



HM TREASURY

Structural Indicators of European Economic Reform: Measuring Europe's Progress

February 2003

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CONTENTS

1	Introduction	1
2	Headline Indicators	3
	Gross domestic product	4
	Employment	5
	Research and development spending	8
	ICT expenditure	10
	Prices in network industries	11
	Business investment	14
	Trade integration	15
	At risk of poverty before and after social transfers	16
	Long-term unemployment	17
	Dispersion of regional employment rates	17
	Further education	18
	Greenhouse gas emissions	18
3	General Economic Background	19
	Labour productivity	19
	Employment growth	20
	Inflation rate	21
	Unit labour cost growth	21
	Public balances	22
	General government debt	22
4	Employment	23
	Effective active exit rate	23
	Gender pay gap in unadjusted form	24
	Tax rate on low wage earners	24
	Life-long learning	25
	Accidents at work	25
	Unemployment rate	26
5	Innovation and Research	27
	Spending on human resources	27
	Level of internet access	28
	Science and technology graduates	29
	Patents	29
	Venture capital investments	30

CONTENTS

6	Economic Reform	33
	Prices	33
	Market structure in network industries	34
	Public procurement	37
	State aids	37
7	Social Cohesion	39
	Inequality of income distribution	39
	Persistent risk of poverty	40
	Population living in jobless households	40
8	Environment	43
	Energy intensity of the economy	43
	Volume of transport relative to GDP	44
	Modal split of transport	45
	Urban air quality	46
	Municipal waste	47
	Renewables in electricity consumption	48

The Lisbon agenda and structural indicators

1.1 At the Lisbon 2000 European Council the European Union (EU) set itself the ambitious goal of becoming the most competitive and dynamic knowledge-based economy in the world, capable of sustaining economic growth with more and better jobs and greater social cohesion. Achieving such a wide ranging and aspirational goal requires a commitment by European leaders to coherent and comprehensive economic reform based upon robust evidence and complemented by rigorous monitoring of outcomes. In recognition of the importance of this monitoring, the Lisbon Council mandated the development of a set of comprehensive structural indicators to underpin analysis.

1.2 Subsequent European Councils at Göteborg, Stockholm and Barcelona have developed and refined the initial set of indicators. To embrace the economic reform agenda there are indicators to cover six broad areas: general economic background, employment, innovation and research, economic reform, social cohesion and environment.

1.3 While a comprehensive set of indicators is recognised as necessary to fully monitor the impact of structural reforms, there exists a possibility that the wealth of information available may obscure the priority areas. Consequently, the Nice European Council called for the development of a shorter list of indicators to highlight the most important indicators of Europe's progress in order to increase public debate and public awareness of the progress of economic reform. This paper incorporates this shorter list, or 'Headline Indicators',¹ in its examination of the progress made in reforming European economies to meet the Lisbon goal.

1.4 This paper, as an accompanying document to *'Meeting the Challenge: Economic reform in Europe'*, examines progress over the last year towards the Lisbon goal according to the structural indicators. The *Meeting the Challenge* report updates the Government's White Paper: *'Realising Europe's Potential: Economic Reform in Europe'*² published in February 2002. These documents reaffirm and underline the UK Government's strong commitment to the Lisbon agenda. Lisbon complements the core tenets of the UK's domestic policy approach; that economic prosperity and social justice go hand-in-hand, and that the best safeguard against poverty is a job.

1.5 The graphs presented in this document are based on the latest data available for the structural indicators presented on the Eurostat website.³ The majority of indicators have been updated, revised or forecasted to 2002.

¹ The headline set of indicators has been slightly modified from the original list in light of changes to the full list.

² *Meeting the Challenge: Economic reform in Europe* and *Realising Europe's Potential: Economic Reform in Europe*, HM Treasury, downloadable from www.hm-treasury.gov.uk

³ The full set of data for the structural indicators, as well as other data collections, are available on the Eurostat website <http://europe.eu.int/comm/eurostat> Data is updated periodically; this document uses data accurate as of 28/01/2003.

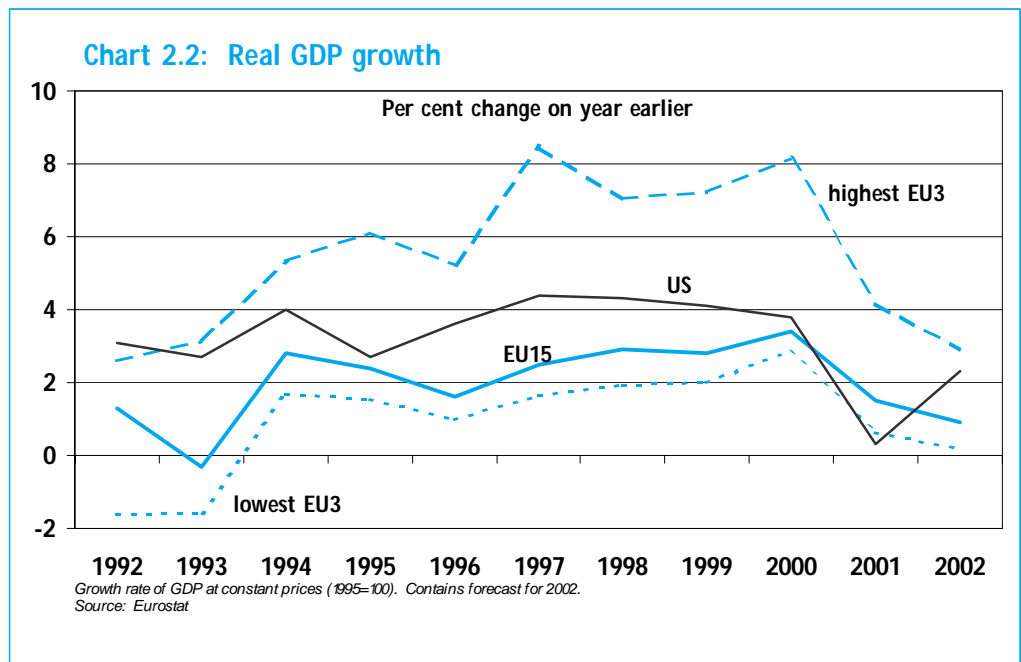
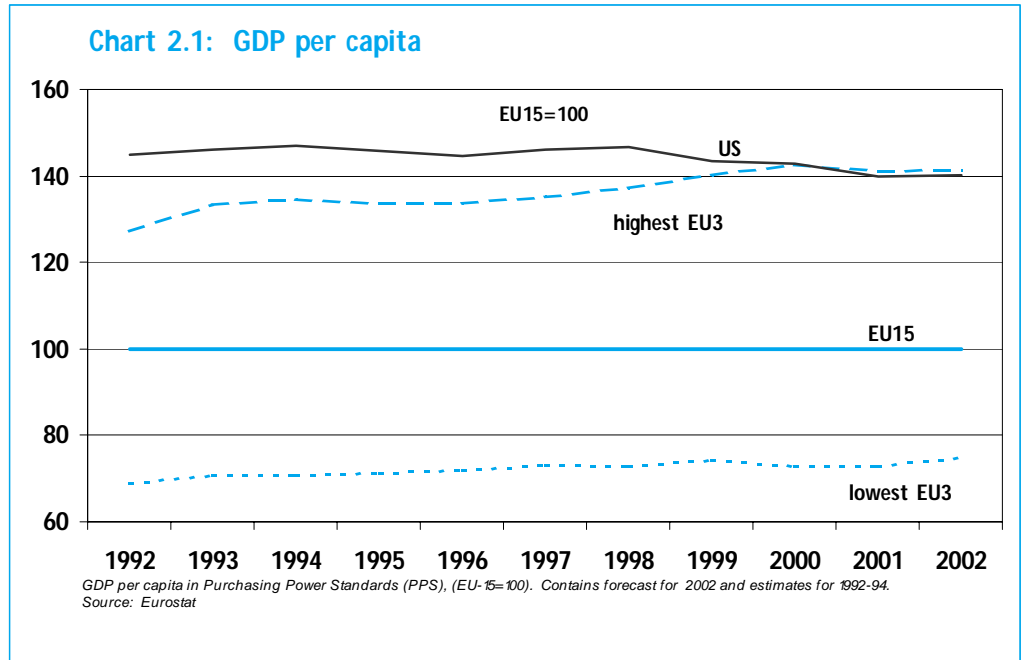
**Bench-
marking** **1.6** The Lisbon agenda seeks to transform the EU into the leading knowledge-based economy in the world. Thus other leading industrialised economies can provide a useful benchmark for assessing progress. Comparing the EU with the US – another large, developed single market of similar population and economy – adds to the value of the structural indicators.

1.7 As well as comparing the EU with the US, it is useful to compare the Member States of the EU against each other to show the range of performance within the Union, to provide context for the aggregate EU numbers and to show to what degree the EU economies are converging or diverging. These charts express this intra-EU comparison in the form of separate lines for the highest and lowest EU3. **In this context the highest and lowest EU3 is defined as the simple average of the three highest or three lowest EU Member States for a given indicator in that year.**

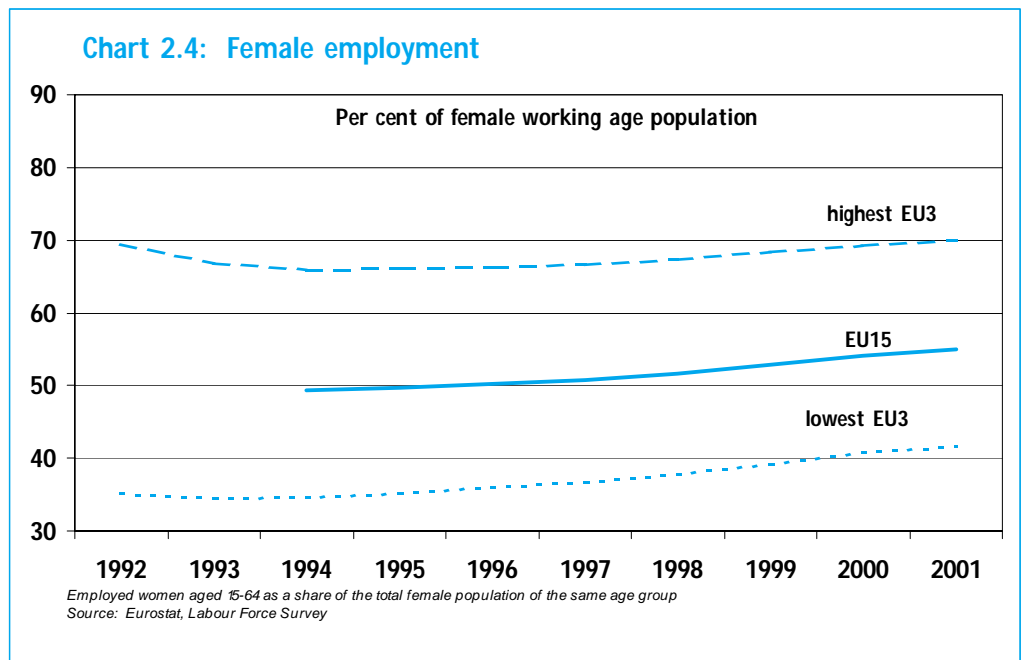
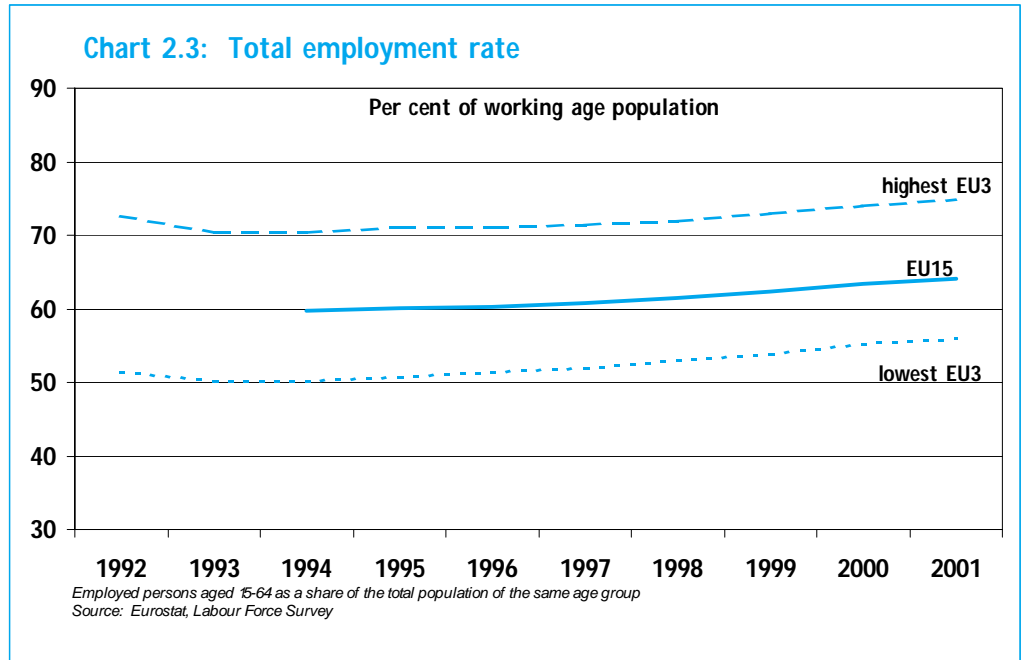
**Interpreta-
tion
of data** **1.8** The structural indicators are an important part of the EU's programme to deliver the promises made at the Lisbon agenda. However, care must be exercised in their interpretation. Many data sets are dependent upon the economic cycle and may not accurately represent underlying structural changes, since no data set has been adjusted for cyclical variation. Similarly, other indicators, such as regional variation of unemployment, are highly dependent upon the size of the economy. Furthermore, judging current policy effectiveness from these indicators may be hazardous; positive policy steps may have been implemented by a Member State to correct a structural deficiency but these may not yet be reflected in the indicators. Detailed or country specific analysis of the structural indicators would require the raw data sets.

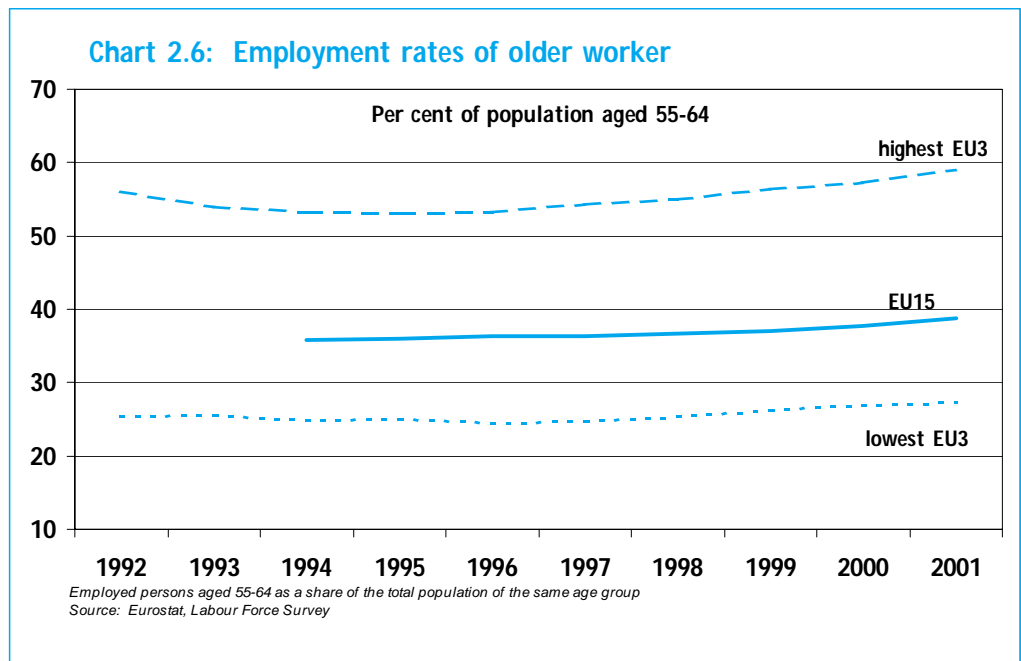
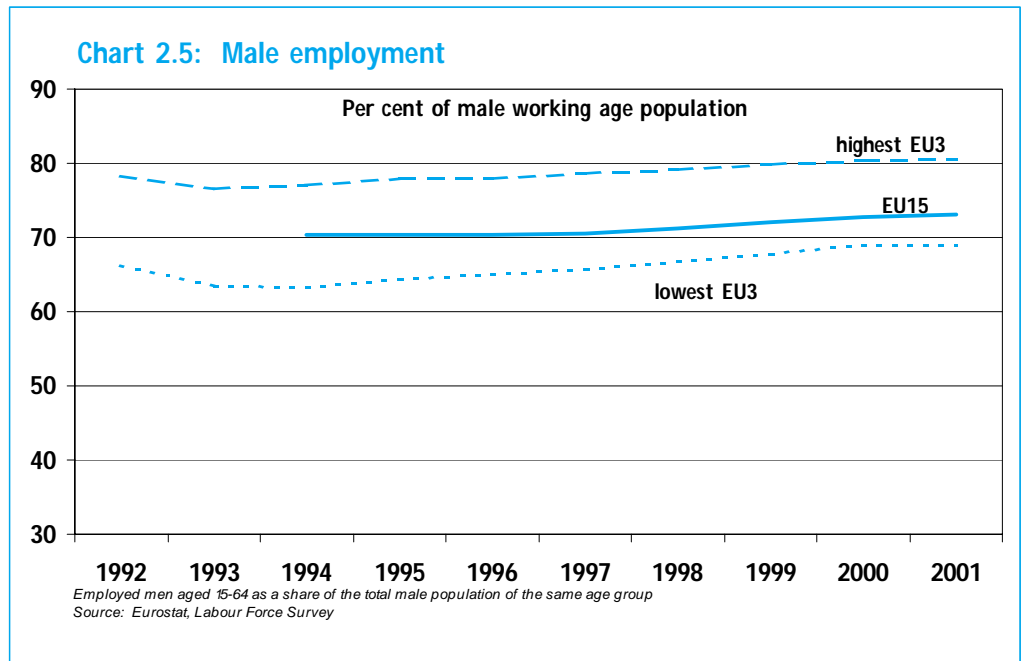
- The gap with the US in terms of **GDP per capita** slowly narrowed during the 1990s but has stabilised in the last two years. The three highest EU countries have been at comparable levels with the US since 2000.
- In 2001, EU **real GDP growth** was greater than the US for the first time since 1992, although in 2002 the US once again grew quicker than the EU.
- The EU continues to make steady progress towards the 70 per cent Lisbon target for the **employment rate** by 2010. Rising employment is apparent across all Member States. Similarly the **female employment rate** and proportion of **older workers in employment** continue to move towards their targets of 60 per cent and 50 per cent respectively, though the pace will need to accelerate if they are to be met by 2010.
- **Total R&D intensity** in the EU remains stubbornly below 2 per cent, while US R&D intensity continues to rise. The breakdown according to source of finance suggests that the rise in industry and foreign financed R&D has been offsetting the fall in government R&D since the mid-1990s. The US has witnessed a similar switch from government financed to industry financed R&D but to a much greater extent.
- EU expenditure on **information technology** and **communication technology** has been increasing since 1996, closing the gap with the US – most notably in communications. However, the rate of growth slowed in 2001.
- **Telecommunication prices** have shown a downward trend since 1997, most dramatically on national calls to a level comparable with the US in 2002. There remains some way to fall in the EU for local calls to be as cheap as in the US.
- **Electricity prices** continue to fall for both business and household users, while **gas prices**, which rose sharply between 1999 and 2001, fell in 2002.
- **Business investment** as share of GDP grew in the latter half of the 1990s, though it fell back somewhat in 2001. However, this could reflect wider cyclical circumstances.
- **Trade integration** in goods and services has risen modestly over the last decade, representing progress in the single market. Services amongst the highest three Member States have risen impressively. Across the EU though, integration in these sectors stagnated in 2001.
- There is a declining trend in the proportion of population **at risk of poverty** across the EU, both before and after social transfers. However, the lowest three EU countries saw the share at risk after social transfers rise between 1997 and 1999.
- There has been quite a decisive downward trend in the share of the active population in **long-term unemployment**. The three EU countries with the highest problem have benefited the most.
- **Differences in regional employment rates** fell between 1998 and 2000 across the EU but increased a little in 2001.
- The share of **early school leavers** has fallen marginally below 20 per cent and remained since 2000.
- **Greenhouse gas emissions** in the EU remain below 1990 levels, though the trend is only marginally downward, this contrasts with the US where emissions continue to increase.

