Central Statistics Office
An Phríomh-Oifig Staidrimh

Measuring Ireland's Progress

Volume 1, 2003 - Indicators Report

Published by the Stationery Office, Dublin, Ireland.

To be purchased from the:

Central Statistics Office, Information Section, Skehard Road, Cork,

Government Publications Sales Office, Sun Alliance House, Molesworth Street, Dublin 2,

or through any bookseller.

Prn 1436 Price €10 December 2003

ISBN 0-7557-1533-0

Contents

Preface

This is the first publication by the CSO of a set of national progress indicators. It is intended to compile and publish a similar report on an annual basis.

There has been a considerable focus in the past couple of years at national, EU and international level in trying to devise a set of indicators which, taken together, broadly summarise the progress being made in achieving desirable outcomes for society. In *Sustaining Progress,* the social partnership agreement 2003- 2005, the CSO was asked to develop a set of national progress indicators building on proposals in other reports. This Volume presents the results for a selection of 108 such indicators.

The progress indicators used in this report are intended to provide a synoptic analysis of the economic, social and environmental situation in Ireland. Indicators are most useful when they are relatively easy to read and understand; are relevant to policy; are reliable and have timely availability; and are sufficiently consistent to permit benchmarking over time and across countries. In this report, the results for Ireland are set as much as possible in the context of the corresponding position for the other 14 EU Member States as well as the 10 countries acceding to the EU in May 2004.

An accompanying second Volume - *Background Report* - is being issued contemporaneously. This considers some of the national and international work on indicators and discusses a range of issues to be taken into account when deciding which limited set of the many available indicators should be selected to give a meaningful and concise picture of progress in Ireland.

This is the first attempt by the CSO at publishing a set of national progress indicators for Ireland and, since alternative indicators might have been included, we are hoping for a lively feedback over the next few months. This will assist the preparation of subsequent reports. It is important to keep the set of indicators focussed on the key issues measuring Ireland's progress. Hence, when users propose additional indicators for inclusion, they should also indicate those of lower priority that might be excluded.

Donal Garvey
Director General

Chapter

1

Introduction and outline of report

Chapter 1

1.1 Introduction

This chapter briefly reviews the background leading to the preparation of this preliminary national progress indicators report and the role of the social partners and the National Statistics Board (NSB) in requesting this work. The chapter also presents an overall summary of the selected indicators.

1.2 Request for indicator report

The social partnership agreement 2003-2005[1] requested the CSO to support a move towards more evidence-based policy-making by developing a set of national progress indicators. In its report, *Developing Irish Social and Equality Statistics to meet Policy Needs*, the NSB asked the CSO to prepare a preliminary national progress indicators report[2]. It was intended that this initial report would facilitate discussions between the main users and producers of key economic and social statistics with a view to reaching consensus on the most appropriate set of indicators to determine whether target national economic and social outcomes are being achieved.

The NSB reiterated the need for a key national progress indicators report in its *Strategy for Statistics 2003-2008*[3]. The Board requested that the selected indicators should be consistent with international statistical concepts and facilitate international benchmarking.

1.3 Overview of selected indicators

The list of selected preliminary national progress indicators is presented in summary format in Table A. A total of 108 indicators covering 48 domain themes have been selected. Around 57 per cent of these relate principally to social domains (3 to 9), reflecting the emphasis on societal outcomes as the ultimate aim of policy measures. The other indicators cover the economy, innovation and the environment.

Most indicators are presented in both a national and international context. The national context is generally in a time series format while the international context compares Ireland with other EU countries and acceding countries.

The accompanying Volume 2, 2003 – Background Report, describes a number of national and international reports which set a context for the selection of progress indicators for Ireland. It is hoped that this initial report will prompt feedback which will inform the preparation of subsequent reports.

1.4 Structure of report and brief technical notes

Chapter 2 presents the selected indicators. In cases where tables are not sorted by year, the sort data column is highlighted with a darker background. In international tables, the term EU in the table title includes the acceding countries when comparable data are available for them. The appendices describe the indicator definitions and data sources in greater detail.

In many tables, both GDP and GNI data have been given because Ireland is almost unique in the EU in the wide divergence between GDP and GNI.

1 Department of the Taoiseach (2003): Sustaining Progress, Social Partnership Agreement 2003-2005
2 Recommendation 10
3 NSB (2003), Strategy for Statistics, 2003-2008, Stationery Office, Dublin

The national and international data sources are given for each indicator. Most of the national data are compiled by the CSO. In some cases, the survey name more widely used at EU level is quoted, for example, the QNHS is referred to as the EU Labour Force Survey (LFS).

The figures in the tables and graphs reflect the data availability position as at early December.

Revised population estimates for Ireland for the period 1997-2001, arising from the 2002 Census of Population results have been used in a number of tables (see Appendix 1, Population domain).

Table A Selected key indicators of national progress

Domain	Domain theme	Indicator	
1. Economy	1. Gross domestic product	1.1	Ireland: GDP and GNI at current market prices, 1993-2002
		1.2	EU: GDP and GNI at current market prices, 2002
		1.3	EU: GDP per capita in Purchasing Power Standards, 2000-2002
	2. Government debt	1.4	Ireland and Eurozone 12: General government consolidated gross debt, 1993-2002
		1.5	EU: General government consolidated gross debt, 2000-2002
	3. Public balance	1.6	Ireland and Eurozone 12: Public balance, 1996-2002
		1.7	Ireland: Central and Local Government current expenditure, 1992-2001
		1.8	EU: Public balance, 2000-2002
	4. Gross fixed capital formation	1.9	Ireland and EU 15: Gross fixed capital formation, 1993-2002
		1.10	EU: Gross fixed capital formation, 2000-2002
	5. International transactions	1.11	EU: Current account balance, 2000-2002
		1.12	EU: Direct investment flows, 2002
	6. International trade	1.13	EU: Exports of goods and services, 2000-2002
		1.14	EU: Imports of goods and services, 2000-2002
	7. Exchange rates	1.15	International: Bilateral euro exchange rates, 1999-2002
		1.16	Ireland: Trade weighted competitiveness indicator, 1999-2002
	8. Interest rates	1.17	Eurozone 12: Convergence of interest rates for short-term loans to enterprises, 1993-2002
		1.18	EU: Annual interest rates for short-term loans to enterprises, 2000-2002
	9. Harmonised Index of Consumer Prices	1.19	Ireland and EU 15: Harmonised Index of Consumer Prices, 1996-2002
		1.20	EU: Harmonised Index of Consumer Prices, 2000-2002
	10. Price levels	1.21	Ireland and EU 15: Comparative price levels of final consumption by private households including indirect taxes, 1992-2001
		1.22	EU: Comparative price levels of final consumption by private households including indirect taxes, 1999-2001
2. Innovation and technology	11. Science and technology graduates	2.1	Ireland: Science and technology graduates, per 1,000 of population aged 20-29, 1993-2001
		2.2	EU: Mathematics, science and technology PhDs awarded per 1,000 of population aged 25-34, 2000-2001

Domain	Domain theme	Indicator	
	12. Research and development expenditure	2.3	Ireland and EU 15: Gross domestic expenditure on R&D, 1992-2001
		2.4	EU: Gross domestic expenditure on R&D, 1991-2001
	13. Patent applications	2.5	Ireland and EU 15: Applications to the European Patent Office, 1992-2001
		2.6	EU: Applications to the European Patent Office, 2001
	14. Household internet access	2.7	Ireland: Private households with internet access, 1998-2003
		2.8	EU: Private households with internet access, 2002
3. Employment and unemployment	15. Employment rate	3.1	Ireland: Employment rates, 1994-2003
		3.2	EU: Employment rates by sex, 2002
	16. Labour productivity	3.3	Ireland: GDP and GNI in PPS per hour worked and per person employed, 1993-2002
		3.4	EU: GDP in PPS per person employed, 2001
	17. Unemployment rate	3.5	Ireland and EU 15: Unemployment rates, 1993-2002
		3.6	EU: Unemployment rates by sex, 2002
		3.7	Ireland and EU 15: Long-term unemployment rates,1992-2001
		3.8	EU: Long-term unemployment rates by sex, 2001
	18. Jobless households	3.9	Ireland: Population aged 18-59 living in jobless households, 1993-2002
		3.10	EU: Population aged 18-59 living in jobless households, 2000-2002
	19. Older workers	3.11	EU: Employment rate of workers aged 55-64 by sex, 2001
		3.12	EU: Average exit age from the labour force by sex, 2001
4. Social cohesion	20. Voter turnout	4.1	Ireland: Numbers voting in Dáil elections, 1973-2002
		4.2	EU: Votes recorded at national parliamentary elections, 1981-2002
	21. Official development assistance	4.3	Ireland: Net official development assistance, 1993-2002
		4.4	EU: Net official development assistance, 2001
	22. Risk of poverty	4.5	Ireland: At risk of poverty rate, 1995-2000
		4.6	EU: At risk of poverty rate, 2000
		4.7	Ireland: Persons experiencing consistent poverty, 1998-2001
		4.8	EU: At persistent risk of poverty rate, 2000
		4.9	EU: At risk of poverty rate anchored at a moment in time, 1996-2000
	23. Gender pay gap	4.10	EU: Female earnings as proportion of male earnings, 1998-2000

Domain	Domain theme	Indicator	
5. Education	24. Education expenditure	5.1	Ireland: Real non-capital expenditure on education, 1998-2002
		5.2	Ireland: Student numbers by level, 1994-2002
		5.3	EU: Public expenditure on education, 1998-2000
	25. Pupil-teacher ratio	5.4	EU: Ratio of students to teachers, 2001
		5.5	EU: Average class size at ISCED levels 1 and 2, 2001
	26. Third level education	5.6	Ireland: Population aged 25-34 with 3rd level education, 1999-2002
		5.7	EU: Population aged 25-34 with 3rd level education by sex, 2002
	27. Literacy	5.8	Ireland: Student performance on the combined reading, mathematical and scientific literacy scales by sex, 2000
		5.9	EU: Student performance on the combined reading, mathematical and scientific literacy scales, 2000
	28. Early school leavers	5.10	Ireland: Early school leavers by labour force status and sex, 2002
		5.11	Ireland: Proportion of the population aged 20-64 with, at least, upper secondary education, 2002
		5.12	EU: Early school leavers, 2002
6. Health	29. Health care expenditure	6.1	Ireland: Non-capital public expenditure on health care, 1993-2002
		6.2	EU: Total expenditure on health as percentage of GDP, 1998-2000
	30. Life expectancy	6.3	Ireland: Life expectancy at birth and at age 65 by sex, 1925-1997
		6.4	EU: Life expectancy at birth by sex, 2001
7. Population	31. Population distribution	7.1	Ireland: Population distribution by age group, 1994-2003
		7.2	Ireland: Household composition, 1994-2003
		7.3	EU: Population change, 1992-2001
	32. Migration	7.4	Ireland: Migration and natural increase, 1994-2003
		7.5	Ireland: Immigration by country of origin, 1994-2003
		7.6	Ireland and EU 15: Rate of natural increase of population, 1993-2002
	33. Age of population	7.7	Ireland: Average age of population for census years by sex, 1926-2002
		7.8	Ireland: Age dependency ratio, 1994-2003
		7.9	EU: Young and old as proportion of population aged 15-64, 2001
	34. Fertility	7.10	Ireland and EU 15: Total fertility rate, 1992-2001
		7.11	EU: Total fertility rate, 1991-2001

Domain	Domain theme	Indicator
	35. Lone parent families	7.12 Ireland: Lone parent families with children aged under 20 by sex of parent, 1994-2003 7.13 Ireland: Adult members of family units, 1994-2003
	36. Persons aged 65 and over living alone	7.14 Ireland: Persons aged 65 and over living alone by sex, 1994-2003
8. Housing	37. Dwelling completions	8.1 Ireland: Dwelling unit completions, 1993-2002
	38. Owner-occupiers	8.2 EU: Owner-occupiers, 1995-2000 8.3 Ireland: Nature of occupancy of private households, 1961-2002
	39. Mortgages	8.4 Ireland: New housing loans, 1993-2002 8.5 EU: Annual average interest rates for mortgages, 2000-2002
9. Crime	40. Headline offences	9.1 Ireland: Headline offences detection rates by Garda Division, 2000-2002 9.2 Ireland: Headline offences recorded by Garda Division, 2002 9.3 Ireland: Indictable/headline offences recorded, 1970-2002
	41. Homicide rate	9.4 Ireland: Homicides recorded, 1970-2002 9.5 EU: Homicide rate per 100,000 population, 2000-2002
10. Environment	42. Greenhouse gases	10.1 Ireland: Total net greenhouse gas emissions (based on CO_2 equivalents), 1990-2001 10.2 EU: Net greenhouse gas emissions, 2000, and Kyoto 2008-2012 target
	43. Energy intensity of economy	10.3 Ireland: Gross inland consumption of energy at constant 1995 prices, 1992-2001 10.4 EU: Gross inland consumption of energy at constant 1995 prices, 2000
	44. River water quality	10.5 Ireland: River water quality, 1987-2000
	45. Urban air quality	10.6 Ireland: Smoke concentrations in urban areas, 1985-2001
	46. Acid rain precursors	10.7 Ireland: Acid rain precursor emissions, 1999-2001 10.8 Ireland: Acid rain precursor emissions, 1992-2001
	47. Waste management	10.9 Ireland: Waste collected and percentage landfilled by type, 1998-2001 10.10 EU: Municipal waste collected and landfilled, 2000

Domain	Domain theme	Indicator
	48. Transport	10.11 Ireland: Private cars under current licence, 1993-2002 10.12 EU: Passenger cars per 1,000 population, 2000 10.13 Ireland and EU 15: Share of road in total inland freight transport, 1991-2000 10.14 EU: Share of road in total inland freight transport, 1999-2001 10.15 Ireland and EU 15: Index of inland freight transport volume, 1992-2001 10.16 EU: Index of inland freight transport volume, 1999-2001

Chapter

2

Indicators

1.1 Ireland: GDP and GNI at current market prices, 1993-2002

Year	GDP	GNI	GNI as % of GDP	GNI at constant (1995) prices per capita
	€b		%	€000
1993	43.2	39.6	91.6	11.6
1994	46.5	42.8	92.1	12.3
1995	52.6	47.7	90.5	13.2
1996	58.1	53.0	91.2	14.3
1997	67.1	60.3	89.9	15.4
1998	77.5	69.2	89.3	16.4
1999	89.6	77.6	86.6	17.6
2000	102.8	89.0	86.5	19.1
2001	114.7	97.5	85.0	19.6
2002	129.3	104.7	80.9	19.4

Source: CSO, National Accounts

1.2 EU: GDP and GNI at current market prices, 2002

Country	GDP	GNI	GNI as % of GDP
	€b		
United Kingdom	1,660.1	1,690.6	101.8
Belgium	260.0	264.5	101.7
France	1,520.8	1,527.8	100.5
Greece	141.4	141.6	100.2
Germany	2,110.4	2,108.8	99.9
Finland	139.7	139.4	99.8
EU 15	**9,170.4**	**9,145.0**	**99.7**
Austria	218.3	216.3	99.1
Sweden	255.7	253.9	99.1
Italy	1,258.3	1,246.3	99.0
Denmark	183.7	181.7	98.9
Spain	696.2	687.6	98.8
Netherlands	444.6	435.5	97.9
Portugal	129.3	126.1	97.5
Luxembourg	22.4	20.2	90.4
Ireland	**129.3**	**104.7**	**80.9**

Source: Eurostat, National Accounts

◆ In 2002, Ireland had the second highest GDP per capita, expressed in terms of purchasing power standards within the EU and acceding countries. However, using GNI, Ireland was just above the EU 15 average for the first time in 2002 (see Table 1.3).

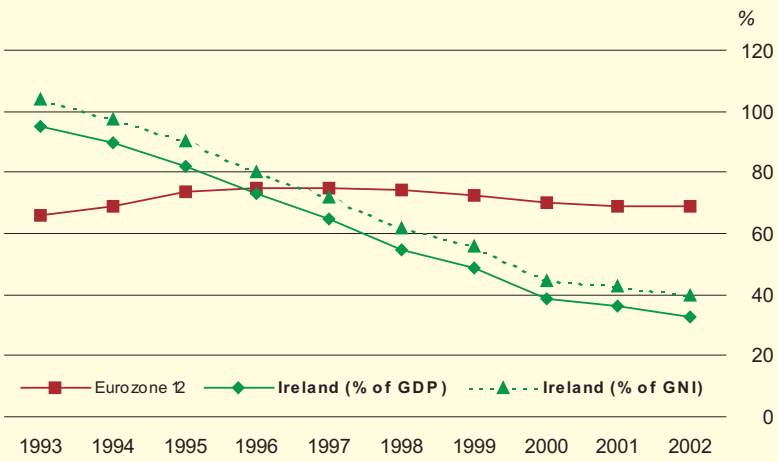
1.3 EU: GDP per capita in Purchasing Power Standards, 2000-2002

Country	2000	2001	2002
	EU 15=100		
Luxembourg	200.0	194.6	189.1
Ireland (GDP)	**114.8**	**117.5**	**125.3**
Denmark	116.8	114.3	114.2
Netherlands	110.8	114.3	112.4
Austria	115.2	112.0	112.0
Belgium	107.3	108.0	107.6
United Kingdom	102.0	102.7	103.9
Finland	102.9	103.1	103.1
Germany	106.1	103.0	102.5
France	101.1	103.1	102.5
Italy	101.9	102.5	102.1
Sweden	106.2	101.8	102.0
Ireland (GNI)	**99.3**	**99.8**	**101.4**
EU 15	**100.0**	**100.0**	**100.0**
Spain	82.0	83.8	84.3
Portugal	68.1	68.9	68.5
Greece	65.3	64.4	65.8
Slovenia	70.1	72.1	73.6
Cyprus	75.3	73.2	72.2
Czech Republic	60.6	63.5	63.5
Hungary	49.6	52.6	55.8
Slovak Republic	47.0	48.0	47.1
Estonia	40.0	40.1	41.7
Poland	40.4	40.4	39.7
Lithuania	35.3	38.0	39.1
Latvia	30.8	33.6	35.2
Malta	:	:	:

Source: Eurostat, National Accounts

◆ In 2002, the GNI figure for Ireland was only 80.9 per cent of the GDP figure indicating the increasing importance of the output of foreign direct investment enterprises, especially in the chemicals and pharmaceuticals sector. This compares with a figure of 91.6 per cent in 1993. The situation in Ireland is exceptional among EU countries, with Luxembourg the only other country having a wide gap between GDP and GNI (see Tables 1.1 and 1.2).

1.4 Ireland and Eurozone 12: General government consolidated gross debt, 1993-2002



Source: Eurostat, CSO

- General government consolidated gross debt as a percentage of GDP and GNI fell sharply in Ireland over the 1993-2002 period. General government debt in Ireland was 32.4 per cent of GDP in 2002 compared with 95.1 per cent of GDP in 1993 (see Graph 1.4).
- Ireland had a low debt/GDP ratio compared to other EU countries at just above half of the EU average in 2002 (see Table 1.5).
- In 2002, most of the acceding countries had debt ratios below the EU average of 62.3 per cent of GDP (see Table 1.5).

1.5 EU: General government consolidated gross debt, 2000-2002

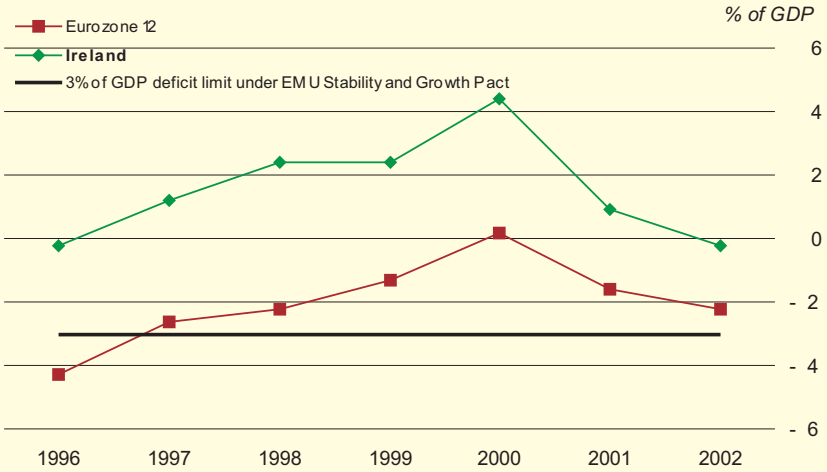
% of GDP

Country	2000	2001	2002
Luxembourg	5.5	5.5	5.7
Ireland (% of GDP)	**38.4**	**36.1**	**32.4**
United Kingdom	42.1	38.9	38.5
Ireland (% of GNI)	**44.4**	**42.5**	**40.0**
Finland	44.6	44.0	42.7
Denmark	47.3	45.4	45.5
Netherlands	55.9	52.9	52.4
Sweden	52.8	54.4	52.7
Spain	60.5	56.8	53.8
Portugal	53.3	55.5	58.1
France	57.2	56.8	59.0
Germany	60.2	59.5	60.8
EU 15	**63.9**	**63.0**	**62.3**
Austria	66.8	67.3	67.3
Eurozone 12	**70.2**	**69.2**	**69.0**
Greece	106.2	106.9	104.7
Belgium	109.6	108.5	105.8
Italy	110.6	109.5	106.7
Estonia	5.1	4.8	5.8
Latvia	13.9	15.7	15.2
Lithuania	24.3	23.4	22.7
Czech Republic	16.6	23.3	27.1
Slovenia	27.6	27.5	28.3
Poland	37.2	37.3	41.8
Slovak Republic	46.9	48.1	42.6
Hungary	55.5	53.4	56.3
Cyprus[4]	61.7	64.2	58.6
Malta	61.3	66.1	66.4

Source: Eurostat, National Accounts

[4]Cyprus: Eurostat has corrected gross debt by CYP +394.77 million for 2000 and +507.71 million for 2001, reflecting net contributions to government sinking funds.

1.6 Ireland and Eurozone 12: Public balance, 1996-2002



Source: Eurostat, CSO

1.7 Ireland: Central and Local Government current expenditure, 1992-2001

Year	% of GDP	% of GNI
	%	
1992	39.8	43.6
1993	39.3	42.9
1994	38.3	41.6
1995	35.5	39.2
1996	34.0	37.2
1997	31.7	35.2
1998	29.6	33.2
1999	27.0	31.2
2000	25.8	29.8
2001	26.7	31.5

Source: CSO, National Accounts

- Current expenditure by central and local government decreased from 39.8 per cent of GDP in 1992 to 26.7 per cent in 2001 reflecting Ireland's strong GDP growth (see Tables 1.1 and 1.7).

1.8 EU: Public balance, 2000-2002

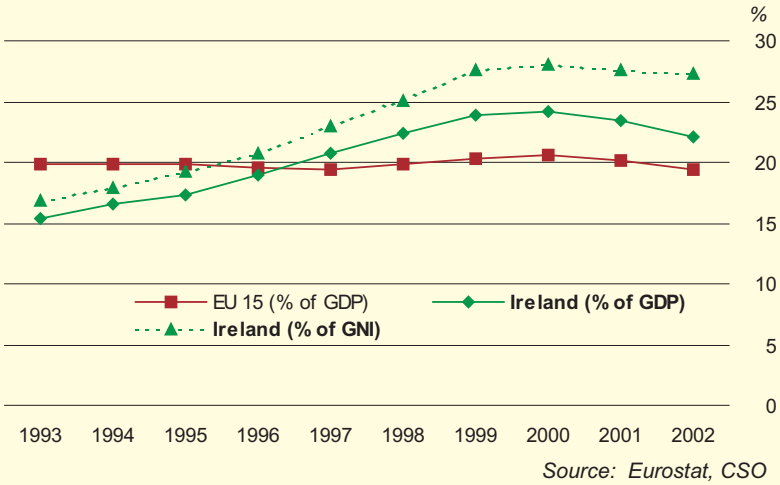
Country	2000	2001	2002
	% of GDP		
Finland	7.1	5.2	4.2
Luxembourg	6.4	6.1	2.5
Belgium	0.2	0.6	0.1
Spain	-0.8	-0.3	0.1
Ireland (% of GNI)	**5.1**	**1.1**	**-0.2**
Ireland (% of GDP)	**4.4**	**0.9**	**-0.2**
Austria	-1.5	0.3	-0.2
Greece	-1.9	-1.5	-1.2
Netherlands	2.2	0.0	-1.6
Eurozone 12	**0.2**	**-1.6**	**-2.2**
Italy	-0.6	-2.6	-2.3
Portugal	-2.8	-4.2	-2.7
France	-1.4	-1.5	-3.1
Germany	1.3	-2.8	-3.5
Denmark	2.6	3.1	2.1
Sweden	3.4	4.5	1.3
United Kingdom	3.8	0.7	-1.5
EU 15	**1.0**	**-0.9**	**-1.9**
Estonia	-0.4	0.2	1.3
Lithuania	-2.6	-2.2	-2.0
Slovenia	-3.3	-2.8	-2.6
Latvia	-2.7	-1.6	-3.0
Cyprus	-3.1	-3.0	-3.5
Czech Republic[5]	-4.0	-5.5	-3.9
Poland	-1.8	-3.0	-4.1
Malta	-7.0	-6.8	-6.2
Slovak Republic	-10.4	-7.3	-7.2
Hungary	-3.0	-4.7	-9.2

Source: Eurostat, National Accounts

- The public balance in Ireland was significantly in surplus during the late 1990s increasing to 4.4 per cent of GDP in 2000 compared to a Eurozone figure of 0.2 per cent. However by 2002, the figure for Ireland had become a deficit of 0.2 per cent compared to a Eurozone deficit of 2.2 per cent (see Graph 1.6 and Table 1.8).
- In 2002, France and Germany and most of the acceding countries breached the 3% of GDP deficit limit under the EMU Stability and Growth Pact (see Table 1.8).

[5]Czech Republic: Capital transfers should be recorded from the government sector to the financial sector to reflect CKA (Ceska Konsolidacni Agentura/Czech agency for consolidation) losses. These worsen general government net borrowing for 2002 by an estimated CZK 76.4 billion.

1.9 Ireland and EU 15: Gross fixed capital formation, 1993-2002



Source: Eurostat, CSO

- Since 1996, Ireland has had a higher rate of investment in gross fixed capital formation than the EU 15 average. However the gap has narrowed in the last two years with a figure of 22.1 per cent of GDP for Ireland in 2002 compared to an EU average of 19.4 per cent of GDP (see Graph 1.9 and Table 1.10).
- Almost all of the acceding countries were above the EU 15 average in 2002 (see Table 1.10).

