ECONOMIC POLICY COMMITTEE

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Annual Report on Structural Reforms 2001

– Report addressed to the Council and the Commission –

Content

Preface

The present report is the third report on structural reforms prepared by the Economic Policy Committee. It summarises the results of an annual country by country examination of economic policies which the Committee is asked to carry out according to its statutes.[1]

The country examinations are a peer review exercise focussing on progress made in the structural reform of product, capital and labour markets and long-term public finances. They take a comprehensive look at the whole reform process, provide "benchmarking" comparisons between countries, give examples of "good practice" and evaluate to what extent Member States have implemented the country specific recommendations which have been addressed to them in the Broad Economic Policy Guidelines (BEPGs).

The peer review exercise incorporates the "Cardiff process" for monitoring economic reform in Member States, which the Ecofin-Council launched on 1 May 1998 in order to improve the functioning of product and capital markets in the Community. The national reports on structural reforms and the Commission's Cardiff report[2] are therefore an essential basis for the examinations. In this context, valuable support and advice has also been provided by the Working Party on the Internal Market (Horizontal Questions).

The country examinations also assess the performance of Member States' labour market policies which are an essential part of the overall economic policy framework. Building on the joint analysis prepared in the framework of the Luxembourg process and as reflected in the Joint Employment Report and the Employment Guidelines, the examinations focus on those policy areas where the interaction with other areas of economic policy making and the overall economic performance is highest, e.g. the reforms of tax benefit systems.

As in previous exercises, the Committee has paid particular attention to a number of priority subjects. The topics chosen this year reflect the new strategic objectives agreed by the Heads of State or Government at the special European Council in Lisbon. Accordingly the Committee has focused on: policies to facilitate the transition to a knowledge-based society; reforms of tax-benefit systems; structural reforms and benefits for citizens/consumers. Separate annexes are devoted to these priority subjects.

By looking at a wide range of economic policy areas and by evaluating the implementation of the BEPGs, the examinations and the present report contribute to the preparation of the multilateral surveillance by the Council according to Article 99 (3) of the Treaty. The conclusions of the examinations as reflected in this report are also supposed to help the Commission and the Council in the preparation and the adoption of the new set of BEPGs which form the centre of economic policy coordination within the European Union.

This year's peer review exercise was carried out in a working group of the EPC under the Chairmanship of Per Callesen. It involved all 15 Member States, the European Central Bank and the European Commission which provided substantial analytical input and support for the working group. The present report is the key output of the examinations. It was adopted by the EPC on 1 March 2001 and submitted to the Ecofin Council for transmission to the Heads of State or Government for their Stockholm meeting.

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1 See Council Decision of 29 September 2000 on the composition and the statutes of the Economic Policy Committee (2000/604/EC); OJ L 257, 11.10.2000, p. 28

2 The national reports and the Commission Cardiff report can be found on the website of the Economic Policy Committee: http://europa.eu.int/comm/economy_finance/epc/index_en.htm

1. Key messages from the EPC country reviews, 2001

The special European Council in Lisbon on "Employment, economic reform and social cohesion – towards a Europe of innovation and knowledge" showed a strong commitment among all Member States on the objectives as well as the means to achieve improved economic structures, which are essential to sustainable growth and higher living standards, employment and social inclusion. All factors that will contribute to increased benefits for consumers and citizens. The Council called for strengthened effort to speed up comprehensive structural reforms, based on parallel actions in the areas of employment, innovation and research, economic reforms on product and capital markets and social cohesion and using structural indicators to monitor progress.

The EU strategy is well developed with the Broad Economic Policy Guidelines at the centre. The processes fostering reform in different policy areas - the Cardiff, Luxembourg and Cologne processes - together with the Lisbon strategy form a comprehensive entity of assessment, learning and recommendations. The 3rd annual country review undertaken by the Economic Policy Committee confirms that Member States have made good progress in the implementation of structural reform in recent years. These reforms have improved the conditions necessary to sustain the growth and employment performance of the Union, and as a result the framework conditions for better social inclusion. In the course of this year's review, the use of structural indicators proved to be very useful. In the future, these agreed indicators should be used even more intensively.

Despite the advances made by Member States in reforming their economies, much remains to be done, in particular with respect to:

1. Ensure effective competition and the completion of the internal market
2. Improve the ability of benefit systems and of labour market regulations and institutions to facilitate high employment
3. Improve the quality and efficiency of public regulation, administration and services
4. Speed up the transition to the knowledge-based society

Progress in the implementation of structural reform

Progress in reforms of product and capital markets has provided direct benefits for citizens and consumers such as reduced prices, better information and lower administrative burdens, while universal service obligations have been maintained. Positive results are now showing at an accelerated speed in sectors where the liberalisation process is most advanced such as telecommunication and to some extent electricity, although the speed of new measures has decreased somewhat. Good progress has been made with respect to the implementation of single market legislation, and administrative burdens have been reduced. Less progress has been made with respect to improving public procurement rules and opening the markets for natural gas, transport, postal services and other network industries.

Efforts have been made to improve the framework conditions needed to facilitate the transition to the knowledge-based society. Measures taken include national action plans along with the eEurope Action Plan, enforcement of competition to ensure lower prices for the access and use of the Internet, establishing regulatory framework for e-commerce and e-signatures, addressing the lack of ICT-personnel, more supportive conditions for R&D and university-business interaction. Yet much remains to be done. Even if investment and the penetration of ICT have grown rapidly, the level is still low in many countries. More efforts are also required to increase the quality of human capital and the level of R&D.

Very few steps have been taken to address problems in benefit systems, labour market regulations and institutions in order to improve the structural conditions needed for lower unemployment and higher labour force participation. Some steps have even gone in the other direction. The dualism in terms of insiders and outsiders, between regions, occupations, gender and age has not yet been strongly addressed. Labour market conditions are particularly challenging with respect to participation and unemployment rates for the 50-64 year olds and women.

During 2000, tax reforms dominated the agenda in many Member States, the aim being to reduce marginal tax rates for earned income and make tax systems more employment friendly. The structural effects of these reforms with respect to growth and employment are positive and beneficial. The cyclical and budgetary effects need to be assessed and followed up with careful considerations for inflationary pressures, the medium-term requirements of the Stability and Growth Pact and the long-term sustainability of public finances, acknowledging the different positions of Member States.

In the previous years substantial pension reforms took place in a few Member States. In 2000 some further steps were taken in other Member States to alleviate the pressures arising from future demographic changes involving stagnating working age populations and a growing number of elderly citizens. Yet most Member States still need to develop comprehensive strategies to cope with the long-term public finance challenge of ageing.

The need for further structural reform

The process of economic reforms needs to be taken further and sustained in the forthcoming years if all potential benefits for citizens are to be reaped, and if the high ambitions of the Lisbon European Council are to be met. The present favourable macroeconomic conditions provide no room for complacency with respect to structural reforms. On the contrary they should be seen as a window of opportunity to reinforce the efforts of structural reform, thereby providing positive interactions between structural and macroeconomic conditions.

Continuous growth- and stability-oriented macroeconomic policies including price stability, appropriate wage developments and solid public budget positions constitute the foundation for further reform efforts. However, despite high unemployment in many countries and regions and relatively slow overall productivity growth, the emergence of skill-shortages and labour market pressures show that large structural problems remain and need to be solved. To meet these challenges, productivity and labour supply must be increased.

Positive effects will only materialise if the political commitment to structural reforms is translated by Member States into direct and specific action. The country review process has identified the following areas of structural reform where further action is particularly required:

1. **Ensure effective competition and completing the internal market**
   Stronger measures are needed in product and capital markets to ensure effective competition and the full benefits for consumers. The opening of markets needs to be speeded up in network industries such as electricity, gas, railways, transport, postal services and other network industries. There is a need to ensure increased competition

in already liberalised network industries, as well as in sectors such as business services. The role of competition authorities should be strengthened, their effective independence secured and the cooperation at Community level strengthened. The financial supervisory authorities need to cooperate as mergers continue across activities and countries.

2. **Improve the ability of benefit systems and of labour market regulations and institutions to facilitate high employment**
   The process of tax reforms needs to be continued, in particular with respect to reducing high effective marginal tax rates generated by the interaction between taxes and means-tested benefits. However, tax measures alone will not be sufficient to provide further substantial increases of employment and participation rates. Reforms of benefit systems (including duration, eligibility and enforcement) as well as labour market regulations and institutions have to be addressed in this respect. Education, training, life-long learning and better child-care facilities should address skill-shortages, better inclusion and equal opportunities. In particular Member States need a coherent strategy to make later retirement attractive through further reforms of all kind of early retirement schemes and pension systems and by enhancing life-long-learning. Increased efforts are needed to prevent people from having to enter sickness or disability schemes and improve incentives and opportunities for people in these systems to be reintegrated in the labour markets. More efforts are needed to address large regional unemployment differences. These include measures to increase capital and labour mobility, within and between Member States. At the same time, wage formation processes should be allowed to more adequately reflect differences in productivity.

3. **Improve the quality and efficiency of public regulation, administration and services**
   There is a strong need to further reduce the administrative burden and barriers for business, introduce simpler and more transparent procedures, one-stop shops, faster and easier business start-ups and the simplification of business tax systems. The quality and efficiency of the public administration and provision of services for citizens also needs to be improved. Among the remedies are better management, benchmarking, systematic evaluations, the use of new technologies and exposure to competition.

4. **Speed up the transition to the knowledge-based economy**
   To further facilitate the transition to the knowledge-based society, government action must in particular be taken in the following areas. First, the regulatory framework for digital transactions must be implemented and strengthened, in particular with respect to e-commerce and electronic signature directives, to expand the use of ICT. Second, skills and qualifications need to be improved addressing both the lack of highly qualified ICT personnel and the basic skills of populations to improve social inclusion. Third, stronger knowledge formation and innovation must be achieved by stimulating especially the private sector's engagement in R&D as well as improving university-business links.

Specific conclusions from the country review process

The country review process focuses on structural reform of goods, services, capital and labour markets as well as long-term public finances and the interaction between structural reform and macroeconomic policies. As in previous years particular attention has been paid to selected priority subjects. This year's topics are 1) policies to facilitate the transition to the knowledge-based society, 2) reforms of tax-benefit systems to promote employment, and 3) structural reforms and benefits for citizens and consumers. With respect to labour markets the review focused on tax-benefit issues and reforms of labour market regulations and institutions, acknowledging the comprehensive examination of other labour market issues within the Luxembourg process.

Goods and services markets

- Member States have made progress in the transposition of *single market directives*, and formalised procedures have been established in a number of countries. Yet some Member States must improve their record. Opening *public procurement* to competition is only progressing gradually, and despite some measures being introduced there is little evidence of notable effects.

- *Reductions of the overall levels of state aid* are continuing, and aid is gradually being redirected towards horizontal objectives. However, some Member States should make an effort to reduce, in particular, aid to specific sectors.

- Most Member States have now brought *national competition laws* in line with Community rules and increased the powers of competition authorities. The emphasis should now be on ensuring effective monitoring and enforcement, and it should be recognized that the diffusion of ICT creates new possibilities for collusion. The challenge of competition policy is now changing to one of targeted action to address problems of competition identified in specific sectors. Many Member States have thus *reported a lack of competition* in sectors such as construction and retail trade, and business services are still characterised by restrictive entry barriers.

- Reforms aiming at higher quality and efficiency of *public services* in areas such as education and health are being made in all Member States. Yet progress appears generally to be modest. Key areas to be developed include better management, benchmarking, systematic evaluations, use of new technologies, private sector involvement and exposure to competition.

- Several Member States have recently presented *long-term investment plans* to reverse a downward trend in public investment. Transport and communications infrastructure and education feature high on the agenda. *Public-private partnerships* are expected to contribute to the realisation of the investment plans. A closer cooperation between the public and the private sectors should not be allowed to lead to less competition.

- Benefits from the liberalisation of *telecommunications* have already materialised in terms of lower prices, a wider choice of products and higher quality. To bring this positive development further, most Member States are in the process of securing unbundling of the local loop and enforcing the regulation of access charges to the fixed networks. Stronger competition is also to be expected from cable companies and the next generations of wireless telecommunication, following the issuing of new licenses in most Member States.

- In *energy sectors*, EU directives have been incorporated into national legislation in most Member States and the opening of markets is progressing. Yet the pace of liberalisation could be accelerated in many Member States. Efforts are still required to ensure effective competition in these markets, and at the EU level measures are needed for the full completion of a European energy market without borders.

- A few initiatives increasing competitive pressure have been taken by different Member States in *other network industries,* including postal services, railways and other public transport. Efforts are required to introduce market-based mechanisms in the supply of public utilities. Despite the challenges, experiences of some Member States show that opening these markets to competition is possible and, when properly handled, does not compromise universal service obligations.

- *Privatisation* of state-owned companies continues gradually, in particular in Member States where state ownership historically has been high. Making markets contestable where state enterprises used to have monopolies is important to ensure an equal playing field.

- Important initiatives to reduce, simplify and assess *administrative burdens on enterprises* have been introduced in all Member States. These initiatives need to be followed up strongly. A variety of measures have been implemented to encourage *entrepreneurship and support SMEs*, including reductions in tax burdens. Some Member States have changed bankruptcy laws with a view to give entrepreneurs a second chance.

Benefits for consumers and citizens

- The overriding objective of structural reform is to *secure benefits for consumers and citizens* through more employment opportunities, lower prices and a greater variety of products. Firm and efficient legislation is required to ensure that public service obligations are satisfied, that sufficient transparency is available and that transactions can be performed safely from the point of view of the consumer. Competition policy may therefore be regarded as an important element of overall *consumer policy.*

- Consumer policy does also, however, include aspects such as *product safety.* Several Member States has thus taken measures to strengthen food safety in 2000.

- The *diffusion of ICT* will facilitate information, transparency and competitive pressures in the interrelationship between consumers and businesses and support the development of e-commerce. Policy may need to address the risk of a digital divide as e-commerce becomes increasingly widespread. Most Member States have progressed by developing e-government, which will also benefit citizens.

- To *increase consumer confidence in financial markets*, Member States are generally promoting measures to increase transparency such as, e.g., stricter requirements for disclosures of listed companies, improved protection of minority share holders and better corporate governance practices.

Capital markets

- *Financial market integration* is increasing, but more efforts should be made by Member States to accelerate the Commission's financial services and risk capital action plans.

- Several Member States have changed financial regulation and are creating unified *financial regulators* or enhancing coordination between existing regulators. Coordination among national financial regulators should be further strengthened to meet the challenges posed by the integration of the EU financial system, and Member States should carefully assess the consequences of increasing concentration in financial services. The process of *stock exchange mergers* and increased cooperation between stock exchanges has continued through 2000.

- *Venture capital markets* have been buoyant in most Member States during 1999 and early 2000, supported partly by expanding new markets for high-tech companies. While the supply of risk capital is adequate in many countries, there could appear to be problems with the supply of early-stage financing especially for SMEs as well as competent capital, which in addition to finance brings other competencies to entrepreneurs. Emphasis should be put on establishing the right framework conditions for risk capital, eliminating, e.g., inappropriate barriers in existing regulation.

- *Favourable developments in capital markets* are in several Member States partly explained by, e.g., reforms of public pension systems and reduced restrictions on the composition of the portfolios of pension funds.

Labour markets and tax-benefit systems

- *Skill-shortages and bottlenecks* are emerging in several Member States, and wage pressures appear to be building in some. This highlights the importance of continued efforts, by governments, social partners and companies, to forcefully continue reforming labour markets, increase employment and participation rates and upgrade human capital through education and life-long learning.

- A majority of Member States have initiated *tax reforms*, aimed at reducing the taxation of earned income, in particular for low incomes, and making tax systems more employment friendly. This is welcomed from a structural point of view, but needs to be assessed and followed up by careful consideration of inflationary pressures and the long-term sustainability of public finances. Reductions in income tax rates are partly financed through increases in indirect taxation and by broadening tax bases.

- Progress has been much less pronounced in reforms of unemployment and other *benefits systems, labour market regulation and institutions*, and some measures work in opposite directions. Some Member States began to tackle the unemployment trap issue by adjusting some means-tested benefits that were previously exclusively granted to the unemployed. Labour market flexibility has also increased in some Member States due to strong developments in the number of atypical job contracts, possibly with the side effect of slowing down somewhat the decline in labour market segmentation.

- Assessment of the effective impact of tax-benefit reforms is to some extent hampered by *lack of timely and systematic information*, covering, e.g., effective marginal and average tax rates and net replacement rates for all population segments. The Commission and the EPC should continue their work on data availability and exchange of good practices.

- In all Member States more efforts are needed to *increase employment rates* in specific segments of labour markets. Regional differences in unemployment have thus become a priority problem in several countries, and disproportionately high unemployment rates among females, youth, older workers and ethnic minorities exist in most countries. A wide range of measures is required to make employment more evenly distributed, including ensuring sufficient flexibility in wage formation, strengthened regional development policies, access to child-care facilities, education and life-long learning as well as active ageing policies.

- Work on improving *active labour market policies* has continued, but much remains to be done to make them more efficient and well focused.

- Some Member States have in recent years made substantial progress in *reforming pension systems*, and a few followed in 2000. However, to meet the challenge of ageing populations most Member States should continue efforts to establish a coherent strategy including sustainable fiscal consolidation, increased participation of elderly workers, and a review of institutional features of pension systems. The EPC is presently working on this subject.

Policies to promote the transition to the knowledge-based society

- The Lisbon Council established a set of targets for the European transition to the knowledge-based society. The *eEurope action plan* has been followed by similar national plans in most Member States.

- Most Member States have introduced new initiatives to *strengthen overall R&D* efforts. The initiatives include stronger public sector research, tax-breaks for private sector R&D and measures to facilitate the cooperation between public and private sectors. Most Member States have a shortfall in private sector R&D and an insufficient commercialisation of R&D output. The development of strong human capital is the most important framework condition to facilitate R&D because a demand stimulus alone may risk a reallocation and reclassification of scarce resources.

- The *diffusion of ICT* varies considerably among Member States, although growth has been impressive in all Member States in 2000. Yet efforts are required to ensure that barriers are removed, e.g. by lowering the cost of internet access through increased competition in telecommunications.

- One important task of governments is to avoid social exclusion in the knowledge-based society, and ensuring *access to ICT* by students at all levels is central to the policies of all Member States, although the targeted timetable could be more ambitious in some.

- Another important area is to facilitate extensive use of ICT. Many Member States are thus in the process of establishing *regulation for e-commerce* and securing the legal basis for use of electronic signature.

- Alleviating the *lack of personnel with relevant ICT skills* is a major challenge for Member States in the shorter term, while in the longer term a *general upgrading of skills* will be crucial for achieving the full benefits of ICT and preventing social exclusion.

- While governments must support the diffusion and use of ICT by creating the right framework conditions, there is a need to monitor developments closely. An overly activist approach by Member States supporting specific sectors such as ICT-production might entail a risk of distorting markets and waste of resources.

2. Challenges for structural reform

2.1. Recent developments and challenges in the near future

The development of growth and employment in the European Union has been encouraging since the mid-1990s from both a cyclical and structural point of view. In particular the rate of unemployment has decreased significantly, albeit from a high level, while wage increases remained moderate and price increases were contained with the exception of certain items such as energy and unprocessed food, which have shown an upward trend, *cf. figure 2.1*.

These combined observations suggest an important reduction in structural labour market problems and thus an increase in the overall productive capacity. Emerging skill shortages in most countries and more general labour market pressures in some countries also suggest that a significant cyclical slack of the economies is no longer present.

Figure 2.1a. The labour market, EU-15

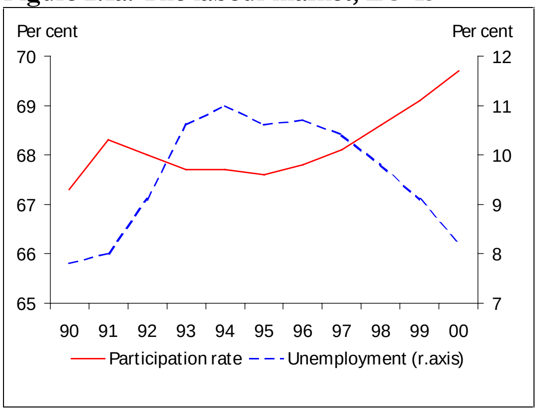
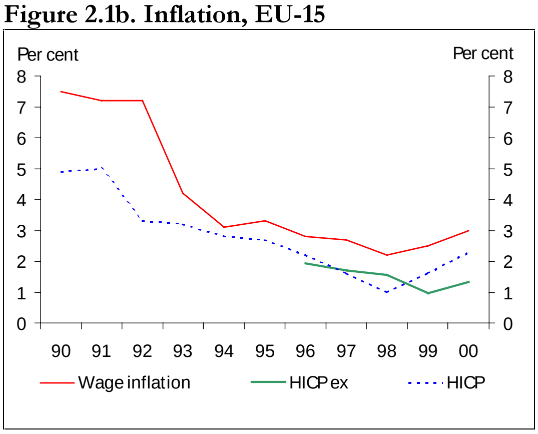


Figure 2.1b. Inflation, EU-15



Note: HICP ex is HICP excl. energy and unprocessed food.
Source: Commission Services and OECD, *Economic Outlook No. 68*.