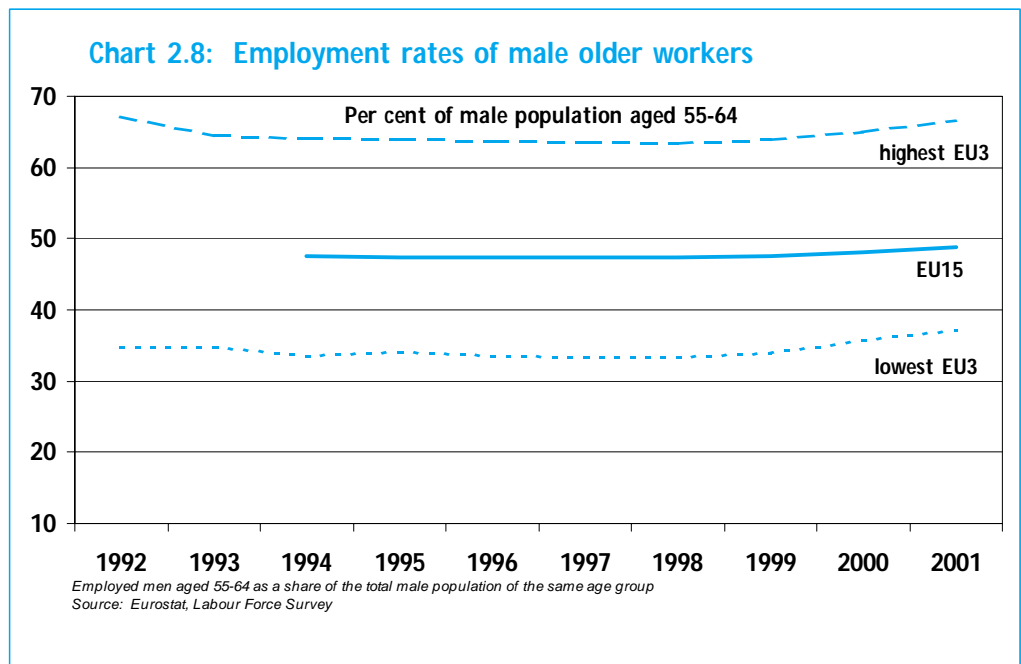
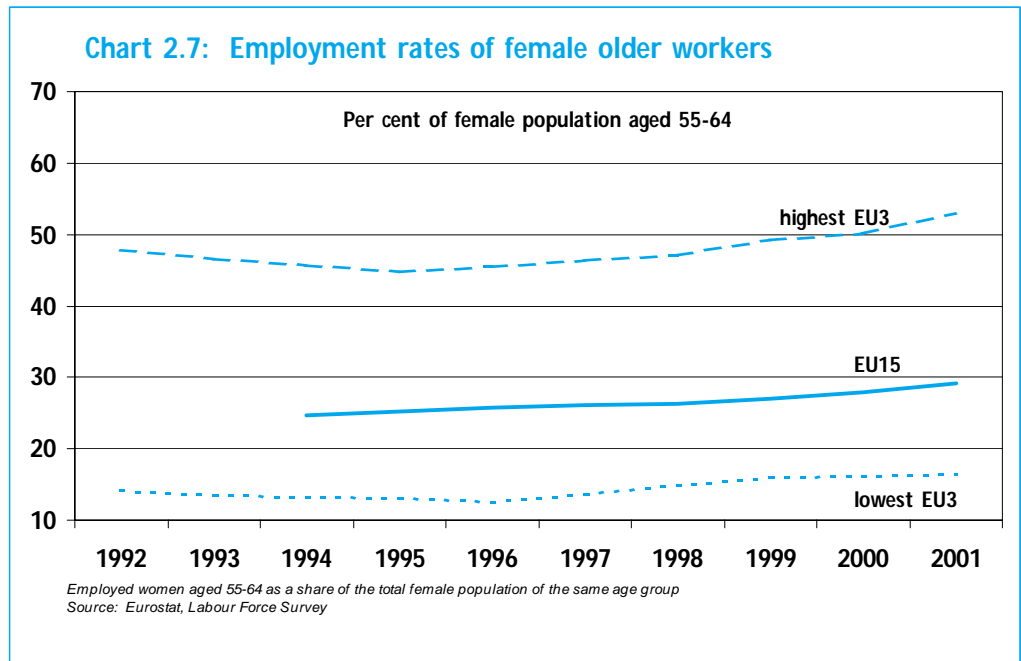
GROSS DOMESTIC PRODUCT



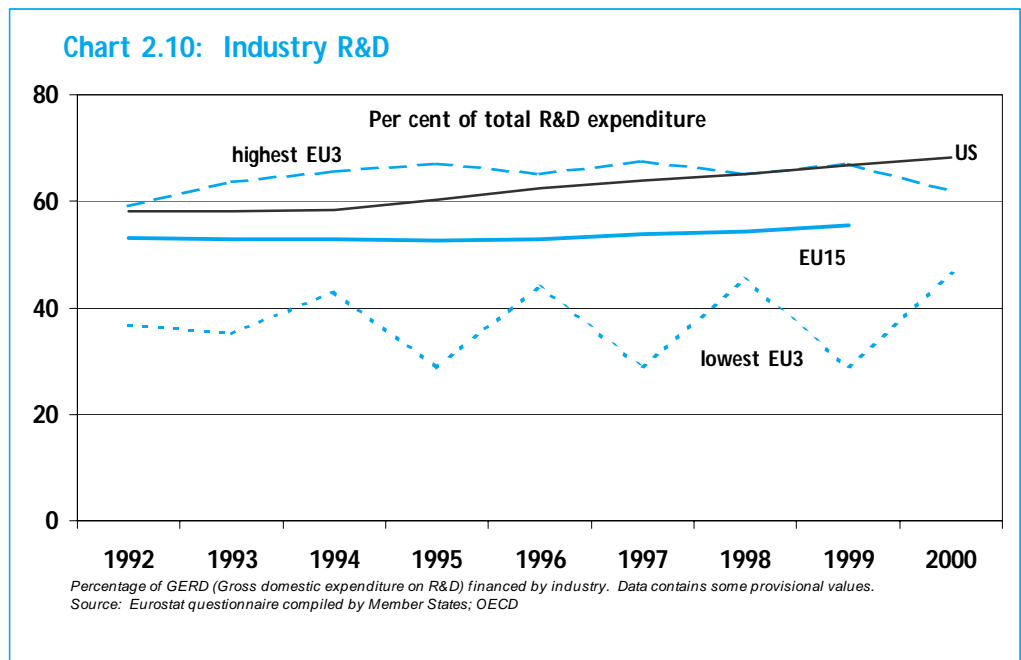
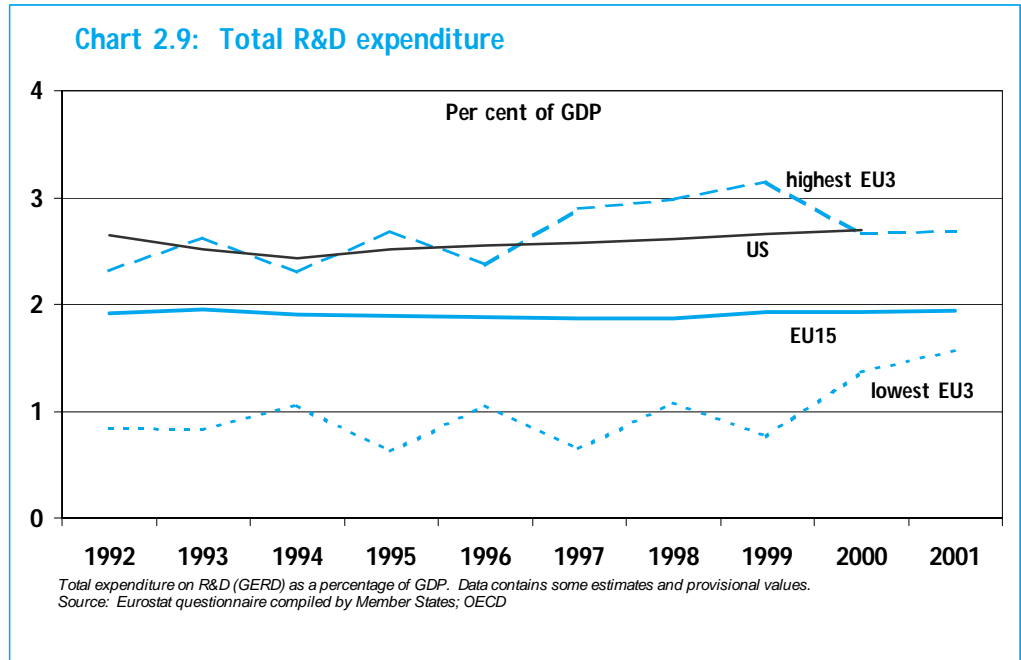
EMPLOYMENT

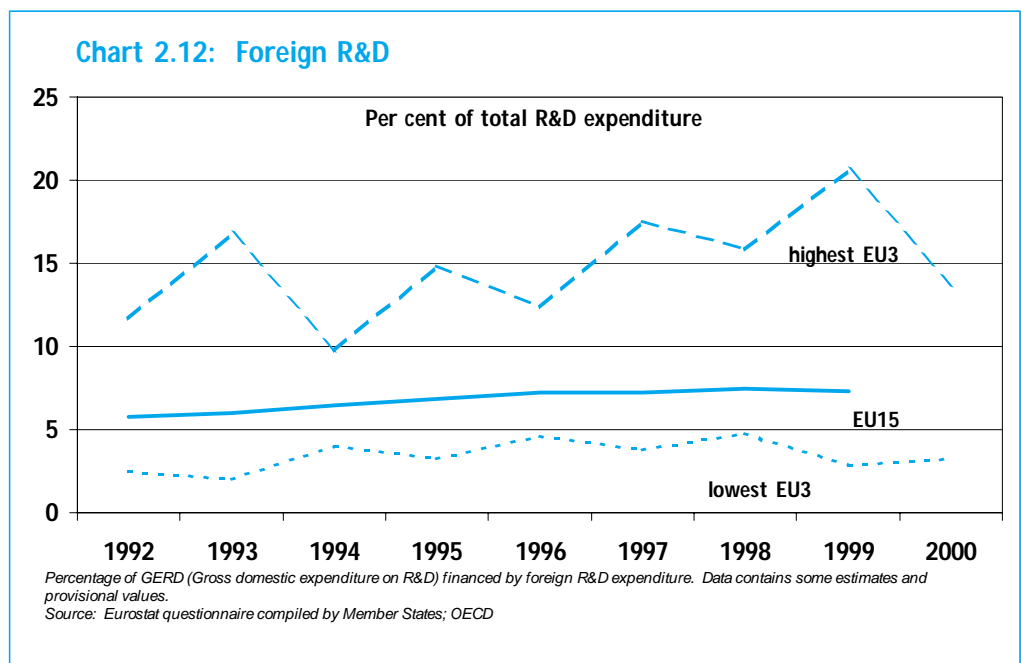
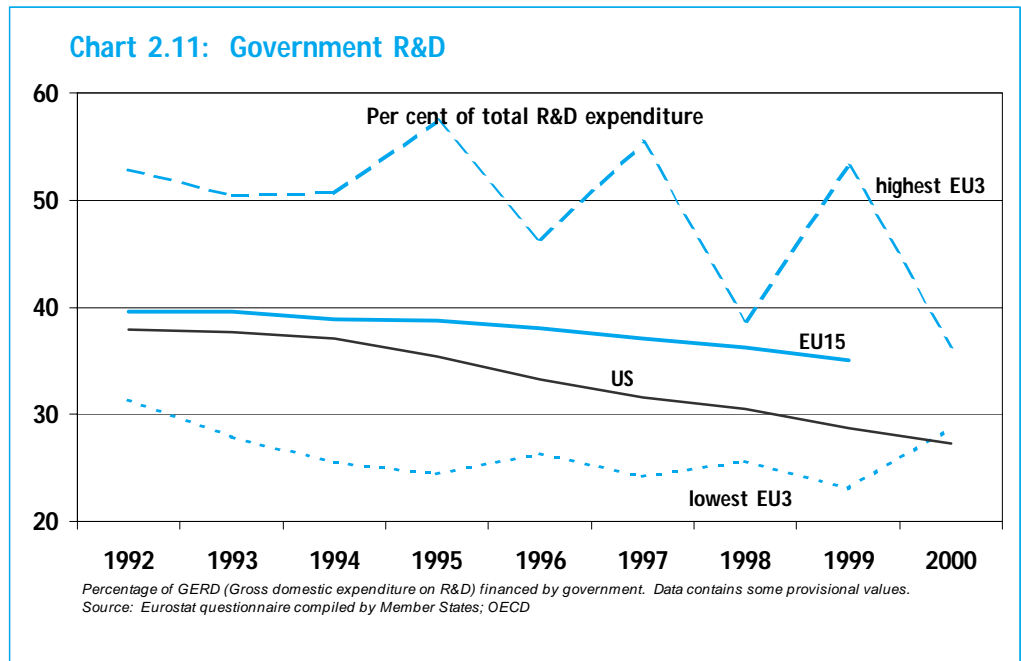




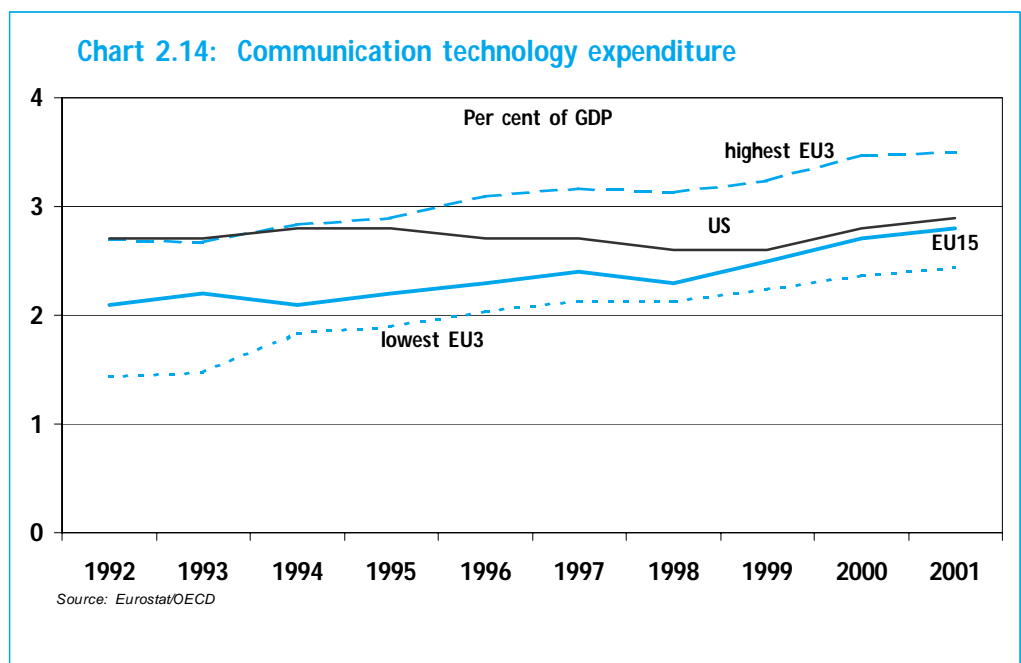
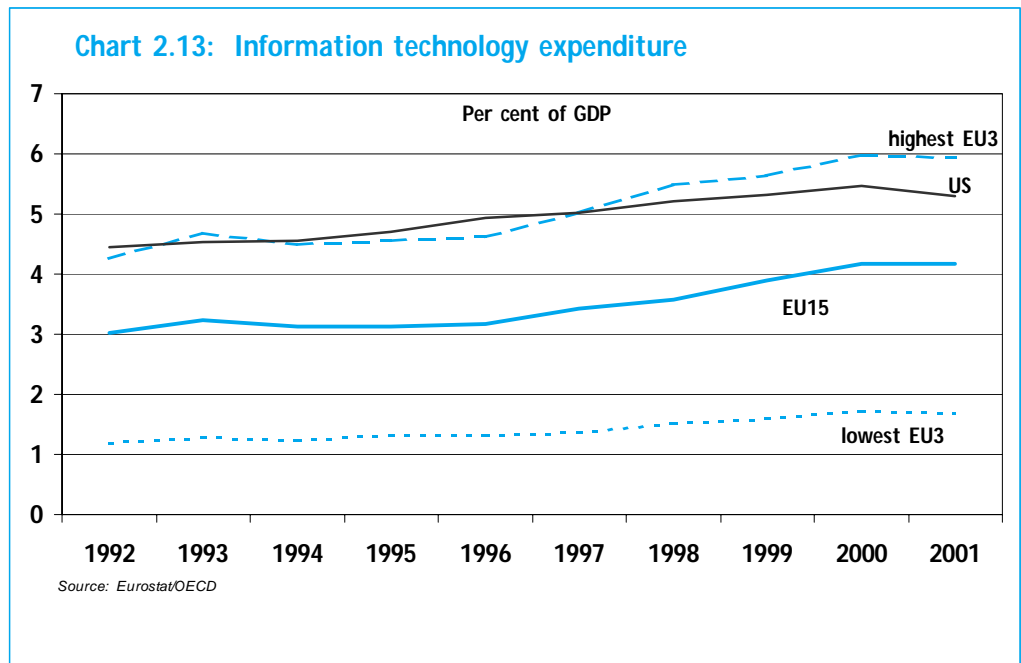


RESEARCH AND DEVELOPMENT SPENDING

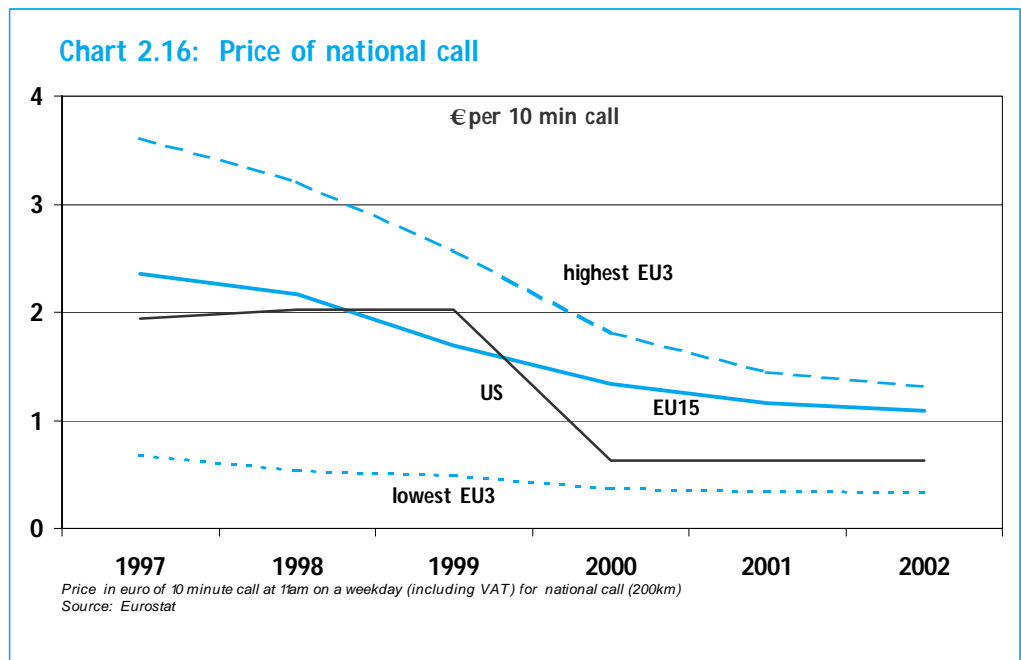
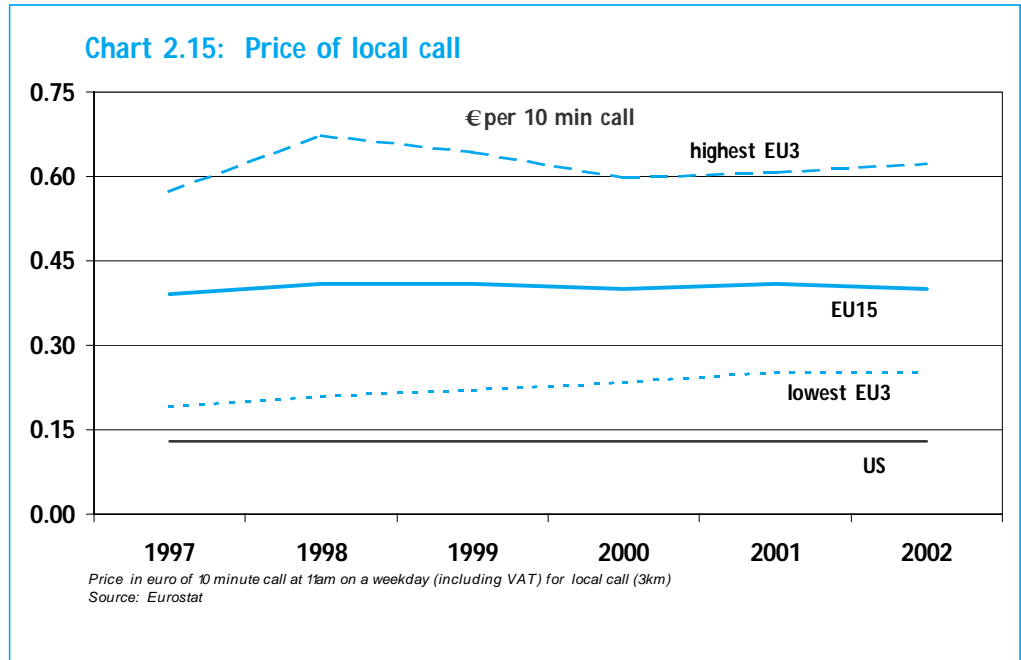