1.10 EU: Gross fixed capital formation, 2000-2002

% of GDP

Country	2000	2001	2002
Ireland (% of GNI)	**28.0**	**27.7**	**27.4**
Spain	25.4	25.4	25.2
Portugal	28.1	27.2	25.0
Greece	23.6	23.9	23.9
Luxembourg	20.9	22.9	22.5
Ireland (% of GDP)	**24.2**	**23.5**	**22.1**
Austria	24.0	23.2	22.1
Netherlands	22.1	21.7	20.7
Belgium	21.2	20.9	19.8
Italy	19.8	19.8	19.7
Denmark	20.6	20.1	19.6
EU 15	**20.6**	**20.2**	**19.4**
France	20.1	20.0	19.4
Finland	19.8	20.6	18.9
Germany	21.7	20.3	18.6
Sweden	17.7	17.5	16.7
United Kingdom	17.0	16.8	16.3
Slovak Republic	25.9	28.8	29.8
Estonia	25.4	26.5	28.5
Latvia	26.5	27.0	26.4
Czech Republic	27.4	27.5	25.9
Hungary	24.1	23.6	23.0
Slovenia	25.7	24.0	22.6
Malta	26.2	23.2	20.8
Lithuania	19.2	20.6	20.7
Poland	23.9	20.9	19.2
Cyprus	17.5	17.3	18.7

Source: Eurostat, National Accounts

1.11 EU: Current account balance, 2000-2002

current account balance as % of GDP

Country	2000	2001	2002
Belgium	:	:	8.4
Luxembourg	:	:	8.2
Finland	7.7	7.1	7.6
Sweden	2.8	2.9	4.5
Denmark	1.6	2.6	2.9
Germany	-1.1	0.1	2.8
Netherlands	2.2	1.3	2.7
France	1.2	1.6	1.8
Austria	-2.6	-2.2	0.3
EU 15	**-0.2**	**0.1**	**:**
Italy	-0.5	0.0	-0.6
Ireland	**0.1**	**-0.7**	**-0.7**
United Kingdom	-2.0	-2.1	-1.8
Spain	-3.4	-2.6	-2.4
Greece	-8.6	-8.0	-7.3
Portugal	-10.2	-9.0	-7.5
Slovenia	-2.8	0.1	1.7
Poland	-6.1	-2.9	-3.1
Malta	-14.9	-4.7	-3.9
Hungary	-3.2	-2.1	-4.0
Lithuania	-6.0	-4.8	-4.8
Cyprus	-5.1	-4.3	-5.8
Czech Republic	-4.9	-4.3	-6.2
Latvia	-6.9	-9.6	-7.7
Slovak Republic	-3.5	-8.4	-8.2
Estonia	-5.8	-6.0	-12.3

Source: Eurostat, Balance of Payments

- Ireland had a small current account deficit in our balance of international payments in each of the years 2001 and 2002 (see Table 1.11).
- Most of the EU countries had current account surpluses in 2002 whereas almost all of the acceding countries had current account deficits (see Table 1.11).

1.12 EU: Direct Investment flows, 2002

% of GDP

Country	Inward	Outward
Luxembourg	604.4	-724.5
Ireland	**20.0**	**-2.5**
Netherlands	6.3	-8.5
Finland	6.0	-5.8
Belgium	5.2	-4.8
Sweden	4.9	-4.0
Denmark	3.6	-2.9
France	3.6	-4.4
Portugal	3.5	-2.9
Spain	3.2	-2.8
Germany	1.7	-1.4
United Kingdom	1.7	-2.7
Italy	1.2	-1.5
Austria	0.4	-2.7
Greece	0.0	-0.5
Slovak Republic	16.7	0.0
Czech Republic	12.7	-0.4
Slovenia	8.4	-0.5
Lithuania	5.3	-0.1
Latvia	4.8	-0.1
Cyprus	4.6	-0.5
Estonia	4.4	-2.0
Poland	2.1	-0.2
Hungary	1.3	-0.4
Malta	-11.4	0.0

Source: Eurostat, Balance of Payments

- Direct investment in Ireland by foreign companies represented 20 per cent of GDP in 2002. Apart from Luxembourg, this rate of investment was considerably higher than in any of the other EU countries (see Table 1.12).
- Outward investment by companies resident in Ireland into their foreign subsidiaries and associates was one-eighth of the level of inward investment (see Table 1.12 and Appendix 1).

1.13 EU: Exports of goods and services, 2000-2002

exports as % of GDP

Country	2000	2001	2002
Luxembourg	:	:	142.6
Belgium	:	:	101.4
Ireland	**98.1**	**98.4**	**93.7**
Netherlands	75.2	70.9	69.1
Austria	50.4	52.4	52.8
Denmark	47.5	48.9	47.7
Sweden	44.9	44.7	43.7
Finland	43.3	40.3	38.9
EU 15	**36.5**	**36.4**	**:**
Germany	34.0	35.4	36.1
Portugal	31.7	31.4	30.2
Spain	30.3	30.0	28.6
France	28.9	28.1	27.3
Italy	27.6	27.5	26.4
United Kingdom	27.9	27.0	26.1
Greece	26.1	25.6	22.3
Estonia	93.7	89.4	84.2
Malta	100.6	85.7	83.5
Slovak Republic	70.0	73.9	72.5
Hungary	67.9	69.0	65.4
Czech Republic	64.5	68.7	63.6
Slovenia	56.5	57.9	57.9
Lithuania	45.7	50.9	54.0
Cyprus	46.8	47.4	48.7
Latvia	45.6	44.4	45.5
Poland	28.3	28.0	29.9

Source: Eurostat, Balance of Payments

◆ Exports of merchandise goods and services from Ireland were broadly at the same level as our GDP in the period 2000-2002. In contrast, exports represented around one-third of GDP at EU level in 2001 (see Table 1.13).

1.14 EU: Imports of goods and services, 2000-2002

imports as % of GDP

Country	2000	2001	2002
Italy	26.6	26.0	25.3
France	27.6	26.5	25.4
United Kingdom	29.8	29.3	29.1
Spain	32.5	31.3	29.9
Finland	33.8	31.7	30.3
Greece	36.8	35.2	30.8
EU 15	**36.0**	**35.3**	**:**
Germany	33.6	33.4	32.1
Sweden	39.9	39.0	37.3
Portugal	42.9	40.8	37.8
Denmark	41.7	42.4	41.8
Austria	51.0	52.4	50.7
Netherlands	70.5	65.9	64.7
Ireland	**84.5**	**83.4**	**75.0**
Belgium	:	:	94.1
Luxembourg	:	:	119.9
Poland	34.9	31.8	33.4
Cyprus	53.1	51.6	55.7
Latvia	54.3	55.6	56.0
Slovenia	60.1	58.5	56.5
Lithuania	52.2	56.4	59.0
Czech Republic	67.6	68.7	63.6
Hungary	68.7	68.7	67.6
Slovak Republic	72.4	81.8	79.6
Malta	111.5	90.4	87.5
Estonia	97.7	93.1	93.6

Source: Eurostat, Balance of Payments

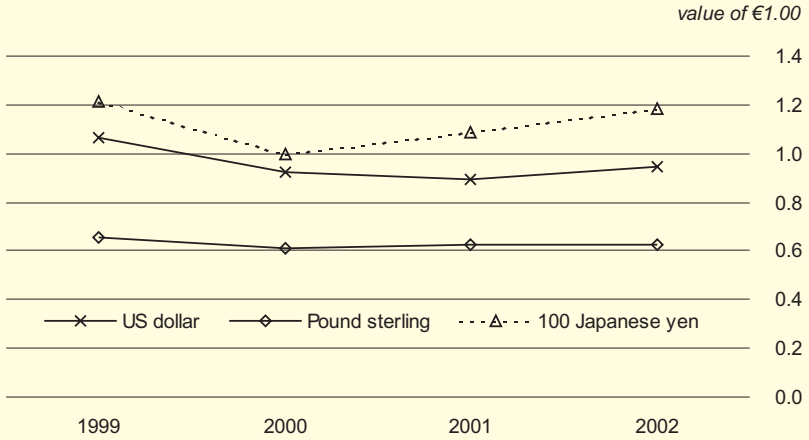
◆ Imports of goods and services into Ireland in 2002 were equivalent to 75 per cent of GDP. This was 20 per cent below the corresponding figure of 93.7 per cent for exports but well above the EU average (see Tables 1.13 and 1.14).

1.15 International: Bilateral euro[6] exchange rates, 1999-2002

value of €1.00

Year	US dollar	Pound sterling	Japanese yen
1999	1.066	0.659	121.3
2000	0.924	0.609	99.5
2001	0.896	0.622	108.7
2002	0.946	0.629	118.1

Source: European Central Bank



[6]On 1 January 1999, the euro became the national currency of the 11 participating EU countries, the euro replaced the ECU on that date on the basis of one for one. The ECU does not provide a wholly comparable historical time series for the euro. Greece joined the euro currency on 1 January 2001

1.16 Ireland: Trade weighted competitiveness indicator 1999-2002

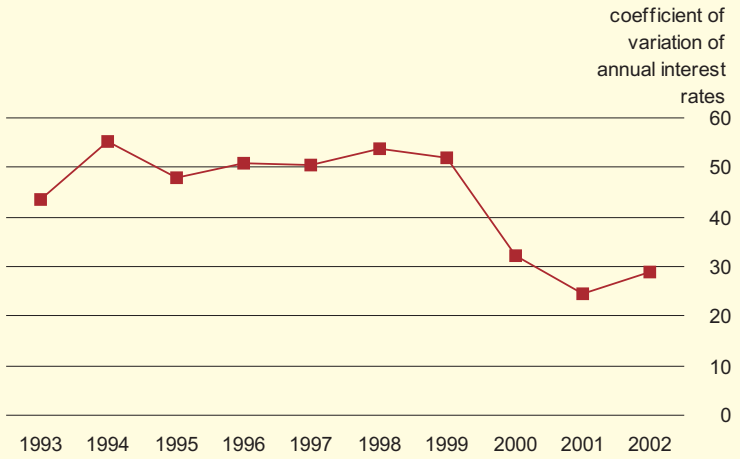
1999Q1=100

Year	Nominal TWCI	Real TWCI (Deflated by consumer prices)	Real TWCI (Deflated by producer prices)
1999	97.1	98.0	97.6
2000	90.7	94.8	93.6
2001	91.4	97.5	96.0
2002	93.4	102.8	100.6

Central Bank, Financial Services Authority of Ireland

- The euro decreased in value against the dollar by 16 per cent between its introduction in 1999 and 2001 but recovered some ground during 2002 (see Table 1.15).
- The euro decreased in value against sterling and the yen in 2000 compared to its initial value in 1999 but it appreciated against both currencies in both 2001 and 2002 (see Table 1.15).
- Ireland's trade weighted competitiveness improved from 97.1 in 1999 to 90.7 in 2000 before slipping in 2001 and 2002, mainly due to higher inflation and an appreciating euro (see Tables 1.15, 1.16 and 1.19).

1.17 Eurozone 12[7]: Convergence of interest rates for short-term loans to enterprises, 1993-2002[8]



Source: Eurostat, European Central Bank

- Interest rates for short-term loans have converged since 1999 among the EU euro countries (see Graph 1.17).
- The interest rate for short-term business loans in Ireland was 8.9 per cent in 2002 compared to 9.6 per cent in 2001 (see Table 1.18). While the interest rate for short-term loans was higher in Ireland than in other EU countries, the rates are not strictly comparable across countries and the inflation rate in Ireland was also well above the EU average (see Table 1.20).

[7]EUR-11 and Greece up to 31.12.2000, EUR-12 from 1.1.2001

[8] Eurostat estimates for 1993-1995

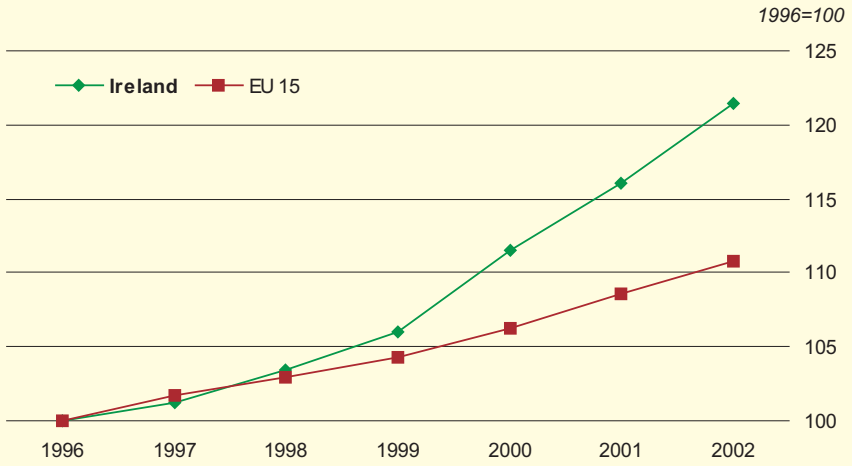
1.18 EU: Annual interest rates for short-term loans to enterprises, 2000-2002

%

Country	2000	2001	2002
Italy	3.9	4.4	3.5
Netherlands	4.8	5.0	4.0
Spain	5.2	5.3	4.5
France	5.5	5.5	4.7
Sweden	5.2	5.3	5.4
Denmark	6.1	6.4	5.6
Austria	6.5	6.4	5.8
Eurozone 12[11]	**6.6**	**6.8**	**6.1**
Portugal	7.7	7.8	7.0
Greece	12.3	8.6	7.4
Belgium	8.0	8.5	7.7
Germany	8.5	8.8	8.5
Ireland	**9.3**	**9.6**	**8.9**
Luxembourg	:	:	:
Finland	:	:	:
United Kingdom	:	:	:
Lithuania	12.3	9.6	6.6
Slovak Republic	10.1	8.1	10.0
Czech Republic	6.8	6.5	:
Cyprus	8.0	7.5	:
Estonia	9.0	9.3	:
Latvia	11.6	11.0	:
Hungary	12.6	12.1	:
Slovenia	15.8	15.1	:
Malta	:	:	:
Poland	:	:	:

Source: Eurostat, European Central Bank

1.19 Ireland and EU 15: Harmonised Index of Consumer Prices, 1996-2002



Source: Eurostat, CSO

- Inflation in Ireland, as measured by the HICP, has been consistently higher than the EU average since 1998. Cumulative inflation over the period 1996-2002, at 21.5 per cent was the second highest in the EU after Greece and it was almost twice the EU average (see Table 1.20).
- Most of the acceding countries had considerably higher inflation rates than the EU 15 average over the 1996-2002 period, but inflation stabilised in most of these countries in the second half of that period (see Table 1.20).

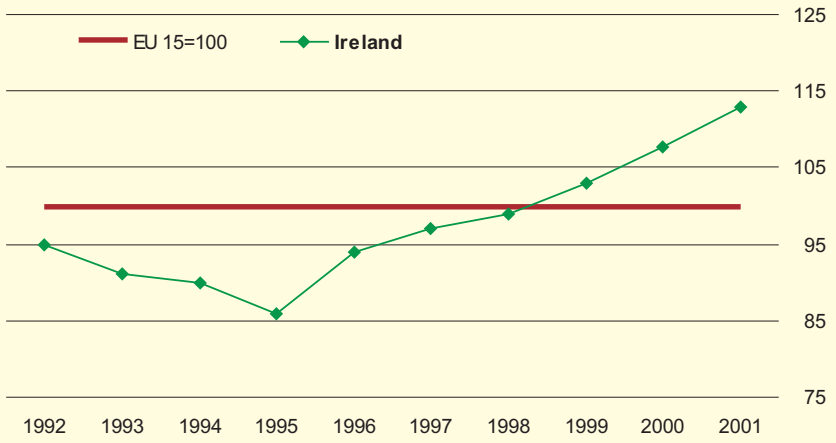
1.20 EU: Harmonised Index of Consumer Prices, 2000-2002

1996=100

Country	2000	2001	2002
Germany	104.2	106.2	107.6
France	104.4	106.3	108.3
United Kingdom	105.6	106.9	108.3
Austria	104.5	106.9	108.8
Sweden	104.8	107.6	109.7
Belgium	106.4	109.0	110.7
EU 15	**106.2**	**108.6**	**110.8**
Finland	107.0	109.8	112.0
Luxembourg	107.3	109.9	112.1
Denmark	108.3	110.7	113.4
Italy	108.4	110.9	113.8
Spain	109.7	112.8	116.8
Netherlands	108.2	113.8	118.2
Portugal	109.4	114.2	118.4
Ireland	**111.5**	**116.0**	**121.5**
Greece	115.8	120.1	124.8
Malta	:	:	:
Cyprus	112.1	114.3	117.5
Lithuania	116.1	117.6	118.1
Latvia	118.2	121.1	123.5
Czech Republic	125.4	131.1	133.0
Estonia	127.4	134.6	139.4
Slovak Republic	140.1	149.9	154.9
Slovenia	135.2	146.8	157.7
Poland	151.7	159.7	162.8
Hungary	163.6	178.5	187.8

Source: Eurostat, HICP

1.21 Ireland and EU 15: Comparative price levels of final consumption by private households including indirect taxes, 1992-2001



Source: Eurostat, CSO

- In the first half of the 1990s, price levels in Ireland were well below the EU average. Since 1995, price levels in Ireland have been increasing faster than the average EU 15 rate. In 1999, Ireland became relatively more expensive and by 2002 our price level was 12.8 per cent above the EU average and only the United Kingdom and the Scandinavian countries had higher costs of living (see Graph 1.21 and Table 1.22).

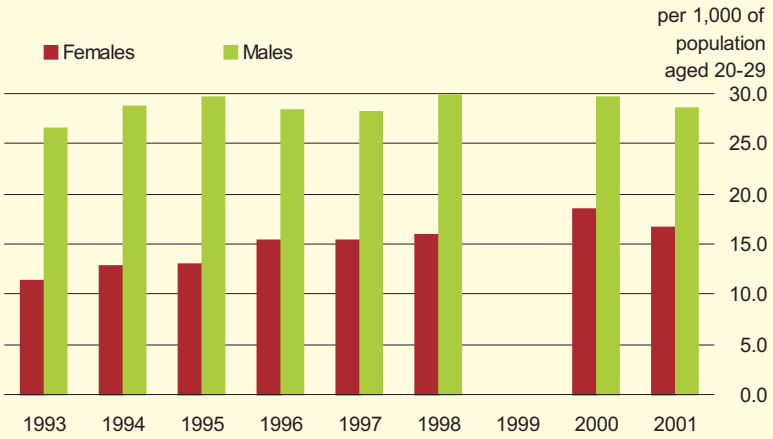
1.22 EU: Comparative price levels of final consumption by private households including indirect taxes, 1999-2001

EU 15=100

Country	1999	2000	2001
Portugal	73.0	72.3	73.9
Greece	82.0	79.3	81.4
Spain	83.0	83.0	82.5
Italy	86.0	88.6	91.6
Austria	101.0	96.9	98.0
Belgium	102.0	100.1	98.4
France	105.0	101.9	98.8
Netherlands	97.0	99.8	99.0
Luxembourg	98.0	96.4	99.4
EU 15	**100.0**	**100.0**	**100.0**
Germany	104.0	99.6	101.9
Ireland	**103.0**	**107.8**	**112.8**
United Kingdom	112.0	118.3	115.3
Finland	120.0	116.1	116.7
Sweden	125.0	127.8	121.7
Denmark	122.0	121.3	125.7
Slovak Republic	36.0	41.0	42.1
Czech Republic	43.0	45.7	46.9
Lithuania	44.0	47.4	47.9
Hungary	46.0	45.7	48.7
Estonia	46.0	46.4	51.2
Latvia	50.0	53.8	52.1
Poland	50.0	54.5	60.9
Slovenia	69.0	66.4	66.6
Cyprus	77.0	82.2	88.9
Malta	87.0	:	:

Source: Eurostat, HICP

2.1 Ireland: Science and technology graduates, per 1,000 of population aged 20-29[9], 1993-2001



Source: Eurostat, Department of Education and Science

- Ireland continues to produce considerably more male graduates in science and technology subjects than female graduates but the gap has narrowed in recent years (see Graph 2.1).
- The proportion of mathematics, science and technology PhDs per 1,000 population aged 25-34 awarded in Ireland equalled the EU average of 0.6 in 2001. Sweden and Finland had the highest rates (see Table 2.2). No adjustment has been made for graduates travelling abroad to foreign universities to take their PhDs.

[9]Data not yet available for 1999

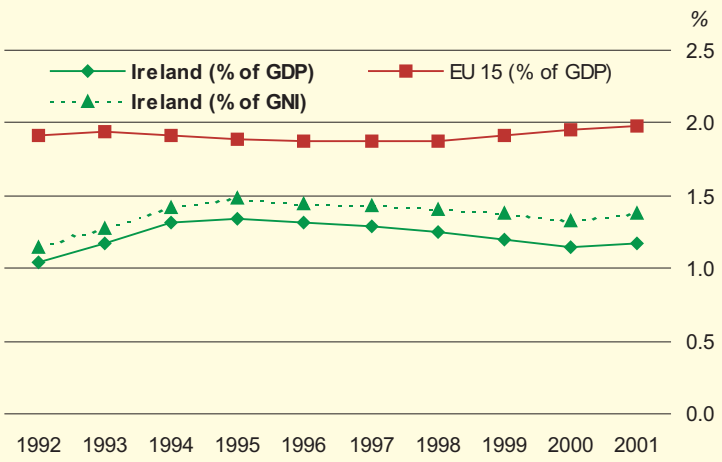
2.2 EU: Mathematics, science and technology PhDs awarded per 1,000 of population aged 25-34, 2000-2001

per 1,000 of population aged 25-34

Country	2000	2001
Sweden	1.2	1.4
Finland	1.0	1.0
Germany	0.8	0.8
United Kingdom	0.7	0.8
France	0.7	0.7
EU 15	**0.6**	**0.6**
Ireland	**0.5**	**0.6**
Austria	0.6	0.6
Portugal	0.4	0.6
Belgium	0.4	0.5
Denmark	0.5	0.5
Spain	0.3	0.4
Netherlands	0.3	0.4
Italy	0.2	0.2
Greece	:	:
Luxembourg	-	-
Slovenia	0.4	0.5
Czech Republic	0.3	0.4
Poland	:	0.3
Slovak Republic		0.3
Estonia	0.2	0.2
Lithuania	0.3	0.2
Hungary	0.1	0.1
Latvia	0.1	0.1
Cyprus	0.0	0.0
Malta	0.0	0.0

Source: Eurostat, Department of Education and Science

2.3 Ireland and EU 15: Gross domestic expenditure on R&D, 1992-2001



Source: Eurostat, Forfás

- Ireland spends considerably less on research and development as a percentage of GDP/GNI than most EU countries (see Graph 2.3). Investment in research and development made outside of Ireland by foreign companies with subsidiaries based in Ireland is not included in the figures for Ireland.
- Many countries, including Ireland, have significantly increased their level of investment in R&D since 1991. Sweden and Finland invested considerably more relative to GDP in 2001 than any other EU country (see Table 2.4).

2.4 EU: Gross domestic expenditure on R&D, 1991-2001

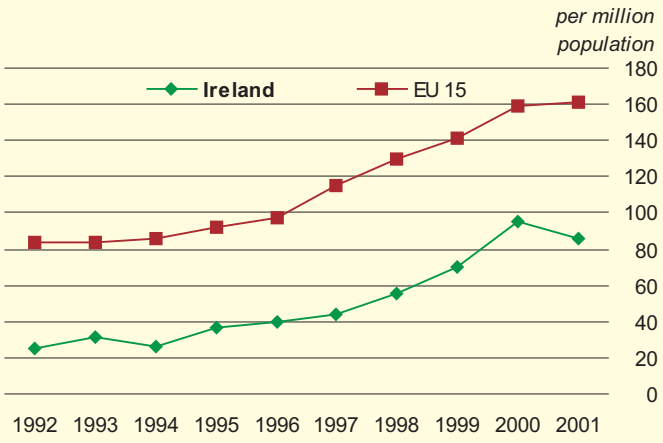
% of GDP

Country	1991	1996	2001
Sweden	2.79	3.55 [13]	4.27
Finland	2.04	2.54	3.40
Germany	2.54	2.26	2.49
Denmark	1.64	1.85	2.40
France	2.37	2.30	2.23
Belgium	1.62	1.80	2.17
EU 15	**1.94**	**1.88**	**1.98**
Netherlands	1.97	2.03	1.94 [10]
Austria	1.47	1.60	1.90
United Kingdom	2.07	1.90	1.89
Luxembourg	:	:	1.71 [10]
Ireland (% of GNI)	**1.01**	**1.45**	**1.38**
Ireland (% of GDP)	**0.93**	**1.32**	**1.17**
Spain	0.84	0.83	0.96
Portugal	0.61 [11]	0.57 [12]	0.84
Greece	0.36	0.51 [13]	0.67 [14]
Italy	1.23	1.01	:
Slovenia	2.31	1.44	1.52 [10]
Czech Republic	2.02	1.04	1.33 [10]
Hungary	1.07	0.65	0.80 [10]
Poland	0.81	0.71	0.70 [10]
Lithuania	:	0.52 [15,16]	0.68
Slovak Republic	:	0.94	0.67 [10]
Estonia	:	0.61 [17]	0.66 [10]
Latvia	0.59 [11]	0.46	0.44
Cyprus	:	0.23 [17]	0.26 [10]
Malta	:	:	:

Source: Eurostat

[10] 2000 data
[11] 1992 data
[12] 1995 data
[13] 1997 data
[14] 1999 data
[15] Break in series
[16] 1996 data
[17] 1998 data

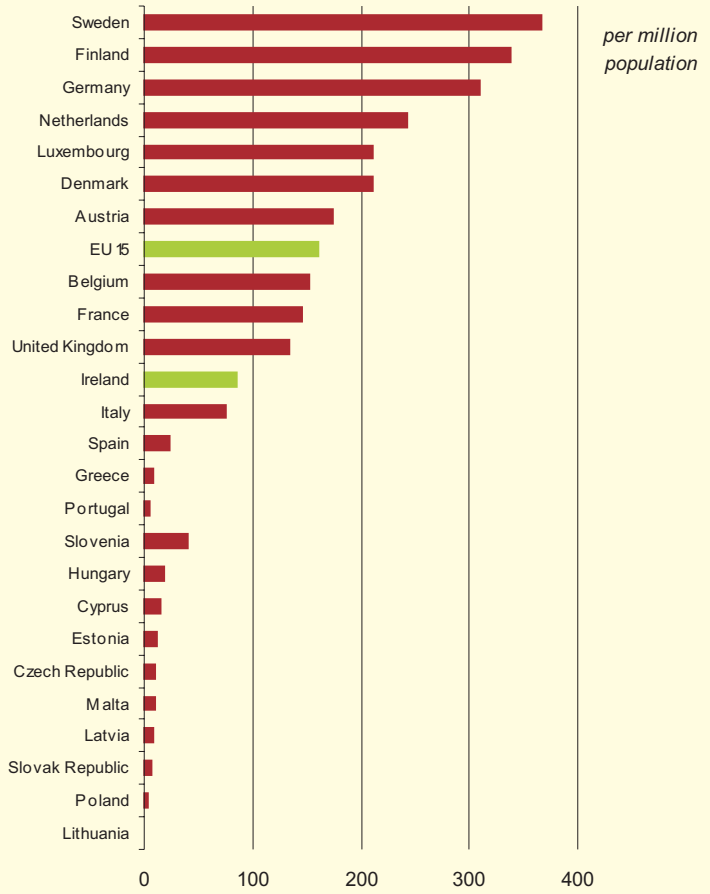
2.5 Ireland and EU 15: Applications to the European Patent Office, 1992-2001



Source: Eurostat, EPO

- There was a significant increase in the number of applications made to the European Patent Office from Ireland during the 1994-2000 period but there was a 10 per cent drop in 2001. Trends in the EU 15 were broadly similar to Ireland over the 1994-2000 period but there was a further increase in the number of patent applications at EU level in 2001 (see Graph 2.5).
- The number of applications for patents per million inhabitants from Ireland was around half of the EU average in 2001. Sweden and Finland were over twice the EU average (see Graph 2.6).

