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Measuring Ireland's Progress

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Preface

The progress indicators used in this report provide a synoptic analysis of the economic, social and environment situation in Ireland. The indicators are generally presented in a national time series and international context to permit benchmarking over time and across countries. Data are given for the other 26 EU member states and for six additional countries (Iceland, Norway, Switzerland, Croatia, Turkey and Macedonia) whenever data were available for them.

From the feedback we received to earlier reports, users have found it useful to have a diverse set of important indicators brought together in one report. A similar approach has also been followed in other CSO publications such as *Women and Men in Ireland* and *Ageing in Ireland*. The CSO published a new report in November 2007, *Equality in Ireland*, which provided a broad national analysis of the economic and social situation of people using the nine equality grounds as a framework. A new regional indicators report, *Regional Quality of Life in Ireland*, was published in June 2008 and a new report on young people was published in June 2009, *Children and Young People in Ireland*.

Internationally, there has been an increasing level of interest in national progress indicators. A number of other EU countries have published similar reports (e.g. Spain and Germany) and the OECD published a 2008 Factbook. The OECD are also actively involved in measuring well-being and progress through their OECD Better Life Initiative and their work programme on measuring progress. These reports provide policy-makers and analysts with an opportunity to review and assess Ireland's position over time and in comparison with other countries for a small selection of important statistical indicators.

We would welcome feedback on this report from users as an input into the further development of Measuring Ireland's Progress.



Gerry O'Hanlon
Director General

Chapter

1

Introduction

1.1 Background

This chapter briefly reviews the background leading to the preparation of national progress indicators reports 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.

The social partnership agreement 2003-2005¹ 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 report². 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.

In response to this request, a preliminary set of national progress indicators, *Measuring Ireland's Progress*, was published in December 2003. Volume 1 of the report presented the selected indicators in both a national and international context. Volume 2 gave an overview of existing national and international reports and provided a context for the initial selection of indicators. Since then, the CSO has published *Measuring Ireland's Progress* annually and this report is the eighth in the series.

1.2 Overview of indicators

The list of national progress indicators is presented in summary format in Table A. A total of 109 indicators covering 10 domains and 49 sub-domains have been selected. More than half of the indicators 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 an international context. The national context is generally in a time series format while the international context compares Ireland with other EU countries and, where available, with three EFTA countries (Iceland, Norway and Switzerland) and the three official candidate countries (Croatia, Macedonia and Turkey).

In this report a new indicator has been added on GDP growth rates. The indicator on EU average exit ages from the labour force has been dropped as the model used by Eurostat was not producing satisfactory results for many countries.

Chapter 2 presents the selected indicators. In cases where tables are not sorted by year, the ranking variable is highlighted with a darker background. The appendices describe the indicator definitions and data sources in greater detail.

1.3 Technical notes

In some tables, both GDP and GNI data have been given for Ireland because Ireland, along with Luxembourg, are exceptions in the EU with a wide divergence between GDP and GNI. Wherever possible, international tables include the total for all 27 EU member states.

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 Quarterly National Household Survey (QNHS) is referred to as the EU Labour Force Survey (LFS).

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.

QNHS results through this report are presented for Q2.

The figures in the tables and graphs reflect the data availability position as of August 2011.

The following symbols are used:

: data not available

(c) data confidential.

Table A Selected key indicators of national progress

Domain and sub-domain	Indicator	
1. Economy		
Gross Domestic Product	1.1	Ireland: GDP and GNI
	1.2	EU: GDP and GNI at current market prices
	1.3	EU: GDP growth rates
	1.4	EU: GDP per capita in Purchasing Power Standards
Government debt	1.5	Ireland, EU and Eurozone: General government consolidated gross debt
	1.6	EU: General government consolidated gross debt
	1.7	EU: General government consolidated gross debt map
Public balance	1.8	EU: Public balance map
	1.9	Ireland and Eurozone: Public balance
	1.10	EU: Public balance
Gross fixed capital formation	1.11	Ireland: Central and Local Government current expenditure
	1.12	Ireland and EU: Gross fixed capital formation
International transactions	1.13	EU: Gross fixed capital formation
	1.14	EU: Current account balance
International trade	1.15	EU: Direct investment flows
	1.16	EU: Exports of goods and services
	1.17	EU: Imports of goods and services
Exchange rates	1.18	International: Bilateral euro exchange rates
	1.19	Ireland: Harmonised competitiveness indicator
Harmonised Index of Consumer Prices	1.20	Ireland and EU: Harmonised Index of Consumer Prices
	1.21	EU: Harmonised Index of Consumer Prices
Price levels	1.22	Ireland and EU: Comparative price levels of final consumption by private households including indirect taxes
	1.23	EU: Comparative price levels of final consumption by private households including indirect taxes
2. Innovation and technology		
Science and technology graduates	2.1	Ireland: Mathematics, science and technology graduates
	2.2	EU: Mathematics, science and technology PhDs awarded
Research and development expenditure	2.3	Ireland and EU: Gross domestic expenditure on R&D
	2.4	EU: Gross domestic expenditure on R&D
Patent applications	2.5	Ireland and EU: European Patent Office applications
	2.6	EU: European Patent Office applications
Household Internet access	2.7	Ireland: Private households with a computer connected to the Internet
	2.8	EU: Private households with Internet access
3. Employment and unemployment		
Employment rate	3.1	Ireland: Employment rates by sex
	3.2	EU: Employment rates by sex
Labour productivity	3.3	Ireland: GDP in Purchasing Power Standards per hour worked and per person employed
	3.4	EU: GDP in Purchasing Power Standards per person employed
Unemployment rate	3.5	Ireland and EU: Unemployment rates
	3.6	EU: Unemployment rates by sex
	3.7	Ireland and EU: Long-term unemployment rates
	3.8	EU: Long-term unemployment rates by sex
Jobless households	3.9	Ireland: Population aged 18-59 living in jobless households
	3.10	EU: Population aged 18-59 living in jobless households
Older workers	3.11	EU: Employment rate of persons aged 55-64 by sex
4. Social cohesion		
Social protection expenditure	4.1	Ireland and EU: Social protection expenditure
	4.2	EU: Social protection expenditure in Purchasing Power Parities per capita
	4.3	EU: Social protection expenditure by type
Risk of poverty	4.4	EU: At risk of poverty rates
	4.5	Ireland: At risk of poverty rates by age and sex
	4.6	Ireland: Persons in consistent poverty by age and sex
	4.7	Ireland: Persons in consistent poverty by principal economic status

Domain and sub-domain	Indicator	
Gender pay gap	4.8	EU: Gender pay gap
Voter turnout	4.9	Ireland: Numbers voting in Dáil elections
	4.10	EU: Votes recorded at national parliamentary elections
Official development assistance	4.11	Ireland: Net official development assistance
	4.12	EU: Net official development assistance
5. Education		
Education expenditure	5.1	Ireland: Real current public expenditure on education
	5.2	Ireland: Student numbers by level
	5.3	EU: Public expenditure on education
Pupil-teacher ratio	5.4	EU: Ratio of students to teachers
	5.5	EU: Average class size at ISCED levels 1 and 2
Third-level education	5.6	Ireland: Persons aged 25-34 with third-level education
	5.7	EU: Persons aged 25-34 with third-level education by sex
Literacy	5.8	Ireland: Student performance on the reading, mathematical and scientific literacy scales by sex
	5.9	EU: Student performance on the reading, mathematical and scientific literacy scales
Early school leavers	5.10	Ireland: Early school leavers by labour force status and sex
	5.11	Ireland: Proportion of the population aged 20-64 with at least upper secondary education
	5.12	EU: Early school leavers
6. Health		
Health care expenditure	6.1	Ireland: Current public expenditure on health care
	6.2	EU: Total expenditure on health as percentage of GDP
Life expectancy	6.3	Ireland: Life expectancy at birth and at age 65 by sex
	6.4	EU: Life expectancy at birth by sex
7. Population		
Population distribution	7.1	Ireland: Population distribution by age group
	7.2	Ireland: Household composition
	7.3	EU: Population
	7.4	EU: Population change
Migration	7.5	Ireland: Migration and natural increase
	7.6	Ireland: Immigration by country of origin
	7.7	Ireland and EU: Rate of natural increase of population
Age of population	7.8	Ireland: Age dependency ratio
	7.9	EU: Young and old as proportion of population aged 15-64
Fertility	7.10	Ireland and EU: Total fertility rate
	7.11	EU: Total fertility rate
Lone parent families	7.12	Ireland: Lone parent families with children aged under 20 by sex of parent
Living alone	7.13	Ireland: Persons aged 65 and over living alone by sex
Divorce	7.14	EU: Divorce rate
8. Housing		
Dwelling completions	8.1	Ireland: Dwellings completed
	8.2	Ireland: Nature of occupancy of private households
Mortgages	8.3	Ireland: Housing loans paid
	8.4	Eurozone: Interest rates for household mortgages (new business)
9. Crime		
Recorded crimes and detection rates	9.1	Ireland: Recorded crimes by type of offence
	9.2	Ireland: Detection rates
Recorded incidents	9.3	Ireland: Recorded incidents of driving/in charge of a vehicle while over legal alcohol limit per 100,000 population
	9.4	Ireland: Recorded incidents of burglary per 100,000 population
	9.5	Ireland: Recorded incidents of controlled drug offences per 100,000 population
Murder/manslaughters	9.6	Ireland: Recorded victims of murder/manslaughter
10. Environment		
Greenhouse gases	10.1	Ireland: Total net greenhouse gas emissions
	10.2	EU: Net greenhouse gas emissions and Kyoto 2008-2012 target
Energy intensity of economy	10.3	Ireland: Gross inland consumption of energy divided by GDP

Domain and sub-domain	Indicator
	10.4 EU: Gross inland consumption of energy divided by GDP
River water quality	10.5 Ireland: River water quality
Urban air quality	10.6 Ireland: Particulate matter in urban areas
Acid rain precursors	10.7 Ireland: Acid rain precursor emissions
Waste management	10.8 Ireland: Total municipal waste generated, recovered and landfilled
	10.9 EU: Municipal waste collected and landfilled
Transport	10.10 Ireland: Private cars under current licence
	10.11 EU: Passenger cars per 1,000 population aged 15 and over
	10.12 Ireland and EU: Share of road transport in total inland freight transport
	10.13 EU: Share of road transport in total inland freight transport
	10.14 Ireland and EU: Index of inland freight transport volume
	10.15 EU: Index of inland freight transport volume

Chapter

2

Indicators

2.1 Highlights

Consumer prices fell in Ireland in 2009 and 2010 but prices remain high by EU standards. Ireland was the fifth most expensive EU state in 2010, after Denmark, Finland, Luxembourg and Sweden with prices 18% above the EU average. However this represents a considerable improvement on 2009 when Irish prices were 26% above the EU average and second only to Denmark.

Ireland has remained in recession in 2010, with a negative growth rate experienced by the economy for the third year in a row. The public balance deficit was the highest of any EU member state at just under a third of GDP, while government debt increased to just over 96% of GDP, having been at only 25% of GDP in 2007. Ireland's employment rate was below the EU average, and its unemployment rate was the sixth highest rate in the EU. The productivity of the Irish workforce remained above the EU average.

In 2010, Ireland had the highest proportion of young people in the EU, and the lowest proportion of old people. Average class size at primary level in Ireland is the second highest in the EU, though the early school-leaver rate is better than the EU average. Irish 15 year old students had the joint 17th highest mathematical literacy among participating EU countries in 2009 while on reading literacy Ireland was eighth highest. The proportion of the population aged 25-34 in Ireland that has completed third-level education is the third highest in the EU. Ireland has the lowest divorce rate and the highest fertility rate in the EU, and its population is increasing at a higher rate than in any other EU country.

Over the four-year period 2005-2009, the number of kidnapping and related offences nearly doubled while the number of controlled drug offences increased by nearly two-thirds and the number of weapons and explosives offences increased by more than half. The number of murders/manslaughters recorded in Ireland fell from its peak of 84 in 2007 to 60 in 2009. Ireland's greenhouse gas emissions fell in 2009 and were below the Kyoto target for the first time since 1996 and its level of acid rain precursor emissions continues to fall.

Economy: The GDP growth rate was -0.4% in 2010. The public balance deficit was 32.4% of GDP, the largest by far of any EU member state. And government debt increased substantially to 96.2% of GDP in 2010, the fourth highest debt/GDP ratio in the EU, having been 25% only three years previously. Nonetheless, in 2010 Ireland had the joint third highest GDP per capita in the EU at 25% above the EU average, although, based on GNI, Ireland was the eleventh highest. Ireland's gross fixed capital formation fell sharply since 2007 to only 11.3% of GDP in 2010, lower than any other EU state. The productivity of the Irish workforce in 2010, measured by GDP per person employed, was just over a third higher than the EU average. As Irish employees work longer hours, the productivity per hour worked is relatively lower, but still about 23% above the EU average. (Tables 1.3, 1.4, 1.6, 1.10, 1.13, 3.3 and 3.4)

Prices: Inflation in Ireland (as measured by the Harmonised Index of Consumer Prices) fell in 2010, with Latvia being the only other EU state where prices fell. Over the past decade, Ireland became less competitive, with the harmonised competitiveness indicator (deflated by consumer prices) increasing by 17% between 2001 and 2010; this indicates a significant deterioration in price competitiveness for Ireland vis-à-vis our main trading partners. Appreciation of the Euro against other major currencies contributed to this decline. Ireland had the fifth highest price levels in the EU in 2010. (Tables 1.18, 1.19, 1.21 and 1.23)

Employment and unemployment: The employment rate (for those aged 15-64) in Ireland rose from 65.7% in 2001 to 69.2% in 2007, but fell to 58.9% by 2011. The male employment rate was stable over the 2001 to 2008 period at about 76% but fell sharply over the next three years to 62.6% in early 2011. The female employment rate increased from 54.6% in 2001 to 60.7% in 2007 before falling to 55.3% in early 2011. In 2010, Ireland's employment rate was below the EU average, and its unemployment rate was the sixth highest rate in the EU. (Tables 3.1, 3.2 and 3.6)

Social cohesion: In 2009, 5.5% of the population were in consistent poverty. This was an increase on the level recorded in 2008, when 4.2% of the population was living in consistent poverty. Voter turnout at Dáil elections gradually declined from over 76% in the 1970s to less than 63% in 2002 before increasing to nearly 70% in February 2011. There was a general decline in voting turnout in most EU countries between 1984 and 2009. Ireland's net official development assistance increased from 0.41% of GNI in 2005 to 0.54% in 2009, still short of the UN 2007 target of 0.7%. (Tables 4.6, 4.9, 4.10 and 4.12)

Education: Irish 15 year old students had the joint 17th highest mathematical literacy among participating EU countries in 2009 and were below the OECD average, while on reading literacy Ireland was eighth highest and ranked slightly above the OECD average. In 2010, 46% of the population aged 25-34 had completed third level education, the third highest rate across the EU. The proportion of the Irish population aged 18-24

who left school with at most lower secondary education was 10.5% in 2010, better than the EU average of 14.1%. Average class size at primary level in Ireland in 2008/2009 was 24.2, the second highest in the EU. (Tables 5.5, 5.7, 5.8, 5.9 and 5.12)

Health: Current public expenditure on health care in Ireland averaged €3,234 per person in 2009 (at constant 2010 prices), an increase of more than half on the 2000 level. Life expectancy at birth in Ireland is 76.8 years for males and 81.6 years for females, and these figures are reasonably close to the EU average. A 65-year old man in Ireland can now expect to live a further 16.6 years, while a 65-year old woman can expect to live 19.8 years. (Tables 6.1, 6.2, 6.3 and 6.4)

Population: Ireland had the highest percentage increase in population between 2000 and 2010 in the EU. The rate of natural increase of the population in Ireland was 10.2 per 1,000 in 2009 compared with an EU average of only 1.0. In 2009, Ireland was the only EU country with a fertility rate greater than 2; the EU average was 1.6. The divorce rate in Ireland was 0.7 divorces per 1,000 population in 2009, the lowest rate in the EU. In 2010, Ireland had the highest proportion of young people (0-14) in the EU, and the lowest proportion of old people (65 and over); these combined to give Ireland an age dependency ratio that was similar to the EU average. (Tables 7.1, 7.4, 7.7, 7.9, 7.11 and 7.14)

Housing: The number of dwelling units built increased sharply to peak at almost 90,000 in 2006 before collapsing to 14,600 in 2010, back to the level it was at in 1970. The average value of a new housing loan in Ireland rose from €102,300 in 2000 to €266,400 in 2007 before dropping to €231,600 in 2009. (Graph 8.1 and table 8.3)

Crime: The number of kidnapping and related offences nearly doubled over the four year period 2005-2009 while the number of controlled drug offences increased by nearly two-thirds and the number of weapons and explosives offences increased by more than half. However, the number of murders/manslaughters in Ireland decreased from its peak of 84 in 2007 to 60 in 2009. (Tables 9.1 and 9.6)

Environment: Ireland's greenhouse gas emissions were at 112.1% of 1990 levels in 2009. This was lower than the Kyoto 2008-2010 target (by 0.9 percentage points). The level of acid rain precursor emissions fell from 464.6 SO₂ equivalent per 1,000 tonnes of gas emitted in 2000 to 318.1 in 2008, 4% above the Gothenburg Protocol 2010 target level of 306. This decrease is mainly due to lower levels of sulphur dioxide emissions. The percentage of waste recovered in Ireland rose to 37% in 2009, and 58% of waste was landfilled. The landfill percentage varies widely in EU states, from 96.2% in Bulgaria to only 0.3% in Germany, where incineration is used to convert waste to energy. (Tables 10.1, 10.7, 10.8 and 10.9)

2.2 Indicators

1.1 Ireland: GDP and GNI, 2001–2010

	€b	€b	%	€
Year	GDP	GNI	GNI as % of GDP	GNI at constant 2009 prices per capita
2001	118.1	100.0	84.7	30,488
2002	131.3	109.2	83.1	30,720
2003	141.0	120.7	85.6	31,711
2004	150.6	129.1	85.8	32,470
2005	163.5	141.0	86.3	33,433
2006	178.3	156.3	87.7	34,676
2007	189.9	164.6	86.7	35,061
2008	180.0	156.0	86.7	33,475
2009	160.6	133.6	83.2	29,958
2010	156.0	129.3	82.9	29,959

Source: CSO National Accounts

- ◆ Gross Domestic Product in Ireland (at current market prices) fell for the third year in a row in 2010. Having peaked at €189.9 billion in 2007, GDP fell 5.2% in 2008, 10.8% in 2009 and a further 2.9% to €156 billion in 2010.
- ◆ Gross National Income per capita (at constant 2009 prices) fell in 2008 and 2009 and was almost unchanged in 2010, when it amounted to €29,959, less than the 2001 value of €30,488.
- ◆ The relationship between GDP and GNI in Ireland is exceptional among EU countries, with Luxembourg the only other country where the difference between the two measures is more than 10% of GDP. The gap reflects the importance of foreign direct investment to the Irish economy. Luxembourg had a GNI/GDP ratio of 71.2 compared with 82.9 for Ireland in 2010, while the average for the EU countries was 99.9.

1.2 EU: GDP and GNI at current market prices, 2010⁴

	€b	€b	%
Country	GDP	GNI	GNI as % of GDP
Latvia	18.0	18.3	102.1
Denmark	234.0	238.4	101.9
Sweden	346.7	353.0	101.8
France	1,932.8	1,968.1	101.8
Germany	2,498.8	2,535.3	101.5
United Kingdom	1,696.6	1,720.6	101.4
Finland	180.3	182.8	101.4
Belgium	352.9	356.3	100.9
Netherlands	591.5	593.4	100.3
EU	12,268.4	12,261.4	99.9
Austria	284.4	283.0	99.5
Slovakia	65.9	65.1	98.8
Romania	121.9	120.4	98.8
Spain	1,062.6	1,048.5	98.7
Italy	1,548.8	1,528.1	98.7
Lithuania	27.4	27.0	98.5
Slovenia	36.0	35.4	98.3
Cyprus	17.5	17.0	97.4
Bulgaria	36.0	35.1	97.4
Greece	230.2	223.9	97.3
Portugal	172.7	166.8	96.6
Poland	353.7	340.7	96.3
Estonia	14.5	13.8	95.5
Hungary	98.4	93.4	94.9
Czech Republic	145.0	135.5	93.4
Malta	6.2	5.8	92.8
Ireland	156.0	129.3	82.9
Luxembourg	41.6	29.6	71.2
Switzerland	396.0	418.2	105.6
Norway	311.9	312.6	100.2
Croatia	45.9	44.1	96.2
Iceland	9.5	7.8	82.2
Turkey	553.5	415.5	75.1
Macedonia	6.9	:	:

Source: Eurostat, CSO National Accounts

⁴ GNI data is a forecast for Lithuania, Luxembourg, Hungary, Poland and Turkey and GDP data is a forecast for Macedonia.

1.3 EU: GDP growth rates, 2006-2010

Country	2006	2007	2008	2009	2010
Sweden	4.3	3.3	-0.6	-5.3	5.7
Slovakia	8.5	10.5	5.8	-4.8	4.0
Poland	6.2	6.8	5.1	1.7	3.8
Germany	3.4	2.7	1.0	-4.7	3.6
Luxembourg	5.0	6.6	1.4	-3.6	3.5
Malta	1.9	4.6	5.4	-3.3	3.2
Estonia	10.6	6.9	-5.1	-13.9	3.1
Finland	4.4	5.3	0.9	-8.2	3.1
Czech Republic	6.8	6.1	2.5	-4.1	2.3
Belgium	2.7	2.9	1.0	-2.8	2.2
Austria	3.6	3.7	2.2	-3.9	2.1
EU	3.3	3.0	0.5	-4.3	1.8
Netherlands	3.4	3.9	1.9	-3.9	1.8
Denmark	3.4	1.6	-1.1	-5.2	1.7
France	2.5	2.3	-0.1	-2.7	1.5
United Kingdom	2.8	2.7	-0.1	-4.9	1.4
Italy	2.0	1.5	-1.3	-5.2	1.3
Lithuania	7.8	9.8	2.9	-14.7	1.3
Portugal	1.4	2.4	0.0	-2.5	1.3
Hungary	3.6	0.8	0.8	-6.7	1.2
Slovenia	5.8	6.8	3.7	-8.1	1.2
Cyprus	4.1	5.1	3.6	-1.7	1.0
Ireland (GNI)	6.2	3.6	-2.7	-9.8	0.3
Bulgaria	6.5	6.4	6.2	-5.5	0.2
Spain	4.0	3.6	0.9	-3.7	-0.1
Latvia	12.2	10.0	-4.2	-18.0	-0.3
Ireland (GDP)	5.3	5.2	-3.0	-7.0	-0.4
Romania	7.9	6.3	7.3	-7.1	-1.3
Greece	5.2	4.3	1.0	-2.0	-4.5
Turkey	6.9	4.7	0.4	-4.5	8.9
Switzerland	3.6	3.6	2.1	-1.9	2.6
Macedonia	5.0	6.1	5.0	-0.9	0.7
Norway	2.3	2.7	0.7	-1.7	0.3
Croatia	4.9	5.1	2.2	-6.0	-1.2
Iceland	4.6	6.0	1.4	-6.9	-3.5

- ◆ The GDP growth rate in Ireland was over 5% in 2006 and 2007 but fell sharply to -3% in 2008, with a further steep decline to -7% in 2009. In 2010 the growth rate recovered somewhat but remained negative at -0.4%.
- ◆ The growth rate in GDP in Ireland in 2010 was the third lowest in the EU, after Greece and Romania. The only other states with negative growth rates were Spain and Latvia.
- ◆ The highest GDP growth rate in 2010 was in Sweden at 5.7%, followed by Slovakia at 4%.
- ◆ GDP growth rates were negative in every EU country in 2009 with the exception of Poland.
- ◆ The growth rate in GNI in Ireland was 0.3% in 2010, following negative growth rates of -2.7% in 2008 and -9.8% in 2009

1.4 EU: GDP per capita in Purchasing Power Standards, 2006–2010

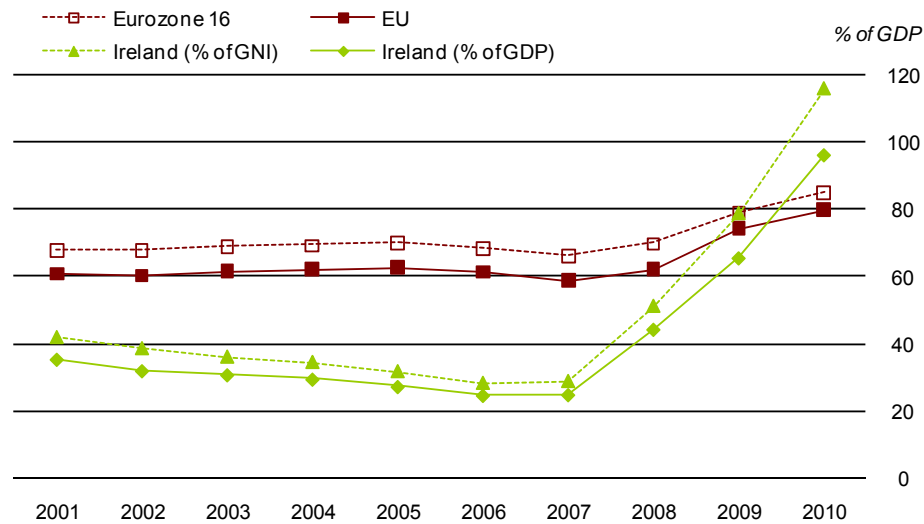
Country	EU=100				
	2006	2007	2008	2009	2010
Luxembourg	270	275	280	272	283
Netherlands	131	132	134	131	134
Denmark	124	123	123	121	125
Ireland (% of GDP)	146	147	133	127	125
Austria	125	123	124	124	125
Sweden	123	125	123	119	123
Belgium	118	116	115	116	118
Germany	116	116	116	116	118
Finland	114	118	118	113	116
United Kingdom	120	116	115	113	114
France	108	108	106	107	107
Ireland (% of GNI)	128	127	115	106	104
Spain	104	105	103	103	101
EU	100	100	100	100	100
Italy	104	104	104	104	100
Cyprus	91	93	97	98	98
Greece	93	92	94	94	89
Slovenia ⁵	88	88	91	88	87
Malta	76	77	79	81	83
Portugal	79	79	78	80	81
Czech Republic	77	80	81	82	80
Slovakia	63	68	72	73	74
Estonia	66	69	68	64	65
Hungary	63	62	65	65	64
Poland	52	54	56	61	62
Lithuania	55	59	61	55	58
Latvia	52	56	56	52	52
Romania	38	42	47	46	45
Bulgaria	38	40	44	44	43
Norway	183	179	189	175	179
Switzerland	134	139	142	144	147
Iceland	123	121	122	117	110
Croatia	58	61	63	64	61
Turkey	44	45	47	45	48
Macedonia	30	31	34	36	35

Source: Eurostat

- ◆ Despite the drop in GDP in recent years, Ireland still had the joint third highest GDP per capita within the EU in 2010, expressed in terms of purchasing power standards. Using this measure Ireland was 46% above the EU average in 2006 but has since fallen to 25% above in 2010.
- ◆ The pattern of GNI per capita in Ireland is similar, falling from 28% above the EU average in 2006 to just 4% above by 2010.
- ◆ In 2010 all twelve of the new EU Member States, as well as Greece and Portugal, were below the EU average.

⁵ Break in series for Slovenia in 2008, 2009 and 2010.

1.5 Ireland, EU and Eurozone: General government consolidated gross debt, 2001–2010



Source: Eurostat, CSO National Accounts

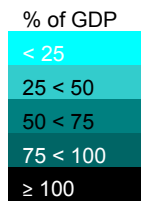
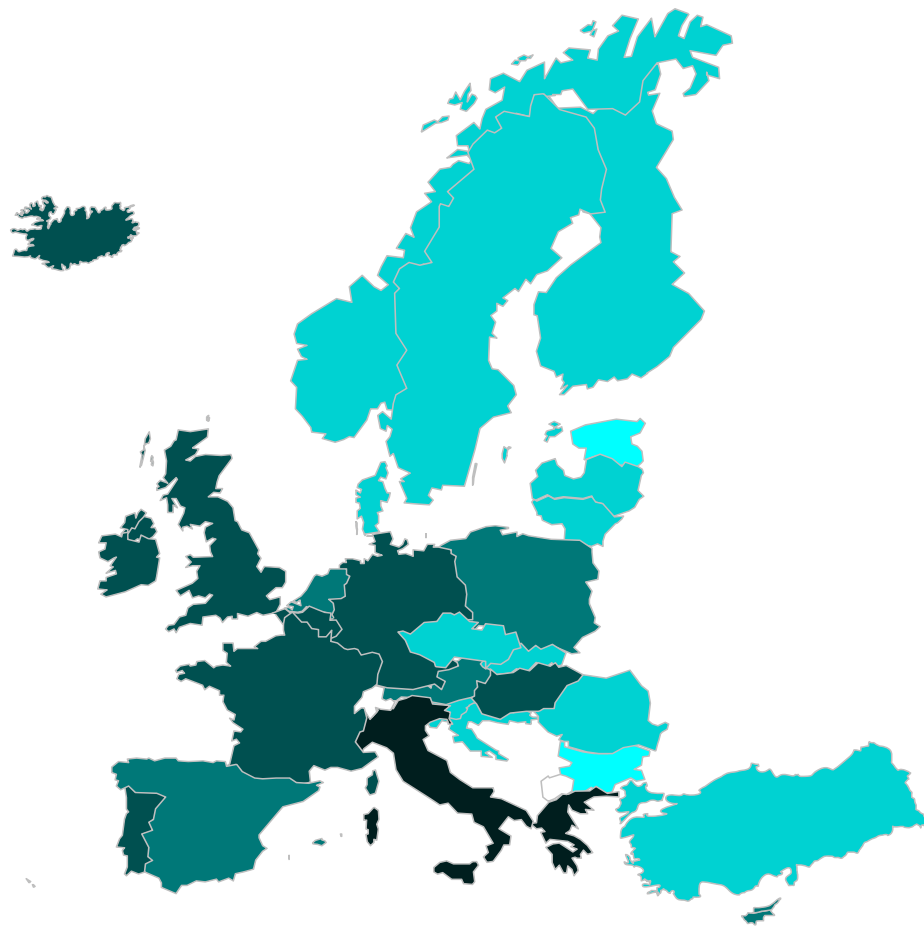
- ◆ General government consolidated gross debt as a percentage of GDP in Ireland declined from 35.5% to 25% over the 2001-2007 period but increased steeply in 2008 to 44.4%, followed by further sharp rises to 65.6% in 2009 and 96.2% in 2010. The debt to GNI ratio in Ireland followed a similar pattern and rose steeply from 28.8% in 2007 to 116.1% in 2010.
- ◆ Ireland had the fourth highest debt to GDP ratio in the EU in 2010, behind Greece, Italy and Belgium.
- ◆ The Eurozone 16 figure over the period 2000 to 2008 remained close to 70% before rising to 79.4% in 2009 and 85.3% in 2010. With the exception of Hungary, the new EU Member States had lower than average debt to GDP ratios in 2010.