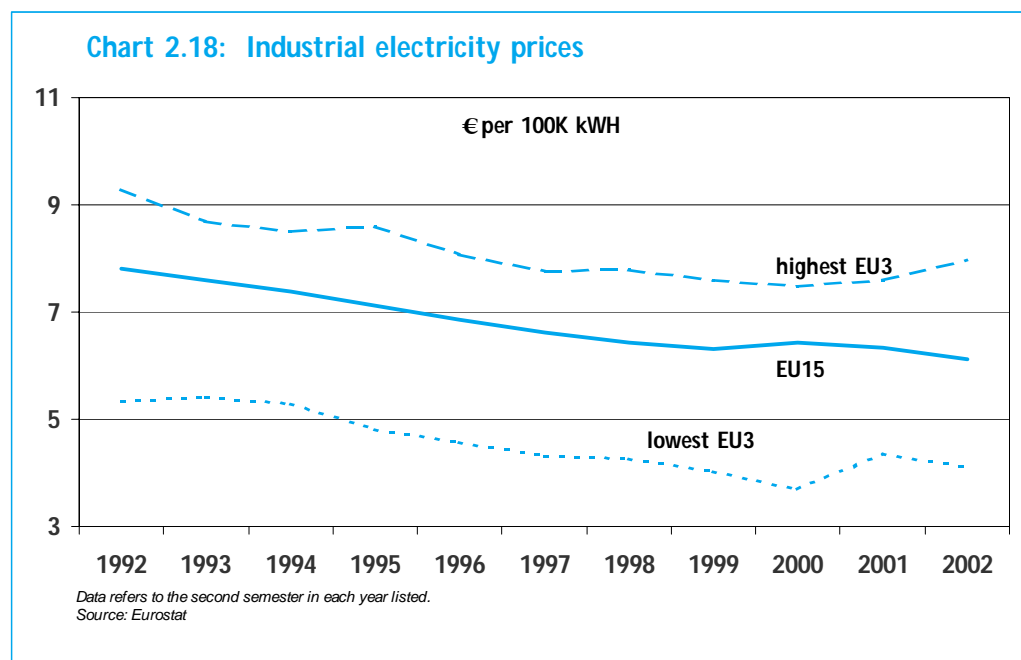
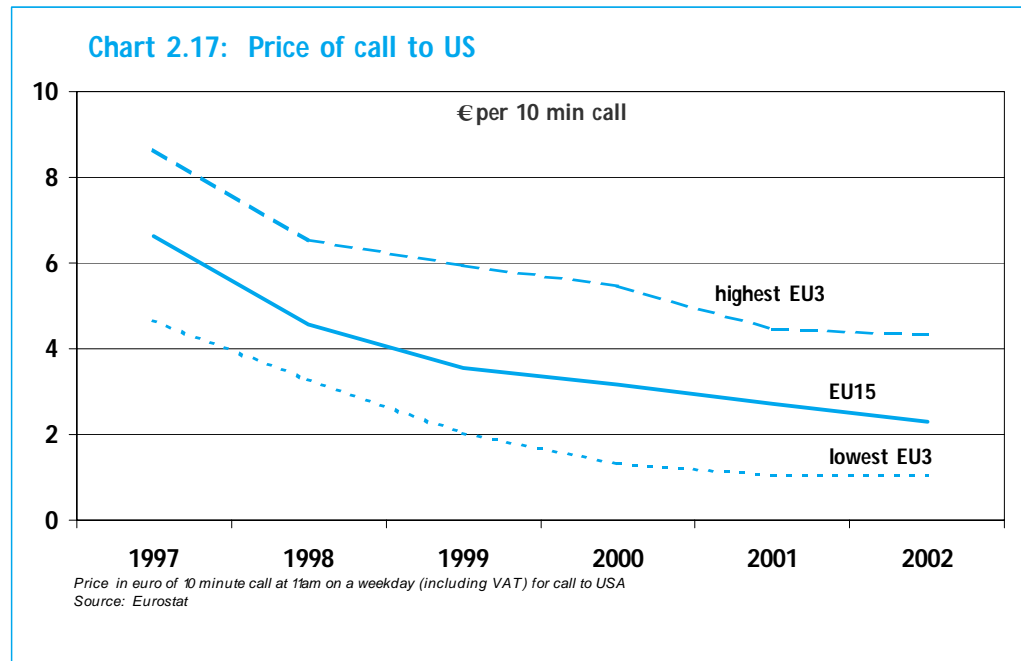
INFORMATION AND COMMUNICATION TECHNOLOGY EXPENDITURE

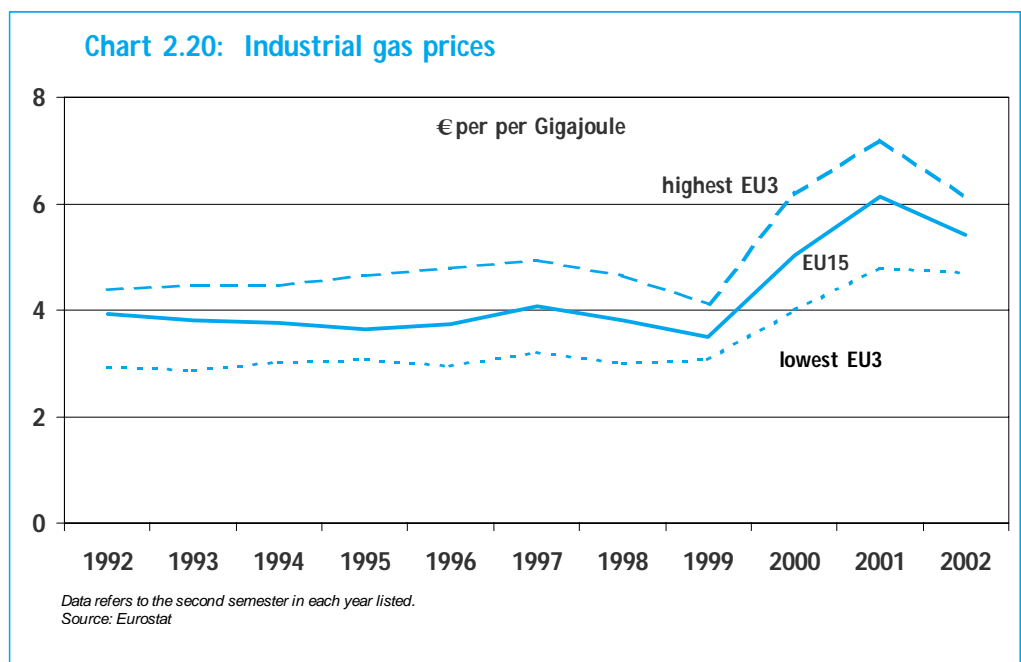
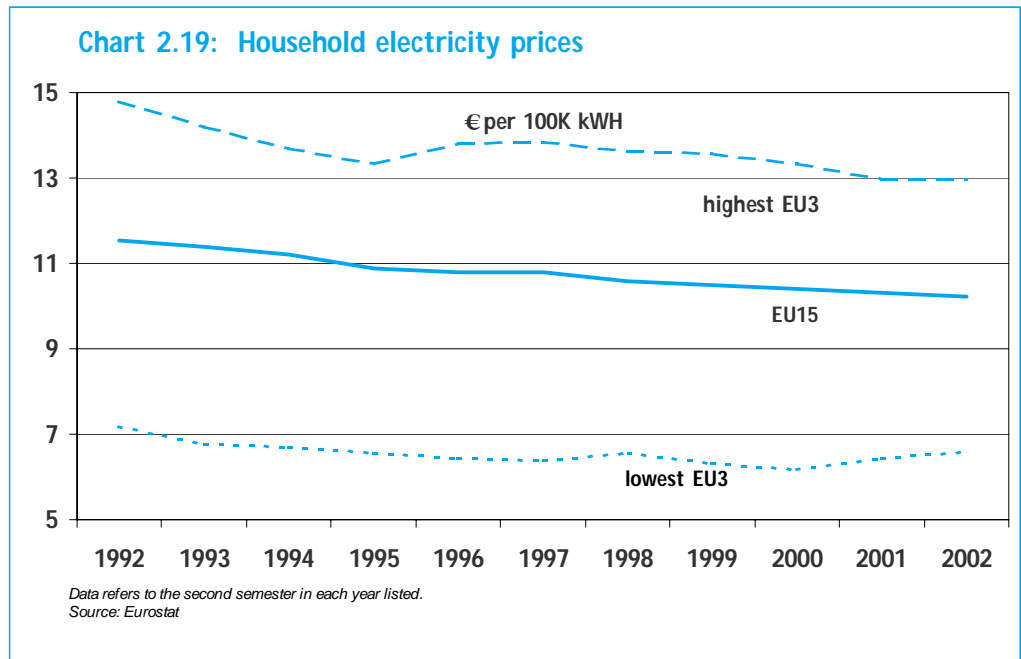


PRICES IN NETWORK INDUSTRIES

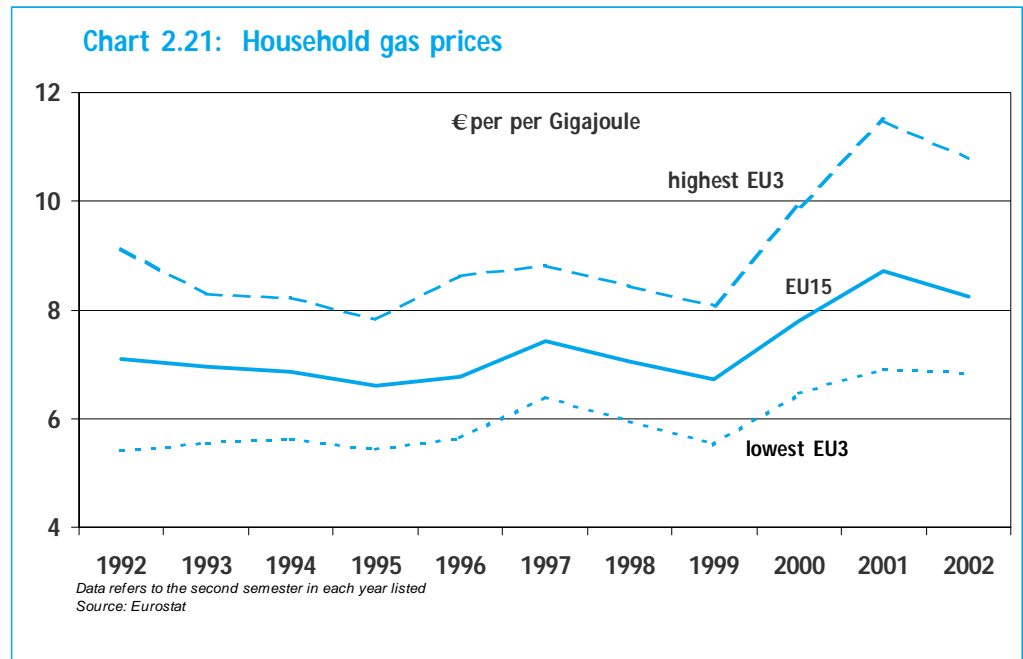


2 HEADLINE INDICATORS

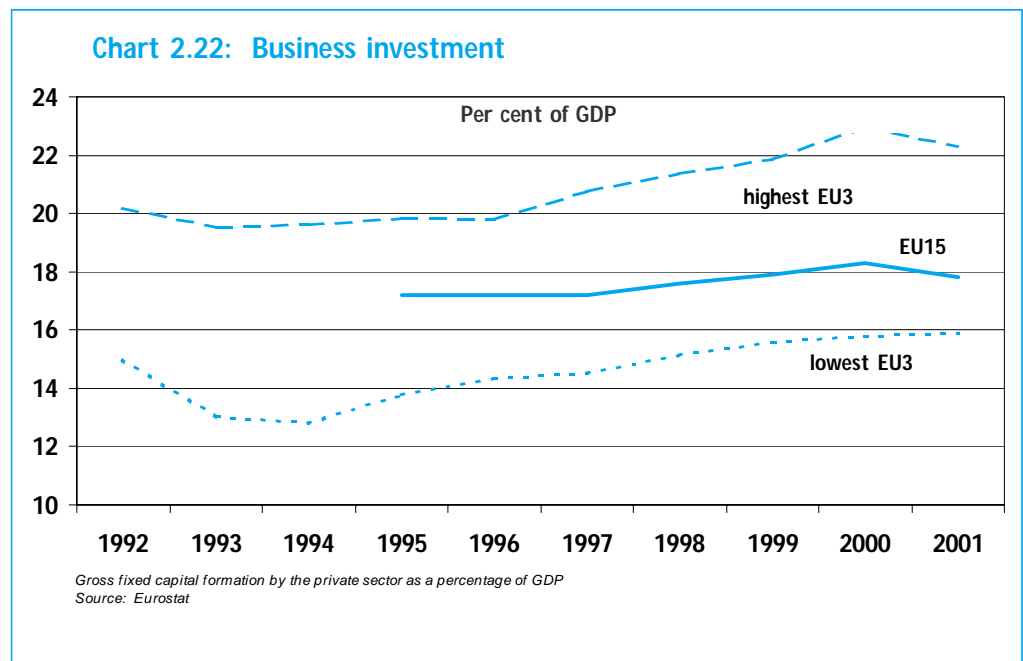




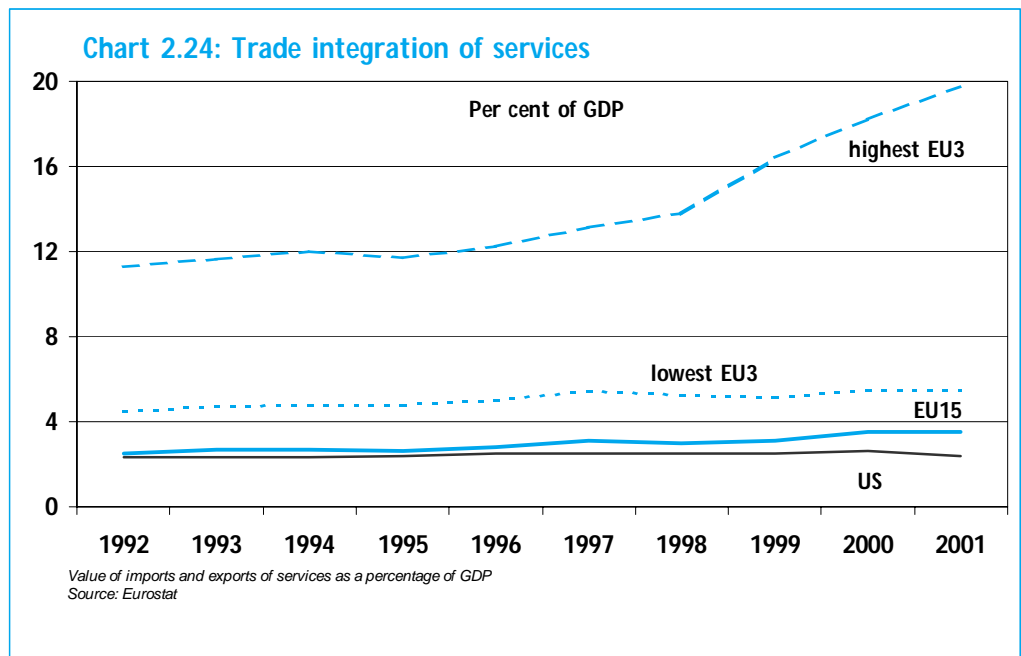
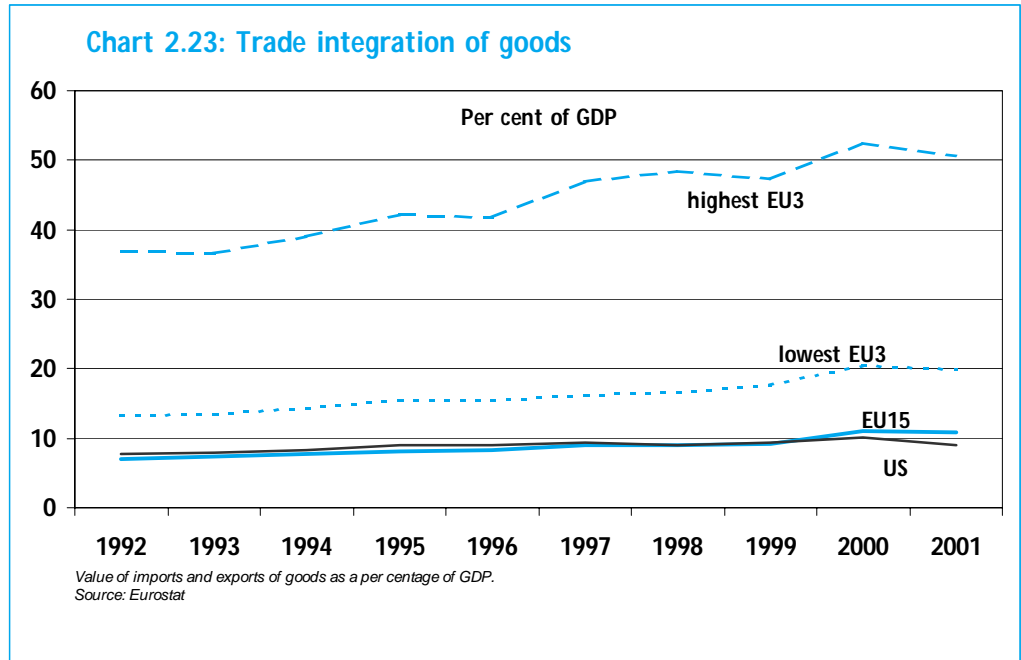
2 HEADLINE INDICATORS