The rate of labour productivity growth has been less encouraging considering the second half of the 1990s as a whole, *cf. table. 2.1*, even if this undoubtedly to some extent reflects a larger take up of jobs by low skilled workers with below average productivity.

Table 2.1. Growth performance in recent years, EU-15

	1995	1996	1997	1998	1999	2000
Productivity[1]......................	1.7	1.0	1.7	1.2	0.8	1.8
Employment	0.7	0.6	0.9	1.6	1.6	1.6
GDP	2.4	1.6	2.5	2.7	2.5	3.4

1) GDP per person employed. Total economy.
Source: Commission Services.

The factors behind the improvements in growth and employment are in particular:

- The decisive fiscal consolidation efforts which in most countries were reinforced by the preparation for the euro and the Stability and Growth Pact. This contributed to low interest rates, lower interest burdens and more sustainable budget positions.
- Wage developments consistent with productivity growth and job creation, which contributes to a balanced macroeconomic policy mix, backed by the Cologne process.
- The introduction of the euro, which prevents repetition of earlier experiences of financial and currency market turmoil in individual countries, together with the

provision of stable inflationary expectations in the entire euro area by the ECB's monetary policy.

- The continuing implementation of structural reforms in product, capital and labour markets, backed by the Luxembourg and Cardiff processes.

For the Union as a whole the present macroeconomic situation is fairly well balanced, allowing economic activity to grow in line with potential growth. The prospect of a less supportive international demand for exports should be manageable, considering the Union's primary reliance on domestic demand, whereas the potentially negative financial market implications are a concern.

The major challenges in the near future are to:

- Maintain macroeconomic policies in favour of price stability, growth and employment.
- Shift and reinforce the focus in labour market policies from demand to supportive supply measures.
- Address the different cyclical positions of countries within the euro-area, relying not only on market-based adjustments of aggregate price and wage movements but also by designing appropriate fiscal and structural policies.

There is not a strong relationship between the rate of unemployment and the rate of inflation across Member States, *cf. figure 2.2*. This suggests that differences in unemployment rates are explained mostly by differences in labour market structures.

Figure 2.2a. Unemployment rates, 2000[1]

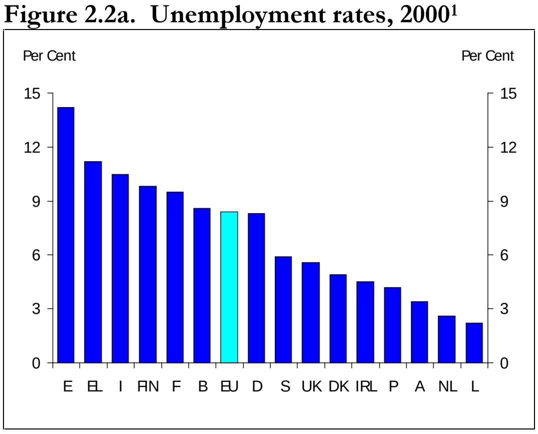
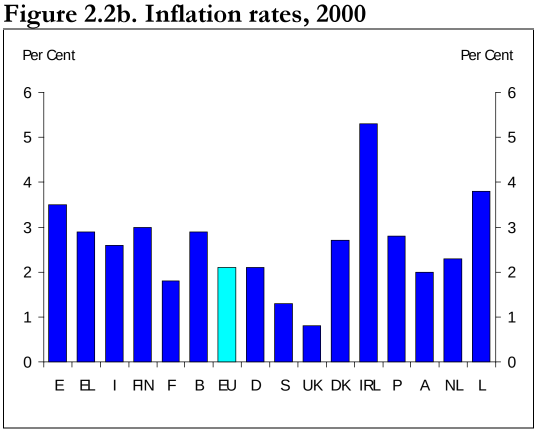


Figure 2.2b. Inflation rates, 2000



1) Estimated values.
Source: Eurostat.

Measures to speed up structural reform in product and capital markets, especially with respect to creating more innovative and competitive markets in problem areas, would in addition to their beneficial long-term effects also improve short-term developments.

In summary, the present favourable macroeconomic conditions offer both a need and an opportunity to accelerate the process of structural reforms fostering positive interaction effects between macroeconomic and structural policies.

2.2. Structural challenges in the medium and long term

The special European Council in Lisbon agreed on the objective for Europe to become the most competitive and dynamic knowledge-based economy in the world, capable of sustainable economic growth with more and better jobs and greater social cohesion. This includes raising the overall employment rate from an average of 63 per cent today to 70 per cent by 2010, and raising the female employment rate from 51 per cent today to more than 60 per cent by 2010.

Despite the encouraging growth and employment developments in recent years, several medium and long-term major structural challenges need to be addressed to meet the Lisbon objectives, in particular:

- High levels of structural unemployment and inactivity rates in most countries, and labour market segmentation with respect to regions, gender, age, skill levels and ethnic minorities as reflected by disproportionately large differences in unemployment rates.
- Insufficient preparation for the long-term public finance challenge of ageing
- Only moderate increases in overall productivity and the speed of transition to the knowledge-based economy

Whereas unemployment rates have become low in one half of the, mostly smaller, Member States, the average unemployment rate of the Union is still high. Employment and labour force participation should be increased in all countries.

The need to increase participation rates is reinforced by the demographic change, which in most countries will lead to a shift from growing to stagnating working-age populations already in the immediate future. One encouraging observation is that female participation rates in some countries, e.g. Ireland and Spain, have started to increase quite strongly.

A broad range of strong measures is needed, if the Lisbon employment target, *cf. figure 2.3a*, is to be met.

Figure 2.3a. Employment rates, 2000[1]

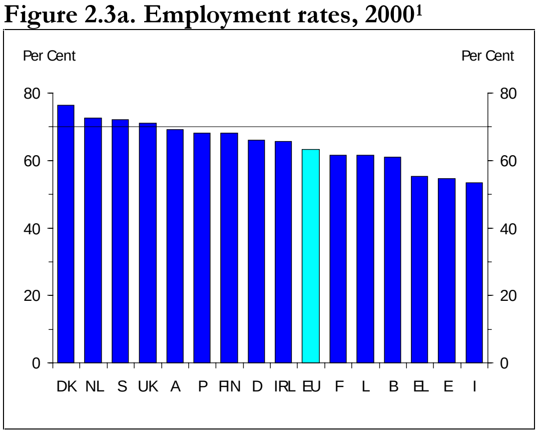
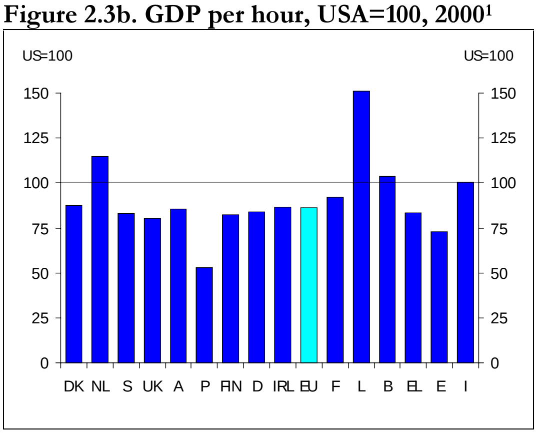


Figure 2.3b. GDP per hour, USA=100, 2000[1]



1) Estimated values.
Source: Eurostat and OECD.

Labour markets in Member States tend to be segmented along several dimensions as reflected by large regional differences, disproportionately high unemployment rates for the low-skilled and high unemployment and inactivity rates for young, females and workers over the age of 50. In particular these problems and the problem of long-term unemployment reflect a general insider-outsider problem, which among other measures should be addressed by removing barriers to entry and re-entry to employment. Lack of labour mobility is another important cause of regional unemployment differences and must be addressed by suitable measures. The opening up of temporary and fixed term contracts has been instrumental in boosting employment growth in a number of countries, even if this does not address the problem at its root and may in some instances cause new sorts of labour market segmentation.

Addressing the particularly low participation rates among workers aged 50 or more serves the triple purposes of contributing to higher levels of employment and production, alleviating the public expenditure increases of ageing, and in many cases providing social benefits for those continuing or taking up employment. This is a major challenge to be addressed via benefit reforms as well as via creating more inclusive and attractive labour market conditions for these workers. Support and assistance from the social partners is highly warranted in these and other areas.

Continuing the path of public debt reductions and consolidating public pension systems is another key preparation for ageing populations. This need limits the extent to which structural labour market problems can be improved by further tax reductions alone.

As working age populations are no longer growing, and are even declining over time in some countries, a continuation of present growth trends requires stronger productivity growth.[3] Measures to boost productivity growth include:

- Stronger investment in human and physical capital
- Speeding up measures to strengthen competition and the functioning of markets
- Facilitating the transition to the knowledge-based economy, including ICT investments as well as stronger R&D and innovation

There also exists a potential for a catch-up in productivity considering the lower productive levels in a number of countries and regions compared to the most advanced Member States, *cf. figure 2.3b*. Most Member States also have a catching-up potential compared to the USA in terms of GDP per hour worked.

Yet even if a strong and comprehensive policy to promote growth is implemented, productivity developments in the Union and individual Member States will not necessarily accelerate compared to its long-term trend. The effects of other factors, e.g. technological, previously driving productivity growth may become exhausted. Although the importance of a number of factors driving growth is well acknowledged, a large share of economic growth remains affected by technological changes and other factors not easily understood and measured. A continuation of the long-term trend may thus reflect an improvement compared to the deceleration that could occur in the absence of further reform.

As the public sector constitutes a large share of the economy in Member States, specific attention is needed to enhance the quality and efficiency of the services provided by this sector. The quality of the public sector affects both framework conditions for business, the well being of the users of public services, and its ability to help and assist vulnerable groups at the labour market or in social systems.

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[3] Higher productivity increases in the private sector will not, however, alleviate the financial burden of ageing for public finances in countries where benefits are wage-indexed, in one way or another, and thus develop in parallel with private sector wages. The welfare and real income gains provided by higher productivity will in these countries be shared with retired people, other benefit receivers and public employees.

The combined agenda of further structural reform is not an end in itself, but a means of achieving the high ambitions of the Union in terms of living standards, employment and social inclusion.

Economic reforms have so far and in addition to positive overall contributions to growth, employment and the sustainability of the welfare states also provided specific benefits for citizens and consumers with respect, among other things, to:

- Lower prices for a number of goods and services
- A wider range of products and higher quality of goods and services
- Increased opportunities of employment for citizens in vulnerable situations

Moreover, there are no indications that reforms aiming at lower prices and higher efficiency have had a negative impact on the provision of vital public and social goods such as universal service obligations and consumer safety.

2.3. Structural policy implications of the knowledge-based society

The growing penetration and use of ICT is, together with globalisation, changing the way in which in particular private companies produce, behave, organise and interact. The widespread use of ICT creates a particular economic environment characterised by, e.g., very low communication costs and almost unlimited access to information. These changes pose opportunities and challenges for economic and structural policies as well as for individual businesses, workers, citizens and consumers.

The knowledge-based society which is founded on the production, distribution and use of knowledge involves two major policy areas:

- Creating the framework conditions necessary for widespread use of ICT, such as investing in ICT equipment and ensuring effective use at low access prices.
- Adjusting elements within the broad range of overall structural policies to the extent that the economic environment characterising the knowledge-based society requires a shift in focus and scope.

With respect to the macroeconomic effects of ICT and the knowledge-based economy, a number of hypotheses have been made in the public and professional debates under the heading of "New Economy". Faster productivity growth, at least in a transition period, and perhaps a contribution to lower inflationary pressures and thus lower structural unemployment due to higher competitive pressures, are the most valid hypotheses. By contrast, other popular hypotheses such as the disappearance of capacity constraints and the risk of inflationary pressures, a new era without business cycles and the prospects of a long boom have no analytical foundation or factual evidence to support them.

So far the USA has experienced faster productivity growth in the second half of the 1990s, undoubtedly reinforced by the use of ICT, but mostly due to strong technological progress in the production of ICT equipment and software itself. The EU and other OECD countries have not experienced such acceleration. Thus, the consequences of ICT on the long-term growth rate are thus still not clear.

Even if the impact of ICT and the knowledge-based society as a macroeconomic phenomenon may be transitory, however, there will be pronounced effects within the business sector and consumers will benefit from many new opportunities.

What differentiates ICT from other technologies is not related to the production of ICT, but the extent to which this technology is or can be used in production processes across a very wide range of sectors and also in private households.

Yet governments are not in a position to conclude that the use of ICT in individual companies and households is superior to other production factors and consumption at given market prices. Restraint should therefore be shown with respect to interference in these market decisions. On the other hand, account must also be taken of the fact that the use of some ICT products, in particular the Internet, creates important network effects as the use of communication equipment increases if the total number of users increases.

The use of ICT is growing strongly in Member States, but from very different levels, *cf. table 2.2*. From 1999 to 2000 the share of citizens in the EU with Internet access at home more than doubled, but on average Internet penetration is still lower than in the USA. In 2000, EU expenditure on ICT as a share of GDP surpassed that of the USA. Yet there are large differences among Member States, and some have a significant backlog compared to the most advanced Member States such as Sweden, the Netherlands and Portugal when measured according to the share of ICT expenditures in GDP. Measures taken to stimulate the framework conditions needed to increase the use of ICT are described in section 3.5 and annex III.

Table 2.2. Indicators of the transition to the knowledge-based society

	Internet penetration, 2000[1] (per cent of total pop.)	ICT expenditure, 2000 (per cent of GDP)	R&D expenditure[2] (per cent of GDP)
Netherlands.............	54.8	6.4	1.9
Sweden.....................	53.8	7.2	3.7
Denmark..................	51.6	5.9	2.0
Finland.....................	43.5	6.0	3.1
United Kingdom.....	40.9	6.1	1.8
Austria......................	38.0	5.6	1.8
Luxembourg	36.3	5.4	-
Ireland......................	35.5	4.6	1.4
Belgium....................	29.2	5.4	1.8
EU-15.......................	28.4	5.8	1.9
Germany..................	27.2	5.6	2.4
Italy...........................	23.7	5.2	1.1
France	19.0	5.9	2.2
Portugal	18.1	6.4	0.8
Spain.........................	15.7	6.1	0.9
Greece......................	11.7	5.6	0.5
United States...........	46.7	5.6	2.6

1) Share of citizens who have Internet access at home.
2) Observations for 1997 for Belgium, Greece and Ireland; 1998 for France, Netherlands and the UK; 1999 for Denmark, Germany, Portugal, Spain, Sweden, Italy, Austria, Finland, EU-15 and USA.
Source: DG INFSO, EITO, Eurostat and OECD.

Assessing the broader aspects of the knowledge-based society, the new challenges for structural policies may be grouped under two headings:

- The need to ensure competitive pressures and adjust regulation
- The need to assist and develop production factors

ICT and the knowledge-based economy may give rise to a number of quite different developments and challenges in different markets.

In *markets of standard products* better information and increased globalisation should increase competition and facilitate lower price increases. In these markets, however, companies may seek mergers and acquisitions in order to maintain market power. This challenge should be addressed by competition authorities, if the full benefits are to be reaped.

More specialised markets and markets for new products are characterised by shorter and faster product cycles together with quick and easy access to large markets. In these markets there are strong incentives to innovate and exploit temporary monopoly situations as the initial market power for a given product may erode fast afterwards. Favourable conditions in terms of R&D,[4] innovation, human capital, business-university interaction and access to venture capital may under these circumstances create a high value added. What matters for the whole economy in these respects is particularly a large and effective supply of the production factors needed for success in innovative markets such as human capital. Reallocations of such scarce resources alone may not improve overall performance. Open markets and intellectual property rights are also important here.

Considering the strong position of private companies in terms of profitability and capital returns throughout the 1990s, the competitive pressures have not dominated the other factors affecting profitability in this period.

A third area is in *network industries*, where new technologies have made the introduction of competitive markets possible, e.g. by allowing a separation of distribution and production. Companies are now taking advantage of these opportunities. In the case of telecommunications, effective and competitive markets that ensure easy access and lower prices of ICT and internet use are crucial in order to realise the important spill-over effects from increased and effective use of ICT and the new technologies.

Services provided by the public sector are a major area by itself, where the use of ICT may contribute to better services and higher efficiency. By definition, these benefits cannot be reaped simply via market forces, but instead require direct involvement of management and decision-makers.

Among the major challenges facilitating the transition to the knowledge-based society is the development of basic ICT skills, making the use of this technology available for all and avoiding a digital divide. The focus on better social inclusion and life-long learning at the Lisbon Council remains indispensable in this respect.

[4] The most important aspect of business R&D is not necessarily the direct contribution to developing new products and production processes, but the ability to interact with other innovative businesses, universities and government institutions.

3. Progress in structural reform

Structural reform is an ongoing process and regulation must regularly be adjusted to match the challenges that prevail at any given moment. Moreover, Member States faced very different initial conditions when the regulatory reform process became an integrated part of cooperation within the EU, and legacies of the past are still evident when comparing the current state of affairs in different countries.

This has implications for the following annual review of structural reforms, which focuses primarily on reforms undertaken during 2000. Thus, the fact that a particular country has made large progress in a given area does not necessarily imply that the country is among the frontrunners. It could also reflect that overdue reforms were finally being implemented, which of course in itself is a good thing. Similarly, reforms in some areas have already progressed significantly in previous years, while efforts in 2000 have been concentrated on smaller adjustments and secondary legislation. Although, this report attempts to provide some indications on how far the structural reform process has progressed in each area and to a lesser extent in each Member State, the distinction between the "state of affairs" and changes should be kept in mind when assessing the review below.

3.1. Markets for goods and services

Internal market legislation and state aid

Strengthening of the Internal Market
All but three Member States reduced the share of Internal Market Directives that was not transposed into national legislation between May 1999 and November 2000, *cf. table 3.1*. Reductions have been largest in Italy, Austria, Luxembourg and Portugal. The non-transposition rate worsened in Greece, which was already the Member State where implementation of EU legislation was lacking the most, and in Germany, which has had talks with the Commission on how to improve the situation

Many Member States have in recent years introduced *special bodies and procedures* to ensure the transposition of directives in a fast and expedient manner. Towards the end of 1999, Belgium followed by appointing a commissioner and an action plan was adopted during 2000. The French government received in late 2000 an authorisation from parliament to speed up transposition, which is expected to improve the relatively poor record of France.

Despite the overall progress, still more than *12.5 per cent of all directives have not yet been transposed in one or more Member States*. Relative to the total number of directives, the non-transposition rate is worst in areas such as intellectual property rights, transport, public procurement, energy and environment.[5]

Besides the continued transposition of directives, other aspects of the Internal Market deserve attention. Some Member States report that complaints concerning the functioning of the European market are still being raised by business. Often they are related to the lack of mutual recognition or standardisation in the non-harmonised areas. Member States should therefore be encouraged to put more efforts into the standardisation processes and take measures to ensure correct implementation and use of the mutual recognition

[5] For details, see Single Market Scoreboard, November 2000, on http://europa.eu.int/comm/internal_market/en/update/index.htm.

principle. A number of Member States also call for action to open up for parallel imports of trademark products from countries outside the EEA.