1.6 EU: General government consolidated gross debt, 2006–2010

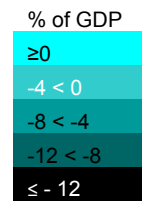
Country	% of GDP				
	2006	2007	2008	2009	2010
Estonia	4.4	3.7	4.6	7.2	6.6
Bulgaria	21.6	17.2	13.7	14.6	16.2
Luxembourg	6.7	6.7	13.6	14.6	18.4
Romania	12.4	12.6	13.4	23.6	30.8
Slovenia	26.4	23.1	21.9	35.2	38.0
Lithuania	18.0	16.9	15.6	29.5	38.2
Czech Republic	29.4	29.0	30.0	35.3	38.5
Sweden	45.0	40.2	38.8	42.8	39.8
Slovakia	30.5	29.6	27.8	35.4	41.0
Denmark	32.1	27.5	34.5	41.8	43.6
Latvia	10.7	9.0	19.7	36.7	44.7
Finland	39.7	35.2	34.1	43.8	48.4
Poland	47.7	45.0	47.1	50.9	55.0
Spain	39.6	36.1	39.8	53.3	60.1
Cyprus	64.6	58.3	48.3	58.0	60.8
Netherlands	47.4	45.3	58.2	60.8	62.7
Malta	64.2	62.0	61.5	67.6	68.0
Austria	62.8	60.7	63.8	69.6	72.3
EU	61.5	59.0	62.3	74.4	80.0
United Kingdom	43.4	44.5	54.4	69.6	80.0
Hungary	65.7	66.1	72.3	78.4	80.2
France	63.7	63.9	67.7	78.3	81.7
Germany	67.6	64.9	66.3	73.5	83.2
Eurozone 16	68.5	66.3	70.0	79.4	85.3
Portugal	63.9	68.3	71.6	83.0	93.0
Ireland (% of GDP)	24.8	25.0	44.4	65.6	96.2
Belgium	88.1	84.2	89.6	96.2	96.8
Ireland (% of GNI)	28.3	28.8	51.2	78.9	116.1
Italy	106.6	103.6	106.3	116.1	119.0
Greece	106.1	105.4	110.7	127.1	142.8
Norway	55.4	51.5	49.1	43.1	44.7
Iceland	27.9	28.5	70.5	87.8	:
Croatia	35.5	32.9	28.9	35.3	:
Turkey	46.1	39.4	39.5	45.4	:

Source: Eurostat, CSO National Accounts

1.7 EU: General government consolidated gross debt map⁶, 2010



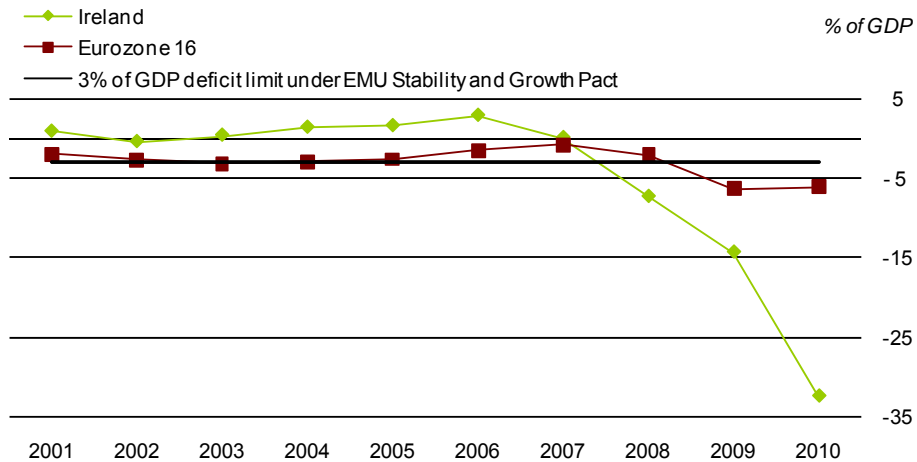
1.8 EU: Public balance map⁷, 2010



⁶ 2009 data used for Croatia, Iceland and Turkey.

⁷ 2009 data used for Croatia and Turkey.

1.9 Ireland and Eurozone: Public balance, 2001–2010



Source: Eurostat, CSO National Accounts

- ◆ The public balance in Ireland was 0.1% of GDP in 2007 but fell sharply to -7.3% in 2008, exceeding the 3% of GDP deficit limit in the EMU Stability and Growth Pact. In 2009 there was another sharp fall to -14.3% of GDP followed by a very steep decline to -32.4% in 2010.
- ◆ In 2010 Ireland had the largest public balance deficit by far in the EU, followed by Greece, the United Kingdom, Spain and Portugal. Twenty five of the EU member states had a public balance deficit in 2010 and twenty two EU member states exceeded the 3% of GDP deficit limit under the EMU Stability and Growth Pact.

1.10 EU: Public balance, 2006–2010

Country	% of GDP				
	2006	2007	2008	2009	2010
Estonia	2.4	2.5	-2.8	-1.7	0.1
Sweden	2.3	3.6	2.2	-0.7	0.0
Luxembourg	1.4	3.7	3.0	-0.9	-1.7
Finland	4.0	5.2	4.2	-2.6	-2.5
Denmark	5.2	4.8	3.2	-2.7	-2.7
Bulgaria	1.9	1.1	1.7	-4.7	-3.2
Germany	-1.6	0.3	0.1	-3.0	-3.3
Malta	-2.8	-2.4	-4.5	-3.7	-3.6
Belgium	0.1	-0.3	-1.3	-5.9	-4.1
Hungary	-9.3	-5.0	-3.7	-4.5	-4.2
Italy	-3.4	-1.5	-2.7	-5.4	-4.6
Austria	-1.6	-0.9	-0.9	-4.1	-4.6
Czech Republic	-2.6	-0.7	-2.7	-5.9	-4.7
Cyprus	-1.2	3.4	0.9	-6.0	-5.3
Netherlands	0.5	0.2	0.6	-5.5	-5.4
Slovenia	-1.4	-0.1	-1.8	-6.0	-5.6
Eurozone 16	-1.4	-0.7	-2.0	-6.3	-6.0
EU	-1.5	-0.9	-2.4	-6.8	-6.4
Romania	-2.2	-2.6	-5.7	-8.5	-6.4
France	-2.3	-2.7	-3.3	-7.5	-7.0
Lithuania	-0.4	-1.0	-3.3	-9.5	-7.1
Latvia	-0.5	-0.3	-4.2	-9.7	-7.7
Poland	-3.6	-1.9	-3.7	-7.3	-7.9
Slovakia	-3.2	-1.8	-2.1	-8.0	-7.9
Portugal	-4.1	-3.1	-3.5	-10.1	-9.1
Spain	2.0	1.9	-4.2	-11.1	-9.2
United Kingdom	-2.7	-2.7	-5.0	-11.4	-10.4
Greece	-5.7	-6.4	-9.8	-15.4	-10.5
Ireland (% of GDP)	2.9	0.1	-7.3	-14.3	-32.4
Ireland (% of GNI)	3.3	0.1	-8.4	-17.2	-39.1
Norway	18.5	17.5	19.1	10.5	10.5
Iceland	6.3	5.4	-13.5	-9.9	-7.8
Croatia	-3.0	-2.5	-1.4	-4.1	:
Turkey	0.8	-1.0	-2.2	-6.7	:

Source: Eurostat, CSO National Accounts

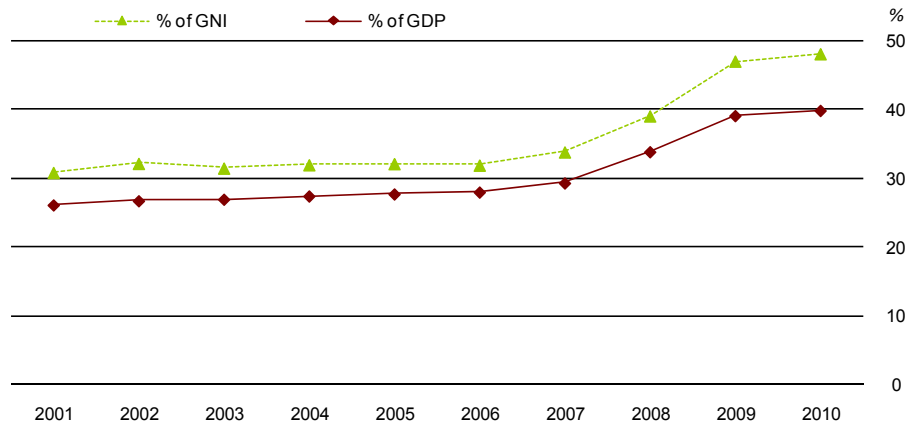
1.11 Ireland: Central and Local Government current expenditure, 2001–2010

Year	%	
	% of GDP	% of GNI
2001	26.1	30.8
2002	26.7	32.1
2003	26.9	31.5
2004	27.4	31.9
2005	27.7	32.1
2006	28.0	31.9
2007	29.3	33.8
2008	33.8	39.0
2009	39.0	46.9
2010	39.8	48.0

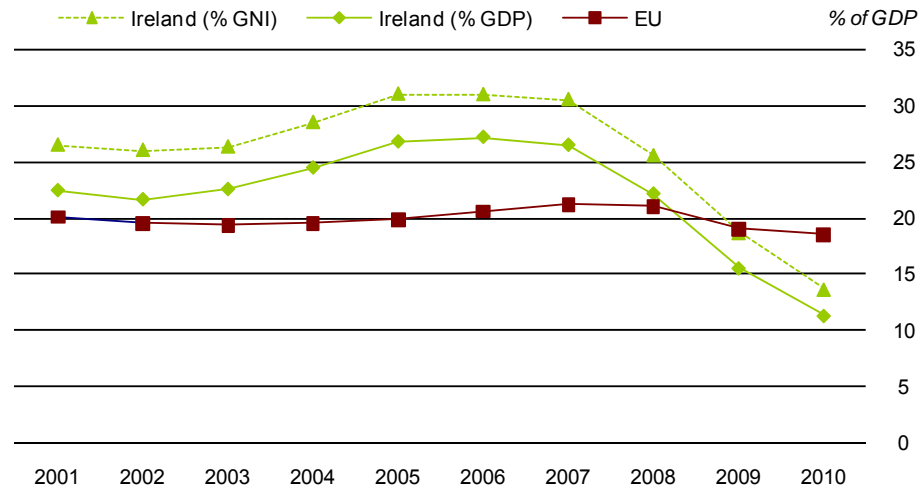
Source: CSO National Accounts

- ◆ Current expenditure by central and local government as a percentage of GDP has increased consistently each year over the period 2001 to 2010, rising from just over a quarter of GDP in 2001 (26.1%) to nearly 40% in 2010.

Ireland: Central and Local Government current expenditure as a % of GNI and GDP, 2001–2010



1.12 Ireland and EU: Gross fixed capital formation, 2001–2010



Source: Eurostat, CSO

- ◆ Between 2001 and 2007, Ireland had a higher rate of investment in gross fixed capital formation than the EU average, rising from 22.4% of GDP to 26.4% over this time period.
- ◆ However, in 2008 the rate of investment fell to 22.1% (just above the EU average) and fell sharply in 2009 to 15.5% and again in 2010 to stand at 11.3%, well below the EU average of 18.5%. This drop in investment over the last three years is linked to the decline in the construction sector in Ireland over the same time period.
- ◆ Ireland had the lowest rate of investment in 2010 in the EU at 11.3% of GDP followed by the United Kingdom and Greece (both at 14.7%). The highest rates were in Bulgaria (23.5%) and Romania (22.7%).

1.13 EU: Gross fixed capital formation, 2006–2010

Country	2006	2007	2008	2009	2010
Bulgaria	27.6	28.7	33.6	28.9	23.5
Romania	25.6	30.2	31.9	26.2	22.7
Spain	30.6	30.7	28.7	24.0	22.5
Slovenia	26.5	27.8	28.8	23.5	21.7
Czech Republic	24.7	25.2	23.9	22.5	21.3
Austria	21.2	21.4	22.1	21.1	20.8
Belgium	20.9	21.7	22.4	21.3	20.3
Slovakia	26.5	26.1	24.7	20.6	20.3
Italy	21.1	21.2	20.8	19.1	19.5
Poland	19.7	21.6	22.3	21.2	19.5
France	20.0	20.9	21.3	19.7	19.3
Hungary	21.8	21.4	21.4	20.9	19.3
Portugal	22.4	22.2	22.5	19.9	19.0
Estonia	36.0	34.4	28.6	21.6	18.6
EU	20.6	21.2	21.0	19.0	18.5
Finland	20.0	21.3	21.6	19.5	18.5
Cyprus	20.6	22.0	22.8	20.6	18.4
Latvia	32.6	33.7	29.3	21.5	18.0
Germany	18.2	18.7	19.0	17.6	17.9
Sweden	18.7	19.6	20.0	17.8	17.9
Netherlands	19.7	20.0	20.6	19.0	17.7
Malta	22.3	22.6	17.1	15.0	16.7
Denmark	21.7	21.7	20.8	18.2	16.6
Luxembourg	19.2	20.7	20.3	17.3	16.4
Lithuania	25.2	28.3	25.4	17.1	16.1
Greece	20.9	20.9	19.1	17.1	14.7
United Kingdom	17.1	17.8	16.6	14.6	14.7
Ireland (% of GNI)	30.9	30.5	25.5	18.6	13.6
Ireland (% of GDP)	27.1	26.4	22.1	15.5	11.3
Croatia	26.0	26.2	27.7	24.9	21.6
Switzerland	21.3	21.5	21.1	20.2	20.5
Norway	19.6	22.2	21.8	22.5	20.3
Macedonia	17.6	19.6	21.0	19.9	18.8
Turkey	22.3	21.4	19.9	16.9	18.7
Iceland	34.0	28.5	24.5	14.1	12.9

Source: Eurostat, CSO National Accounts

1.14 EU: Current account balance, 2006–2010

current account balance as % of GDP					
Country	2006	2007	2008	2009	2010
Luxembourg	10.4	10.1	5.3	6.9	7.8
Netherlands	9.3	6.7	4.4	4.9	7.7
Sweden	8.4	9.2	8.8	7.0	6.3
Germany	6.2	7.4	6.2	5.6	5.7
Denmark	3.0	1.4	2.7	3.6	5.5
Latvia	-22.5	-22.3	-13.1	8.6	3.6
Estonia	-15.3	-17.2	-9.7	4.5	3.6
Finland	4.2	4.3	2.9	2.3	3.1
Austria	2.8	3.5	4.9	3.1	2.7
Hungary	-7.6	-6.9	-7.3	0.4	2.1
Lithuania	-10.6	-14.5	-13.1	4.3	1.8
Belgium	1.9	1.6	-1.8	0.4	1.4
Ireland	-3.5	-5.3	-5.6	-2.9	0.5
Eurozone 16⁸	-0.1	0.1	-1.5	-0.3	-0.4
EU⁸	-1.2	-1.0	-2.0	-0.9	-0.8
Bulgaria	-17.6	-25.2	-23.0	-8.9	-1.0
Slovenia	-2.5	-4.8	-6.7	-1.5	-1.1
France	-0.6	-1.0	-1.9	-1.9	-2.1
United Kingdom	-3.3	-2.7	-1.5	-1.7	-2.5
Italy	-2.6	-2.4	-2.9	-2.1	-3.3
Poland	-2.7	-4.7	-4.8	-2.2	-3.4
Slovakia	-8.2	-5.3	-6.2	-3.2	-3.4
Czech Republic	-2.4	-3.2	-0.7	-3.2	-3.8
Romania	-10.5	-13.4	-11.6	-4.2	-4.1
Malta	-9.3	-5.6	-7.3	-6.9	-4.1
Spain	-9.0	-10.0	-9.6	-5.2	-4.5
Cyprus	-6.9	-11.7	:	:	-7.7
Portugal	-10.7	-10.1	-12.6	-10.9	-9.9
Greece	-11.2	-14.3	-14.7	-11.0	-10.5
Norway	17.2	14.2	17.9	13.4	12.9
Croatia	-6.8	-7.5	-9.2	-5.4	-1.5
Turkey	-6.1	-5.9	-5.6	-2.3	-6.6
Iceland	-23.8	-15.7	-27.6	-10.7	-7.7

Source: Eurostat, CSO Balance of Payments

- ◆ The deficit in the current account in Ireland's balance of international payments rose from 3.5% of GDP in 2006 to 5.6% in 2008 and then decreased to 2.9% in 2009. However in 2010 the deficit changed to a surplus of 0.5% of GDP.
- ◆ Fourteen member states had current account deficits in 2010, with the largest in Greece (10.5%) and Portugal (9.9%).

⁸ Eurozone and EU data are extra-Eurozone and extra-EU balances respectively.

1.15 EU: Direct investment flows, 2009-2010

% of GDP				
Country	Inward		Outward	
	2009	2010	2009	2010
Luxembourg	396.6	276.4	-443.0	-236.3
Cyprus	:	21.0	:	-18.2
Ireland	11.6	12.7	-11.9	-8.6
Malta	9.5	12.7	-1.8	-1.1
Belgium	4.8	11.3	3.6	-6.6
Estonia	8.7	8.3	-8.0	-2.0
Bulgaria	6.9	4.5	0.2	-0.5
Czech Republic	1.5	3.5	-0.5	-0.9
Romania	3.0	2.2	0.1	-0.1
Poland	3.2	2.1	-1.2	-1.0
United Kingdom	3.3	1.9	-2.0	-1.1
France	2.3	1.8	-5.6	-4.3
Austria	1.8	1.8	-1.9	-2.9
Slovenia	-1.2	1.7	-0.3	-0.4
Lithuania	0.5	1.7	-0.6	-0.4
Spain	0.6	1.5	-0.7	-1.6
Latvia	0.4	1.4	0.2	-0.1
Germany	1.1	1.4	-2.3	-3.2
Hungary	1.6	1.2	-2.1	-0.6
Sweden	2.6	1.1	-6.4	-6.6
Greece	0.7	0.7	-0.6	-0.4
Eurozone 16⁹	1.8	0.7	-2.8	-1.4
Portugal	1.2	0.6	-0.3	3.8
Slovakia	-0.1	0.6	-0.5	-0.4
Italy	0.8	0.4	-1.9	-1.1
Denmark	1.0	-0.1	-2.2	-1.0
Finland	0.0	-0.2	-1.6	-1.7
Netherlands	4.3	-2.1	-3.4	-4.1
Iceland	0.8	6.0	-17.5	2.3
Norway	3.7	2.6	-9.4	-3.5
Turkey	1.4	1.2	-0.3	-0.2
Croatia	4.7	1.0	-2.0	0.3

Source: Eurostat, CSO Balance of Payments

- ◆ Direct investment in Ireland by foreign companies in 2010 was positive. It represented 12.7% of GDP and was the third highest rate in the EU, behind Luxembourg at 276.4% and Cyprus at 21%. Outward investment by companies resident in Ireland into their foreign subsidiaries and associates fell from 11.9% of GDP in 2009 to 8.6% in 2010. Increases in outward direct investment are shown with a negative sign.

⁹ Eurozone data are extra-Eurozone flows.

1.16 EU: Exports of goods and services, 2006–2010

Country	exports as % of GDP				
	2006	2007	2008	2009	2010
Luxembourg	157.8	162.2	155.9	141.4	153.0
Ireland	79.1	80.3	82.8	90.0	102.1
Hungary	77.1	80.3	81.3	77.2	86.1
Malta	87.8	90.6	84.8	77.5	85.3
Estonia	79.5	71.6	74.8	69.9	84.3
Slovakia	84.5	86.3	86.0	70.2	80.7
Belgium	80.1	81.4	82.6	70.5	79.0
Czech Republic	76.3	79.9	77.1	66.8	77.0
Netherlands	69.9	71.7	73.2	64.9	74.1
Lithuania	59.0	54.0	59.8	54.5	68.7
Slovenia	66.3	69.3	67.3	58.0	63.2
Cyprus	46.3	46.9	(c)	(c)	58.9
Bulgaria	61.2	59.4	58.1	47.6	57.9
Austria	57.5	59.9	58.3	49.7	53.6
Latvia	43.9	41.3	41.8	43.2	52.9
Denmark	52.0	52.0	54.7	47.5	50.3
Sweden	50.0	50.7	52.2	47.7	49.0
Germany	45.3	47.3	48.1	41.7	46.5
Poland	40.3	40.8	40.0	39.4	41.5
Finland	45.5	46.0	47.3	38.1	39.4
Romania	32.3	29.2	30.3	30.8	35.9
Portugal	31.5	32.8	33.2	28.7	31.5
United Kingdom	28.0	25.8	28.2	27.3	28.8
Spain	26.5	27.1	26.7	23.9	26.8
Italy	27.7	28.9	28.6	23.7	26.6
France	27.2	27.0	27.1	23.4	25.8
Greece	21.1	21.5	22.7	18.0	19.8
Iceland	32.0	34.5	45.5	52.8	56.7
Norway	46.2	45.6	48.7	43.2	41.8
Croatia	42.4	42.3	41.7	35.4	38.3
Turkey	22.6	22.3	23.9	23.3	21.2

Source: Eurostat, CSO Balance of Payments

- ◆ Ireland's economy is very open, with very high levels of trade in both goods and services.

1.17 EU: Imports of goods and services, 2006–2010

Country	imports as % of GDP				
	2006	2007	2008	2009	2010
Greece	30.5	32.5	34.1	25.7	26.3
France	28.2	28.4	29.3	25.2	28.1
Italy	28.5	29.2	29.4	24.3	28.4
Spain	32.7	33.6	32.2	25.5	28.6
United Kingdom	31.2	29.3	31.5	29.8	32.5
Finland	40.9	40.7	43.1	35.6	36.3
Portugal	39.9	40.3	42.7	35.7	38.0
Germany	39.8	40.3	41.9	36.8	41.1
Romania	44.3	43.2	43.5	36.9	41.2
Poland	42.2	43.7	43.9	39.3	42.5
Sweden	42.2	43.5	45.6	41.1	43.0
Denmark	48.4	49.5	51.5	43.5	44.4
Austria	53.6	55.4	53.4	45.9	50.1
Latvia	66.2	61.8	55.4	44.2	53.1
Cyprus	50.3	53.5	(c)	(c)	54.6
Bulgaria	78.7	79.1	78.6	55.8	59.3
Slovenia	66.9	71.1	70.4	56.8	63.0
Netherlands	61.5	62.9	64.6	57.6	65.6
Lithuania	69.3	67.4	71.5	55.7	69.4
Czech Republic	72.9	75.1	72.5	62.8	73.8
Estonia	90.0	82.9	80.4	64.3	76.7
Belgium	77.8	79.9	84.9	69.9	77.7
Hungary	78.5	79.4	80.9	72.1	78.9
Slovakia	88.9	86.8	87.9	70.3	81.6
Malta	92.8	91.7	88.3	78.2	82.8
Ireland	68.8	70.4	73.8	75.0	83.5
Luxembourg	118.9	118.4	116.5	102.3	107.9
Turkey	27.8	27.4	28.7	24.6	26.9
Norway	28.2	30.3	29.4	28.0	28.1
Croatia	44.3	49.5	49.7	39.1	38.6
Iceland	49.5	44.6	50.1	44.2	46.0

Source: Eurostat, CSO Balance of Payments

- ◆ As a result, both imports and exports as a % of GDP are the second highest in the EU, after Luxembourg.

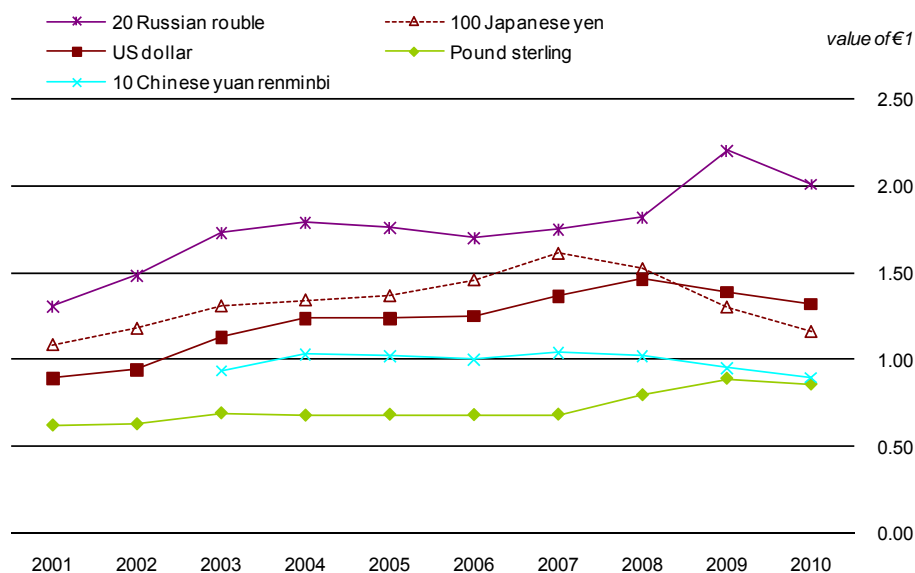
1.18 International: Bilateral euro¹⁰ exchange rates, 2001–2010

value of €1

Year	US dollar	Pound sterling	Japanese yen	Chinese yuan renminbi	Russian rouble
2001	0.896	0.622	108.7	7.41	26.15
2002	0.946	0.629	118.1	7.83	29.70
2003	1.131	0.692	131.0	9.36	34.67
2004	1.244	0.679	134.4	10.30	35.82
2005	1.244	0.684	136.9	10.20	35.19
2006	1.256	0.682	146.0	10.01	34.11
2007	1.371	0.684	161.3	10.42	35.02
2008	1.471	0.796	152.5	10.22	36.42
2009	1.395	0.891	130.3	9.53	44.14
2010	1.326	0.858	116.2	8.97	40.27

Source: European Central Bank

Bilateral euro exchange rates, 2001-2010



¹⁰ On 1 January 1999 the euro became the national currency of the 11 participating EU countries. Greece joined the euro currency on 1 January 2001. Slovenia joined the euro currency on 1 January 2007. Malta and Cyprus joined the euro currency on 1 January 2008 and Slovakia became the 16th country in the Eurozone when it joined on 1 January 2009.

1.19 Ireland: Harmonised competitiveness indicator¹¹, 2001–2010

1999Q1=100

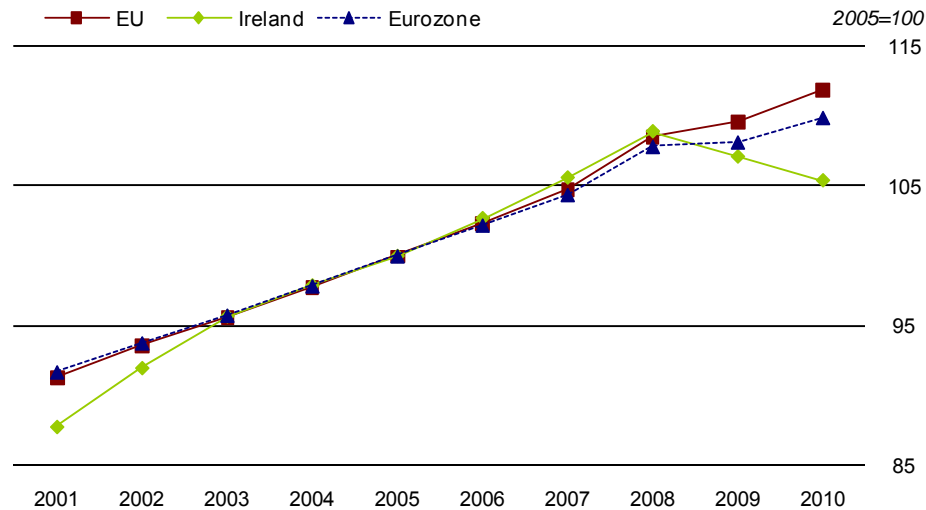
Year	Nominal HCI	Real HCI (Deflated by consumer prices)	Real HCI (Deflated by producer prices)
2001	91.0	95.8	96.5
2002	93.5	101.2	101.0
2003	101.8	112.4	108.7
2004	104.6	115.8	108.3
2005	104.2	115.1	105.9
2006	104.3	115.5	106.3
2007	107.2	119.2	108.0
2008	112.0	123.8	112.8
2009	113.1	121.9	112.3
2010	108.4	112.5	106.6

Source: Central Bank, Financial Services Authority of Ireland

- ◆ The euro appreciated significantly in value against the dollar between 2001 and 2004, from 0.896 in 2001 to 1.244 dollars in 2004. Between 2004 and 2006 the value of the euro against the US dollar was more stable. In 2007 and 2008 the euro increased significantly against the dollar once again to 1.471 dollars in 2008, before falling back to 1.326 dollars in 2010.
- ◆ The relationship between the euro and the pound sterling was stable between 2001 and 2007. In 2008 and 2009 there was a sharp rise in the euro against sterling followed by a slight decrease in 2010.
- ◆ The real harmonised competitiveness indicator (deflated by consumer prices) can be interpreted as a real effective exchange rate and takes into account changes in domestic inflation relative to price changes in the most important 57 trading partners, along with exchange rate developments.
- ◆ Ireland's real HCI disimproved over the period 2001-2008, from 95.8 in 2001 to 123.8 in 2008, mainly due to higher inflation and an appreciating euro. This indicator improved slightly in 2009 and improved more significantly in 2010 to 112.5, mainly due to deflation and a depreciating euro.

¹¹ See Appendix 1 and also Box B in the 'Domestic Prices, Costs and Competitiveness' chapter of the Central Bank's Quarterly Bulletin No. 2 of 2007 for further details.

1.20 Ireland and EU: Harmonised Index of Consumer Prices, 2001–2010



Source: Eurostat HICP

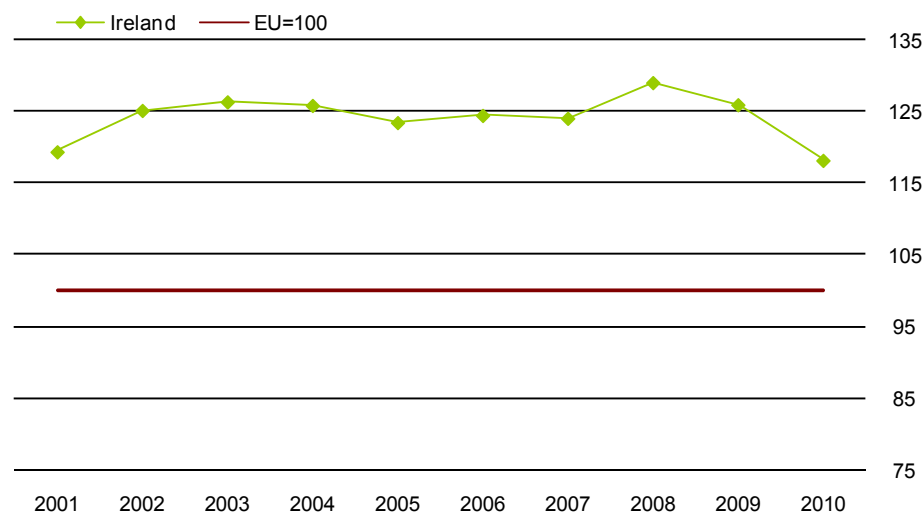
- ◆ The rate of change in consumer prices in Ireland, as measured by the Harmonised Index of Consumer Prices, was higher than the EU average from 2001 to 2003. Between 2004 and 2008 the change in consumer prices in Ireland was broadly similar to the averages for the EU and for the Eurozone.
- ◆ However in 2009 and 2010 the rate of change in consumer prices in Ireland decreased and was the lowest in the EU.
- ◆ The six EU countries with the highest cumulative rate of change in consumer prices between 2006 and 2010 are all new EU member states.