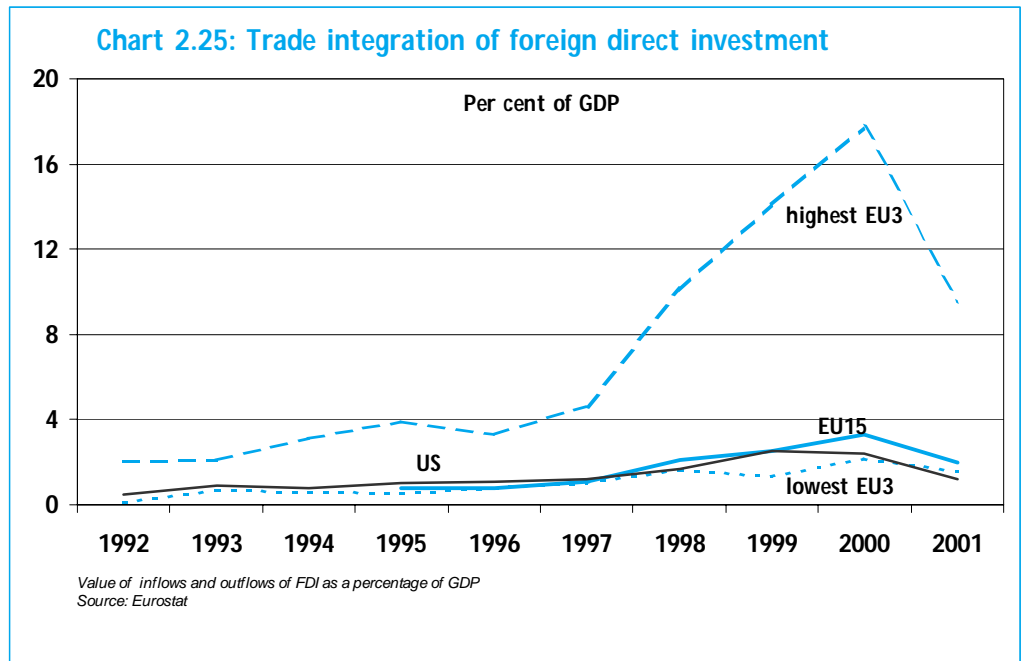


BUSINESS INVESTMENT

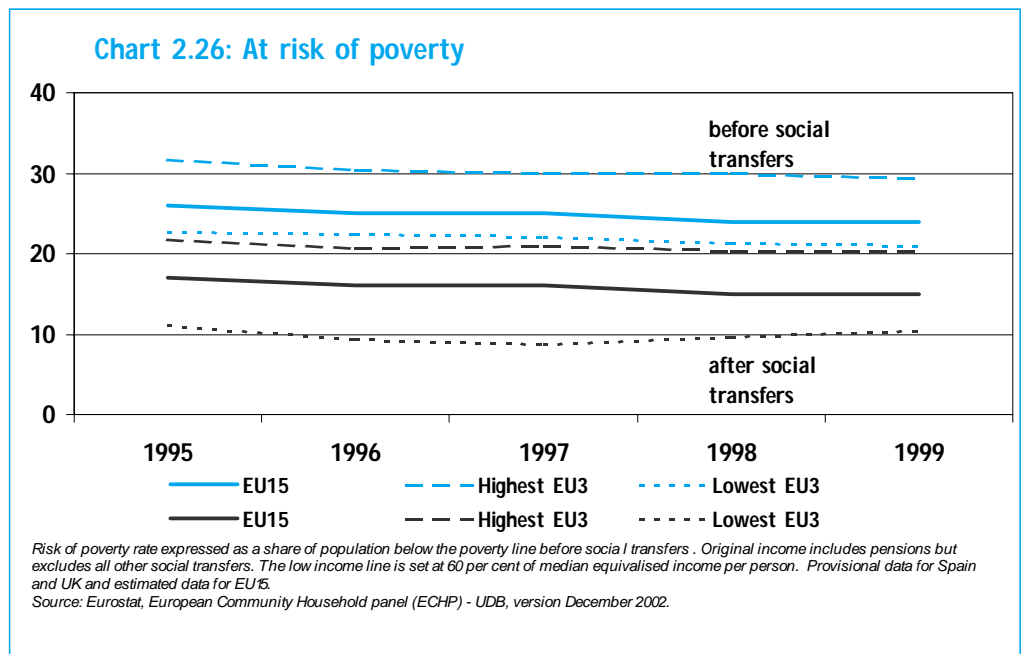


TRADE INTEGRATION

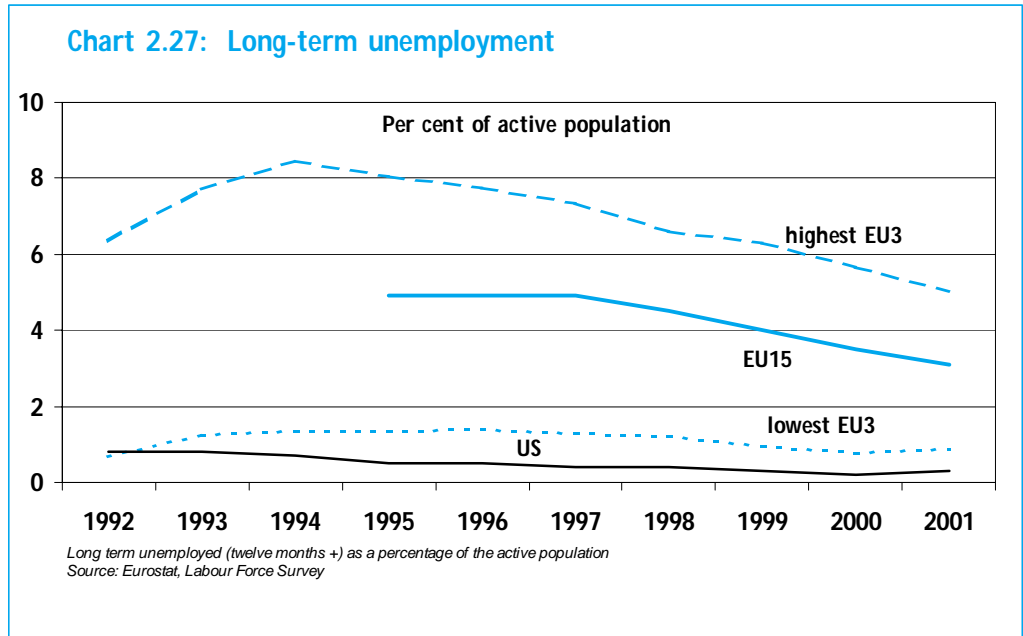




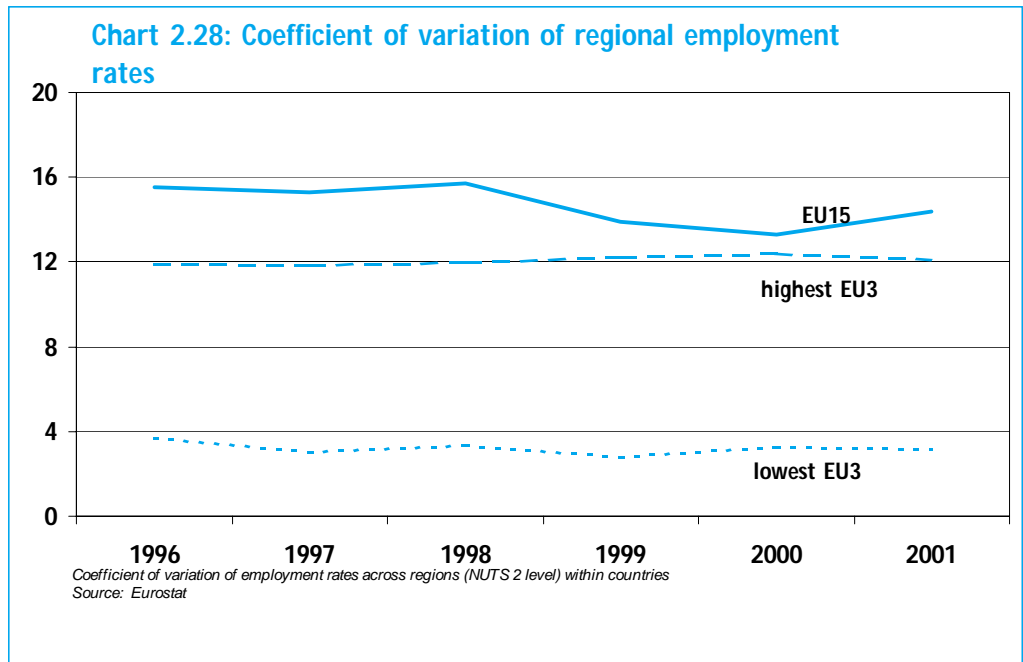
AT RISK OF POVERTY BEFORE AND AFTER SOCIAL TRANSFERS



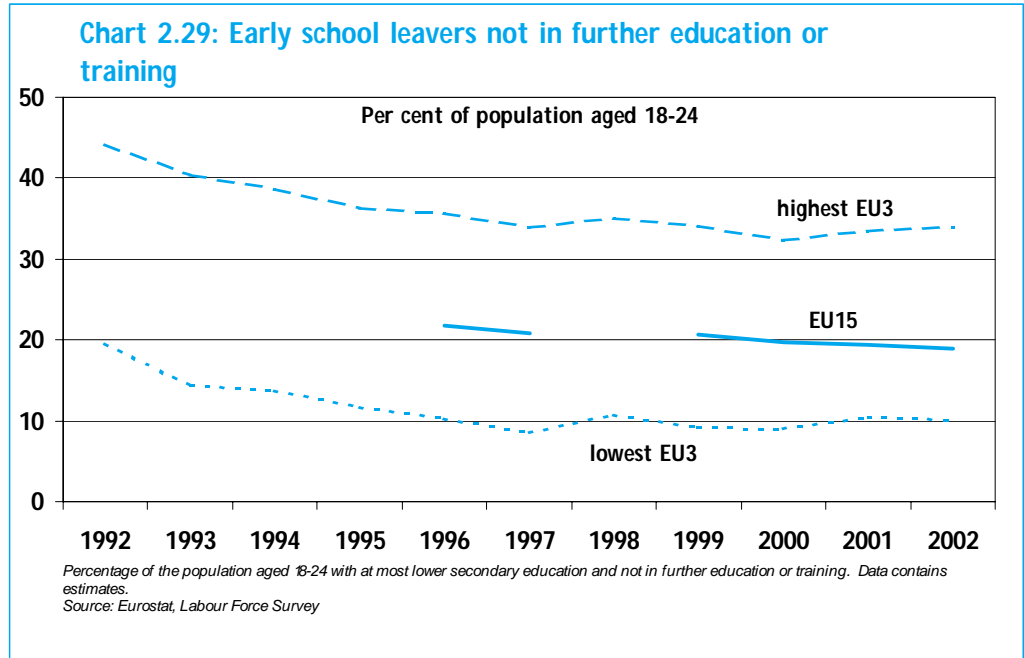
LONG-TERM UNEMPLOYMENT



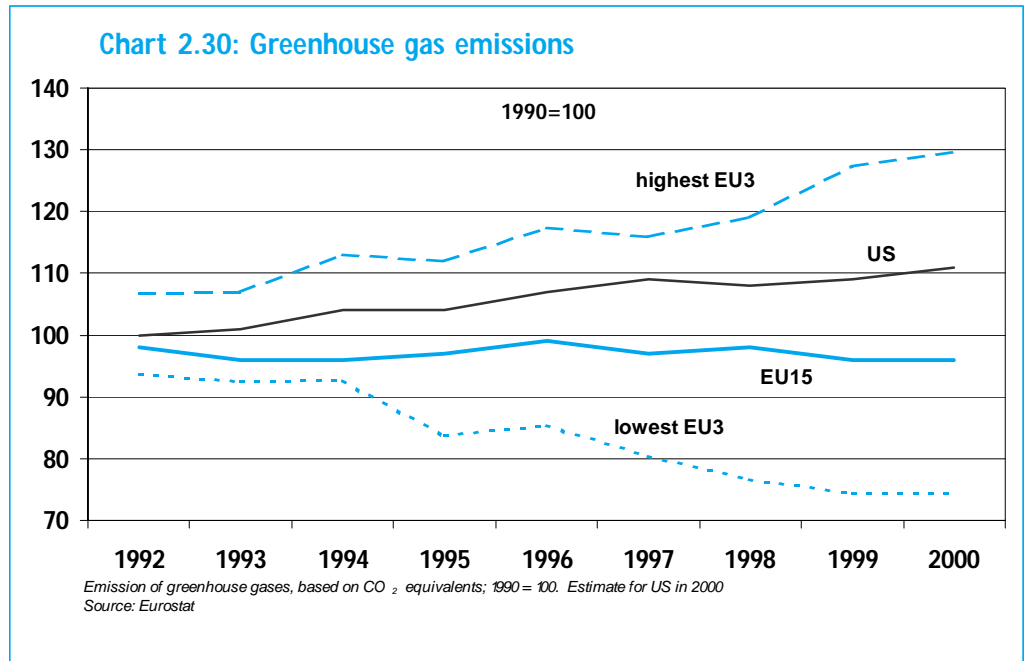
DISPERSION OF REGIONAL EMPLOYMENT RATES



FURTHER EDUCATION



GREENHOUSE GAS EMISSIONS

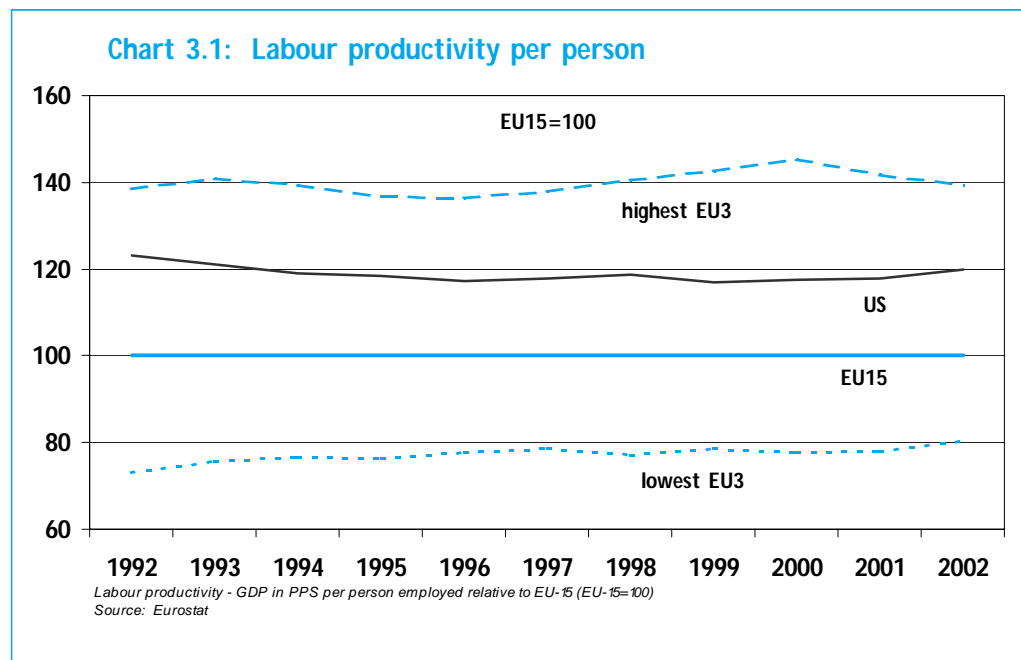


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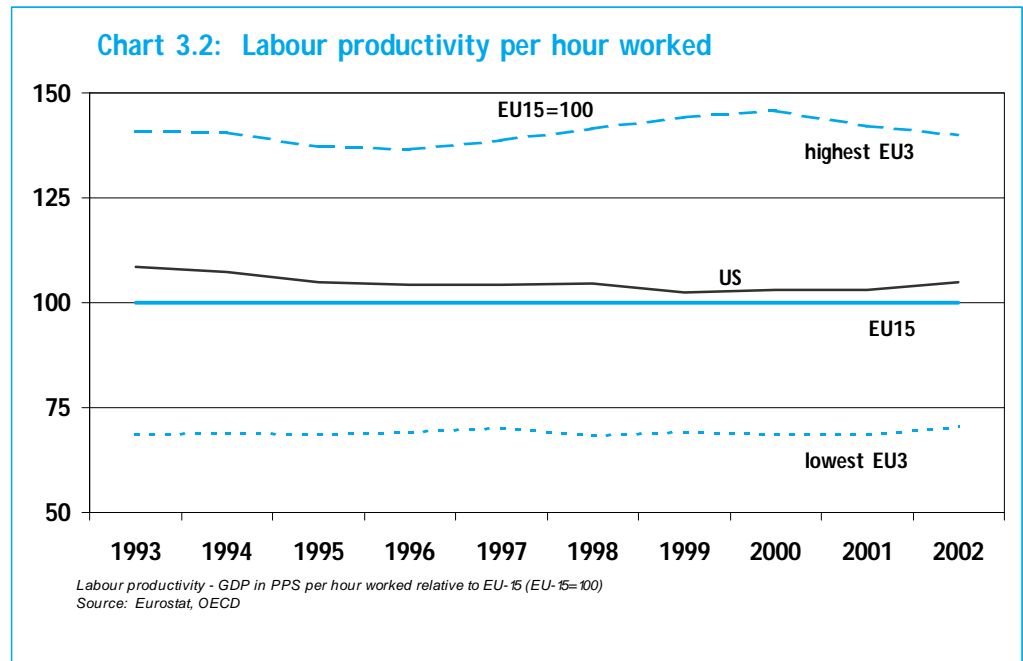
GENERAL ECONOMIC BACKGROUND

- The gap with the US in terms of **labour productivity per person** began to widen in 2002 after a period of catch-up. There remains a substantial gap between the three highest EU countries and the rest of the EU on this measure. On a **per hour basis**, however, the EU continues to converge with the US.
- **Employment growth** in EU slowed in 2001 for the first time since 1996. The US has fared slightly worse than the EU since 1998, and experienced a steep slowdown in 2001.
- **Inflation rate** in the EU crept up in 2001, though only modestly.
- **Real unit labour cost** varies widely across the EU, with some countries experiencing negative growth rates and others positive. Labour costs grew in the EU between 1999 and 2001. The US experienced a near standstill in 2001.
- The EU net surplus in **general government balances** in 2000 moved back into deficit in 2001.
- **Government debt** across the EU fell close to 60 per cent in 2001 following a similar trend to the US; there is a wide variation between Member States on this measure.