Table 3.1. Internal Market legislation, public procurement and state aid

	Internal Market directives[1] (non-transposition rates)		Public procurement[3] (share of GDP)		Sectoral and ad hoc state aid[4] (share of GDP)	
	2000	Chg. 99-00	1999	Chg. 1998-99	1999	Chg. 97-99
	-- Per cent --	- Pct.points -	-- Per cent --	- Pct.points -	-- Per cent --	- Pct.points -
Austria............	2.9	-1.6	1.26	-0.21	0.36	-0.04
Belgium...........	2.9	-0.6	2.32	0.34	0.95	0.03
Denmark.........	1.1	-0.3	2.45	0.18	0.37	-0.04
Finland...........	1.3	0.0	1.55	0.08	0.09	0.01
France	4.5	-0.3	1.93	0.11	0.86	-0.05
Germany.........	3.1	0.7	0.89	-0.23	0.94	-0.29
Greece............	6.5	1.3	5.08	-0.81	0.56	-0.17
Ireland............	3.6	-0.3	2.07	0.13	0.39	-0.05
Italy.................	3.2	-2.3	1.63	0.32	0.65	-0.14
Luxembourg ..	3.2	-1.6	1.94	-0.11	0.72	0.57
Netherlands....	2.5	0.1	1.19	0.14	0.43	0.03
Portugal	4.4	-1.3	2.13	-0.05	1.04	-0.15
Spain...............	1.6	-0.2	2.19	0.69	0.64	-0.45
Sweden...........	1.2	-0.9	2.68	0.20	0.48	-0.12
UK..................	2.7	-0.6	2.73	-0.31	0.28	-0.09
EU	12.8[2]	0.0[2]	1.83	0.03	0.67	-0.16

1) Share of Internal Market directives not transposed as of November 2000 and the change between May 1999 and November 2000.
2) Share of Internal Market directives not yet transposed across the whole of the Union.
3) Value of public procurement which is openly advertised.
4) 1999 represents provisional averages for the period 1997-99, while the change between 1997 and 1999 represents changes between the average 1995-97 and the average for 1997-99.

Sources: Single Market Scoreboard, November 2000, DG MARKT and Commission Services.

Public procurement accounts for a large share of total demand in all Member States. It is therefore of utmost importance that *public procurement practices* contribute to the creation of competitive markets, nationally as well as EU-wide. According to Commission estimates, the value of public procurement published in the Official Journal has since 1997 stagnated at around 1,8 per cent of GDP. In 1999, the share ranged from 0.9 per cent of GDP for Germany to 2.7 per cent for the UK and 5.1 per cent for Greece, *cf. table 3.1*.

However, all Member States actively seek to address this issue. Spain did transpose one of the public procurement directives in 2000, and Germany transposed two directives on 1 February 2001. Belgium, Greece, Ireland and the UK have established bodies within government to strengthen public procurement and more generally partnerships with the private sector by providing advice and assistance to individual public entities. Austria intends to establish an advisory agency for the federal government in 2001. Denmark and the Netherlands have initiated action plans, and reforms of public procurement legislation have been undertaken in Finland, France, Germany and Spain, while Luxembourg is contemplating new unified legislation. Denmark established in 2000 a separate state-owned company that will be in charge of making coordinated public procurement at the state level.

The Internet offers great potential as a means of making public procurement more effective and transparent, and all Member States are in the process of establishing proper frameworks. Electronic publishing of tenders is only the first step, and should be followed-up by allowing bids to be submitted electronically. The creation of data bases containing information on suppliers, products and prices as well as purchases by government agencies may also contribute to make public procurement "best and cheapest", *cf. box 3.1*.

Box 3.1. Good practice: Improving public procurement by using the Internet

The "Public expenditure on-line" project in **Italy** is a government plan in two stages introduced with an aim to rationalise the public administration expenditure.

The first stage has been running for one year and is based on three principals; promotion of the new economy by public administration, autonomy and full responsibility of public management in purchasing procedures and simplification of procedures. A central service unit has been set up to assist all public administration in purchasing goods and services. Auctions are publicly announced to which all suppliers of public goods and services can participate. The most favourable offer is chosen by the central service unit, and the chosen good or service and the price is announced at an internet website. Every office in the public administration can order their desired quantity from the website.

Two auctions have been carried out following this new procedure; one for fixed telephone calls and one for photocopier machines. The resulting savings for the Italian public administration have been considerable, 67 per cent lower costs in the case of fixed telephone calls and 40 per cent lower for photocopiers. The average estimated savings for total state common expenditure is 17 per cent.

The second stage aims to reduce procurement expenditure, speed up the process, ensure transparency in tendering and open up the public supply market for competition. The publication of public calls for tenders will be provided electronically. E-commerce will be further promoted and developed as an instrument for public purchases of goods and services. The project will implement a permanent on-line auction in which supply and demand can be matched in real time, ensuring that public bodies always get the best price.

Other member states, such as Austria, Belgium, Denmark, Finland, Germany, Ireland, the Netherlands, Sweden and the UK, have also taken measures in this area.

State aid

The overall level of state aid in the EU is *gradually being reduced*. Yet the pace is relatively slow, and in some Member States state aid has increased in recent years as a share of GDP.

One reason for the slow reduction is that *more aid is generally devoted to horizontal objectives* such as energy savings, a cleaner environment, research and development, fostering entrepreneurship and SMEs through, e.g., risk capital programmes. By contrast, the particularly distortionary sectoral and ad hoc aid is being reduced at a relatively fast pace, *cf. table 3.1*. There are large variations between Member States as to the extent of sectoral aid, ranging in 1998 from less than 0.1 per cent of GDP in Finland to 1.0 per cent of GDP in Portugal.

One significant development in 2000 was the *phasing out of aid for shipbuilding* at the EU-level. During the past two or three decades some Member States have spent substantial amounts of public funds to counter a natural structural change and partly unfair competition from nations in the Far East. Ending this aid was a courageous, but also highly appropriate step taken by ministers.

Few Member States have an overall strategy for reducing state aid. One exception is Germany where aid to agriculture and mining has been reduced recently and substantial reductions are planned before 2004. However, sustained discipline in state aid is needed. Responding to political pressure due to high oil prices in 2000, several Member States engaged in tax cutting and other measures to alleviate increasing energy costs in the transport sector, and some adopted aid packages for greenhouse gardening. Although such practices might be understandable in light of the political pressure, they should be resisted to *avoid engaging in battles on state aid* among Member States. Alternatively, measures to alleviate temporary economic problems within specific sectors should be agreed at the EU-level and include specific deadlines for the abolition of aid measures.

Competition policy

Competition legislation and authorities
The process of recent years whereby *national competition laws have converged towards a common standard* modelled on the articles of the EC treaty is coming to a close. In Denmark and the UK provisions for the national competition authorities to enforce articles 81 and 82 came into force during 2000. A decision to establish an independent competition authority was taken in Austria in January 2001, and the Netherlands has presented a bill that would make the authority completely independent from the Ministry of Economic Affairs. In Luxembourg, a new competition law permitting a more active competition policy by the authorities will be adopted and implemented.

Merger and acquisition legislation was strengthened in Spain and the Austrian Cartel Court has been allowed to raise cases at its own discretion. Mandatory notification of M&A's was made compulsory in Denmark and is currently being considered in France. Ireland and the UK have announced new legislation that will move the decision-making on M&A from ministers to the competition authorities.

Also Greece has taken measures to bring national legislation more into line with EU regulation. Portugal is contemplating a new competition law and the establishment of a new regulatory competition authority. Several Member States have enhanced the powers and the resources of the competition authorities to strengthen their capacity to investigate and enforce existing regulation.

Although most Member States now have equivalent legislation as regards competition laws, concerns have been raised if the independence of the competition authorities is sufficient in some Member States.

Having established the overall framework necessary for competition authorities, the next step is to *make markets work in a truly competitive manner*. Some Member States have highlighted the importance of competition policy having support from both the political sphere and the general public. Thus, it must be made clear that action against specific businesses and sectors is fundamentally justified by the wish to protect consumers and generate benefits for the society. In this sense, competition policy should be seen as an important element of the overall consumer policy, *cf. box 3.2*.

Transforming the general principles of competition legislation into effective competition requires, moreover, that competitions authorities move towards an approach characterised by *targeted actions against specific anti-competitive practices*. This shift in focus is clearly occurring in a number of Member States such Denmark, Sweden and the UK. Preconditions for making competition policy effective are the ability to detect markets with lack of competition as well as the means and skills to provide solutions that can increase competitive pressures. This, in turn, requires that adequate resources and analytical skills are available to the competition authorities. To achieve the desired outcome, some Member States would probably have to increase the resources allocated to the competition authorities.

Box 3.2. Consumer policy and consumer protection

Consumer policy aims at strengthening the role of consumers with a view to promote health and safety and to ensure that economic and legal interests of consumers are safeguarded. Competitive markets are the best guarantee that consumers can choose between a wide range of high quality goods and services at fair prices. Competitive markets stimulate efficiency and innovation that benefits businesses and consumers.

Governments have to promote the right framework conditions to make competitive markets work efficiently through different measures. In the consumer policy area, these measures can include not only actions taken by public authorities, but also by consumer organisations. Increased access to reliable information and education of consumers, greater cooperation between Member States and between consumer organisations, and improved consumer rights services and redress procedures are all essential measures of consumer policies if attempting to guarantee consumer protection.

However, if market outcomes do not deliver the levels of quality and safety consumers demand, market performance cannot be considered satisfactory. It requires more specific policy interventions than information and transparency to tackle this kind of market failure. A high level of quality and safety can be achieved by making goods and services safer through different standards, by a more coherent analysis of risks to consumers, by reinforced consumer confidence, and by a better enforcement and response to emergencies.

One example in recent years of a market failure that has been tackled with special actions is the area of food safety in response to the BSE incidents. The White Paper on Food Safety and the establishment of the independent European Food Authority should be seen in this context. Corresponding actions at national level have also been taken in all Member States.

Service sectors with low and restricted competition

One important area where targeted action is required is within service sectors not covered by specific internal market legislation. Most Member States thus report that lack of competition exists in several sectors, frequently with reference to prices that are high relative to EU-averages.

Many Member States mention *retail trade as a sector lacking sufficient competition* and have taken measures to liberalise it further. In Italy, the effects of abolishing a licensing system have been substantial and a restructuring process is in full progress. A similarly fundamental change will take place in the Netherlands as the Business Licensing Act will be completely abolished in the period from 2001 to 2006. The French Parliament is currently considering the National Economic Regulation bill, which among other things includes benchmarks for good business practices in the distribution sector. In Germany, removal of restrictions on discounts and gifts is being considered, not least due to emerging e-commerce. Restrictions on opening hours have been relaxed in Denmark, Finland and Spain, while less restrictive practices on the size and location of shopping centres were introduced in Austria and attempted Ireland.

Pharmacies comprise another sector highlighted by several Member States. Minor steps towards liberalisation have been taken in Austria and Denmark, while problems of high pharmaceutical prices are dealt with through direct regulation of prices in Spain, where stronger competition has been introduced for some over-the-counter pharmaceuticals, and Sweden, which has decided not to open the market to competition due to concerns over public health. Yet administrative barriers for parallel imports of pharmaceuticals have been reduced in Sweden, which has led to lower consumer prices.

Member States have mentioned *examples of other sectors with actual or potential competition problems*. Among those mentioned are construction and construction materials in the Nordic Member States, books in Denmark and Spain, media in Finland, licensing of cabs and liquor in Ireland and, finally, insurance and oil companies in Italy. Not in all cases have actions been taken to counter the lack of competition.

Few Member States have explicitly addressed the issue of *barriers to entry into business services* such as lawyers, accountants etc., despite this being an area characterised by many restrictions and by having some potential for cross-border competition. Germany is one exception as discussions are taking place between the government and crafts associations with the purpose of relaxing the conditions under which people are allowed to work independently within a craft.

Although the evidence of specific problems of competition as presented here is slightly scattered in terms of sectors and Member States covered, this is mostly a consequence of competition policy moving into a phase of concrete and targeted actions in response to specific problems and sectors. Overall, the impression is that Member States are increasingly becoming aware of the need to deal with anti-competitive practices in all sectors and are gradually putting the principles into practical use. Yet efforts are required by all Member States to identify and address the lack of competition in all sectors of the economies and to critically examine the anti-competitive impact of existing regulation.

Improving the efficiency and quality of public administrations and services

An efficient public sector organised to meet the needs of citizens and businesses is a high priority in all Member States. Besides the efforts to reduce red tape and administrative burdens, it is a challenge to continuously make sure that public administrations work efficiently and that the services provided by the public sector to citizens are produced effectively and have a high quality. At the same time, however, it must be ensured that the public sector does not compete unfairly with private sector businesses.

Box 3.3. Good practice: Improving the efficiency of public services

Several Member States have in the last years experimented with ways of introducing competition into the provision of public services. Last year's Annual Report referred in this context to policy efforts under way in Finland, the Netherlands and Sweden.

Belgium has introduced a scheme, "The Strategic Planning Instrument", in its National Employment Office which is supposed to enhance efficiency of service provision by introducing goals concerning costs, unit production and quality in public administration. The National Employment Office has also developed a balanced scorecard model. These instruments allow the monitoring and readjusting of the implementation of key assignments and of structural improvement projects.

The day-to-day activities of the Office are managed and controlled on the basis of management control panels and cost calculations. For the allocation of unemployment benefits, for instance, goals regarding the time required for the treatment of a file, number of cases handled, correctness of the decisions and costs per file have been fixed. Cost developments are monitored by a monthly budget follow-up and operating costs are known for each cost-centre and for each type of cost. Significant improvements have been observed in terms of quality and efficiency of the services offered by the Employment Office.

Each year strategic goals are set for the coming year. The preparation, monitoring and coaching of this process is ensured by a special staff department coordinating the process inside the office.

Important investments have been made to manage the information system: a data warehouse, which contains the data of the different management control panels, has been set up. A "computerised management room" has been set up which relates information on results to the social and economic environment in which the Office operates.

The Netherlands has in previous years been recognised for having a *comprehensive approach to public sector reform* in terms of the MDW-programme. During 2000 more projects have been finalised as part of the overall programme, and new ones have come on stream. Similar programmes have more recently been initiated in other Member States. The Belgium Copernicus-project, the German "Modern State – Modern Administration" project and the Portuguese Public Service Quality System aim at creating a modern civil service and better management, all consisting of several specific projects.

Benchmarking of similar public entities has proved to be a useful tool in, e.g., Denmark, Sweden and the UK. Apparently large differences in the costs of providing similar services have been discovered in many areas of the public sector. As regards public service provision, the Netherlands has in 2000 introduced an experiment with vouchers for higher professional education and a policy document on the possibilities to increase consumer choice in healthcare has been prepared. Portugal is preparing a reform of the health care system which will reorganise management systems.

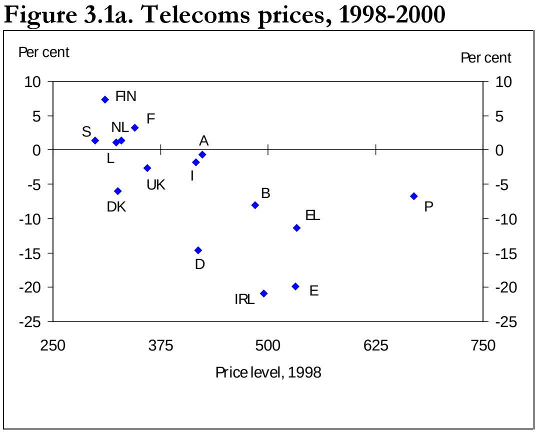
To make competition effective in all markets *the public and the private sector must compete on equal terms*. The Netherlands plans a law in 2001 that will clarify how the public sector is allowed to compete with private companies, and the Swedish Council of Competition on Equal Terms between the Private and Public Sector presented a report in 2000.

Network industries and privatisation

Liberalisation of telecommunications

Among the network industries, most progress has been achieved in telecommunications. Competition is gradually becoming stronger and prices have decreased substantially in most Member States, *cf. figure 3.1a*. While technological developments have contributed to the reduction in prices, empirical analyses suggest that much of the improved performance can be attributed to the opening of markets. The fall in the costs of telecommunication between 1998 and 2000 has been most pronounced in Member States where the costs in 1998 were relatively high due to partially a late introduction of competition. By contrast, costs were already low in 1998 in countries such as Finland and Sweden that were among the frontrunners and opened telecommunications markets in the early 1990s. This, at least partly, explains why some cost increases can be observed in these countries in the latter part of the 1990s.

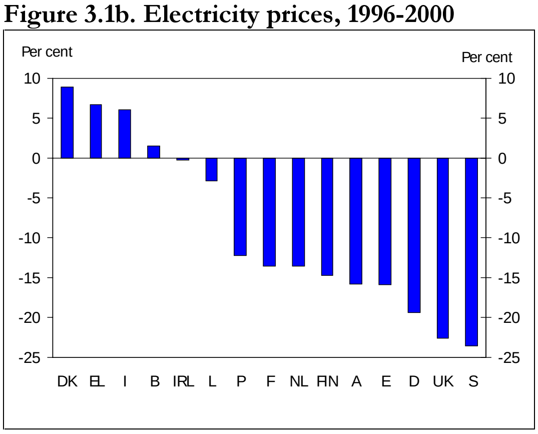
Figure 3.1a. Telecoms prices, 1998-2000



Note: The horizontal axis shows annual costs incl. VAT for medium-intensity residential user in PPP euros in 1998, and vertical axis the real change in these costs between 1998-2000.

Source: Teligen, Report on telecoms tariff analysis using basket methodologies for the years 1998-2000, October 2000.

Figure 3.1b. Electricity prices, 1996-2000



Note: Change in nominal national currency price of one kWh for industrial user with annual consumption less than 50,000 kWh.

Source: Commission Services.

Besides the reduction in prices, other benefits have also been achieved. Thus, telecommunications companies offer a wider range of products, suiting the needs of different population groups and businesses, and increases in the perceived quality of services has been reported in countries such as France, Italy, Spain and the UK. This has been achieved without compromising public service obligations, *cf. box 3.4*. The improvements in terms of prices, the variety of products on offer and the quality of these services are crucial for the smooth and fast transition to the knowledge-based society, *cf. section 3.4 and annex III*. Yet some Member States still have some way to go before these benefits can fully materialise.

Box 3.4. Maintaining universal service obligations (USO)

What is USO?
When an economic reform is implemented it is important to take into consideration the provision of services of universal need such as transport, electricity, gas, telecommunication and postal services. These services are judged to be essential for the functioning of modern society and should be available to all citizens at reasonable prices to meet the objectives of universal access, despite differences in costs of supply. Historically, universal service obligations have been provided by public monopolies using cross-subsidies. For further information on USO, see annex 1.

Maintaining USO in telecommunications
When a market is opened to competition, services of public interest still need to be financed. The Commission permits cost-sharing arrangements to finance USO in competitive markets. However, nine Member States state that the costs of USO do not constitute an unfair burden on the dominant supplier and that the costs of establishing a fund are not justified. Therefore the costs of USO will be met by the incumbent in most Member States and the funds established in some countries are only temporary and will be phased out. Examples of USO requirements and funding mechanisms are provided in the table.

	Requirement	**Funding mechanism**
Denmark		If proven that a deficit exists in the provision of USO, the regulator will collect a contribution from fixed telephony service providers based on turnover
Finland	Dominant operator must serve all customers in their territory	The incumbent must meet all universal service costs
France	Obligation of overall geographic supply, phone books, public phones and lower prices for poor households	Two mechanisms were established in 1997: a mechanism of interconnection charges (suppressed at the end of 2000) and a national universal service fund to which is operator contributes on the basis of its traffic volume (this mechanism is still operating)
Spain	Obligation of overall geographic supply and phone books.	Telefonica has been designated the dominant operator and is required to provide universal services until the end of 2005
Sweden	Telia is obliged to provide telephone services between fixed points to all regardless of where they live at an affordable price	The incumbent must meet all universal service costs
United Kingdom	A connection to the fixed network able to support voice telephone and low speed data and fax transmission, the option of a more restricted service package at low cost and reasonable geographic access to public call boxes across the UK at affordable prices.	British Telecom is responsible for the provision of USO but the cost of the USO is not re-imbursed. Kingston Telecom is also responsible for the provision of universal service.

Source: OECD, *The implementation and effects of regulatory reform: Past experience and current issues*, 2000.

In January 2001, Greece became the last Member State to *liberalise fixed-line telephony* as EU directives have been transposed in a recently ratified law that provides for the full liberalisation of telecommunications markets. Portugal has also liberalised fixed-line telephony during the last year. Most of the other Member States have passed measures to strengthen competition in 2000. Pre-selection and number portability, which make switching phone company easier and thus increase competitive pressures, were for instance introduced in Belgium, Luxembourg and Spain.

Much effort has been put into opening the local loop to competition. *Third-party access to the local loop* was implemented in Belgium, France and Spain in January 2001, and has been prepared in Ireland during 2000. In France licences for local loop access were granted to two national operators and two additional operators in each of the regions in 2000. Italy is testing how to implement unbundling of the local loop in three major cities and based on experience unbundling will be introduced nation-wide, as it was done in Luxembourg and the UK during 2000, in Belgium in early 2001 and previously in other Member States.