2.6 EU: Applications to the European Patent Office, 2001

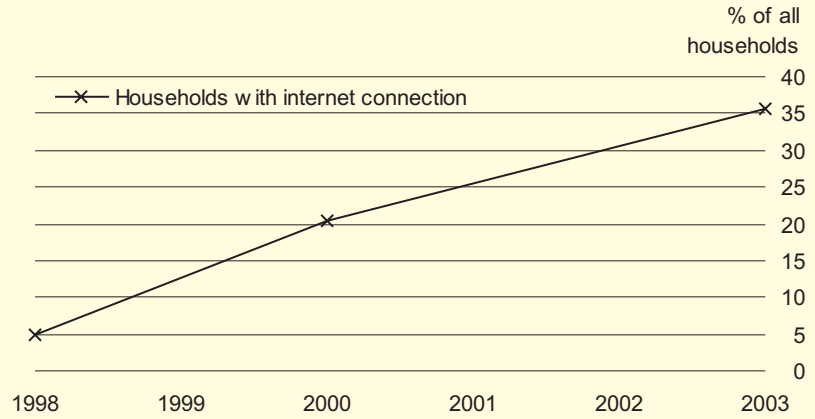


Source: Eurostat, EPO

2.7 Ireland: Private households with internet access, 1998-2003

Households	1998	2000	2003
Households connected to the internet (000s)	61.1	282.1	485.9
% of all households	5.0	21.9	35.6

Source: CSO QNHS



- Over one-third of all households in Ireland were connected to the internet in 2003 compared to only five per cent in 1998 and 22 per cent in 2000 (see Table 2.7).
- Denmark at 55.6 per cent and the United Kingdom at 49.7 per cent had the highest rate of household internet access in the EU in 2002. The EU average, among countries reporting figures, was 38.9 per cent (see Table 2.8).

2.8 EU: Private households with internet access, 2002

% of households

Country	2002
Denmark	55.6
United Kingdom	49.7
Finland	44.3
Germany	43.3
Luxembourg	39.9
EU 15	**38.9**
Ireland	**35.6** [18]
Austria	30.9
Italy	27.3
Portugal	15.9
Greece	12.2
Belgium	:
Spain	:
France	:
Netherlands	:
Sweden	:

Source: Eurostat

[18] 2003 data

3.1 Ireland: Employment rates, 1994-2003

% of population aged 15-64

Year	Persons	Males	Females
1994	52.2	64.6	39.6
1995	54.0	66.5	41.4
1996	55.1	66.8	43.3
1997	56.1	67.6	44.6
1998	59.6	71.0	48.2
1999	62.5	73.5	51.3
2000	64.5	75.6	53.3
2001	65.0	76.0	54.0
2002	65.0	74.7	55.2
2003	65.0	74.5	55.4

Source: CSO QNHS[19]

- The employment rate for women in Ireland rose by 40 per cent over the period 1994-2003, compared with a 15 per cent increase for men. The rate for men decreased in both 2002 and 2003 but this was offset by further increases in the employment rate for women (see Table 3.1).
- Ireland was just above the average EU employment rate in 2002. All EU and acceding countries had higher male than female employment rates with the differences most marked in Greece, Spain and Italy (see Table 3.2).

[19]LFS (April 1994-1997) and QNHS (March-May, 1998-2003)

3.2 EU: Employment rates by sex, 2002[20]

% of population aged 15-64

Country	Persons	Males	Females	Sex difference
Denmark	76.4	80.2	72.6	7.6
Netherlands	74.5	82.9	65.9	17.0
Sweden	74.0	75.5	72.5	3.0
United Kingdom	71.5	77.7	65.3	12.4
Finland	69.1	70.9	67.3	3.6
Austria	69.0	76.5	61.5	15.0
Portugal	68.6	76.3	61.2	15.1
Germany	65.4	71.8	58.8	13.0
Ireland	**65.0**	**74.7**	**55.2**	**19.5**
EU 15	**64.2**	**72.9**	**55.5**	**17.4**
Luxembourg	63.6	75.5	51.5	24.0
France	62.9	69.6	56.4	13.2
Belgium	59.7	68.1	51.1	17.0
Spain	58.4	72.8	44.0	28.8
Greece	56.9	71.7	42.7	29.0
Italy	55.4	68.9	41.9	27.0
Cyprus	68.5	78.8	59.0	19.8
Czech Republic	65.6	74.0	57.2	16.8
Slovenia	64.3	68.7	59.8	8.9
Estonia	61.7	66.2	57.6	8.6
Lithuania	60.6	64.3	57.2	7.1
Latvia	60.5	63.6	57.6	6.0
Hungary	56.5	63.4	49.9	13.5
Slovak Republic	56.5	61.9	51.2	10.7
Poland	51.7	57.0	46.7	10.3
Malta	:	:	:	:

Source: Eurostat, LFS

[20]Q1 data for France, Q2 data for all other countries

3.3 Ireland: GDP and GNI in PPS per hour worked and per person employed, 1993-2002

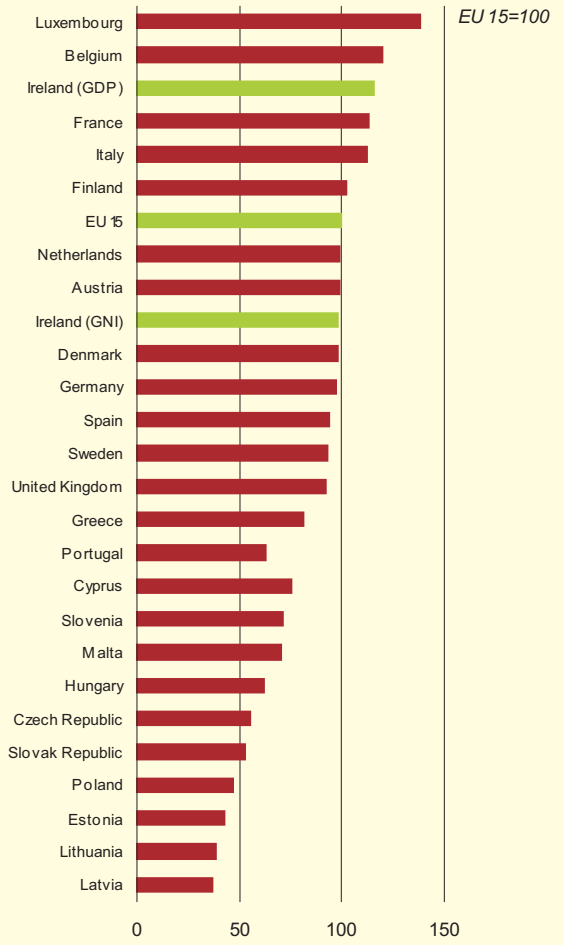
EU 15=100

Year	per hour worked		per person employed	
	GDP	GNI	GDP	GNI
1993	93.7	85.9	104.5	95.8
1994	95.3	87.7	106.2	97.8
1995	97.9	88.6	109.6	99.2
1996	95.3	87.0	107.0	97.6
1997	103.9	93.4	114.2	102.6
1998	104.7	93.5	110.8	98.9
1999	108.4	93.9	113.2	98.1
2000	108.9	94.2	114.2	98.8
2001	110.5	93.9	116.0	98.5
2002	118.0	95.5	123.9	100.3

Source: Eurostat, CSO National Accounts

- The productivity of the Irish workforce as measured by GDP in PPS per person employed was 23.9 per cent higher than the EU average in 2002 (see Table 3.3).
- In terms of GDP, productivity per hour worked in Ireland has been higher than the EU average since 1997 (see Table 3.3).
- Productivity in all of the acceding countries was well below the EU average in 2001 (see Graph 3.4).

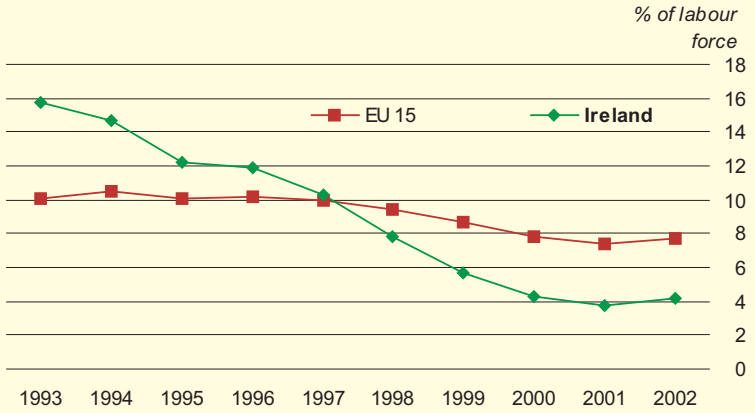
3.4 EU: GDP in PPS per person employed, 2001[21]



Source: Eurostat, National Accounts

[21] 1999 data for Malta

3.5 Ireland and EU 15: Unemployment rates, 1993-2002



Source: Eurostat, CSO

- Unemployment rates in Ireland were higher than the EU average up to 1997. Since then, the rate for Ireland fell well below the average EU rate (see Graph 3.5).
- Ireland, at 4.2 per cent of the labour force, had the third lowest unemployment rate in the EU in 2002 (see Table 3.6).
- Ireland is one of four EU countries with a lower female unemployment rate (see Table 3.6).

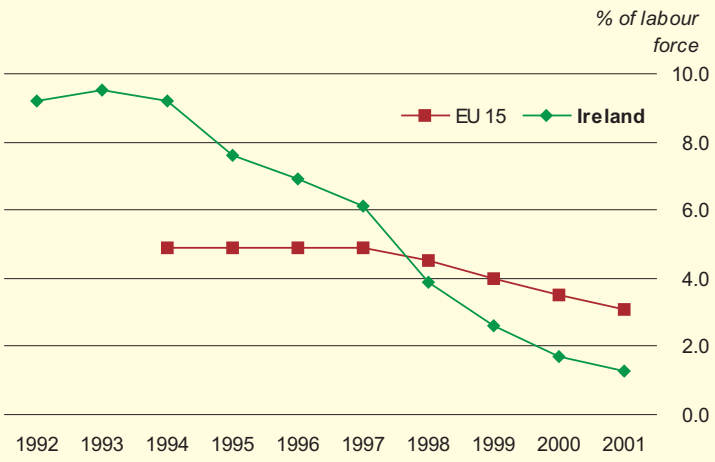
3.6 EU: Unemployment rates by sex, 2002

% of labour force

Country	Persons	Males	Females	Sex difference
Netherlands	2.7	2.5	3.0	-0.5
Luxembourg	2.8	2.1	3.9	-1.8
Ireland	**4.2**	**4.6**	**3.7**	**0.9**
Austria	4.3	4.1	4.5	-0.4
Denmark	4.5	4.4	4.6	-0.2
Sweden	4.9	5.3	4.6	0.7
Portugal	5.1	4.2	6.1	-1.9
United Kingdom	5.1	5.6	4.5	1.1
Belgium	7.3	6.6	8.2	-1.6
EU15	**7.7**	**6.9**	**8.7**	**-1.8**
Germany	8.6	8.7	8.4	0.3
France	8.8	7.7	10.0	-2.3
Italy	9.0	7.0	12.2	-5.2
Finland	9.1	9.1	9.1	0.0
Greece	10.0	6.6	15.0	-8.4
Spain	11.3	8.0	16.4	-8.4
Cyprus	3.9	3.0	4.9	-1.9
Hungary	5.6	6.0	5.1	0.9
Slovenia	6.1	5.8	6.5	-0.7
Czech Republic	7.3	6.0	9.0	-3.0
Malta	7.4	6.4	9.8	-3.4
Estonia	9.5	10.1	8.9	1.2
Latvia	12.6	13.6	11.4	2.2
Lithuania	13.6	13.7	13.4	0.3
Slovak Republic	18.7	18.6	18.9	-0.3
Poland	19.9	19.1	20.9	-1.8

Source: Eurostat, LFS

3.7 Ireland and EU 15: Long-term unemployment rates, 1992-2001



Source: Eurostat, CSO

- The long-term unemployment rate in Ireland has fallen in every year since 1993 and it has been below the EU average since 1998 (see Graph 3.7).
- The long-term unemployment rate for Ireland was 1.3 per cent in 2001 compared to an EU 15 average of 3.1 per cent. The rate for men in Ireland and the UK was twice the long-term unemployment rate for women in 2001. At EU level, the rate for women was 3.7 per cent compared to 2.7 per cent for men in 2001 (see Table 3.8).

3.8 EU: Long-term unemployment rates by sex, 2001

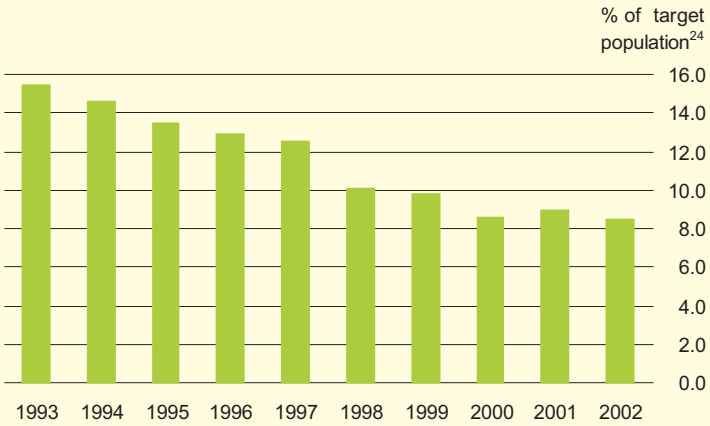
% of labour force

Country	Persons	Males	Females
Luxembourg	0.5	0.5	0.6
Austria	0.8	0.7	0.9
Denmark	0.9	0.8	1.0
Netherlands[22]	0.9	:	:
Sweden	1.0	1.2	0.9
Ireland	**1.3**	**1.6**	**0.8**
United Kingdom	1.3	1.7	0.8
Portugal	1.5	1.2	1.9
Finland	2.4	2.5	2.3
EU 15	**3.1**	**2.7**	**3.7**
France	3.1	2.5	3.7
Belgium	3.2	2.9	3.5
Spain	3.9	2.3	6.3
Germany	4.0	3.8	4.3
Greece	5.4	3.2	8.7
Italy	5.8	4.4	8.1
Cyprus	1.2	0.5	2.1
Hungary	2.6	3.0	2.1
Malta[22]	2.9	3.3	1.7
Slovenia	3.7	3.5	4.0
Czech Republic	4.3	3.5	5.2
Estonia	6.2	6.8	5.4
Latvia	7.4	8.3	6.4
Poland	7.4	6.0	9.1
Lithuania	8.1	9.9	6.2
Slovak Republic	11.3	11.3	11.3

Source: Eurostat, LFS

[22] 2000 data

3.9 Ireland: Population aged 18-59 living in jobless households, 1993-2002



Source: CSO QNHS [23]

- The population living in jobless households in Ireland has fallen from 15.4 per cent in 1993 to 8.5 per cent in 2002 (see Graph 3.9).
- Ireland, at 8.5 per cent, had the sixth lowest proportion among reporting EU countries of its population living in jobless households in 2002. The EU average was 9.7 per cent in 2002 (see Table 3.10).

[23]LFS (April 1993-1997) and QNHS (March-May, 1998-2002)

3.10 EU: Population[24] aged 18-59 living in jobless households, 2000-2002

% of target population [24]

Country	2000	2001	2002
Portugal	4.6	4.3	4.5
Luxembourg	6.9	6.7	6.3
Netherlands	7.6	6.9	6.7
Spain	7.4	7.3	7.2
Austria	8.3	7.9	7.5
Ireland	**8.6**	**8.9**	**8.5**
Greece	9.6	9.2	9.3
EU 15	**9.9**	**9.7**	**9.7**
Germany	9.7	9.7	10.0
Italy	11.2	10.8	10.2
France	10.7	10.3	10.4
United Kingdom	11.3	11.1	11.2
Belgium	12.4	13.8	14.2
Denmark	:	:	:
Finland	:	:	:
Sweden	:	:	:
Cyprus	5.6	4.9	5.3
Czech Republic	7.8	7.9	7.3
Slovenia	9.0	8.2	8.0
Lithuania	8.8	9.6	9.1
Latvia	15.0	12.8	10.5
Estonia	9.6	11.0	10.8
Slovak Republic	10.9	10.0	10.9
Hungary	13.5	13.0	13.0
Malta	:	:	:
Poland	:	:	:

Source: Eurostat, LFS

[24]The target population is persons aged 18-59 excluding persons living in households where everyone is aged 18-24 and either in education or inactive (see Appendix 1)

3.11 EU: Employment rate of workers aged 55-64 by sex, 2001

% of 55-64 age group

Country	Persons	Males	Females
Sweden	66.8	69.4	64.1
Denmark	58.0	65.5	49.7
United Kingdom	52.3	61.7	43.1
Portugal	50.1	61.3	40.3
Ireland	**46.8**	**64.7**	**28.8**
Finland	45.8	46.6	44.9
Netherlands	39.6	51.1	28.0
Spain	39.2	57.9	21.8
EU15	**38.8**	**48.8**	**29.1**
Greece	38.0	55.0	22.5
Germany[25]	37.5	46.3	28.8
France	31.9	36.2	27.8
Austria	28.6	40.0	17.9
Italy	28.1	40.7	16.2
Luxembourg[25]	26.7	37.2	16.4
Belgium	25.1	35.1	15.5
Cyprus[25]	49.2	67.3	32.0
Estonia	48.4	56.6	42.1
Lithuania[25]	41.6	51.8	33.9
Czech Republic	37.1	52.6	23.2
Latvia	36.9	46.2	30.0
Malta	31.0	52.5	11.3
Poland	28.4	36.7	21.4
Slovenia	25.5	35.9	15.8
Hungary	24.1	34.9	15.3
Slovak Republic	22.4	37.7	9.8

Source: Eurostat, LFS

[25]2000 data

3.12 EU: Average exit age from the labour force by sex, 2001

years

Country	Persons	Males	Females
Ireland	**63.1**	**63.2**	**62.2**
United Kingdom	62.1	63.1	61.0
Portugal	62.0	62.0	61.5
Sweden	62.0	62.1	61.9
Denmark	61.9	62.2	61.1
Finland	61.6	61.6	61.4
Netherlands	60.9	61.1	60.3
Germany	60.7	60.9	60.4
Spain	60.6	60.7	60.2
EU 15	**59.9**	**60.5**	**59.1**
Greece	59.6	61.2	57.7
Austria	59.6	60.0	58.6
Italy	59.4	59.6	59.2
France	58.1	58.2	58.0
Belgium	57.0	57.8	55.9
Luxembourg	56.8	57.5	55.3

Source: Eurostat, LFS

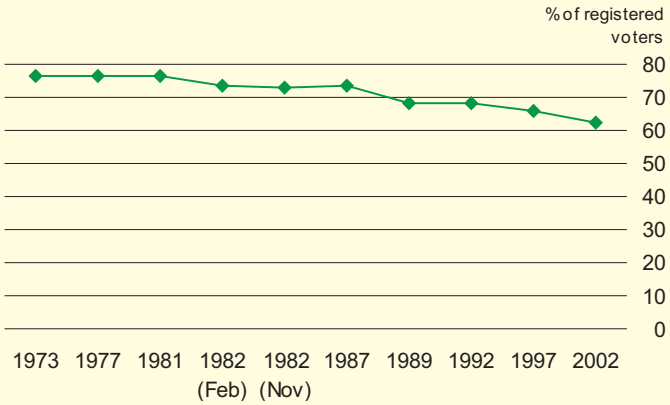
- In Ireland, 64.7 per cent of males aged 55-64 were employed in 2001 compared to 28.8 per cent of females (see Table 3.11).
- There is a very wide variation across the EU in the employment rate of persons aged 55-64. The variation shows similar patterns to the national average exit age data (see Tables 3.11 and 3.12).
- Ireland had the oldest average exit age in 2001 for both women (62.2 years) and men (63.2 years). Luxembourg had the youngest average exit age for both men and women (see Table 3.12).
- In 2001, the average exit age from the labour force in the EU was 59.9 years with the age for women being lower than that for men in all EU countries (see Table 3.12).

4.1 Ireland: Numbers voting in Dáil elections, 1973-2002

000's

Year of election	Registered voters	Votes recorded	% turnout
1973	1,783.6	1,366.5	77
1977	2,118.6	1,616.8	76
1981	2,275.5	1,734.4	76
1982 (Feb)	2,275.5	1,679.5	74
1982 (Nov)	2,335.2	1,701.4	73
1987	2,445.5	1,793.5	73
1989	2,448.8	1,677.6	69
1992	2,557.0	1,751.4	68
1997	2,741.3	1,806.9	66
2002	3,002.2	1,878.6	63

Source: Department of the Environment, Heritage and Local Government



- Voter turnout at Dáil elections has gradually declined from over 75 per cent in the 1970s to 63 per cent in 2002. This decline was mirrored in Europe where all EU countries showed a decrease in voter turnout over the period 1981-2002 (see Tables 4.1 and 4.2).

4.2 EU: Votes recorded at national parliamentary elections, 1981-2002

% of registered voters

Country	1981-1984	1990-1994	1998-2002
Belgium	95	93	91
Denmark	88	83	87
Luxembourg	89	88	87
Italy	89	87	81
Austria	93	86	80
Sweden	91	87	80
Germany	89	78	79
Netherlands	81	79	79
Greece	81	83	75
EU 15	**82**	**79**	**72**
Spain	80	77	69
Finland	76	68	65
Ireland	**73**	**68**	**63**
Portugal	79	68	63
France	71	69	60
United Kingdom	73	78	59
Malta	95	96	95
Cyprus	96	94	92
Hungary	:	75	74
Latvia	:	81	72
Slovak Republic	:	85	70
Slovenia	:	86	70
Czech Republic	:	85	58
Lithuania	:	75	58
Estonia	:	68	57
Poland	:	52	46

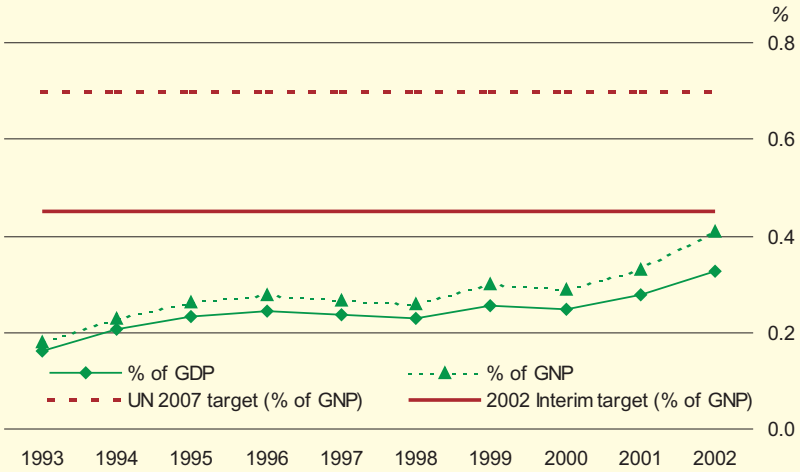
Source: International Institute for Democracy and Electoral Assistance

- Ireland had one of the lowest rates of turnout at national parliamentary elections across the EU in 1998-2002 (see Table 4.2). Voting is compulsory in Belgium, Greece, Italy, Luxembourg, the Netherlands and parts of Austria.

4.3 Ireland: Net official development assistance, 1993-2002

Year	Net ODA (€m)	% of GDP	% of GNP
1993	69.4	0.16	0.18
1994	95.5	0.21	0.23
1995	122.0	0.23	0.26
1996	142.3	0.24	0.28
1997	157.6	0.23	0.27
1998	177.3	0.23	0.26
1999	230.3	0.26	0.30
2000	254.9	0.25	0.29
2001	320.1	0.28	0.33
2002	422.1	0.33	0.41

Source: Department of Foreign Affairs



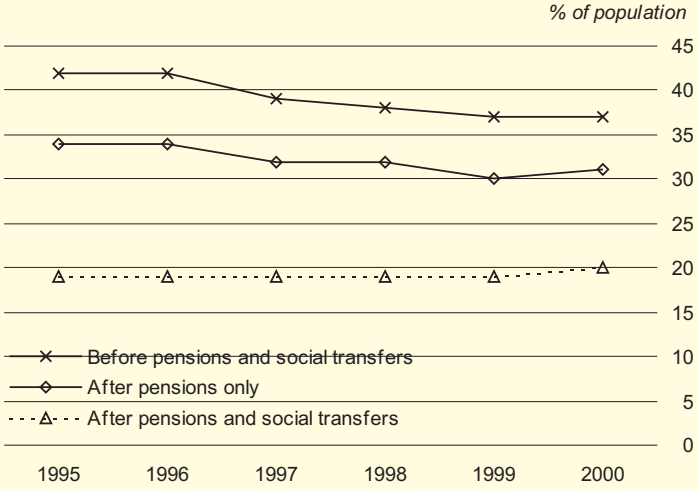
4.4 EU: Net official development assistance, 2001

Country	Net ODA (€m)	% of GDP
Denmark	1,825	1.03
Netherlands	3,542	0.83
Sweden	1,861	0.76
Luxembourg	157	0.71
Belgium	968	0.38
Ireland (% of GNP)	**320**	**0.33**
Finland	434	0.32
France	4,688	0.32
United Kingdom	5,112	0.32
Spain	1,940	0.3
Austria	595	0.28
Ireland (% of GDP)	**320**	**0.28**
Germany	5,571	0.27
Portugal	300	0.24
Greece	225	0.17
Italy	1,817	0.15

Source: OECD, Development Assistance Committee

- The proportion of Irish GDP and GNP represented by net official development assistance has doubled over the period 1993-2002 (see Table 4.3).
- In 2002, net ODA as a percentage of GNP was 0.41 per cent, which was just below the interim Irish Government target of 0.45 per cent of GNP and below the UN 2007 target of 0.7 per cent of GNP (see Table and Graph 4.3).
- Four countries gave more than 0.7 per cent of GDP for net ODA in 2001 (see Table 4.4).