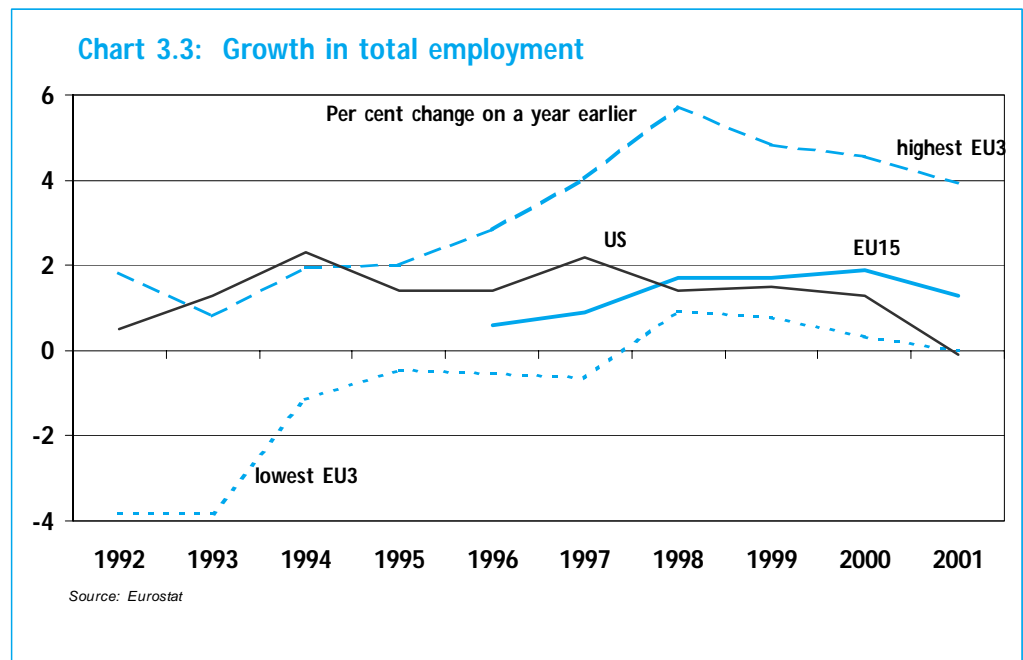
LABOUR PRODUCTIVITY



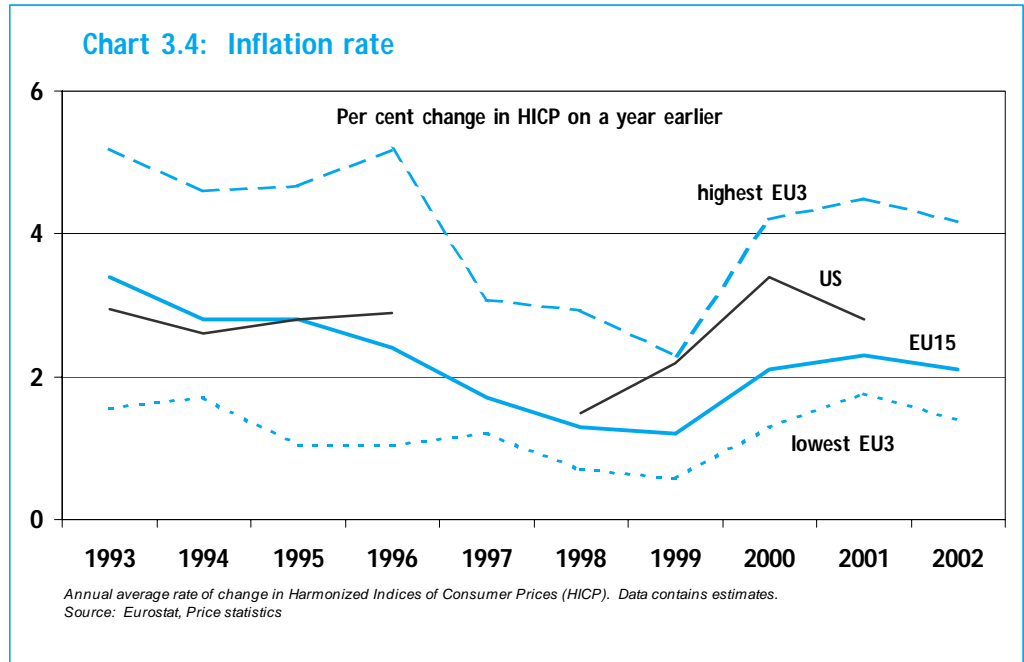
3 GENERAL ECONOMIC BACKGROUND



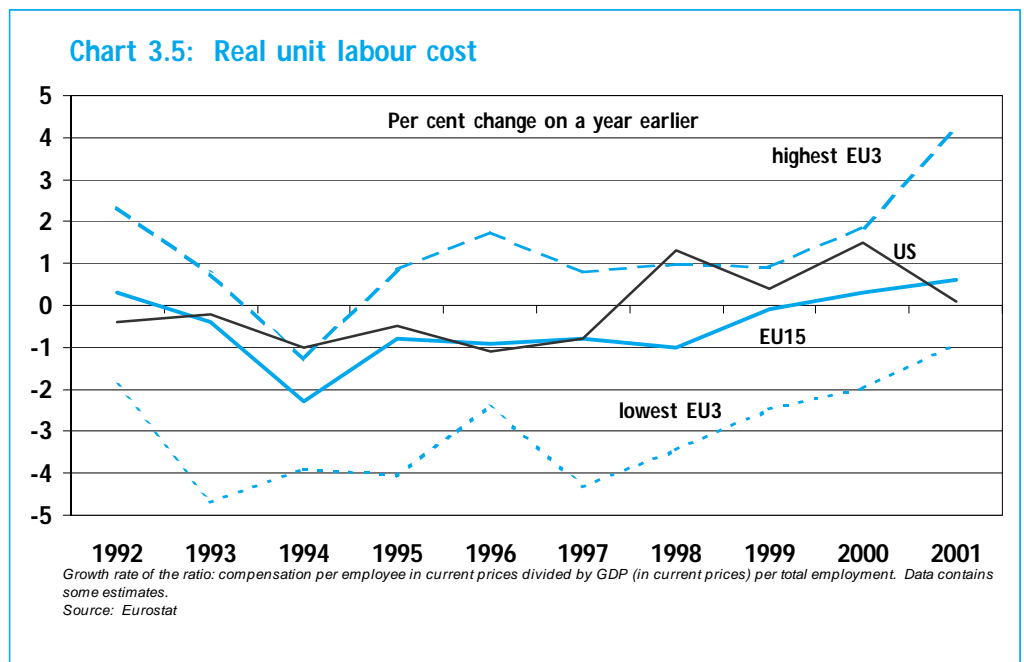
EMPLOYMENT GROWTH



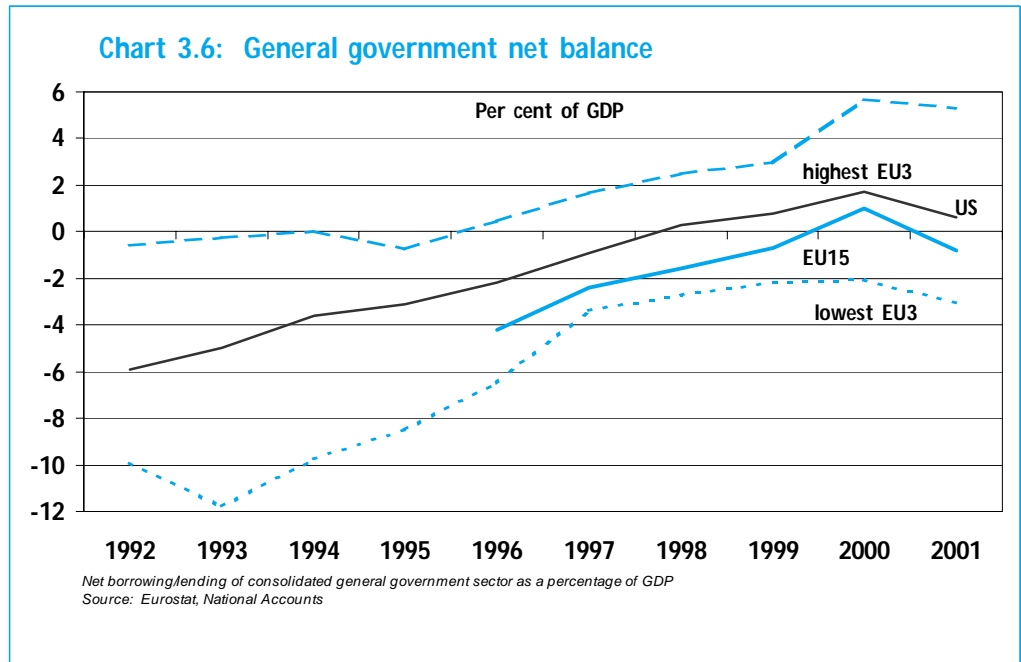
INFLATION RATE



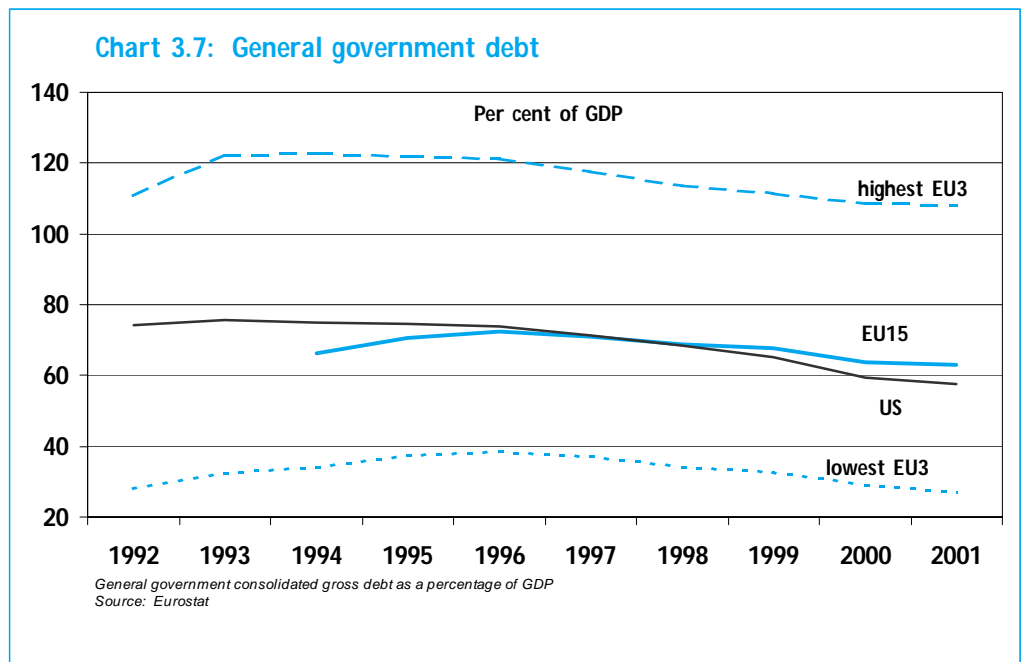
UNIT LABOUR COST GROWTH



PUBLIC BALANCES



GENERAL GOVERNMENT DEBT



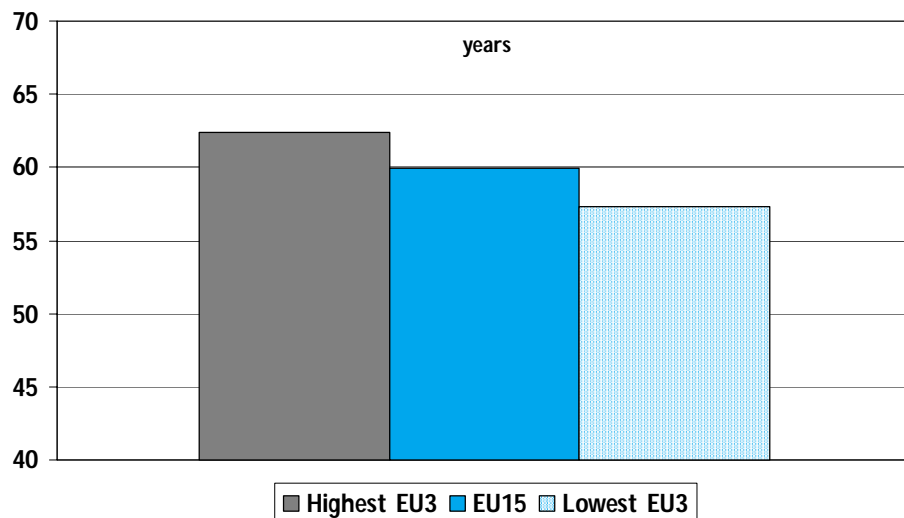
4

EMPLOYMENT

- The **effective average exit age** in the EU was 60 years in 2001.
- The **unadjusted gender pay gap** has remained nearly unchanged for the EU as a whole since 1996 at around 84 per cent of male earnings.
- The **tax rate on low earners** has continued to fall in the EU but remains above that of the US in most Member States.
- The differences in **life-long learning** across Member States remains significant.
- The number of **serious accidents at work** has fallen only slightly across the Union, whereas **fatal accidents at work** have declined substantially from 1998 levels.
- The steady reduction in the **unemployment rate** of the EU tailed off in 2001 and 2002. The US unemployment rate rose between 2000 and 2002.

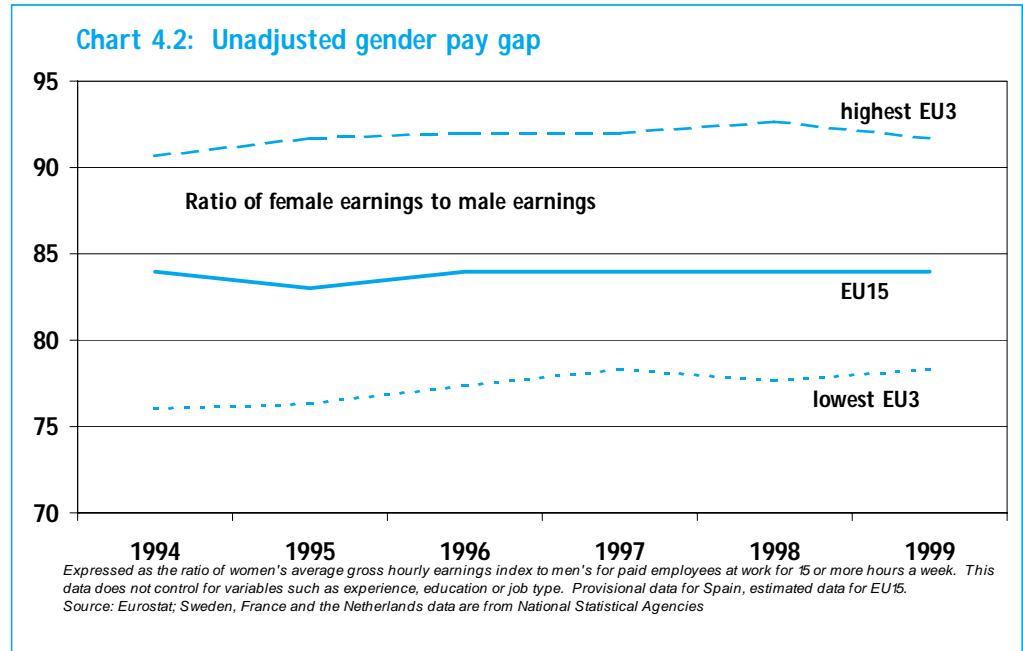
EFFECTIVE ACTIVE EXIT AGE

Chart 4.1: Effective average exit age, 2001

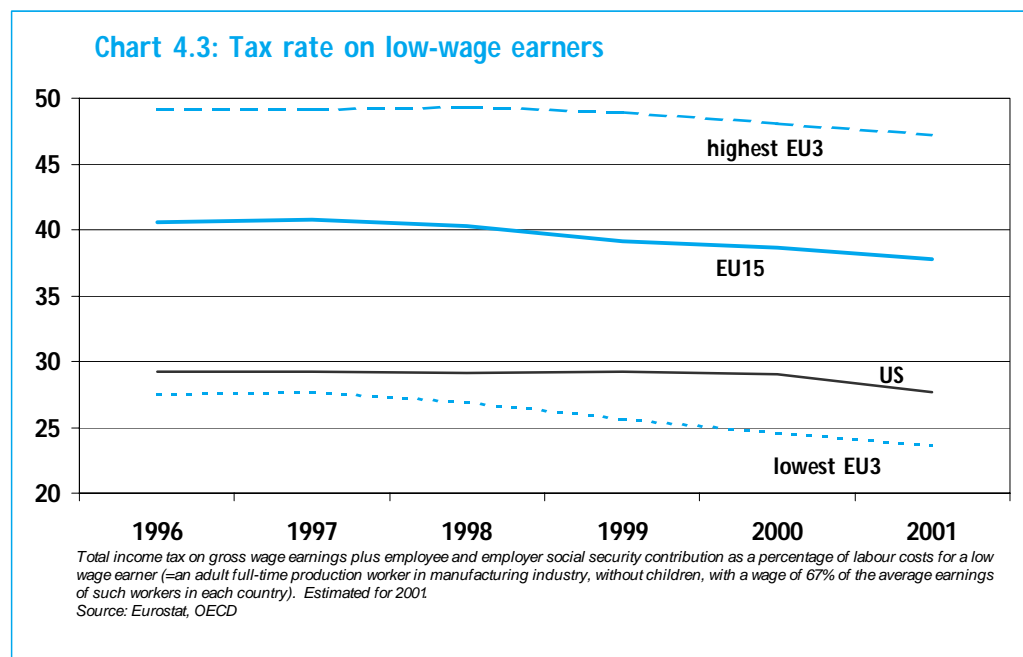


Average exit age, weighted by the probability of withdrawal from the labour market.
Source: Eurostat, Labour Force Survey

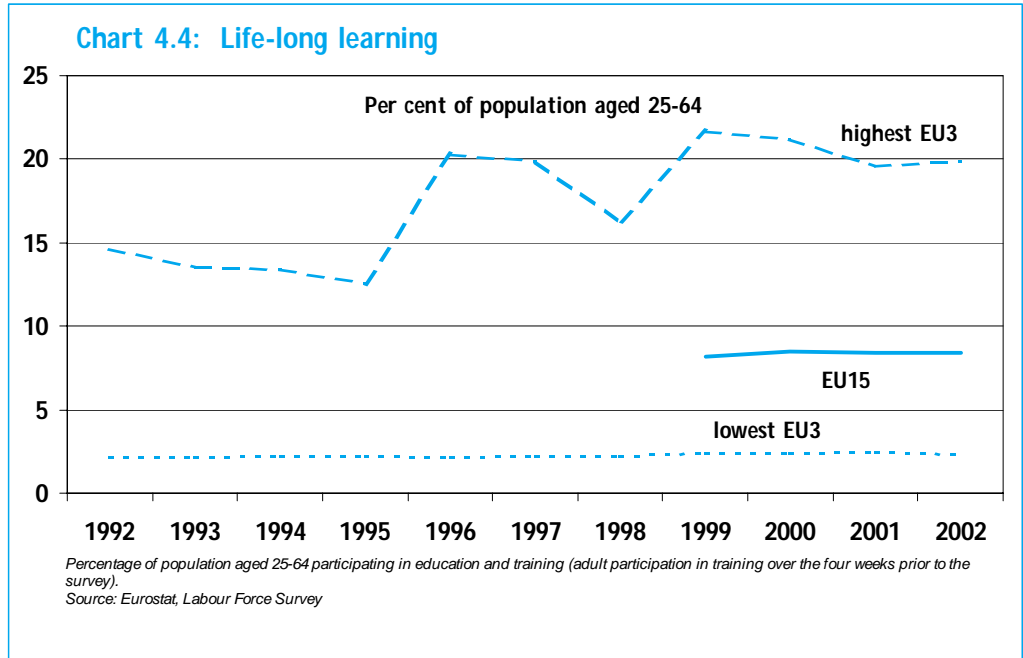
GENDER PAY GAP IN UNADJUSTED FORM



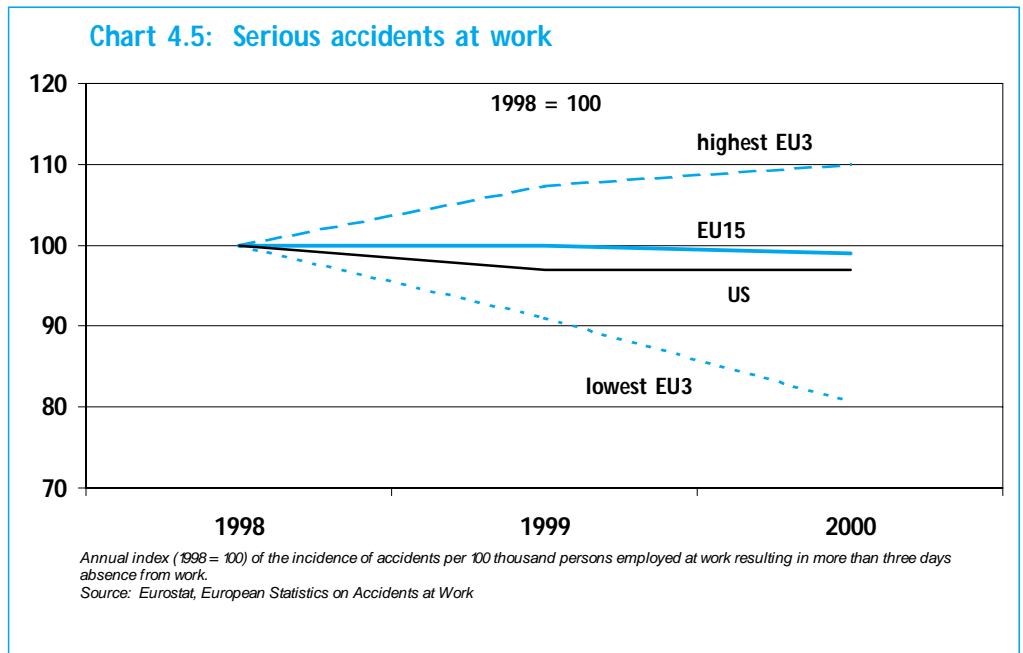
TAX RATE ON LOW WAGE EARNERS

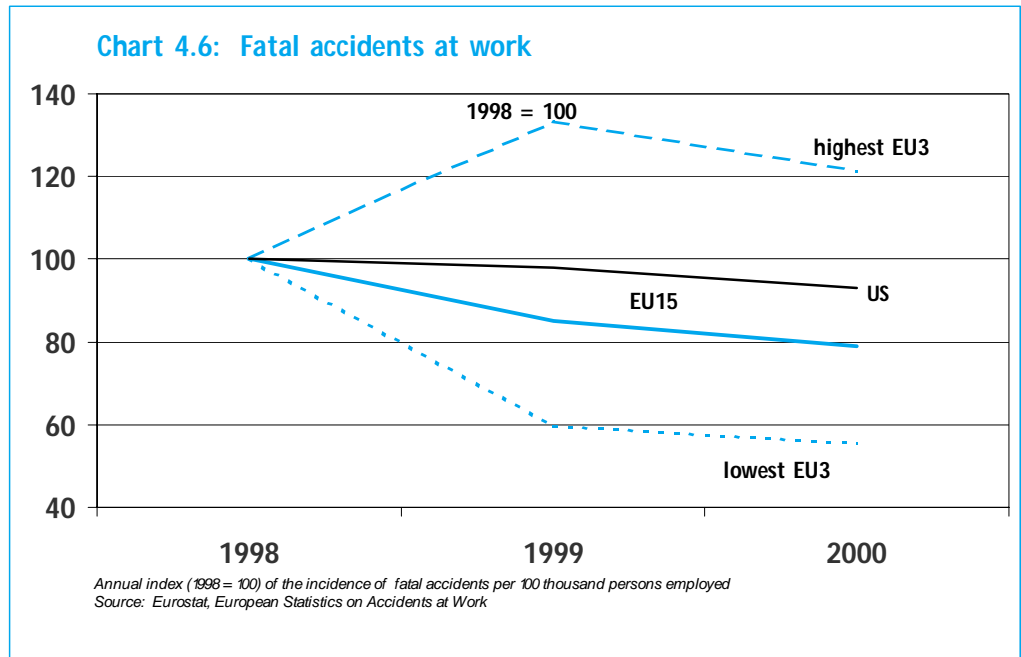


LIFE-LONG LEARNING

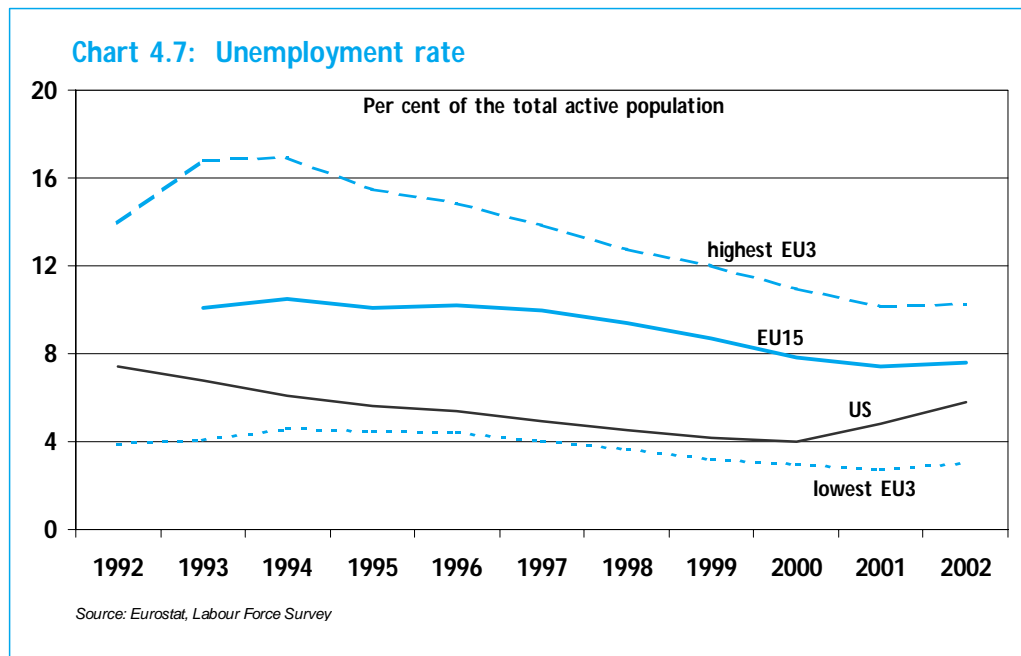


ACCIDENTS AT WORK





UNEMPLOYMENT RATE

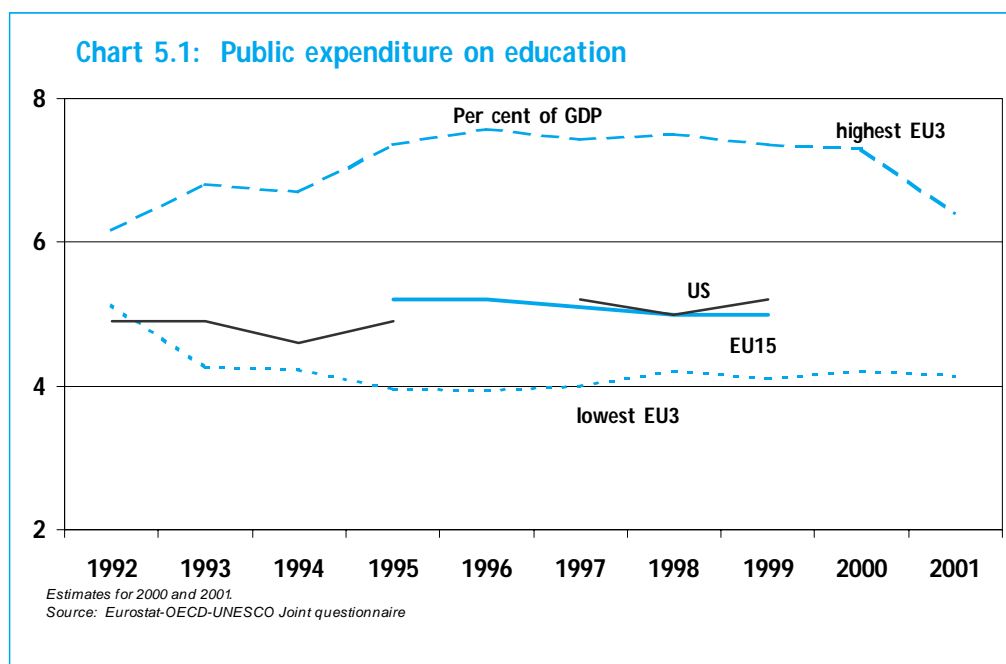


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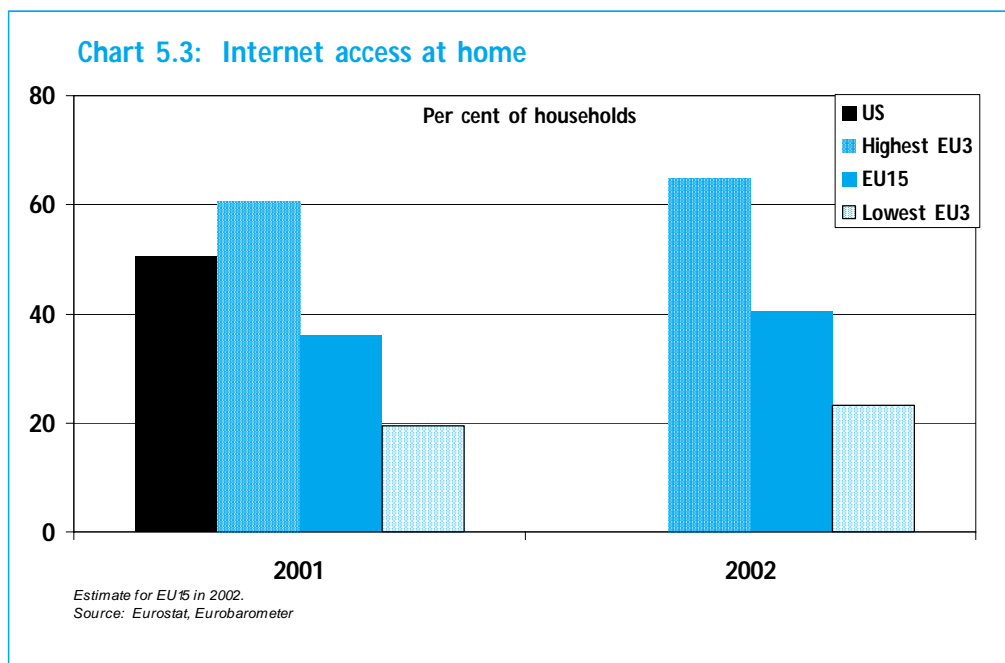
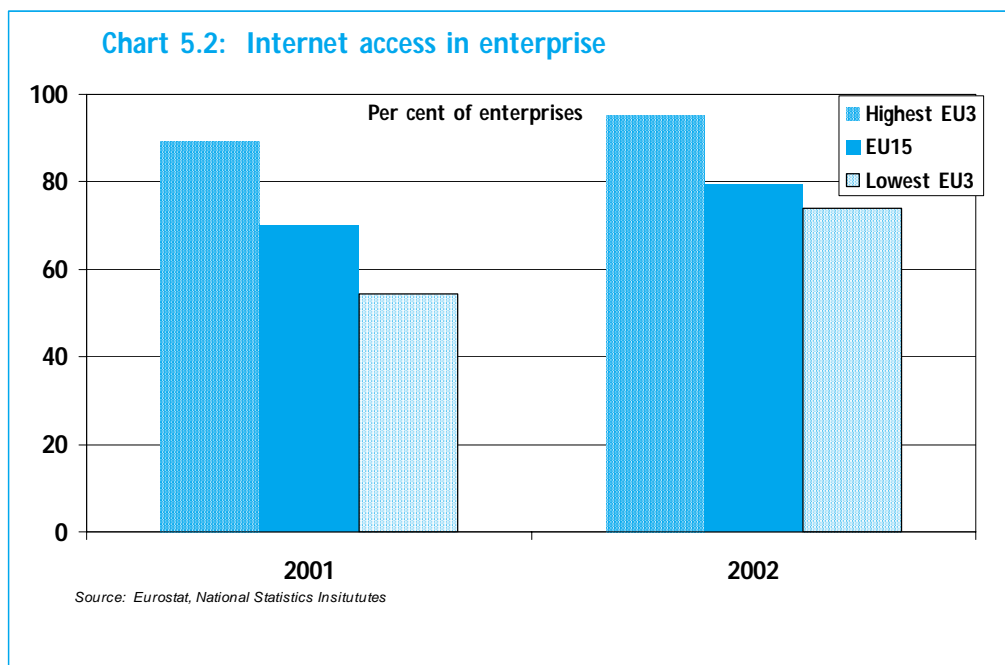
INNOVATION AND RESEARCH

- **Public spending on education** remains stable in the EU and only marginally below the US.
- **Internet access in enterprise** has increased across the EU between 2001 and 2002; the three lowest EU countries have also converged towards the EU average. Similarly internet access in homes has risen.
- The difference in the number of **science and technology graduates** across the Member States appears to be widening.
- Patenting activity at the **European Patent Office** is increasing for both the EU and US based inventors. There is a distinct gap also emerging between the highest and lowest three EU countries.
- Patenting activity at the **US Patent and Trademark Office** has also risen, though US inventors have markedly more applications granted than their EU counterparts. The activity of the three highest patenting EU Member States has been growing steadily in recent years, the three lowest patenting Member States has, however, stagnated.
- **Venture capital** in both EU and US rose rapidly until 2000 for both early stage and expansion, but fell sharply in 2001. This may, in part, be due to cyclical factors. The proportion of venture capital is considerably higher in the US.