1.21 EU: Harmonised Index of Consumer Prices, 2006–2010

Country	2006	2007	2008	2009	2010
Ireland	102.7	105.6	108.9	107.1	105.4
Netherlands	101.7	103.3	105.5	106.6	107.6
Germany	101.8	104.1	107.0	107.2	108.4
France	101.9	103.6	106.8	106.9	108.8
Portugal	103.0	105.5	108.3	107.4	108.9
Austria	101.7	103.9	107.3	107.7	109.5
Eurozone 16	102.2	104.4	107.8	108.1	109.9
Finland	101.3	102.9	106.9	108.7	110.5
Italy	102.2	104.3	108.0	108.8	110.6
Denmark	101.8	103.5	107.3	108.4	110.8
Sweden	101.5	103.2	106.7	108.7	110.8
Belgium	102.3	104.2	108.9	108.9	111.4
EU	102.3	104.7	108.6	109.6	111.9
Cyprus	102.3	104.5	109.0	109.2	112.0
Slovakia	104.3	106.2	110.4	111.4	112.2
Malta	102.6	103.3	108.1	110.1	112.4
Spain	103.6	106.5	110.9	110.6	112.9
Luxembourg	103.0	105.7	110.0	110.0	113.1
Czech Republic	102.1	105.1	111.7	112.4	113.7
United Kingdom	102.3	104.7	108.5	110.8	114.5
Poland	101.3	103.9	108.3	112.6	115.6
Slovenia	102.5	106.4	112.3	113.3	115.6
Greece	103.3	106.4	110.9	112.4	117.7
Estonia	104.5	111.5	123.3	123.6	127.0
Lithuania	103.8	109.8	122.0	127.1	128.6
Hungary	104.0	112.3	119.1	123.9	129.7
Romania	106.6	111.8	120.7	127.4	135.2
Bulgaria	107.4	115.6	129.4	132.6	136.6
Latvia	106.6	117.3	135.2	139.6	137.9
Switzerland	101.0	101.8	104.2	103.4	104.1
Norway	102.5	103.2	106.7	109.2	111.8
Croatia	103.3	106.0	112.2	114.7	115.9
Turkey	109.3	118.9	131.3	139.5	151.4
Iceland	104.7	108.5	122.3	142.2	152.8

Source: Eurostat HICP

1.22 Ireland and EU: Comparative price levels of final consumption by private households including indirect taxes, 2001–2010¹²



Source: Eurostat HICP

- ◆ Ireland became more expensive between 2001 and 2002. Between 2002 and 2009 our price levels for final consumption by private households have been about 25% above the EU average with a spike in 2008 when our price levels were about 29% above the EU average.
- ◆ However In 2010, price levels for final consumption by private households in Ireland fell sharply to 18.2% above the EU average, giving Ireland the fifth highest prices levels among EU countries, after Denmark, Finland, Luxembourg and Sweden.
- ◆ Bulgaria was the cheapest country by far in the EU in 2010, with prices at only half of the EU average.

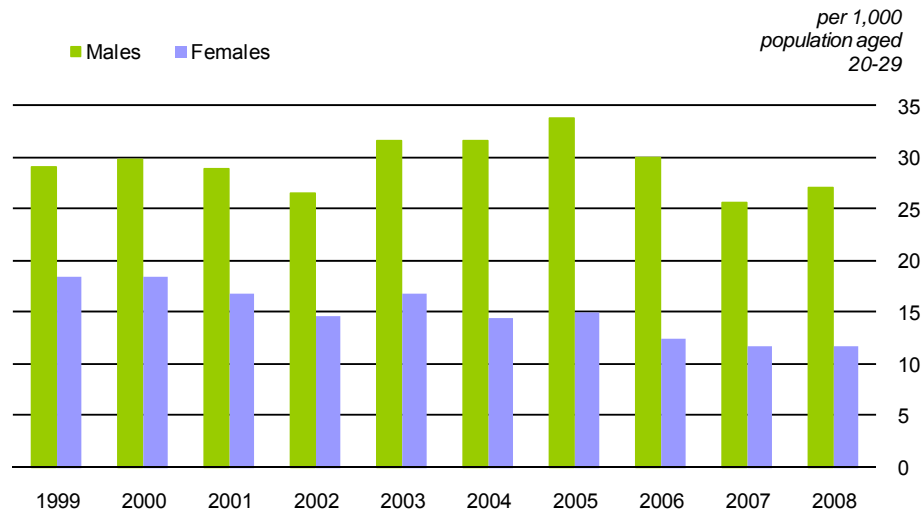
1.23 EU: Comparative price levels of final consumption by private households including indirect taxes, 2006–2010¹⁰

Country	EU=100				
	2006	2007	2008	2009	2010
Bulgaria	44.9	45.6	49.2	49.7	50.5
Romania	57.6	63.8	62.8	57.8	58.6
Poland	62.5	61.7	69.1	57.9	62.6
Lithuania	57.3	60.0	65.9	66.2	63.5
Hungary	60.6	66.7	69.3	64.3	65.5
Latvia	60.8	66.6	74.7	73.5	69.3
Slovakia	58.0	63.2	69.6	72.4	71.2
Czech Republic	61.3	62.4	72.2	70.0	72.0
Estonia	68.5	73.4	77.7	76.6	75.1
Malta	74.8	75.5	77.3	79.8	78.9
Slovenia	76.7	78.9	82.3	84.4	84.0
Portugal	85.0	85.7	88.0	88.7	87.6
Cyprus	90.3	88.3	88.8	90.1	89.3
Greece	89.1	89.8	91.0	96.5	95.5
Spain	91.8	92.9	95.2	97.8	96.7
EU	100.0	100.0	100.0	100.0	100.0
United Kingdom	110.6	113.9	102.1	95.2	100.3
Italy	104.2	102.5	102.9	105.5	103.6
Germany	102.6	101.7	103.5	105.8	104.2
Eurozone 16	101.9	101.4	103.5	106.1	104.3
Netherlands	104.0	102.0	104.8	109.0	106.1
Austria	102.0	102.6	105.4	107.6	107.1
Belgium	107.7	107.4	110.4	113.4	111.6
France	108.5	108.1	111.9	114.2	111.8
Ireland	124.5	124.1	129.1	126.0	118.2
Sweden	118.5	115.6	113.2	107.7	119.8
Luxembourg	111.4	114.8	117.5	121.1	119.9
Finland	122.7	119.6	121.3	125.4	122.9
Denmark	138.4	137.3	139.7	144.9	142.5
Macedonia	44.5	44.6	46.2	45.0	44.3
Turkey	66.5	70.1	69.1	64.1	73.0
Croatia	72.6	71.9	74.6	74.1	74.1
Iceland	144.7	148.9	117.0	98.6	111.0
Norway	139.8	137.5	139.8	135.8	147.3
Switzerland	134.6	125.1	129.3	138.5	148.0

Source: Eurostat HICP

¹² Break in series in 2005.

2.1 Ireland: Mathematics, science and technology graduates, 1999–2008



Source: Eurostat

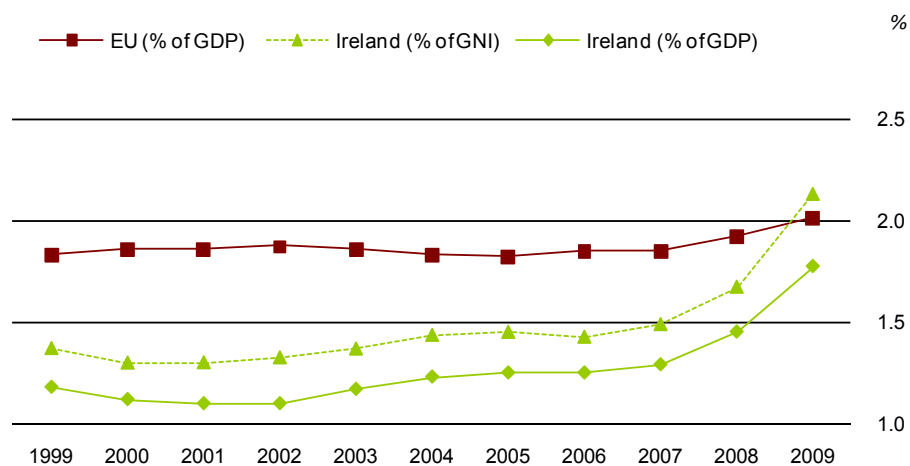
- ◆ Over the period 1999 to 2006, the proportion of male mathematics, science and technology graduates was close to or above 30 per 1,000 males aged 20-29, falling to 25.5 in 2007 before rising to 27.1 in 2008. The proportion of female graduates in these disciplines per 1,000 females aged 20-29 has fallen by about a third over this time period, from 18.5 per 1,000 females to just under 12.
- ◆ In 2008 the proportion of mathematics, science and technology PhDs awarded in Ireland, at 0.8 per 1,000 population aged 25-34, was higher than the EU average of 0.6. Ireland had the seventh highest rate in the EU in 2008, while Sweden had the highest rate at 1.6.

2.2 EU: Mathematics, science and technology PhDs awarded, 2004–2008

Country	per 1,000 population aged 25-34				
	2004	2005	2006	2007	2008
Sweden	1.8	1.0	1.7	1.7	1.6
Portugal	1.0	1.1	1.3	1.4	1.3
Finland	1.3	1.2	1.3	1.4	1.2
Germany	0.8	0.9	0.9	0.9	1.0
Austria	0.7	0.8	0.8	0.8	0.9
United Kingdom	0.9	0.9	1.0	1.0	0.9
Ireland	0.6	0.7	0.8	0.7	0.8
France	:	0.7	0.7	0.8	0.8
Belgium	0.5	0.6	0.6	0.6	0.7
Czech Republic	0.5	0.6	0.6	0.6	0.7
Slovenia	0.6	0.6	0.6	0.6	0.7
EU	0.6	0.6	0.6	0.7	0.6
Denmark	0.6	0.6	0.6	0.6	0.6
Slovakia	0.4	0.5	0.5	0.6	0.6
Estonia	0.4	0.3	0.3	0.4	0.5
Netherlands	0.4	0.5	0.5	0.5	0.5
Spain	0.4	0.4	0.4	0.4	0.4
Greece	0.5	0.4	:	0.3	0.3
Lithuania	0.3	0.2	0.3	0.3	0.3
Poland	0.3	0.3	0.5	0.3	0.3
Romania	0.2	0.2	0.2	0.2	0.3
Bulgaria	0.1	0.2	0.2	0.2	0.2
Latvia	0.1	0.2	0.1	0.2	0.2
Hungary	0.1	0.1	0.1	0.2	0.2
Cyprus	0.1	0.0	0.1	0.1	0.1
Malta	:	:	0.0	0.1	0.1
Italy	0.4	0.5	0.6	0.6	:
Switzerland	1.1	1.3	1.5	1.5	1.4
Norway	:	0.6	0.5	0.7	0.9
Croatia	0.3	0.3	0.3	0.3	0.3
Iceland	0.1	0.0	0.2	0.1	0.2
Macedonia	0.1	0.1	0.1	0.1	0.1
Turkey	0.1	0.1	0.1	:	0.1

Source: Eurostat

2.3 Ireland and EU: Gross domestic expenditure on R&D, 1999–2009



Source: Eurostat, Forfás

- ◆ Between 1999 and 2008 Ireland consistently spent less on research and development as a percentage of GDP/GNI than the EU average. However the gap narrowed in 2008 and 2009, helped somewhat by falling levels of GDP/GNI in those years. By 2009 Ireland's expenditure as a % of GNI at 2.13% exceeded the EU average of 2.01%.
- ◆ The big research and development investors in 2009 were Finland and Sweden. Investment was also high in Denmark, Germany and Austria.

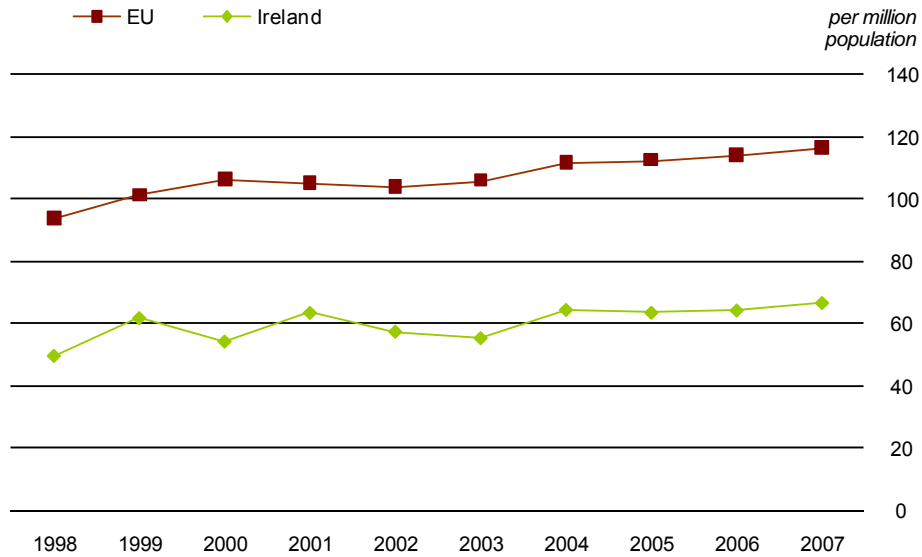
2.4 EU: Gross domestic expenditure on R&D, 1999–2009¹³

Country	% of GDP		
	1999	2004	2009
Finland	3.17	3.45	3.96
Sweden	3.58	3.58	3.60
Denmark	2.18	2.48	3.02
Germany	2.40	2.49	2.82
Austria	1.90	2.26	2.75
France	2.16	2.15	2.21
Ireland (GNI)	1.37	1.44	2.13
EU	1.83	1.83	2.01
Belgium	1.94	1.86	1.96
United Kingdom	1.82	1.68	1.87
Slovenia	1.37	1.40	1.86
Netherlands	1.96	1.93	1.84
Ireland (GDP)	1.18	1.23	1.77
Luxembourg	1.65	1.63	1.68
Portugal	0.69	0.75	1.66
Czech Republic	1.14	1.25	1.53
Estonia	0.68	0.85	1.42
Spain	0.86	1.06	1.38
Italy	1.02	1.10	1.27
Hungary	0.67	0.87	1.15
Lithuania	0.50	0.75	0.84
Poland	0.69	0.56	0.59
Greece	0.60	0.55	0.58
Malta	:	0.53	0.55
Bulgaria	0.55	0.49	0.53
Romania	0.40	0.39	0.48
Slovakia	0.66	0.51	0.48
Cyprus	0.23	0.37	0.46
Latvia	0.36	0.42	0.46
Switzerland	2.53	2.90	3.00
Iceland	2.30	2.77	2.65
Norway	1.64	1.59	1.80
Croatia	:	1.05	0.84
Turkey	0.47	0.52	0.73

Source: Eurostat

¹³ 2007 data used for 2009 for Greece, 2008 data used for 2009 for Iceland, Switzerland and Turkey. 2005 data used for 2004 for Iceland and 2000 data used for 1999 for Luxembourg and Switzerland.

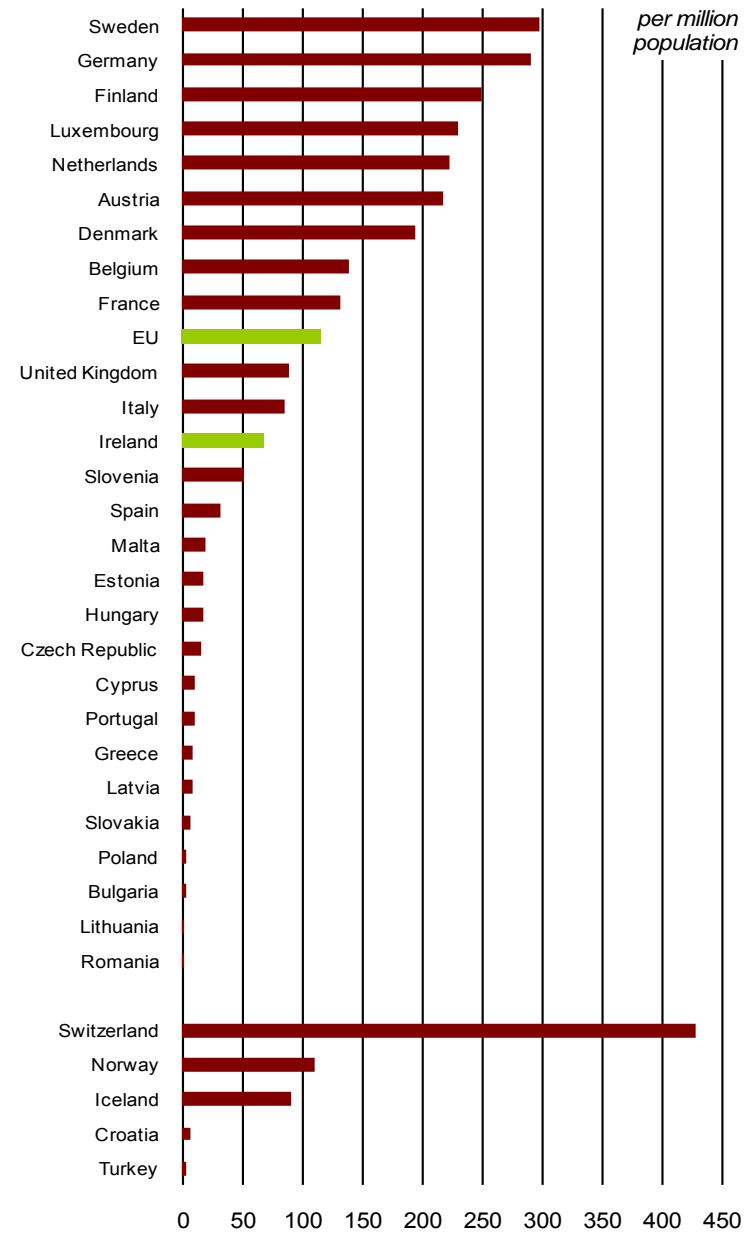
2.5 Ireland and EU: European Patent Office applications, 1998–2007



Source: Eurostat, EPO

- ◆ The rate of applications from Ireland to the European Patent Office is significantly lower than the EU average. There are about 60 applications from Ireland per million population and this rate has remained steady for several years. The EU rate has been climbing slightly and in 2007 stood at close to 120 per million population.
- ◆ The EU average masks large variations, as graph 2.6 shows. The rate is negligible in Romania, Lithuania, Bulgaria and Poland and highest for Sweden at nearly 300 per million population. But the highest rate by far is for Switzerland which, at 429 applications per million population, is about seven times the Irish rate.

2.6 EU: European Patent Office applications, 2007



Source: Eurostat, European Patent Office

2.7 Ireland: Private households¹⁴ with a computer connected to the Internet, 1998–2010

Year	% of all households with a computer connected to the Internet	% of all households with broadband Internet connection
1998	5	:
2000	20	:
2005	45	7
2006	49	13
2007	57	31
2008	62	43
2009	66	54
2010	71	62

Source: CSO

- ◆ About seven out of ten (71%) of all private households in Ireland had a computer connected to the Internet in 2010. Since 1998, when only one in twenty households had a computer connected to the internet, there has been strong growth each year in internet connections.
- ◆ The Netherlands, at 91%, had the highest rate of household Internet access in the EU in 2010. Ireland, at 72%, was ranked eleventh in the EU in 2010. The EU average was 70% of households.

2.8 EU: Private households with Internet access, 2006–2010¹⁴

Country	% of households				
	2006	2007	2008	2009	2010
Netherlands	80	83	86	90	91
Luxembourg	70	75	80	87	90
Sweden	77	79	84	86	88
Denmark	79	78	82	83	86
Germany	67	71	75	79	82
Finland	65	69	72	78	81
United Kingdom	63	67	71	77	80
France	41	49	62	63	74
Belgium	54	60	64	67	73
Austria	52	60	69	70	73
Ireland	50	57	63	67	72
EU	49	54	60	65	70
Malta	53	54	59	64	70
Estonia	46	53	58	63	68
Slovenia	54	58	59	64	68
Slovakia	27	46	58	62	67
Poland	36	41	48	59	63
Czech Republic	29	35	46	54	61
Lithuania	35	44	51	60	61
Latvia	42	51	53	58	60
Hungary	32	38	48	55	60
Spain	39	45	51	54	59
Italy	40	43	47	53	59
Cyprus	37	39	43	53	54
Portugal	35	40	46	48	54
Greece	23	25	31	38	46
Romania	14	22	30	38	42
Bulgaria	17	19	25	30	33
Norway	69	78	84	86	90
Croatia	:	41	45	50	56
Turkey	:	20	:	30	42
Iceland	83	84	88	90	:
Macedonia	14	:	29	42	:

Source: Eurostat, CSO QNHS

¹⁴ Table 2.7 measures the number of households (with at least one member aged between 15 and 74) that have a computer connected to the Internet. Table 2.8 measures all means a household may have of accessing the Internet.

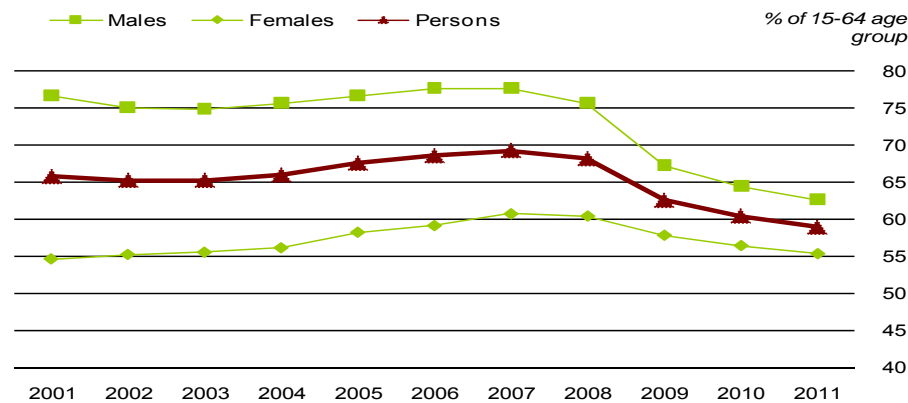
3.1 Ireland: Employment rates by sex, 2001-2011

% of population aged 15-64

Year	Persons	Males	Females
2001	65.7	76.7	54.6
2002	65.2	75.1	55.2
2003	65.2	74.9	55.5
2004	65.9	75.7	56.1
2005	67.5	76.6	58.2
2006	68.5	77.7	59.1
2007	69.2	77.6	60.7
2008	68.1	75.7	60.4
2009	62.5	67.3	57.8
2010	60.4	64.5	56.4
2011	58.9	62.6	55.3

Source: CSO QNHS¹⁵

Ireland: Employment rates by sex, 2001-2011



- ◆ The overall employment rate in Ireland for those aged 15-64 rose from 65.7% in 2001 to 69.2% in 2007, before decreasing sharply to 58.9% in the first quarter of 2011. The male employment rate was stable over the 2001 to 2008 period at about 76% but declined steeply over the next three years to 62.6% in early 2011. The female employment rate increased from 54.6% in 2001 to 60.4% in 2008 before falling to 55.3% in early 2011.
- ◆ The male employment rate in Ireland was 22.1 percentage points above the female rate in 2001 but this gap had narrowed to just 7.3 percentage points by early 2011.

3.2 EU: Employment rates by sex, 2010

% of population aged 15-64

Country	Total Persons	Males	Females	Gender differential
Netherlands	74.7	80.0	69.3	10.7
Denmark	73.4	75.8	71.1	4.7
Sweden	72.7	75.1	70.3	4.8
Austria	71.7	77.1	66.4	10.7
Germany	71.1	76.0	66.1	9.9
Cyprus	69.7	76.6	63.0	13.6
United Kingdom	69.5	74.5	64.6	9.9
Finland	68.1	69.4	66.9	2.5
Slovenia	66.2	69.6	62.6	7.0
Portugal	65.6	70.1	61.1	9.0
Luxembourg	65.2	73.1	57.2	15.9
Czech Republic	65.0	73.5	56.3	17.2
EU	64.2	70.1	58.2	11.9
France	64.0	68.3	59.9	8.4
Belgium	62.0	67.4	56.5	10.9
Estonia	61.0	61.5	60.6	0.9
Ireland	60.4	64.5	56.4	8.1
Bulgaria	59.7	63.0	56.4	6.6
Greece	59.6	70.9	48.1	22.8
Latvia	59.3	59.2	59.4	-0.2
Poland	59.3	65.6	53.0	12.6
Romania	58.8	65.7	52.0	13.7
Slovakia	58.8	65.2	52.3	12.9
Spain	58.6	64.7	52.3	12.4
Lithuania	57.8	56.8	58.7	-1.9
Italy	56.9	67.7	46.1	21.6
Malta	56.0	72.3	39.2	33.1
Hungary	55.4	60.4	50.6	9.8
Switzerland	78.6	84.6	72.5	12.1
Iceland	78.2	80.1	76.2	3.9
Norway	75.3	77.3	73.3	4.0
Croatia	54.1	59.5	48.8	10.7
Turkey	46.3	66.7	26.2	40.5
Macedonia	43.5	52.8	34.0	18.8

Source: Eurostat LFS, CSO QNHS

- ◆ Ireland's overall employment rate, at 60.4%, was below the average EU rate of 64.2% in 2010. The highest employment rate in the EU was in the Netherlands at 74.7% while the lowest was in Hungary at 55.4%.

¹⁵ Data from QNHS is Q2 for all years except 2011 which is Q1.

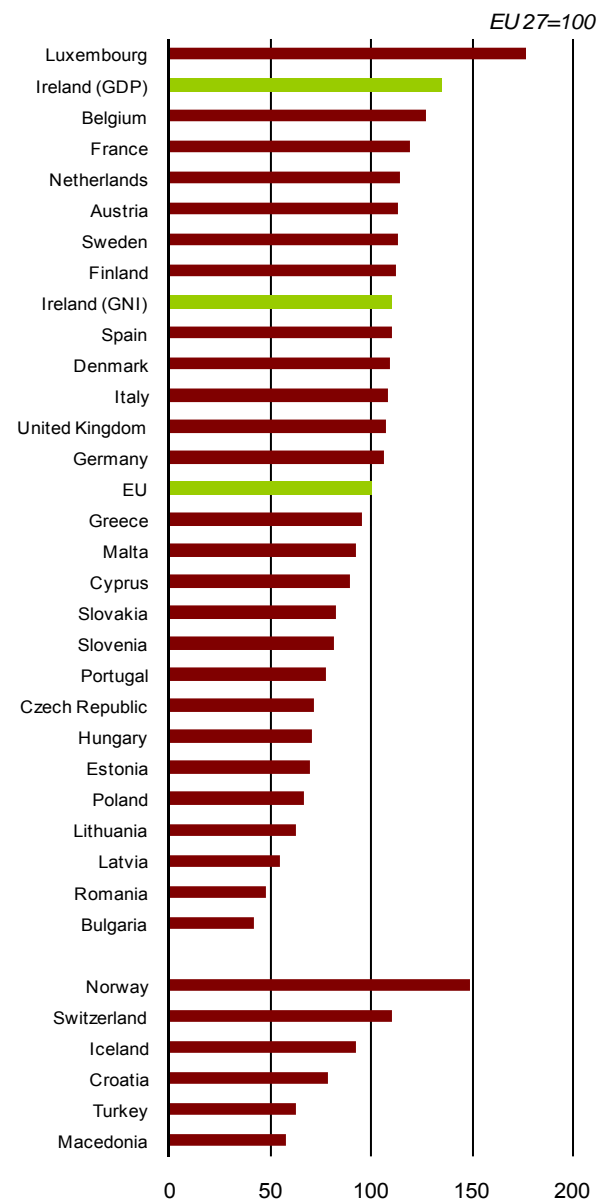
3.3 Ireland: GDP in Purchasing Power Standards per hour worked and per person employed¹⁶, 2000–2010

Year	EU=100	
	per hour worked	per person employed
2000	112.0	128.3
2001	113.1	128.7
2002	118.4	134.4
2003	121.0	136.8
2004	120.8	136.1
2005	119.3	135.0
2006	120.4	135.9
2007	123.0	137.6
2008	116.9	128.5
2009	120.3	131.3
2010	123.2	134.8

Source: Eurostat

- ◆ The productivity of the Irish workforce can be measured by GDP in Purchasing Power Standards (PPS) per person employed. In 2010 productivity per person employed stands at just over a third higher than the EU average. As Irish employees work longer hours, productivity per hour worked is lower, at 23.2% above the EU average.
- ◆ Ireland had the second highest productivity rate among EU states in 2010, after Luxembourg. The twelve new EU member states, along with Greece and Portugal, have productivity rates lower than the EU average.

3.4 EU: GDP in Purchasing Power Standards per person employed¹⁷, 2010

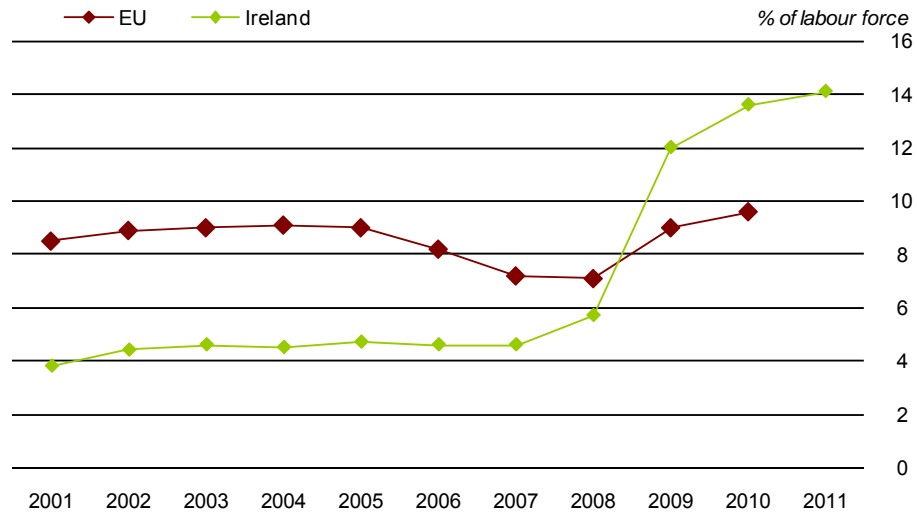


Source: Eurostat

¹⁶ See Appendix 1 for details of PPS. Break in series in 2005.

¹⁷ Data for France, Croatia, Iceland, Macedonia and Turkey are forecasts.

3.5 Ireland and EU: Unemployment rates, 2001-2011



Source: Eurostat, CSO¹⁸

- ◆ The unemployment rate in Ireland had fallen to 3.8% in 2001 having been significantly higher in the 1990s. Over the following six years the rate remained fairly stable at around 4.5% and then increased to 5.7% in 2008. In 2009 the unemployment rate in Ireland more than doubled to 12%. The rate continued to increase over the last two years to stand at 14.1% in early 2011.
- ◆ Up to 2008 the unemployment rate in Ireland was consistently lower than the rate for the EU. However by 2010 the unemployment rate in Ireland was the sixth highest in the EU, above the EU average of 9.6%. The highest unemployment rate in the EU in 2010 was in Spain (20.1%).
- ◆ Fourteen EU countries, including Ireland, had higher male than female unemployment rates in 2010, with Ireland having the largest gender differential in the EU: 16.7% of males and 9.8% of females were unemployed.