4.5 Ireland: At risk of poverty rate, 1995-2000



Source: Eurostat, ESRI

- The at risk of poverty rate in Ireland before pensions and social transfers declined from 42 per cent to 37 per cent during the period 1995-2000. This risk of poverty rate was lower than the relative risk in the EU of 40 per cent in 2000 (see Graph 4.5 and Table 4.6).
- Social transfers and pensions in Ireland reduced the at risk of poverty rate in Ireland in 2000 from 37 per cent to 20 per cent. This was one of the lowest risk reductions in the EU and the small reduction resulted in relatively more people being at risk of poverty in Ireland on the basis of their total income than the average EU rate of 15 per cent (see Table 4.6).

4.6 EU: At risk of poverty rate, 2000

% of population

Country	Before pensions and social transfers	After pensions only	After pensions and social transfers	Risk reduction
Sweden	43	27	11	32
Germany	39	20	11	28
Luxembourg	39	23	12	27
Belgium	40	24	13	27
Netherlands	36	21	10	26
Austria	37	22	12	25
EU 15	**40**	**23**	**15**	**25**
France	41	24	16	25
Italy	42	21	18	24
United Kingdom	41	29	19	22
Denmark	32	23	11	21
Finland	32	19	11	21
Spain	37	22	18	19
Greece	39	22	20	19
Ireland	**37**	**31**	**20**	**17**
Portugal	38	27	21	17
Poland	47	30	16	31
Latvia[26]	45	22	16	29
Czech Republic[27]	35	19	8	27
Slovenia[26]	37	18	11	26
Estonia	42	26	18	24
Lithuania[26]	38	22	17	21
Malta	30	21	15	15
Cyprus[28]	24	18	16	8
Hungary	:	:	:	:
Slovak Republic	:	:	:	:

Source: Eurostat, ECHP

[26] 1999 data
[27] 1996 data
[28] 1997 data

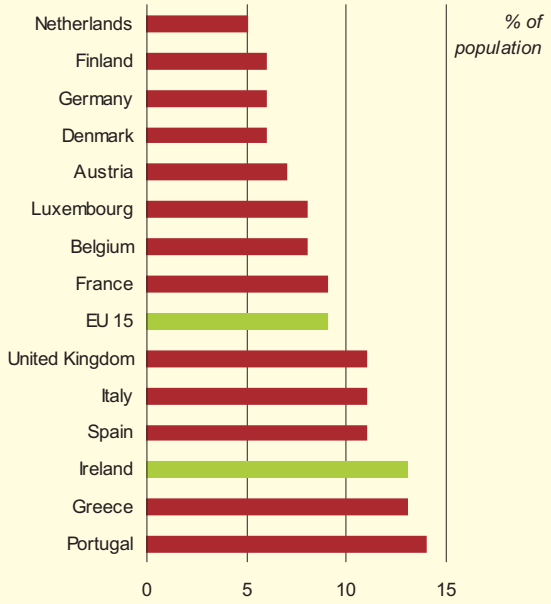
4.7 Ireland: Persons experiencing consistent poverty, 1998-2001

% of category

Category	1998	2000	2001
Ireland	**8.2**	**6.2**	**5.2**
Men	6.9	3.6	3.5
Women	7.0	4.9	4.7
Children	11.7	7.7	6.5
Adults 18-64	7.0	4.0	4.1
Elderly	6.6	5.9	3.9
Employee	1.8	2.2	1.7
Unemployed	32.7	24.1	17.8
Lone parents	30.9	23.0	23.7

Source: ESRI ECHP

4.8 EU: At persistent risk of poverty rate, 2000



Source: Eurostat, ECHP

4.9 EU: At risk of poverty rate anchored at a moment in time[29], 1996-2000

% of population

Country	1996	1998	2000
Finland	8	8	7
Netherlands	12	10	8
Germany	14	12	9
Sweden	:	10	9 [30]
Denmark	9	11	10
Luxembourg	11	11	10
Spain	18	17	11
Austria	14	13	11
EU 15	**16**	**15**	**12**
Ireland	**19**	**14**	**12** [30]
Belgium	15	13	12
Italy	20	17	14
United Kingdom	20	17	14
France	15	14	14 [30]
Greece	21	19	17
Portugal	21	20	17

Source: Eurostat, ECHP

- The consistent poverty rate in Ireland in 2001 was 17.8 per cent for the unemployed and 23.7 per cent for lone parents compared to an overall Irish figure of 5.2 per cent (see Table 4.7). Consistent poverty identifies persons with below 60 per cent of the median disposable income and who also lack some basic necessities such as heating or taking a holiday once a year.
- In 2000, 13 per cent of the population in Ireland had a persistent risk of poverty (see Graph 4.8). The persistent risk of poverty rate identifies persons with below 60 per cent of the median disposable income in the current year and in at least two of the three preceding years.
- The risk of poverty rate anchored at 1996 has fallen from 19 per cent in 1996 to 12 per cent in 2000 in Ireland. This risk was equal to the average EU rate (see Table 4.9). The calculations on the 1998 and 2000 data were done after adjusting the 1996 income threshold (set at 60 per cent of the national median) for inflation in the 1995-1997 and 1995-1999 periods.

[29] Anchored at 1996
[30] 1999 data

4.10 EU: Female earnings as proportion of male earnings, 1998-2000

% of average gross hourly earnings for males

Country	1998	1999	2000
Italy	93	92	94
Portugal	94	95	92
Belgium	91	89	88
France	88	88	87
Denmark	88	86	85
Greece	88	87	85
Spain	84	86	85
EU 15	**84**	**85**	**84**
Finland	81	81	83
Sweden	82	83	82
Ireland	**80**	**78**	**81**
Austria	79	79	80
Germany	78	81	79
Netherlands	79	79	79
United Kingdom	76	78	79
Luxembourg	:	:	:

Source: Eurostat, ECHP

- The gender pay gap narrowed slightly in Ireland during the period 1998-2000 from 80 per cent of male earnings in 1998 to 81 per cent in 2000 (see Table 4.10).
- In 2000, women in Ireland earned 81 per cent of the average male earnings compared to an EU average of 84 per cent (see Table 4.10).

5.1 Ireland: Real non-capital public expenditure on education, 1998-2002

€ per student at 1995 prices

Year	Level			Total
	First	Second [31]	Third [32]	
1998	2,050	3,062	5,654	2,896
1999	2,145	3,148	5,854	3,023
2000	2,225	3,308	5,555	3,114
2001	2,397	3,629	5,929	3,387
2002	2,695	3,965	6,095	3,693

Source: Department of Education and Science, CSO

5.2 Ireland: Student numbers by level, 1994-2002

000s

Year	Level			
	First	Second [31]	Third (Full-time)	Third (Part-time)
1994	505.9	367.6	86.6	22.4
1995	491.3	371.2	89.7	21.7
1996	478.7	369.9	95.1	21.9
1997	469.6	371.2	100.2	22.8
1998	460.8	368.2	104.4	25.4
1999	452.5	362.1	108.5	27.8
2000	444.3	353.9	115.7	31.5
2001	439.6	345.4	120.0	32.3
2002	441.1	340.1	124.6	35.0

Source: Department of Education and Science

- Real expenditure per student in Ireland increased by 31.5, 29.5 and 7.8 per cent for first, second and third levels respectively over the period 1998-2002 (see Table 5.1 and Appendix 1).
- The numbers of students decreased by 12.8 per cent at first level and by 7.4 per cent at second level during 1994-2002. Over the same period, the numbers of full-time third level students increased by 43.9 per cent (see Table 5.2).

[31] Second level includes further education (e.g. post-Leaving Certificate programmes)
[32] Full-time equivalents

5.3 EU: Public expenditure on education, 1998-2000

% of GDP

Country	1998	1999	2000
Denmark	8.3	8.1	8.4
Sweden	7.7	7.5	7.4
Finland	6.2	6.2	6.0
France	6.0	5.9	5.8
Austria	5.8	5.9	5.8
Portugal	5.6	5.7	5.7
Belgium	:	:	5.2
Ireland (% of GNI)	**5.5**	**5.3**	**5.0**
EU 15	**5.1**	**5.0**	**4.9**
Netherlands	4.8	4.8	4.9
Italy	4.7	4.8	4.6
Germany	4.7	4.6	4.5
Spain	4.5	4.5	4.4
Ireland (% of GDP)	**4.9**	**4.6**	**4.4**
United Kingdom	4.6	4.4	4.4
Greece	3.5	3.6	3.8
Luxembourg[33]	4.1	:	:
Estonia	6.8	7.4	6.7
Latvia	6.8	6.3	5.9
Lithuania	6.1	6.3	5.8
Cyprus	5.8	5.7	5.6
Poland	5.4	5.2	5.1
Malta	5.2	5.1	4.9
Hungary	4.6	4.7	4.5
Czech Republic	4.2	4.3	4.4
Slovak Republic	4.5	4.4	4.2
Slovenia	:	:	:

Source: Eurostat

- Public expenditure on education in Ireland (including capital expenditure), as a percentage of both GNI and GDP, fell during the 1998-2000 period. In terms of GNI, Ireland was just above the EU 15 level in each of these years (see Table 5.3).

[33] 1997 data

5.4 EU: Ratio of students to teachers, 2001

Country	ISCED 1-3	ISCED 1	ISCED 2	ISCED 3
Luxembourg[34]	10.1	11.1	9.1	:
Italy	10.4	10.8	9.9	10.4
Portugal	10.7	12.7	10.1	8.3
Belgium[35]	11.0 [36]	13.4 [37]	: [38]	9.8 [38]
Austria	11.1	14.3	9.8	9.9
Greece	11.4	12.7	9.8	11.3
Spain	12.4 [39]	14.7	:	11.0 [39]
Denmark[40]	12.5	11.3	11.5	16.6
Sweden	13.5	12.4	12.4	16.6
EU 15	**14.5**	**16.1**	**:**	**:**
Finland	14.8	16.1	10.9	17.0
France	15.4 [40]	20.3 [40]	14.5 [40]	12.1
Ireland	**16.8** [39]	**20.3**	**15.2** [41]	**:** [41]
Netherlands	17.2 [36]	17.2 [37]	: [38]	17.1 [38]
Germany	17.5	19.4	15.7	19.8
United Kingdom	19.1	20.8	17.3	18.8 [39]
Hungary	11.6	11.3	11.2	12.5
Estonia	12.4	14.7	11.2	10.3
Lithuania	13.2	16.9	10.3	27.3
Slovenia	13.4	13.1	13.3	13.8
Poland	13.9	12.5	13.1	16.8
Latvia	14.4	17.6	13.2	13.2
Malta	15.0	20.3	10.5	22.5
Slovak Republic	15.4	20.7	14.5	12.9
Czech Republic	15.6	19.4	14.5	13.1
Cyprus	16.6	21.1	15.1	12.6

Source: Eurostat, Department of Education and Science

◆ In 2001, the average class size in Ireland for primary education was 24.5 which was one of the highest among EU countries (see Table 5.5).

[34]Refers to public sector only
[35]Excludes the German-speaking community
[36]Includes ISCED levels 0 and 4
[37]Includes ISCED level 0
[38]ISCED level 3 data includes ISCED levels 2 and 4
[39]Includes ISCED level 4
[40]Data refer to full-time only
[41]ISCED level 2 data includes ISCED levels 3 and 4

5.5 EU: Average class size at ISCED levels 1 and 2, 2001

Country	ISCED 1	ISCED 2
Luxembourg	15.8	19.7
Greece	17.4	23.7
Italy	18.3	20.8
Portugal	18.7	23.1
Denmark	19.0	18.6
Austria	19.4	23.6
Belgium[42]	20.5	21.4
Spain	20.9	25.6
Germany	22.4	24.6
Netherlands	23.9	:
Ireland	**24.5**	**21.9**
United Kingdom[43]	26.4	24.7
France	:	24.2
EU 15	**:**	**:**
Finland	:	:
Sweden	:	:
Lithuania	16.0	21.0
Latvia	18.6	19.6
Slovenia	18.6	21.5 [44]
Czech Republic	20.0	22.0
Hungary	20.8	21.4
Poland	21.1	24.6
Slovak Republic	21.3	23.6
Cyprus	22.3	25.0
Estonia	22.3	23.5
Malta	:	:

Source: Eurostat, Department of Education and Science

◆ Ireland had a student to teacher ratio of 20.3 at primary education level (ISCED 1) in 2001, compared with an EU average of 16.1. The overall student to teacher ratio for first and second level education for Ireland in 2001 was 16.8 compared to an EU average of 14.5 (see Table 5.4). However the meaning and value of such a measure is less clear at levels higher than first level (primary) education.

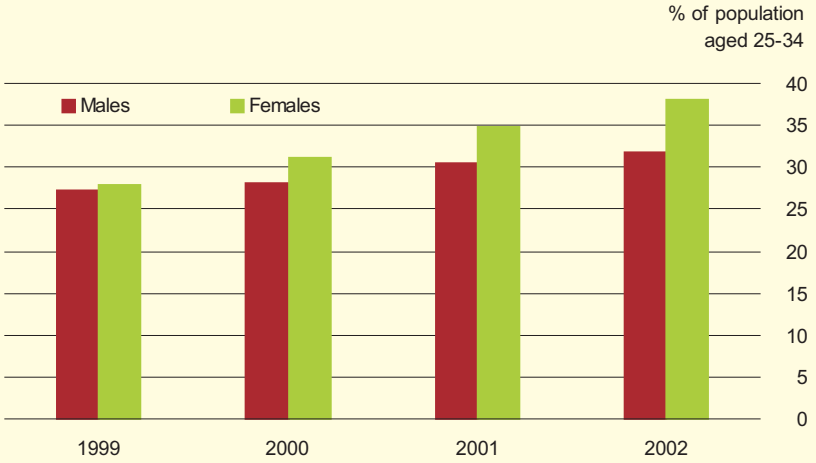
[42]Refers to French community only
[43]Refers to public institutions only
[44]Refers to full-time students only

5.6 Ireland: Population aged 25-34 with 3rd level education, 1999-2002

% of population aged 25-34

Year	Persons	Males	Females
1999	27.6	27.3	28.0
2000	29.6	28.1	31.1
2001	32.6	30.5	34.7
2002	35.0	31.8	38.1

Source: CSO, QNHS



◆ Over the period 1999-2002, the proportion of females aged 25-34 in Ireland with 3rd level education rose from 28 per cent in 1999 to 38.1 per cent in 2002. Over the same period, the rate for males increased from 27.3 per cent to 31.8 per cent (see Table 5.6). The widening gap reflects the increasing tendency for females to remain in education for longer than males.

5.7 EU: Population aged 25-34 with 3rd level[45] education by sex 2002[46]

% of population aged 25-34

Country	Persons	Males	Females
Finland	38.2	30.3	46.5
Spain	36.6	33.1	40.2
Belgium	36.3	31.7	41.0
France	35.2	32.4	38.0
Ireland	**35.0**	**31.8**	**38.1**
United Kingdom	30.9	30.5	31.4
Denmark	30.6	24.9	35.7
Sweden	30.5	27.1	34.0
Netherlands	27.7	26.1	29.4
EU 15	**26.4**	**24.7**	**28.1**
Greece	23.4	20.2	26.5
Luxembourg	22.4	24.2	20.6
Germany	20.5	21.7	19.3
Austria	16.0	15.6	16.4
Portugal	15.4	10.6	20.4
Italy	12.4	10.8	14.1
Cyprus	41.8	39.1	42.3
Lithuania	41.4	33.9	49.0
Estonia	27.6	19.6	35.9
Slovenia	18.6	12.8	24.6
Latvia	18.0	13.6	23.0
Poland	16.1	12.9	19.4
Hungary	14.4	12.5	16.2
Czech Republic	12.1	12.4	11.6
Slovak Republic	11.7	9.9	13.9

Source: Eurostat, LFS

◆ Ireland, at 35 per cent, had the fifth highest proportion of persons aged 25-34 with 3rd level education among EU countries in 2002 (see Table 5.7).

[45] ISCED levels 5-6

[46] Calculation of percentages based on LFS Q2 results for population and persons with 3rd level education, except for France where Q1 results are used

5.8 Ireland: Student performance on the combined reading, mathematical and scientific literacy scales by sex, 2000

Mean score of 15 year old students

Literacy type	Ireland		All OECD countries	
	Males	Females	Males	Females
Combined reading	513	542	485	517
Mathematical	510	497	506	495
Scientific	511	517	501	501

Source: OECD, Educational Research Centre

- Girls in Ireland performed much better than boys in reading literacy tests in 2000 with an average score of 542 for females compared to 513 for males (see Table 5.8). These scores combined to give Ireland the second highest reading literacy for 15 year old students among EU countries in 2000. Ireland was also above the OECD average in mathematical and scientific literacy (see Table 5.9).
- The PISA scale for each literacy area was devised so that the average score across participating OECD countries was 500 points (see Table 5.9 and Appendix 1).

5.9 EU: Student performance on the combined reading, mathematical and scientific literacy scales, 2000

Mean score of 15 year old students

Country	Reading literacy	Mathematical literacy	Scientific literacy
Finland	546	536	538
Ireland	**527**	**503**	**513**
United Kingdom	523	529	532
Sweden	516	510	512
Austria	507	515	519
Belgium	507	520	496
France	505	517	500
OECD average	**500**	**500**	**500**
Denmark	497	514	481
Spain	493	476	491
Italy	487	457	478
Germany	484	490	487
Greece	474	447	461
Portugal	470	454	459
Czech Republic	492	498	511
Hungary	480	488	496
Poland	479	470	483
Latvia	458	463	460

Source: OECD, PISA

5.10 Ireland: Early school leavers[47] by labour force status and sex, 2002

000s

Labour force status	Persons	Males	Females
In employment	42.3	30.5	11.8
Unemployed	8.5	6.5	2.0
Unemployment rate (%)	16.7	17.6	14.5

Source: CSO QNHS

5.11 Ireland: Proportion of the population aged 20-64 with, at least, upper secondary education, 2002

% of age group

Age group	Persons	Males	Females
20-24	83.9	79.7	88.1
25-34	77.0	74.3	79.8
35-44	65.1	62.1	68.0
45-54	50.6	48.8	52.4
55-64	36.8	36.1	37.5

Source: CSO QNHS

- The unemployment rate for persons in Ireland aged 18-24 with, at most, lower secondary education was 16.7 per cent in 2002. This compares with an overall unemployment rate of 4.2 per cent (see Tables 3.6 and 5.10).
- Almost 84 per cent of persons aged 20-24 completed second level education or higher. This figure decreased for older age groups down to 36.8 per cent of persons aged 55-64. Women of all ages in Ireland are more likely than men to have completed at least upper secondary education (see Table 5.11).

[47]Persons aged 18-24 with, at most, lower secondary education and not in further education or training

5.12 EU: Early school leavers[47], 2002

% of population aged 18-24

Country	Persons	Males	Females
Austria	9.5	8.8	10.3
Finland	9.9	12.6	7.3
Sweden	10.4	11.4	9.3
Belgium	12.4	14.9	9.9
Germany	12.6	12.6	12.6
France	13.4	14.9	11.9
Ireland	**14.7**	**18.5**	**10.8**
Netherlands	15.0	15.7	14.3
Denmark	15.4	13.8	17.0
Greece	16.1	20.1	12.3
Luxembourg	17.0	14.4	19.6
EU 15	**18.8**	**21.4**	**16.2**
Italy	24.3	27.9	20.7
Spain	29.0	35.4	22.3
Portugal	45.5	52.9	38.1
United Kingdom	:	:	:
Slovenia	4.8	6.2	3.3
Czech Republic	5.5	5.3	5.7
Slovak Republic	5.6	6.7	4.6
Poland	7.6	9.5	5.6
Hungary	12.3	12.5	12.1
Estonia	12.6	15.6	9.6 [48]
Cyprus	14.0	18.8	10.2
Lithuania	14.3	15.1	13.4
Latvia	19.5	26.7	12.2
Malta[49]	52.7	56.2	49.0

Source: Eurostat, LFS

- The proportion of persons aged 18-24 who left school with, at most, lower secondary education in Ireland, was 14.7 per cent in 2002. The EU average rate was 18.8 per cent (see Table 5.12).

[48]Unreliable/uncertain data

[49]Estimate

6.1 Ireland: Non-capital public expenditure on health care, 1993-2002

Year	Non-capital public expenditure		
	Total (€m)	% of GDP	Per capita at constant 1995 prices (€)
1993	2,627.1	6.1	771
1994	2,793.3	6.0	801
1995	2,980.5	5.7	828
1996	3,048.7	5.2	824
1997	2,503.9	3.7	633
1998	3,885.9	5.0	936
1999	4,642.1	5.2	1,057
2000	5,411.9	5.3	1,147
2001	6,791.5	5.9	1,325
2002	7,919.0	6.1	1,450

Source: Department of Health and Children

- Non-capital public expenditure on health care in Ireland as a proportion of Gross Domestic Product decreased from 6.1 per cent in 1993 to 3.7 per cent in 1997 before increasing each year since then to 6.1 per cent in 2002 (see Table 6.1).
- An average of €1,450 per person was spent on non-capital public expenditure on health care in Ireland in 2002 using constant 1995 prices. This represented an increase of 88.1 per cent on 1993 levels at constant 1995 prices and an increase of 129 per cent over 1997 levels. The comparative increase for education in 1997-2002 was 28 per cent (see Tables 5.1 and 6.1 and Appendix 1).
- Ireland spends less on public and private health as a proportion of GDP than most other EU countries. In 2000, Ireland spent 7.7 per cent of its Gross National Income on health including private non-capital expenditure. Health care costs tend to be higher in countries which have a high old age dependency ratio. This is not yet so significant an issue for Ireland as the old age dependency ratio is extremely low for Ireland compared to the EU average (see Tables 6.2 and 7.9).

6.2 EU: Total expenditure[50] on health as percentage of GDP, 1998-2000

% of GDP

Country	1998	1999	2000
Germany	10.6	10.7	10.6
France	9.3	9.4	9.5
Belgium	8.5	8.7	8.7
Sweden	7.9	8.6	8.4
Denmark	8.4	8.5	8.3
Greece	8.7	8.7	8.3
Portugal	8.3	8.4	8.2
Italy	7.7	7.8	8.1
Netherlands	8.1	8.2	8.1
Austria	8.0	8.1	8.0
Ireland (% of GNI)	**7.6**	**7.8**	**7.7**
Spain	7.6	7.7	7.7
United Kingdom	6.8	7.1	7.3
Ireland (% of GDP)	**6.8**	**6.8**	**6.7**
Finland	6.9	6.9	6.6
Luxembourg	5.8	6.0	5.8
Malta	8.4	8.4	8.8
Slovenia	8.7	8.7	8.6
Cyprus	7.9	7.8	7.9
Czech Republic	7.1	7.2	7.2
Hungary	6.9	6.8	6.8
Estonia	6.0	6.6	6.1
Lithuania	6.3	6.1	6.0
Poland	6.4	6.2	6.0
Latvia	6.6	6.4	5.9
Slovakia	5.9	5.8	5.9

Source: WHO

[50] Public and private

6.3 Ireland: Life expectancy, at birth and at age 65 by sex, 1925-1997

years

Period	At birth		At 65 years	
	Males	Females	Males	Females
1925-1927	57.4	57.9	12.8	13.4
1935-1937	58.2	59.6	12.5	13.1
1940-1942	59.0	61.0	12.3	13.2
1945-1947	60.5	62.4	12.0	13.1
1950-1952	64.5	67.1	12.1	13.3
1960-1962	68.1	71.9	12.6	14.4
1965-1967	68.6	72.9	12.4	14.7
1970-1972	68.8	73.5	12.4	15.0
1978-1980	69.5	75.0	12.4	15.4
1980-1982	70.1	75.6	12.6	15.7
1985-1987	71.0	76.7	12.6	16.2
1990-1992	72.3	77.9	13.4	17.1
1995-1997	73.0	78.5	13.8	17.4

Source: CSO Vital Statistics

- Life expectancy at birth in Ireland increased from under 58 years in 1925-1927 to 73 years for males and 78.5 years for females in 1995-1997. Over the same period, there was an increase of one year in the life expectancy of men aged 65 compared to a four years increase in the life expectancy for women aged 65 (see Table 6.3).
- In 2001, Ireland had the lowest life expectancy of all EU countries for both females and males with the figures for Ireland around three years lower than the EU average (see Table 6.4).