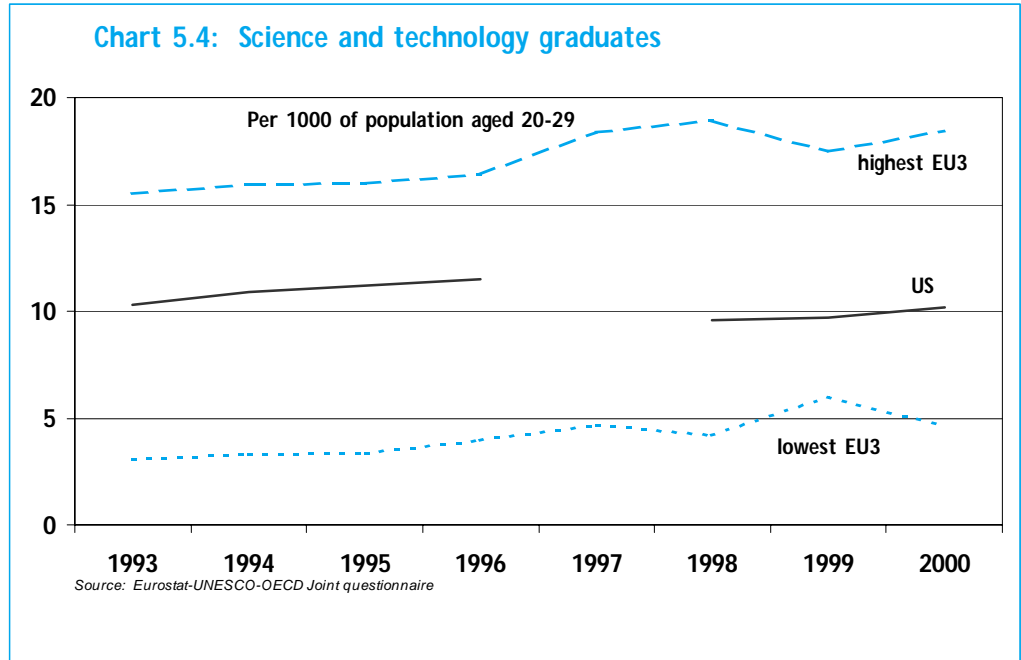
SPENDING ON HUMAN RESOURCES



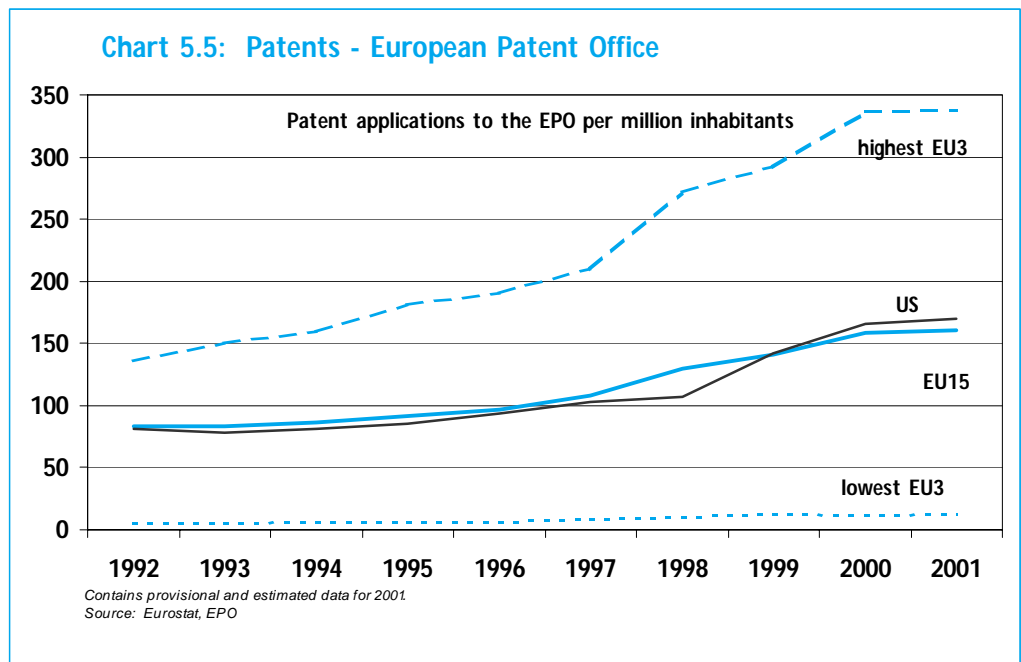
LEVEL OF INTERNET ACCESS

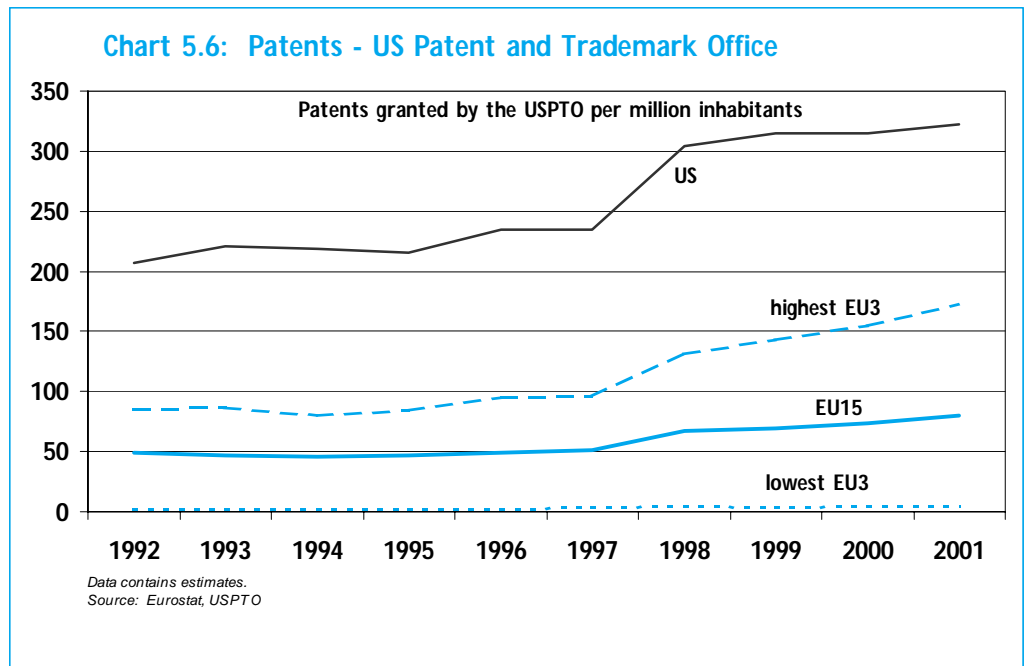


SCIENCE AND TECHNOLOGY GRADUATES

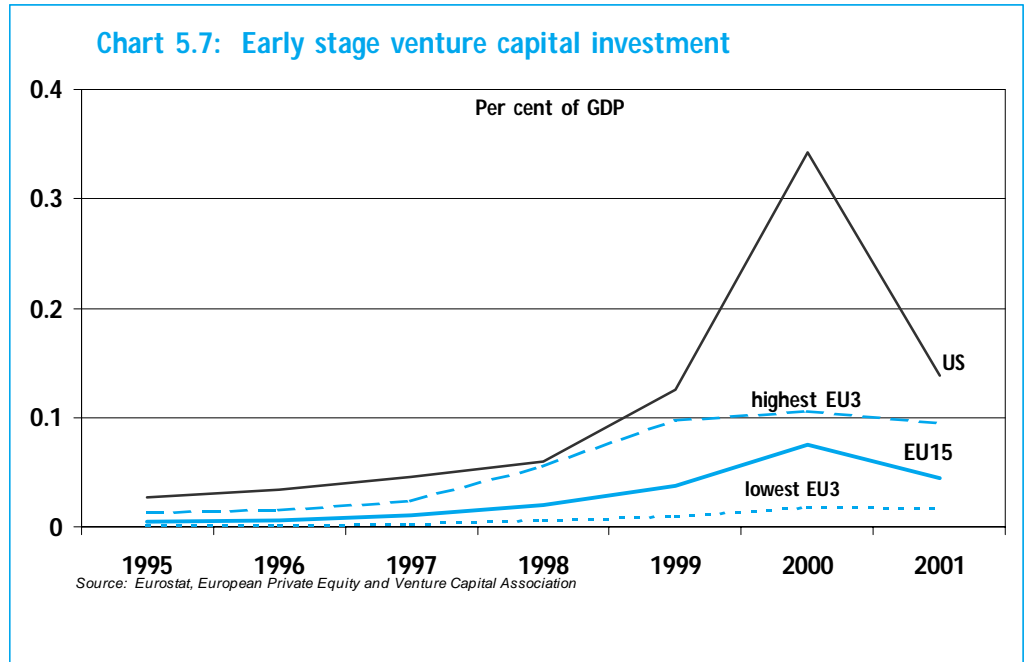


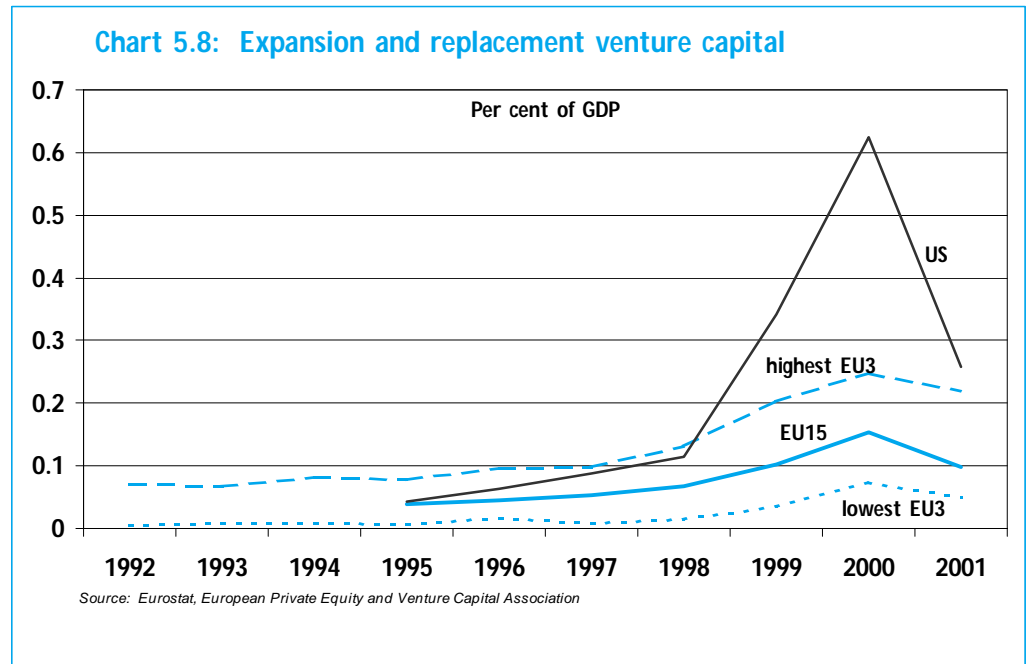
PATENTS





VENTURE CAPITAL INVESTMENTS



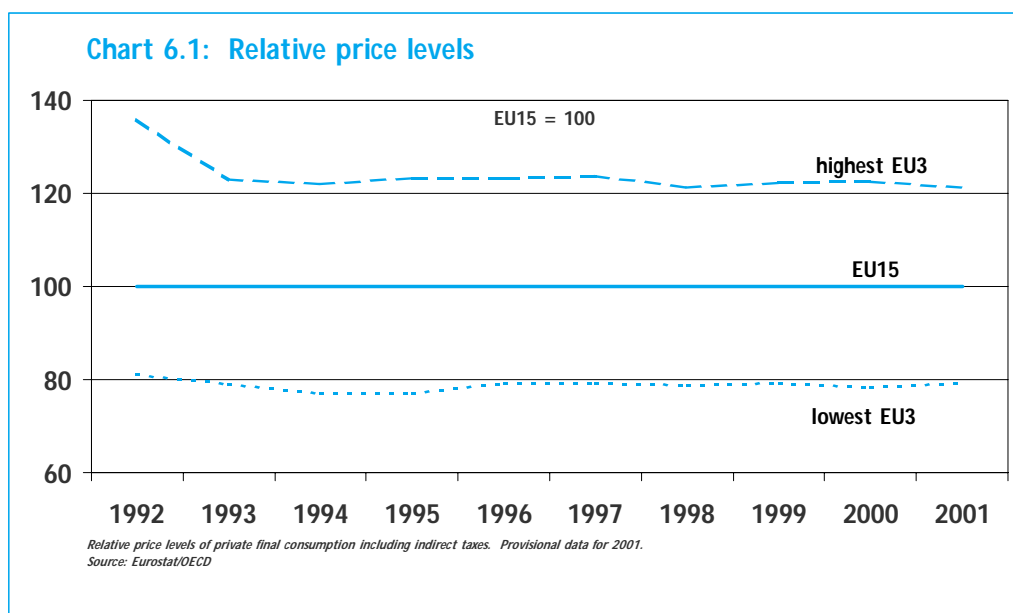


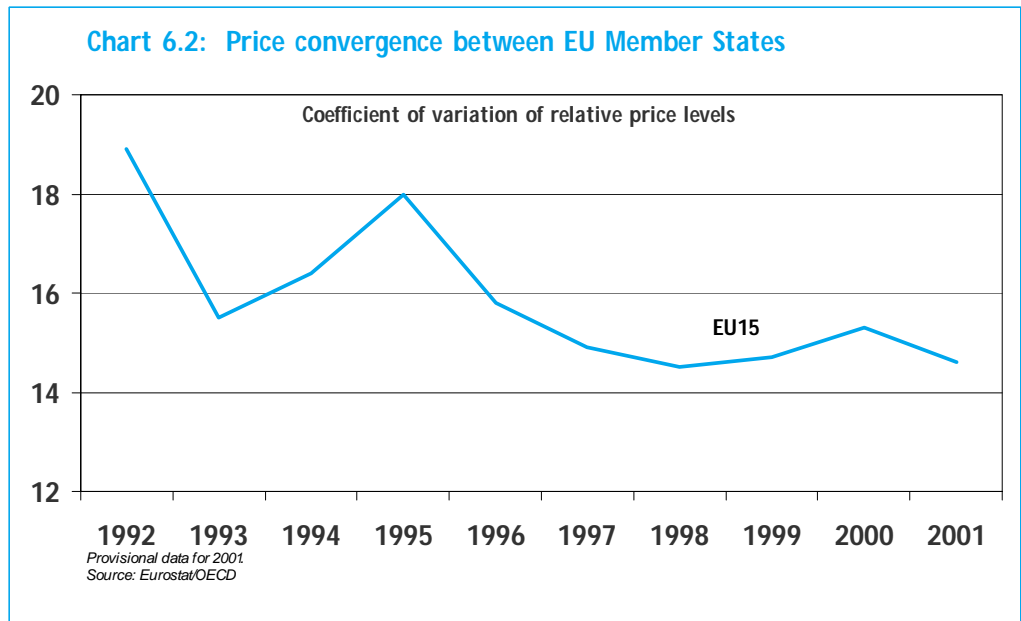
6

ECONOMIC REFORM

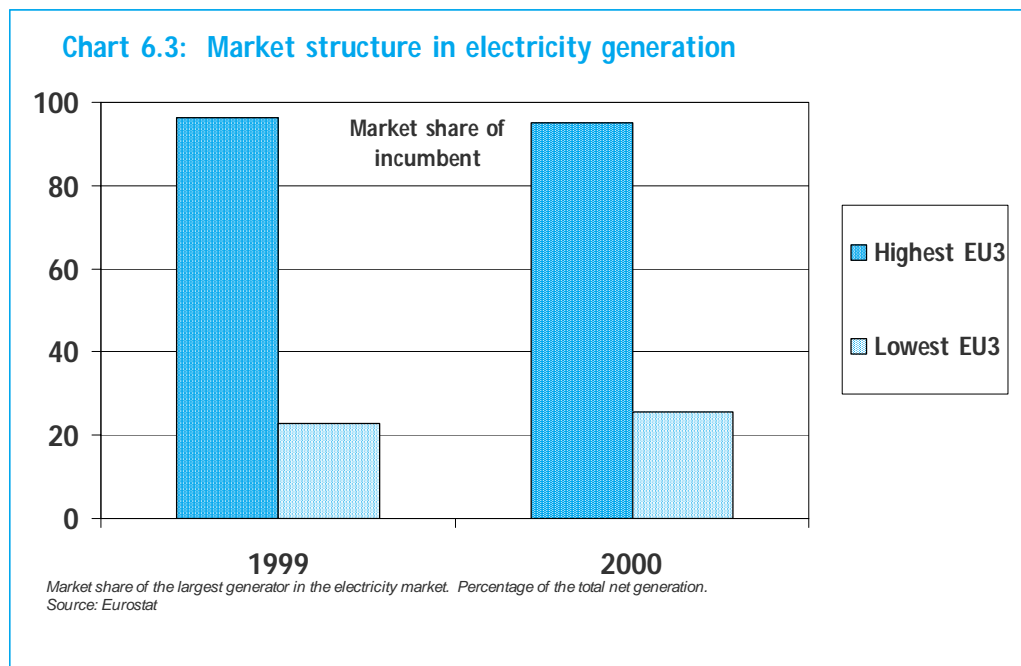
- The picture of **relative price levels** shown by the structural indicators suggests substantial stability. However, aggregation means that this may conceal significant variation for individual countries.
- Indeed, this underlying movement is illustrated by the changes in the **coefficient of variation** since the mid-1990s.
- Monopolies remain evident in many Member States' **network industries**.
- The share of **government procurement** openly advertised has risen across the EU, although the rate of increase slowed in 2001.
- The proportion of **state aids** continued to decline across the EU and there has been a narrowing of the differential between the highest and lowest Member States.