Ireland has made and Austria is planning major *revisions of the telecommunication law*, while specific amendments to the existing framework have been made in 2000 by some Member States. Finland changed the regulation of tariffs for renting fixed lines. Spain is introducing tougher accounting standards for the dominant operator to make access charges reflect costs better, and a price cap has been implemented for teleservices and the leasing of fixed lines. Sweden is considering measures to enforce third-party access to fixed lines.

In *mobile telecommunications*, Spain has enforced accounting separation for interconnection charges for the two dominant operators, and Sweden has established that excess capacity in the mobile networks must be offered to competitors. The Netherlands has introduced a range of measures to counter the apparent lack of competition in cable networks, and Ireland has ensured easier access for domestic operators to satellite capacity.

Although the beneficial effects of competition are already clear, additional impetus to the process of price reductions and new services is expected to come from *the next generations of mobile telecommunications*. Probably the most notable development in telecommunications markets in 2000 was the auctions held over 3rd generation, UMTS, mobile licences. Not least because of the substantial revenues that were appropriated in the UK, Germany and to a smaller extent in Austria, Belgium, Italy and the Netherlands. Denmark and Greece are planning auctions for 2001. Finland, France, Ireland, Spain and Sweden decided to award the UMTS licences through a beauty contest, in some instances combined with a fixed payment. Fixed Wireless Access (FWA) licenses have or will also be awarded in most Member States, which will provide an alternative to high-speed fixed wire internet access.

It is important to ensure the effective allocation of a scarce resource such as radio spectrum. Although different countries have adopted different mechanisms – such as auctions and beauty contests – overall the aim is the same. To ensure the continuing development of a vibrant and innovative telecommunications sector, delivering choice, quality and value for money to the consumer.

Opening of energy markets

The opening of *electricity and natural gas markets* continues according to the impetus provided by the EU directives. Overall, progress is much faster in electricity than in gas, and partly therefore price developments have been far more favourable for electricity, *cf. figure 3.1b*.

As a consequence of the opening of markets, the energy sector is being restructured as companies seek to obtain assets in all parts of the value chain in energy production, to ensure the ability to offer customers a range of energy products, and to secure assets abroad to counter the loss on domestic markets that former national monopolies necessarily must expect. As energy firms are increasingly diversifying their activities, the challenges of government regulation and regulators change. In some Member States such as Denmark, Greece, Ireland, Luxembourg, Spain and the UK, this has led to decisions on the *establishment of or plans to establish unified energy regulator* within the last two years. In other Member States separate regulators are maintained in energy markets. Thus, *independent electricity regulators* were set up in 2000 in Austria and France.

The *electricity directive* was finally transposed in France and Luxembourg in 2000, while Greece is expecting national legislation to become in line with the directive in 2001. Ireland is preparing secondary legislation to ensure the proper transposition of the directive.

However, almost all Member States are *opening electricity markets faster and more vigorously than required* by the directive. The market is already completely liberalised in Finland, Germany, Sweden and the UK, and Austria will follow in October 2001. Several Member States decided in 2000 to speed up the liberalisation process, and most expect fully liberalised electricity markets by 2003-04.

Experiences from the frontrunners, in particular Sweden and the UK, show that additional measures may be required to ensure that markets are actually competitive. Moreover, if these measures are implemented such as the removal of requirements of expensive metering equipment in Sweden, the impact on competition particularly in the small customer segment of the market can be significant.

Finland has decided to tighten the requirements for *unbundling of monopoly and market activities* of the electricity companies, and Austria has as a goal to proceed in the same direction in 2001. Electricity pools have in 2000 been established in Germany and Ireland, and Italy expects one to come on stream in 2001. The UK will be introducing a new arrangement for wholesale electricity trade, which is expected to enhance competitive pressures and lower prices. Finland will introduce a new law to avoid the need for installation of expensive metering equipment, which may otherwise make it prohibitive expensive to switch supplier.

Some Member States mention one of the challenges facing electricity markets, and that is the *need to develop renewable electricity production* in the light of the Kyoto targets. Today, many of the available technologies cannot compete with conventional electricity production. A common framework for energy taxation within the EU could support the use of environmental-friendly energy production, but until taxation of polluting production is raised to the perceived costs of the externalities, it may be necessary to promote renewable technologies by other means. It is, however, important that these means conform as much as possible to the competitive electricity markets that are now being created in Europe.

Whereas the development of renewable energy production most frequently has been promoted through regulation, one effect of the opening of electricity markets has, in e.g. Finland, Germany and Sweden, been that some companies have offered “green” electricity to their customers who now face *differentiated electricity products*. Another benefit for consumers and businesses of the opening of energy markets is that they can now in some Member States buy a range of energy products, including energy management services, from the same supplier.

August 2000 was the deadline for the beginning of the *gradual opening of natural gas markets*. Most Member States met the deadline, but France, Germany, Luxembourg and Portugal were submitted to an infringement procedure. Yet Germany and France expects the directive to be transposed in the first half of 2001, leading in Germany to a fully liberalised market. Full liberalisation before 2004 is also planned in Austria, Italy and Spain, which will then join the UK where the gas market has been fully opened for several years and Germany. The Netherlands also expects a relatively fast full opening, but this is made conditional on developments in the neighbouring countries. Although most Member States thus have adopted faster market opening than required by the directive, the speed is overall considerably slower than in electricity markets.

Italy and Spain have in addition to the measures already outlined decided to *restrict the activities of incumbents*. Italy has introduced limits on the maximum market share of individual companies in electricity and natural gas, which has forced the incumbent electricity generators to sell generating capacity to competitors. Limits on gas market share have also been introduced in Spain which has also imposed expansionary limits on the main operators in electricity and liquid hydrocarbons. Moreover, Spain has introduced restrictions on cross-ownership in the main operators of the liberalised industries, *cf. box 3.5*. These are thorough measures that are likely to be effective in loosening the grip of incumbents on domestic markets, and can possibly serve as an inspiration.

Box 3.5. Good practice: Ensuring competition in network industries

Since many network industries are rather concentrated and require large investments, ensuring competition in these markets is a key challenge. Therefore, liberalisation per se is not enough and further measures are needed.

Since 1999, a significant liberalisation of network industries has taken place in **Spain**. The government adopted appropriate legislation eliminating legal barriers to competition in network industries, which exceeds the requirements laid down in the corresponding EC directives. An independent regulatory authority was established. Liberalisation was accompanied by the privatisation of state-owned companies.

Strict limits were placed on the expansion of dominant operators in electric power, liquid and gas hydrocarbons in order to prevent them from gaining dominant market power. E.g. in electricity, groups with installed power greater than 40 per cent of the total market may not add new capacity in the following five years. For market shares between 20 and 40 per cent, the prohibition stands for a period of years.

However, as these measures were regarded as insufficient for ensuring the desirable level of competition, further action was taken to impede management influence in more than one operator within key sectors, which should prevent coordinated conduct between operators. As a consequence, no person or legal entity may sit on the Board of Directors of more than one dominant company in network industries. Also, any company or group owning over 3 per cent of more than one operator in the same sector may only exercise voting rights on the excess over 3 per cent in one such company.

Although progress is being made in reforming electricity and gas markets, *stronger regulatory measures might affect market developments favourably*. The energy directives allow a choice between accounting and legal separation, and in 2000 accounting separation was chosen by France and Greece in electricity and by most countries in gas. Similarly, a choice between regulated and negotiated third-party access can be made, and a number of Member States have opted for negotiated access, in particular in the gas sector. Choosing the stronger form of regulations may, however, enhance transparency. Thus, legal separation may reduce the risks of cross-subsidisation and regulated third-party access can be an effective means of avoiding non-competitive practices.

Finally, there may be a need for further initiatives at the EU level. The opening of national energy markets is only one step, albeit an important one, towards the creating of a unified European energy market, corresponding for instance to the highly integrated Nordic electricity market. In order for this to materialise it may, e.g., be necessary to establish a common framework for tariffs for cross-border trade in energy and barriers for the interconnection of national networks should be eliminated.

Progress in other network industries

While market opening has progressed in telecommunications and energy, few reforms have been introduced in other network industries in recent years. In railways as well as postal services there are pronounced differences between Member States in the degree of market opening, ranging from completely open to almost monopoly markets. Much can undoubtedly be learned from frontrunners such as Sweden in postal services.

The situation in *railways* may generally be described as one in which smaller steps are taken to facilitate market opening at a later stage. A new regulator has been set up in Austria. Accounting or legal separation of infrastructure and rail transport operations has been introduced in Ireland, Italy and Luxembourg. In France, following the legal separation in 1997, a second step of the reform in 1999-2000 induced a significant rebalancing of access prices for the use of rail infrastructure, leading to large increases for the most attractive routes and time slots. In Italy, the Netherlands and Sweden competition is gradually being introduced in passenger rail transport by awarding licenses to more operators through public tenders.

Being a frontrunner in the *opening of postal services markets*, Sweden introduced in late 1999 new measures to enhance competition. These included, e.g., the introduction of a coordinated system for handling of address changes and the redirection of mail. In Sweden, but also in Austria and Germany, there is evidence that increased competition has led to improved service quality and a wider range of products, while universal service obligations seem to have been maintained satisfactorily.

At the other end of the spectrum, the *postal services directive was transposed* into national legislation in Ireland and Luxembourg, leading to partial liberalisation. In between, Belgium, Greece and Italy are engaged in a reorganisation of the national postal companies to strengthen the efficiency and the quality of services provided. France is preparing new postal regulation which will include measures to ensure universal service obligations and transparency in accounting. The Netherlands introduced new postal regulation in 2000 that implies a market opening beyond that required by the EU directive. A liberalised market for postal services is required to create an innovative and competitive industry. It remains essential for the future to enhance competition in this sector due to the increasing substitution effect caused by various electronic communication media.

In the Netherlands, a *new passenger transport act* was passed in 2000 and will come into effect in 2001. When fully implemented by 2005, all regional and urban transport will be subject to public tender. *New regulation of airports* is being considered in the UK. Having the most congested airports in Europe, slot allocation regulation may be changed to allow for trading and auctioning, and the current system of grandfathering of slots is being reconsidered.

Privatisation

Privatisation of state-owned companies may serve different objectives such as disengaging the public sector from production of goods and services that are already being produced by competing private sector companies, getting access to private sector competencies through strategic alliances, obtaining public sector revenue to reduce debt and boosting capital markets. Most Member States have privatised some companies, fully or partly, during 2000. Substantial privatisation programmes are gradually progressing in Austria, Greece and Portugal, which to some extent reflect the wide spread state ownership in these countries.

Privatisation is generally moving faster in *sectors where competitive or contestable markets* have been developed most. During 2000-01 financial institutions will be sold, at least partly, in Austria and Greece. Greece and Ireland will privatise part of their national airlines in 2001, while Spain plans to complete the privatisation of its former national carrier. Austria, Denmark, Germany, Ireland and Italy are in the process of divesting shareholdings in airports. Telecommunications companies are getting privatised in Austria, Germany, Portugal and Sweden.

Fewer privatisations have taken place in *other network industries* such as energy and postal services. Yet the IPO of the German postal company and the sale of shares in electricity companies in Greece and Portugal are notable exceptions. It must also be recognised that in some Member States, private companies have always dominated energy markets. Despite that many of the former monopolies are still state-owned, energy and postal sectors are being restructured fast through mergers and acquisitions across borders. To ensure that all companies, state-owned as well as private, face a level playing field in all Member States during the restructuring process, it is important that all markets are contestable.

Despite the continued privatisation process, state ownership remains high in some Member States. These countries may wish to consider if state control over a large part of the economy is still warranted. In this respect, some Member States may also reconsider the use of "golden shares" and other means of maintaining control after privatisation. Not only does continued control muddle the responsibilities of the state, but it can also mean that revenues from the sale of shares become unnecessarily low.

3.2. Improving the business environment

Important steps forward were in 2000 taken by many Member States to reduce administrative burdens for businesses, and SMEs in particular. This will not only reduce the costs associated with administration, but also eliminate many barriers faced by new entrepreneurs. In addition, several Member States decided on new measures to encourage and support entrepreneurs. Although the task of improving the business environment is far from complete, the progress in 2000 should be recognised.

Measures to reduce administrative burdens
All Member States are committed to limit the administrative burdens put on businesses by public regulation. Ensuring regulatory quality, simplification of procedures and transparency is thus high on the agenda, and specific measures are being implemented.

Some Member States such as Ireland and Sweden launched general action plans or strategies for improving regulatory quality in 1999, while Finland, Germany, Greece and the Netherlands followed suit during 2000. Advisory or interdepartmental bodies assigned the task of overseeing regulatory reform were established in the Netherlands and Spain.

Assessing the impact of new regulation on businesses before implementation is an important means to avoid excessively complicated legislation. The use of a systematic approach in the form of Regulatory Impact Analysis (RIA) has in 2000 been decided in Ireland and Italy, and is gradually being implemented, *cf. box 3.6*. Denmark introduced a new method for evaluating administrative costs by way of accounts, based on interviews of 250 businesses.

Box 3.6. Good practice: Reducing administrative burden through Regulatory Impact Analysis

Regulatory Impact Analysis (RIA) is a decision tool that aims to assess proposed and existing regulations. The method is to systematically and consistently examine potential impacts arising from government actions and communicating the information back to decision makers. RIA programmes in different countries ranges from broad cost-benefit analysis to narrower assessments such as SME impacts.

In **Italy**, the RIA programme introduced during 2000 is based on a two-step submission. First, a preliminary assessment of a law or regulation will be prepared taking into account the affected parties, the social and legal elements justifying the regulation, the budgetary, economic and social constraints, the alternatives to regulation and the appropriate level of regulation. Second, the results from the first stage are validated and the following elements are provided; the expected results, a description of the chosen analytical method, the direct and indirect impacts on public administration and on affected parties based on a cost-benefit analysis.

The RIA programme is managed by the Simplification Unit and the Department for Legal and Legislative Affairs (DAGL). While the regulating administration prepares the RIA, the task of determining its completeness is assigned to DAGL. DAGL has the possibility to delay a regulation or law if considered of bad quality and can also report to the Prime Minister. The effectiveness of the system rests on the fact that DAGL and the Simplification Unit are credible reviewers, thus acting as gatekeepers of the Council of Ministers.

The Italian RIA programme is still at an experimental phase but meets most of the required elements identified by the OECD, namely to maximise political commitment to RIA, to allocate responsibility carefully, to train the regulators, to use a consistent but flexible analytical method, to develop and implement data collection strategies, to integrate RIA with the policy making process and to involve the public.

RIA is also taking place in Austria, Denmark, Finland, France, Germany, Ireland, the Netherlands, Sweden and the UK.

Easy and cheap communication between businesses and the public sector will reduce costs and improve efficiency. The new means of electronic communication, not least the Internet, have a great potential in this respect. All Member States are actively pursuing ways to exploit the new possibilities by establishing Internet portals containing information, electronic forms that can be submitted electronically, *cf. section 3.5*.

Another area of action is creating easier access to the public sector by establishing a variety of single contact points. Networks of local or regional one-stop-shops have been extended Greece, Portugal, Spain and Italy, which has also in 2000 drawn up an action plan for the adequate operation of municipality one-stop-shops. In Austria, a single gateway to pollution prevention and control has been created, while Swedish businesses will soon be able to get information on the entire state support system at one single place.

Promoting start-ups and SMEs

In the same vein, single contact points targeted at assisting and supporting new companies and SMEs have been established in Luxembourg and the UK in 2000, and Denmark created a unit with the task of promoting the internationalisation and exports of SMEs. In Germany, the federal government created a single contact point by collecting the substantial financial support programmes for SMEs at the Deutsche Ausgleichsbank, as one element of a general SME action plan. Also in Spain, an overall plan to strengthen the competitiveness of SMEs has been adopted. France has taken steps towards speeding up business registration procedures, and a tax on business registration has been abolished.

Some Member States have established networks of SMEs. In Denmark these are regional networks, while the Dutch network is targeted at rapid growth companies. Support has in Denmark been given to a Business Service Scheme to contribute to the creation of a market on which SMEs can buy a range of administrative services related to reports and payments to the public from specialised private service agencies.

Following the recommendation of the Risk Capital Action Plan, Austria, Finland, Germany and the Netherlands have or are in the process of changing bankruptcy legislation to make it easier for *entrepreneurs to get a second change* to start new businesses. More Member State should consider making similar legislative adjustments. Some Member States such as France have made legal adjustments to allow for various forms of profit sharing schemes.

Taxation of businesses

As part of the tax reforms that are being implemented in most Member States, changes are being made to the taxation of businesses with some measures affecting all companies and others particularly targeted at SMEs and start-ups.

Substantial *reductions in corporate tax rates* are gradually being implemented in Germany and Italy, although counteracting changes such as broadening of tax bases, as in e.g. Germany, reduce the net effect for large corporations. Decisions to reduce the corporate tax rate in the coming years have been taken or are planned in Austria, Belgium, Denmark, France, Ireland and Luxembourg. Generally, the changes to the overall corporate tax systems are fully financed and adopted to improve the structural effects of taxation on business behaviour.

However, in a number of Member States the gradual fall of the general corporate tax rate is *implemented faster and often supplemented by specific tax reliefs for SMEs.* In France, a lower tax rate for small business was introduced in 1999 and extended to cover more firms in 2000, and a lower social security contribution rate also applies to SMEs in their two first years of existence. The German tax reform contains substantial benefits for SMEs and the self-employed, and Greece will reduce tax rates for non-listed companies during 2001 and 2002 and abolish special taxes on general and limited partnerships. The planned reduction of the corporate tax rate in Ireland already applies to SMEs, and Spain has doubled the threshold for qualifying to the SME tax regime.

Among the more *specific tax measures* introduced in 2000, Germany has reduced taxation of distributed profits and will make profits made by corporations when selling shareholdings exempt from taxation from 2002. Italy has introduced a tax credit for new investments creating new jobs until 2003, and Spain has allowed deductions of 10 per cent of the costs for ICT investments. Italy and Spain have also changed the system of dual taxation of company profits to promote the use of equity financing, while a reform of dual taxation in the UK was made to reduce the risk of off-shore "cheating". Finally, Sweden implemented some measures to ensure more equal tax treatment of domestic and foreign companies, though it is recognised that some differences remain.

Introducing tax measures targeted at small business may narrow tax bases and imply large effective marginal tax rates at threshold levels. The benefits from such measures need therefore to be carefully weighed against the costs in terms of increased distortions within the business taxation system as well as elsewhere.

3.3. Capital markets

The Lisbon Council emphasized the key role of capital markets in stimulating growth: "Efficient and transparent financial markets [...] play an essential role in funnelling new ideas, supporting entrepreneurial culture and promoting access to and use of new technology." Reforms at a Member State level are necessary to complete the single European market in this sector to maximise the gains from the introduction of the euro, and in response to a rapidly changing market.

At the European level the priorities and actions needed to speed up *financial market integration* have been set out in the Commission's financial services and risk capital action plans. In order to meet, or surpass, the deadlines already agreed for implementation Member States will be required to pay particular attention to key areas such as the promotion of innovative employee ownership schemes.

Legal and regulatory framework
A modern and transparent regulatory framework is essential for properly functioning capital markets. Adequate regulation is necessary in order to increase security by lowering exposure to fluctuations. As reported in last year's report, there has been a trend in Member States towards the creation of unified *financial regulators***.** The single authorities in Denmark, Sweden and the UK provide examples. Germany and Ireland are planning a similar move while France is reviewing its regulatory system with the possibility of legislating for a single regulator to deal with the whole range of financial services. In some Member States, e.g. Denmark, the creation of single regulators is complemented by the enactment of a unified financial services law.

Other Member States, including Portugal, Belgium and the Netherlands, have reviewed their systems and opted to retain sectoral regulation and put mechanisms in place for increased cooperation. In the Netherlands this takes the form of a consultative body, the Council of Financial Supervisors, bringing together the banking, insurance and securities supervisors. Similarly in Finland, the Insurance Supervision Authority and the Financial Supervision Authority cooperate closely and have largely overlapping boards, and Portugal has created the National Council of Financial Supervisors.