6.4 EU: Life expectancy at birth by sex, 2001

years

Country	Males	Females	Sex difference
Spain	75.6	82.9	7.3
France	75.5	82.9	7.4
Italy	76.7	82.8	6.1
Sweden	77.6	82.1	4.5
Austria	75.9	81.7	5.8
EU 15	**75.5**	**81.6**	**6.1**
Finland	74.6	81.5	6.9
Greece	75.0	81.0	6.0
Luxembourg	75.3	80.8	5.5
Germany	74.7	80.7	6.0
Netherlands	75.8	80.7	4.9
United Kingdom	78.3	80.4	2.1
Portugal	73.6	80.3	6.7
Belgium	74.5	80.1	5.6
Denmark	74.3	78.9	4.6
Ireland	**73.0**	**78.5**	**5.5**
Malta	76.4	81.1	4.7
Cyprus	76.1	81.0	4.9
Slovenia	72.3	80.3	8.0
Czech Republic	72.1	78.6	6.5
Poland	70.2	78.3	8.1
Slovak Republic	69.6	77.8	8.2
Lithuania	65.9	77.4	11.5
Latvia	65.2	76.6	11.4
Estonia	64.9	76.4	11.5
Hungary	68.1	76.4	8.3

Source: Eurostat

7.1 Ireland: Population distribution by age group, 1994-2003

% 000 persons

Year	0-14 years	15-24 years	25-44 years	45-64 years	65 years and over	Total
1994	25.1	17.3	27.5	18.7	11.4	3,585.9
1995	24.4	17.4	27.8	19.1	11.4	3,601.3
1996	23.7	17.5	28.0	19.4	11.4	3,626.1
1997	23.1	17.5	28.3	19.7	11.4	3,664.3
1998	22.6	17.4	28.6	20.1	11.3	3,703.0
1999	22.2	17.2	28.9	20.5	11.3	3,741.6
2000	21.8	16.9	29.2	20.8	11.2	3,789.5
2001	21.5	16.6	29.7	21.0	11.2	3,847.1
2002	21.1	16.4	30.1	21.2	11.1	3,917.2
2003	21.0	16.2	30.3	21.5	11.1	3,978.8

Source: CSO Census of Population [51]

7.2 Ireland: Household composition, 1994-2003

000 households *persons*

Year	Total households	1 person households	2 person households	3 or more person households	Average household size
1994	1,130.7	253.7	262.0	615.0	3.13
1995	1,150.4	260.4	265.5	624.5	3.09
1996	1,160.1	255.0	276.4	628.6	3.07
1997	1,191.9	269.7	288.5	633.7	3.02
1998	1,221.0	264.7	297.0	659.3	3.03
1999	1,248.2	276.4	304.0	667.8	3.00
2000	1,275.2	291.9	311.5	671.8	2.97
2001	1,290.6	282.1	330.5	678.0	2.97
2002	1,326.5	294.9	344.7	686.9	2.94
2003	1,364.1	302.4	368.0	693.7	2.90

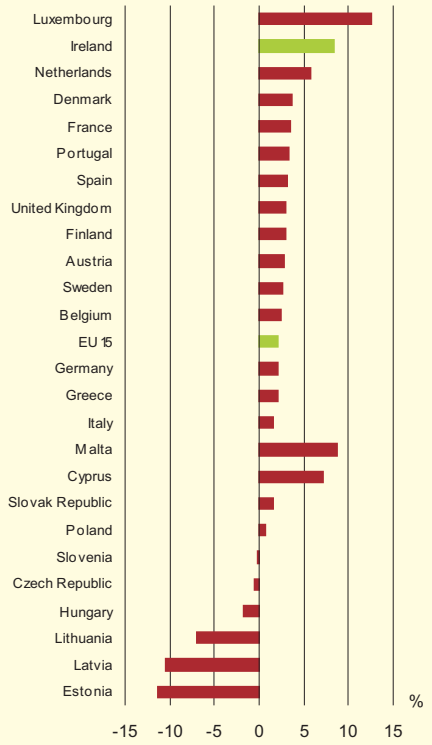
Source: CSO QNHS [52]

- The population increased by 11 per cent to almost 4 million persons over the period 1994-2003. The proportion of the population aged 25-64 increased from 46.2 per cent in 1994 to 51.8 per cent in 2003. Conversely, there was a decrease in the 0-14 age group from 25.1 per cent in 1994 to 21.0 per cent of the population in 2003 (see Table 7.1).

[51] See Appendix 1 - Domain 1

[52] LFS (April 1994-1997) and QNHS (March-May, 1998-2003)

7.3 EU: Population change, 1992-2001[53]



- In Ireland, average household size decreased from 3.13 persons in 1994 to 2.9 persons in 2003. There was a 40 per cent increase in the number of 2 person households, a 19 per cent increase in 1 person households and a 13 per cent increase in 3 or more person households over the same period (see Table 7.2).
- Luxembourg and Ireland had the largest proportional increase in population between 1992 and 2001 in the EU (see Graph 7.3).

[53] 1992-2000 for Italy, United Kingdom, Estonia and Cyprus; 1992-1999 for Greece and EU 15

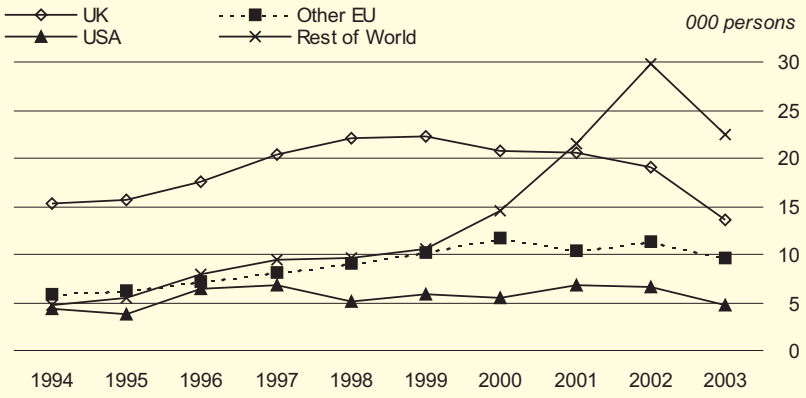
7.4 Ireland: Migration and natural increase, 1994-2003

000 persons

Year	Net migration	Emigration	Immigration	Natural increase
1994	-4.7	34.8	30.1	16.6
1995	-1.9	33.1	31.2	17.2
1996	8.0	31.2	39.2	16.9
1997	19.2	25.3	44.5	19.0
1998	17.4	28.6	46.0	21.5
1999	17.3	31.5	48.9	21.2
2000	26.0	26.6	52.6	21.8
2001	32.8	26.2	59.0	24.8
2002	41.3	25.6	66.9	28.8
2003	29.8	20.7	50.5	31.9

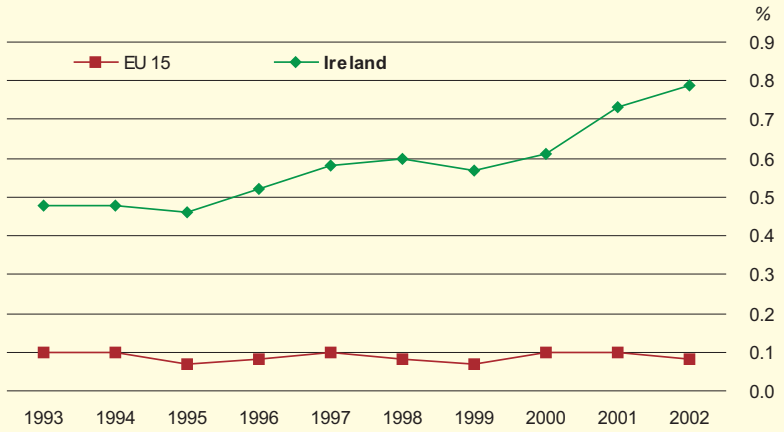
Source: CSO migration estimates

7.5 Ireland: Immigration by country of origin, 1994-2003



Source: CSO migration estimates

7.6 Ireland and EU 15: Rate of natural increase of population, 1993-2002



Source: Eurostat

- There was net migration into Ireland each year since 1996 compared to a small level of net emigration from Ireland in 1994 and 1995. The level of net inward migration increased from 8,000 in 1996 to 41,300 in 2002 before falling to 29,800 in 2003 (see Table 7.4).
- The level of annual gross emigration from Ireland decreased from 34,800 persons in 1994 to 20,700 persons in 2003 (see Table 7.4).
- There has been a significant increase in the number of persons moving to Ireland from countries other than the UK, EU and USA between 1999 and 2002. However the number of persons in this category fell back sharply by almost a quarter in the year to April 2003 (see Graph 7.5).
- The rate of natural increase of the population in Ireland was 0.8 per cent in 2002 compared to an average of 0.1 per cent in the EU. The EU rate has been constant over the 1993-2002 period, whereas the rate for Ireland increased from under 0.5 per cent in 1995 (see Table 7.4 and Graph 7.6).

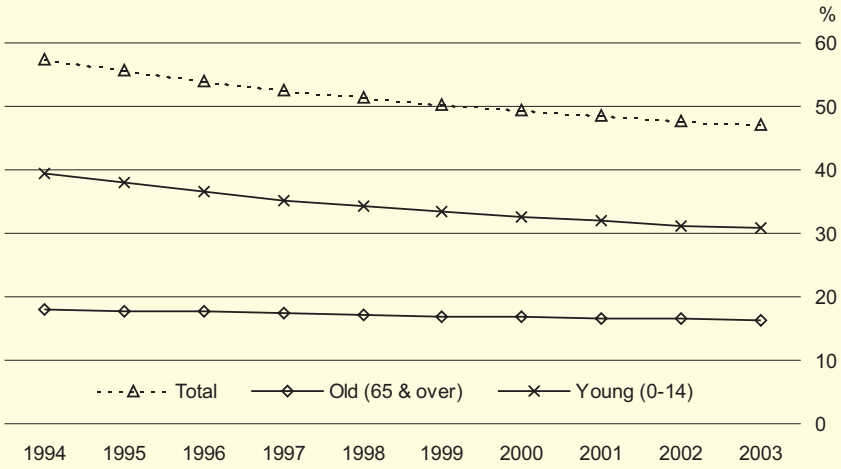
7.7 Ireland: Average age of population for census years by sex, 1926-2002

age in years

Year	Persons	Males	Females
1926	31.1	30.9	31.3
1936	32.1	32.0	32.2
1946	32.4	32.2	32.6
1951	32.5	32.2	32.7
1961	32.8	32.3	33.2
1966	32.4	31.9	32.9
1971	32.1	31.5	32.7
1979	31.4	30.6	32.1
1981	31.3	30.5	32.1
1986	31.8	30.9	32.6
1991	33.0	32.0	33.9
1996	34.1	33.1	35.0
2002	35.1	34.3	36.0

Source: CSO Census of Population

7.8 Ireland: Age dependency ratio, 1994-2003



Source: CSO Census of Population

7.9 EU: Young and old as proportion of population aged 15-64, 2001

% of population aged 15-64

Country	Young and old	Young (0-14)	Old (65 & over)
Ireland	**48.5**	**31.9**	**16.6**
France	53.7	28.9	24.8
United Kingdom	52.8	28.9	23.8
Sweden	55.3	28.5	26.8
Luxembourg	48.9	28.2	20.7
Denmark	50.1	27.9	22.2
Netherlands	47.5	27.5	20.1
Finland	49.4	27.0	22.4
Belgium	52.5	26.8	25.7
EU 15[54]	**49.5**	**25.2**	**24.3**
Austria	47.4	24.5	22.9
Portugal	47.9	23.7	24.2
Germany	47.4	22.9	24.5
Greece[54]	48.0	22.4	25.6
Spain	46.2	21.4	24.7
Italy	48.4	21.3	27.1
Cyprus	51.8	34.4	17.4
Lithuania	50.6	29.4	21.2
Malta	47.2	29.1	18.1
Slovak Republic	44.2	27.7	16.5
Poland	45.1	27.3	17.8
Estonia	49.1	26.4	22.7
Latvia	48.3	25.7	22.6
Hungary	46.5	24.3	22.2
Czech Republic	43.0	23.2	19.8
Slovenia	42.6	22.5	20.2

Source: Eurostat

- Every 5 years since 1981, the average age of the population in Ireland has increased by an average of 1 year (see Table 7.7).
- Ireland had the highest proportion of persons under 15 in the EU (31.9 per cent) and the lowest proportion of person aged 65 and over (16.6 per cent) in 2001 (see Table 7.9).
- This resulted in a combined age dependency ratio of 48.5 per cent in Ireland in 2001 which was similar to the EU average of 49.5 per cent (see Table 7.9) although markedly different in composition.

[54] 2000 data

7.10 Ireland and EU 15: Total fertility rate, 1992-2001

Expected number of children a woman will have

Year	Ireland	EU 15
1992	1.99	1.51
1993	1.91	1.47
1994	1.85	1.44
1995	1.85	1.42
1996	1.89	1.44
1997	1.94	1.45
1998	1.95	1.45
1999	1.91	1.45
2000	1.91	1.48
2001	1.98 [55]	1.46

Source: Eurostat, CSO Vital Statistics

- In 1992, the expected number of children a woman in Ireland would have was 1.99. This rate decreased slightly during the 1990s but rose again to 1.98 in 2001 (see Table 7.10).
- Ireland had the highest fertility rate in the EU in 2001 (see Table 7.11).
- The fertility rate increased in eight EU countries including Ireland, between 1996 and 2001, resulting in a small increase in the EU average rate (see Table 7.11).

[55] Provisional

7.11 EU: Total fertility rate, 1991-2001

Expected number of children a woman will have

Country	1991	1996	2001
Ireland	**2.08**	**1.89**	**1.98** [55]
France	1.77	1.72	1.89 [55]
Denmark	1.68	1.75	1.75
Finland	1.79	1.76	1.73
Netherlands	1.61	1.53	1.71
United Kingdom	1.81	1.72	1.65 [55]
Luxembourg	1.60	1.76	1.65
Belgium	1.66	1.55	1.64 [56]
Sweden	2.11	1.60	1.57
EU 15	**1.53**	**1.44**	**1.46** [56]
Portugal	1.57	1.43	1.46
Germany	1.33	1.32	1.35 [55]
Austria	1.49	1.42	1.33
Greece	1.38	1.30	1.25 [55]
Italy	1.31	1.20	1.25 [56]
Spain	1.33	1.17	1.24 [55]
Cyprus	2.33	2.08	1.57 [56]
Malta	2.04	2.10	1.51 [56]
Estonia	1.79	1.30	1.34
Hungary	1.88	1.46	1.31 [55]
Lithuania	1.97	1.42	1.29 [56]
Poland	2.05	1.58	1.29
Latvia	1.86	1.16	1.21 [55]
Slovenia	1.42	1.28	1.21
Slovak Republic	2.05	1.47	1.20
Czech Republic	1.86	1.18	1.15 [56]

Source: Eurostat

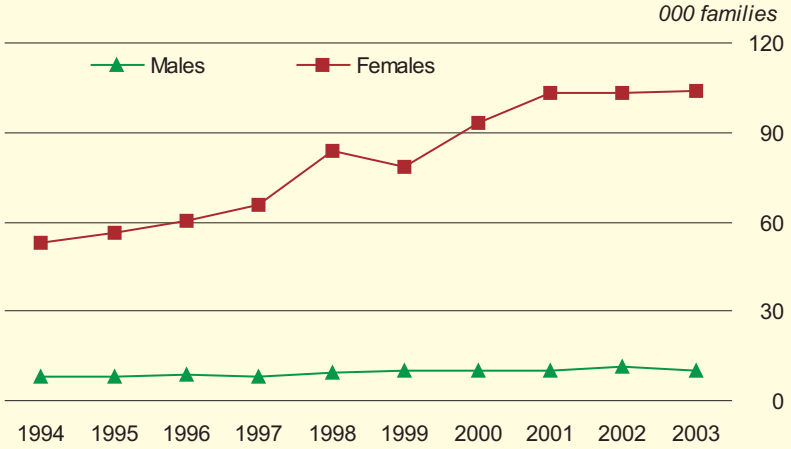
[56] Estimate

7.12 Ireland: Lone parent families with children aged under 20 by sex of parent, 1994-2003

000 families

Year	Male	Female	Total
1994	7.9	52.8	60.7
1995	8.2	56.1	64.3
1996	8.4	60.1	68.5
1997	8.1	65.6	73.7
1998	9.1	83.6	92.7
1999	9.8	78.3	88.1
2000	10.2	93.3	103.5
2001	10.3	103.2	113.5
2002	11.5	103.4	114.9
2003	9.8	104.1	113.9

Source: CSO QNHS [57]



[57] LFS (April 1994-1997) and QNHS (March-May, 1998-2003)

7.13 Ireland: Adult members of family units[58], 1994-2003

000 adults [59]

Year	In couple without children	In couple with children [60]	Lone parent
1994	360.8	1,043.9	111.2
1995	364.0	1,055.7	115.3
1996	382.3	1,046.7	119.2
1997	394.3	1,047.1	127.8
1998	416.8	1,081.8	149.6
1999	411.4	1,110.9	145.2
2000	431.3	1,093.2	160.9
2001	463.4	1,084.3	173.5
2002	485.7	1,086.1	178.0
2003	536.7	1,089.3	173.5

Source: CSO QNHS [57]

- The number of lone parent families with children aged under 20 increased by 87.7 per cent between 1994 and 2003. The ratio of female to male heads of household for lone parent families with children aged under 20, increased from 7:1 in 1994 to almost 11:1 in 2003 (see Table 7.12).
- In 2003, lone parent families with children aged under 20 accounted for around two-thirds of all lone parent families (see Tables 7.12 and 7.13).
- The number of adults in family units composed of couples without children living with them increased by around 50 per cent during the period 1994-2003. In comparison, there was only a 4 per cent increase in the number of adults in family units of couples with children living with them (see Table 7.13).

[58] See Appendix 1 for definition of a family unit

[59] For the purposes of this table an adult is a member of a couple or a lone parent

[60] Refers to never married children living with parents

7.14 Ireland: Persons aged 65 and over living alone by sex, 1994-2003

	000 households with persons aged 65 and over			*% of all households*
Year	**Persons**	**Males**	**Females**	**Persons**
1994	122.3	38.1	84.2	10.8
1995	122.1	38.5	83.6	10.6
1996	116.9	37.8	79.1	10.1
1997	122.3	39.7	82.6	10.3
1998	133.0	42.1	90.9	10.9
1999	139.0	42.6	96.4	11.1
2000	142.1	45.5	96.6	11.1
2001	140.9	45.4	95.5	10.9
2002	142.9	46.0	96.9	10.8
2003	142.3	45.0	97.3	10.4

Source: CSO QNHS [61]

[61] LFS (April 1994-1997) and QNHS (March-May, 1998-2003)

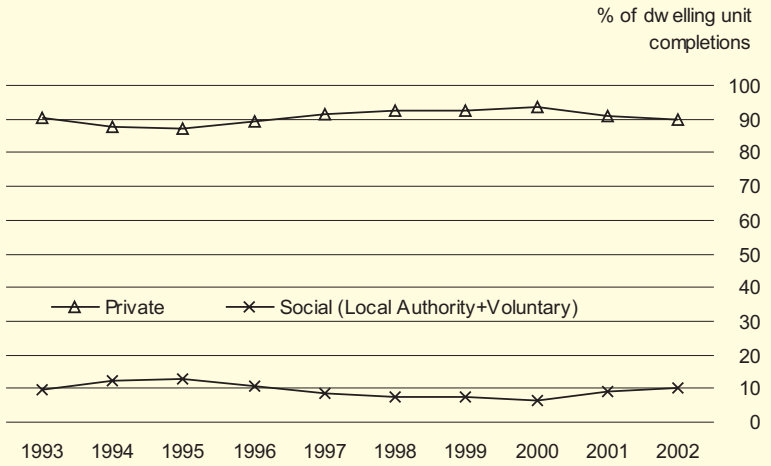
- There were twice as many women aged 65 and over living alone in 2003 as there were men (see Table 7.14).
- The percentage of persons aged 65 and over living alone in 2003 was 32.2 per cent (see Tables 7.1 and 7.14).
- The proportion of households with persons aged 65 and over living alone has fallen in recent years from 10.8 per cent of all households in 1994 to 10.4 per cent in 2003 (see Table 7.14).

8.1 Ireland: Dwelling unit completions, 1993-2002

number of dwelling units

Year	Total	Private	Local Authority	Voluntary
1993	21,391	19,301	1,200	890
1994	26,863	23,588	2,374	901
1995	30,575	26,604	2,960	1,011
1996	33,725	30,132	2,676	917
1997	38,842	35,454	2,632	756
1998	42,349	39,093	2,771	485
1999	46,512	43,024	2,909	579
2000	49,812	46,657	2,204	951
2001	52,602	47,727	3,622	1,253
2002	57,695	51,932	4,403	1,360

Source: Department of the Environment, Heritage and Local Government



- Private dwelling unit completions were 90 per cent of total completions in both 1993 and 2002 (see Table 8.1).
- The total number of dwelling unit completions increased by a factor of 2.7 from 21,391 units in 1993 to 57,695 units in 2002 (see Table 8.1).

8.2 EU: Owner-occupiers, 1995-2000

% of households

Country	1995	2000
Spain	80.3	85.4
Greece	80.7	83.6
Ireland	**80.9**	**82.3**
Italy	71.3	75.4
Belgium	67.2	72.9
Luxembourg	67.6	70.8
United Kingdom	68.7	70.5
Finland[62]	64.3	68.1
Denmark	57.6	65.2
Portugal	60.0	65.2
EU 15	**59.7**	**63.4**
France	56.5	62.5
Sweden[63]	58.5	59.9
Austria	49.1	53.9
Netherlands	48.1	53.0
Germany	41.7	43.3

Source: Eurostat ECHP

8.3 Ireland: Nature of occupancy[64] of private households, 1961-2002

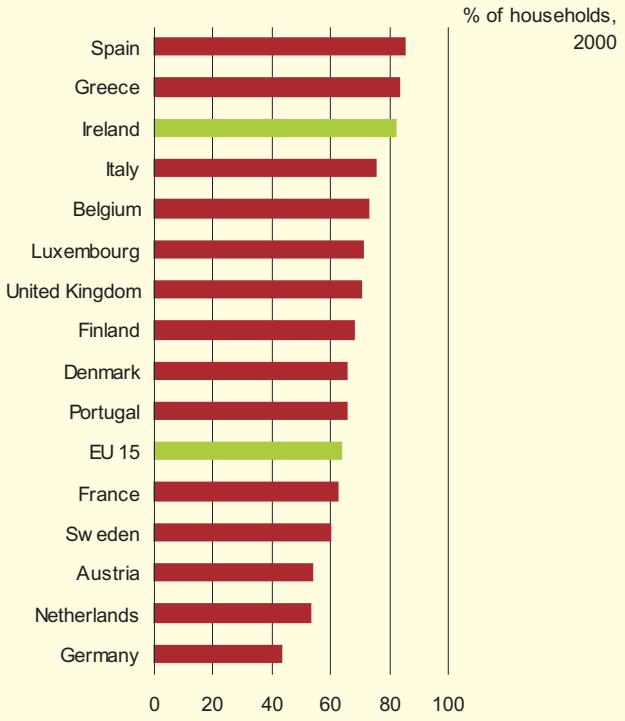
% of private households

Year	Owner-occupied	Rented	Other
1961	59.8	35.6	4.6
1971	68.8	28.9	2.3
1981	74.7	22.6	2.6
1991	80.0	17.9	2.1
2002	79.8	18.5	1.7

Source: CSO Census of Population

[62] 1999 data
[63] 1997 data
[64] 'Not stated' replies excluded

2000



- Ireland has one of the highest rates of home ownership in the EU with over 82 per cent of dwellings owner-occupied in 2000 compared to an EU average of 63.4 per cent. The rate of home ownership varied widely across EU countries from 43.3 per cent in Germany to over 80 per cent in Spain, Greece and Ireland (see Table and Graph 8.2).
- The proportion of households in Ireland that were owner-occupied increased from 59.8 per cent in 1961 to 80 per cent in 1991. There was a small decrease to 79.8 per cent in 2002 (see Table 8.3).

8.4 Ireland: New housing loans, 1993-2002

Year	Number	Total value (€m)	Average value of mortgage (€000)	Representative mortgage rate for building societies (%)
1993	38,490	1,707.2	44.4	9.58
1994	46,483	2,076.7	44.7	7.18
1995	47,035	2,284.0	48.6	7.62
1996	56,009	2,959.6	52.8	6.80
1997	57,901	3,589.0	62.0	7.22
1998	61,407	4,587.1	74.7	7.10
1999	70,817	6,516.9	92.0	4.93
2000	74,258	7,598.2	102.3	5.38
2001	66,786	7,664.0	114.8	5.69
2002	79,292	10,825.2	136.5	4.66

Source: Department of the Environment, Heritage and Local Government

- The average value of a new housing loan in Ireland rose from €44,400 in 1993 to €136,500 in 2002. Mortgage rates have halved in this period while the number of housing loans taken out for housing has more than doubled (see Table 8.4).
- A further stimulus occurred in 1999 when the mortgage rate decreased from 7.1 per cent to 4.93 per cent. In that year, the average mortgage rose by 23 per cent (see Table 8.4).
- At EU level, while the interest rates are not strictly comparable, the data suggest mortgage interest rates in Ireland are around 1 percentage point lower than the Eurozone average (see Table 8.5).

8.5 EU: Annual average interest rates[65] for mortgages, 2000-2002

%

Country	2000	2001	2002
Finland	5.79	5.49	4.54
Ireland	**5.19**	**5.58**	**4.58**
Spain	5.79	5.84	4.85
Greece	7.62	6.27	5.01
Portugal	6.03	6.04	5.02
Austria	6.01	6.12	5.48
Germany	6.36	5.68	5.53
Eurozone 12	**6.34**	**5.97**	**5.54**
Netherlands	6.46	5.88	5.73
Italy	6.26	6.67	5.83
Belgium	6.58	6.48	5.88
France	6.75	6.69	6.02
Luxembourg	:	:	:
United Kingdom	7.55	6.80	5.65
Sweden	7.00	6.56	6.54
Denmark	:	:	:
Lithuania	10.82	9.36	6.40
Slovak Republic	:	:	7.27
Cyprus	8.00	8.02	:
Czech Republic	8.96	9.25	:
Estonia	11.64	11.01	:
Latvia	12.45	11.78	:
Slovenia	15.36	14.81	:
Hungary	18.41	16.42	:
Malta	:	:	:
Poland	:	:	:

Source: Eurostat, European Central Bank

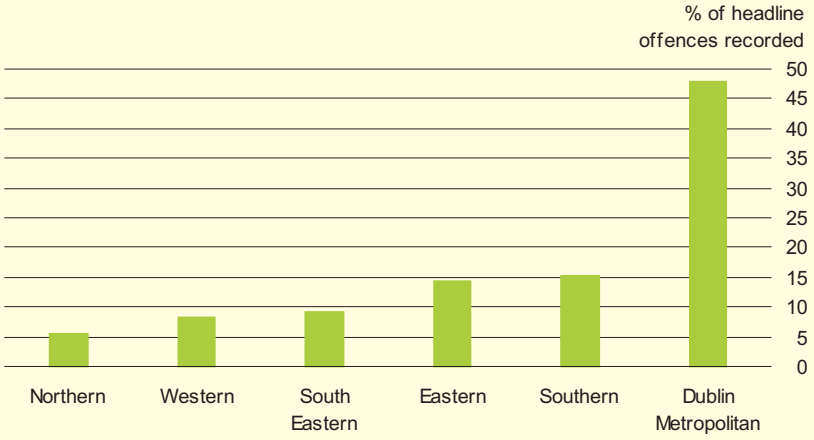
[65] Rates for banks

9.1 Ireland: Headline offences detection rates by Garda Division, 2000-2002

Garda Division	% headline offences detection rate 2000	2001	2002
Eastern	40.1	38.9	33.4
Dublin Metropolitan	39.0	40.4	37.4
South Eastern	50.3	48.4	43.4
Southern	45.4	43.4	40.8
Western	45.0	39.2	39.5
Northern	43.6	43.7	35.2
Ireland	**41.7**	**41.5**	**38.0**

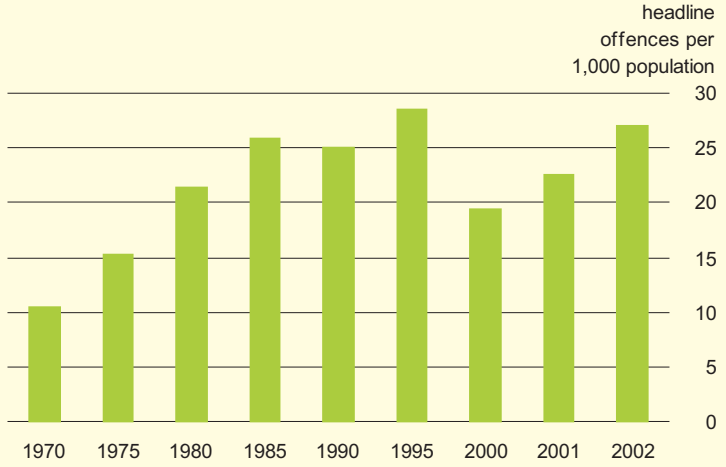
Source: An Garda Síochána

9.2 Ireland: Headline offences recorded by Garda Division, 2002



Source: An Garda Síochána

9.3 Ireland: Indictable [66]/headline offences recorded, 1970-2002

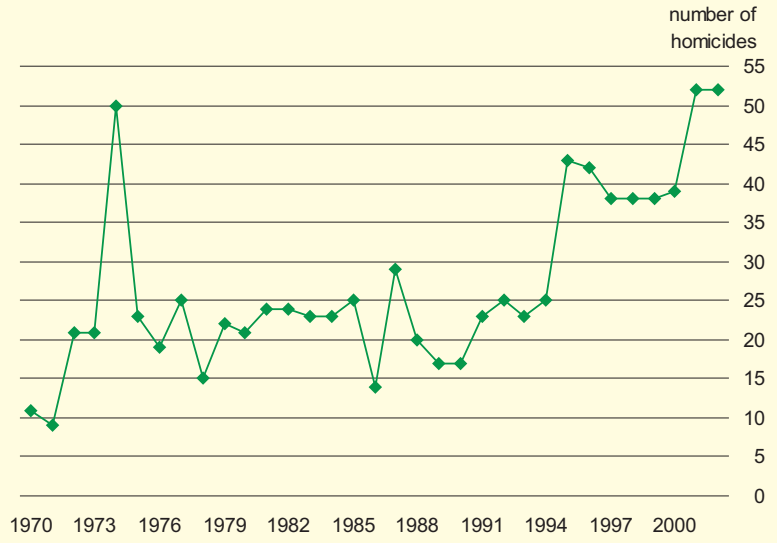


Source: An Garda Síochána

- The detection rate for headline offences was 38 per cent in 2002 (see Table 9.1).
- The Dublin Metropolitan region accounted for 48 per cent of headline offences recorded in 2002 (see Graph 9.2).
- The number of headline offences recorded per 1,000 population was highest in 1995. The rate was lower in 2000 and 2001 but this may be partially due to the introduction of a new classification system or variations in recording practices (see footnote).