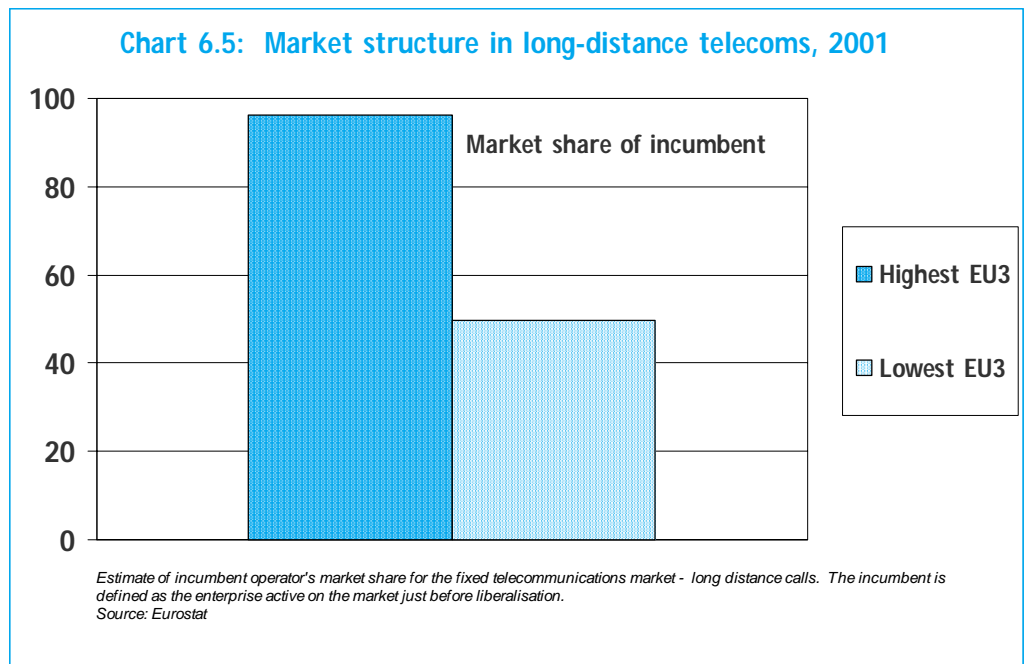
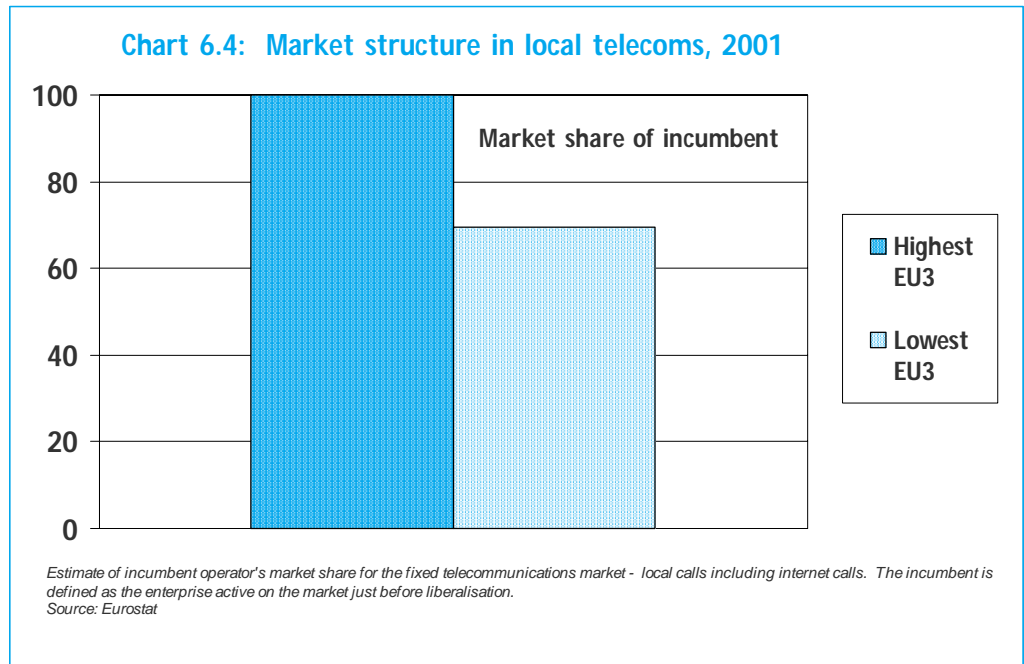
PRICES

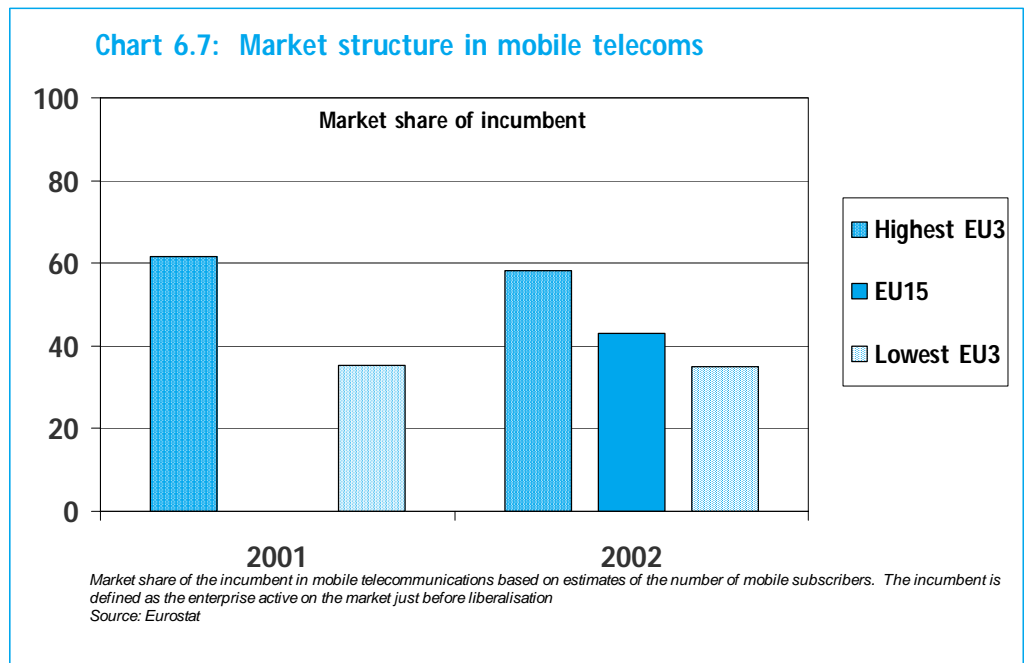
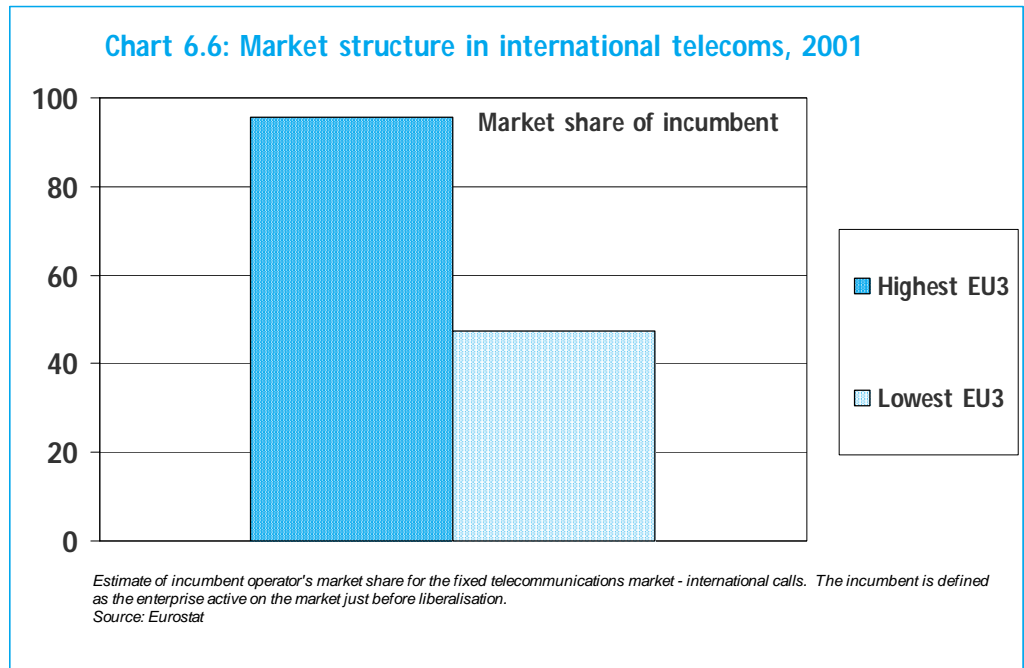




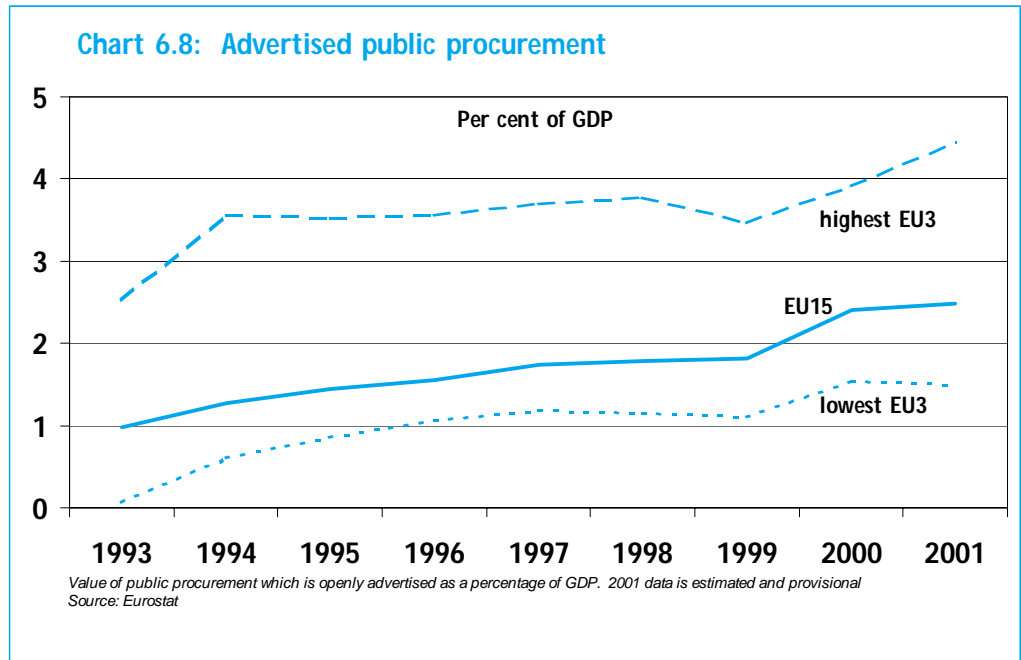
MARKET STRUCTURE IN NETWORK INDUSTRIES



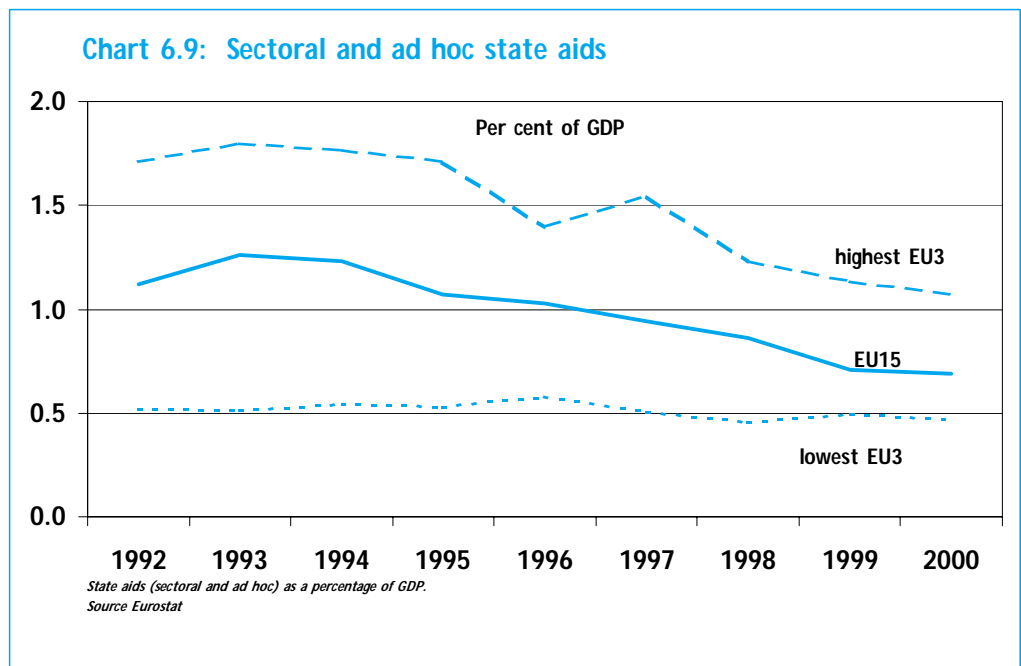




PUBLIC PROCUREMENT



STATE AIDS

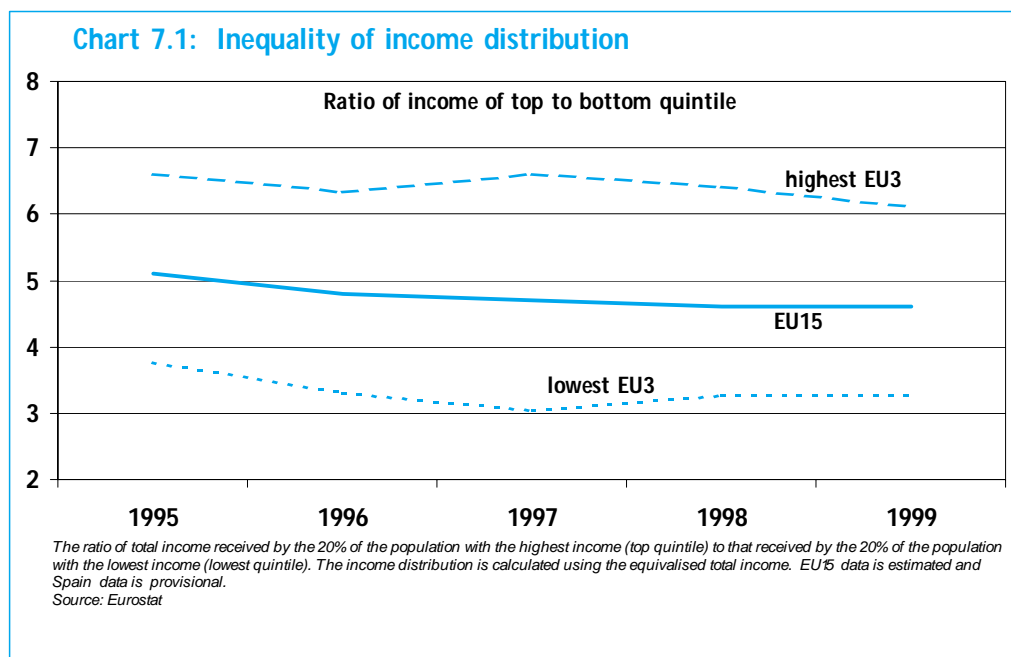


7

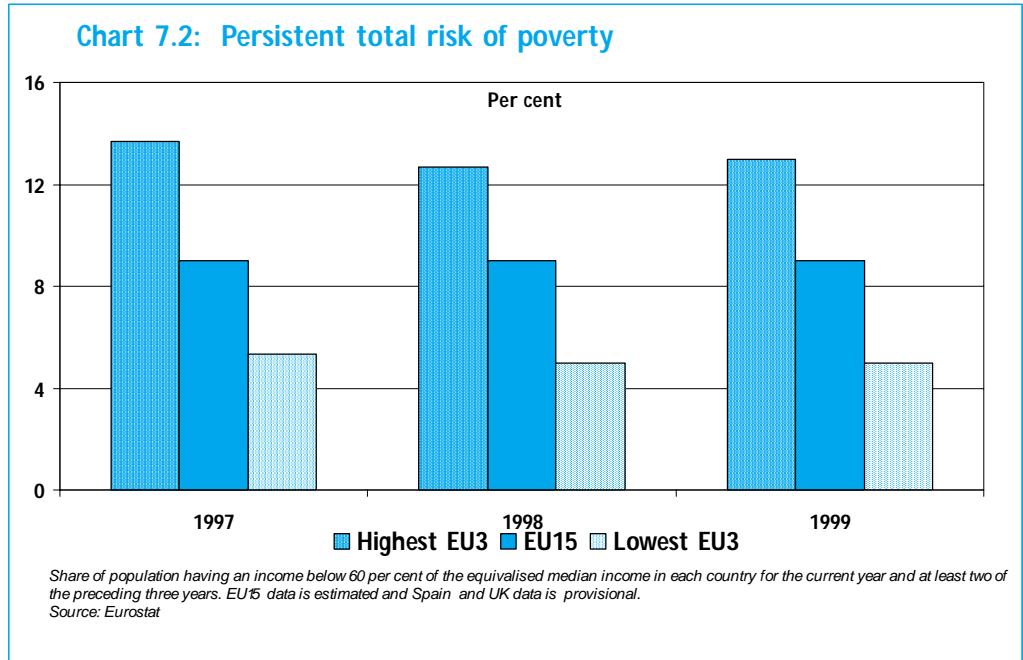
SOCIAL COHESION

- EU **income differentials** levelled out in the late 1990s after a more marked fall in the mid-1990s.
- There has been little change to the **persistent risk of poverty rate** between 1997 and 1999.
- The downward trend of **jobless households** has slowed across the EU and substantial differences in performance are evident among the best and worst performing Member States.