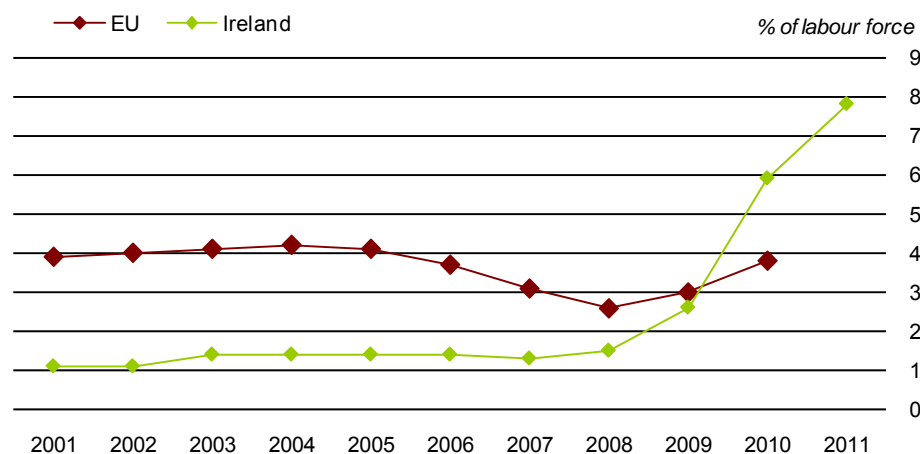
3.6 EU: Unemployment rates by sex, 2010

Country	% of labour force			
	Total Persons	Males	Females	Gender differential
Austria	4.4	4.6	4.2	0.4
Luxembourg	4.5	4.0	5.3	-1.3
Netherlands	4.5	4.4	4.5	-0.1
Cyprus	6.5	6.4	6.7	-0.3
Malta	6.8	6.6	7.2	-0.6
Germany	7.1	7.5	6.6	0.9
Czech Republic	7.3	6.4	8.5	-2.1
Romania	7.3	7.9	6.5	1.4
Slovenia	7.3	7.5	7.1	0.4
Denmark	7.4	8.2	6.6	1.6
United Kingdom	7.8	8.6	6.8	1.8
Belgium	8.3	8.1	8.5	-0.4
Italy	8.4	7.6	9.7	-2.1
Finland	8.4	9.1	7.6	1.5
Sweden	8.4	8.5	8.2	0.3
EU	9.6	9.7	9.6	0.1
Poland	9.6	9.3	10.0	-0.7
France	9.7	9.4	10.2	-0.8
Bulgaria	10.2	10.9	9.5	1.4
Portugal	11.0	10.0	12.1	-2.1
Hungary	11.2	11.6	10.7	0.9
Greece	12.6	9.9	16.2	-6.3
Ireland	13.6	16.7	9.8	6.9
Slovakia	14.4	14.2	14.6	-0.4
Estonia	16.9	19.5	14.3	5.2
Lithuania	17.8	21.2	14.5	6.7
Latvia	18.7	21.7	15.7	6.0
Spain	20.1	19.7	20.5	-0.8
Norway	3.5	4.0	3.0	1.0
Turkey	10.7	10.4	11.4	-1.0
Croatia	11.8	11.0	12.8	-1.8

Source: Eurostat LFS

¹⁸ Data from QNHS is Q2 for all years except for 2011 which is Q1.

3.7 Ireland and EU: Long-term unemployment rates, 2001–2011



Source: Eurostat, CSO¹⁹

- ◆ The long-term unemployment rate (those unemployed for a year or more) in Ireland was fairly stable at around 1.4% between 2001 and 2008 but it has increased strongly in recent years to 5.9% in 2010 and 7.8% in early 2011.
- ◆ The EU long-term unemployment rate was around 4% between 2001 and 2005 and then decreased over the following few years to 2.6% in 2008 before rising to 3.8% in 2010.
- ◆ In 2010 the long-term unemployment rate for Ireland was 5.9%, compared with an EU average of 3.8%, and was the sixth highest in the EU.
- ◆ The long-term unemployment rate for men in Ireland was just over two and a half times that for women in 2010 while at EU level the rates for women and men were similar.

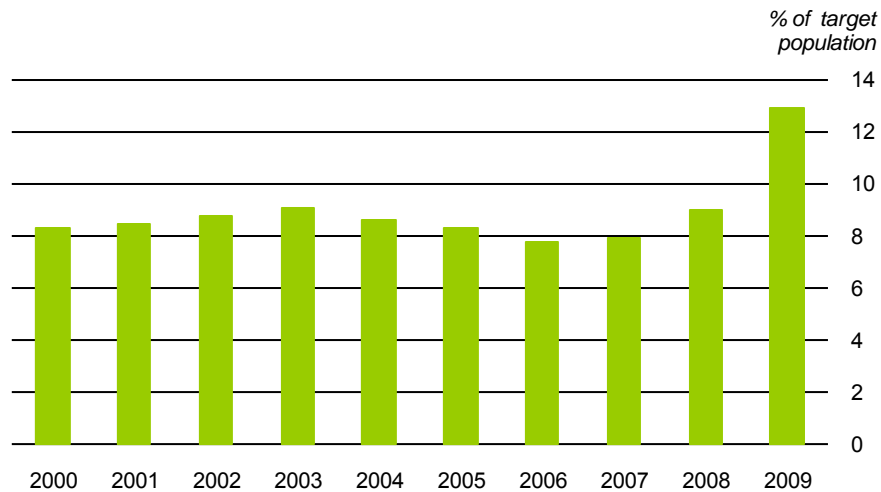
3.8 EU: Long-term unemployment rates by sex, 2010

Country	% of labour force		
	Total Persons	Males	Females
Austria	1.1	1.3	0.9
Netherlands	1.2	1.2	1.2
Cyprus	1.3	1.3	1.3
Luxembourg	1.3	1.3	1.4
Denmark	1.4	1.7	1.1
Sweden	1.5	1.7	1.3
Finland	2.0	2.5	1.5
Romania	2.5	2.9	2.1
United Kingdom	2.5	3.2	1.8
Czech Republic	3.0	2.6	3.5
Poland	3.0	2.9	3.2
Malta	3.1	3.3	2.7
Germany	3.2	3.6	2.9
Slovenia	3.2	3.4	2.9
EU	3.8	3.9	3.7
France	3.9	3.9	3.9
Belgium	4.1	4.0	4.1
Italy	4.1	3.6	4.8
Bulgaria	4.8	5.1	4.4
Hungary	5.5	5.8	5.2
Greece	5.7	3.9	8.1
Portugal	5.7	5.2	6.4
Ireland	5.9	8.1	3.2
Spain	7.3	7.1	7.7
Lithuania	7.4	9.0	5.8
Estonia	7.7	9.4	5.9
Latvia	8.4	10.4	6.4
Slovakia	9.2	9.0	9.5
Norway	0.7	0.9	0.5
Iceland	1.3	1.6	1.1
Turkey	2.8	2.3	3.9
Croatia	5.2	4.6	6.0

Source: Eurostat LFS

¹⁹ Data from QNHS is Q2 for all years except 2011 which is Q1.

3.9 Ireland: Population aged 18–59 living in jobless households²⁰, 2000–2009



Source: Eurostat

- ◆ The proportion of the population aged 18-59 living in jobless households in Ireland was relatively stable over the period 2000 to 2008, generally around 8% or 9%. However the proportion increased sharply in 2009 to 12.9%.
- ◆ In 2009, Hungary was the only EU state with a higher proportion of 18-59 year olds living in jobless households than Ireland.

3.10 EU: Population aged 18–59 living in jobless households²⁰, 2005–2009

Country	% of target population ⁶				
	2005	2006	2007	2008	2009
Cyprus	5.3	5.2	4.7	4.9	5.6
Netherlands	7.9	7.4	6.5	5.9	6.0
Czech Republic	7.4	7.2	6.5	6.0	6.7
Portugal	5.7	5.8	5.7	5.5	6.7
Luxembourg	6.7	7.1	7.0	7.9	7.3
Austria	8.4	7.6	7.1	7.0	7.3
Slovenia	7.1	7.4	6.5	6.4	7.5
Slovakia	10.3	9.5	8.9	7.5	8.2
Malta	8.2	7.9	7.7	8.1	8.3
Greece	8.9	8.1	8.0	7.5	8.5
Germany	11.0	10.5	9.5	9.0	9.2
Bulgaria	13.7	12.1	10.2	9.0	9.7
EU	10.3	9.8	9.3	9.2	10.1
Poland	14.8	13.2	11.6	10.1	10.2
Estonia	8.6	6.6	6.0	6.2	10.4
Italy	9.8	9.5	9.2	9.6	10.4
France	10.3	10.5	10.0	9.8	10.5
Latvia	8.5	6.7	6.6	6.4	10.5
Spain	6.6	6.3	6.2	7.4	10.8
Romania	11.3	10.3	10.4	10.5	10.9
United Kingdom	10.9	10.8	10.7	10.7	11.5
Lithuania	6.8	6.9	7.0	9.0	12.0
Belgium	13.7	13.6	12.3	12.0	12.8
Ireland	8.3	7.8	7.9	9.0	12.9
Hungary	12.3	11.8	11.9	12.5	13.1
Denmark	8.6	7.7	8.1	6.8	:
Finland	10.5	9.5	9.1	8.1	:
Croatia	12.2	12.4	11.3	10.8	11.2
Turkey	:	15.6	15.8	16.2	17.4
Macedonia	:	24.7	24.2	20.7	18.8

Source: Eurostat LFS

²⁰ This indicator is calculated as the share of persons aged 18-59 who are living in households where no one works. Households containing only students aged 18-24 are not included.

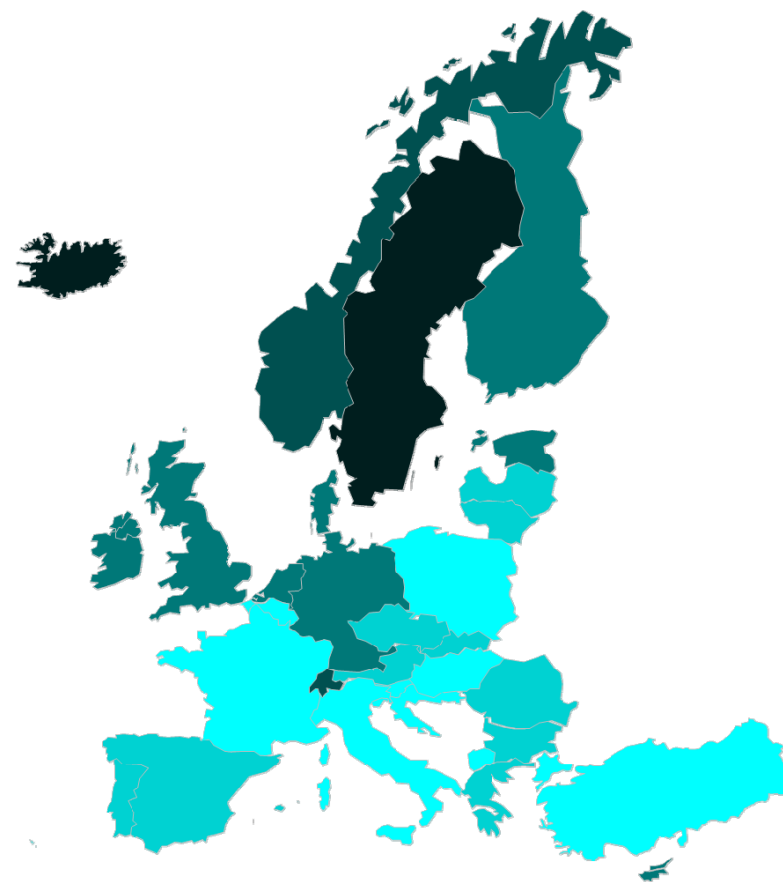
3.11 EU: Employment rate of persons aged 55–64 by sex, 2010

Country	Total Persons	% of 55-64 age group	
		Males	Females
Sweden	70.5	74.2	66.7
Germany	57.7	65.0	50.5
Denmark	57.6	62.7	52.5
United Kingdom	57.1	65.0	49.5
Cyprus	56.8	71.2	43.0
Finland	56.2	55.6	56.9
Estonia	53.8	52.2	54.9
Netherlands	53.7	64.5	42.8
Ireland	50.0	58.1	42.0
Portugal	49.2	55.7	43.5
Lithuania	48.6	52.3	45.8
Latvia	48.2	47.6	48.7
Czech Republic	46.5	58.4	35.5
EU	46.3	54.6	38.6
Spain	43.6	54.7	33.2
Bulgaria	43.5	50.3	37.7
Austria	42.4	51.6	33.7
Greece	42.3	56.5	28.9
Romania	41.1	50.3	33.0
Slovakia	40.5	54.0	28.7
France	39.7	42.1	37.5
Luxembourg	39.6	47.7	31.3
Belgium	37.3	45.6	29.2
Italy	36.6	47.6	26.2
Slovenia	35.0	45.5	24.5
Hungary	34.4	39.6	30.1
Poland	34.0	45.3	24.2
Malta	30.2	47.9	13.0
Iceland	79.8	83.2	76.4
Norway	68.6	72.2	65.0
Switzerland	68.0	77.6	58.5
Croatia	35.7	47.0	25.8
Macedonia	34.2	46.7	22.4
Turkey	29.6	42.7	17.1

Source: Eurostat LFS

- ◆ Ireland had the ninth highest employment rate for people aged 55-64 in the EU in 2010 at 50% and was above the EU average of 46.3%. The highest rate, by a wide margin, was in Sweden at 70.5%.
- ◆ In Ireland, 58.1% of men aged 55-64 were employed in 2010 compared with 42% of women. In the EU the rates were 54.6% for males and 38.6% for females.

EU: Employment rate of persons aged 55-64 by sex, 2010



4.1 Ireland and EU: Social protection expenditure, 1999–2008



Source: Eurostat, CSO National Accounts

- ◆ Social protection expenditure²¹ as a proportion of GDP was lower in Ireland over the period 1999-2008 than in the EU. Expenditure in Ireland increased from 13.9% in 2000 to 22.1% in 2008.
- ◆ Social protection expenditure on a per capita basis in Ireland increased from 5,549 PPPs in 2004 to 7,460 PPPs in 2008. This placed Ireland tenth among EU countries in 2008 and above the EU average.
- ◆ Luxembourg's expenditure on social protection in 2008 was the highest by far in the EU, and was nearly double that of Ireland, at 14,057 PPPs per capita.

²¹ It should be noted that in 2010 Ireland had the lowest proportion of persons aged 65 and over in the population among EU states which had an affect on social protection expenditure (see Table 7.9).

4.2 EU: Social protection expenditure in Purchasing Power Parities²² per capita, 2004-2008

Country	PPP per capita				
	2004	2005	2006	2007	2008
Luxembourg	12,200	12,413	13,069	13,245	14,057
Netherlands	7,926	8,191	8,932	9,366	9,557
Sweden	8,645	8,531	8,807	9,079	9,033
Denmark	8,356	8,407	8,580	8,703	8,942
Austria	8,051	8,096	8,403	8,574	8,763
France	7,448	7,812	7,911	8,223	8,310
Belgium	7,667	7,967	8,404	7,729	8,171
Germany	7,506	7,806	7,879	7,994	7,998
Finland	6,708	6,866	7,130	7,461	7,724
Ireland	5,549	5,850	6,322	6,945	7,460
Italy	6,002	6,218	6,561	6,891	7,090
United Kingdom	6,925	7,200	7,415	6,796	6,895
EU	5,870	6,102	6,325	6,427	6,604
Greece	4,792	5,068	5,396	5,639	6,048
Spain	4,528	4,802	5,153	5,500	5,846
Slovenia	4,368	4,527	4,706	4,704	4,921
Portugal	3,989	4,385	4,584	4,668	4,791
Cyprus	3,537	3,760	3,937	4,228	4,426
Czech Republic	3,140	3,267	3,397	3,709	3,774
Hungary	2,835	3,113	3,349	3,481	3,693
Malta	3,122	3,242	3,317	3,449	3,637
Slovakia	2,124	2,235	2,448	2,702	2,900
Poland	2,203	2,275	2,379	2,461	2,630
Estonia	1,618	1,740	1,893	2,136	2,548
Lithuania	1,468	1,580	1,757	2,139	2,514
Latvia	1,298	1,384	1,538	1,559	1,803
Romania	947	1,056	1,163	1,405	1,716
Bulgaria	721	1,241	1,283	1,412	1,661
Norway	9,213	9,447	9,819	10,206	10,642
Switzerland	8,605	8,770	8,984	9,587	9,352
Iceland	6,440	6,332	6,204	6,502	6,708

Source: Eurostat

²² See Appendix 1 for details of PPPs.

4.3 EU: Social protection expenditure by type, 2008

Country	% of GDP					Total
	Family/ Children	Unemployment	Sickness and dis- ability	Old age and sur- vivors	Housing & social exclusion	
France	2.5	1.7	10.5	13.4	1.2	30.8
Denmark	3.8	1.4	11.1	11.1	1.5	29.7
Sweden	3.0	0.9	11.8	12.0	1.1	29.4
Netherlands	1.8	1.0	11.2	10.7	2.1	28.4
Belgium	2.1	3.3	9.4	10.8	1.0	28.3
Austria	2.8	1.4	9.3	13.4	0.4	28.2
Italy	1.3	0.5	8.6	16.1	0.1	27.8
Germany	2.8	1.4	10.2	11.5	0.7	27.8
EU	2.1	1.3	9.6	11.5	0.9	26.4
Finland	3.0	1.8	10.0	9.7	1.0	26.3
Greece	1.6	1.3	8.5	12.8	1.1	26.0
Ireland (GNI)	3.6	2.1	11.1	6.3	1.0	25.5
Portugal	1.3	1.0	8.6	11.9	0.3	24.3
United Kingdom	1.7	0.6	10.1	9.0	1.4	23.7
Spain	1.5	3.0	8.4	8.8	0.5	22.7
Hungary	2.8	0.8	7.7	10.1	0.9	22.7
Ireland (GDP)	3.1	1.8	9.7	5.5	0.9	22.1
Slovenia	1.8	0.4	8.7	9.6	0.4	21.5
Luxembourg	3.9	0.9	7.3	7.1	0.6	20.1
Malta	1.3	0.5	6.6	9.6	0.6	18.9
Czech Republic	1.5	0.6	7.5	8.3	0.2	18.7
Poland	0.7	0.4	6.1	10.9	0.2	18.6
Cyprus	2.1	0.8	5.1	8.2	1.9	18.4
Lithuania	1.9	0.4	6.3	7.0	0.2	16.2
Slovakia	1.5	0.6	6.4	6.6	:	16.0
Bulgaria	1.3	0.3	5.6	7.4	0.3	15.5
Estonia	1.8	0.3	6.3	6.4	0.1	15.1
Romania	1.5	0.2	4.9	7.1	0.3	14.3
Latvia	1.4	0.5	4.6	5.6	0.3	12.6
Switzerland	1.3	0.6	9.7	12.5	0.8	26.4
Norway	2.8	0.4	11.0	7.0	0.8	22.4
Iceland	2.9	0.4	11.9	5.4	1.2	22.0

Source: Eurostat

- ◆ Ireland's expenditure on social protection was 22.1% of GDP compared with an EU average of 26.4%. France was the highest at 30.8% and Latvia the lowest at 12.6%.
- ◆ Social protection expenditure on old age and survivors was 5.5% of GDP and 6.3% of GNI in Ireland in 2008, compared with 11.5% in the EU, partly reflecting the fact that in 2010 Ireland had the lowest proportion of persons aged over 65 in the EU.

4.4 EU: At risk of poverty rates²³, 2009

Country	% of population			
	Before pensions & social transfers	After pensions	After pensions & social transfers	Reduction
Czech Republic	36	18	9	27
Slovakia	36	17	11	25
Netherlands	36	21	11	25
Slovenia	38	22	11	27
Austria	43	24	12	31
Hungary	51	29	12	39
France	43	24	13	30
Denmark	40	31	13	27
Sweden	41	27	13	27
Finland	39	26	14	25
Belgium	41	27	15	26
Luxembourg	44	27	15	29
Ireland	46	38	15	31
Malta	36	23	15	21
Germany	44	24	16	28
Cyprus	31	23	16	14
EU	42	25	16	26
Poland	43	24	17	26
United Kingdom	43	30	17	26
Portugal	42	24	18	24
Italy	43	23	18	24
Spain	39	24	20	20
Estonia	38	26	20	18
Greece	42	23	20	22
Lithuania	42	29	21	22
Bulgaria	39	26	22	17
Romania	48	29	22	26
Latvia	38	30	26	12
Iceland	27	20	10	17
Norway	25	25	11	14
Switzerland	34	22	15	19

Source: Eurostat, EU SILC

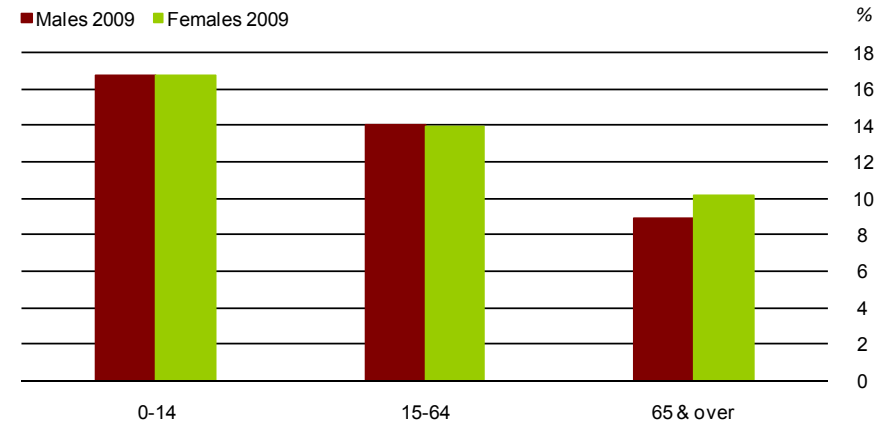
²³ Data in Table 4.4 are obtained from the EU Survey on Income and Living Conditions (EU SILC). Rates are based on the EU definition of income (see Appendix 1).

4.5 Ireland: At risk of poverty rates by age and sex²⁴, 2008-2009

Age group	2008			2009		
	Males	Females	Total	Males	Females	Total
0-14	16.8	17.2	17.0	16.8	16.7	16.8
15-64	13.4	14.9	14.2	14.0	14.0	14.0
65 & over	11.7	10.7	11.1	8.9	10.2	9.6
Total	14.0	14.9	14.4	14.1	14.1	14.1

Source: CSO, EU SILC

Ireland: At risk of poverty rates by age and sex²⁴, 2009



- ◆ In 2009 the percentage of the population at risk of poverty in Ireland, before pensions and social transfers, was 46%, above the EU rate of 42%. The at risk of poverty rate in Ireland after pensions and social transfers, at 15%, was just below the EU figure of 16%.
- ◆ The Czech Republic had the lowest at risk of poverty rate (after pensions and social transfers) in the EU at 9% while Latvia had the highest at 26%.
- ◆ In 2009, the same proportion (14.1%) of males and females were at risk of poverty in Ireland. The rates for men and women aged under 65 were very similar while for those aged 65 and over the rates were higher for women.

²⁴ Data in Tables 4.5 and 4.6 and graph 4.7 are calculated using the national definition of income (see Appendix 1).

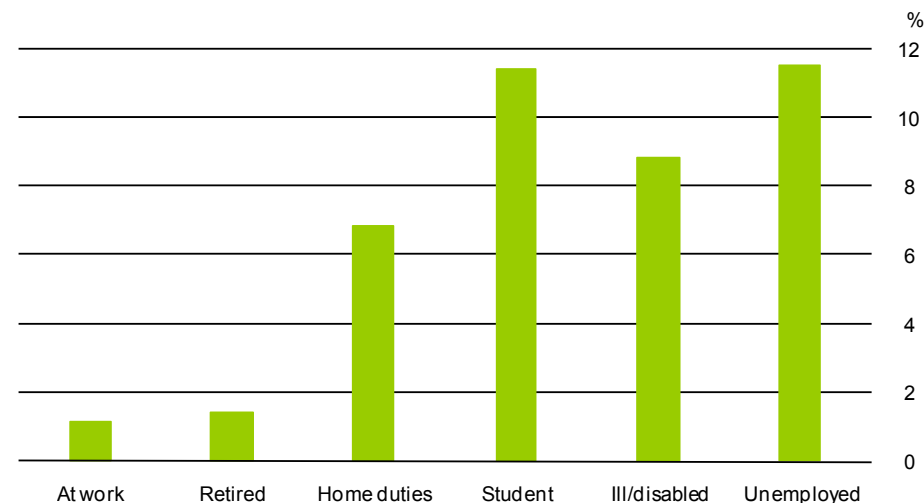
4.6 Ireland: Persons in consistent poverty by age and sex, 2008-2009

Age group	% of age group					
	2008			2009		
	Males	Females	Total	Males	Females	Total
0-14	5.5	6.8	6.1	7.9	8.6	8.2
15-64	3.8	4.3	4.1	5.5	5.2	5.3
65+	1.7	1.1	1.4	0.8	1.4	1.1
Total	4.0	4.4	4.2	5.5	5.4	5.5

Source: CSO, EU SILC

- ◆ In 2009, 5.5% of the population were living in consistent poverty with little difference between women (5.4%) and men (5.5%). This was an increase on the level recorded in 2008, when 4.2% of the population was living in consistent poverty.
- ◆ Younger people are more likely to be in consistent poverty with 8.2% of children under the age of fifteen in consistent poverty in 2009, an increase on the figure of 6.1% recorded in 2008. Just 1.1% of those aged 65 and over were in consistent poverty in 2009.

4.7 Ireland: Persons in consistent poverty by principal economic status, 2009



Source: CSO, EU SILC

- ◆ In 2009, 11.5% of unemployed persons, 11.4% of students and 8.8% of ill or disabled people were in consistent poverty compared with just 1.1% of people at work.

4.8 EU: Gender pay gap²⁵, 2007–2009

Difference between male and female average gross hourly earnings as
% of average gross hourly male earnings

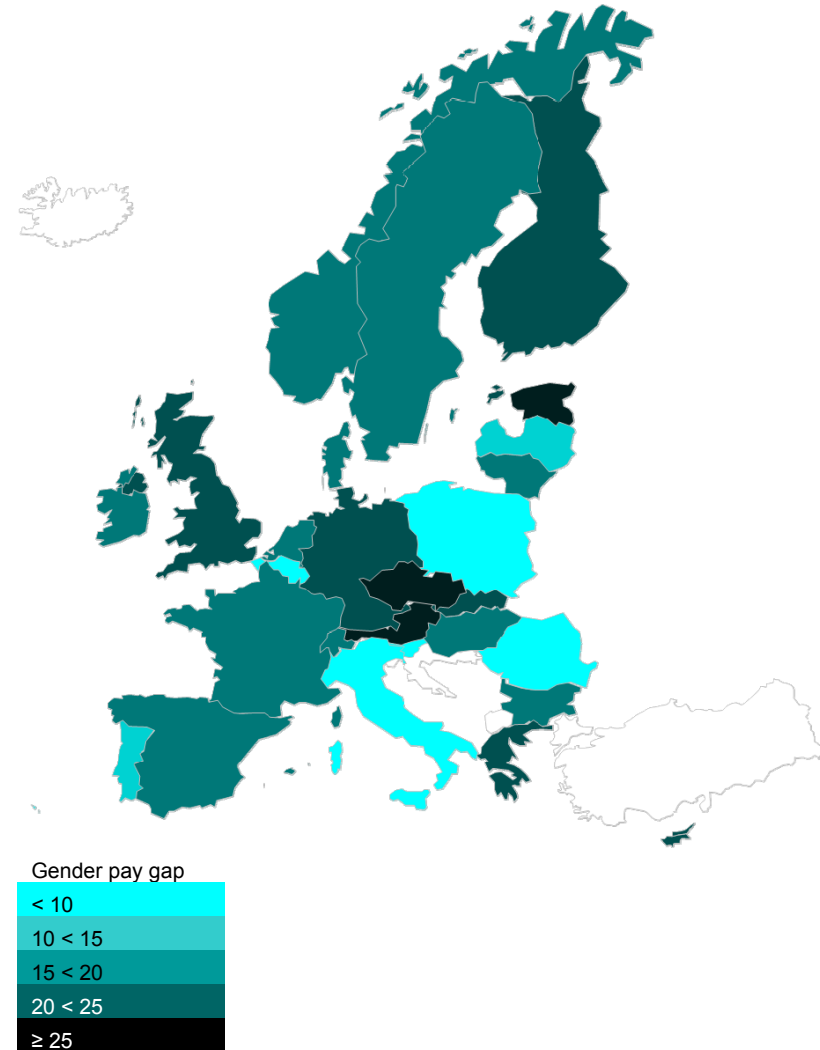
Country	2007	2008	2009
Slovenia	8	9	3
Italy	5	5	6
Malta	8	9	7
Romania	13	9	8
Poland	8	10	10
Portugal	8	9	10
Luxembourg	13	12	13
Latvia	15	13	15
Bulgaria	12	14	15
Lithuania	20	22	15
Ireland	17	17	16
Sweden	18	17	16
Spain	17	16	16
France	17	17	17
Denmark	18	17	17
EU	18	18	17
Hungary	16	18	17
Netherlands	24	20	19
Finland	20	20	20
United Kingdom	21	21	20
Cyprus	23	22	21
Slovakia	24	21	22
Germany	23	23	23
Austria	26	26	25
Czech Republic	24	26	26
Belgium	9	9	:
Estonia	31	:	:
Greece	22	22	:
Norway	16	17	17
Switzerland	19	18	18

Source: Eurostat, EU Structure of Earnings Survey

²⁵ The gender pay gap indicator is now calculated as part of the Structure of Earnings Survey (SES) and replaces data which was based on non-harmonised sources (see Appendix 1).

- ◆ On average, female employees were paid 16% an hour less than male employees in Ireland in 2009 while the average EU gender pay gap was 17%.
- ◆ Of those EU countries for which data was available in 2009, Slovenia had the lowest gender pay gap at 3% while the Czech Republic had the highest at 26%.

EU : Gender pay gap²⁶, 2009



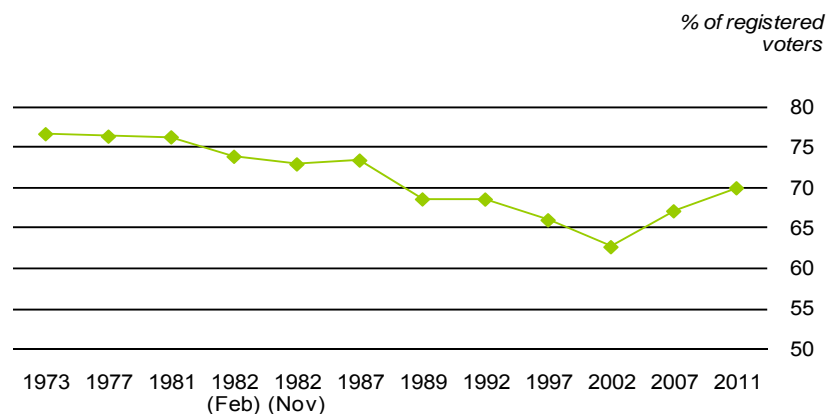
²⁶ 2008 data used for Belgium and Greece and 2007 data used for Estonia.

4.9 Ireland: Numbers voting in Dáil elections, 1973–2011

Year of election	Registered voters	000's		%
		Votes recorded	%turnout	
1973	1,783.6	1,366.5	76.6	
1977	2,118.6	1,616.8	76.3	
1981	2,275.5	1,734.4	76.2	
1982 (Feb)	2,275.5	1,679.5	73.8	
1982 (Nov)	2,335.2	1,701.4	72.9	
1987	2,445.5	1,793.5	73.3	
1989	2,448.8	1,677.6	68.5	
1992	2,557.0	1,751.4	69.0	
1997	2,741.3	1,806.9	65.9	
2002	3,002.2	1,878.6	62.6	
2007	3,110.9	2,085.2	67.0	
2011	3,209.2	2,243.2	69.9	

Source: Department of the Environment, Community and Local Government

Ireland: Numbers voting in Dáil elections, 1973-2011



- ◆ Voter turnout at Dáil elections gradually declined from over 76% in the 1970s to less than 63% in 2002 before increasing to 67% in 2007 and rising again to just under 70% in 2011. Most EU countries showed a decrease in voter turnout over the period 1984-2009.
- ◆ Ireland had a slightly higher rate of turnout in the election of 2011 compared with many other national parliamentary elections across the EU in the period 2004-2009. The average turnout for EU countries in that period was 69.7%. Voting is compulsory by law in Belgium, Cyprus, Greece, Italy, Luxembourg, the Netherlands and parts of Austria and Switzerland and for the French Senate, but levels of enforcement vary (see Appendix 1).