Box 3.7. Consumer confidence in financial services

As more and more individuals are becoming active as minority shareholders and investors in funds, there is an increasing consumer demand for investment services. Measures to increase *consumer confidence in financial services* have been implemented in a number of countries. One aim is to ensure investor protection through improvements to the regulatory framework. For example, a key aim of the French New Economic Regulations Bill is greater transparency to improve investor confidence. The UK Financial Services and Markets Act sets out a statutory consumer-protection objective for the Financial Services Authority and establishes a single ombudsman to deal with consumer complaints. Similarly, Denmark is planning to further improve transparency and strengthen the consumer protection objective of the Financial Services Authority.

Transparency and high reporting standards are important means of achieving confidence in equity markets. In 2000, the German government presented a draft proposal for a new legal framework for fair and transparent take-overs, and Greece introduced stricter requirements for companies to be listed at the stock exchange and regulation to improve the transparency of listed companies.

Better corporate governance, important for financial stability as well as in order to maintain confidence, is high on the agenda in several Member States. In Germany corporate governance is being considered by a Commission of Experts and in Belgium the Companies Code is under review following the report of a Commission on Corporate Governance. In Ireland an Office of the Director of Corporate Enforcement was established to improve the standards of adherence to company law by active enforcement.

The online revolution of financial services creates a particular *need for modernisation of the regulatory framework*. The Commission has recently in its communication on e-commerce and financial services outlined the amendments of the regulatory and legal framework that are necessary to boost internet-based financial transactions in the EU. The amendments will put the regulatory framework of financial services in line with the e-commerce directive, which should be implemented by Member States before the end of 2001. Corresponding to the timeframe of the Financial Services Action Plan, the deadline for action is 2005.

Restructuring in financial services sector
Over the past year there has been an increase in cross border and pan European activity, aided by the introduction of the *euro*. The process of *stock exchange and clearing house mergers* and increased cooperation between stock exchanges has continued allowing bigger markets for existing stock. Three major agreements in 2000 can be noted:

- The merger between the French, Dutch and Belgian stock exchanges to create EURONEXT. The harmonisation of trade and listing requirements and development of a common trading platform will follow. Supervisors from the countries involved will be required to work closely together. Luxembourg's stock exchange has signed a cross-access agreement with EURONEXT and the Portuguese securities market foresees a merger in the future.
- The strategic alliance between the Austrian stock exchange and Deutsche Börse to implement the XETRA electronic trading system. The XETRA trading system was launched on the Irish Stock Exchange in June 2000.
- The common Scandinavian securities market (NOREX), founded in 1998 as a partnership between Copenhagen and Stockholm stock exchanges, was joined by the Icelandic and Oslo stock exchanges during 2000. Experience has shown that the new trading system has brought about larger volumes of trade and a marked reduction in bid-ask spread.

The banking sector has continued to display a high and in some cases increasing concentration and cross-border ownership in specific Member States, a feature which requires an appropriate response from financial supervisors. For example, in response to the merger of Unibank from Denmark with Nordbanken from Sweden/Finland the Danish, Finnish and Swedish financial supervisors signed a cooperation agreement.

A contrasting feature in the banking sector has been the continued privatisation programmes. Over the past year Government stakes were sold in the Hellenic Industrial bank and Agricultural Bank of Greece, Banco di Napoli of Italy, ICC and TSB of Ireland and Banque Hervet of France.

Capital for enterprise
The need to ensure sufficient access to capital for small and medium sized enterprises is an important aspect of the Lisbon strategy. In this respect the continued buoyancy in the *venture capital market* across Europe is encouraging. A specific need has been identified for supply of venture capital, essential to the growth of SMEs. In addition to the larger markets such as the German Neue Markt and Italian Nuovo Mercato, smaller markets have been establishing specific listings for high tech or high growth companies. Developments have included the ITEQ market in Ireland, the Growth Markets in Copenhagen and Helsinki and the NEXA market for SMEs in Greece. The Spanish IBEX Nuevo Mercado has doubled the number of companies listed from mid 1999 to mid 2000.

Several Member States introduced new or increased direct and indirect support measures to encourage venture capital investments. The aim is for governments to play a role as a catalyst. Examples include:

- Austria has introduced stock options at a preferential tax rate and the threshold for preferential tax treatment of employees' shares has been doubled as of 2001. The stock exchange turnover tax was abolished in October 2000. Venture capital is also fostered by several guarantee schemes with up to 80 per cent of the capital.
- A Danish credit guarantee scheme that guarantees up to 75 per cent of a loan and the creation of a special innovation fund.
- In Finland, a state-owned venture capital company is planning to launch a new financial instrument targeted at accelerating the growth of business incubators working in knowledge-based environments. The venture capital arm of SITRA, a foundation under the Finnish Parliament, and the Technology Development Centre are planning to finance spin-offs from the National Technology Programmes and to match them with investments of business angels.
- France is pursuing a strategy of reducing the cost of starting a company and has as Germany, Ireland and Spain reduced the corporate tax rate for SMEs.
- Italy reduced taxation on capital gains for qualified shareholding by "closed funds".
- € 60 million financing for SMEs "Incentive System for Small Enterpeneurship Initiatives" (SIPIE) has been made available in Portugal with 50 per cent loss coverage by the state. A similar 50/50 "New Economy Fund" scheme has been set up in Greece.
- In the Netherlands conditions for state guaranteed loans are being adjusted to make it easier for startups to satisfy the criteria. The Netherlands has also established a life sciences participation fund to increase the number of life science start-ups.
- Spain has introduced a credit facility for small innovative companies.
- UK has reduced capital gains tax on business assets and is creating a range of public private partnerships to boost venture capital funding.

It is important that such schemes are adequately assessed to ensure they are addressing a real market failure and that the criteria for eligibility are suitably targeted so as to maximise effectiveness. It also needs to be recognised that providing capital is in itself not enough to foster an entrepreneurial business environment. There are cases where there is a lack of companies to invest in rather than a lack of capital, and providing support measures for venture capital funding is not a substitute for competent companies. Moreover, entrepreneurs in the early stages not only need capital, but more frequently competent capital. This means that those who finance early-stage development, such as business angels, also bring competencies on how to run a business to the entrepreneurs. This requires adequate information flows and business skills training.

Over the course of the year pension reform has continued to act as a spur to *capital market development*. Any general reduction in restrictions on pension fund portfolio investment rules allied to an overall growth in second pillar pension schemes will continue to promote growth in equity markets. This has been witnessed in Denmark where limits on equity holdings were replaced with more flexible rules based on the prudential principle. Similar developments were experienced with the introduction of the fully funded element in the Swedish pension system. This allows individuals to select fund managers and has resulted in an increased demand for investment management services. In the UK the introduction of stakeholder pensions is set to give up to 5 million people the option of a funded pension for the first time. Pension and investment reform on these lines is on the agenda in several European countries, including Germany and France.

3.4. Labour markets and tax-benefit systems

Recent labour market developments
Almost all Member States have experienced important increases in employment rates and decreasing unemployment rates since 1996, *cf. table 3.2.*

Table 3.2. Key labour market figures

	Employment rate[1]		Employment growth[3]	Unemployment rate[4]		
	1996	2000[2]	1996-2000	1996	2000	Chg. 96-00
	Per cent					- Pct.points -
Austria	67.3	69.2	3.6	4.3	3.4	-0.9
Belgium	56.3	60.9	4.7	9.7	8.5	-1.2
Denmark	74.0	76.4	5.1	6.8	4.9	-1.9
Finland	60.5	68.1	9.8	14.6	9.8	-4.8
France	59.7	61.7	5.3	12.4	9.5	-2.9
Germany	64.1	66.0	3.3	8.9	8.3	-0.6
Greece	54.9	55.4	3.6	9.6	11.2[5]	1.6
Ireland	54.9	65.6	23.9	11.7	4.5	-7.2
Italy	50.6	53.4	4.0	11.7	10.5	-1.2
Luxembourg	59.1	61.6	21.4	3.0	2.2	-0.8
Netherlands	65.4	72.7	12.4	6.3	2.6[5]	-3.7
Portugal	62.3	68.1	7.9	7.3	4.2	-3.1
Spain	46.6	54.7	13.8	22.2	14.2	-8.0
Sweden	69.7	72.2	4.7	9.6	5.9	-3.7
UK	68.7	71.2	5.4	8.2	5.6	-2.6
EU	59.9	63.3	5.8	10.8	8.4	-2.4
USA[6]	72.9	73.9[7]	7.0	5.4	4.0	-1.4
Japan[6]	69.5	68.9[7]	-0.2	3.4	4.7	1.3

1) Eurostat: Total employment in per cent of population 15-64.
2) Estimates.
3) Eurostat and forecasts for 2000 from European Economy Autumn 2000.
4) Eurostat: Standardised rates in per cent of labour force. Estimates for 2000.
5) European Economy Autumn 2000: Forecasts.
6) OECD Employment Outlook, June 2000, and OECD Economic Outlook, June 2000.
7) 1999.

This improvement is partly due to lower cyclical unemployment as the initial slack in labour markets has been absorbed and partly a reduction of structural unemployment, as indicated by the low and stable wage and price inflation still present in most countries, cf. chapter 2.

Labour market structures are affected by a large variety of policy factors such as direct economic incentives embodied in benefit and tax systems, eligibility and availability rules and administration of benefits, the effectiveness of the public employment services, rules for employment protection and regulation, the quality and composition of education and training, wage systems including wage coordination as well as spill-over effects from product markets, housing-policies affecting mobility, child-care and the ability of macro-economic policies to sustain stable and non-inflationary growth. Other important factors for labour market outcomes are less or not at all affected by current policies, such as hysteresis-effects from high unemployment in the past, demographic changes, skill-biased technological changes and shifts in the composition of demand for goods and services.

Reforms, most frequently of a small and gradual nature, have taken place in many of these areas in each Member State. It is thus not possible to provide one single explanation for the reduction of structural unemployment in recent years.

The following sections concentrate on recent reforms in tax-benefit systems and labour market institutions as the country reviews focused on these areas. As labour markets in almost all Member States are tighter than before with skill-shortages, and in some cases general shortages, the need to increase labour supply is becoming more urgent.

Tax reforms

Several Member States announced or legislated tax reform initiatives in 2000, of which the reform in Germany is the most significant in scope and the size of rate reductions. Also Austria, France, Ireland, Italy, Luxembourg and the Netherlands decided upon tax reforms in 2000. Even though the overall tax burden on labour is still high compared to other industrialised countries, the *trend in recent years towards decreasing the tax burden*, in particular on low wage earners, continued.

Including implemented and legislated tax reforms since 1998, *almost all Member States have reformed income tax and/or social security systems.* The direction of change has almost without exception made a positive contribution to the incentives to hire and seek work. In general, the size of tax reductions has been moderate – the exceptions being Germany, Ireland, Italy and Spain where rate reductions are significant – in line with budgetary restraint, and due to the need to prepare for future increases in public expenditures related to ageing. Some financing has been found within the wider tax system, e.g. by broadening tax bases and raising indirect taxes, which depending on the exact measures to some extent may have reduced the size of the beneficial labour market effects. The overall effect on labour markets of the tax reforms is positive in all countries. However, the size of these effects should not by overestimated.

There might exist some concerns regarding the risk that under-financed tax reforms contribute to a pro-cyclical fiscal stance in the context of macroeconomic demand. However, compared with the pattern of pro-cyclical fiscal policies in the late 1980s, the current tax cuts are modest, implying an average reduction in the structural budget surplus of approximately ½ per cent of GDP between 1999 and 2002.[6] In contrast, for instance, between 1985 and 1990 the structural budget balance in the Euro area worsened by 2 per cent of GDP. Also, current policy initiatives remain focused on improving structural conditions and hence may to some extent mitigate the impact on government finances through increased labour force participation and average work hours. While a pro-cyclical fiscal stance is an important risk in some countries, long-term sustainability of public finances is of more general concern.

A largely qualitative assessment of the isolated effects of tax and social security reforms has been made, *cf. table 3.3*. The assessment includes reforms implemented or decided upon since 1998 and accounts for the impact of reforms that will only be fully phased in during the coming years. Changes in benefit systems are not included (there are few such changes within the period considered). There is a general lack of comprehensive quantitative information on tax reforms in Member States.

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[6] The smaller extent of recent tax reforms does also reflect the fiscal commitments laid down in the Growth and Stability Pact.

Table 3.3. Implemented and legislated reforms of income tax and social security

Positive labour market effects at: Cumulated effects since 1998	Demand	---------- Supply ---------- Unemployment trap	Poverty trap (low inc.)	In general
Ind. labour costs (employers SSC)				
General				
• Austria	Small			
• Belgium	Moderate			
• Finland	Negligible			
• Germany	Negligible			
• Ireland	Negative			
• Sweden	Negligible			
• UK	Negligible			
Low income				
• France	Moderate			
• Netherlands	Negligible			
• Greece	Small			
Income tax, marginal rates				
• Austria			Small	
• Belgium				Small
• Denmark		Small	Small	Negligible
• Finland			Small	Negligible
• France		Moderate	Small	
• Germany		Small	Moderate	Significant
• Greece			Small	Significant
• Ireland		Small	Significant	Significant
• Italy		Small	Moderate	Moderate
• Luxembourg		Small	Significant	Significant
• Netherlands			Small	Small
• Portugal			Small	Small
• Spain				Significant
• Sweden			Small	
• UK			Significant	
In work benefits or employees SSC				
• Belgium		Small		
• France		Moderate		
• Greece		Moderate		
• Ireland		Moderate		
• Netherlands		Moderate		
• UK		Small		

Note: The table assess the size of tax and social security changes affecting the different labour market factors. The effects of benefit reform are not included. The outcome in terms of employment is not assessed. The size of indicated effects refers to reductions in percentage points in wage costs, replacement rates and effective marginal tax rates respectively. "Unemployment trap" refers to tax changes affecting net replacement rates. "Poverty trap" refers to tax changes affecting the effective marginal tax rate for low earnings. "In general" refers to tax changes affecting marginal tax rates for average and/or high earnings. "Significant" implies a change in percentage points above 5.

A number of countries have reduced *employers' social security contributions*, including Belgium, Finland, France, Germany, Greece and the Netherlands, and some of these reductions addressed in particular low-income earners. In the short run these cuts stimulate labour demand.[7] The increase in labour demand is due to a substitution effect by employers from capital to labour and in case of measures targeted at low incomes also substitution towards low skilled workers.

Almost all Member States have cut *marginal rates in income tax systems,* which is likely to lead to increases in labour supply. Such cuts increase the difference between earnings and benefits after tax, including unemployment and other benefits such as early retirement and disability. Thus a contribution is made to reduce unemployment (and participation) traps, which are due to small differences between take-home wages and benefits. However this effect is modest and requires a high degree of targeting of tax cuts at income brackets just above the level of benefits. Poverty traps are reduced to the extent that lower rates are targeted at low-income levels facing disincentives to move up the earnings ladder.

Generally, reduced tax rates stimulate the incentive to work longer hours[8], move from part-time to full time jobs and to some extent raise labour force participation. Other efficiency effects such as an increased reward to education and upwards earnings mobility may add to this. In most Member States the size of the marginal rate reductions is fairly small. With respect to general reduced tax rates at average or higher income levels the reductions are largest in Germany, Italy and Spain.

Some Member States have introduced *tax credits on earned income*, while others have reduced the social security contributions of employees, which in both cases directly reduce the unemployment trap[9]. If such tax credits are targeted at low incomes by withdrawing the credit at higher income levels poverty traps are on the other hand increased. The Netherlands has avoided this problem by providing a lump sum tax credit for all earnings. However, this solution is more expensive for a given reduction of the unemployment trap and does not reduce marginal tax rates. The UK has made a significant reduction of the withdrawal rate of the earned income tax credit, which reduces the risk of poverty traps. France will implement a tax credit for labour income (prime à l'emploi).

In total and on average the reforms in Member States are estimated to reduce the marginal effective tax rate on labour income by 2-3 percentage points for low and average income workers. To be sustainable these improvements have to rely on future control of public expenditures and measures such as improved labour market participation to address rising age-related expenditures and provide generally larger tax bases. If not there is a risk that the gains in terms of tax reductions may be reversed in the longer run.

Other tax measures

Some Member States including Austria, Finland, Germany, Luxembourg, the Netherlands and Sweden have increased the minimum income exempted from income tax or provided

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[7] In the longer run this is also the case if wages and wage differentials are inflexible. Over time the incidence of these tax cuts may in the case of more flexible wages shift to employees as direct wage costs, including those of workers most affected by lower indirect labour costs, may gradually grow more than they would otherwise have done. In this case the long-run effect compares to a reduction of employees' social security contributions - or a reduction of income taxes if income transfers are fully wage-indexed. In that case, the long-run labour supply effect is instead positive, cf. the discussion below.

[8] Lower marginal tax rates induce stronger work efforts through a positive substitution of work for leisure, but is partially balanced by an income effect reducing the need to work to obtain a given income target if the tax reform is not fully financed.

[9] In the case of reducing employees' social security contributions such an effect requires that unemployment and social benefits are not raised correspondingly. The importance of unemployment traps with respect to active job search and structural unemployment may vary according to the rules and administration of other benefit rules such as availability requirements and the interaction with active labour market policies.

similar tax credits. This reduces the tax burden for all and may lift some wage earners out of the tax system with positive structural effects, albeit only for those with very low earnings levels such as part-timers. To have an effect on the unemployment trap and participation rates, it is generally required that unemployment and other benefits are not affected by the tax reduction and remain unchanged after tax. However, these measures may reflect concerns for income distribution rather than the functioning of labour markets.

Overall there has been a shift in Member States away from income taxation towards indirect taxes since the mid 1990s. This is particularly pronounced in the Netherlands, where the tax reform is partially financed by an increase in the general VAT rate. Several countries have also introduced or are planning to expand existing eco-taxes. This general shift in tax structures contributes to lowering overall tax distortions, partly by shifting the tax burden to wealth owners and recipients of transfer income.

However, some Member States have, as an experiment based on an understanding at the Community level, *introduced low VAT rates on labour intensive services* – Belgium, France, Greece, Italy, Luxembourg, the Netherlands, Portugal and the UK. This may indirectly induce beneficial labour market effects provided that the share of low-skilled workers is significantly higher in the affected sectors compared to other sectors[10] and depending on the price-elasticity of the affected products. While potentially also moving some shadow economy activities into legal and potentially more productive firms these benefits must be carefully balanced against the costs such as lost revenue, the introduction of price distortions and potential reclassifications.

An interesting feature of the tax reform in the Netherlands involves *replacing capital income in the tax base by an imputed return* equal to 4 per cent of household net wealth (comprising net financial assets as well as housing). Such a design clearly involves benefits in terms of easier compliance and administration, but it remains to be seen whether the new regime is viable during periods of, e.g., sustained capital losses on equities or housing values.

Some Member States, such as Belgium, Finland, France and Ireland, include tax cuts and other government initiatives appreciated by social partners in consultations and negotiations on wage outcomes. This may help to facilitate moderate and employment-supportive wage outcomes in particular in the short term, but concerns remain that in some cases such measures may put the overall fiscal stance or structural policies at risk.

Benefit reforms

Recent reform efforts in tax-benefit systems have concentrated almost entirely on tax reforms, whereas benefit systems are only slightly modified in a few countries and with opposite effects.

Considering the scope of the Lisbon targets, it is indispensable also to improve the ability of benefit systems and of labour market regulations and institutions to facilitate high employment. Such adjustments should take into account the need to *ensure adequate social protection levels*. France is the only country to have adopted a more comprehensive benefit reform in 2000, *cf. box 3.7*, which together with the French tax reforms seek to address labour market incentives.

With respect to the *unemployment benefit system*, only minor changes have taken place in Member States and these move in different directions with respect to labour market

[10] Including the low-skilled labour in other Member States embodied in displaced imported goods.

structures. In France the unemployment benefit system reform implied inter alia an elimination of reduction of benefits over time, wider eligibility and enhanced assistance with job-search. In Italy, where the unemployment benefit system is less generous than the EU average, the net replacement rates have been increased and the unemployment insurance period has been extended for unemployed people older than 50 years. In Greece benefits are being increased for people in their second year of unemployment, and Finland increased the replacement rate slightly.

Austria on the other hand further reduced its replacement rates, which were already below the EU-average, by abolishing the automatic inflation indexation of insurance benefits and increasing the employment period needed to renew unemployment benefits. In Sweden, the benefit eligibility criteria were tightened.

Box 3.7. Good practice: Reforming tax and benefit systems to reduce marginal effective tax rates

In France, the government has adopted over the last two years a comprehensive set of measures to reduce high marginal tax rates and to improve incentives to take up a job:

- The housing tax (from which one is exempted when receiving social minimum revenues) and the housing subsidy system have been amended to avoid an abrupt increase in taxation when taking up a job or an abrupt withdrawal of benefits when giving up the Insertion Minimum Revenue.