[66]Crime figures up to 1999 used an old classification system that divided crimes into categories of indictable/non-indictable. With the introduction of the PULSE information system in the Garda Síochána, a new classification of crimes as headline/non-headline was adopted. Figures for 2000 and subsequent years refer to the new classification of headline crimes. While this category reflects to a large extent what in the past was defined as indictable crime, the terms are not identical and therefore direct comparisons cannot be made between years prior to 2000 and subsequent years.

9.4 Ireland: Homicides recorded, 1970-2002



Source: An Garda Síochána

- Ireland had a homicide rate of 1.6 per 100,000 in 2001. This was the lowest rate in the EU (see Table 9.5).
- The number of homicides recorded in Ireland since 1995 is significantly above the average for earlier periods (see Graph 9.4). The exceptional peak in 1974 was due to the bombings in Dublin and Monaghan.

9.5 EU: Homicide rate per 100,000 population[67], 2000-2002

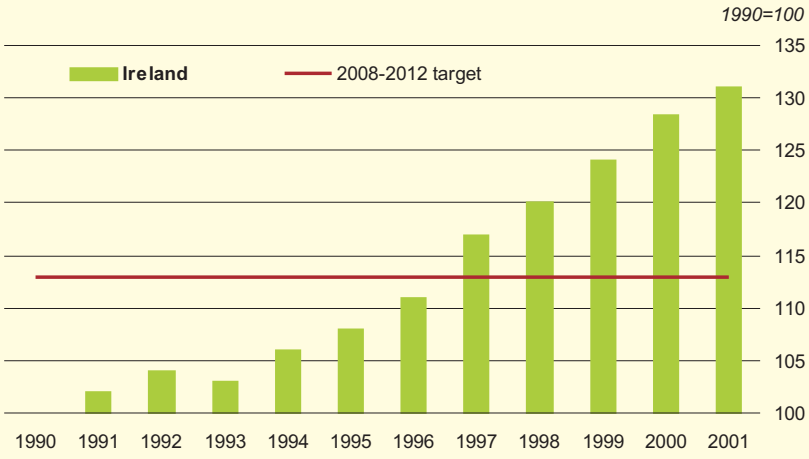
rate per 100,000 population

Country	2000	2001	2002
Ireland	**1.5**	**1.6**	**1.5**
Finland	0.7	1.7	:
Austria	:	2.0	2.1
Portugal	3.3	2.6	2.6
United Kingdom	2.7	2.8	:
Spain	2.9	2.9	:
Germany	3.4	3.2	3.2
Denmark	4.1	3.7	3.9
Italy	3.8	3.8	:
France	3.7	3.9	4.1
Belgium	2.7	6.0	:
Sweden	:	10.0	:
Luxembourg	14.0	11.3	:
Netherlands	:	:	:
Greece	2.8	:	:
Czech Republic	2.7	2.3	2.3
Slovak Republic	2.6	2.4	:
Poland	3.4	3.5	:
Hungary	3.5	4.0	3.5
Latvia	11.2	9.0	:
Lithuania	:	10.8	:
Estonia	13.7	12.1	:
Cyprus	1.7	:	:
Malta	2.0	:	:
Slovenia	4.1	:	:

Source: Interpol International Crime Statistics

[67]The international statistics do not take account of the differences which exist between definitions of punishable acts in different national laws, or the diversity of statistical methods, or the changes which may occur during the reference period and affect the data collected. However, the figures give a broad outline of trends in specific countries.

10.1 Ireland: Total net greenhouse gas emissions (based on CO_2 equivalents), 1990-2001



Source: Environmental Protection Agency

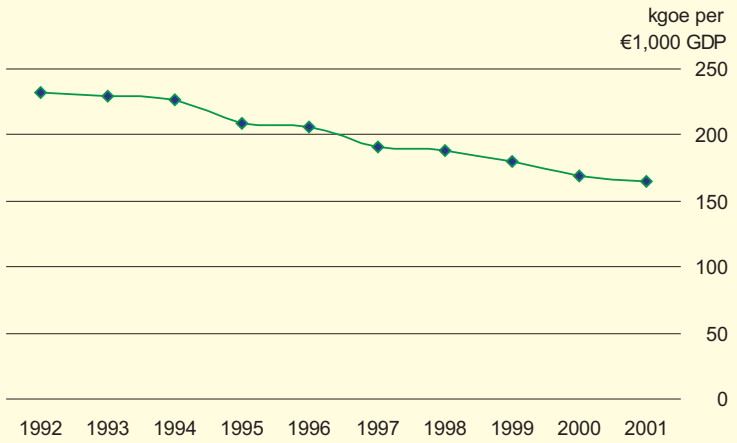
- Under the Kyoto protocol, EU countries agreed to reduce total greenhouse gas emissions in the EU to 8 per cent below 1990 levels for the period 2008-2012. Ireland's Kyoto burden-sharing contribution is a 13 per cent increase above our 1990 levels (see Graph 10.1).
- Ireland exceeded the 2008-2012 Kyoto target of 113 for greenhouse gas emissions in 1997 and reached 131 per cent above the 1990 level in 2001 (see Graph 10.1).
- Ireland, at 128.3 per cent of our 1990 level, was considerably worse than the EU 15 average of 97 per cent of EU 1990 levels in 2000 (see Table 10.2).

10.2 EU: Net greenhouse gas emissions, 2000, and Kyoto 2008-2012 target

		1990=100	*%*
Country	**2000**	**2008-2012 Kyoto target**	**2000 level as % of target**
Luxembourg	55.0	72.0	76.4
Sweden	95.0	104.0	91.3
Finland	98.0	100.0	98.0
France	99.0	100.0	99.0
Greece	124.0	125.0	99.2
United Kingdom	87.0	87.5	99.4
Germany	81.0	79.0	102.5
EU 15	**97.0**	**92.0**	**105.4**
Portugal	134.0	127.0	105.5
Netherlands	103.0	94.0	109.6
Ireland	**128.3**	**113.0**	**113.5**
Italy	107.0	93.5	114.4
Belgium	106.0	92.5	114.6
Spain	135.0	115.0	117.4
Austria	105.0	87.0	120.7
Denmark	99.0	79.0	125.3
Latvia	36.0	92.0	39.1
Czech Republic	45.0	92.0	48.9
Lithuania	46.0	92.0	50.0
Poland	68.0	92.0	73.9
Slovak Republic	68.0	92.0	73.9
Hungary	97.0	92.0	105.4
Slovenia	108.0	94.0	114.9
Estonia	150.0	92.0	163.0
Cyprus	77.0	:	:
Malta	129.0	:	:

Source: Eurostat

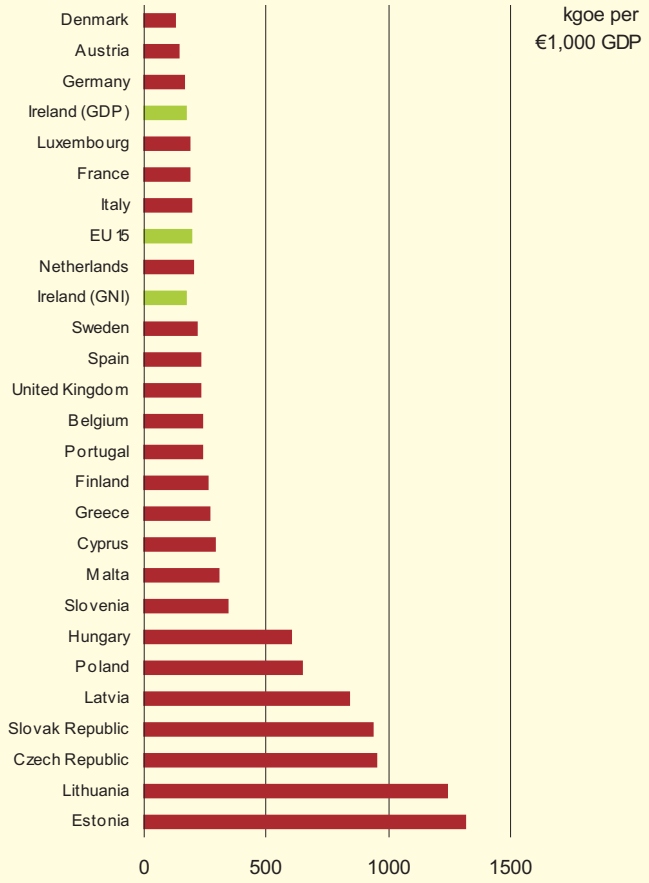
10.3 Ireland: Gross inland consumption of energy at constant 1995 prices, 1992-2001



Source: Sustainable Energy Ireland, CSO

- Ireland's energy intensity ratio improved from 231.6 in 1992 to 165.3 in 2001 (see Graph 10.3). This ratio is calculated by dividing total usage of coal, electricity, oil, natural gas and renewable energy by GDP (see Appendix 1).
- The rate for Ireland was close to the EU figure of 193.2 in 2000. Most of the acceding countries had higher levels of gross inland consumption of energy relative to GDP than the EU member states in 2000 (see Graph 10.4).

10.4 EU: Gross inland consumption of energy at constant 1995 prices, 2000



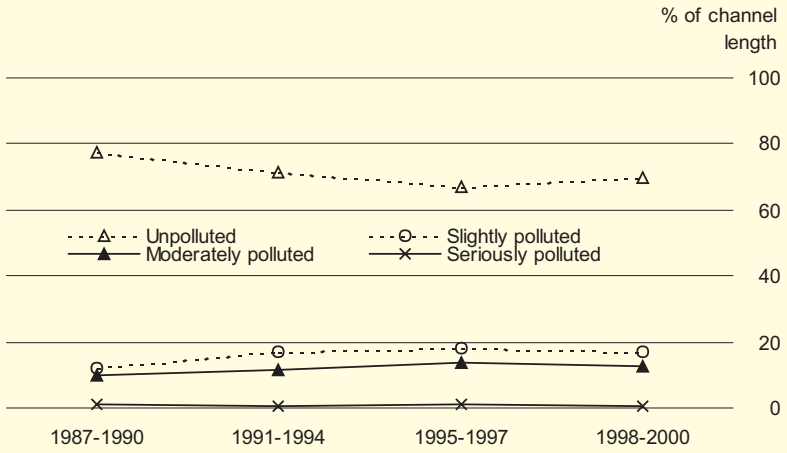
Source: Eurostat

10.5 Ireland: River water quality, 1987-2000

% of channel length

Quality	1987-1990	1991-1994	1995-1997	1998-2000
Unpolluted	77.3	71.2	67.0	69.8
Slightly polluted	12.0	16.8	18.2	17.0
Moderately polluted	9.7	11.4	13.8	12.4
Seriously polluted	0.9	0.6	0.9	0.8
Total	**100.0**	**100.0**	**100.0**	**100.0**

Source: Environmental Protection Agency



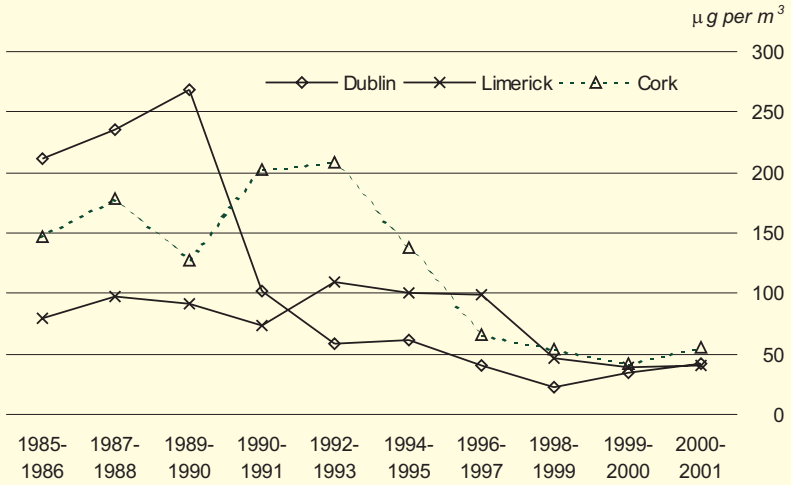
- The percentage of unpolluted river water in Ireland decreased from 77.3 per cent in the period 1987-1990 to 67.0 per cent in 1995-1997 but there was an improvement to 69.8 per cent during 1998-2000 (see Table 10.5).
- The percentage of seriously polluted water has consistently remained below 1 per cent throughout the 1987-2000 period (see Table 10.5).

10.6 Ireland: Smoke concentrations[68] in urban areas, 1985-2001

μg per m³

Year	Dublin	Limerick	Cork
1985-1986	211	79	147
1987-1988	235	98	179
1989-1990	269	92	128
1990-1991	102	73	202
1992-1993	58	110	209
1994-1995	62	101	138
1996-1997	41	99	66
1998-1999	23	47	54
1999-2000	35	39	42
2000-2001	42	41	56

Source: Environmental Protection Agency



- Smoke pollution levels in Dublin decreased dramatically from 269μg per m³ in 1989-1990 to 58 μg per m³ in 1992-1993, following the introduction of legal restrictions on the sale of non-smokeless coals in 1990. Similar improvements occurred when the ban was extended to Cork in 1995 and Limerick in 1998. In 2000-2001, the smoke concentrations in Dublin were 42 μg per m³, Cork 56 μg per m³ and Limerick 41 μg per m³ (see Table 10.6).
- EU legislation has set limit values of not exceeding 50 μg per m³ on more than 35 days per annum from 2005.

[68] 98 percentile of daily mean

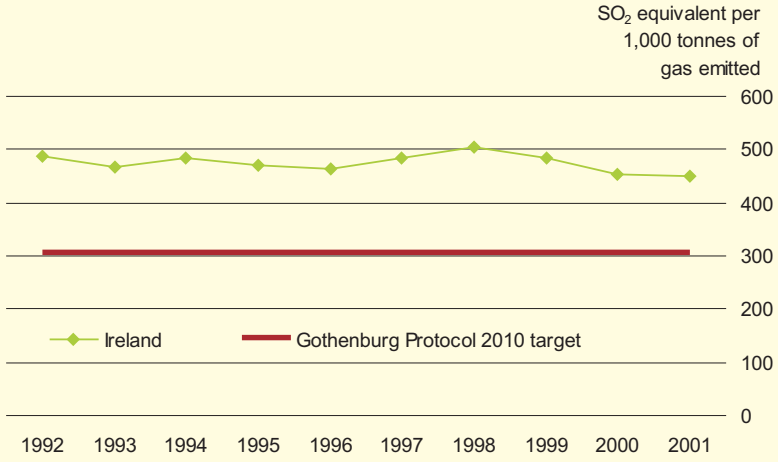
10.7 Ireland: Acid rain precursor emissions, 1999-2001

SO_2 equivalent per 1,000 tonnes of gas emitted

Gas	1999	2000	2001
Sulphur dioxide (SO_2)	157.4	131.5	126.1
Nitrogen oxides (NO_x)	87.9	92.3	93.9
Ammonia (NH_3)	239.1	230.4	230.8
Total	**484.3**	**454.3**	**450.7**

Source: Environmental Protection Agency

10.8 Ireland: Acid rain precursor emissions, 1992-2001



Source: Environmental Protection Agency

- The level of acid rain precursor emissions in Ireland decreased in each of the last three years, down to a level of 450.7 in 2001. The decrease is mainly due to lower levels of sulphur dioxide emissions (see Table 10.7 and Graph 10.8).
- The Gothenburg Protocol 2010 target is 300, or two-thirds of current Irish emissions (see Graph 10.8).

10.9 Ireland: Waste collected and percentage landfilled by type, 1998-2001

Material	000 tonnes Collected		% landfilled Landfilled	
	1998	2001	1998	2001
Paper	642.2	804.4	85.3	79.3
Glass	116.8	151.2	69.2	71.6
Plastic	200.4	237.4	96.3	93.3
Ferrous, aluminium and other metals	54.3	69.6	91.1	94.3
Textiles	39.4	60.1	91.8	93.2
Organic waste	460.9	578.2	98.8	96.2
Others	338.6	396.7	95.5	87.4
Ireland	**1,852.5**	**2,297.6**	**91.0**	**86.7**

Source: Environmental Protection Agency

- There was a 24 per cent increase in Ireland's municipal waste collected between 1998 and 2001 (see Table 10.9).
- The proportion of municipal waste landfilled decreased from 91 per cent in 1998 to 86.7 per cent in 2001 (see Table 10.9).
- Ireland, at 88.5 per cent, had one of the highest percentages of landfilled municipal waste in the EU in 2000. The EU average was 54.4 per cent (see Table 10.10).

10.10 EU: Municipal waste collected and landfilled, 2000

kg per person

Country	Collected	Landfilled	% landfilled
Denmark	665	67	10.1
Netherlands[69]	610	82	13.4
Luxembourg[70]	648	140	21.6
Belgium	484	134	27.7
Sweden	429	138	32.2
Germany[70]	539	182	33.8
Austria[70]	556	192	34.5
France	531	244	46.0
EU 15	**535**	**291**	**54.4**
Spain	520	319	61.3
Finland	483	306	63.4
Portugal	444	334	75.2
Italy[70]	492	377	76.6
Ireland	**626**	**554**	**88.5**
Greece[71]	372	340	91.4
United Kingdom[70]	558	511	91.6
Slovak Republic	316	196	62.0
Malta	494	344	69.6
Slovenia[69]	467	424	90.8
Cyprus[69]	692	628	90.8
Hungary	407	383	94.1
Estonia	461	438	95.0
Poland	316	310	98.1
Lithuania[69]	283	283	100.0
Czech Republic[69]	273	:	:
Latvia	:	:	:

Source: Eurostat

[69] 2001 data
[70] 1999 data
[71] 1997 data

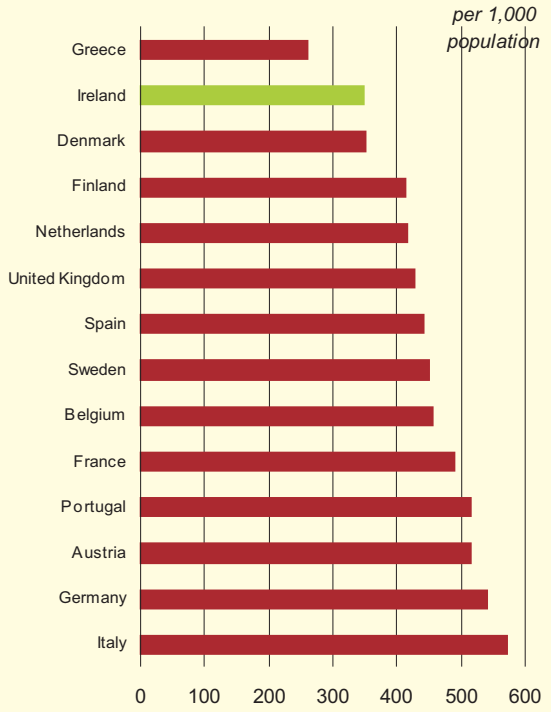
10.11 Ireland: Private cars under current licence, 1993-2002

000s

Year	Private cars under current licence	Private cars per 1,000 population
1993	891.0	249
1994	939.0	262
1995	990.4	275
1996	1,057.4	292
1997	1,134.4	310
1998	1,196.9	323
1999	1,269.2	339
2000	1,319.3	348
2001	1,384.7	360
2002	1,447.9	370

Source: Department of the Environment, Heritage and Local Government

10.12 EU: Passenger cars per 1,000 population[72], 2000

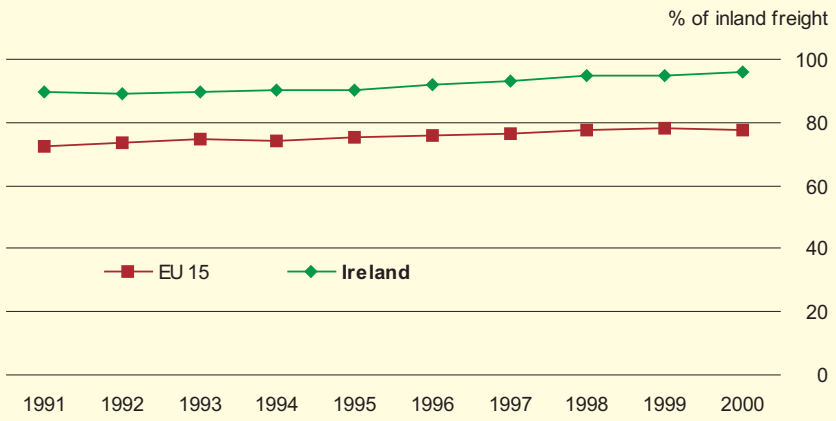


Source: Eurostat

◆ The number of private cars per 1,000 population in Ireland has risen from 249 in 1993 to 370 in 2002 (see Table 10.11). Despite the rapid rise in car ownership, Ireland had the second lowest passenger car ownership rate in the EU in 2000 (see Graph 10.12).

[72] 1998 data for Greece, no current data available for Luxembourg

10.13 Ireland and EU 15: Share of road in total inland freight transport[73], 1991-2000



Source: Eurostat , CSO

- Road transport accounted for 89.5 per cent of total inland freight transport in Ireland in 1991. This share has gradually increased during the 1990s to reach 96.2 per cent in 2000 (see Graph 10.13).
- Ireland had the second highest figure in the EU for the share of road in inland freight transport in 2000 and was considerably above the EU figure of 77.3 per cent (see Table 10.14).

10.14 EU: Share of road in total inland freight transport, 1999-2001

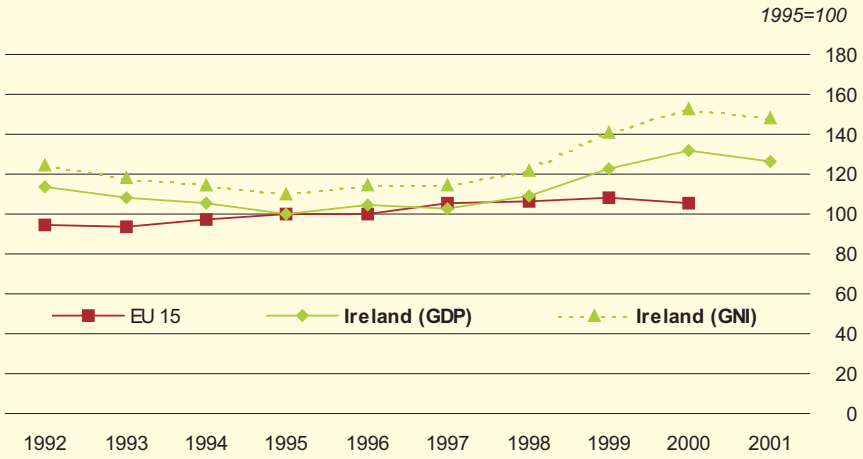
% of inland freight

Country	1999	2000	2001
Austria	59.3	58.1	:
Netherlands	61.9	60.2	59.7
Sweden	63.2	61.0	60.5
Germany	68.2	66.3	67.5
Belgium	72.2	67.8	:
Finland	73.0	73.1	73.0
France	76.8	75.6	77.7
EU 15	**78.2**	**77.3**	**:**
Luxembourg	86.0	87.6	:
Italy	89.0	88.9	:
Portugal	92.0	89.4	90.8
United Kingdom	92.0	91.9	:
Denmark	92.3	92.2	91.9
Spain	91.7	92.4	:
Ireland	**95.1**	**96.2**	**96.0**
Greece	98.0	97.7	:
Latvia	25.4	26.5	27.4
Estonia	35.3	32.7	35.3
Slovenia	37.2	39.2	41.3
Lithuania	49.6	46.5	51.7
Poland	55.7	56.9	60.3
Slovak Republic	61.6	62.9	62.9
Hungary	68.2	68.0	67.8
Czech Republic	67.7	68.1	69.7
Cyprus	100.0	100.0	100.0
Malta	100.0	100.0	100.0

Source: Eurostat

[73]Road, rail and inland waterways, measured in tonne-km

10.15 Ireland and EU 15: Index of inland freight transport volume, 1992-2001



Source: Eurostat , CSO

◆ The volume increase of tonne-kilometres required to transport freight, relative to the volume change in GDP, was 132.2 in Ireland compared to an average EU figure of 105.6 over the 1995-2000 period. This indicates that GDP growth in Ireland was accompanied by a much greater increase in freight activity on Irish roads (see Table 10.16).