4.10 EU: Votes recorded at national parliamentary elections, 1984–2009

Country	% of registered voters		
	1984-1989	1994-1999	2004-2009
Malta	96.1	96.3	93.3
Luxembourg	88.1	87.4	91.7
Belgium	93.5	90.9	91.1
Cyprus	94.6	90.1	89.0
Denmark	86.9	85.1	85.6
Italy	88.9	84.5	82.1
Sweden	87.9	84.1	82.0
Netherlands	83.0	76.0	80.4
Austria	90.5	82.9	78.0
Germany	84.3	80.6	77.7
Spain	70.2	78.1	75.8
Greece	84.2	76.3	75.4
EU	:	75.9	69.7
Ireland	70.9	65.9	67.0
Finland	72.1	66.9	65.0
Czech Republic	:	75.1	64.5
Hungary	:	62.8	64.4
Portugal	74.0	63.7	64.3
Estonia	:	62.9	61.9
Slovenia	:	73.7	61.9
United Kingdom	75.4	71.5	61.4
Latvia	:	71.9	61.0
France	72.3	68.0	60.4
Romania	:	76.0	58.5
Bulgaria	:	66.9	55.8
Slovakia	:	79.9	54.7
Lithuania	:	52.9	47.3
Poland	62.1	47.9	47.3
Turkey	93.3	86.2	84.2
Iceland	90.1	85.7	83.6
Norway	83.6	78.3	77.4
Croatia	:	68.8	59.6
Macedonia	:	53.7	57.0
Switzerland	47.5	42.7	48.3

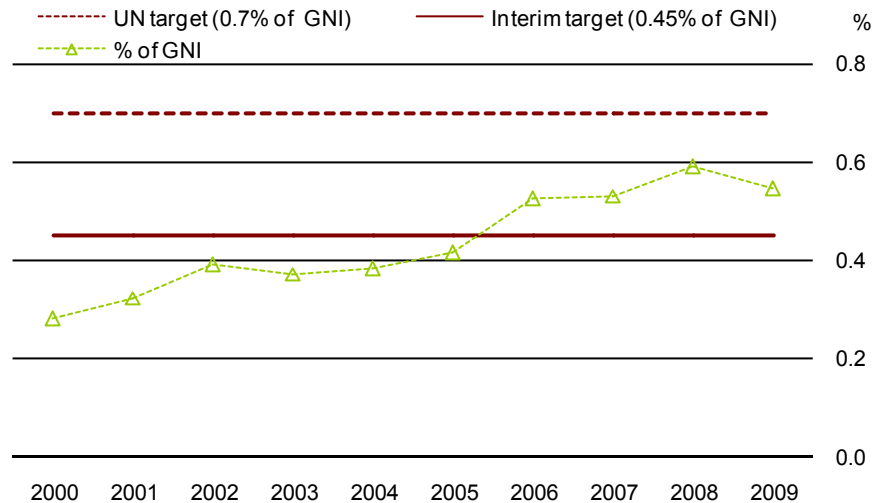
Source: International Institute for Democracy and Electoral Assistance

4.11 Ireland: Net official development assistance, 2000–2009

Year	€m	%
	Net ODA	% of GNI at current market prices
2000	254.9	0.28
2001	319.9	0.32
2002	422.1	0.39
2003	445.7	0.37
2004	488.9	0.38
2005	578.5	0.41
2006	814.0	0.52
2007	870.9	0.53
2008	920.7	0.59
2009	722.2	0.54

Source: Irish Aid, Department of Foreign Affairs

Ireland: Net official development assistance, 2000-2009



4.12 EU: Net official development assistance, 2005–2009

Country	% of GNI				
	2005	2006	2007	2008	2009
Sweden	0.94	1.02	0.93	0.98	1.12
Luxembourg	0.79	0.89	0.92	0.97	1.04
Denmark	0.81	0.80	0.81	0.82	0.88
Netherlands	0.82	0.81	0.81	0.80	0.82
Belgium	0.53	0.50	0.43	0.48	0.55
Ireland	0.41	0.52	0.53	0.59	0.54
Finland	0.46	0.40	0.39	0.44	0.54
United Kingdom	0.47	0.51	0.35	0.43	0.52
France	0.47	0.47	0.38	0.39	0.47
Spain	0.27	0.32	0.37	0.45	0.46
Germany	0.36	0.36	0.37	0.38	0.35
Austria	0.52	0.47	0.50	0.43	0.30
Portugal	0.21	0.21	0.22	0.27	0.23
Greece	0.17	0.17	0.16	0.21	0.19
Italy	0.29	0.20	0.19	0.22	0.16
Norway	0.94	0.89	0.95	0.88	1.06
Switzerland	0.43	0.39	0.38	0.42	0.45

Source: OECD Development Co-operation Report

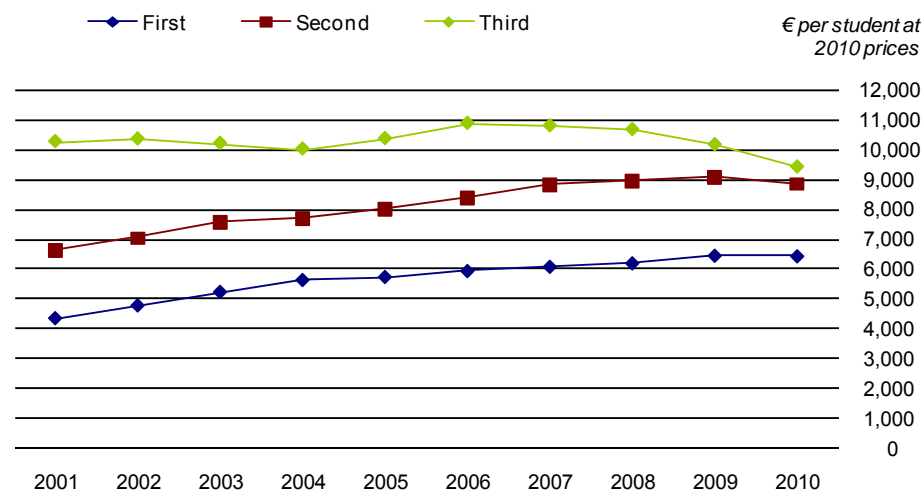
- ◆ Net official development assistance in Ireland as a percentage of Gross National Income increased from 0.28% in 2000 to 0.59% in 2008 before dropping to 0.54% in 2009.
- ◆ In 2009, the Irish contribution was above the 2002 interim Irish Government target of 0.45% of GNI but below the UN 2007 target of 0.7%.
- ◆ Four EU countries (Sweden, Luxembourg, Denmark and the Netherlands) and Norway exceeded the UN target in 2009.

5.1 Ireland: Real current public expenditure on education, 2001–2010

Year	€ per student at 2010 prices			Real current public expenditure €m at 2010 prices	
	Level	First	Second		Third
2001		4,342	6,624	10,264	5,674
2002		4,768	7,041	10,352	6,064
2003		5,219	7,576	10,204	6,474
2004		5,617	7,673	10,017	6,682
2005		5,718	8,010	10,364	6,916
2006		5,916	8,360	10,872	7,268
2007		6,058	8,811	10,789	7,586
2008		6,174	8,935	10,665	7,823
2009		6,428	9,057	10,160	8,119
2010		6,409	8,828	9,415	8,065

Source: Department of Education and Skills, CSO

Ireland: Real current public expenditure on education, 2001-2010



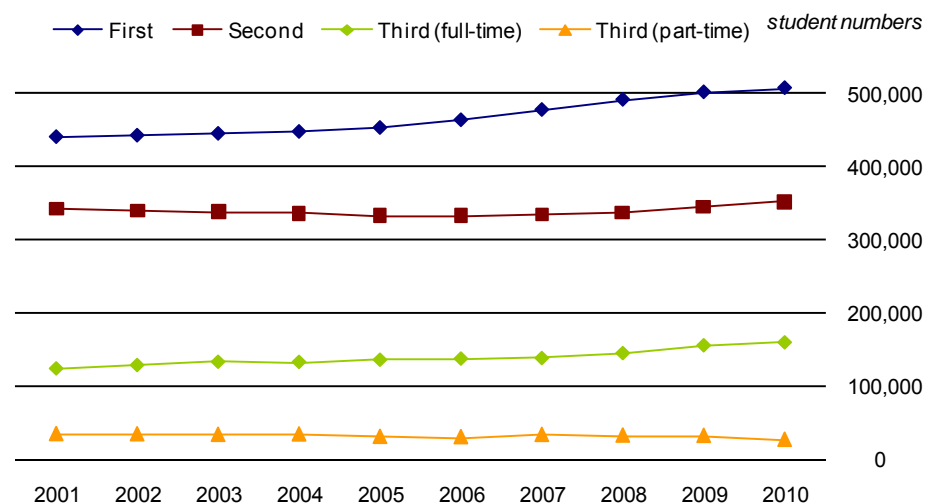
- ◆ Real expenditure per student in Ireland increased over the period 2001-2010 by nearly half (47.6%) at first level and by a third at second level. There was a decrease of 8.3% at third level over the same time period.
- ◆ Expenditure per student in 2010 at primary level was just over two-thirds that at third level (68.1%) while expenditure at second level was nearly 94% that at third level.

5.2 Ireland: Student numbers²⁷ by level, 2001-2010

Year	Level			
	First	Second	Third (full-time)	Third (part-time)
2001	440,162	343,262	124,589	34,965
2002	442,127	339,739	129,283	34,680
2003	444,644	338,679	133,887	34,000
2004	447,337	336,775	133,691	34,509
2005	452,734	334,060	136,719	31,354
2006	463,341	332,929	138,362	31,014
2007	477,489	334,277	139,134	33,883
2008	491,432	337,599	146,068	33,027
2009	501,748	345,062	156,973	32,665
2010	507,460	352,857	161,089	27,555

Source: Department of Education and Skills

Ireland: Student numbers²⁷ by level, 2001-2010



- ◆ Student numbers increased by 15.3% at first level and 2.8% at second level between 2001 and 2010. Over the same period, the number of full-time third level students increased strongly by 29.3% while the number of part-time students fell sharply by just over a fifth (21.2%).

²⁷ Only students in institutions which are aided by the Department of Education and Science are included in this table. Student numbers are annualised in this table this year and thus are different to those published last year.

5.3 EU: Public expenditure on education²⁸, 2006–2008

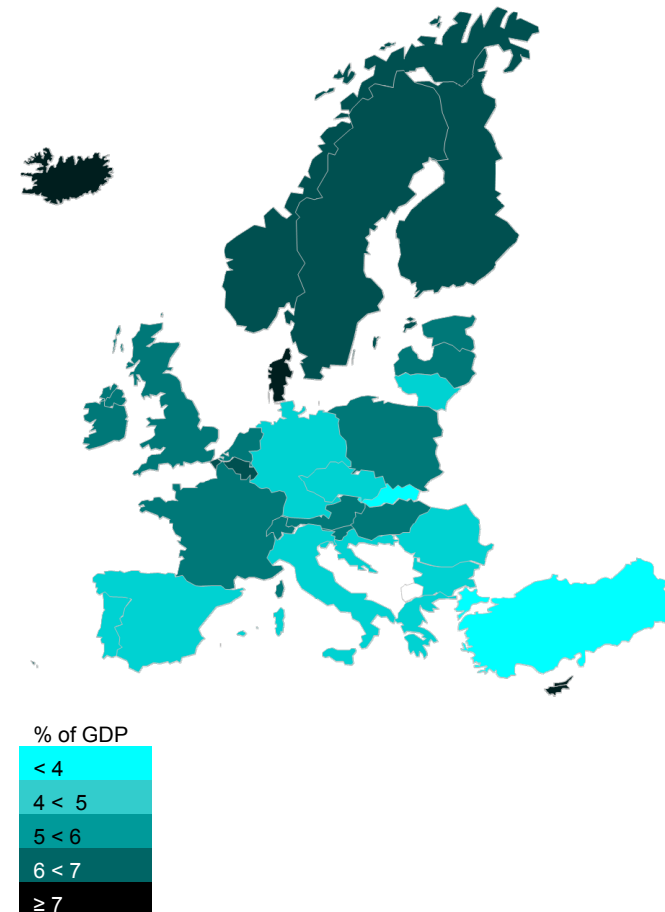
Country	% of GDP			per pupil/student
	2006	2007	2008	in €PPS
Denmark	8.0	7.8	7.8	8,759
Cyprus	7.0	6.9	7.4	9,969
Sweden	6.9	6.7	6.7	8,126
Ireland (% of GNI)	5.4	5.7	6.5	7,941
Belgium	6.0	6.0	6.5	8,705
Finland	6.2	5.9	6.1	6,966
Malta	:	6.3	6.0	6,832
Latvia	5.1	5.0	5.7	4,162
Estonia	4.8	4.9	5.7	4,213
Ireland (% of GDP)	4.8	4.9	5.6	7,941
France	5.6	5.6	5.6	7,363
Netherlands	5.5	5.3	5.5	7,552
Austria	5.5	5.4	5.5	:
United Kingdom	5.5	5.4	5.4	6,722
Slovenia	5.7	5.2	5.2	6,545
Hungary	5.4	5.2	5.1	4,206
Poland	5.3	4.9	5.1	4,085
EU	5.0	5.0	5.1	6,288
Lithuania	4.8	4.7	4.9	3,637
Portugal	5.3	5.3	4.9	5,203
Spain	4.3	4.4	4.6	8,074
Bulgaria	4.2	4.1	4.6	2,801
Italy	4.7	4.3	4.6	6,997
Germany	4.4	4.5	4.6	6,459
Czech Republic	4.6	4.2	4.1	4,641
Slovakia	3.8	3.6	3.6	3,545
Greece	4.0	:	:	4,484
Luxembourg	3.4	3.2	:	13,054
Romania	:	4.3	:	2,566
Iceland	7.6	7.4	7.6	8,488
Norway	6.6	6.8	6.5	10,298
Switzerland	5.5	5.2	5.4	9,517
Croatia	4.1	4.1	4.3	4,261
Turkey	2.9	:	:	1,335

Source: Eurostat

²⁸For public expenditure on education per pupil/student in €PPS, 2005 data used for Greece, 2006 for Turkey and 2007 for Luxembourg and Romania. 2005 data used for Greece for public expenditure on education as a % of GDP. See Appendix 1 for details of PPS.

- Public expenditure on education in Ireland as a percentage of both GNI and GDP increased between 2006 and 2008 and was above the EU average over this time period.
- When expenditure is examined per pupil/student in Purchasing Power Standards (PPS), Ireland was also above the EU average in 2008, with the seventh highest expenditure in the EU.

EU: Public expenditure on education, 2008²⁹



²⁹ 2005 data used for Greece, 2006 for Turkey and 2007 for Luxembourg and Romania.

5.4 EU: Ratio of students to teachers, 2008/2009³⁰

Country	ratio			
	Primary and secondary	Primary	Lower secondary	Upper secondary
Malta	8.4	9.4	6.5	15.8
Lithuania	8.0	9.7	7.6	:
Denmark	9.9	9.9	:	:
Greece	8.6	10.1	7.7	7.3
Poland	11.4	10.2	12.9	12.0
Italy	10.9	10.7	10.0	11.8
Hungary	11.4	10.7	10.8	12.8
Portugal	9.1	11.3	7.6	7.7
Latvia	10.6	11.4	8.7	11.5
Luxembourg	10.1	11.6	18.4	9.2
Sweden	12.2	12.1	11.3	13.2
Belgium	10.5	12.5	8.1	10.2
Austria	10.6	12.6	9.6	10.2
Spain	11.3	13.3	10.1	9.3
Finland	13.6	13.6	10.1	16.6
Cyprus	11.8	14.5	10.2	10.2
Netherlands	15.9	15.8	:	16.1
Ireland	14.4	15.9	:	12.6
Estonia	16.3	16.2	15.7	16.8
Romania	14.1	16.4	12.2	14.4
Slovenia	12.8	16.7	7.9	14.3
Bulgaria	13.5	17.4	12.5	12.0
Germany	16.6	17.4	15.1	13.9
Slovakia	15.2	17.7	14.0	15.1
Czech Republic	13.5	18.4	11.5	12.2
France	14.6	19.7	14.9	9.6
United Kingdom	15.8	19.9	16.1	12.3
Iceland	10.2	9.9	:	10.9
Norway	10.2	10.7	9.9	9.4
Croatia	12.0	15.4	11.0	10.9
Macedonia	14.3	16.5	12.0	15.1
Turkey	21.1	22.9	:	16.9

Source: Eurostat, Department of Education and Science

- ◆ Ireland had a student to teacher ratio of 15.9 at primary education level (ISCED 1) in 2008/2009. This was the tenth highest ratio in the EU. The overall student to teacher ratio for first and second level education for Ireland in 2008/2009 was 14.4, which was the seventh highest ratio in the EU.

³⁰ 2006/2007 data used for Greece.

5.5 EU: Average class size at ISCED levels 1 and 2, 2008/2009³¹

Country	number	
	Primary	Lower Secondary
Lithuania	14.9	20.6
Latvia	15.1	16.3
Luxembourg	15.6	19.5
Greece	17.0	21.6
Romania	17.9	19.9
Estonia	18.1	20.1
Slovakia	18.4	21.1
Slovenia	18.5	19.8
Cyprus	18.6	21.3
Poland	18.7	23.3
Italy	18.8	21.5
Austria	18.9	22.6
Denmark	19.4	19.9
Finland	19.8	20.1
Czech Republic	19.9	22.0
Portugal	20.2	22.6
Malta	20.4	19.6
Hungary	20.7	21.7
Bulgaria	20.9	22.2
Spain	21.1	24.3
Germany	21.7	24.7
Netherlands	22.4	:
France	22.7	24.5
Ireland	24.2	20.3
United Kingdom	24.5	19.6
Iceland	17.8	19.5
Croatia	18.0	21.9
Switzerland	19.4	18.7
Macedonia	19.9	20.6
Turkey	25.6	:

Source: Eurostat, Department of Education and Science

- ◆ In 2008/2009, the average class size in Ireland for primary education was 24.2 which was the second highest among reporting EU countries, after the United Kingdom. However, at ISCED 2 level (lower secondary) Ireland had the tenth lowest ratio.

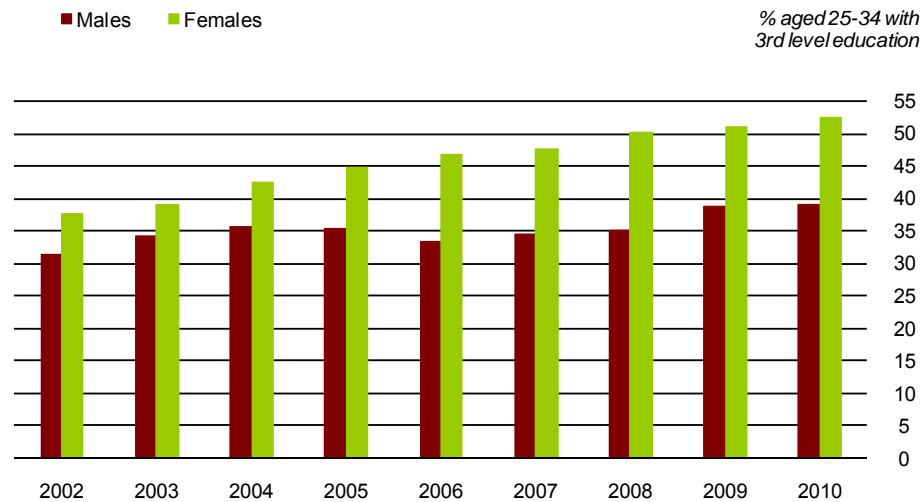
³¹ 2005/2006 used for primary for the Netherlands and 2006/2007 data used for lower secondary for Ireland.

5.6 Ireland: Persons aged 25–34 with third-level education, 2002–2010

Year	% of population aged 25-34		
	Total Persons	Males	Females
2002	34.4	31.2	37.5
2003	36.5	34.2	38.8
2004	39.0	35.6	42.4
2005	39.8	35.2	44.6
2006	39.9	33.3	46.7
2007	40.9	34.4	47.6
2008	42.6	35.1	50.1
2009	44.8	38.6	51.0
2010	45.7	38.9	52.3

Source: CSO QNHS

Ireland: Persons aged 25-34 with third-level education, 2002-2010



- ◆ Over the period 2002-2010, the proportion of females aged 25-34 in Ireland with 3rd level education rose from 37.5% in 2002 to 52.3% in 2010. Over the same period, the rate for males increased from 31.2% to 35.6% in 2004 before falling back to 33.3% in 2006 and then increasing to 38.9% in 2010.
- ◆ In 2010, 45.7% of the population aged 25-34 in Ireland had third level education, which was the third highest rate in the EU and compares with 32.5% across the EU as a whole. In all EU countries more females than males aged 25-34 had third level education.

5.7 EU: Persons aged 25–34 with third-level education by sex, 2010

Country	% of population aged 25-34			Percentage points differential
	Total Persons	Males	Females	
Cyprus	47.1	41.2	53.0	-11.8
Lithuania	46.1	37.7	54.8	-17.1
Ireland	45.7	38.9	52.3	-13.4
Belgium	44.1	38.5	49.7	-11.2
Sweden	42.2	35.4	49.3	-14.0
Luxembourg	41.4	38.9	43.5	-4.6
France	41.1	36.6	45.6	-9.0
United Kingdom	40.7	38.1	43.4	-5.3
Denmark	40.4	34.9	45.9	-11.0
Netherlands	39.4	35.9	42.9	-7.0
Finland	39.2	31.1	47.9	-16.8
Spain	38.4	33.0	44.1	-11.1
Estonia	37.9	27.9	47.9	-20.0
Poland	36.4	29.0	43.9	-14.9
Latvia	33.9	23.3	44.9	-21.6
EU	32.5	28.2	36.9	-8.7
Slovenia	31.2	21.9	41.5	-19.5
Greece	28.8	23.5	34.5	-11.0
Germany	26.1	24.8	27.6	-2.8
Hungary	25.0	20.2	30.0	-9.9
Portugal	24.8	18.3	31.4	-13.1
Slovakia	24.0	18.5	29.8	-11.3
Czech Republic	22.3	19.8	25.0	-5.2
Malta	21.6	17.3	26.3	-9.0
Bulgaria	21.4	16.0	27.0	-11.1
Austria	20.6	18.7	22.6	-3.9
Romania	20.6	18.7	22.6	-3.9
Italy	20.6	16.2	25.0	-8.8
Norway	45.0	37.0	53.3	-16.3
Switzerland	39.8	41.9	37.7	4.1
Iceland	33.9	26.8	41.9	-15.1
Macedonia	21.8	20.0	23.7	-3.7
Croatia	16.8	13.9	19.8	-5.9
Turkey	16.6	17.8	15.3	2.6

Source: Eurostat LFS

5.8 Ireland: Student performance on the reading, mathematical and scientific literacy scales by sex, 2009

Mean score of 15 year old students

Literacy type	Ireland		All OECD countries	
	Males	Females	Males	Females
Reading	476	515	474	513
Mathematical	491	483	501	490
Scientific	507	509	501	501

Source: OECD, Educational Research Centre

- ◆ Ireland had the joint 17th highest mathematical literacy for 15 year old students among participating EU countries in 2009 and was below the OECD average. Boys in Ireland performed better than girls in mathematical literacy, with an average score of 491 compared with 483 for girls, which reflected a similar trend across OECD countries
- ◆ However on reading literacy Ireland was eighth highest in 2009 and was slightly above the OECD average. Girls in Ireland performed much better than boys with an average score of 515 for females compared with 476 for males.
- ◆ There was no significant gender difference in the overall science measure for Ireland with an average score of 507 for males and 509 for females. Ireland was above the OECD average for scientific literacy and ranked joint seventh highest among participating EU countries.

5.9 Ireland: Student performance on the reading, mathematical and scientific literacy scales by sex, 2009

Mean score of 15 year old students

Country	Reading literacy	Mathematical literacy	Scientific literacy
Finland	536	541	554
Netherlands	508	526	522
Belgium	506	515	507
Germany	497	513	520
Estonia	501	512	528
Denmark	495	503	499
Slovenia	483	501	512
France	496	497	498
Slovak Republic	477	497	490
Austria	470	496	494
OECD average	493	496	501
Poland	500	495	508
Sweden	497	494	495
Czech Republic	478	493	500
United Kingdom	494	492	514
Hungary	494	490	503
Luxembourg	472	489	484
Ireland	496	487	508
Portugal	489	487	493
Spain	481	483	488
Italy	486	483	489
Latvia	484	482	494
Lithuania	468	477	491
Greece	483	466	470
Bulgaria	429	428	439
Romania	424	427	428
Switzerland	501	534	517
Iceland	500	507	496
Norway	503	498	500
Croatia	476	460	486
Turkey	464	445	454

Source: OECD, Educational Research Centre

5.10 Ireland: Early school leavers³² by labour force status and sex, 2010

Labour force status	000s		
	Total Persons	Males	Females
In employment	14.7	9.2	5.6
Unemployed	13.3	10.0	3.2
Unemployment rate of persons aged 18-24 (%)	28.2	34.4	21.6
Unemployment rate of early school leavers (%)	47.5	52.1	36.4

Source: CSO QNHS

5.11 Ireland: Proportion of the population aged 20–64 with at least upper secondary education, 2010

Age group	% of age group		
	Total Persons	Males	Females
20-24	87.3	84.5	89.8
25-34	83.4	81.7	85.1
35-44	77.4	74.1	80.8
45-54	65.9	61.6	70.2
55-64	49.7	46.8	52.6

Source: CSO QNHS

- ◆ The unemployment rate for persons in Ireland aged 18-24 with, at most, lower secondary education was 47.5% in 2010, compared with 28.2% for that age group overall.
- ◆ More than 87% of persons aged 20-24 in 2010 had completed second level education or higher. This figure decreased for older age groups down to just under half (49.7%) of persons aged 55-64. Women of all ages in Ireland are more likely than men to have completed at least upper secondary education.
- ◆ The proportion of persons aged 18-24 who left school with, at most, lower secondary education in Ireland, was 10.5% in 2010. The EU average rate was 14.1% and varied from one in twenty (4.7%) in Slovakia to over a third (36.9%) in Malta.
- ◆ With the exception of Bulgaria and Slovakia, the proportion of males aged 18-24 who left school early is higher than females in all EU countries (for which data is available by gender).

³² Persons aged 18-24 with, at most, lower secondary education and not in further education or training.

5.12 EU: Early school leavers³², 2010

Country	% of population aged 18-24		
	Total Persons	Males	Females
Slovakia	4.7	4.6	4.9
Czech Republic	4.9	4.9	4.8
Slovenia	5.0	6.4	3.3
Poland	5.4	7.2	3.5
Luxembourg	7.1	8.0	6.0
Lithuania	8.1	9.9	6.2
Austria	8.3	8.4	8.2
Sweden	9.7	10.9	8.5
Netherlands	10.1	12.2	7.9
Finland	10.3	11.6	9.0
Ireland	10.5	12.6	8.4
Hungary	10.5	11.5	9.5
Denmark	10.7	13.6	7.5
Estonia	11.6	15.2	:
Belgium	11.9	13.8	10.0
Germany	11.9	12.7	11.0
Cyprus	12.6	16.2	9.8
France	12.8	15.4	10.3
Latvia	13.3	17.2	9.4
Greece	13.7	16.5	10.8
Bulgaria	13.9	13.2	14.5
EU	14.1	16.0	12.2
United Kingdom	14.9	15.8	14.0
Romania	18.4	18.6	18.2
Italy	18.8	22.0	15.4
Spain	28.4	33.5	23.1
Portugal	28.7	32.7	24.6
Malta	36.9	41.0	32.4
Croatia	3.9	4.9	2.8
Switzerland	6.6	6.1	7.0
Macedonia	15.5	13.7	17.5
Norway	17.4	21.4	13.2
Iceland	22.6	26.0	19.0
Turkey	43.1	37.8	47.9

Source: Eurostat LFS

6.1 Ireland: Current public expenditure on health care, 2000–2009

Year	Current public expenditure			Per capita at constant 2010 prices (€)
	Total (€m)	% of GNI	% of GDP	
2000	5,423	5.9	5.1	2,082
2001	6,802	6.8	5.8	2,408
2002	7,933	7.3	6.0	2,577
2003	8,853	7.3	6.3	2,667
2004	9,653	7.5	6.4	2,689
2005 ³³	11,160	7.9	6.8	2,934
2006	12,248	7.8	6.9	2,997
2007	13,736	8.3	7.2	3,152
2008	14,588	9.4	8.1	3,143
2009	15,073	11.3	9.4	3,234

Source: Department of Health, CSO

- ◆ Non-capital public expenditure on health care in Ireland as a proportion of GNI rose from 5.9% in 2000 to 11.3% in 2009.
- ◆ An average of €3,234 per person was spent on current public expenditure on health care in Ireland in 2009 (at constant 2010 prices) while the average in 2000 was €2,082. This represented an increase of more than half (55.3%) between 2000 and 2009.
- ◆ Ireland's total expenditure on public and private health was 8.7% of GDP and 10% of GNI in 2008. The EU average was 9% of GDP while four countries had expenditures of more than 10% of GDP.

6.2 EU: Total expenditure³⁴ on health as percentage of GDP, 2006–2008

Country			% of GDP	PPS \$ per capita
	2006	2007	2008	2008
France	11.0	11.0	11.1	3,778
Germany	10.5	10.4	10.4	3,692
Austria	10.2	10.1	10.1	3,836
Portugal	9.9	10.0	10.1	2,334
Ireland (GNI)	8.1	8.8	10.0	3,676
Denmark	9.6	9.8	9.9	3,630
Belgium	9.5	9.4	9.7	3,392
Greece	9.5	9.6	9.7	2,852
Netherlands	8.9	8.9	9.1	3,749
Sweden	9.1	9.1	9.1	3,423
EU	8.9	8.8	9.0	2,877
Italy	9.0	8.7	9.0	2,825
United Kingdom	8.5	8.4	9.0	3,230
Ireland (GDP)	7.1	7.6	8.7	3,676
Spain	8.4	8.5	8.7	2,791
Finland	8.3	8.2	8.4	2,979
Slovakia	7.3	7.7	7.8	1,717
Slovenia	8.3	7.8	7.8	2,183
Malta	8.4	7.5	7.5	4,039
Hungary	8.1	7.4	7.4	1,419
Bulgaria	7.2	7.3	7.3	910
Luxembourg	7.3	7.1	7.2	6,047
Czech Republic	7.0	6.8	6.8	1,684
Cyprus	6.2	6.6	6.7	3,312
Poland	6.2	6.4	6.6	1,162
Latvia	6.9	6.2	6.5	1,112
Lithuania	6.2	6.2	6.2	1,178
Estonia	5.1	5.4	5.9	1,226
Romania	4.5	4.7	4.7	665
Iceland	9.1	9.3	11.8	4,310
Switzerland	10.8	10.8	10.5	4,620
Norway	8.6	8.9	8.6	4,989
Croatia	7.1	7.6	7.8	1,496
Macedonia	7.6	7.1	7.0	702
Turkey	5.1	5.0	5.0	695

Source: WHO Health for All Databases

³³Break in series in 2005, see Appendix 1 for more details.

³⁴Public and private. See Appendix 1 for details of PPS.

6.3 Ireland: Life expectancy at birth and at age 65 by sex, 1925–2007

Period	years			
	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
2001-2003	75.1	80.3	15.4	18.7
2005-2007	76.8	81.6	16.6	19.8

Source: CSO Vital Statistics

- ◆ Life expectancy at birth in Ireland increased from under 58 years in 1925-1927 to 76.8 years for males and 81.6 years for females in 2005-2007. Over the same period, there was an increase of 3.8 years in the life expectancy of men aged 65 compared with an increase of 6.4 years in the life expectancy of older women.
- ◆ The 2006 value for life expectancy at birth for males in Ireland was 0.4 years higher than the 2008 EU average of 76.4 years, while that of females was 0.8 years lower than the 2008 EU average of 82.4 years.
- ◆ Life expectancy at birth in the EU in 2009 for females was highest in Spain at 84.6 years, and for males was highest in Sweden at 79.4 years.
- ◆ Life expectancy at birth was higher for females in all the reporting countries with the difference between life expectancy at birth for men and women lowest in Iceland at 3.6 years and highest in Lithuania at 11.1 years. The corresponding difference for Ireland was 4.8 years.

