Economics Department Working Papers can be consulted at www.oecd.org/eco/Working_Papers/

377. *Reforming the Public Expenditure System in Korea*
(December 2003) Young-Sook Nam and Randall Jones

376. *Female Labour Force Participation: Past Trends and Main Determinants in OECD Countries*
(December 2003) Florence Jaumotte

375. *Fiscal Relations Across Government Levels*
(December 2003) Isabelle Joumard and Per Mathis Kongsrud

374. *Health-Care Systems: Lessons from the Reform Experience*
(December 2003) Elizabeth Docteur and Howard Oxley

373. *Non-Tariff Measures Affecting EU Exports: Evidence from a Complaints-Inventory*
(December 2003) Peter Walkenhorst and Barbara Fliess

372. *The OECD Medium-Term Reference Scenario: Economic Outlook No. 74*
(November 2003) Peter Downes, Aaron Drew and Patrice Ollivaud

371. *Coping with Ageing: A Dynamic Approach to Quantify the Impact of Alternative Policy Options on Future Labour Supply in OECD Countries*
(November 2003) Jean-Marc Burniaux, Romain Duval and Florence Jaumotte

370. *The Retirement Effects of Old-Age Pension and Early Retirement Schemes in OECD Countries*
(November 2003) Romain Duval

369. *Policies for an Ageing Society: Recent Measures and Areas for Further Reform*
(November 2003) Bernard Casey, Howard Oxley, Edward Whitehouse, Pablo Antolin, Romain Duval, Willi Leibfritz

368. *Financial Market Integration in the Euro Area*
(October 2003) Carl Gjersem

367. *Recent and Prospective Trends in Real Long-Term Interest Rates: Fiscal Policy and Other Drivers*
(September 2003) Anne-Marie Brook

366. *Consolidating Germany's finances: Issues in public sector spending reform*
(September 2003) Eckhard Wurzel

365. *Corporate Taxation of Foreign Direct Investment Income 1991-2001*
(August 20030) Kwang-Yeol Yoo

364. *Indicator Models of Real GDP Growth in Selected OECD Countries*
(July 2003) Franck Sédillot and Nigel Pain

363. *Post-Crisis Change in Banking and Corporate Landscapes – the Case of Thailand*
(July 2003) Margit Molnar

362. *Post-Crisis Changes in Banking and Corporate Landscapes in Dynamic Asia*
(June 2003) Margit Molnar

361. *After The Telecommunications Bubble*
(June 2003) by Patrick Lenain and Sam Paltridge

360. *Controlling Public Spending in Iceland*
(June 2003) Hannes Suppanz

359. *Policies and International Integration: Influences on Trade and Foreign Direct Investment*
(June 2003) Giuseppe Nicoletti, Steve Golub, Dana Hajkova, Daniel Mirza, Kwang-Yeol Yoo

358. *Enhancing the Effectiveness of Public Spending in Finland*
(June 2003) Philip Hemmings, David Turner and Seija Parviainen

357. *Measures of Restrictions on Inward Foreign Direct Investment for OECD Countries*
(May 2003) Stephen S. Golub

356. *Tax Incentives and House Price Volatility in the Euro Area: Theory and Evidence*
(May 2003) Paul van den Noord

355. *Structural Policies and Growth: A Non-technical Overview*
(May 2003) Alain de Serres

354. *Tax Reform in Belgium*
(May 2003) David Carey

353. *Macroeconomic Policy and Economic Performance*
(April 2003) Pedro de Lima, Alain de Serres and Mike Kennedy

352. *Regulation and Investment*
(March 2003) Alberto Alesina, Silvia Ardagna, Giuseppe Nicoletti and Fabio Schiantarelli

351. *Discretionary Fiscal Policy and Elections: The Experience of the Early Years of EMU*
(March 2003) Marco Buti and Paul van den Noord

350. *The US Health System: An Assessment and Prospective Directions for Reform*
(February 2003) Elizabeth Docteur, Hannes Suppanz and Jaejoon Woo

349. *The Effectiveness of Public Expenditure in Portugal*
(February 2003) Chiara Bronchi

348. *Comparative Analysis of Firm Demographics and Survival: Micro-Level Evidence for the OECD Countries*
(February 2003) Eric Bartelsman, Stefano Scarpetta and Fabiano Schivardi

347. *Regulation, Productivity and Growth: OECD Evidence*
(January 2003) Giuseppe Nicoletti and Stefano Scarpetta

346. *Public Expenditure Management in Poland*
(December 2002) Andrew Burns and Kwang-Yeol Yoo

345. *Enhancing the Effectiveness of Public Expenditure in Sweden*
(December 2002) Deborah Roseveare

344. *The Decline in Private Saving Rates in the 1990s in OECD Countries: How Much Can Be Explained by Non-Wealth Determinants*
(November 2002) Alain de Serres and Florian Pelgrin

343. *Enhancing the Effectiveness of Public Expenditure in Norway*
(October 2002) Isabelle Joumard and Wim Suyker