- The new system for providing free basic medical care (Couverture Maladie Universelle) is means-tested, but contrary to its predecessor, it takes into account all kind of revenues, with no distinction between transfer and activity revenues.

- A premium for low paid worker has been introduced. For a single person paid at minimum wage, this premium would reach 1500 francs per year in 2001, and would gradually decrease up to 1,4 times the minimum wage. For a couple with only one spouse employed, this premium would be granted up to 2,1 times the minimum wage, and would amount 2000 Francs for a full-time job paid at the minimum wage. Bonus will be added to take into account the family situation, with particular attention paid to mono-parental families.

Those reforms taken together will in the final stage of implementation have a significant effect on incentives to take up a job: for a jobless couple with two children, giving up the Insertion Minimum Revenue for a full-time job paid at minimum wage for one of the spouses implies a 1500 Francs surplus per month, instead of the 600 Francs bonus before the reform. When the job taken up is only part-time, the surplus will amount to 300 Francs, whereas it was nil before the reform.

Several other Member States have reduced income taxes targeted at the low-to-middle end of the income classes – Austria, Belgium, Denmark, Finland, Germany, Greece, Ireland, Italy, Sweden and the UK - or reduced social security contributions – Belgium, Finland, Germany, Greece, Ireland, Italy, the Netherlands and Spain -. A few Member States – Belgium, Finland, Ireland, the Netherlands and the UK - have also increased the use of in-work and employment related benefits.

Labour market regulation and institutions

Few steps have been taken to reform labour market regulation, work organisation and the wage formation process in order to reduce structural unemployment and increase labour market participation. However, different and partly opposite trends can be identified in the changes in Member States' labour market policies.

Good progress has been made with the *implementation of Active Labour Market Policies* (ALMP) in 2000 in order to improve the employability of the unemployed and hence the matching of skills of unemployed persons with the requirements of employers. Increased efforts have been made to target the measures towards long-term and youth unemployment in order to ensure their efficiency and minimise dead-weight losses. Most Member States have complied with the 20 per cent target of the Employment Guidelines for the share of unemployed persons in active measures.

France has as part of the benefit reform implemented an ALMP scheme for young people. The New Deal program in UK has been extended to disabled and lone parents. In Sweden the scope of ALMP has in 2000 been reduced to 2.6 per cent of the labour force, although from a very high level. The purpose is to achieve higher programme efficiency. In Spain a shift towards ALMP aimed at improving employability has been implemented. In Austria the ALMP has been reorganised to sharpen the focus on older workers. Italy introduced tax credits for firms hiring adult long-term unemployed for the most disadvantaged categories of workers.

Much targeted effort is focused on increasing the *employability of the long-term unemployed over the age of 50*. Social security contributions, when employing elderly long-term unemployed, are being reduced in Belgium, and in Austria an employment subsidy has been introduced. The tax credit to employers hiring long-term unemployed in Sweden has been extended in terms of coverage and the level of the tax credit. In the Netherlands a co-payment is introduced for employers who lay off older workers, whilst this payment was increased in Austria. The employers will have to pay 25 per cent of the unemployment benefit. The Netherlands also has a proposal under consideration to end favourable tax treatment of early retirement schemes. In Austria the reduction in pension is increased when retiring at an early age, and this is combined with the introduction of allowances for elderly workers taking up part-time work and more flexible working schemes.

Only a few countries have made efforts to ease *regulation of hiring and firing* in order to achieve more flexibility. However, in some countries the recourse to atypical employment contracts has created some de facto flexibility. In Portugal the growth of fixed-term contracts was 12.3 per cent in 1999, compared to a 1.4 per cent increase in permanent jobs, which may be an indication of the need for greater flexibility. Similar developments have been noted in France, Italy and Spain. In Greece, lay-off rules have been relaxed for medium-sized and large firms. Italy has improved the possibility of fixed term contracts, while Germany has introduced a justification requirement if such contracts are to be prolonged.

Four member states have taken steps to change *disability pension schemes*. Austria increases in-work benefits for disabled by 73 million euro in 2001, and abolished the possibility to enter the early retirement scheme due to disability. In Denmark an agreement was reached in 2000, which will be effective by January 2003. One purpose is to give disabled people an opportunity to work – preferably in ordinary jobs and if this is not possible then in special subsidized jobs – instead of receiving a passive benefit. In the Netherlands a reform of the social system is in the pipeline, and in Luxembourg a working group has tried to reach agreement about a disability pension reform, but so far unsuccessfully.

Modernisations of *Public Employment Services* (PES) are underway in Greece and Italy. In Greece the reform will complete the shift from passive to active employments services, whilst in Italy the reform aims to delegate responsibility to the regional level.

Very few steps have been made to improve the *wage formation process* in order for it to better reflect differences in skills, qualifications and regional employment conditions. In some Member States, and particularly Germany, greater wage differentiation can be noted because of increasing numbers of opening clauses agreed upon in the wage negotiations and of companies operating outside collective bargaining agreements.

In the Netherlands new legislation provides for *more flexible working hours*. Different measures have been taken to increase part-time work as a substitute for being entirely out of work.

In a number of other countries *working hours are on the other hand being shortened*, implying a reduction of labour supply. In Denmark the wage round in 2000 realised the initial step taken in the 1998-wage round towards increasing vacations from 5 to 6 weeks per year. In France the implementation of the reduction of working hours continued in 2000. Germany adopted a law, which gives employees the right to change from full- to part-time work, if the employer does not reject such a change on the basis of firm-specific reasons. In Greece a new package included a tightening of legislation on over-time. Greece increased the minimum wage for part-time workers and has a proposal under consideration, which provides supplementary benefits for long-term unemployed who find a part-time job.

3.5. Promoting the transition to the knowledge-based society

The fast diffusion and increasing use of ICT and growing importance of immaterial assets such as knowledge and human capital for productivity growth implies new challenges for structural policy, *cf. section 2.3 and annex III*. To speed up and ensure a smooth transition to the knowledge-based society, efforts are required by Member States in areas such as the regulatory framework for electronic communication and transactions, skill formation and R&D and innovation. Moreover, the use of ICT by the public sector has the potential to enhance the efficiency and quality of the public administration and the services provided by the public sector.

Several policy programmes are already in place at the Community level to promote R&D and ICT. For example, the Commission's *e*Europe Initiative, launched at the Helsinki European Council in December 1999, dealt comprehensively with ICT issues. The EU has also introduced several more specific measures: a recommendation on local loop unbundling in telecommunication, a package of legislative proposals designed to strengthen competition in the electronic communications markets as well as the Electronic Commerce Legal Framework Directive. These programmes and measures provide important support to and complement national initiatives.

All Member States have in recent years adopted *programmes of a similar nature to the eEurope Initiative*. Common for these programmes is a comprehensive approach, comprising the development of telecommunications infrastructure, regulation of ICT, e-government, access to the new technologies, skill formation and creation of knowledge and skills to support the use of ICT. Specific targets and deadlines are included in most programmes in accordance with the Lisbon conclusions. Some Member States such as Finland, Ireland and Italy have created commissions or advisory board to assess and supervise on the implementation of the actions plans, and in the Netherlands procedures for biannual assessments have been established.

Regulatory framework for electronic communication and transactions

The *liberalisation of telecommunication markets* has not only contributed to the improvement of traditional services but also Internet access in the form of an increased selection of services and lower access prices, *cf. section 3.1*. These developments have increased the use of the

Internet and mobile telephones, which are the first mass scale applications of digital communication. However, a few Member States have not yet fully liberalised the market, and further measures are required in many countries to ensure competition in the local loop, which is a precondition for low internet access charges.

There are other means of providing high-speed internet access than the ordinary telephone network, however. It will be a *regulatory challenge in the future* to ensure that alternative fast broadband connections are offered to customers at low prices. Thus, TV cables, the next generations of wireless connections and even electricity grids can compete with traditional telephone lines as a channel to the Internet.

Although much of the needed *infrastructure for ICT* is provided for by private sector investments, some Member States have taken an active role in upgrading networks either generally or for more specific purposes. Belgium will in 2001 establish Giganet which is a fibre optic network linking universities with the trans-European rapid research network. Ireland and Sweden will provide broadband networks in regions that would otherwise be excluded due to lack of commercial viability, and the Netherlands is preparing for an acceleration of the distribution of dense fibre optic networks.

The other main area of regulation relates to the use of the Internet. The *framework conditions for e-commerce* are gradually improving. Many Member States such as Ireland, Luxembourg, Portugal and the UK have already transposed, at least partially, the *EU directives on e-commerce and e-signatures*. Germany will transpose these directives in 2001, when also France will transpose the e-commerce directive as part of a general law for regulating internet transactions. The remaining Member States have or will take similar step to strengthen the regulatory framework.

Other measures have been introduced to ensure that transactions over the Internet are considered to be safe from the point of view of consumers and businesses. Germany has launched an initiative, "Security in the Internet and in the Information Society" and will adopt an improved version of the law on data protection for the users of online-services. Legislation to protect personal data has been introduced in the Netherlands and will be enacted in France in 2001. A French commission has in the same vein suggested that a European data protection label be introduced. In Germany and the UK, distance selling regulation came into force in 2000. Austria created an *Internet Ombudsman* in 2000 who can award an e-commerce quality label to companies satisfying certain conditions, and similar labels are underway in Denmark. More directed towards the providers of internet services, France will adopt measures to strengthen copyrights and related rights in 2001, as Ireland did in 2000.

However, as e-commerce is still in its infancy in Europe there exists a trade-off that needs to be carefully balanced. On the one hand, consumer interests must be secured but, on the other hand, regulations must be flexible enough for businesses seeking new avenues for profitable trade. Much can thus be achieved in terms of transparency and consumer rights through self-regulation among companies offering products on the Internet. *Alternative dispute resolution* (ADR) mechanisms, aimed at easing the trade-off, are being introduced in several Member States. The UK government's intention to enhance flexible co-regulation as well as to create a national "clearing house" that will give consumers access to ADR schemes across Europe is a promising avenue. Similarly, the French government is engaged in a dialogue with the private sector and interest groups on how to establish a system of *co-regulation*, where responsibilities are shared between government and the sector itself.

Promoting use of and access to ICT for all
Central to the efforts of all Member States is the wish to limit as much as possible the digital divide. Unless specific actions are taken, there is a risk that ICT and the Internet can create social exclusion along, e.g., the level of educational attainment.

The best way to avoid the digital divide in the longer term is to introduce *ICT at all levels in the educational system*, from the 1st grade to the highest university degrees. All Member States are pressing on with the task of linking all schools, pupils and students to the electronic highways and have set specific deadlines and targets for, e.g., the number of students per PC. Private sector contributions to the computerisation of schools through sponsorships are being encouraged trough tax relief and other incentives in, e.g., Germany and Italy. Obtaining the hardware is only one step, however, and programmes for upgrading the skills of teachers have been initiated in, e.g., Greece, Italy and Portugal, while Denmark has set a target of integrating the use of ICT in the curriculum of all courses at all levels. Germany has changed the curriculum for many vocational training courses and established new ones accounting for the new jobs being created as a consequence of the ICT diffusion.

Enabling *life-long learning is of particular importance* in relation to a fast-changing technology such as ICT. Luxembourg has adopted a new law on life-long learning that came into force in January 2001. Member States such as Germany and Ireland have stepped up efforts to include ICT in relevant courses for further education, and adult education in Sweden has been oriented more towards ICT with close to 20 per cent of participants in the Adult Education Initiative studying either computer science or computer technology. The UK offers free training in basic ICT skill to the unemployed and people with low skills. To increase the general awareness of the possibilities of ICT, Belgium has carried out a road show that could be attended by the general public, and new road shows targeted at SMEs and schools are underway.

For *those who have already left education*, free internet access is in most countries, e.g. France and the UK, provided in libraries, while Ireland also offers internet access in Social Benefits Offices. Ireland is funding PCs for communities, and the UK has in 2000 also initiated the creation of a new network of online centres, which is expected to encompass 6,000 centres by 2002 that besides access also offer advice and training if needed by the users.

The initiatives mentioned so far have primarily addressed the issue of the digital divide and the risk of social exclusion, but another common challenge for all Member States is to *increase the number of specialists* with capabilities within science and technology, but also new areas such as multimedia. Suffering from lack of applicants to science and technology departments at institutions of higher education, several Member States such as Germany and Ireland have initiated awareness campaigns, often in close cooperation with the private sector.

New institutions and courses are being created at the level of higher education. E.g., Denmark established in late 1999 two ICT colleges and introduced new specialised ICT courses with a duration of two years. As part of an overall strategy, Italy plans to establish 15 laboratories and courses in economics and ICT, 5 university-based centres of excellence devoted to ICT, and 40 public multimedia training centres before the end of 2001. In Sweden a new IT-university is planned to open in 2001, and the existing IT branch of the Royal Institute of Technology is expected to educate 10,000 students within the next five years.

Other measures to promote the diffusion of ICT include the German D-21 Initiative, which is based on public-private partnerships to develop projects and campaigns with a high PR effect to accelerate the distribution and use of ICT. A number of Member States such as Greece, Italy, Spain and Sweden give tax relief to companies supplying their employees with ICT equipment. Greece and Spain has in addition introduced a range of tax measures to encourage business investment related to ICT, internet access and the development of web-sites and e-commerce activities.

These tax incentives to business ICT use represent an exception, as most measures to promote access to and use of ICT are targeted at either improving framework conditions or at individuals. Using direct fiscal incentives to promote specific technologies in production as well as in consumption should, however, be carefully considered. The costs in terms of lost revenue and distortionary effects on prices should be assessed against the additional social benefits that are achieved. It is generally to be expected that the demand for ICT, especially by enterprises, is socially appropriate.

However, *SMEs may face high costs* and other barriers to adopting the new technologies and exploiting their possibilities. To address this problem, some Member States such as Austria, Germany and the UK have established units or centres of excellence to advice and assist SMEs in areas such as setting up an e-commerce business.

E-government

All Member States are *developing e-government* in a wide range of areas of which some such as making public procurement more efficient and reducing the administrative burdens of enterprises, have already been mentioned, *cf. sections 3.1 and 3.2*. Much effort has already been made in all Member States to establish Internet portals providing access and links to public authorities and information on many aspects of the public sector. Similarly, all countries are gradually creating possibilities for submitting forms, e.g. for taxation or application for support and grants, using the Internet. These initiatives increase the transparency of the public sector and reduce the burden associated with the administrative requirements that the public sector lays upon citizens and businesses.

The list of possible uses of the new technology to enhance the efficiency and quality of public administration and the services provided by the public sector is long, and the potential probably not fully appreciated yet. To explore and develop the full use of electronic business and legal transactions, Germany has launched a pilot project, *cf. box 3.9*.

Other initiatives within the framework of e-government include the creation of an electronic job exchange within the Austrian public employment service, and the launch of a Danish data base containing all public sector vacancies. Belgium has established a pilot project to create virtual courts and allow for the electronically submission of legal documents.

Box 3.9. Good practice: Creating a knowledge-based society through e-government, e-commerce and e-procurement

Most Member States have accelerated their effort in the previous year to provide an information society for all. This includes for example public procurement on-line and the introduction of digital signatures to facilitate e-commerce. There are several positive effects. Public administration is becoming more efficient and citizen-friendly, enterprises are becoming more flexible and productive and the working and living conditions for citizens are improving.

One interesting example to improve the electronic interaction between citizens, business and public administration is the "MEDIA@Komm" project in **Germany**. This pilot project aims to facilitate the development and use of electronic business and legal transaction. The broad use of the digital signature plays a key role.

The first step was to develop a comprehensive concept of "digital town halls" and "digital market places" in the framework of a broadly designed multimedia competition. The concept was based on close public-private partnerships, and the three winners were selected by an independent panel. The concept has been implemented in Bremen, Esslingen-Ostfildern and the town association Nuremberg-Bayreuth-Erlangen-Fürth-Schwabach as pilot projects.

With the implementation of the "MEDIA@Komm" project, citizens no longer need to go to the town hall to make changes in for example legal notifications and status. This can now be made by themselves on the internet using digital signatures. Students gain from for example electronic student ID cards and digital university records. Construction projects have become more transparent and quicker through the use of digital tender. The digital network is offering investors and start-up entrepreneurs comprehensive support in one-stop shops.

The result of the pilot project has been a substantial reduction in administrative burden for citizens and enterprises.

Several other member states have taken similar measures to facilitate the transition to a knowledge-based society, e.g.. the "e-Austria in e-Europe" project and the "Internet initiative" in Portugal.

Strengthening the level and return to R&D and innovation

The production and diffusion of knowledge is a key driver of productivity and wealth growth. Overall the EU lags behind the US and Japan in terms of the overall resources put into research and development activities, and initiatives to reduce the European shortfall are needed.[11]

The shortfall in total R&D expenditures in the EU can primarily be attributed to the private sector, while on average there is no shortfall in public R&D in expenditures in the EU countries. However, substantial differences exist between Member States with respect to the share of GDP that is allocated to public research. Three Member States with public R&D expenditures below the EU average – Italy, Spain and the UK – adopted *comprehensive plans to strengthen public as well as private R&D* in 2000. Combining increased funding to public research institutions, incentives for private sector research and increased cooperation between the private and public sector, the Italian plan aims for an increase of total R&D expenditure of 82 per cent within the next six years, and Spain aims at reaching a level of R&D and innovation corresponding to 2 per cent of GDP in 2003.

Although the level of public sector research is adequate in many Member States, much can be done to *improve the output in terms of quality and diffusion* to exploit the potential benefits in

[11] R&D was a special topic in last year's Annual Report of the EPC, and the focus is therefore here primarily on initiatives adopted in 2000.

terms of new innovation products and processes. Concentrating resources to achieve a critical mass, redirecting existing funding and increasing the awareness of public researchers to the needs of society are important means in this respect. Sweden changed in 2000 the structure of research agencies to further cooperation between different research areas, improve the diffusion of results and strengthen research in priority areas such as biotechnology, educational science and ICT. Other Member States such as Belgium and France have increased funding specifically for public research in ICT. The UK boosted research in new areas such as genomics, e-science and basic technology, and allocated substantial funds to improve research infrastructure, and the Irish National Development plan includes, among much more, a fund for strengthening research infrastructure in niche areas with an initial focus on projects within ICT and biotechnology.

Taking a somewhat broader approach to R&D, the establishment of MediaLab Europe in Ireland and LearningLab Denmark in 2000 represents a novelty. Both Labs are inspired by and cooperate closely with the MIT Media Lab. By bringing together persons from public research and educational institutions, private sector companies and various individuals the basic idea is to create a research culture different from that which exists in traditional research environments. In Ireland, the focus is on forming the entrepreneurs and leaders of tomorrow within communications, multimedia and the learning arts and sciences. In Denmark, the focus is directed towards new methods of learning and competence formation.

Increasing the *collaboration between public research institutions and the private sector* is key to the exploitation of new knowledge. Many Member States have established centres of excellence to bridge the gap between the two sectors. Germany and the UK have in 2000 introduced new innovative measures to strengthen the links between the public and private sectors, *cf. box 3.10*.

While most efforts are put into improving the framework conditions for private sector R&D, some measures rely on direct public financial support to the private sector. In recent years, several Member States have used *tax incentives* to increase private sector R&D. In 2000, Austria decided to increase the tax allowance for private sector R&D and unify the tax treatment of own and outside research. The introduction of tax incentives is one element of the overall Spanish plan.

Box 3.10. Good practice: Improving the links between universities and business

Several Member States have in the past years put particular efforts into the improvement of the transfer of knowledge and technology between the public and private sector. Examples of policy efforts include: programmes or schemes to strengthen cooperation between universities and other public research institutions and business, mobility programmes for researchers, the reduction of restrictions on external activities of public researchers, and an increase in the autonomy of public researchers institutions.

The **United Kingdom** has established a number of schemes to support universities in their new role as centres of excellence for knowledge transfer. The Higher Education Innovation Fund, worth £ 140 million over three years - a tripling of existing funding by the third year - aims at creating a climate of enterprise in all UK universities by providing incentives for researchers to exploit the results of their work.

The University Challenge Competition, worth £ 15 million provides seedcorn funding for commercial developments at an early stage. 15 such funds, involving 37 universities are already in place.