6.4 EU: Life expectancy at birth by sex, 2009³⁵

Country	years		
	Males	Females	Gender differential
Spain	78.6	84.6	6.0
France	77.8	84.5	6.7
Italy	78.9	84.1	5.2
Sweden	79.4	83.4	4.0
Finland	76.5	83.1	6.6
Austria	77.4	82.9	5.5
Greece	77.7	82.8	5.1
Luxembourg	77.6	82.7	5.1
Netherlands	78.5	82.7	4.2
Germany	77.4	82.6	5.2
Belgium	77.2	82.4	5.2
Cyprus	77.9	82.4	4.5
EU	76.4	82.4	6.0
Slovenia	75.8	82.3	6.5
Malta	77.7	82.2	4.5
United Kingdom	78.1	82.1	4.0
Portugal	75.8	81.8	6.0
Ireland	76.8	81.6	4.8
Denmark	76.5	80.8	4.3
Czech Republic	74.2	80.1	5.9
Estonia	69.8	80.1	10.3
Poland	71.5	80.1	8.6
Slovakia	71.3	78.7	7.4
Lithuania	67.5	78.6	11.1
Latvia	68.3	78.1	9.8
Hungary	70.1	77.9	7.8
Bulgaria	69.9	77.1	7.2
Romania	69.7	77.1	7.4
Switzerland	79.8	84.4	4.6
Iceland	79.7	83.3	3.6
Norway	78.6	83.1	4.5
Croatia	72.9	79.6	6.7
Macedonia	72.1	76.3	4.2
Turkey	71.5	76.1	4.6

Source: Eurostat

³⁵ 2008 data for EU and Luxembourg, 2006 data for Ireland.

7.1 Ireland: Population distribution by age group, 2001–2010

Year	% 000 persons					Total
	0-14	15-24	25-44	45-64	65 and over	
2001	21.5	16.6	29.7	21.0	11.2	3,847.2
2002	21.1	16.4	30.1	21.2	11.1	3,917.2
2003	21.0	16.0	30.4	21.5	11.1	3,979.9
2004	20.9	15.7	30.7	21.7	11.1	4,045.2
2005	20.6	15.3	31.1	21.8	11.1	4,133.8
2006	20.4	15.1	31.7	21.8	10.9	4,232.9
2007	20.4	14.6	32.3	21.9	10.8	4,339.0
2008	20.6	14.0	32.5	22.0	10.9	4,422.1
2009	21.0	13.1	32.4	22.4	11.1	4,459.3
2010	21.5	12.3	32.1	22.8	11.4	4,470.7

Source: CSO Population and Migration Estimates³⁶

- ◆ The population increased by 16.2% to 4.47 million persons over the period 2001-2010. The proportion of the population aged 25-64 increased from nearly 51% in 2001 to 54.9% in 2010. Conversely, there was a decrease in the 15-24 age group from 16.6% in 2001 to 12.3% of the population in 2010.
- ◆ Preliminary results from Census 2011 show that the population in April 2011 was 4,581,269 and hence the preliminary population estimates for the inter-censal years (2007 to 2010) will be revised upwards when the final Census results become available in 2012.

7.2 Ireland: Household composition, 2001–2010

Year	000 households				Average household size
	Total households	1 person households	2 person households	3 or more person households	
2001	1,304.7	284.7	331.1	689.0	2.95
2002	1,348.1	298.0	345.9	704.1	2.91
2003	1,385.3	308.4	371.1	705.9	2.88
2004	1,409.3	297.6	386.4	725.2	2.88
2005	1,461.4	318.4	400.2	742.8	2.83
2006	1,492.6	325.8	411.6	755.2	2.84
2007	1,532.1	325.7	427.3	779.1	2.84
2008	1,581.9	334.6	462.0	785.2	2.80
2009	1,627.2	352.5	494.1	780.6	2.74
2010	1,647.9	376.5	493.4	778.1	2.71

Source: CSO QNHS

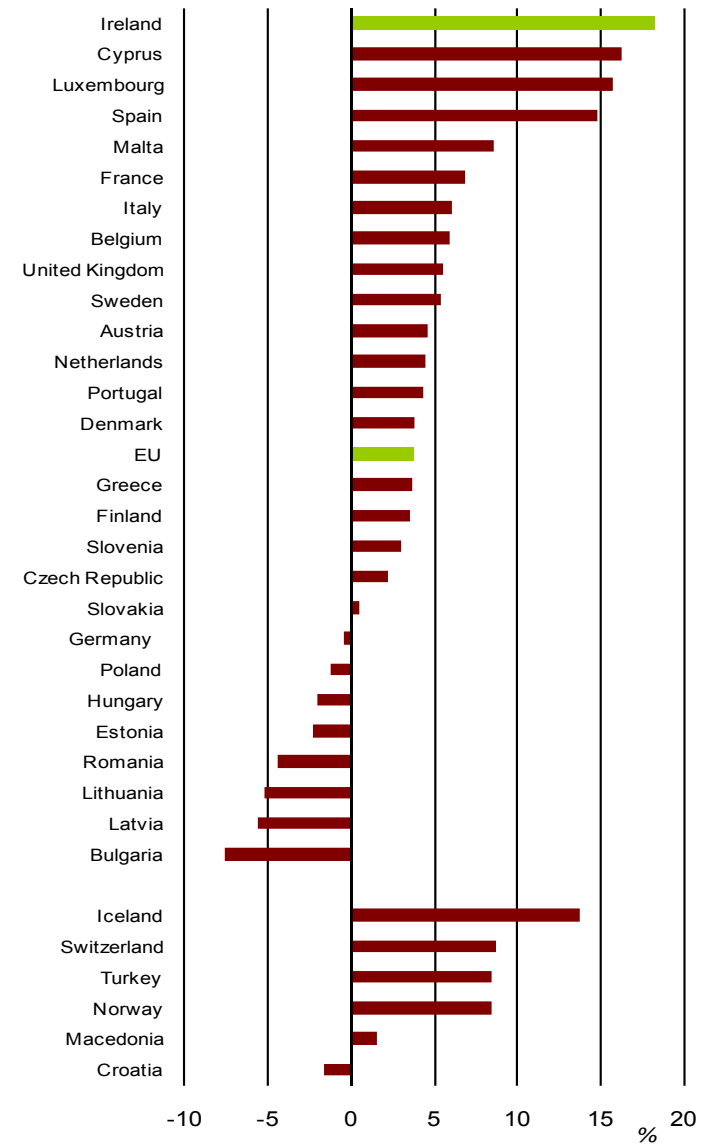
- ◆ In Ireland, average household size decreased from 2.95 persons in 2001 to 2.71 persons in 2010.
- ◆ The total number of households grew by over a quarter (26.3%) between 2001 and 2010 but there was a large variability in the growth of different size households. The number of one person households grew by nearly a third over this time period while the number of two person households increased by just under 50%.
- ◆ However there was slower growth in the number of three or more person households which increased by just under 13% between 2001 and 2010.

³⁶ Persons in April of each year. Data for the inter-censal years 2007 to 2010 are preliminary.

7.3 EU: Population 2000 and 2010³⁷

Country	persons		Change
	2000	2010	
EU	482,767,710	501,103,425	18,335,715
Germany	82,163,475	81,802,257	-361,218
France	60,545,022	64,714,074	4,169,052
United Kingdom	58,785,246	62,008,048	3,222,802
Italy	56,923,524	60,340,328	3,416,804
Spain	40,049,708	45,989,016	5,939,308
Poland	38,653,559	38,167,329	-486,230
Romania	22,455,485	21,462,186	-993,299
Netherlands	15,863,950	16,574,989	711,039
Greece	10,903,757	11,305,118	401,361
Belgium	10,239,085	10,839,905	600,820
Portugal	10,195,014	10,637,713	442,699
Czech Republic	10,278,098	10,506,813	228,715
Hungary	10,221,644	10,014,324	-207,320
Sweden	8,861,426	9,340,682	479,256
Austria	8,002,186	8,375,290	373,104
Bulgaria	8,190,876	7,563,710	-627,166
Denmark	5,330,020	5,534,738	204,718
Slovakia	5,398,657	5,424,925	26,268
Finland	5,171,302	5,351,427	180,125
Ireland	3,777,763	4,467,854	690,091
Lithuania	3,512,074	3,329,039	-183,035
Latvia	2,381,715	2,248,374	-133,341
Slovenia	1,987,755	2,046,976	59,221
Estonia	1,372,071	1,340,127	-31,944
Cyprus	690,497	803,147	112,650
Luxembourg	433,600	502,066	68,466
Malta	380,201	412,970	32,769
Turkey	66,889,425	72,561,312	5,671,887
Switzerland	7,164,444	7,785,806	621,362
Norway	4,478,497	4,858,199	379,702
Croatia	4,497,735	4,425,747	-71,988
Macedonia	2,021,578	2,052,722	31,144
Iceland	279,049	317,630	38,581

Source: Eurostat

7.4 EU: Population change, 2000-2010³⁷

Source: Eurostat

- ◆ Ireland had the highest percentage increase in population between 2000 and 2010 in the EU while eight EU countries (most of them recent member states) experienced population decline over the same period.

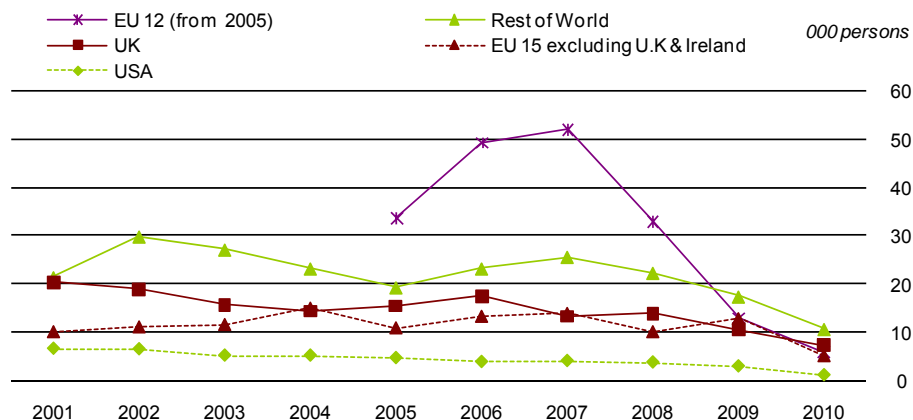
³⁷ Population on the 1st January of specific year.

7.5 Ireland: Migration and natural increase³⁸, 2001–2010

000 persons					
Year	Inward migration	Outward migration	Net migration ³⁹	Natural increase	Population change
2001	59.0	26.2	32.8	24.8	57.7
2002	66.9	25.6	41.3	28.8	70.0
2003	60.0	29.3	30.7	31.9	62.6
2004	58.5	26.5	32.0	33.3	65.3
2005	84.6	29.4	55.1	33.5	88.6
2006	107.8	36.0	71.8	34.2	106.0
2007	109.5	42.2	67.3	38.8	106.1
2008	83.8	45.3	38.5	44.6	83.1
2009	57.3	65.1	-7.8	45.1	37.3
2010	30.8	65.3	-34.5	45.9	11.4

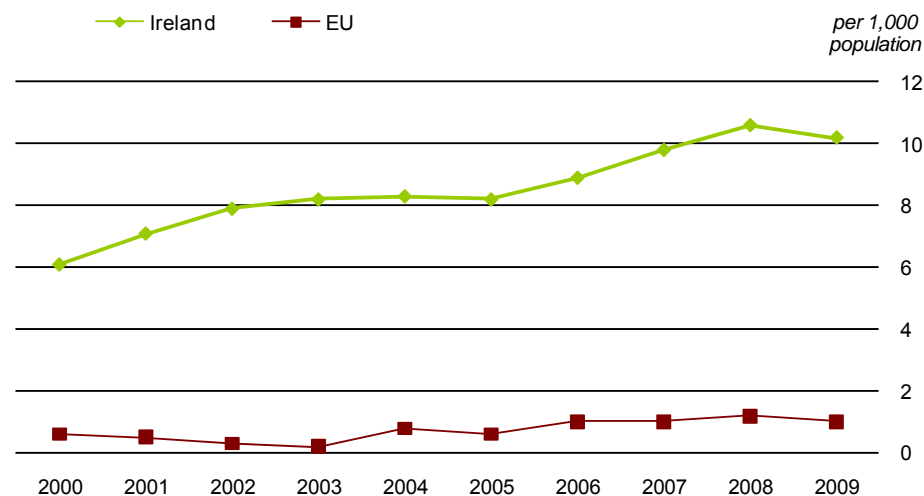
Source: CSO Population and Migration Estimates

7.6 Ireland: Immigration by country of origin, 2001–2010



Source: CSO Population and Migration Estimates

7.7 Ireland and EU: Rate of natural increase of population, 2000–2009



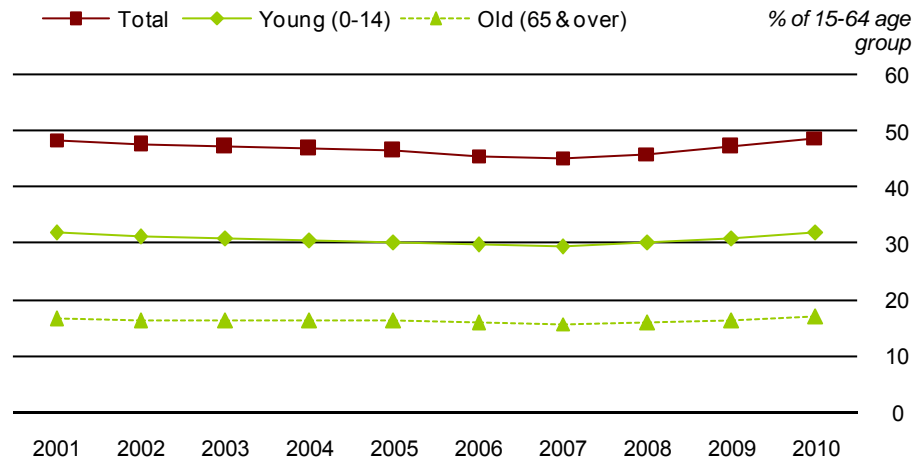
Source: Eurostat

- ◆ Net migration was positive between 2001 and 2008 and increased from 32,800 in 2001 to 71,800 in 2006 before decreasing to 38,500 in 2008. However net migration was negative in 2009 and 2010, i.e., more people left the country than arrived. Net migration fell to minus 7,800 in 2009 and decreased sharply to minus 34,500 in 2010.
- ◆ Annual immigration rose steeply from 59,000 persons in 2001 to peak at 109,500 in 2007 before falling back sharply to 30,800 persons in 2010.
- ◆ The level of annual emigration from Ireland was reasonably stable at about 26,000 persons from 2001 to 2004 but has increased every year since then to 65,300 persons in 2010.
- ◆ In 2005 about 33,700 persons moved to Ireland from the 12 new EU countries who joined in 2004 and 2007, rising to 52,100 in 2007 and then falling back sharply to 13,100 in 2009 and just 6,000 in 2010.
- ◆ The rate of natural increase of the population in Ireland was 10.2 per 1,000 population in 2009 compared with an average of 1.0 per 1,000 in the EU. The EU rate was consistently below 1.0 over the period 2000-2005 before rising to 1.0 in 2006, whereas the rate for Ireland increased from 6.1 per 1,000 in 2000.

³⁸ Data refers to the 12 months up to April of each year. Data for years 2007 to 2010 are preliminary and will be revised in 2012 when the final results are available from the 2011 Census of Population.

³⁹ Net migration is the number of immigrants less emigrants.

7.8 Ireland: Age dependency ratio, 2001–2010



Source: CSO Population and Migration Estimates

- ◆ Expressed as a percentage of those aged 15-64, Ireland had the highest proportion of persons aged under 15 in the EU (31.7%) and the lowest proportion of persons aged 65 and over (16.8%) in 2010.
- ◆ This resulted in a combined age dependency ratio of 48.5% in Ireland in 2010 which was similar to the average for other EU member states although markedly different in composition.
- ◆ In 2010 France had the highest combined age dependency ratio in the EU at 54.2 while Slovakia had the lowest at 38.1.
- ◆ Germany and Italy had far higher proportions of their population in the 65 and over category (around 31%) in comparison with the 0-14 age group (around 21%). For the EU as a whole, these categories were broadly in balance.

7.9 EU: Young and old as proportion of population aged 15–64, 2010⁴⁰

Country	% of population aged 15-64		
	Young and old	Young (0-14)	Old (65 & over)
Slovakia	38.1	21.2	16.9
Poland	40.2	21.2	19.0
Czech Republic	41.7	20.2	21.6
Cyprus	42.7	24.1	18.6
Romania	43.0	21.7	21.4
Malta	43.7	22.5	21.3
Slovenia	44.0	20.2	23.8
Lithuania	45.0	21.8	23.3
Bulgaria	45.1	19.7	25.4
Latvia	45.1	20.0	25.2
Hungary	45.7	21.5	24.2
Luxembourg	46.4	26.0	20.4
Spain	46.6	21.9	24.7
Estonia	47.5	22.3	25.2
Austria	48.1	22.0	26.1
Ireland	48.5	31.7	16.8
Netherlands	49.0	26.2	22.8
EU	49.1	23.3	25.9
Portugal	49.4	22.7	26.7
Greece	49.9	21.5	28.4
Finland	50.6	25.0	25.6
United Kingdom	51.0	26.4	24.6
Belgium	51.7	25.6	26.0
Germany	51.8	20.5	31.4
Italy	52.2	21.4	30.8
Denmark	52.4	27.6	24.9
Sweden	53.1	25.4	27.7
France	54.2	28.5	25.7
Macedonia	41.5	25.1	16.4
Switzerland	47.0	22.3	24.7
Croatia	47.9	22.5	25.4
Iceland	49.1	31.2	17.9
Turkey	49.2	38.8	10.5
Norway	51.0	28.5	22.5

Source: Eurostat

⁴⁰ Data refers to estimated situation at January. 2009 data used for UK and EU calculated using 2009 for UK and 2010 data for the remaining EU countries.

7.10 Ireland and EU: Total fertility rate, 2000–2009

Projected number of children a woman will have

Year	EU	Ireland
2000	:	1.90
2001	:	1.96
2002	1.45	1.98
2003	1.47	1.98
2004	1.50	1.95
2005	1.51	1.88
2006	1.54	1.94
2007	1.56	2.05
2008	1.60	2.07
2009	:	2.07

Source: Eurostat, CSO Vital Statistics

- ◆ The total fertility rate in Ireland rose from 1.9 in 2000 to reach 1.98 by 2003 before decreasing to 1.88 in 2005. It has increased since then to 2.07 in 2009.
- ◆ Over the time period 2002 to 2008 the total fertility rate for the EU as a whole was significantly lower, in the range 1.45 to 1.6.
- ◆ Ireland had the highest fertility rate in the EU in 2009, while Latvia had the lowest rate. Iceland had the highest rate of all the reported countries with a fertility rate of 2.23.
- ◆ The new member states, together with the Mediterranean countries, tended to have the lowest fertility rates.

7.11 EU: Total fertility rate⁴¹, 1999–2009

Projected number of children a woman will have

Country	1999	2004	2009
Ireland	1.91	1.95	2.07
France	1.81	1.92	2.00
United Kingdom	1.68	1.77	1.96
Sweden	1.50	1.75	1.94
Finland	1.73	1.80	1.86
Belgium	1.62	1.72	1.84
Denmark	1.73	1.78	1.84
Netherlands	1.65	1.72	1.79
Estonia	1.32	1.47	1.62
EU	:	1.50	1.60
Luxembourg	1.74	1.66	1.59
Bulgaria	1.23	1.29	1.57
Lithuania	1.46	1.26	1.55
Slovenia	1.21	1.25	1.53
Greece	1.24	1.30	1.52
Cyprus	1.67	1.49	1.51
Czech Republic	1.13	1.23	1.49
Malta	1.77	1.40	1.44
Italy	1.23	1.33	1.42
Slovakia	1.33	1.24	1.41
Spain	1.19	1.33	1.40
Poland	1.37	1.23	1.40
Austria	1.34	1.42	1.39
Romania	1.30	1.29	1.38
Germany	1.38	1.36	1.36
Hungary	1.28	1.28	1.32
Portugal	1.50	1.40	1.32
Latvia	:	1.24	1.31
Iceland	1.99	2.04	2.23
Turkey	:	:	2.10
Norway	1.85	1.83	1.98
Macedonia	1.76	1.52	1.52
Switzerland	1.48	1.42	1.50
Croatia	:	1.34	1.49

Source: Eurostat

⁴¹ 2000 data used for 1999 for Germany. 2008 data used for 2009 for EU27, Italy, the UK and Turkey.

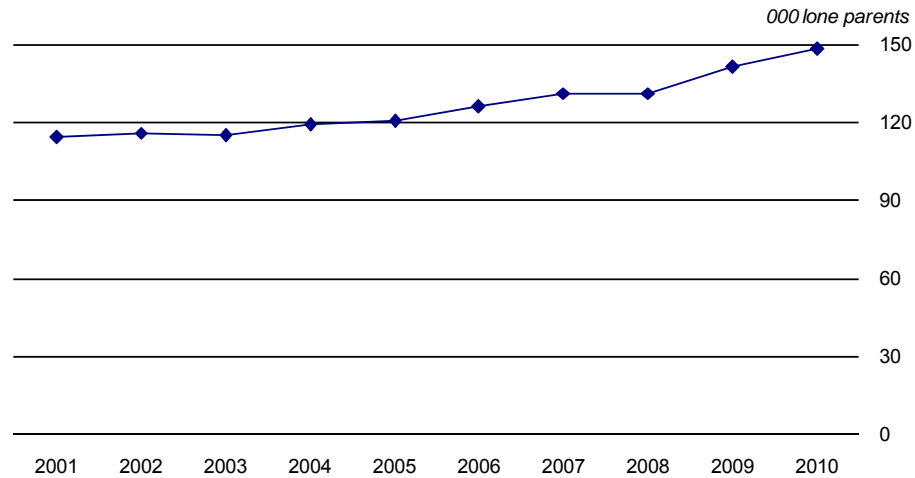
7.12 Ireland: Lone parent families with children aged under 20 by sex of parent, 2001–2010

000 families

Year	Male	Female	Total
2001	10.7	103.2	113.9
2002	11.4	104.4	115.8
2003	9.8	105.1	114.9
2004	10.8	108.3	119.1
2005	9.8	110.4	120.3
2006	10.8	114.9	125.7
2007	9.9	121.2	131.1
2008	11.5	119.5	131.1
2009	12.4	129.0	141.4
2010	10.9	137.1	148.0

Source: CSO QNHS

Ireland: Lone parent families with children aged under 20, 2001-2010



- ◆ The number of lone parent families whose youngest child was less than 20 increased by nearly 30% between 2001 and 2010, from 113,900 families in 2001 to 148,000 families in 2010.
- ◆ The number of female headed lone parent families increased by just under a third (32.8%) over this period while the number of lone parent families headed by males in 2010 is very close to the number in 2001.

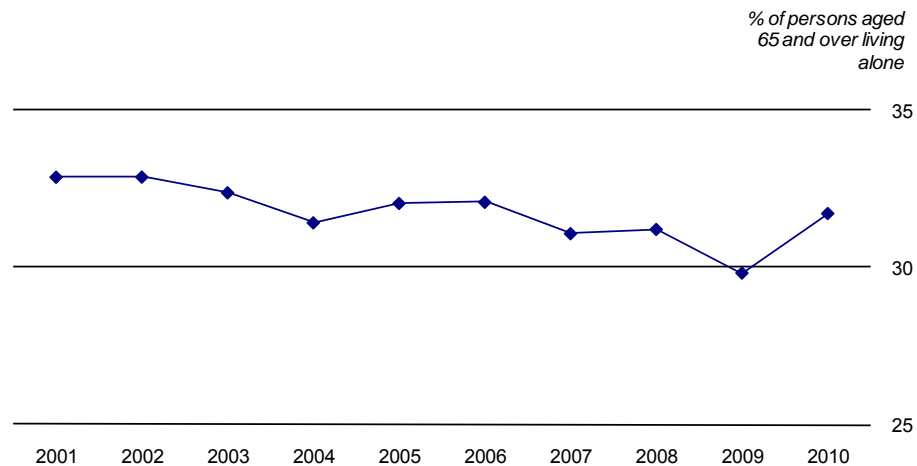
7.13 Ireland: Persons aged 65 and over living alone by sex, 2001–2010

Year	000 persons aged 65 and over living alone			%	
	Persons	Males	Females	% of all households	% of persons aged 65 and over
2001	141.5	45.5	96.0	9.2	32.9
2002	143.5	45.8	97.7	9.4	32.9
2003	143.3	45.8	97.4	9.7	32.4
2004	141.5	44.1	97.3	10.0	31.4
2005	147.2	46.4	100.8	9.9	32.0
2006	148.5	46.0	102.6	10.0	32.1
2007	146.5	46.1	100.4	10.5	31.1
2008	150.4	49.8	100.6	10.5	31.2
2009	147.4	47.7	99.7	11.0	29.8
2010	161.6	53.3	108.3	11.4	31.7

Source: CSO QNHS

- ◆ There were 161,600 persons aged 65 and over living alone in 2010 compared with 141,500 in 2001.
- ◆ There were over twice as many women aged 65 and over living alone in 2010 as there were men.
- ◆ Nearly a third (31.7%) of persons aged 65 and over were living alone in 2010.

Ireland: Persons aged 65 and over living alone, 2001-2010



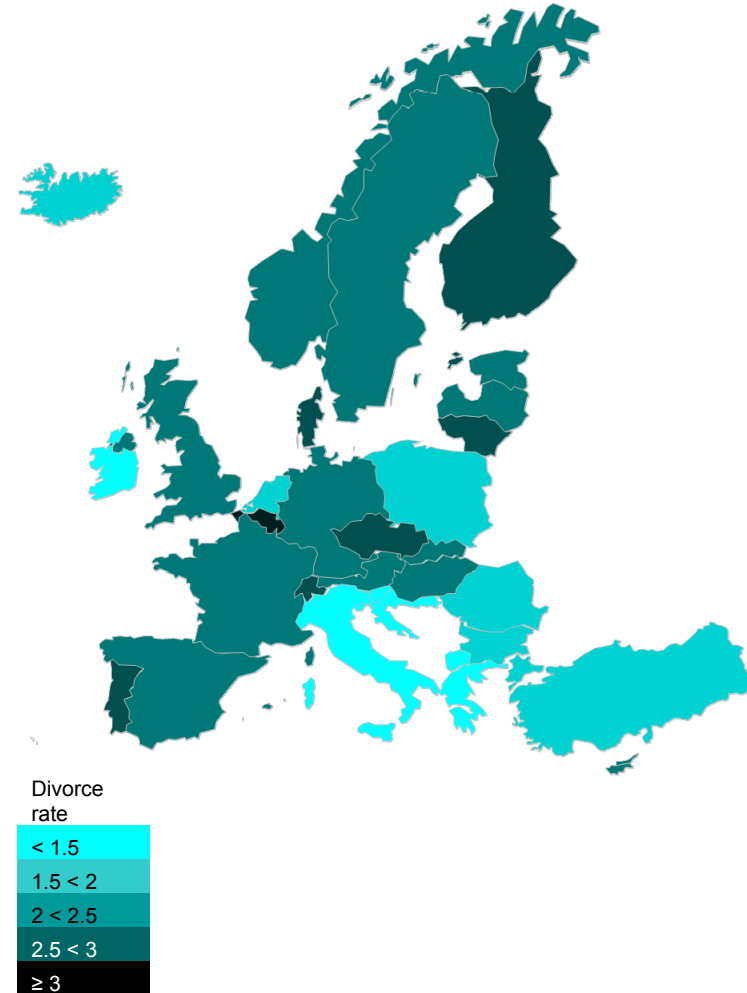
7.14 EU: Divorce rate, 2005–2009

Country	Divorces per 1,000 population				
	2005	2006	2007	2008	2009
Ireland	0.8	0.9	0.8	0.8	0.7
Italy	0.8	0.8	0.9	0.9	0.9
Slovenia	1.3	1.2	1.3	1.1	1.1
Greece	1.2	1.2	1.2	1.2	:
Poland	1.8	1.9	1.7	1.7	1.7
Romania	1.5	1.5	1.7	1.7	1.5
Bulgaria	1.9	1.9	2.1	1.9	1.5
EU	2.1	2.1	2.1	2.0	:
Luxembourg	2.2	2.5	2.3	2.0	2.1
Netherlands	2.0	1.9	2.0	2.0	1.9
France	2.5	2.2	2.1	2.1	:
Cyprus	2.0	2.3	2.1	2.1	2.2
United Kingdom	2.6	2.4	2.4	2.2	:
Germany	2.4	2.3	2.3	2.3	2.3
Slovakia	2.1	2.4	2.3	2.3	2.3
Sweden	2.2	2.2	2.3	2.3	2.4
Spain	1.7	2.9	2.8	2.4	2.1
Austria	2.4	2.5	2.5	2.4	2.2
Hungary	2.5	2.5	2.5	2.5	2.4
Portugal	2.2	2.3	2.4	2.5	2.5
Finland	2.6	2.5	2.5	2.5	2.5
Estonia	3.0	2.8	2.8	2.6	2.4
Denmark	2.8	2.6	2.6	2.7	2.7
Latvia	2.8	3.2	3.3	2.7	2.3
Czech Republic	3.1	3.1	3.0	3.0	2.8
Lithuania	3.3	3.3	3.4	3.1	2.8
Belgium	2.9	2.8	2.8	3.3	3.0
Macedonia	0.8	0.7	0.7	0.6	0.6
Croatia	1.1	1.0	1.1	1.1	1.1
Turkey	1.3	1.3	1.3	1.4	1.6
Iceland	1.9	1.6	1.7	1.7	1.7
Norway	2.4	2.3	2.2	2.1	2.1
Switzerland	2.9	2.8	2.6	2.6	2.5

Source: Eurostat

- ◆ The divorce rate in Ireland, at 0.8 divorces per 1,000 population, was the lowest in the EU in 2008, the most recent year for which data is available for all EU countries with divorce⁴².
- ◆ In 2008 the divorce rate in the EU was 2 divorces per 1,000 population. Belgium, at 3.3, had the highest divorce rate in 2008.

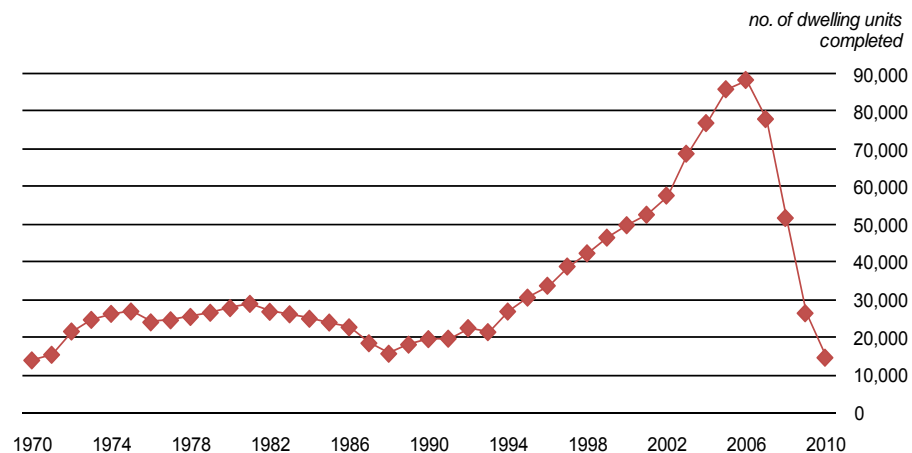
EU: Divorce rate⁴³, 2009



⁴² A referendum in Malta on divorce was passed in May 2011 paving the way for legislation to be introduced in the Maltese parliament.