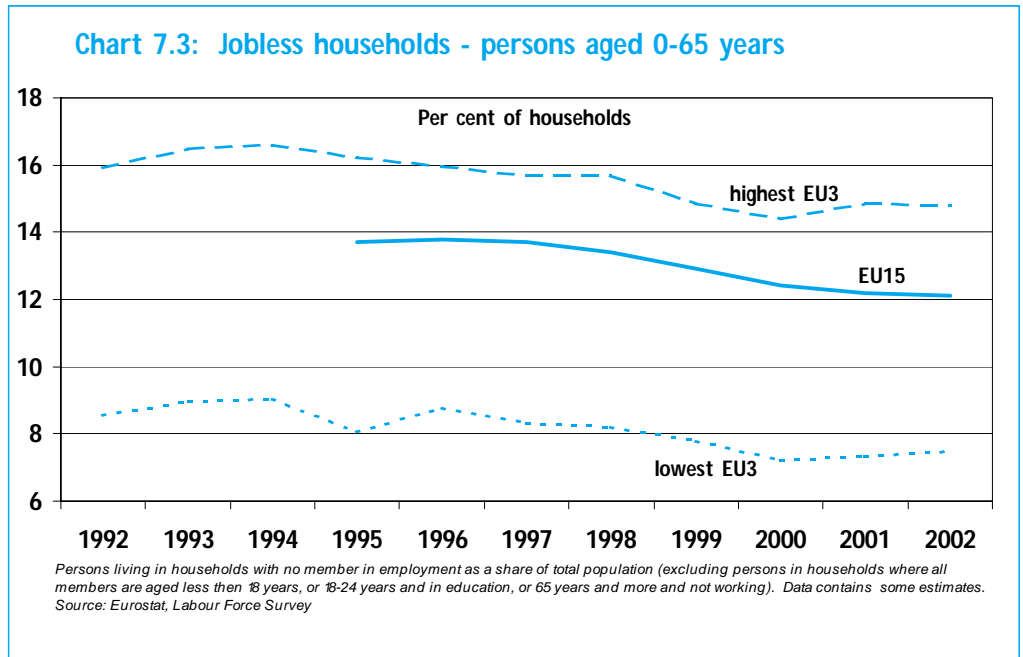
INEQUALITY OF INCOME DISTRIBUTION

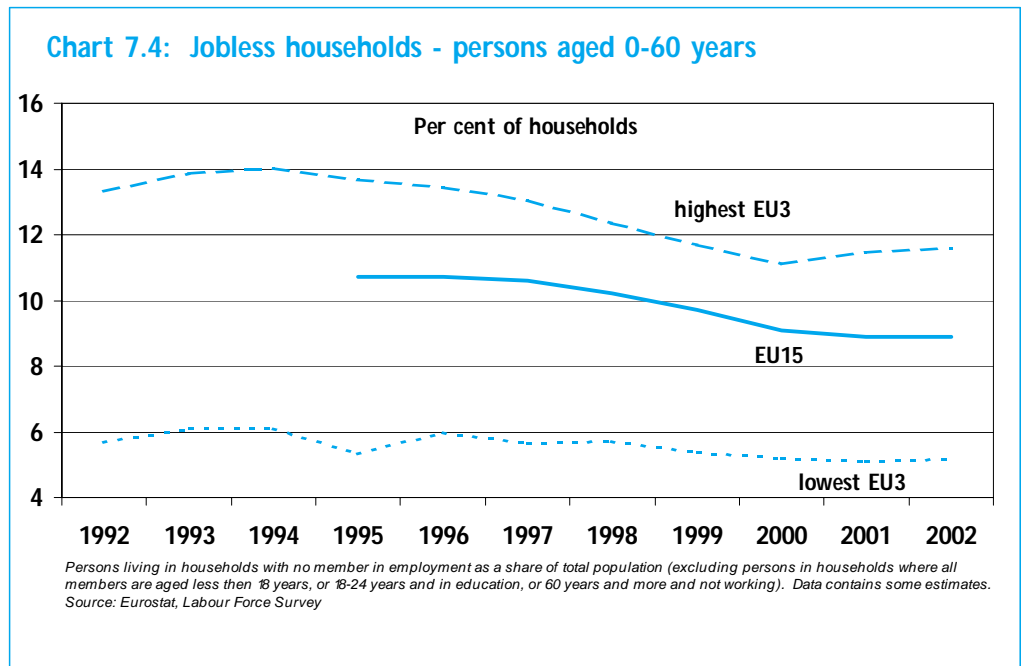


PERSISTENT RISK OF POVERTY



POPULATION LIVING IN JOBLESS HOUSEHOLDS



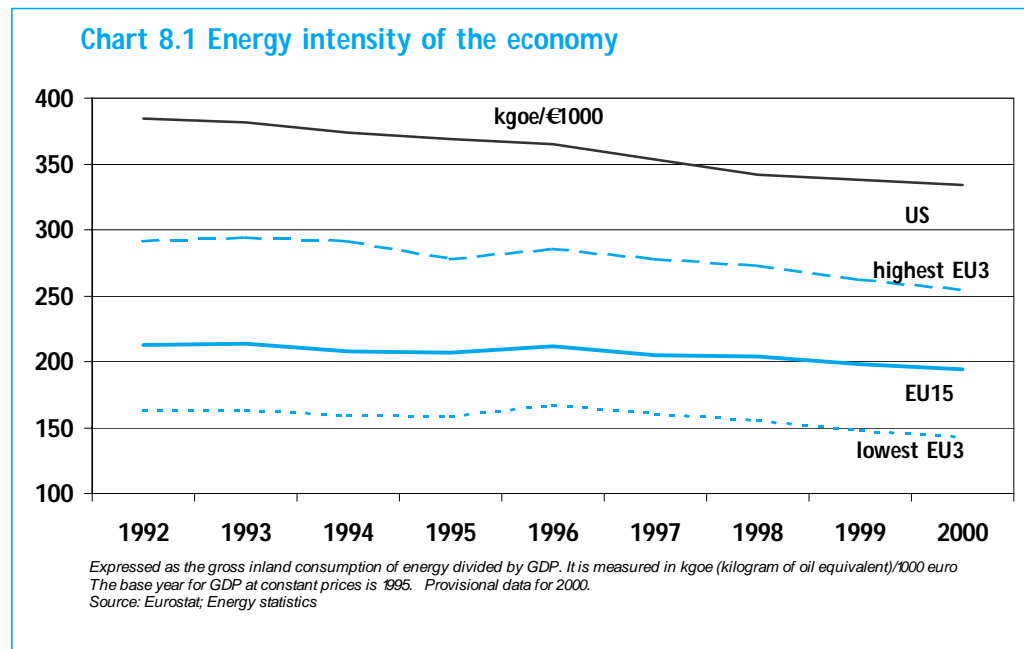


8

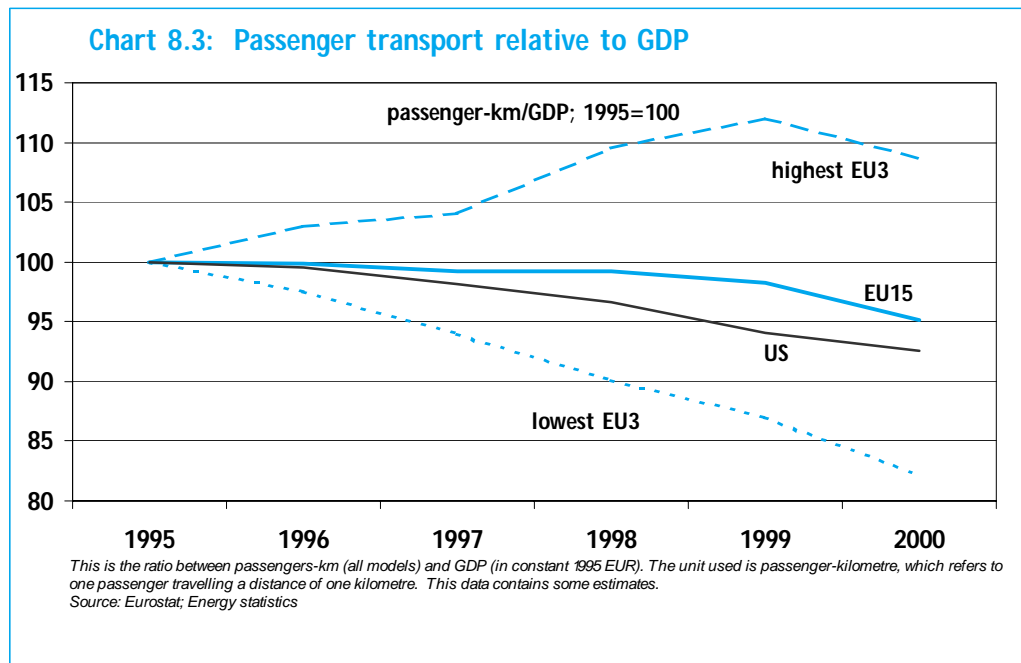
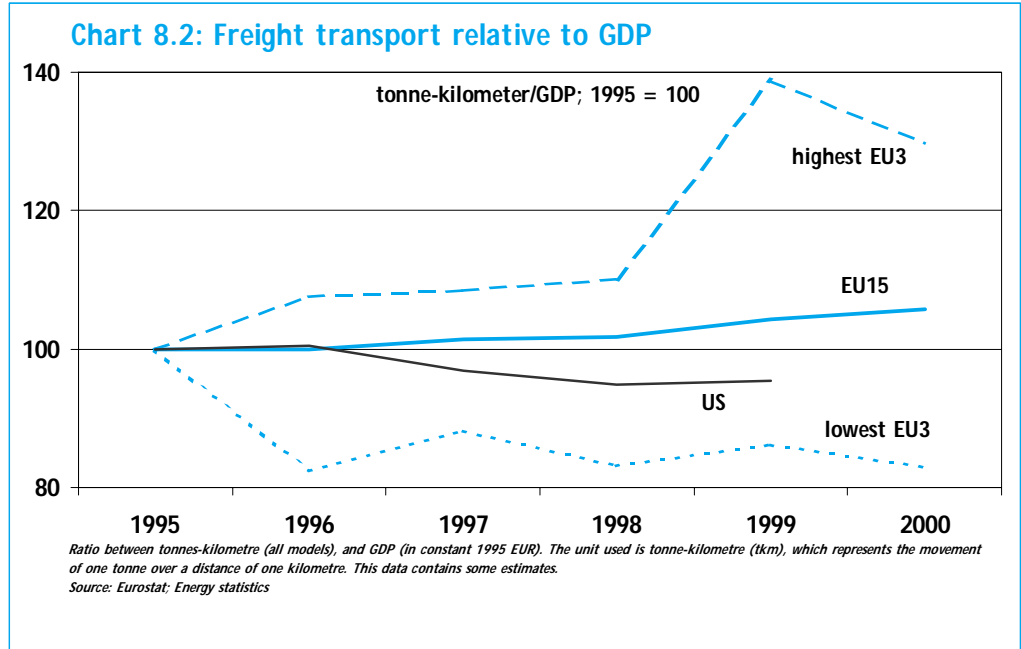
ENVIRONMENT

- The **energy intensity** of the European economy has continued to decline and even the most intensive Member States use less energy than the US.
- **Freight transport** relative to GDP has risen between 1995 and 2000 in the EU while passenger transport has fallen over the same period. Both have declined in the US over this period.
- Cars remain the most significant mode of **passenger transport**.
- There are significant differences in **air quality** outcomes between the best and worst performing Member States. The EU average fell in 2000 on both measures after rising in the previous year.
- More **municipal waste** is being collected across the EU. Between 1999 and 2000 there was a decisive switch between the amount being landfilled and the amount being incinerated in the EU.
- **Renewables** as a share of energy generation has remained constant for the EU as a whole and there remain significant differences between the high and low performing Member States.

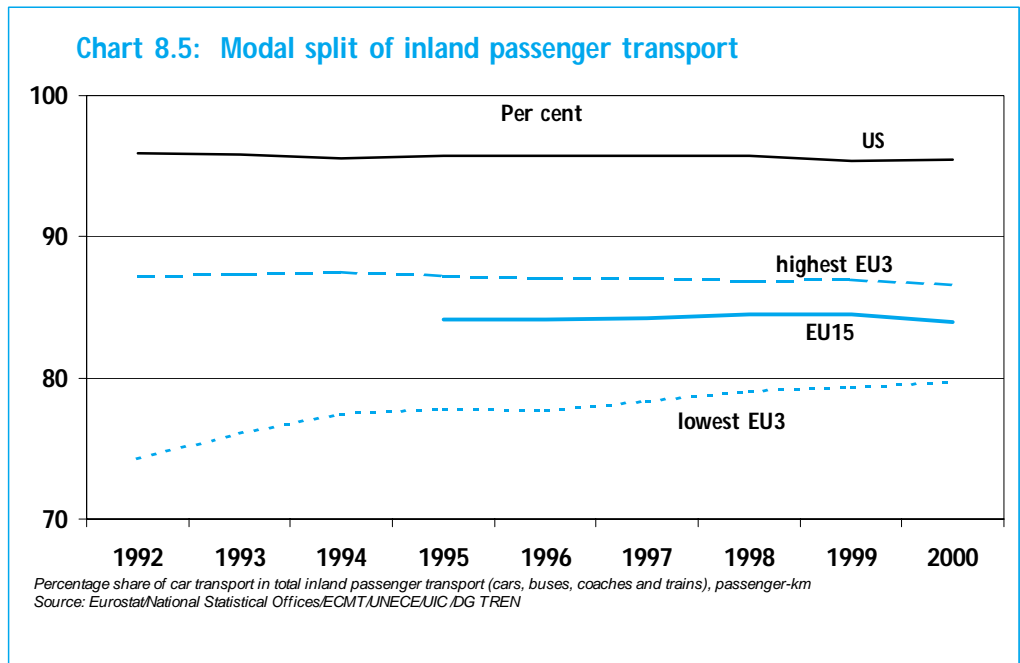
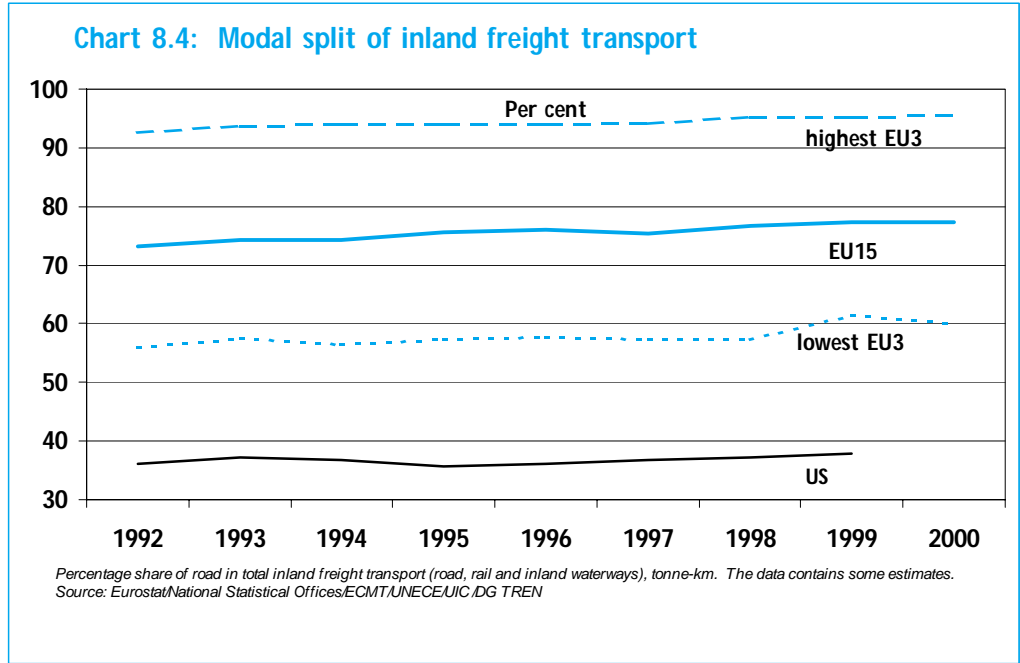
ENERGY INTENSITY OF THE ECONOMY



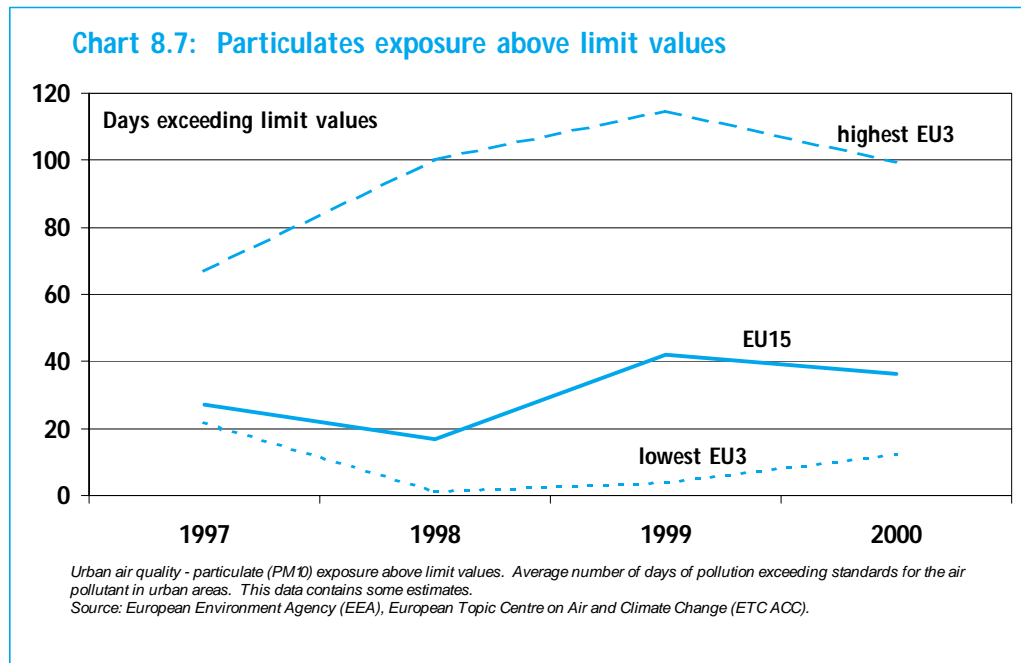
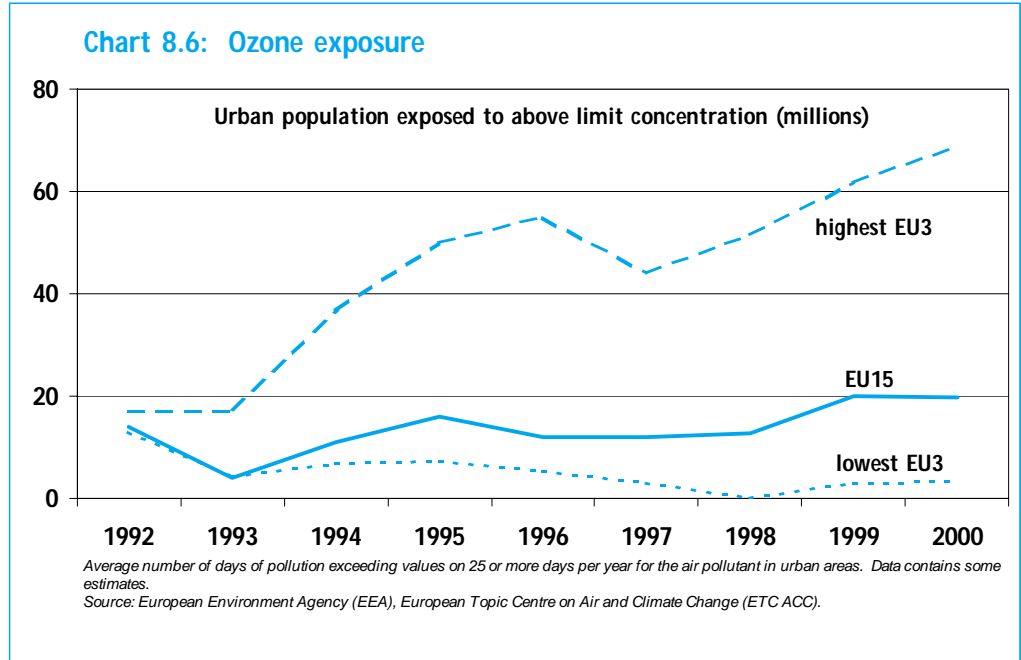
VOLUME OF TRANSPORT RELATIVE TO GDP



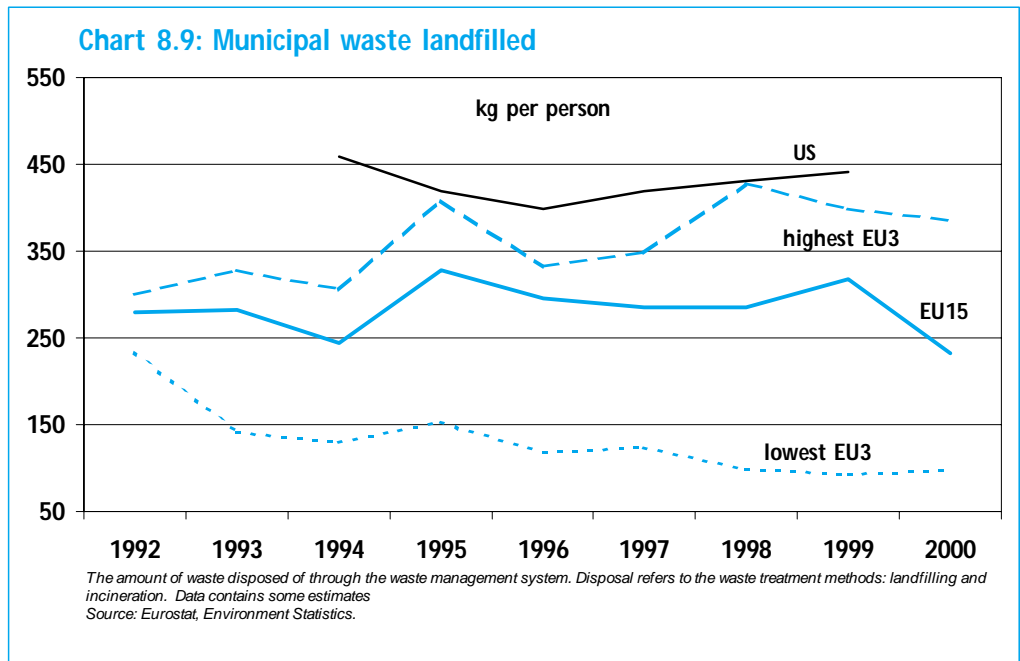
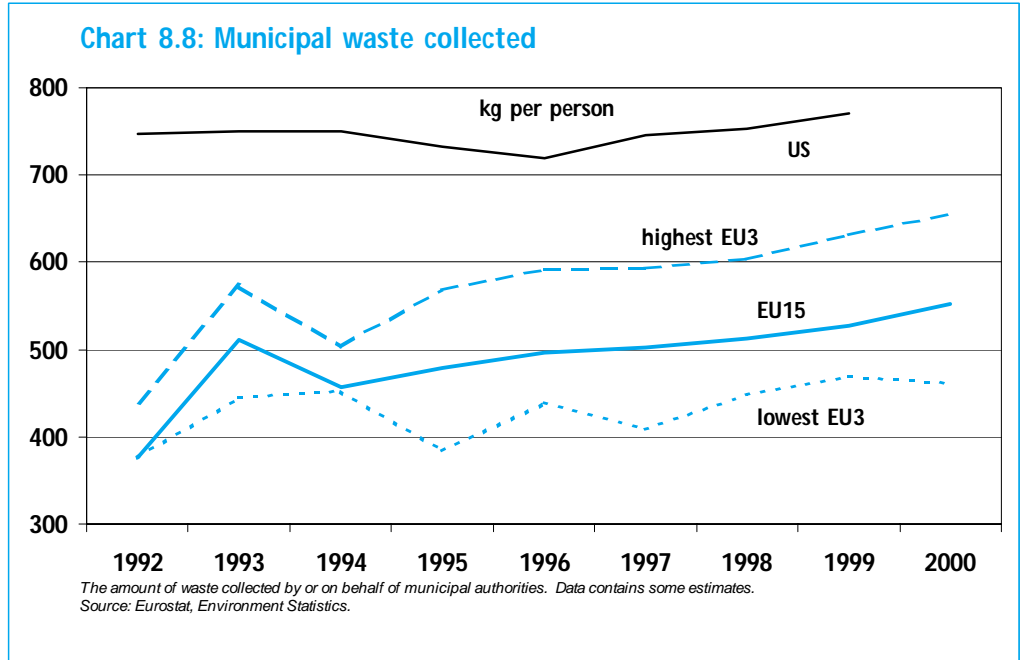
MODAL SPLIT OF TRANSPORT

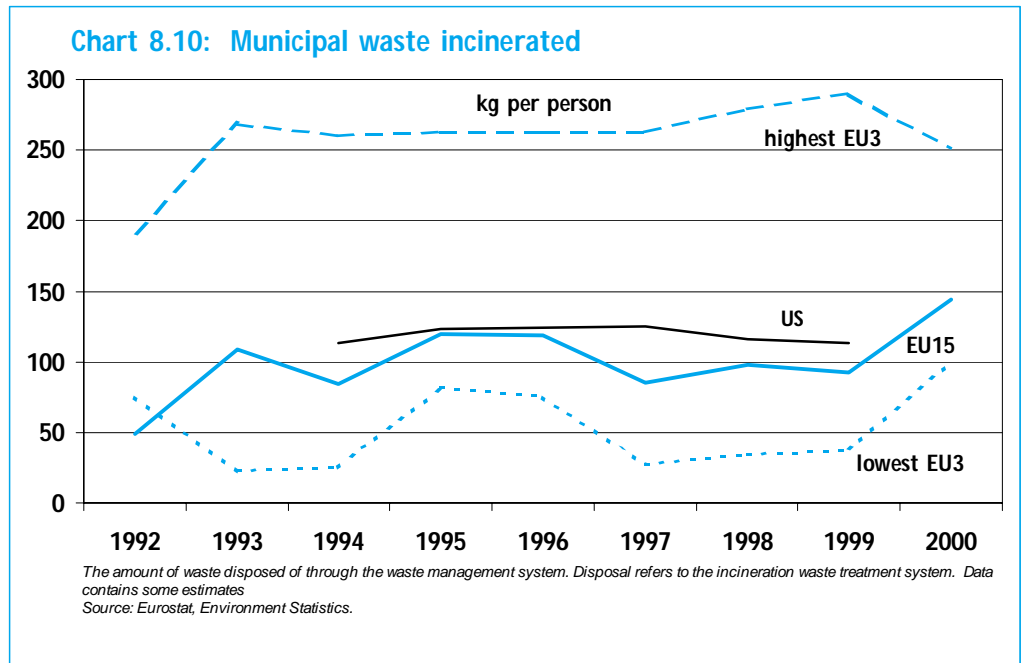


URBAN AIR QUALITY



MUNICIPAL WASTE





RENEWABLES IN ELECTRICITY CONSUMPTION