Greater use will also be made of Faraday Partnerships which are sponsored by research councils and the Government and which link universities, independent research and technology organisations with business and finance companies to develop new products and processes. These partnerships aim at promoting the two-way flow of industrial technology and skilled people between the science and engineering base and industry, strengthening partnerships between industrially oriented research organisations and the science and engineering base. They also support core research underpinning product and process development and enhance the relevance of postgraduate education and training for careers.

Finally a Small Business Research Initiative (SBRI) has been launched with a target of £ 50 million of R&D per year to be procured from SMEs by Departments and Research Councils.

In **Germany** the Government has launched the "EXIST Programme – Start-Up Entrepreneurs from Universities" as part of a package of measures to assist the transfer of innovation and technology and to foster innovative business start-ups. EXIST began as a competition aimed at universities working together with external partners from business and research in their region. More than 200 universities took part and in many cases the competition was the starting point for regional networking.

In **Austria**, research programmes of several years' duration have been carried out within the framework of competence centres, which improve the access to new technologies through cooperation among research institutions and universities on the one hand and business on the other hand. Overall, 18 competence centres are either in their start-up phase or have already become operational.

4. Implementation of the Broad Economic Policy Guidelines

According to the Treaty, Member States are required to regard their economic policies as a matter of common concern and shall coordinate them within the Council within the context of the Broad Economic Policy Guidelines. The BEPGs draw together and direct the different processes of economic policy coordination, which include the Cardiff multilateral review of economic reforms, the Luxembourg coordinated European employment strategy and the Cologne macroeconomic dialogue, by putting forward an integrated view.

The Ecofin Council in its report on economic policy coordination submitted to the European Council in Helsinki asked the EPC to carry out a rigorous peer review of the implementation of the country specific BEPGs dealing with structural policies.[12] This review has been carried out on the basis of a Commission assessment.

The 2000 BEPGs consisted of two sets of recommendations. The first were general recommendations addressed to economic actors in all Member States. The second set was country-specific recommendations. These highlighted the areas which the Council considered to be the most important for action in each Member State.

The present report only examines the implementation of these country-specific recommendations relating to structural policies which the Council has adopted in 2000. It does not specifically examine the implementation of general guidelines and those guidelines dealing with macroeconomic and budgetary issues. A more in depth examination of the implementation of the BEPGs, also covering the general recommendations, is provided for in the Commission's Implementation Report.

Last year's BEPG reflected to a large degree the new strategy as agreed by the heads of State or Government in Lisbon. They focused in particular on the medium and long-term implications of structural policies and on reforms aimed at promoting economic growth potential, employment and social cohesion as well as on the transition towards a knowledge-based society.

Taking all fifteen Member States as a whole, most of the country-specific recommendations have been at least partially implemented. Nevertheless, the degree of implementation varies between policy areas and Member States.

Progress has been strongest in areas such as: implementation of Single Market legislation; reducing the administrative burden for businesses; liberalising telecommunications and to a lesser degree electricity markets; reinforcing the powers of competition authorities; stimulating private sector involvement in R&D; reductions of the tax burden on labour and implementing a preventative approach to tackling youth and long-term unemployment.

Progress has been weaker in areas such as: implementing and enforcing public procurement rules; enhancing competition in the transport, gas, postal services and some other network industries; reducing barriers for investment in risk capital; reforming benefit systems; reviewing employment protection legislation and enhancing wage-flexibility.

[12] Report by the Ecofin Council to the European Council in Helsinki on economic policy coordination: Review of instruments and experience in Stage 3 of EMU, 29 November 1999.

Box 4.1. 2000 country specific recommendations on product, capital and labour markets

Austria: (1) accelerate transposition of Single Market Directives in public procurement (2) accelerate regulatory reform in energy and transport sectors (3) encourage involvement of private sector in R &D and support technology transfer between public and private research (4) upgrade supervisory framework and improve corporate governance by, inter alia, pursuing privatisation and develop fiscal incentives for equity and risk capital investments (5) implement actions put forward in 1998 Risk Capital Action Plan (6) increase early retirement age, review benefit systems and prevent rising unemployment among older workers, and (7) reduce taxes on labour in particular for problem groups.

Belgium: (1) increase competition in services, especially in energy, telecommunications, rail transport and business services (2) speed up liberalisation in networks and strengthen regulatory authorities (3) implement and monitor measures aimed at reducing administrative burden for businesses (4) increase transparency of relationships between public and private sectors (5) improve fiscal environment to encourage private venture capital and restructure corporate tax system (6) promote labour mobility and encourage social partners to further allow wage negotiations to better reflect local labour market conditions or/and financial situation of enterprises; social partners and public authorities should pay attention to upgrading skills and improving educational attainments of labour force (7) reinforce active labour market policies, review the potential disincentive effects of tax and benefit systems on employment.

Denmark: (1) strengthen and apply competition policy (2) continue to improve efficiency of public sector, for example by systematic use of public tendering (3) increase technology transfers from research institutes to businesses (4) reduce constraints on pension funds investment to increase venture capital (5) give attention to good-practise examples put forward in 1999 Risk Capital Communication (6) reduce fiscal pressure on labour, apply and monitor measures to increase labour supply.

Finland: (1) increase competition in a range of sectors, especially in distribution sector and consider reforming the competition law (2) further open up market for public services (3) give attention to examples of good practise put forward in October 1999 Risk Capital Communication (4) continue with efforts to encourage investment by institutional investors in equity markets (5) review the benefit system in order to increase job availability, make job search more effective and increase the incentives to take up job offers, and (6) reduce tax burden on labour.

France: (1) improve implementation of Single Market legislation; increase transparency in public procurement procedures (2) avoid granting large ad hoc aid (3) widen liberalisation of network industries, particularly the energy sector (4) continue efforts to simplify formalities and encourage innovation (5) facilitate investment by institutional investors in stock markets and in venture capital (6) pay attention to examples of good-practise put forward in October 1999 Risk Capital Communication (7) pursue measures to reduce fiscal pressure on labour, especially those designed for unskilled and low-paid workers (8) review employment protection legislation in order to assess its impact on unemployment (9) monitor the 35-hour week reform so as to avoid adverse effects on wage costs, labour supply and work organisation.

Germany: (1) ensure increased opening-up of public procurement, promote electronic access to public tenders (2) liberalise advertising regulations (3) improve competitive structures and efficiency by privatisation (4) reduce State aid (5) review the new agreement on electricity payments (6) reduce restrictions and administrative burden on SMEs (7) give consideration to examples of good practice put forward in October 1999 Risk Capital Communication (8) reassess labour market policies towards the eastern part of the country (9) reduce taxes on labour and social security contributions, continue policy of shifting taxation to eco-taxes (10) promote labour market participation, especially among older workers, by reducing disincentives within tax and benefit system.

Greece: (1) improve transposition and implementation of Single Market legislation (2) speed up liberalisation of telecommunications, electricity and gas sectors (3) promote business start-ups (4) increase R &D and ICT diffusion and stimulate private sector involvement in R&D financing (5)speed up implementation of 1998 Risk capital action plan (6) prevent increases in long-term unemployment, complete reforms of employment services, implement preventative policies and reform the education and training system (7) ensure implementation of labour market reforms, especially regarding extension of part-time work and flexible working time, and (8) review wage formation system.

…………continued on the next page

Box 4.1. Continued.

Ireland: (1) give the Competition Authority powers to enforce Articles 81 and 82 of the EC Treaty and achieve real strengthening of competition policy (2) liberalise further transport sector (3) develop start-up and early-stage venture capital (4) Monitor wage developments to ensure maintenance of employment growth (5) adopt comprehensive strategy to increase participation of women in labour market.

Italy: (1) improve implementation of Single Market legislation, especially for public procurement (2) reduce non-agriculture state aids and improve its structure (3) simplify regulatory environment for companies (4) promote R &D and innovation (5) encourage development of venture capital (6) improve unemployment benefit system, increase flexibility of employment protection legislation, tighten eligibility for pension and other benefit schemes and ensure proper job availability requirements and incentives to participate in active labour market programmes (7) enhance labour market flexibility and wage flexibility (8) continue efforts to reduce taxation on labour.

Luxembourg: (1) speed up implementation of Single Market regulations, especially in transport, motor vehicle, plant-health checks and socials affairs (2) adopt new competition law permitting authorities to enforce Articles 81 and 82 EC (3) create conditions for catching up to the most recent developments in information society (4) continue efforts to increase the employment rate and review tax-benefit system in order to remove disincentives to work.

Netherlands: (1) progress in enforcing public procurement directives (2) pursue further regulatory reform and privatisation process in order to introduce competition in network industries (3) raise involvement of private sector in R & D and encourage technology transfer between public and private research (4) encourage early stage investments, give consideration to examples of good-practise put forward in October 1999 Risk Capital Communication (5) continue efforts to improve tax-benefit systems and reduce number of persons supported by passive income support schemes.

Portugal: (1) improve transposition of Single Market regulations, especially in transport (2) reduce state aids and bring competition law into line with EU legislation (3) reduce costs of administrative procedures, especially for SMEs (4) promote R & D and ICT diffusion (5) make efforts to develop venture capital, in particular by focusing on the tax framework (6) improve education and training and provide adequate benefit systems (7) implement laws aimed at improving labour market performance and flexibility (8) encourage partnership among social partners.

Spain: (1) continue implementation of 1999 competition law reforms (2) reduce sector-specific state aids (3) reinforce competition in networks, remove restrictions on land supply and bring price of water closer to real costs (4) reduce administrative burdens, especially for SMEs (5) make effort to develop venture capital markets to increase early-stage investment (6) review wage formation system and the regional-local enforcement of the welfare system, and improve functioning of the housing market to promote labour mobility and tackle regional disparities in unemployment (7) improve efficiency of active labour-market policies with particular emphasis on technical training and review tax benefit system (8) reduce weight of temporary contracts by reviewing tight job-protection and lowering barriers to dismissal

Sweden: (1) give the competition authorities powers to enforce Articles 81 and 82 of the EC treaty and increase competition in retail distribution, construction and pharmaceuticals (2) improve competition in railways and air transport (3) pursue initiatives to enhance efficiency in public procurement and provision of public services (4) facilitate access of small non-high-tech companies to risk capital and give considerations to examples of good-practise put forward in October 1999 Risk Capital Communication (5) further reduce taxes on labour, in particular at the lower end of the wage distribution (6) further review benefit and assistance schemes.

United Kingdom: (1) monitor and reinforce measures to tackle problem of declining R & D, low innovation, skill shortages and high failure rate of SMEs (2) develop a long-term plan for transport (3) stimulate investment of pension funds in venture capital (4) make further efforts to deal with regional unemployment differences and reinforce preventive strategy against long-term unemployment.

Below, only those areas of country-specific recommendations are highlighted in which the respective Member State has made most progress and those where more needs to be done. A more comprehensive assessment addressing all country-specific recommendations will be made in the Commission's implementation report.

It should be borne in mind that the assessment made below does not refer to the economic performance of individual Member States. It only examines whether a Member State has taken action since the adoption of the BEPG recommendations last year to address problems identified in 2000 by the Council. Moreover, the fact that a particular country has made good progress in addressing a specific recommendation does not necessarily imply that the country is among the frontrunners in that area. It could just reflect that overdue reforms were finally being implemented, which of course in itself should be appreciated. Finally, one should also bear in mind that the importance of individual recommendations, the challenges implied and the time required to address those and to initiate policy changes might differ considerably.

Austria: A number of measures have been taken to improve the employment rates of older workers and to reduce the tax burden on labour. There has been a reform of the statutory pension system to decrease incentives for early retirement. It includes a gradual increase in the early retirement age by a total of 18 months, penalty/reward for taking early retirement/postponing retirement, and the abolition of early retirement due to reduced ability to work. The tax reform in 2000 reduced the tax burden on labour by lowering income tax rates, and the size of the reduction is more pronounced at the middle to lower end of the income distribution. More progress has to be made in the area of transposition of Community legislation as two directives have still to be transposed in the area of public procurement. The value of calls for tenders published in the Official Journal remains below the EU average and has even decreased. Overall Austria showed progress in implementing its country-specific recommendations.

Belgium: Progress has been made to increase competition in some of the network industries (telecoms, electricity and gas). Competition has been enhanced through a number of measures. However, prices in these sectors remain above the EU-average. They started to decrease very recently and the decline should continue in the next months. Nevertheless, specific problems are still to be solved in these sectors. A number of new initiatives have been prepared in order to reinforce active labour market policies. The government has launched a proposal for a comprehensive income tax reform, which should eventually contribute to a substantial cut in income tax. Nevertheless, little progress has been achieved in promoting wage flexibility. The recommendation to increase the transparency of the relationships between the public and private sectors has also not been fully addressed, even though the issue is under examination. Overall Belgium showed some progress in implementing its country-specific recommendations.

Denmark: Amendments to the competition law have been enacted, introducing merger control and giving powers to the Competition Council to enforce EC Articles 81 and 82 and efforts have been made to increase the efficiency of the public sector. The tax reform aimed at reducing the marginal tax rates for lower earnings is in process, complemented by targeted measures for groups of workers who are likely to benefit most from increased economic incentives. Some new initiatives have been floated and existing ones have been expanded in order to strengthen ties between science and industry. However, more progress could be made in implementing recommendations contained in the Risk Capital

Communication, e.g. concerning bankruptcy. Overall Denmark showed progress in implementing its country-specific recommendations.

Finland: Progress has been made on promoting institutional investment in the equity market. Tax reforms which are scheduled for the period 1999-2003 will entail significant reductions in the tax burden on labour. A significant reduction of the marginal effective tax rate will take place in 2001. Little progress has been achieved in the field of public procurement. The share of public procurement published in the Official Journal remains below the EU average. Local authorities seem particularly slow to open up procurement and the provision of services to private competition. Although amendments to Finnish law are envisaged, the competition authorities have not been given the power to enforce EC Articles 81 and 82 so far. Overall Finland showed some progress in implementing its country-specific recommendations.

France: Tax cuts were announced aimed at facilitating business transfers and business creation. In order to support R&D, the government launched a series of measures to encourage collaboration between public and private fields. Good progress has been made in reforming tax-benefit systems to avoid unemployment or poverty traps. Ad hoc aid has started to decline according to the most recent data. However, the level of these ad hoc aids, when expressed as a share of GDP, remains above the EU-average. Moreover, no review of employment protection legislation has taken place in the last year. Overall France showed some progress in implementing its country-specific recommendations.

Germany: A number of measures to help SMEs and reduce administrative burden for businesses have been taken. In December 2000 in view of the new E-commerce directive, the government decided to abolish restrictive advertising regulations. Moreover, tax reforms shifting the burden from labour to eco-taxes will reduce the fiscal pressure on labour. The government has started to critically assess policies towards the eastern part of the country. Some problems concerning public procurement still need to be addressed as the value of tenders published in the Official Journal as a percentage of GDP declined to a level less than half the EU average. Overall Germany showed progress in implementing its country-specific recommendations.

Greece: Considerable progress has been made to promote the risk capital market. The amount invested in the market has increased threefold in 1999 compared to 1998. Moreover, a new market for SMEs should be operating since 2001. However, the transposition record and implementation of the single market legislation remains the poorest in the EU. Some programmes to tackle youth and long-term unemployment are in place, but in general reforms in the labour market proceed slowly. Overall Greece showed some progress in implementing its country-specific recommendations.

Ireland: There has been a substantial increase in the absolute amount of venture capital. The Government announced proposals to strengthen competition and mergers legislation and proposals for the regulatory reform of public transport. Several measures have also been taken in order to increase participation of women in the labour market. However, wage developments clearly exceeded the original pay terms of the Agreement in 2000, and the possibility of a further wage drift cannot be excluded. Overall Ireland showed progress in implementing its country-specific recommendations.

Italy: Implementation of Single Market legislation improved significantly. In particular, all directives on public procurement have now been transposed. Significant steps have been taken to reduce the tax burden on labour. Moreover, the government stepped up its efforts to improve the regulatory and administrative environment for businesses. These are implemented in the framework of the wide-ranging reform process of the public administration launched in 1996. However, Italy's performance in R&D and innovation remains weak. Some initiatives have been launched but despite a modest increase, R&D expenditure as a per cent of GDP continues to remain lower than the EU-average. The level of non-agricultural state aid is declining substantially, but is still among the highest in the EU. Its composition is improving as aid is being shifted towards objectives such as reductions in regional differences. Overall Italy showed progress in implementing its country specific recommendations.

Luxembourg: The "eLuxembourg" programme has been adopted as a means to catch-up to the developments in the information society. Thanks to free internet providers, internet penetration has increased and is now above the EU-average. However, ICT expenditure, despite an increase, remained just below the EU-average. The announced tax reform will reduce taxation on labour significantly. A new competition law permitting a more active competition policy by the authorities is being discussed but still needs to be adopted and implemented. Overall Luxembourg showed good progress in implementing its country-specific recommendations.

The Netherlands: Several measures have been taken to encourage labour supply, in particular with regards to women and older workers. The reforms to support the involvement of the private sector in R&D which were announced in June 1999 are being carried out. Good progress has been achieved in transposing Community directives on public procurement. All Community directives have been transposed and no reasoned opinions have been recently issued. Nevertheless, the value of tenders published in the Official Journal as a percentage of GDP remains relatively low. Also competition in the cable network sector should be strengthened and some further progress in transposition of directives in the area of transport would be desirable. Overall the Netherlands showed good progress in implementing its country-specific recommendations.

Portugal: In 2000 Portugal continued the process of simplification of administrative procedures for companies and the improvement of public services for businesses. The burden on companies including SMEs seems to have been substantially reduced. A wide number of programmes have been undertaken in the field of ICT. Private sector involvement in R&D has been promoted through tax incentives. Encouraging progress has been made to improve partnership among social partners and the government who have signed an Agreement on Labour Policy, Labour Markets, Education and Training. Although some progress in the implementation of Single Market legislation has been made, as reflected by a continuous decrease of the percentage of directives not yet implemented, Portugal's transposition record is still the third worst in the EU. Also the overall level of state aid as a percentage of GDP continues to remain above the EU average and decrease only at a relatively slow pace. Overall Portugal showed some progress in implementing its country-specific recommendations.

Spain: Very good progress has been made to reinforce competition in network industries, in particular telecommunications, electricity, gas and liquid hydrocarbons. Among the main measures, the limitation of distribution expansion for main operators and the establishment of restrictions on cross-holdings should be underlined. The government has taken additional decisions to reduce the administrative burden for businesses. A Plan to Simplify the Regulatory Framework for SME Competitiveness has already brought a number of changes. Sector-specific aid seems to have decreased substantially in recent years. Good progress has been made to give the Competition Tribunal new powers to monitor state aids and to initiate competition cases. By contrast, less progress has been made in reforming labour markets. Even though there was a substantial increase in expenditure on active labour market policies, little attention seems to be devoted to ensuring their efficiency. Moreover, no significant steps have been taken to allow collective bargaining to take into account productivity differences between regions. Overall Spain showed progress in implementing its country-specific recommendations.

Sweden: A number of measures have been taken which lowered the tax burden on labour, some of which affect in particular lower paid workers. Many measures have also been taken in the area of benefit and assistance schemes with the aim of preventing long-term unemployment, and of improving the environment for working parents. The competition authority has been given powers to enforce EC Articles 81 and 82. Some measures concerning public procurement, including facilities to allow tenders and applications for tenders to be submitted via Internet, have been adopted. However, non-compliance with regulations on public procurement remains a problem at the local level. More progress could be made to improve competition in railways and air transport. Overall Sweden showed good progress in implementing its country-specific recommendations.

The UK: A number of measures have been taken to tackle the problem of declining R&D as a percentage of GDP and the trend was indeed reversed in 1999. The government launched a programme "Transport 2000: the 10 Year Plan" which is designed to improve unsatisfactory conditions in some areas of the UK transportation system. A number of efforts to tackle concentrated unemployment and jobless households have been pursued. No measures have been taken yet regarding the stimulation of pension funds' investment. This issue is being examined in the Myners review of institutional investment which will report in early 2001. Overall the UK showed good progress in implementing its country-specific recommendations.

Annex I
Benefits for consumers and citizens

Economic reforms aim at improving the functioning of markets
Economic reforms are changes in the economic policy framework aiming to improve the functioning of product, capital and labour markets as well as reforms of the public sector. Well functioning markets are characterised by flexibility, so that among other things:

- Productive resources such as labour, capital and natural resources are being used where the social return of their use is the highest possible.
- New enterprises can enter any sector without facing barriers, and individuals can obtain employment in any business.
- Companies can produce the goods and services that are demanded by consumers, other companies and the public sector, and develop new products and services based on the generation of new knowledge.