⁴³ 2008 data used for France, Greece and the UK.

8.1 Ireland: Dwellings completed, 1970–2010



Source: Department of the Environment, Community and Local Government, CSO

8.2 Ireland: Nature of occupancy⁴⁴ of private households, 1961–2006

% 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
2006	77.2	21.3	1.5

Source: CSO Census of Population

- ◆ There were 13,887 dwellings completed in 1970. This figure gradually rose to 28,917 in 1981 before falling to 15,654 in 1988 and then increasing sharply to peak at almost 90,000 in 2006. However the number of dwelling unit completions collapsed over the next four years to 14,602 in 2010, which is back to the levels of the early 1970s.
- ◆ The proportion of households in Ireland that were owner-occupied increased from 59.8% in 1961 to 80% in 1991. In the 2002 census the proportion was similar and stood at 79.8%, however it has fallen back to 77.2% in the 2006 census.

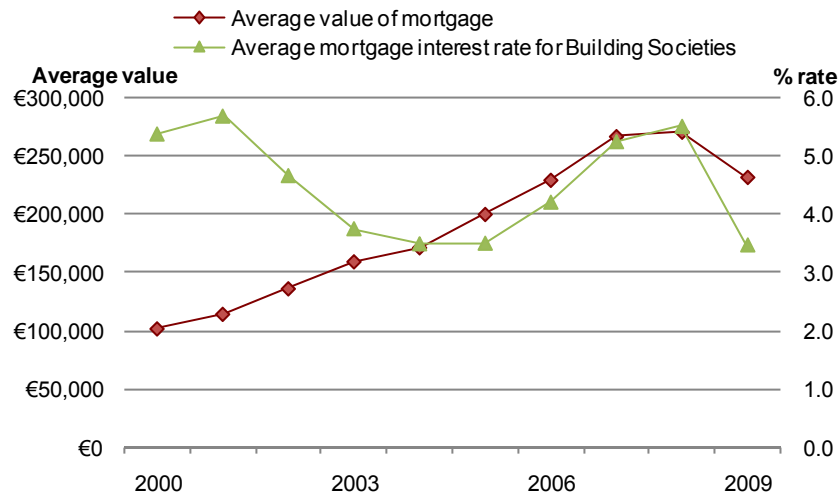
⁴⁴ 'Not stated' replies excluded.

8.3 Ireland: Housing loans paid, 2000–2009

Year	New houses	Other houses	Total	Value (€m)	Average value of mortgage (€000)	Average mortgage interest rate for building societies (%)
2000	31,533	42,725	74,258	7,598	102.3	5.38
2001	29,431	37,355	66,786	7,664	114.8	5.69
2002	32,298	46,994	79,292	10,825	136.5	4.66
2003	35,292	49,457	84,749	13,524	159.6	3.74
2004	44,231	54,478	98,709	16,933	171.5	3.48
2005	53,758	53,922	107,680	21,536	200.0	3.49
2006	55,737	55,516	111,253	25,495	229.2	4.20
2007	46,588	37,698	84,286	22,457	266.4	5.25
2008	24,467	29,224	53,691	14,508	270.2	5.51
2009	9,832	15,340	25,172	5,831	231.6	3.46

Source: Department of the Environment, Community and Local Government

Ireland: Housing loans paid 2000-2009



8.4 Eurozone: Interest rates for household mortgages (new business), 2006–2010

Country	interest rate				
	2006	2007	2008	2009	2010
Luxembourg	4.51	4.83	4.22	2.03	1.88
Finland	4.15	4.92	4.07	1.92	2.08
Spain	4.53	5.35	5.63	2.45	2.52
Italy	4.71	5.48	4.91	2.24	2.52
Austria	4.79	5.73	5.61	2.91	2.75
Eurozone	4.56	5.32	5.09	2.71	2.78
Portugal	4.40	5.18	4.96	2.22	2.96
Ireland	4.55	5.07	4.33	2.61	3.01
France	4.22	5.01	5.52	3.38	3.06
Belgium	4.47	5.26	4.87	2.92	3.12
Slovenia	5.93	6.45	6.28	3.36	3.34
Germany	5.23	5.97	5.38	3.36	3.38
Malta	:	:	3.81	3.48	3.42
Netherlands	4.51	5.41	5.32	3.84	3.58
Greece	4.36	4.76	4.92	3.08	3.65
Slovakia	:	:	6.59	5.26	4.74
Cyprus	:	:	6.47	5.01	5.16

Source: European Central Bank

- ◆ The average value of a new housing loan in Ireland rose from €102,300 in 2000 to €270,200 in 2008 before falling sharply to €231,600 in 2009. The mortgage interest rate rose from 5.38% in 2000 to 5.69% in 2001 and then dropped to 3.48% in 2004. By 2008 rates had risen to 5.51% before declining to 3.46% in 2009.
- ◆ The number of loans taken out for housing rose from 74,258 in 2000 to a peak of 111,253 in 2006 before collapsing to 25,172 in 2009.
- ◆ Interest rates for new mortgages in Ireland, at 3.01%, were higher than the average rate for the Eurozone of 2.78% at the end of 2010.

9.1 Ireland: Recorded crimes by type of offence, 2005 and 2009

Offence group	2005	2009	% change
Homicide offences	126	88	-30.2%
Sexual offences	1,801	1,482	-17.7%
Attempts/threats to murder, assaults, harassment and related offences	13,687	18,353	34.1%
Dangerous or negligent acts	170,579	219,385	28.6%
Kidnapping and related offences	74	146	97.3%
Robbery, extortion and hijacking offences	2,424	2,491	2.8%
Burglary and related offences	26,381	26,911	2.0%
Theft and related offences	73,078	77,032	5.4%
Fraud, deception and related offences	4,012	4,947	23.3%
Controlled drug offences	13,322	21,983	65.0%
Weapons and explosives offences	2,560	4,064	58.8%
Damage to property and to the environment	39,728	42,331	6.6%
Public order and other social code offences	55,483	57,351	3.4%
Road and traffic offences	187,078	270,857	44.8%
Offences against government, justice procedures and organisation of crime	7,792	11,901	52.7%
Offences not elsewhere classified	2,232	3,375	51.2%

Source: CSO Crime statistics

- ◆ The number of kidnapping and related offences nearly doubled between 2005 and 2009, rising from 74 recorded offences in 2005 to 146 in 2009. There were also noticeable increases over the same time period in controlled drug offences, which rose from 13,322 to 21,983, and in weapons and explosives offences, which rose from 2,560 to 4,064.
- ◆ The number of homicide offences fell by nearly one third between 2005 and 2009, falling from 126 to 88. There was also a decrease in sexual offences over the same period, falling from 1,801 to 1,482.
- ◆ The largest single category of offences in 2009 was road and traffic which recorded 270,857 cases.

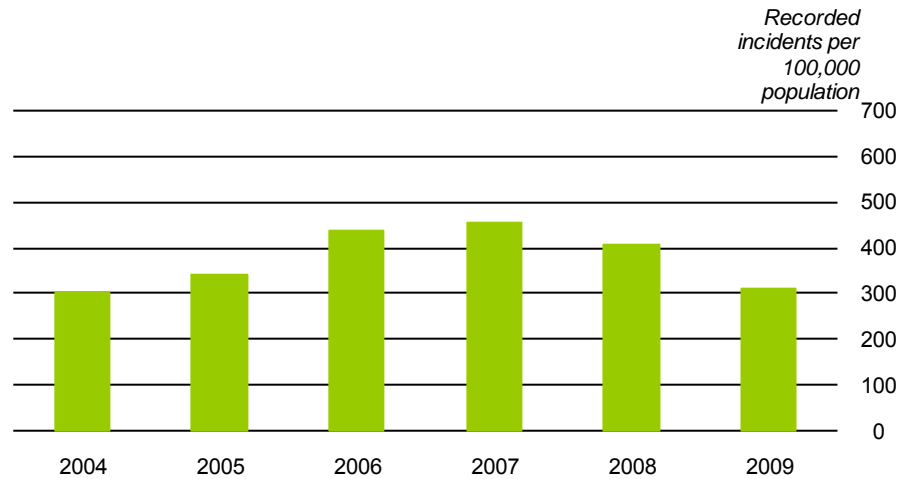
9.2 Ireland: Detection rates, 2005 and 2009

Offence group	2005	2009	% change
Homicide offences	83.3	79.5	-4.5
Sexual offences	53.4	56.7	6.2
Attempts/threats to murder, assaults, harassment and related offences	59.8	61.0	2.0
Dangerous or negligent acts	98.9	99.5	0.6
Kidnapping and related offences	58.1	43.8	-24.6
Robbery, extortion and hijacking offences	40.8	51.7	26.5
Burglary and related offences	17.8	23.8	34.2
Theft and related offences	32.0	37.2	16.1
Fraud, deception and related offences	58.3	55.5	-4.8
Controlled drug offences	95.4	98.8	3.5
Weapons and explosives offences	84.9	89.4	5.3
Damage to property and to the environment	18.5	22.1	19.4
Public order and other social code offences	82.8	93.9	13.5
Road and traffic offences	98.6	99.2	0.7
Offences against government, justice procedures and organisation of crime	98.4	97.6	-0.9
Offences not elsewhere classified	59.0	67.1	13.9

Source: CSO Crime statistics

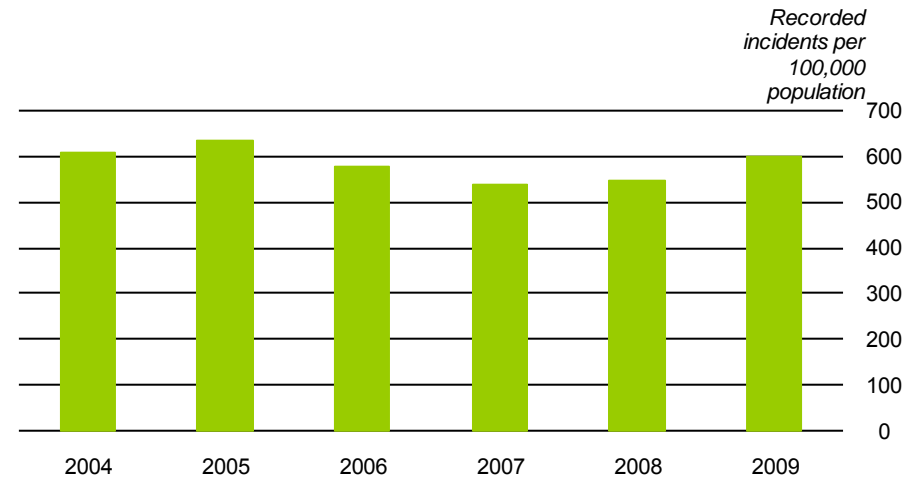
- ◆ The detection rate for burglary and related offences rose by just over a third between 2005 and 2009, while the rate for robbery, extortion and hijacking offences increased by more than a quarter. Over the same period the detection rate for kidnapping and related offences fell by almost a quarter. Certain crimes, by their nature, are detected more frequently than others, such as dangerous or negligent acts (which are mainly speeding offences) and drug offences.

9.3 Ireland: Recorded incidents of driving/in charge of a vehicle while over legal alcohol limit per 100,000 population, 2004-2009



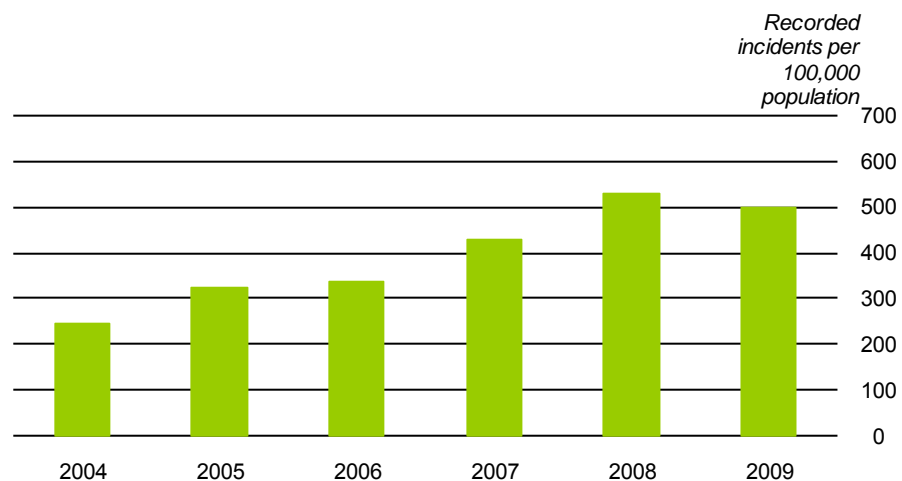
- ◆ Incidents of driving/in charge of a vehicle while over legal alcohol limit rose gradually between 2004 and 2007, from 301 to 457 incidents per 100,000 of the population, before falling back to 311 incidents per 100,000 of the population in 2009.

9.4 Ireland: Recorded incidents of burglary per 100,000 population, 2004-2009



- ◆ Incidents of burglary increased slightly from 610 to 633 incidents per 100,000 of the population between 2004 and 2005, before falling back to 537 incidents per 100,000 in 2007. In 2008 and 2009 there has been a gradual increase with the recorded incidents of burglary standing at 599 incidents per 100,000 in 2009.

9.5 Ireland: Recorded incidents of controlled drug offences per 100,000 population, 2004-2009



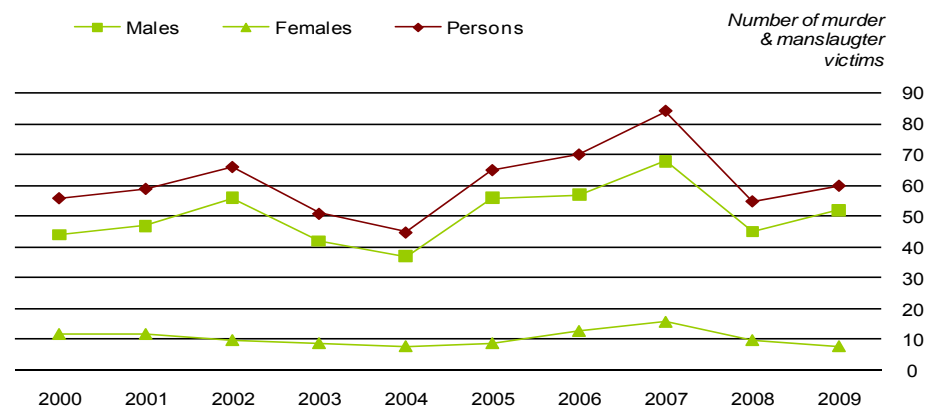
- ◆ Incidents of controlled drug offences increased steadily over the period 2004 to 2008, rising from 244 to 529 incidents per 100,000 of the population, before falling back slightly to 497 incidents per 100,000 in 2009.

9.6 Ireland: Recorded victims of murder/manslaughter, 2000–2009

Year	number of murders/manslaughters			%
	Persons	Males	Females	
2000	56	44	12	79
2001	59	47	12	80
2002	66	56	10	85
2003	51	42	9	82
2004	45	37	8	82
2005	65	56	9	86
2006	70	57	13	81
2007	84	68	16	81
2008	55	45	10	82
2009	60	52	8	87

Source: CSO Crime statistics

Ireland: Recorded victims of murder/manslaughter, 2000-2009



- ◆ There were 60 victims of murder or manslaughter in Ireland in 2009, of which 52 were male and 8 female. The total number of victims fell to 45 in 2004 and then rose over the next three years to a peak of 84 in 2007, but then dropped back sharply in 2008.
- ◆ The number of female victims of murder or manslaughter remained fairly stable over 2000-2006. It then peaked at 16 in 2007 and fell back to 8 in 2009.

10.1 Ireland: Total net greenhouse gas emissions, 2000–2009



Source: Eurostat, Environmental Protection Agency

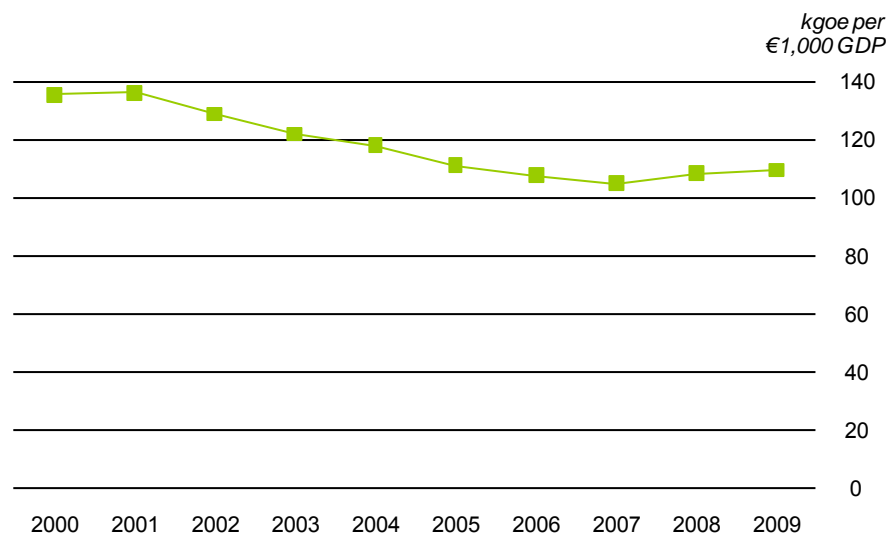
- ◆ Under the Kyoto protocol, EU countries agreed to reduce total greenhouse gas emissions in the EU by 8% on 1990 levels for the period 2008-2012. Ireland's Kyoto burden-sharing target is to ensure that average levels in the 2008-2012 period are no more than 13% above the 1990 emissions.
- ◆ Ireland exceeded the 2008-2012 Kyoto target of 113 for greenhouse gas emissions in 2000 and reached 125.1% of the 1990 level in 2001. The situation slightly improved between 2002 and 2004, but the 2005 level increased again to 124.2% of the 1990 level before falling again to 121.7% in 2008. But then the level of greenhouse gas emissions in Ireland fell sharply in 2009 to 112.1% of the 1990 level, below the Kyoto target of 113.
- ◆ In 2008 Ireland's level of emissions of 121.7% was considerably higher than the EU 15 average of 93.1% of 1990 levels and was the third highest in the 25 EU states for which data was available.

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

Country	1990=100		%
	2008	2008-2012 Kyoto target	
Latvia	45.9	92.0	49.9
Estonia	47.5	92.0	51.6
Lithuania	49.2	92.0	53.5
Romania	52.4	92.0	57.0
Bulgaria	55.4	92.0	60.2
Hungary	63.4	94.0	67.4
Slovakia	67.8	92.0	73.7
Poland	70.2	94.0	74.7
Czech Republic	72.8	92.0	79.1
Germany	77.7	79.0	98.4
United Kingdom	80.9	87.5	92.5
Sweden	88.7	104.0	85.3
Belgium	91.4	92.5	98.8
Denmark	92.1	79.0	116.6
EU 15	93.1	92.0	101.2
France	93.5	100.0	93.5
Luxembourg	94.9	72.0	131.8
Netherlands	97.1	94.0	103.3
Finland	98.8	100.0	98.8
Slovenia	104.6	92.0	113.7
Italy	104.8	93.5	112.1
Austria	109.6	87.0	126.0
Greece	118.6	125.0	94.9
Ireland	121.7	113.0	107.7
Portugal	130.3	127.0	102.6
Spain	140.0	115.0	121.7
Switzerland	100.8	92.0	109.6
Norway	108.2	101.0	107.1
Iceland	144.9	110.0	131.7
Croatia	:	95.0	:

Source: Eurostat, Environmental Protection Agency

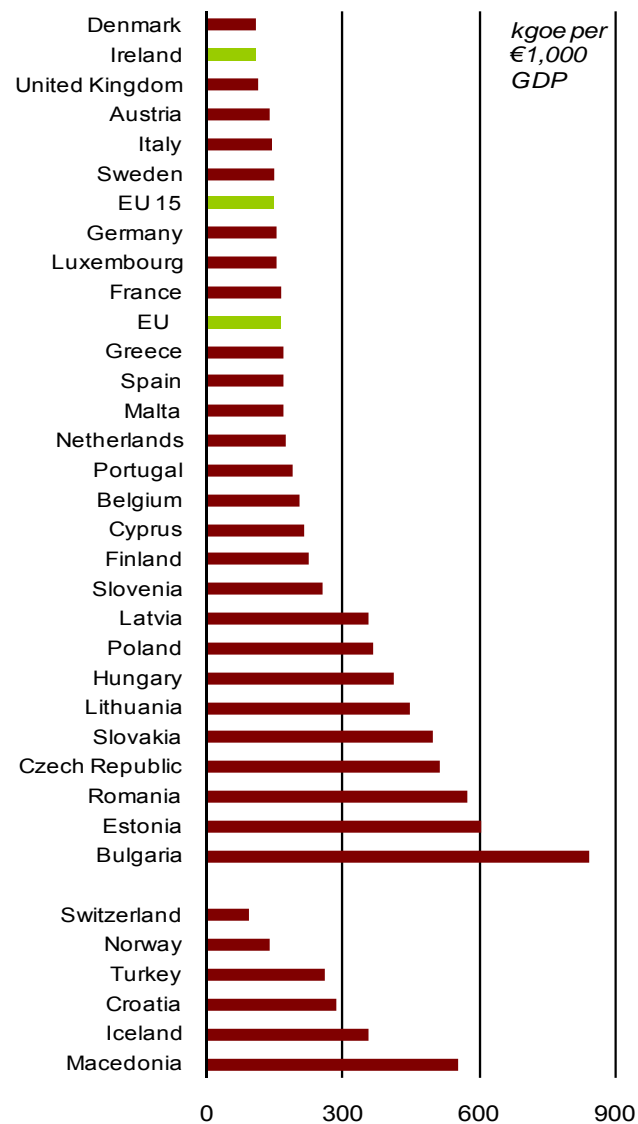
10.3 Ireland: Gross inland consumption of energy divided by GDP, 2000–2009



Source: Eurostat

- ◆ Ireland's energy intensity ratio improved from 135.4 in 2000 to 104.7 in 2007 before deteriorating slightly in 2008 and 2009 to 109.4 in 2009. This ratio is calculated by dividing total usage of coal, electricity, oil, natural gas and renewable energy by GDP.
- ◆ Ireland had the second lowest ratio of the EU countries in 2009, while the ten countries with the highest ratios were all new member states.

10.4 EU: Gross inland consumption of energy divided by GDP, 2009⁴⁵



Source: Eurostat

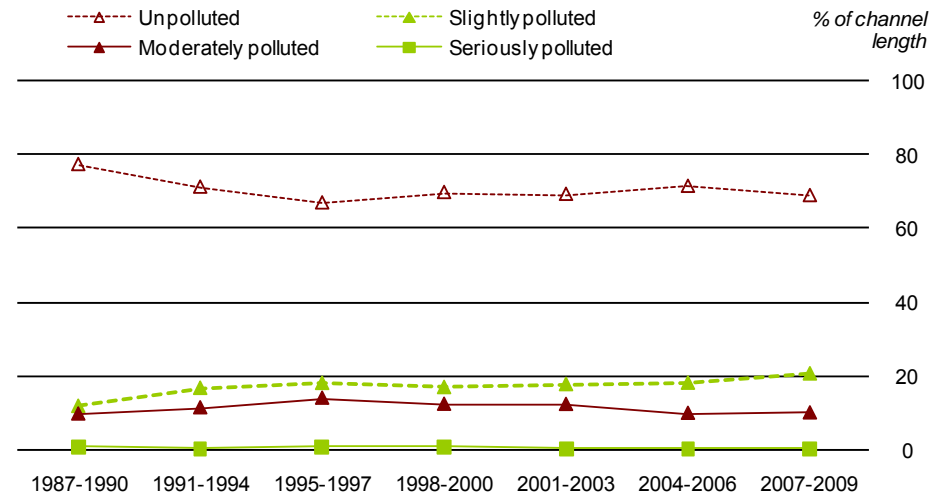
⁴⁵ 2006 data used for Iceland.

10.5 Ireland: River water quality, 1987–2009

Quality	% of channel length				Total
	Unpolluted	Slightly polluted	Moderately polluted	Seriously polluted	
1987-1990	77.3	12.0	9.7	0.9	100
1991-1994	71.2	16.8	11.4	0.6	100
1995-1997	66.9	18.2	14.0	0.9	100
1998-2000	69.7	17.1	12.4	0.8	100
2001-2003	69.3	17.9	12.3	0.6	100
2004-2006	71.4	18.2	9.9	0.5	100
2007-2009	68.9	20.7	10.0	0.4	100

Source: Environmental Protection Agency

Ireland: River water quality, 1987-2009



- ◆ The percentage of unpolluted river water in Ireland decreased from 77.3% in the period 1987-1990 to 66.9% in 1995-1997. There was an improvement to 71.4% by 2004-2006 followed by a decrease to 68.9% in the period 2007-2009.
- ◆ The percentage of slightly polluted river water has increased steadily from 12% in 1987-1990 to 20.7% in the period 2007-2009.
- ◆ The percentage of seriously polluted water has remained below 1% throughout the period, and for 2007-2009 had fallen below 0.5%.

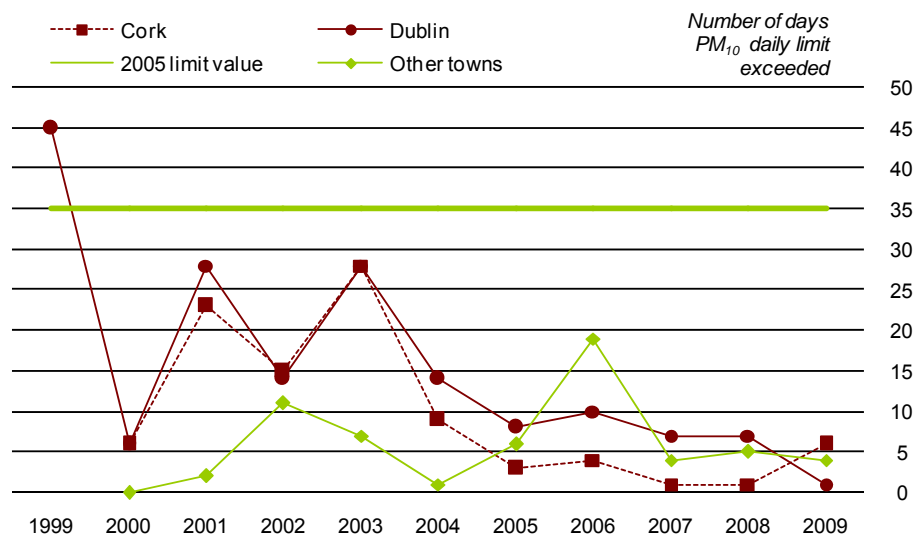
10.6 Ireland: Particulate matter⁴⁶ in urban areas, 1999–2009

Year	$\mu\text{g per m}^3$					
	Dublin		Cork		Other towns ⁴⁷	
	Average PM ₁₀	Number of days PM ₁₀ daily limit exceeded	Average PM ₁₀	Number of days PM ₁₀ daily limit exceeded	Average PM ₁₀	Number of days PM ₁₀ daily limit exceeded
1999	35	45	:	:	:	:
2000	19	6	23	6	24	0
2001	28	28	26	23	6	2
2002	23	14	23	15	32	11
2003	26	28	26	28	27	7
2004	20	14	22	9	20	1
2005	19	8	19	3	23	6
2006	20	10	16	4	26	19
2007	18	7	15	1	25	4
2008	17	7	16	1	18	5
2009	17	1	18	6	19	4

Source: Environmental Protection Agency

- ◆ The average readings for Particulate Matter (PM₁₀) in Dublin stood at 35 $\mu\text{g/m}^3$ in 1999. The level gradually fell over recent years to stand at 17 $\mu\text{g/m}^3$ in 2009.
- ◆ There has been a decrease in average readings for PM₁₀ in Cork also. The levels for other towns in Ireland have been more variable, falling from 24 $\mu\text{g/m}^3$ in 2000 to a value of 6 $\mu\text{g/m}^3$ in 2001 before rising to values in the range 18 to 32 $\mu\text{g/m}^3$ between 2002 and 2009.
- ◆ European legislation contains limit values which permit PM₁₀ to exceed 50 $\mu\text{g/m}^3$ on not more than 35 days per annum from 2005. This limit was broken in Dublin in 1999 but has not been broken since then anywhere in Ireland.

Ireland: Particulate matter⁴⁶ in urban areas, 1999-2009



⁴⁶The nature, source, health and environmental effects of Particulate matter (PM₁₀) are described in Appendix 1.

⁴⁷Data provided for other towns over the years have been for different locations. See Appendix 1 for details.

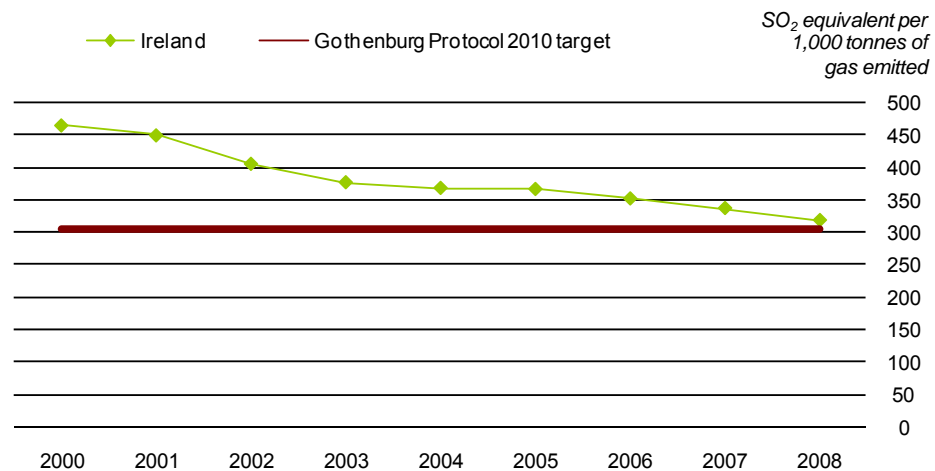
10.7 Ireland: Acid rain precursor emissions, 2000–2008

SO₂ equivalent per 1,000 tonnes of gas emitted

Year	Sulphur dioxide (SO ₂)	Nitrogen oxides (NO _x)	Ammonia (NH ₃)	Total
2000	139.7	96.3	228.6	464.6
2001	134.4	97.6	217.3	449.3
2002	101.5	90.9	212.8	405.2
2003	78.7	87.5	210.4	376.6
2004	71.3	87.1	209.5	367.9
2005	70.7	87.9	207.6	366.2
2006	60.3	84.6	206.7	351.5
2007	54.4	83.8	198.6	336.7
2008	44.8	77.8	195.5	318.1

Source: Environmental Protection Agency, CSO

Ireland: Acid rain precursor emissions, 2000-2008



Source: Environmental Protection Agency, CSO

- ◆ The level of acid rain precursor emissions in Ireland has been decreasing every year since 2000, from 464.6 SO₂ equivalent per 1,000 tonnes of gas emitted to 318.1 in 2008. The decrease is mainly due to much lower levels of sulphur dioxide emissions.
- ◆ The Gothenburg Protocol 2010 target emissions level is 306. Ireland's emissions were 52% above this target in 2000, but by 2008 the levels had reduced to just 4% above the target.