10.16 EU: Index of inland freight transport volume[74], 1999-2001

1995=100

Country	1999	2000	2001
Belgium	81.3	70.3	:
Finland	90.1	88.0	85.0
Greece	104.3	90.3	:
Sweden	95.3	91.3	86.7
Denmark	93.2	93.6	85.9
Netherlands	103.6	96.9	95.3
Italy	100.4	101.9	:
Germany	106.4	103.9	104.5
EU 15	**108.1**	**105.6**	**:**
United Kingdom	116.4	111.1	:
France	117.7	115.3	112.0
Spain	110.7	117.8	:
Portugal	169.8	123.5	137.4
Austria	124.0	128.2	:
Luxembourg	118.0	128.8	:
Ireland (GDP)	**122.4**	**132.2**	**126.0**
Ireland (GNI)	**141.3**	**152.8**	**148.3**
Slovak Republic	61.2	67.8	62.1
Slovenia	80.2	81.3	81.2
Poland	85.1	82.8	78.9
Hungary	99.6	97.5	91.3
Czech Republic	96.0	97.6	95.3
Lithuania	103.9	104.1	92.8
Latvia	116.7	120.7	121.0
Estonia	176.2	175.6	183.8
Cyprus	:	:	:
Malta	:	:	:

Source: Eurostat

[74]Measured in tonne-km / GDP (in constant 1995 Euro), 1995=100

Appendices

Appendix 1 Definitions

1 Economy

Gross Domestic Product (1.1 to 1.3)

Gross Domestic Product (GDP) is the central aggregate of National Accounts. GDP at market prices is the final result of the production activity of resident producer units. GDP is compiled both in constant prices and in current prices. Constant price data indicate the development of volumes, while current price data reflect volume and price movements.

GDP expressed at market prices equals gross value added at factor cost plus national taxes on production less national subsidies on production.

GDP less net primary incomes from abroad less EU taxes plus EU subsidies is also equal to Gross National Income (GNI).

Gross National Income (GNI) is conceptually equal to Gross National Product (GNP) plus EU subsidies less EU taxes.

Purchasing Power Parities (PPPs) are a weighted average of relative price ratios in respect to a homogeneous basket of goods and services, both comparable and representative for each country. They show the ratio of the prices in national currency of the same good or service in different countries. The application of PPPs eliminates the effects of differences in price levels between countries thus allowing volume comparisons of GDP components and comparisons of price levels.

Purchasing Power Standards (PPS) are an artificial common reference currency used in the EU to eliminate differences in purchasing power, or price levels, between countries. They are fixed in a way that makes the average purchasing power of one euro in the European Union equal to one PPS. Hence one PPS buys the same average volume of goods and services in all countries. Economic volume aggregates in PPS are obtained by dividing their original value in national currency units by the respective PPPs.

The population of a country consists of all persons, national or foreign, who are permanently settled in the economic territory of the country on a particular date, even if they are temporarily absent from it (see also Population domain definitions). GDP per capita is calculated by dividing GDP by the population.

GDP per capita in PPS allows the comparison of levels of economic activity of different sized economies (per capita) irrespective of their price levels (in PPS). It is less suited for comparisons over time.

Government debt (1.4 and 1.5)

General government consolidated gross debt at nominal value is the standardised measure of indebtedness of EU governments. The general government sector comprises the sub-sectors of central government, local government, and social security funds. The debt of commercial State companies is excluded. It takes account of all liabilities included in the traditional national definition of National Debt, without any offsetting of liquid assets, together with the liabilities of non-commercial State agencies and local authorities.

Debt is valued at nominal (face) value, and foreign currency debt is converted into national currency using end-year market exchange rates.

GDP at current market prices is used as a denominator for calculating the General Government Consolidated Debt as a percentage of GDP ratio.

GNI at current market prices, is used as a denominator for calculating the General Government Consolidated Debt as a percentage of GNI ratio.

Public balance (1.6 to 1.8)

Public balance (or General Government balance) measures the difference between incomes and outlays of the General Government. It refers to the concept of general government net borrowing (negative balance) or net lending (positive balance) in the European System of Accounts.

Central and Local Government current expenditure is composed of subsidies, national debt interest, transfer payments, and expenditure on goods and services. It is one of the elements of the public balance.

Gross fixed capital formation (1.9 and 1.10)

Gross fixed capital formation (GFCF) is an indicator of investment in assets such as building and construction, and machinery and equipment. Such investment is generally regarded as leading to higher productivity and an improved living infrastructure. GFCF is a component of GDP.

GDP valued at current market prices is used as a denominator.

International transactions (1.11 and 1.12)

The Balance of Payments accounts consist of three tables or accounts: the Current account; the Capital account; and the Financial account.

The current account consists of trade in merchandise and services, income inflows and outflows, and current transfers. In the current account, credit items are exports of merchandise and services, income inflows, and current transfer receivables. Debit items are imports, income outflows, and transfer payables.

The current account balance is the total of all current account credits less the total of all current account debits.

Direct investment flows is a category of international investment that reflects a lasting interest by a resident in one economy in an enterprise resident in another economy. The extent of equity ownership should be at least 10 per cent. Flows reflect the transactions that occurred during a particular year rather than the cumulative stock or aggregate position.

Direct investment inward covers the investment by foreign companies in Ireland. From the point of view of the country being invested in, this can be regarded as a liability. A negative figure indicates that disinvestments exceeded any investments during the period. Hence a minus figure indicates a reduction in liabilities of the country being invested in.

Direct investment outward covers the investment abroad by parent companies resident in Ireland. From the point of view of the country making the investment, this can be regarded as an asset. A negative figure indicates that investments abroad exceeded any disinvestments, or disposals, during the period. Hence a minus figure indicates an increase in assets for the country making the investment.

GDP valued at current market prices is used as a denominator.

International trade (1.13 and 1.14)

Goods and services incorporates both merchandise exports and imports and services exports and imports.

Merchandise trade refers to Ireland's external trade in goods with other countries. The data sources for these estimates are a combination of Customs-based non-EU trade statistics and the Revenue Commissioners Intrastat survey of Irish traders engaged in trade with other EU Member States.

Services exports and imports include transport, tourism and travel, communications, insurance and financial services, computer services, royalties and licences, and some business and other services.

The valuation of goods and services is based on Balance of Payments principles. In the official external trade statistics, exports and imports are valued cost, insurance and freight. In Balance of Payments, they are valued free on board.

Exchange rates (1.15 and 1.16)

Trade weighted competitiveness indicators[75] (TWCIs) measure how changes in the value of the Irish currency and changes in the prices of imports and exports combine to improve or worsen the competitiveness of Irish exports and imports. An increase in the index signifies an erosion of Ireland's trade competitiveness.

TWCIs are essentially measures of change in nominal and real exchange rates. These changes are examined through changes in exchange rates, and changes in domestic prices and costs relative to those in our trading partners. The weighting system, on which an exchange rate index is based, is a double weighting scheme that seeks to assign an export weight to the currency of each trading partner according to that trading partner's share of both its own market and the markets of all other trading partners. This is because exporters compete in foreign markets not only with domestic producers of import substitutes but also with exporters from other countries. Overall trade weights combine the double export weight with a bilateral import weight in proportion to the relative size of Irish exports and imports.

The European Central Bank (ECB) calculates the effective exchange rates for the euro based on a narrow group of 12 trading partners and a broad group of 38 countries. The Irish Central Bank added the 11 euro countries to the narrow group of 12 countries used by the ECB, and calculated weights for each of these 23 countries. Using late 1990s trade data for weighting, ten countries accounted for 83 per cent of total Irish manufacturing trade (UK, USA, Germany, France, Japan, Netherlands, Italy, Belgium, Singapore and Spain). For practical reasons, such as improved timeliness, the TWCIs for Ireland were calculated using these ten countries.

Gains and losses in trade competitiveness depend on the balance between changes in our consumer and producer prices relative to our competitors, and to changes in the value of the euro relative to the dollar, sterling and the yen.

[75] See article by John Kelly and Brian Golden in the Winter 2001 Central Bank quarterly bulletin "Trade Weighted Competitiveness Indicators for Ireland"

Bilateral exchange rates shown are annual period averages, shown in units per euro. The reference rates are based on the European Central Bank's regular daily concertation procedure between central banks within and outside the European System of Central Banks.

Interest rates (1.17 and 1.18)

Convergence of interest rates is defined as the coefficient of variation of national retail interest rates across the eurozone 12 members and the EU Member States. The indicator measures the trend towards integration of financial markets. A decline in the variation coefficient of interest rates over time shows an increasing degree of financial market integration.

The retail interest rates used are not harmonised across EU countries. In general, these national interest rates are considered to be the main indicators of retail financial conditions in the Member State concerned, as normally monitored by users. The national interest rates used for the calculation of the indicator are based on the principle of being nationally representative. This lack of comparability may reduce the reliability of inter-country comparisons.

The annual national rates are calculated as the simple average of the basic (monthly or quarterly depending on country/type of rate) national series. The variation coefficient is not weighted by the relative importance of a country's lending business.

Short-term loans are loans of up to one year.

Harmonised Index of Consumer Prices (1.19 and 1.20)

The EU Harmonised Index of Consumer Prices (HICP) is calculated in each Member State. HICPs are designed to allow the comparisons of consumer price trends in the different EU countries. The index measures the change in the average level of prices (inclusive of all indirect taxes) paid for consumer goods and services by all private households in a country and by all foreign visitors to that country.

HICPs were designed specifically for EMU convergence. They are calculated according to a harmonised approach and a regulated set of definitions. They were not intended to replace existing national Consumer Price Indices, which are calculated based on national definitions.

Price levels (1.21 and 1.22)

Comparative price levels are the ratio between PPPs and the market exchange rate for each country. The ratio is shown in relation to the EU average (EU 15=100). If the index of the comparative price levels shown for a country is higher (lower) than 100, the country concerned is relatively expensive (cheap) as compared with the EU average.

See indicator 2.7 for definition of Private households.

2 Innovation and technology

Science and technology graduates (2.1 and 2.2)

Science and technology comprises Life sciences; Physical sciences; Mathematics and statistics; Computing; Engineering and engineering trades; Manufacturing and processing; and Architecture and building. For data prior to 1998, the corresponding fields are: Natural sciences; Mathematics and computer science; Engineering; Architecture and town planning; and Trade, craft and industrial programmes.

These indicators include tertiary graduates from public and private institutions. Tertiary education refers to International Standard Classification of Education (ISCED) levels 5 (graduates) and 6 (PhDs) for new ISCED.

ISCED 5 is the first stage of tertiary education (not leading directly to an advanced research qualification). This level consists of tertiary programmes having an educational content more advanced than those offered at levels 3 (upper secondary education) and 4 (post-secondary non-tertiary education). These programmes must have a cumulative duration of at least two years.

ISCED 6 is the second stage of tertiary education. This level is reserved for tertiary programmes that lead to the award of an advanced research qualification. The programmes are therefore devoted to advanced study and original research and not based on course-work only. They typically require the submission of a thesis or dissertation of publishable quality that is the product of original research and that represents a significant contribution to knowledge. They prepare graduates for faculty posts in institutions offering ISCED 5A programmes, as well as research posts in areas such as government and industry.

Data on science and technology graduates are collected through the joint UNESCO-OECD-EUROSTAT data collection questionnaires on graduates.

Research and development expenditure (2.3 and 2.4)

Research and experimental development (R&D) comprises creative work undertaken on a systematic basis in order to increase the stock of knowledge, including knowledge of man, culture and society and the use of this stock of knowledge to devise new applications.

Gross domestic expenditure on R&D is composed of: Business enterprise expenditure in R&D; Higher Education expenditure in R&D; Government expenditure in R&D; and Private Non-profit expenditure in R&D.

R&D basic data are provided to Eurostat directly by the Member States of the European Union.

Patent applications (2.5 and 2.6)

Patents covered refer to applications filed directly under the European Patent Convention or to applications filed under the Patent Co-operation Treaty and designating the European Patent Office (EPO). Patent applications are counted according to the year in which they were filed at the EPO. The regional distribution of patent applications is assigned according to the inventor's place of residence. If one application has more than one inventor, the application is divided equally among all of them and subsequently among their regions, thus avoiding double counting.

Data are expressed per million of the population.

Household internet access (2.7 and 2.8)

Household internet access data were collected in an Information and Communications Technology survey that was asked of a sub-sample of the main CSO Quarterly National Household Survey sample (QNHS).

One member of each household in the survey was asked the following question:

'Does any member of this household have access to the internet at home?'

Persons answered *Yes* to this question if they accessed the internet at home via a PC, TV set, mobile phone, games console and other devices.

A private household is defined as a person or group of persons with common housekeeping arrangements, separately occupying all or part of a private house, flat, apartment or other private habitation of any kind. The persons who make up a private household jointly occupy living accommodation, share main meals in general, and have common provision for basic living needs.

Each of the following is regarded as one private household:

- All persons living in the same private dwelling and having their meals together;
- A person living alone or with domestic employees;
- A lodger living in a room or rooms in a house or flat, and not sharing in any housekeeping arrangements with the other residents;
- A resident caretaker of a house, office etc. whether living alone or with family/others; and
- Persons living in the same private dwelling and sharing much of the expenses - such as rent, food, electricity, gas etc.

3 Employment and unemployment

The International Labour Office (ILO) classification distinguishes the following main subgroups of the population aged 15 or over:

Persons in employment are all persons:

- who worked in the week before the survey for one hour or more for payment or profit, including work on the family farm or business; and
- all persons who had a job but were not at work because of illness, holidays etc. in the week.

Persons classified as unemployed are persons who, in the week before the survey:

- were without work;
- were available for work within the next two weeks; and
- had taken specific steps, in the preceding four weeks, to find work.

The labour force comprises persons in employment plus persons unemployed.

The inactive population is all other persons. They are not part of the labour force.

Employment rate (3.1 and 3.2)

The employment rate is calculated by dividing the number of employed persons aged 15-64 by the number of persons in the population aged 15-64. The Labour Force Survey (or the QNHS for Ireland) covers persons aged 15 years and over, living in private households.

Persons living in collective households (halls of residence, medical care establishments, religious institutions, collective workers' accommodation, hostels, etc.) and persons carrying out obligatory military service are not included.

Labour productivity (3.3 and 3.4)

GDP in PPS per person employed is intended to give an overall impression of the productivity of national economies. This measure depends on the structure of total employment and therefore could be lowered by a shift from full-time to part-time work.

GDP in PPS per hour worked is intended to give a clearer picture of productivity. Total hours worked represents the aggregate number of hours actually worked as an employee or self-employed during the accounting period. Total hours worked is the preferred measure of labour inputs for the system of national accounts. It is more difficult to measure than total employment.

Unemployment rate (3.5 to 3.8)

The unemployment rate is the number of people unemployed as a percentage of the labour force.

The long-term unemployment rate is calculated as the number of persons unemployed for one year or more expressed as a percentage of the total labour force.

Jobless households (3.9 and 3.10)

The proportion of the population aged 18-59 living in jobless households is calculated by dividing the number of persons aged 18-59 living in households where no one is working by the total population aged 18-59. Both the numerator and the denominator excludes persons living in households where everyone is aged 18-24 and either in education or inactive.

The definitions apply to persons living in private households. The unemployment figures prior to 2001 are not strictly comparable with 2001 and later years. Before 1998, education was related only to education and vocational training which was relevant for the current or possible future job of the respondent.

Older workers (3.11 and 3.12)

Effective average exit age from the labour force gives the average age of withdrawal from labour market. It is based on a probability model considering the relative changes of activity rates from one year to another at a specific age. The starting points are the activity rates per age and year coming from the EU quarterly Labour Force Survey.

The activity rate (also known as the participation rate) represents the labour force as a percentage of the total population for a given age. Both the numerators and the denominators come from the LFS. The definitions apply to persons living in private households.

The small sample sizes in higher ages in some countries makes it necessary to artificially smooth the decline of activity rates linearly from age 65 to age 70 so that in the age 71 the active population in terms of the model is zero. In such cases, the moving average activity rates over the ages 64 to 66 is used instead of the actual activity rate for age 65.

The starting year for this indicator is 2001 when most EU countries carried out quarterly LFS surveys. The activity rates taken into consideration were the average over four quarterly observed rates in the year considered. Quarter 1 or 2 data were used in cases where LFS data for all quarters were not available.

The EU 15 average exit age is computed on the basis of the EU activity rates (EU labour force as a percentage of the EU population of a given age).

4 Social cohesion

Voter turnout (4.1 and 4.2)

Persons entitled to vote refers to the total number of persons in a given country who are registered to vote.

Voting is compulsory in the following European Union countries: Austria (Tyrol region); Belgium; Greece; Italy; Luxembourg; and the Netherlands. However the degree of enforcement varies widely across these countries.

Official development assistance (4.3 and 4.4)

Official development assistance, or foreign aid, consists of loans, grants, technical assistance and other forms of co-operation extended by governments to developing countries. A significant proportion of official development assistance is aimed at promoting sustainable development in poorer countries, particularly through natural resource conservation, environmental protection and population programmes.

The United Nations Millennium Development goals set a target for net ODA as 0.7 per cent of donor countries Gross National Income to be reached by 2007. The Irish Government has committed itself to achieving this target.

Risk of poverty (4.5 to 4.9)

The at risk of poverty rate indicator is defined as the share of persons with an equivalised disposable income below the risk of poverty threshold, which is set at 60 per cent of the national median equivalised disposable income (after social transfers). This share is calculated for: the original income before pensions and social transfers; the original income including pensions; and the original income after pensions and social transfers (total income). This indicator focuses on the relative risk of poverty in relation to the rest of the population in a country rather than the absolute risk of poverty. Hence a person classified as in poverty in one country would not necessarily be classified as in poverty in another country if they were at the same absolute income level.

The equivalised disposable income for each person is calculated as the household total net income divided by the equivalised household size according to the modified OECD scale (which gives a weight of 1.0 to the first adult, 0.5 to other persons aged 14 or over who are living in the household and 0.3 to each child aged less than 14). The population consists of all the persons living in private households in a country. The term person therefore includes all the members of the households, whether they are adults or children. Persons with missing equivalised total net income are excluded from the calculations (i.e. people with missing household income or households with missing composition details).

The consistent poverty indicator is defined as the proportion of households whose disposable income is below 60 per cent of the average disposable income, and which also experience an enforced lack of certain basic necessities. These necessities are heating, one substantial meal each day, chicken, meat or fish every second day, a ‘roast’ or equivalent once a week, a warm coat, new rather than second-hand clothes, and being able to pay everyday household expenses without falling into debt.

The at persistent risk of poverty rate indicator is defined as the share of persons with an equivalised disposable income below the risk-of-poverty threshold in the current year and in at least two of the preceding three years. The threshold is set at 60 per cent of the national median equivalised disposable income.

The at-risk-of-poverty rate anchored at a moment in time indicator compares the poverty risk in two different years for an income threshold that is kept fixed in real terms over the period under examination, for example, 1996-1999. In this case, the comparison is done using the 1996 income threshold, after updating it for inflation.

For all poverty indicators, the total net income of each household is calculated by adding together the income received by all the members of the household from all sources. The EU 15 estimates are calculated as the population weighted average of the individual national figures.

The preceding year's income is used as the data year for all EU tables. Hence data in the EU tables for 1999 refer to income in 1998. However in the national table for consistent poverty, current year income is used rather than preceding year income.

Gender pay gap (4.10)

The gender pay gap is given as average gross hourly earnings of female paid employees as a percentage of average gross hourly earnings of male paid employees. The population consists of all paid employees aged 16-64 who work 15 or more hours per week. The EU 15 value is a weighted average of national values estimated without missing countries.

The data come from the European Community Household Panel (ECHP) which contains longitudinal micro-data on households and persons. Data for France, Netherlands and Sweden were provided by the National Statistical Offices - they are based on Labour Force Survey (F) and Earnings Statistics (NL and S) respectively. For the Netherlands, data is based on annual earnings, not hourly earnings. For Sweden, data is based on full-time equivalent monthly salaries.

The European Community Household Panel (ECHP) is a survey based on a standardised questionnaire that involves annual interviewing of a representative panel of households and individuals, covering a wide range of topics: income (including the various social benefits), health, education, housing, demographics and employment characteristics.

In Ireland, a new data source is under development that will provide more detailed information on gender pay differences. The CSO National Employment Survey (NES) was introduced in 2003. The survey will produce figures on hourly earnings by gender. The survey collects data directly from employers and from employees. Public sector organisations (and employees) are included in the survey on the same basis as private sector employers (and employees). All sectors are covered with the exception of Agriculture, Forestry and Fishing.

5 Education

Education expenditure (5.1 to 5.3)

Non-capital public expenditure on education includes direct public expenditure on educational institutions, public subsidies to other private entities for education matters and public subsidies to households such as scholarships and loans to students for tuition fees and student living costs.

The expenditure has been deflated to real prices by using the National Accounts series for net expenditure by central and local government on current goods and services at base year 1995. For comparison purposes, the all items CPI index rescaled to base 1995 is also shown in the table below:

1995=100

Year	Government current expenditure	All items CPI index
1993	95.3	95.3
1994	97.2	97.5
1995	100.0	100.0
1996	102.0	101.7
1997	107.9	103.2
1998	112.1	105.6
1999	117.4	107.4
2000	124.5	113.4
2001	133.2	118.9
2002	139.4	124.4

Full-time equivalents for part-time third level students have been calculated using a conversion factor of 0.573. This conversion factor was calculated by staff in the Department of Education and Science. It is based on the following more detailed coefficients: 0.5 for part-time Certificate and Diploma students; 0.67 for part-time Degree and Masters students; and 1.0 for part-time PhD students.

Public expenditure on education as used for the international comparison includes both current and capital expenditure.

In the mid-1990s, undergraduate tuition fees were abolished in Ireland. In 1995/96, third level students paid half-fees and from 1996/97 undergraduate fees were abolished.

Educational institutions are defined as entities that provide instructional services to individuals or education-related services to individuals and other educational institutions.

International data are collected through the joint UNESCO-OECD-EUROSTAT data collection questionnaires on educational finance. Countries provide data coming usually from administrative sources on the basis of commonly agreed definitions.

Data on total public expenditure on education are expressed as a percentage of GDP. National public expenditure as a percentage of the GDP is calculated using figures in national currency both for public expenditure and for GDP. The EU 15 figures are calculated after expressing the national figures in PPS.

Pupil-Teacher ratio (5.4 and 5.5)

Pupil-teacher ratio is calculated by dividing the number of full-time equivalent pupils at a given level of education by the number of full-time equivalent teachers teaching at that level. Data are collected through the joint UNESCO-OECD-EUROSTAT data collection questionnaires on educational personnel.

Average class size is calculated by dividing the number of pupils at a given level of education by the number of classes at that level. Data refer only to regular pupils/ classes so special needs programmes are excluded. Data are collected through the joint UNESCO-OECD-EUROSTAT data collection questionnaires on class size.

Third level education (5.6 and 5.7)

See Science and Technology Graduates indicator definitions in domain 2 for definitions of ISCED 4 and ISCED 5.

Literacy (5.8 and 5.9)

The OECD Programme for International Student Assessment (PISA) assesses young people's capacity to use their knowledge and skills in order to meet real-life challenges, rather than merely examining how well the students had mastered their school curriculum. PISA assesses literacy in reading, mathematics and science. The PISA survey was first conducted in 2000. It involved 265,000 students from 32 countries. It will be repeated every 3 years.

Students aged between 15 years and 3 months and 16 years and 2 months at the beginning of the assessment period and who were enrolled in an educational institution were eligible to be included in the study. No distinction was made on the basis of whether they were attending full-time or part-time.

The PISA scale for each literacy area was devised so that across OECD countries, the average score is 500 points, and around two-thirds of students achieve between 400 and 600 points.

The OECD average is the mean of the data values for all OECD countries for which data are available or can be estimated. The OECD average can be used to see how one country compares on a given indicator with another country. Each country contributes equally to the OECD average. Hence it does not take into account the absolute size of the student population in each country.

The OECD total takes the OECD countries as a single entity, to which each country contributes in proportion to the number of 15 year-olds enrolled in its schools. It illustrates how a country compares with the OECD area as a whole.

Three OECD countries were excluded from the calculations of averages or other aggregate estimates. The Netherlands because of low response rates and the Slovak Republic and Turkey because they were not OECD members in time to be included in the survey.

Early school leavers (5.10 to 5.12)

Early school leavers are persons aged 18 to 24 in the following two conditions: the highest level of education or training attained is ISCED 0, 1 or 2 and respondents declared not having received any education or training in the four weeks preceding the survey (numerator).

ISCED 2 equates with lower secondary education or the second stage of basic education. The contents of education at this stage are typically designed to complete the provision of basic education that began at ISCED level 1. In many, if not most countries, the educational aim is to lay the foundation for lifelong learning and human development. The programmes at this level are usually on a more subject-oriented pattern using more specialised teachers and more often several teachers conducting classes in their field of specialisation than those at primary level. The full implementation of basic skills occurs at this level. The end of this level often coincides with the end of compulsory schooling where it exists.

The denominator is the total population of the same age group, excluding non-response answers to the questions 'highest level of education or training attained' and 'participation to education and training'. Both the numerators and the denominators come from the Labour Force Survey (LFS). A reference period of four weeks has been chosen for the questions on participation in order to avoid distortion of information due to recall problems. The reference

period is the last four weeks preceding the survey. The information collected relates to all education or training received whether or not relevant to the respondent's current or possible future job. It includes initial education, further education, continuing or further training, training within the company, apprenticeship, on-the-job training, seminars, distance learning, evening classes, self-learning etc. It includes also courses followed for general interest and may cover all forms of education and training such as language, data processing, management, art/culture, and health/medicine courses. Before 1998, education was related only to education and vocational training which was relevant for the current or possible future job of the respondent.

ISCED 3 equates with upper secondary education. This level of education typically begins at the end of full-time compulsory education for those countries that have a system of compulsory education. More specialisation may be observed at this level than at ISCED level 2 and often teachers need to be more qualified or specialised than for ISCED level 2. The entrance age to this level is typically 15 to 16 years. The educational programmes included at this level typically require the completion of some 9 years of full-time education (since the beginning of level 1) for admission or a combination of education and vocational or technical experience.