However, these characteristics represent an idealistic situation and regulation is often required to counteract real-life market imperfections that may lead to undesirable outcomes, and public intervention is needed to achieve desired social objective as regards equity, in a broad sense, and the security of individuals as regards specific events such as illness, unemployment etc. The challenge of economic reform is to achieve the social objectives while maintaining market efficiency.

Economic reforms are constantly ongoing processes that must respond to changes in economic conditions such as increased internationalisation, to changes in technology like the development of the Internet or to demographic changes such as the ageing population.

Well functioning markets provides economic benefits for consumers and citizens
The European reform agenda is comprehensive and have addressed problems in all areas of product, capital and labour markets as well as the efficiency of the public sector, and there is much evidence on the positive effects that have resulted from the already implemented reforms.

In product and capital markets, creating the single market, strengthening and enforcing competition legislation and liberalising entry and prices in previously restricted markets, such as utilities and other network industries, has been at the very heart of the reform process in Europe. Among the consumer benefits that have resulted from the reforms are:

- Several studies of the liberalisation of sectors like telecommunications, transports, distribution, building and construction, energy and financial services confirm that well-designed economic reforms have increased the productivity of enterprises, which in turn has resulted in lower prices, services of a higher quality and in some instances a wider range of products.[13]
- By increasing competitive pressures, economic reforms have also led to an improved allocation of resources and thereby to higher economic growth and income levels. A first evaluation of the impact and effectiveness of the single market confirms that there have been large micro and macroeconomic effects resulting in 1.1-1.5 percentage point

[13] For an overview see OECD, *The implementation and the effects of regulatory reform: Past experience and current issues*, 2000.

higher Community income.[14] OECD studies on regulatory reforms show that long-term (15-20 years) potential output gains varied from 1 to 6 per cent depending on the points of departure for different countries.
- Economic reforms are also likely to have dynamic effects. Reducing barriers of entry promotes competition and put downward pressure on profit margins and prices. To stay in business, companies will have to be constantly innovative improving existing and creating new products and production processes through, e.g., increased R&D efforts. This improves the prospects of long-term productivity and income growth.

The higher production levels achieved through reforms of product markets have had a direct impact on employment. The creation of the single market is thus estimated to have created between 300,000 and 900,000 new jobs in the EU.[15] However, an even larger beneficial effect on employment has come from the reforms of labour markets in recent years as evidenced by the reduction in the estimated structural unemployment rates and the increased employment rates in most Member States. Labour market reforms have aimed at changing tax-benefits systems, improving active labour market policies, making labour market regulation and institutions more flexible and improving the skills of the labour force. Thereby increasing both labour demand and labour supply. These efforts have contributed to the benefits of individual citizens in the following ways:

- Increased employment is the most important means of improving the welfare of those that would otherwise be without a job, and is therefore important to enhance social inclusion.
- Increased flexibility of labour markets, e.g. by opening for flexible job contracts and part-time, provides individuals with more employment opportunities and it becomes easier to obtain a job that suits individual requirements.
- Improved possibilities for obtaining an education and for life-long learning makes it possible for individuals to pursue a carrier that is desirable and obtain better jobs.

Public service obligations are maintained

While well-functioning markets provides benefits for the population at large, it must among other things be ensured that all citizens have to access certain basic goods and services. Experience shows, however, that market liberalisation need not compromise the equal access to these products.

For example, network industries and other utility sectors, such as telecommunications, energy and transports, are often required to undertake universal service obligations (USO), i.e. obligations to provide basic services to all who request it at affordable prices, to provide community service obligations (e.g. telephone boxes) and to provide special concessions to consumer (e.g. special apparatus to disabled). In industries where the risks for public health and the environment is considered to be high, such as in transport and energy supply, universal service obligations also include safety and environmental sustainability. Generally, universal service obligations imply that the producer cannot charge prices for all customers that cover the costs of supplying the product or service.

Historically, services of general interest have been provided by public monopolies and funded through the use of cross-subsidies. As these markets are opened up for competition, new methods of ensuring that USOs are met are needed, as cross-

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[14] EU Commission, *The impact and effectiveness of the single market*, 1996.
[15] As footnote 13.

subsidisation implies an opportunity for competitors to take over those customers paying a price exceeding costs, while not wishing to supply those customers paying less than the costs. Therefore, opening of markets is often followed by a re-balancing of tariff structures as has happened in most Member States in telecommunications, but also in energy supply, to make them more reflective of the underlying costs. In this way, costs and prices can be lowered in competitive segments of the market for the benefit of consumers. To ensure that USOs are still satisfied, new methods of funding are therefore often required.

There are different ways of funding universal service obligations. If the burden of USO is significant, the regulator can compensate the USO provider. Common ways to fund these obligations is through interconnection tariffs or through the sharing of costs amongst carriers in proportion to their share of revenue so that no carrier is disadvantaged.[16] If there are concerns about the impact of tariff re-balancing on low-income households or remote areas, alternatives to cross-subsidies include direct cash transfers to consumers or direct subsidies to operators. While the fiscal burden will be greater, it helps make the cost of meeting USO more transparent. Regulators can also use auctions in which operators bid to supply USO at the lowest cost.

These alternatives have proven to offer services of general interest with less competitive distortion than cross-subsidies. Thus, the provision of services of general interest can be consistent with competitive markets.

The role of consumer protection in the information society

Consumers and citizens are often at a disadvantage vis-à-vis enterprises and the public sector. Obtaining all information on products in order to assess the quality of a product and compare different products is difficult and costly for individuals. Having a strong consumer policy aiming at the protection of the health, safety and economic interests of consumers will be required. An effective consumer policy must deal with mainly three areas: regulatory issues including dispute settlements, transparency of information and consumer participation.

In this respect, e-commerce is posing challenges, but also significant opportunities. On the one hand, the Internet and e-commerce is revolutionising marketing and selling methods, as well as distribution and production processes. These changes put new demands on the regulatory framework, including the need to establish a clear legal framework which can promote consumer confidence and transparency in electronic transactions.

On the other hand, cheap and easy access to disseminate and obtain information provides an opportunity for consumers to gain insights that were previously only available to, e.g., government agencies or other specialists. Media, consumer groups, public agencies and other watchdogs have important roles to play in this respect. The publication of information on bad practices, products and so forth, either by traditional means or by setting up specialised home pages on the Internet assigned exclusively for consumer information, can to a large extent substitute for detailed public regulation.

As detailed regulation inevitably entails a risk of creating inappropriate distortion and a need for costly control procedures, the political endorsement and encouragement of non-governmental initiatives in the area of consumer protection may prove beneficial relative to the more traditional approach of direct regulation.

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[16] The choice of funding mechanism impact on market performance in different ways and should be taken into account in regulatory design.

Annex II
Tax-benefit reforms

Most Member States have implemented substantial tax reforms in recent years and to a lesser extent reformed benefit systems. Based on the available information, it has been attempted to provide an overview in terms of the impact of reforms on marginal tax rates, and net replacement rates, *cf. table A.1*.

The table shows:

1. The level of the marginal tax and net replacement rates in 1997.
2. The changes in marginal tax rates and net replacement rates implied by reforms of tax-benefit systems when they are fully implemented in the coming years.

The figures provided shows point estimates for typical persons which are not necessarily representative for average effects across income groups. The figures for changes in marginal tax rates may not represent corresponding changes in average taxation.

The marginal tax rate captures income tax as well as employer and employee social security contributions for a couple of 100/67 earnings of an APW income. Hence, it is equal to the percentage wedge between total wage rates and disposable incomes.

The net replacement rate indicates the percentage of lost earnings covered by unemployment benefits etc., when the high earner of a 100/67 per cent of APW married couple becomes unemployed.

Comparable data on changes in Member States' rules for income tax, social security and replacement rates are generally incomplete, and further efforts are needed to submit, compare and analyse such data in the future.

Table A.1. Key elements of tax and benefit reforms in Member States

	Marginal tax rate[1]		Net replacement rate[2]		
	Prereform, 1997	Change	Prereform, 1997	Change	Other elements
	---------------- Percentage points ----------------				
Austria	56.4	0	80-100	-20-0	Broadening of tax base of enterprises and increase of duties in 2001 to finance lower income taxes.
Belgium	67.3	-1.1	60.0	Neg.	Reduction in SSC, lower VAT on labour intensive services.
Denmark	52.2	-2.0	77.0	0	Corp. tax rate cut from 32 to 30 pct. Financed by base broadening and investor level taxes.
Finland	60.7	-1.1	100.0	0	Labour market and income tax rates reduced, corporate tax rate increased to 29 pct.
France[3]	46.0	-16.4	86.0	-3.0	SSC cut at low wages, lower income, property and corporate taxes, lower VAT on services.
Germany	61.6	-6.0	69.0	Neg.	Corporate tax rate cut to 25 per cent.
Greece	44.1	-3.3	70.0	0	Reduced SSC for minimum wage earners, reduced taxation for firms hiring new personnel, increased inc. tax allowance and tax credits for children, lower VAT on labour intensive services.
Ireland	40.0	-6.0			Higher individual income tax allowance, corporate tax rate cut to 12.5 pct., ceiling on SSC removed.
Italy[4]	59.5	-5.2	43.0	12.0	Corp. tax rate cut to 35 pct. (19 pct. For firms reinvesting through retained earnings), lower VAT on labour intensive services, inc. tax allowances increased, CO2 tax temporarily suspended, Tax credits for firms hiring adult long-term unemployed and investing in less developed areas.
Luxembourg	43.5	-2.0	85.0		Lower VAT on labour intensive services, corporate tax rate cut to 35 pct.
Netherlands	57.4	-1.7			Lab. market and income tax rates cut across the board, imputed rent replaces capital income in tax base, VAT increased from 17.5 to 19 pct.
Portugal	40.2	-2.0			Corporate tax rate cut to 25 pct. in 2006, lower VAT on labour intensive services, tax credits for saving and education, property tax reform.
Spain	44.0	-2.3			Lower VAT on labour intensive services.
Sweden	51.2	-1.6	85.0	-4.2	Reduction in income taxes planned.
UK	39.1	-1.0	64.0		Employment tax credit planned for 2003, income tax cuts, higher duties on vehicles and tobacco, increased income tax deductions.

(Notes on next page)

1) The combined marginal tax rate of income taxation and social security contributions for married couple at 100/67 percent of APW with two children. The pre-reform marginal tax rates are adopted from OECD, *The Tax/Benefit Position of Employees* (table 15), 1998, while the changes are based on information from Member States on the impact of tax reforms since 1997 and until the decided tax reforms have been fully phased-in during the coming 2-3 years.
2) The net replacement rate indicates the percentage of lost earning covered by unemployment benefits etc., when the high earner of a 100/67 per cent of APW married couple becomes unemployed. The figures on net replacement rates are based on information provided by individual Member States.
3) The tax and replacement rates for France are applicable to a couple paid 100/67 per cent of the minimum wage. The APW corresponds to 1.57 times the minimum wage in France.
4) For Italy, the net replacement rate is after-tax and including ordinary unemployment and family benefits in the first month of benefit receipts. The change in the net replacement rate is an estimates for 2001 with respect to previous years as a consequence of the increase in net replacement rate implemented at the end of 2000. The revenue impact is the expected change of total revenues as per cent of GDP in the period 1997-2003.

Annex III
Promoting the transition to the knowledge-based society

The knowledge-based society may broadly be defined as one where knowledge, in the broadest sense of the word, has become increasingly important for citizens, enterprises and the public sector to get on in the world. The emergence of the knowledge-based society is closely, but not exclusively related to the extremely rapid diffusion of new information and communications technologies (ICT).

ICT production: A sector like all others?
Recent rapid technological developments, particularly in ICT, and favourable macro-economic developments in the industrialised countries, especially in the United States, have revitalised research on the factors contributing to economic growth and productivity. The direct growth contribution of the ICT sector is already remarkable in the EU too. ICT production is expanding rapidly in the EU, although still comprising only about 4 per cent of total value added, *cf. table A.2*; i.e. some two thirds of the corresponding share in the US. There are, however, wide differences in the importance of ICT production across the Member States. The largest contributions of ICT industries to value added are found in Ireland, Sweden, Finland, the Netherlands and the UK, whereas the lowest occur in Spain and Italy. The developments seem to be relatively positive in many of those Member States that currently have fairly small ICT industries, such as Belgium, Portugal and Spain.

Table A.2. The importance of the ICT sector in EU and USA (share of GDP)

	1995	1999	Change 95-99
	-------------------- Per cent	---------------------	----- Pct.points ----
Austria	4.7	4.8	0.1
Belgium	3.3	4.1	0.8
Finland	4.3	5.8	1.5
Germany	3.4	3.9	0.5
France	3.8	4.3	0.5
Ireland	6.5	7.6	1.1
Italy	3.3	3.7	0.4
Netherlands	4.3	5.0	0.7
Portugal	3.4	4.3	0.9
Spain	2.8	3.6	0.8
Sweden	4.3	6.5	2.2
United Kingdom	5.2	5.6	0.4
Above EU	3.6	4.2	0.6
USA	5.3	6.8	1.5

Source: Credit Suisse First Boston.

While the rapid growth in the ICT sector and the contributions in terms of productivity gains that the sector have made to overall productivity growth are impressive, this effect is not fundamentally different from other sectors in the economy undergoing rapid technological changes. Although, those Member States where the ICT sector is important may have benefited in terms of higher income growth in recent years relative to countries where the ICT sector comprises a smaller share of the economy.

But as such, the growth of the ICT sector does neither in itself represent the knowledge-based economy nor is it a necessary condition for the transition to the knowledge-based society of individual countries. A strong domestic ICT sector may entail spin-offs in terms of the transition to the knowledge-based society: those who can produce ICT, may also have an advantage when it comes to using and exploring the potential of ICT. But countries mainly relying on imports of ICT hardware and software may be advanced in terms of the knowledge-based society anyway.

Investment and diffusion of ICT

The interesting aspect and the reason why ICT deserves the attention it is receiving is that ICT is a technology that within few decades has been introduced into almost all lines of production, including the public sector, and in households as well. Although the share of GDP accounted for by ICT expenditures in the EU as a whole is lower than in the US and despite differences between Member States, the differences in expenditures are notably smaller than the differences in production. E.g., ICT expenditure among EU member ranged in 2000 from 4.6 per cent of GDP in Italy to 7.2 per cent in Sweden, *cf. table 2.2*.

Use of ICT and other factors contributing to the need for knowledge

It is this diffusion of ICT that is important, as it is the extremely wide range of uses, actual and potential, of ICT that distinguishes this technology from all others. Since the advantage of ICT is to facilitate cheap processing and transfer of vast amounts of information this led initially to the term Information Society. But as information *per se* is not worth much without being put into use, the broader concept of the knowledge-based society appeared.

Given reductions in prices and improvements in user-friendliness, most *citizens* can relatively easy exploit the different uses of ICT and the Internet. The main challenge of citizens may occur in their role as suppliers of labour, as the requirements to the quality of labour supply in terms of skills in general and ICT skills in particular are increasing fast. Thus, keeping up with the pace of developments will require efforts by individual citizens.

For *enterprises and the public sector*, the challenges of the knowledge-based society are much more profound, and those enterprises that do not face up to the challenge are at risk of going out of business:

- To maximize the benefits of using ICT, enterprises as well as the public sector will need to consider the existing flows of information and knowledge to assess if the return could be improved by the new means of production. Effective knowledge management is undoubtedly a key to success and may require that the structures of organisations be reconstructed.
- ICT offers new possibilities for organising the external relationships with customers and suppliers. Providing content on the Internet in the form of basic information on products and services offered is only a first step. The next steps that are already being undertaken are to establish e-commerce facilities, which may include the possibility for customers to order customized products directly from the suppliers.
- The Internet can also be used to develop forms of markets that have previously been restricted to specific areas. Auctions and tendering processes can more easily be held using electronic means, and their use have already been expanded in business-to-business (B2B) and business-to-consumer (B2C) commerce. Similarly, public procurement practices are already being developed to exploit the possibilities provided by ICT.
- As information flows increase and markets get more competitive, enterprises will find it still harder to maintain comparative advantages or dominance in specific markets. Competitors will constantly be seeking for markets where profits can be made either by providing cheaper or new and better products that are adapted to that specific market. Since the opportunities for profit making may occur in smaller market segments and disappear more rapidly than previously, product cycles must be expected

to shorten, and the ability of enterprises to understand and respond to changing demands and take new innovative products to the market will be crucial.

- Facing currently tight labour markets, in particular for ICT personnel, and an educational sector that at least to some extent lags behind the needs of businesses makes it crucial that individual companies have the ability to recruit the appropriate workforce and take responsibility for upgrading the skills of those hired.

Although these challenges in the knowledge-based society primarily can be attributed to the diffusion of ICT, there are other factors that contribute: 1) the increasing competitive pressures which have resulted from the opening of markets nationally as well as internationally, 2) the gradual exhaustion of other factors that have previously driven growth, e.g. increasing populations and easy and cheap access to natural resources, and 3) the gradual increase in the demands of citizens facing enterprises and the public sector.

Challenges for government policies

It is worthwhile recalling that the digital revolution and the creation of the Internet were not triggered by government regulation or initiative. Quite opposite maybe, the lack of government regulation may have speeded up the introduction of these new technologies as entrepreneurs did not face any restrictions and could freely explore all possible avenues of how to use them. However, this should not distract from the fact that government action is now required if the full benefits are to be reaped in a socially acceptable manner. In particular, Member States should adopt measures in the following areas:

- *Regulation to ensure security and confidence in the digital world*

As in other markets, creating security and confidence in transactions is central if e-commerce and other forms of digital communications are to develop smoothly. This will require regulation in terms of making e-signatures legally binding, changed regulation to make, e.g., contract legislation and consumer protection legislation consistent with the use of the Internet. Besides public initiatives to enhance transparency and confidence in the Internet, enterprises can also make important contribution in terms of "code of conduct" and types of self-regulation. Only if business does not manage to establish socially acceptable practices of self-regulation may additional government regulation be required.

- *Regulation to counter new means of engaging in anti-competitive practices*

The use of ICT may create new types of market imperfections. Network externalities, whereby the benefits of a network for each individual increases as more persons join the same network, implies a tendency to create monopoly situations. Lack of transparency may hide to consumers that what appears to be an "objective" market place is in reality controlled by some suppliers, e.g. if the searching facilities of an internet site is constructed so as to promote the products of a specific supplier. The easy flow of information may make it easier for companies to collude, as it gets easier to monitor the behaviour of the other members of the collusion.

This kind of anti-competitive practices must be dealt with by means of competition laws. Yet as a consequence of the modernisation of competition legislation that has been undertaken in most Member States in recent years, the legal framework appears to be in place. However, it should also be recognised that rapid technological developments may make such interventions difficult and potentially dangerous. There is a risk that the public authorities might choose wrong solutions as the full understanding of how competition works in the knowledge-based economy is not yet available.

- *Measures to counter the risk of the digital divide*

There is a risk of the emergence of a digital divide between those that have the skills and means to obtain the benefits of the diffusion of ICT, and those that have not. The size of this problem in the longer term is unclear, but providing free or cheap access and training to the disadvantaged will be an important task of governments.

- *Adjusting the educational system to the needs of the knowledge-based society*

Within the public sector improving the educational sector is a major challenge. Providing the hardware and software as well as training teachers at all levels of educations is one step. Another is to integrate ICT in the curriculum of all courses at all levels, so that all possible benefits are reaped. Creating new courses and increasing the number of graduates within the ICT field such science, technology and multimedia is crucial to enhance and improve the use and content of the new technologies. Finally, ICT has the potential to facilitate the introduction of new learning processes, but efforts are required to explore these possibilities as they are not yet fully understood.

- *Adapt ICT to improve the efficiency of the public sector and facilitate links between citizens as well as businesses*

As already mentioned all governments face a major task of integrating ICT in the work processes of the public administration. Not only will this improve the efficiency and the quality of the public administration and the services provided by the public sector, it will also lower the burdens of citizens as well as businesses when dealing with the public sector. Being able to communicate electronically with the public sector may facilitate easier access to the relevant agencies and speed up administrative procedures to the benefit for all.

- *Strengthening R&D*

Transforming information into knowledge requires that adequate resources be allocated to R&D activities. Since public R&D spending of the EU countries on average seems adequate, the main task of governments is to ensure the appropriate supply of skills and strengthening private sector R&D, primarily by improving framework conditions and the transfer of knowledge between public research institutions and the private sector.