6 Health

Health care expenditure (6.1 and 6.2)

Public non-capital expenditure on health care in Ireland includes expenditure on items such as services and administration in hospitals, community health and welfare expenditure, and services for the disabled.

The expenditure has been deflated to real prices by using the National Accounts series for net expenditure by central and local government on current goods and services at base year 1995 (see series under Indicator 5.1 definitions).

Total expenditure on health as used for the international comparison includes both public and private capital and non-capital expenditure on health.

GDP valued at current market prices is used as a denominator.

The EU 15 figures are calculated after expressing the national figures in PPS.

Life expectancy (6.3 and 6.4)

Life expectancy at birth or at age 65 is the average number of years that a person at that age can be expected to live, assuming that age-specific mortality levels remain constant.

7 Population

Population distribution (7.1 to 7.3)

The total population of the country may comprise either all of the usual residents of the country (de jure) or all persons present in the country on a particular date (de facto). Published census figures for Ireland are on a de facto basis.

Ten EU Member States maintain a central and/or a municipal population register. The purpose of these registers is to maintain a full and up-to-date record of persons living in a country. These registers may be used for the purposes of determining the population of a country (de jure). Five Member States do not maintain such registers: France; Greece; Ireland; Portugal; and the United Kingdom.

Ireland conducted a census of population in 2002. The results from this census typically give rise to revisions to inter-censal years. Revised population, migration and natural increase estimates for 1997-2001 for Ireland have been used in Tables 1.1, 2.1, 5.6, 6.1, 7.1, 7.4, 7.5, 7.8, 7.9, 9.3 and 10.11. The revised population estimates will also result in revisions being made to a number of other tables particularly those sourced from the QNHS. These revisions will not be completed until 2004 and hence they have not been used in this report.

Migration (7.4 to 7.6)

Emigration refers to persons resident in Ireland leaving to live abroad for over one year.

Immigration refers to persons coming to Ireland from another country for the purposes of taking up residence for over one year.

Net migration is the net effect of emigration and immigration on a country's population in a given time period.

The natural increase is calculated by subtracting deaths from births within a population in a given time period. The figures for births include babies born in Ireland to non-residents and immigrants.

Country of origin refers to a person's previous country of residence.

Age of population (7.7 to 7.9)

The average age of a population is calculated by: adding together the age in whole years of all persons in the population; dividing by the number of persons; and adding ½ to the result.

The ½ year is added as an approximation for the actual months and days that have passed since a person's last birthday.

Fertility (7.10 and 7.11)

The crude birth rate is the number of births actually occurring in a country in a given time period, divided by the population of the area as estimated at the middle of the particular time period. The rate is usually expressed per 1,000 of population.

Total fertility rate refers to the average number of children that would be born alive to a woman during her life if she were to pass through her childbearing years conforming to the age-specific fertility rates for a given year. The rate is calculated by the summation of the age-specific fertility rates. A rate of 2.1 is considered to be replacement level for the population of developed countries.

Lone parent families (7.12 and 7.13)

A family unit consists of either:

1. A married couple, or
2. A married couple and one or more of their never-married children, or

3. One parent and one or more of his or her never-married children, or
4. A couple living together (with never-married children, if any) who are not married to each other, where it is clear that the couple form a “de facto” family unit.

Households may contain more than one family unit or may contain a family together with other persons not in a family unit.

The number of lone parent family units may be understated as there are problems identifying lone parent families particularly where the lone parent lives with his/her parents. The information recorded in the Labour Force Survey, on the relationship of each person in the household to the reference person of the household, does not clearly identify multiple parent/child relationships. In such cases, the lone parent family may not be identified as a distinct family unit. This is a general problem that arises in multiple family households and the difficulties affect the identification of other family units also.

Adult members of family units refer to persons who are either members of couples or lone parents. Hence persons under 18 may be included, and never married persons aged over 18, who are living with either one or both parents, may be excluded.

Persons aged 65 and over living alone (7.14)

See the household internet access indicator in domain 2 for a definition of private households.

8 Housing

Dwelling completions (8.1)

Dwelling unit completions comprise units built for private sale, for local Authority (LA) use, and voluntary housing completions. The LA figures exclude acquisitions of private units for social housing use. Social housing use comprises LA and voluntary housing.

Local Authority housing has traditionally been the main option for those who could not afford decent housing from their own means. Local Authorities charge rents based on the income of the household. Persons who have been a tenant of a local authority house, for at least one year, may apply to the local authority to purchase it at a discounted price.

Voluntary housing bodies play an important role in Ireland in providing rental housing throughout the country for people who could not otherwise afford to provide suitable accommodation from their own resources. The voluntary housing bodies are responsible for tenancy allocations in consultation with the local authorities. They are non-profit organisations. Voluntary bodies must be approved by the Department of the Environment, Heritage and Local Government in order to qualify for financial and other aid for the provision of housing.

Owner-occupiers (8.2 and 8.3)

Owner-occupiers refer to persons who either own outright or are purchasing the property that they are a household member of. Typically the owner should possess a title deed to the property. Persons purchasing Local Authority or Voluntary housing are included.

Nature of occupancy data are collected in each Census of Population conducted at the start of a decade.

Owner-occupied includes accommodation being purchased from a Local Authority or under a Tenant Purchase Scheme as well as owner-occupied premises with and without outstanding mortgages.

Other occupancy refers to rent-free accommodation that is not owned by the occupier.

Cases where this question was not answered (or not stated) in the census are excluded from the calculations.

Mortgages (8.4 and 8.5)

Mortgage interest rates are calculated from Building Society information in Ireland and from bank information in the EU table. Rates from Permanent tsb and First Active plc. are included in the Building Society information. Annuity and endowment mortgages are included.

Mortgages are loans made against the security of a property.

9 Crime

Headline offences (9.1 to 9.3)

Headline/Indictable offences are crimes such as murder, fraud, burglary and sexual offences. Non-indictable offences, such as failing to wear a seat belt or begging, can be tried in lower Courts. Crime figures up to 1999 used an old classification system that divided crimes into categories of indictable/non-indictable. With the introduction of the PULSE information system in the Garda Síochána, a new classification of crimes as headline/non-headline was adopted. Figures for 2000 and subsequent years refer to the new classification of headline crimes. While this category reflects to a large extent what in the past was defined as indictable crime, the terms are not identical and therefore direct comparisons cannot be made between years prior to 2000 and subsequent years.

Garda Divisions are composed of the following counties:

Region	County composition
Eastern	Carlow; Kildare; Laois; Longford; Louth; Meath; Offaly; and Westmeath
Dublin Metropolitan	Dublin
South-Eastern	Kilkenny; Tipperary; Waterford; Wexford; and Wicklow
Southern	Cork; Kerry; and Limerick
Western	Clare; Galway; Mayo; and Roscommon
Northern	Cavan; Donegal; Leitrim; Monaghan; and Sligo

Homicide rate (9.4 and 9.5)

Homicide refers to intentional and non-intentional killing, including infanticide. The distinction between intentional and unintentional homicide differs from country to country, as does the definition of attempted murder.

Intentional homicide refers to death deliberately inflicted on a person by another person, including infanticide.

Non-intentional homicide refers to death not deliberately inflicted on a person by another person. This includes the crime of manslaughter, but excludes traffic accidents that result in the death of persons.

10 Environment

Greenhouse gases (10.1 and 10.2)

This indicator shows trends in anthropogenic emissions of the greenhouse gases: carbon dioxide (CO_2), nitrous oxide (N_2O), methane (CH_4) and three halocarbons, hydrofluorocarbons (HFCs), perfluorocarbons (PFCs) and sulphur hexafluoride (SF_6), weighted by their global warming potentials. The figures are given in CO_2 equivalents.

Under the Kyoto Protocol industrialised countries have a legally binding commitment to reduce their collective greenhouse gases emissions by at least 5 per cent compared to 1990 levels by the period 2008-2012. For EU countries, Member States agreed that some countries be allowed to increase their emissions, within limits, provided these are off-set by reductions in others and the EU Kyoto target of a reduction of 8 per cent compared to 1990 is achieved by 2008/2012. Each country's emissions target must be achieved by that period. It will be calculated as an average over the five years.

Data are expressed as an index reference year (1990 or base year)=100, original data refers to Gigagramme (Gg) = thousands tonnes of CO_2 equivalent.

Global warming potentials can be used to convert the emissions of individual gases into CO_2 equivalents. The global warming potential of each gas takes account of the fact that different gases remain in the atmosphere for differing lengths of time. The conversion factors for the three main greenhouse gases are:

CO_2 equivalents per tonne of gas emitted

Emitted gas	Global warming potential over 100 years
Carbon dioxide (CO_2)	1
Methane (CH_4)	21
Nitrous oxide (N_2O)	310

Energy intensity of economy (10.3 and 10.4)

The energy intensity ratio is the result of dividing the Gross Inland Consumption by the GDP. Since Gross Inland Consumption is measured in kgoe (kilogram of oil equivalent) and GDP in 1,000 euro, this ratio is measured in kgoe per 1,000 euro. It measures the energy consumption of an economy and its overall energy efficiency.

The Gross Inland Consumption of Energy is calculated as the sum of the Gross Inland Consumption of the five types of energy: coal, electricity, oil, natural gas and renewable energy sources. The GDP figures are taken at constant prices to avoid the impact of inflation using a base year of 1995.

Data are compiled through five annual Joint Questionnaires (one for each type of energy). The methodology is harmonised for all EU and OECD countries.

EU-15 figures are calculated simply by the addition of national data.

River water quality (10.5)

River water is the principal source of drinking water in Ireland. The Environmental Protection Agency (EPA) conducts an assessment of river water quality every three years. Samples are taken from over 3,000 locations around Ireland.

The biological quality of river water is assessed at around 3,000 locations in Ireland by the EPA on behalf of local authorities. These biological surveys began in 1971 and are currently undertaken every three years. River water quality is classified into four quality classes based on a scheme of biotic indices, which codify the characteristic changes induced in flora and fauna of rivers and streams in the presence of pollution. Unpolluted waters include pristine waters and also waters of a less high but acceptable standard. Slightly polluted and moderately polluted waters are mainly characterised by eutrophication and may not be able to support fish survival. Seriously polluted waters are characterised by the presence of high concentrations of biodegradable organic waste. These waters are of very little beneficial use.

Urban air quality (10.6)

Urban air quality comprises two sub-elements based on concentration levels of ozone and fine particulates in ambient air in urban areas. Ozone is a strong photochemical oxidant, which causes serious health problems and damage to ecosystem, agricultural crops and materials. Human exposure to elevated ozone concentrations can give rise to inflammatory responses and decreases in lung function.

The indicator target and limit values, as set in EC legislation, are as follows:

- The target value for Ozone for the protection of human health is 120 μg /m^3 (max. daily 8h-mean), not to be exceeded on more than 25 days per calendar year averaged over three years, from 2010; and
- The limit value for PM_{10} is 50 μg /m^3 (24 h average) not to be exceeded on more than 35 days per calendar year, from 2005.

The year to year variability of exceedances is large, particularly for ozone. The occurrence of high ozone peaks is strongly dependent on weather conditions. Comparisons between countries are only justified if coverage with stations is either sufficiently large, or if there is a really representative number of monitoring stations reporting regularly. These conditions are rarely satisfied.

The PM_{10} indicator shows percentages of urban population potentially exposed to concentration levels exceeding the limit value for the protection of human health in a calendar year. The limit value for PM_{10} is 50 μg /m^3 (24h average) not to be exceeded on 35 or more days per calendar year, from 2005. For each urban station the number of days with a daily averaged concentration in excess of the limit value is calculated from the available hourly or daily values. The selected urban stations include station types “urban” and “street”. Only time series with a data capture of at least 75 per cent are used. The number of exceedance days per city is obtained by averaging the results of all urban stations. The stations classified as “street” are influenced by local (traffic) emissions and might not be representative for the concentrations in more residential areas. Both station types have been included in the analysis to maximise the coverage; this may imply, however, that urban air quality concentrations are overestimated. Urban population data is obtained from the GISCO database.

Legislation in Ireland forbids the sale of bituminous coal in the following urban areas: Dublin (since 1990); Cork (since 1995); Arklow, Drogheda, Dundalk, Limerick and Wexford (all since 1998); Celbridge, Galway, Leixlip, Naas and Waterford (all since 2000); and Bray, Kilkenny, Sligo and Tralee (all since 2003).

Acid rain precursors (10.7 and 10.8)

Acid rain occurs when acidic gases and particles are transported in the air before falling as wet or dry deposition. High concentrations can be harmful to health, to water and soil quality, to buildings, and can reduce plant growth.

Burning of coal with a high sulphur content is a significant source of sulphur dioxide (SO_2).

Oxides of nitrogen (NO_x) arise when fossil fuels are burnt under certain conditions. There are three major forms of fossil fuels: coal, oil and natural gas.

Ammonia (NH_3) emissions arise primarily from animal manure and nitrogen based fertilisers.

Acid rain precursor emissions are expressed in sulphur dioxide equivalents using the following conversion factors:

SO_2 equivalents per tonne of gas emitted

Emitted gas	Acid rain precursors
Sulphur dioxide (SO_2)	1.0000
Oxides of nitrogen (NO_x)	0.6957
Ammonia (NH_3)	1.8824

Waste management (10.9 and 10.10)

Municipal waste refers to the waste collected by local municipal authorities. This is a part of the overall amount of waste generated. This indicator presents the amount of waste collected by or on behalf of municipal authorities. The bulk of this waste stream is from households though 'similar' wastes from sources such as commerce, offices and public institutions are also included.

Municipal waste includes among other things the following types of materials: paper, paperboard and paper products, plastics, glass, metals, food and garden waste and textiles. Present statistical data collection provides, when available, separate figures for household waste and similar waste according to the 6 categories mentioned above.

Landfill is defined as deposit of waste into or onto land, including specially engineered landfill, and temporary storage of over one year on permanent sites. The definition covers both landfill in internal sites (i.e. where a generator of waste is carrying out its own waste disposal at the place of generation) and in external sites.

The quantity collected is expressed in tonnes per year. Indicator data is measured in kg per person per year using population figures on January 1st of each year.

Transport (10.11 to 10.16)

Private cars are used for personal purposes and not for carrying persons or goods for a fee. Taxis, small company vans and exempt vehicles are not taxed as private cars.

Passenger cars are road vehicles intended for the carriage of passengers and designed to seat no more than nine persons including the driver.

Inland freight transport includes transport by road, rail and inland waterway. Road transport is based on all movements of vehicles registered in the reporting country on national territory. Rail and inland waterways transport are based on movements on national territory, regardless of the nationality of the vehicle or vessel.

The index of of inland freight transport volume indicator is the ratio between tonne-kilometres and GDP indexed on 1995.

One tonne-kilometre represents the movement of one-tonne over a distance of one kilometre.

GDP is measured in euro at constant 1995 prices.

Appendix 2 Data sources

Domain theme	Data source
1. Gross domestic product	CSO: Data bank series NAEA0314 GVA at Factor Cost by Sector of Origin and GNI at Current Market Prices - Gross Domestic Product at Current Market Prices Data bank series NAEA0513 Expenditure on Gross National Income at Current Market Prices - Gross National Income at Current Market Prices Data bank series NAEA0613 Expenditure on Gross National Income at Constant (1995) Market Prices - Gross National Income at Constant (1995) Market Prices Data bank series PEAA Population Estimates, by Age and Sex (Annual) Eurostat NewCronos database: THEME2, Economy and Finance; AGGS, National accounts - Aggregates - Annual data; AGGS_GDP, GDP and main aggregates; A_GDP_C, GDP and main components - Current prices THEME2, Economy and Finance; AGGS, National accounts - Aggregates - Annual data; AGGS_INC, Income, saving and net lending / net borrowing; A_INC_C, Income, saving and net lending / net borrowing - Current prices THEME, THEME1, General Statistics; DOMAIN, STRIND, Structural indicators; TABLE, ECOBAC, General economic background
2. Government debt	Eurostat NewCronos database: THEME2, Economy and Finance; GOV, Government sector; GEN_GOVT, Government deficit and debt; GENGOVT, EU excessive deficit procedure; GENGOV95, EU excessive deficit procedure - ESA 95 THEME2, Economy and Finance; GOV, Government sector; GEN_GOVT, Government deficit and debt; PUB_FIN, General government (non-EU countries); PUBFIN95, General government - ESA95 (non-EU countries)
3. Public balance	Eurostat NewCronos database: THEME2, Economy and Finance; GOV, Government sector; GEN_GOVT, Government deficit and debt; GENGOVT, EU excessive deficit procedure; GENGOV95, EU excessive deficit procedure - ESA 95 THEME2, Economy and Finance; GOV, Government sector; GEN_GOVT, Government deficit and debt; PUB_FIN, General government (non-EU countries); PUBFIN95, General government - ESA95 (non-EU countries) CSO: National Accounts, National Income and Expenditure, 2002
4. Gross fixed capital formation	Eurostat NewCronos database: THEME2, Economy and Finance; AGGS, National accounts - Aggregates - Annual data; AGGS_GDP, GDP and main aggregates; A_GDP_C, GDP and main components - Current prices
5. International transactions	Eurostat NewCronos database: THEME2, Economy and Finance; BOP, International trade in services; QBOP, Balance of payments: quarterly and monthly statistics; QBOP, Balance of payments: quarterly statistics THEME2, Economy and Finance; BOP, International trade in services; ITS, International trade in services THEME2, Economy and Finance; BOP, International trade in services; BOPCC, Candidate countries; BOP_CCA, International Trade in Services THEME2, Economy and Finance; AGGS, National accounts - Aggregates - Annual data; AGGS_GDP, GDP and main aggregates; A_GDP_C, GDP and main components - Current prices
6. International trade	Eurostat NewCronos database: THEME2, Economy and Finance; BOP, International trade in services; QBOP, Balance of payments: quarterly and monthly statistics; QBOP, Balance of payments: quarterly statistics THEME2, Economy and Finance; BOP, International trade in services; ITS, International trade in services; ITS, International trade in services THEME2, Economy and Finance; BOP, International trade in services; BOPCC, Candidate countries; BOP_CCA, International Trade in Services THEME2, Economy and Finance; AGGS, National accounts - Aggregates - Annual data; AGGS_GDP, GDP and main aggregates; A_GDP_C, GDP and main components - Current prices

Domain theme	Data source
7. Exchange rates	European Central Bank Monthly Bulletin, Table 10 Central Bank, Financial Services Authority of Ireland
8. Interest rates	Eurostat NewCronos database: THEME1, General Statistics; STRIND, Structural indicators; ECOREF, Economic reform THEME2, Economy and Finance; EXINT, Exchange rates and interest rates; INTRT, Interest rates; RETLRT, Retail bank interest rates; RETL_AN, Retail bank interest rates - Annual data
9. Harmonised Index of Consumer Prices	Eurostat NewCronos database: THEME2, Economy and Finance; PRICE, Prices and Purchasing Power Parities; HICP, Harmonised indices of consumer prices (HICP); HAIND, Harmonised indices of consumer prices - Annual Data THEME2, Economy and Finance; PRICE, Prices and Purchasing Power Parities; IHICP_CC, Interim HICP for accession countries; HAIND_CC, Interim HICP for Accession Countries - Annual Data
10. Price levels	Eurostat NewCronos database: THEME1, General Statistics; STRIND, Structural indicators; ECOREF, Economic reform
11. Science and technology graduates	Eurostat NewCronos database: THEME3, Population and Social Conditions; EDUC, Education; ED_INDIC, Education indicators; EDTERTC, Tertiary education graduates CSO: Data bank series PEAA Population Estimates, by Age and Sex (Annual)
12. Research and development expenditure	Eurostat NewCronos database: THEME 1 General statistics, STRIND Structural Indicators, INNORE Innovation and Research
13. Patent applications	Eurostat NewCronos database: THEME 1 General statistics, STRIND Structural Indicators, INNORE Innovation and Research
14. Household internet access	CSO: Quarterly National Household Survey Eurostat
15. Employment rate	CSO: Labour Force Survey (April, 1994-1997) and Quarterly National Household Survey (Q2, Mar-May, 1998-2003) Eurostat NewCronos database: THEME3, Population and Social Conditions; LFS, Labour Force Survey; EMPRATES, Employment rates; ERGAN, Employment rates by sex, age groups and nationality (%)
16. Labour productivity	Eurostat NewCronos database: THEME1 General Statistics, STRIND Structural indicators, ECOBAC General economic background
17. Unemployment rate	Eurostat NewCronos database: THEME1 General Statistics, STRIND Structural indicators, EMPLOI Employment THEME1 General Statistics, STRIND Structural indicators, SOCOHE Social Cohesion
18. Jobless households	Eurostat NewCronos database: THEME1 General Statistics, STRIND Structural indicators, SOCOHE Social Cohesion
19. Older workers	Eurostat NewCronos database: THEME1 General Statistics, STRIND Structural indicators, EMPLOI Employment

Domain theme	Data source
20. Voter turnout	Department of the Environment, Heritage and Local Government: Franchise Section, Statistics from the Register of Electors International Institute for Democracy and Electoral Assistance: Voter turnout from 1945 to date - http://www.idea.int/vt/index.cfm
21. Official development assistance	Department of Foreign Affairs: Ireland Aid - Annual Report OECD: Development Co-operation Report
22. Risk of poverty	Eurostat NewCronos database: THEME3, Population and Social Conditions; ILC, Income and living conditions; ILC_MI, Main indicators; MI01, Main indicators by total population THEME3, Population and Social Conditions; ILC, Income and living conditions; ILC_LK, Laeken indicators ESRI: Monitoring Poverty Trends in Ireland
23. Gender pay gap	Eurostat NewCronos database: THEME1 General Statistics, STRIND Structural indicators, EMPLOI Employment
24. Education expenditure	Department of Education and Science: CSO: National Accounts Eurostat NewCronos database: THEME 1 General statistics, STRIND Structural Indicators, INNORE Innovation and Research
25. Pupil-teacher ratio	Eurostat NewCronos database: THEME3 Population and Social Conditions, EDUC Education, ED_INDIC Education indicators, EDSTE Pupil/Student - teacher ratio and average class size
26. Third level education	CSO: Quarterly National Household Survey Data bank series PEAA Population Estimates, by Age and Sex (Annual) Eurostat NewCronos database: THEME3 Population and Social Conditions, LFS Labour Force Survey, POPHOUSE Population and households, PGAED Population, aged 15 years or more by sex, age groups and highest level of education attained (1000), and PGAMS Population by sex, age groups and marital status (1000)
27. Literacy	OECD: Programme for International Student Assessment (PISA), 2000
28. Early school leavers	CSO: Quarterly National Household Survey Eurostat NewCronos database: THEME1 General Statistics, STRIND Structural indicators, SOCOHE Social Cohesion
29. Health care expenditure	Department of Health and Children: Health Statistics 2002, Table L6 CSO: Data bank series PEAA Population estimates by Age and Sex (Annual) World Health Organisation: World Health Report, 2002

Domain theme	Data source
30. Life expectancy	CSO: Life Table No. 13 1995-1997 Eurostat NewCronos database: THEME3 Population and Social Conditions, DEMO Demography, DMOR Mortality, MLEXPEC Life expectancy by sex and age
31. Population distribution	CSO: Data bank series PEAA Population estimates by Age and Sex (Annual) Labour Force Survey (April, 1994-1997) and Quarterly National Household Survey (Q2, Mar-May, 1998-2003), Eurostat NewCronos database: THEME3, Population and Social Conditions; DEMO, Demography; DPOP, Population; PPAVG, Average population by sex and five-year age groups;
32. Migration	CSO: Data bank series PECA Annual migration estimates Eurostat NewCronos database: THEME3, Population and Social Conditions; DEMO, Demography; DPOP, Population; PPAVG, Average population by sex and five-year age groups;
33. Age of population	Eurostat NewCronos database: THEME3, Population and Social Conditions; DEMO, Demography; DPOP, Population; PJANIND, Population structure indicators on 1st January CSO: Data bank series PEAA Population estimates by Age and Sex (Annual) Census of Population
34. Fertility	Eurostat NewCronos database: THEME3 Population and Social Conditions, DEMO Demography, DFER Fertility, FIND Fertility Indicators
35. Lone parent families	CSO: Labour Force Survey (April, 1994-1997) and Quarterly National Household Survey (Q2, Mar-May, 1998-2003),
36. Persons aged 65 and over living alone	CSO: Labour Force Survey (April, 1994-1997) and Quarterly National Household Survey (Q2, Mar-May, 1998-2003),
37. Dwelling completions	Department of the Environment, Heritage and Local Government: Annual Housing Statistics Bulletin
38. Owner-occupiers	Eurostat NewCronos database: THEME3 Population and Social Conditions, HOUSING Housing, PRHOLDS Private households, TENSTATA Tenure status of accommodation by type of household and income group CSO: Census of Population
39. Mortgages	Department of the Environment, Heritage and Local Government: Annual Housing Statistics Bulletin Eurostat NewCronos database: THEME2, Economy and Finance; EXINT, Exchange rates and interest rates; INTRT, Interest rates; RETLRT, Retail bank interest rates; RETL_AN, Retail bank interest rates - Annual data
40. Headline offences	An Garda Síochána: Summary of Headline Offence Statistics 2002 Annual Reports

Domain theme	Data source
41. Homicide rate	An Garda Síochána: Summary of Headline Offence Statistics 2002 Annual Reports Interpol: International Crime Statistics http://www.interpol.com/Public/Statistics/ICS/downloadList.asp
42. Greenhouse gases	Eurostat NewCronos database: THEME1 General Statistics, STRIND Structural indicators, ENVIRO Environment
43. Energy intensity of economy	Eurostat NewCronos database: THEME1 General Statistics, STRIND Structural indicators, ENVIRO Environment
44. River water quality	Environmental Protection Agency: Environment in Focus 2002
45. Urban air quality	Environmental Protection Agency: Environment in Focus 2002
46. Acid rain precursors	CSO: Environmental Accounts for Ireland
47. Waste management	Environmental Protection Agency: National Waste Database, 2001 Eurostat NewCronos database: THEME1 General Statistics, STRIND Structural indicators, ENVIRO Environment
48. Transport	Department of the Environment, Heritage and Local Government: Irish Bulletin of Vehicle and Driver Statistics CSO: Data bank series PEAA Population estimates by Age and Sex (Annual) Eurostat NewCronos database: THEME7 Transport, ROAD B. Road transport, ROEQSTOK B.II1. Transport equipment - Stock of vehicles, ROSTPACR 3A. Passenger cars, by motor energy THEME3 Population and Social Conditions, LFS Labour Force Survey, POPHOUSE Population and Households, PGAMS Population by sex, age groups and marital status (1000) THEME1 General Statistics, STRIND Structural indicators, ENVIRO Environment