10.8 Ireland: Total municipal waste generated, recovered and landfilled 2003-2009

Year	000 tonnes			% of waste generated	
	Waste generated	Waste recovered	Waste landfilled	Waste recovered	Waste landfilled
2003	3,001.0	726.8	1,832.6	24.2	61.1
2004	3,034.6	919.0	1,818.5	30.3	59.9
2005	3,050.1	964.4	1,824.1	31.6	59.8
2006	3,384.6	1,119.7	1,980.6	33.1	58.5
2007	3,397.7	1,159.8	2,014.8	34.1	59.3
2008	3,224.3	1,165.1	1,938.7	36.1	60.1
2009	2,952.9	1,101.3	1,723.7	37.3	58.4

Source: Environmental Protection Agency, National Waste Report series

- ◆ The quantity of waste generated in Ireland increased each year between 2003 and 2008 resulting in an increase of 7.4% over this period. However between 2008 and 2009 the amount of waste generated decreased sharply by 8.4%.
- ◆ The quantity of waste recovered increased by just over 60% between 2003 and 2008 before decreasing by 5.5% between 2008 and 2009. Waste landfilled increased by nearly 6% between 2003 and 2008 before falling by just over 11% between 2008 and 2009.
- ◆ Waste recovered as a percentage of waste generated rose from 24.2% to 37.3% between 2003 and 2009, while waste landfilled as a percentage of waste generated was close to 60% over the same time period.
- ◆ The proportion of municipal waste landfilled in Ireland in 2009 was 58.4%, which was considerably above the EU average of 37.4%. Countries such as Germany and the Netherlands have extremely low landfill levels because they incinerate so much of their waste while Switzerland had no landfilled waste at all.
- ◆ The most waste generated per person in the EU in 2009 was in Denmark at 822kg. Poland and the Czech Republic had the least waste generated per person in 2009 at 316kg.

10.9 EU: Municipal waste collected and landfilled, 2009⁴⁸

Country	kg per person		% of municipal waste
	Generated	Landfilled	% Landfilled
Germany	587	2	0.3
Netherlands	616	4	0.6
Austria	591	4	0.7
Sweden	485	7	1.4
Denmark	822	29	3.5
Belgium	491	25	5.1
Luxembourg	707	122	17.3
France	536	173	32.3
EU	514	192	37.4
Finland	481	222	46.2
United Kingdom	529	260	49.1
Italy	541	267	49.4
Spain	547	285	52.1
Ireland	664	387	58.4
Portugal	488	301	61.7
Estonia	346	214	61.8
Poland	316	206	65.2
Slovenia	449	309	68.8
Czech Republic	316	228	72.2
Hungary	430	320	74.4
Slovakia	339	256	75.5
Romania	396	304	76.8
Greece	478	389	81.4
Cyprus	778	671	86.2
Lithuania	360	326	90.6
Latvia	333	307	92.2
Malta	647	617	95.4
Bulgaria	468	450	96.2
Switzerland	706	0	0.0
Norway	473	67	14.2
Croatia	416	207	49.8
Iceland	554	379	68.4
Macedonia	349	260	74.5
Turkey	392	332	84.7

Source: Eurostat

⁴⁸ Data between countries are in general not comparable as the definition of municipal waste generation differs from country to country. 2008 data used for Croatia and Macedonia.

10.10 Ireland: Private cars under current licence, 2000–2009

000s		
Year	Private cars under current licence	Private cars per 1,000 population aged 15 and over
2000	1,319.3	445
2001	1,384.7	459
2002	1,447.9	469
2003	1,507.1	479
2004	1,582.8	494
2005	1,662.2	507
2006	1,778.9	528
2007	1,882.9	545
2008	1,924.3	548
2009	1,902.4	540

Source: Department of Transport

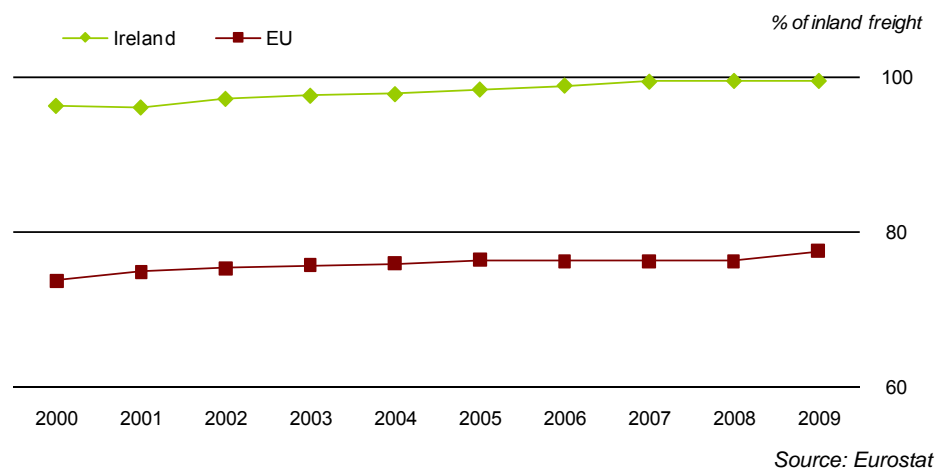
- ◆ The number of private cars per 1,000 population aged 15 and over in Ireland rose from 445 in 2000 to 548 in 2008 before falling slightly to 540 in 2009.
- ◆ In 2009, the number of cars per 1,000 population aged 15 and over varied from 817 in Luxembourg to 113 in Turkey. Of the 24 EU countries for which data was available in 2009, Ireland had the tenth lowest number of passenger cars per 1,000 population aged 15 and over.

10.11 EU: Passenger cars per 1,000 population aged 15 and over, 2005–2009

Country	cars per 1,000 population aged 15 and over				
	2005	2006	2007	2008	2009
Luxembourg	799	818	823	828	817
Italy	690	699	702	704	704
Cyprus	587	596	643	681	698
Malta	641	651	662	678	669
Finland	562	576	587	613	626
Austria	604	606	608	609	615
Slovenia	561	570	586	604	606
France	597	605	606	596	598
Lithuania	512	560	558	586	596
Germany	643	651	657	581	583
Belgium	569	571	575	579	581
Spain	550	563	572	573	563
Netherlands	533	542	552	560	562
Sweden	559	561	563	560	558
Ireland	507	528	545	548	540
Greece	454	477	501	523	532
Poland	388	419	454	499	511
Czech Republic	455	470	486	497	494
Estonia	433	485	458	483	479
Latvia	377	418	460	475	463
Bulgaria	380	265	313	358	380
Hungary	339	347	353	358	353
Slovakia	292	297	317	340	347
Romania	185	176	195	221	233
Denmark	:	458	467	470	:
United Kingdom	565	564	568	552	:
Switzerland	622	622	625	622	615
Norway	548	558	570	573	551
Croatia	371	384	398	412	408
Turkey	113	118	:	131	135

Source: Eurostat

10.12 Ireland and EU: Share of road transport in total inland freight transport⁴⁹, 2000–2009



- ◆ Road transport accounted for 96.2% of total inland freight transport in Ireland in 2000. This share has gradually increased to reach 99.4% in 2009, compared with an EU average of 77.5%.
- ◆ Ireland's use of road in inland freight transport in 2009 was among the highest in the EU with only Cyprus and Malta having higher proportions of freight transported by road. Neither of these islands have a rail network.

10.13 EU: Share of road transport in total inland freight transport, 2005–2009⁵⁰

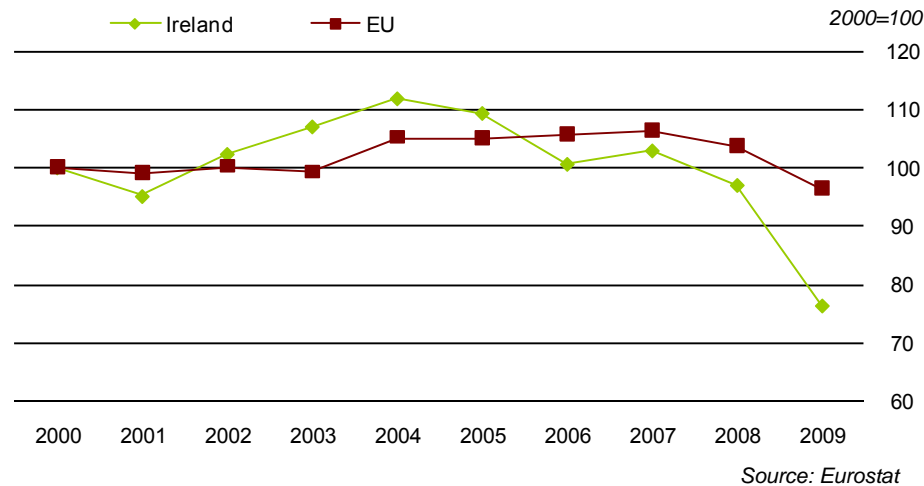
Country	% of inland freight				
	2005	2006	2007	2008	2009
Latvia	29.8	39.0	41.9	38.7	30.2
Estonia	35.4	34.7	43.2	55.3	47.3
Austria	64.1	63.2	60.9	58.6	59.5
Lithuania	56.1	58.4	58.5	58.0	59.9
Romania	67.3	70.5	71.3	70.2	60.0
Sweden	64.0	64.2	63.6	64.7	62.5
Netherlands	63.6	63.1	59.4	59.9	63.4
Germany	66.0	65.9	65.7	65.5	67.0
Bulgaria	70.8	69.0	70.0	66.9	67.4
Belgium	72.4	71.1	69.7	68.5	72.9
EU	76.4	76.2	76.2	76.2	77.5
Czech Republic	74.4	76.1	74.7	76.7	77.8
Slovakia	70.3	68.8	71.8	73.8	77.9
Hungary	69.2	71.6	74.5	74.7	78.8
Poland	69.0	70.4	73.5	75.9	80.5
France	80.5	80.9	80.9	80.7	81.0
Slovenia	77.3	78.2	79.2	82.2	84.0
United Kingdom	87.8	85.8	86.6	86.5	86.7
Denmark	92.2	91.8	92.2	91.3	90.8
Italy	90.3	88.5	87.6	88.3	91.0
Portugal	94.6	94.9	94.7	93.9	94.3
Luxembourg	92.3	91.5	93.8	94.2	94.6
Spain	95.2	95.4	95.9	95.9	96.6
Greece	97.5	98.1	97.1	97.3	97.8
Ireland	98.3	98.8	99.3	99.4	99.4
Cyprus	100.0	100.0	100.0	100.0	100.0
Malta	100.0	100.0	100.0	100.0	100.0
Finland	76.5	72.8	73.9	73.3	:
Croatia	76.0	74.8	74.0	72.7	73.7
Norway	85.2	85.3	84.7	85.0	83.4
Iceland	100.0	100.0	100.0	100.0	100.0
Macedonia	91.3	93.1	88.4	84.3	:
Turkey	94.8	94.9	94.9	:	:

Source: Eurostat

⁴⁹ Road, rail and inland waterways, measured in tonne-km.

⁵⁰ Break in series in 2004 for Austria, Poland, Portugal and Romania and in 2008 in Croatia.

10.14 Ireland and EU: Index of inland freight transport volume⁵¹, 2000–2009



- ◆ The volume of inland freight transport grew at a slower pace than constant price GDP during the period from 2000 to 2009 in Ireland, with the index of inland freight transport volume rising to a peak of 111.8 in 2004 before decreasing to 76.4 in 2009.
- ◆ Over the same time period Bulgaria recorded the fastest growth in inland freight transport relative to GDP growth with an index of 147.4 in 2009.

10.15 EU: Index of inland freight transport volume⁵¹ 2005–2009

Country	2000=100				
	2005	2006	2007	2008	2009
Cyprus	96.6	77.6	76.1	80.0	59.3
Estonia	87.0	76.7	66.5	61.8	61.1
Belgium	84.9	82.5	80.0	73.5	67.2
Denmark	91.1	80.7	77.9	73.8	67.6
France	87.2	87.6	88.7	83.3	71.4
Finland	86.7	81.4	76.7	76.4	74.8
Ireland	109.3	100.6	102.9	97.0	76.4
United Kingdom	88.3	90.3	90.0	84.0	76.7
Austria	98.5	102.2	97.7	91.4	79.1
Czech Republic	88.5	94.0	86.2	86.6	79.2
Luxembourg	92.2	88.2	87.7	96.1	79.2
Netherlands	98.7	95.2	91.4	89.1	80.3
Slovakia	93.7	86.9	92.0	90.9	85.5
Sweden	95.3	94.4	94.4	97.1	87.4
Italy	108.2	95.5	91.2	92.2	94.0
EU	105.1	105.7	106.4	103.8	96.4
Germany	106.1	109.7	111.7	110.0	101.9
Latvia	105.0	91.6	95.2	101.0	103.6
Spain	130.0	129.4	133.1	123.9	111.3
Romania	174.2	171.4	165.6	148.5	113.7
Lithuania	116.8	118.5	120.5	119.0	117.9
Poland	108.9	115.2	121.6	122.5	124.4
Portugal	148.6	153.8	155.9	133.0	124.6
Hungary	105.1	118.4	132.4	131.1	131.1
Slovenia	128.7	132.0	138.4	152.5	147.0
Bulgaria	128.0	118.3	116.6	120.7	147.4
Norway	105.9	109.9	107.6	111.9	103.7
Macedonia	141.5	198.5	141.2	:	:
Turkey	82.2	81.7	79.8	:	:

Source: Eurostat

⁵¹ Measured in tonne-km/GDP (in constant 2000 Euro), 2000=100. EU figures are Eurostat estimates. Break in series in 2004 for EU.

Appendices

Appendix 1 Definitions and notes

1 Economy

Gross Domestic Product (1.1 to 1.4)

Gross Domestic Product (GDP) is the central aggregate of National Accounts. GDP represents the total value added (output) in the production of goods and services in the country. 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 equal to **Gross National Income (GNI)**.

Gross National Product (GNP) is the sum of GDP and **Net Factor Income (NFI)**. NFI from the rest of the world is the difference between investment income (interest, profits, etc) and labour income earned abroad by Irish resident persons and companies (inflows) and similar incomes earned in Ireland by non-residents (outflows). Because NFI is the difference between two large gross flows, its magnitude can fluctuate greatly from one quarter to another. This can lead to significant differences between the GDP and GNP growth rate for the same quarter.

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

The **growth rate** in GDP is the measurement of the volume changes in GDP, i.e., percentage changes in GDP in constant prices. Thus the growth rate is not affected by changes in prices.

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 goods or services 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.

The euro (€) is the national currency of 17 EU Member States (from 1 January 2011). Eleven countries joined on 1 January 1999: Austria, Belgium, Finland, France, Germany, Ireland, Italy, Luxembourg, the Netherlands, Portugal and Spain. Greece joined on 1 January 2001, Slovenia on 1 January 2007, Cyprus and Malta on 1 January 2008, Slovakia on 1 January 2009 and Estonia on 1 January 2011.

Government debt (1.4 to 1.6)

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/public corporations 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 the denominator for calculating the General Government Consolidated Debt as a percentage of GDP ratio.

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

Public balance (1.7 to 1.10)

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 (1.11 and 1.12)

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 (1.13 and 1.14)

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%. 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.

Sign convention and symbols

The BOP presentation follows the standard double entry accounting treatment for a transaction as, in principle, every credit entry is matched by a corresponding debit entry elsewhere in the system.

In the current account, credit items are exports of merchandise and services, income inflows and current transfer receivables while debit items are imports, income outflows and transfer payables. In the capital account, capital transfer receivables are recorded as credits and payables as debits. Both credit and debit items are shown as positive numbers and the net balances are calculated as credit – debit.

The transactions in the financial account are implicitly recorded on a credit/debit basis but are generally presented on an assets/liabilities basis. Increases in foreign assets or reductions in foreign liabilities are shown with a – (minus) sign, i.e. implicitly as a debit amount, while decreases in assets or increases in liabilities are unsigned i.e. shown as positive numbers (i.e. as credits). The net balances are calculated as net change in assets transactions + net change in liabilities transactions. In the case of direct investment, the asset/liability presentation is replaced by the so-called ‘directional’ one, i.e. direct investment abroad (which approximates to the assets concept) and direct investment in Ireland (which closely equates to liabilities). The difference between the two approaches centres on the treatment of reverse investment by a direct investment enterprise in its parent (direct investor) or its foreign affiliates.

International trade (1.15 and 1.16)

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 (1.17 and 1.18)

The European Central Bank publishes a set of **Harmonised Competitive Indicators** (HCIs) based on consumer prices for all euro-area countries. The new indices were first published in the February 2007 ECB Monthly Bulletin. The rationale for publishing HCIs based on consumer prices is to provide a comparable measure of price competitiveness across euro-area countries. For a detailed description of the methodology of the nominal HCI, real HCI (deflated by consumer prices) and real HCI (deflated by producer prices) see the article entitled “Measuring Ireland’s Price and Labour Cost Competitiveness” in the Central Bank of Ireland’s Quarterly Bulletin No 1 of 2010.

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.

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.

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=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 the 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 97) levels 5 and 6. See Section 5 for detailed information on ISCED 97 classifications.

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.

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.

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). 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.

Household Internet access (2.7 and 2.8)

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

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 in the population who are not part of the labour force.

Employment rate (3.1, 3.2 and 3.12)

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.

The **employment rate of persons aged 55-64** is calculated in the same way as the overall employment rate but only takes data for persons aged 55-64.

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. See Section 1 for details of PPS.

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. See notes on section 1 for details of PPS.

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.

4 Social cohesion

Social protection expenditure (4.1 to 4.3)

Social protection expenditure data are drawn up according to the ESSPROS (European System of integrated Social Protection Statistics) methodology. The data include the expenditure broken down in social benefits, administration cost and other expenditure. In addition, social benefits are classified by functions of social protection. Annual data for the European Union are derived from all countries, for which the respective data are available, usually by adding up the aggregates for all Member States after expressing them in a common currency (ECU/Euro). National Statistical Institutes and/or Ministries of Social Affairs are responsible for data collection in national currency. Most of the data are administrative data. See notes in Section 1 for details on PPPs.

Risk of poverty (4.4 to 4.7)

The at risk of poverty rate indicator is defined as the share of persons with an equivalised disposable income below the at risk of poverty threshold, which is set at 60% 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 data in Table 4.4 is obtained from the EU Survey on Income and Living Conditions (EU-SILC). EU-SILC is carried out under EU legislation and commenced in Ireland in June 2003. The primary focus of the survey is the collection of information on the income and living conditions of different types of households. The survey also provides information on poverty, deprivation and social exclusion.

For Table 4.4, the **EU definition of income** is used. The key differences between the national and EU definitions of income are:

- ◆ The EU definition of gross income does not include **income from private pensions**. These are defined as private schemes fully organised by the individual, where contributions are at the discretion of the contributor independently of their employer or the State. Thus, **private pensions** do not include occupational or State pensions.
- ◆ All **contributions to pension plans**, except for those to private pension plans, are deducted from gross income when calculating disposable income under the EU definition. No pension contributions of any

kind are deducted from gross income in the calculation of disposable income for national purposes from the national definition of income.

For EU at risk of poverty rates, 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).

In Tables 4.5 to 4.7 the **national equivalence scale** and definition of income are used to calculate at risk of poverty rates. The national equivalence scale used to obtain the equivalised household size attributes a weight of 1 to the first adult in a household, 0.66 to each subsequent adult (aged 14+ living in the household) and 0.33 to each child aged less than 14. The purpose of an equivalence scale is to account for the size and composition of different income units (households) and thus allows for a more accurate comparison between households. However, numerous scales have been developed, and there is no real consensus as regards the most appropriate scale to use. For EU purposes, **the modified OECD scale** has been accepted to allow comparison across countries. At a national level, the alternative national scale has been used in the past in the calculation of relative poverty and consistent poverty rates, and thus is used for retrospective comparison nationally.

For all tables 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.

In the EU-SILC, income details and household composition are collected for all households. Where income is missing, it is imputed based on industry and occupation

Consistent poverty

The **consistent poverty** measure considers those persons who are defined as being at risk of poverty (using the national income definition and equivalence scale) and assesses the extent to which this group may be excluded and marginalised from participating in activities which are considered the norm for other people in society. The identification of the marginalised or deprived is achieved on the basis of a set of eight basic deprivation indicators:

- ◆ No substantial meal for at least one day in the past two weeks due to lack of money;
- ◆ Without heating at some stage in the past year due to lack of money;
- ◆ Experienced debt problems arising from ordinary living expenses;
- ◆ Unable to afford two pairs of strong shoes;
- ◆ Unable to afford a roast once a week;
- ◆ Unable to afford a meal with meat, chicken or fish (or vegetarian equivalent) every second day;
- ◆ Unable to afford new (not second-hand) clothes; and
- ◆ Unable to afford a warm waterproof coat.

An individual is defined as being in **consistent poverty** if they are:

- ◆ Identified as being at risk of poverty; and
- ◆ Living in a household deprived of one or more of the eight basic deprivation items listed above

Note that it is enforced deprivation that is relevant in this context. For example, a household may not have a roast once a week. The household is classified as deprived of this basic indicator only if the reason they didn't have it was because they could not afford it.

Gender pay gap (4.8)

The unadjusted **gender pay gap** is published by Eurostat and represents the difference between average gross hourly earnings of male paid employees and of female paid employees as a percentage of average gross hourly earnings of male paid employees. From reference year 2006 onwards the gender pay gap is

based on the methodology of the EU Structure of Earnings Survey (SES) which is carried out with a four-yearly periodicity. In Ireland the SES is known as the National Employment Survey (NES). The most recent available reference years for the SES are 2002 and 2006 and Eurostat computed the gender pay gap for these years on this basis. For subsequent years (2007 onwards) countries provide to Eurostat gender pay gap estimates benchmarked on the SES results. The target population consists of all paid employees in enterprises with 10 employees or more in NACE rev.2 aggregate B to S (excluding O). This covers all economic sectors with the exception of Agriculture, forestry and fishing, Public administration and defence, Activities of households as employers and Activities of extraterritorial organisations and bodies.

Voter turnout (4.9 and 4.10)

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

Voting is compulsory by law in Belgium, Cyprus, France (Senate only), Greece, Italy, Luxembourg, the Netherlands and parts of Austria and Switzerland. There is weak or no enforcement of this law in Austria, Italy, Greece and the Netherlands. For further information on compulsory voting and related issues see <http://www.idea.int/>.

Official development assistance (4.11 and 4.12)

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% of donor countries Gross National Income to be reached by 2007.

5 Education

Education expenditure (5.1 to 5.3)

Current public expenditure on education refers to gross voted current expenditure on education programmes from first to third level by the Department of Education and Science (excluding FAS). Expenditure not allocated by level is excluded from the total and in 2010 this amounted to €145 million. 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 2010. For comparison purposes, the all items CPI index rescaled to base mid-December 2001 is also shown in the table below:

Year	Price index bases:	
	2010=100	Mid-December 2001=100
	Government current expenditure	All items CPI index
2001	73.4	98.2
2002	78.6	102.7
2003	83.4	106.3
2004	88.8	108.6
2005	92.0	111.3
2006	96.6	115.7
2007	100.4	121.3
2008	105.0	126.3
2009	104.5	120.6
2010	100.0	119.5

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.

Educational institutions are defined as entities that provide instructional services to individuals or education-related services to individuals and other educational institutions. Second level includes further education (e.g., post-Leaving Certificate programmes). The data for third level student numbers is expressed in full-time equivalents. Incomplete data was available in 2006 for part-time third level students so the numbers have been imputed by the Department of Education and Science.

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. European averages are weighted and therefore take into account the relative proportion of the student population or the education expenditure of the considered countries. They are calculated taking into account all relevant countries for which data are available. They are considered of sufficient quality if countries with available data exceed 70% of the population or of the GDP of the European aggregate. See section 1 notes for details of PPS. Data per pupil/student is based on full-time equivalents.

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.

EU aggregates are not currently available for these indicators due to difficulties in comparing data between countries as illustrated by the country specific notes.

The International Standard Classification of Education (ISCED 97) is the basis for international education statistics. It incorporates 6 levels of education:

ISCED 0 Pre-primary level of education: Initial stage of organised instruction, designed primarily to introduce very young children to a school-type environment. This level of education is centre or school based, designed to meet the educational and developmental needs of children at least 3 years of age and have staff that are adequately trained and qualified to provide an educational programme for these children.

ISCED 1 Primary level of education: Programmes normally designed to give students a sound basic education in reading, writing and mathematics. This level represents the beginning to systematic studies characteristic of primary education. It is marked by entry into the nationally designated primary institutions or programmes.

ISCED 2 Lower secondary level of education: The lower secondary level of education generally continues the basic programmes of the primary level, although teaching is typically more subject-focused. Programmes at the start of level 2 correspond to the point where programmes begin to be organised in a more subject-oriented pattern, using more specialised teachers conducting classes in their field of specialisation.

ISCED 3 Upper secondary level of education: The final stage of secondary education in most countries. Instruction is often more organised along subject-matter lines than at ISCED level 2 and teachers need to have a higher level, or more subject-specific, qualification than at ISCED 2. Admission into ISCED 3 usually requires the completion of ISCED 2 or a combination of basic education and life experience that demonstrates the ability to engage with ISCED 3 subject matter. There are substantial differences in the typical duration of ISCED 3 programmes both across and between countries, typically ranging from 2 to 5 years of schooling.

ISCED 4 Post secondary non-tertiary education: These programmes straddle the boundary between upper secondary and post-secondary education from an international point of view, even though they may be considered as upper secondary or post-secondary in a national context. They are often not significantly more advanced than programmes at level 3 but they serve to broaden the knowledge of participants who have already completed a level 3 programme. The students tend to be older than those in ISCED 3 programmes and have usually completed ISCED 3. The duration of these programmes will generally be between 6 months and two years (full-time equivalent duration).

ISCED 5 First stage of tertiary education: ISCED 5 programmes have an educational content more advanced than those offered at levels 3 and 4. Entry to these programmes normally requires the successful completion of ISCED level 3 or a similar qualification at ISCED level 4.

ISCED 5A: These programmes are largely theoretically based and are intended to provide sufficient qualifications for gaining entry into advanced research programmes and professions with high skills requirements. The minimum cumulative theoretical duration of these programmes is three years (full-time equivalent). The faculty must have advanced research credentials. Completion of a research project or thesis may be required.

ISCED 5B: These programmes are generally more practical/technical and occupational specific than ISCED 5A programmes. They do not prepare students for direct access to advanced research programmes. The programme content is typically designed to prepare students to enter a particular occupation.

ISCED 6 Second stage of tertiary education: This level is reserved for tertiary programmes leading to the award of an advanced research qualification. The programmes are developed to advanced study and original research. This level requires the submission of a thesis or dissertation of publishable quality that is the product of original research and represents a significant contribution to knowledge. It is not solely based on course work and it prepares recipients for faculty posts in institutions offering ISCED 5A programmes, as well as research posts in government and industry.

The following qualifications regarding the data in Table 5.4 should be borne in mind:

Belgium	Data exclude the German Community. ISCED 4 included in ISCED 3.
Denmark	ISCED 2 is included in ISCED 1.
Estonia	ISCED 4 is included in ISCED 3, ISCED 2 covers students in general programs only.
Finland	ISCED 3 includes ISCED 4.
Iceland	ISCED 4 is partly included in ISCED 3. ISCED 2 is included in ISCED 1.
Ireland	ISCED 3 includes ISCED 2 and 4.
Lithuania	ISCED 3 includes vocational programmes only; general programmes are included in ISCED 2.
Luxembourg	Public sector only. ISCED 2 is included in ISCED 3.
Macedonia	Teachers in ISCED 4 included in ISCED 3.
Netherlands	ISCED 1 includes ISCED 0. ISCED 3 includes ISCED 2 and 4.
Norway	Public sector only. ISCED 3 includes ISCED 4.
United Kingdom	ISCED 3 includes ISCED 4.

Third level education (5.6 and 5.7)

Third level education is defined for these tables as ISCED 97 levels 5-6.

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 in 32 countries. Two thirds of the assessment in 2000 focussed on reading literacy. The second study, conducted in 2003 in 41 countries focussed primarily on mathematical literacy. In 2006, the primary focus was on science and in 2009 the primary focus was on reading.

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, the standard deviation is 100 so around two-thirds of students achieve between 400 and 600 points. The scales were established in the year in which their respective domain was the major domain, since in that year the framework for the domain was fully developed and the domain was comprehensively assessed.

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.

Early school leavers (5.10 to 5.12)

Early school leavers are persons aged 18 to 24 in the following two conditions (numerator): 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.

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 in education and training'. Both the numerators and the denominators come from the Labour Force Survey (Quarterly National Household Survey (QNHS) in Ireland). 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. The data for Ireland are not strictly comparable between 2003 and earlier years as modifications to the questionnaire in 2003 increased capture of information on receipt of education in the four weeks prior to the survey.

From November 2009 the Eurostat indicator on early school leavers is based on annual averages of quarterly data instead of one unique reference quarter in spring.

6 Health

Health care expenditure (6.1 and 6.2)

Public current 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. Also included are treatment benefits, which are funded by the Department of Social Protection.

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 2010 (see series under Indicator 5.1 definitions). See notes on Section 1 for details of PPS.

There is a break in the series in Table 6.1 in 2005 as the establishment of the HSE with its own Vote gave rise to changes in the reporting of health expenditure in the Revised Estimates for Public Services from 2005 onwards. Figures from 2005 are therefore not directly comparable with data from earlier years. Income that was previously collected and retained by the then Health Boards and did not form part of the Department of Health and Children's Vote and which accrues direct to the HSE is now part of the Appropriations-in-Aid and is included in the figures.

Total expenditure on health as used for the international comparison includes both public and private capital and non-capital expenditure on health. These figures are compiled by the World Health Organisation.

Whenever possible, the OECD definition of total expenditure on health is applied. It includes: household health expenses, including goods and services purchased at the consumer's own initiative and the cost-sharing part of publicly financed or supplied care; government-supplied health services including those in schools, prisons and armed forces and special public health programmes such as vaccination; investment in clinics, laboratories etc.; administration costs; research and development, excluding outlays by pharmaceutical firms; industrial medicine; outlays of voluntary and benevolent institutions. In the case of most central and eastern European countries the following has to be included: direct state budget allocated to the health sector, state subsidies to the mandatory health insurance system; mandatory health insurance contributions by employers and employees; direct health expenditure of employers for running industrial medical facilities; direct health expenditures of ministries and governmental agencies; charity health expenditures; foreign assistance; outstanding debt at the end of the year; private health insurance and direct private health charges. The OECD Health Database is used as the primary data source for those countries that are OECD Member States.

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 7.4)

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). Data on population are on a de facto basis prior to 2006 and on de jure basis for 2006 and subsequent years. The difference between the two concepts in 2006 was very small.

Ireland conducted a Census of Population in April 2011 and population estimates for years 2007 to 2010 will be revised when the final results of this Census become available in 2012. The preliminary population total (published on 30 June 2011) from the 2011 Census showed 4,581,269 people in the country

Migration (7.5 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, i.e., the number of immigrants less emigrants.

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.

EU15 excluding UK & Ireland refers to those EU member states before enlargement on 1 May 2004; namely Austria, Belgium, Denmark, Finland, France, Germany, Greece, Italy, Luxembourg, Netherlands, Spain, Sweden and Portugal.

EU 12 refers to 10 accession countries who joined the EU on 1 May 2004 (Cyprus, Czech Republic, Estonia, Hungary, Latvia, Lithuania, Malta, Poland, Slovakia and Slovenia) and the two countries who joined on 1 January 2007 (Bulgaria and Romania).

For the years up to 2004 inclusive the data relating to the EU 12 countries are included with the Rest of the World.

Age of population (7.8 and 7.9)

The **young age dependency ratio** is calculated by dividing the number of persons in the population aged between 0 and 14 years by the number of persons aged between 15 and 64 years. The **old age dependency ratio** is calculated by dividing the number of persons aged 65 and over by the number of persons aged 15-64.

The **total age dependency ratio** is the sum of persons aged 0-14 and 65 and over divided by the number of persons aged 15-64.

Fertility (7.10 and 7.11).

The national definition for the **total fertility rate** refers to the total period fertility rate (TPFR) which is derived from the age specific fertility rates in the current year. It represents the projected number of children a woman would have if she experienced current age specific fertility rates while progressing from age 15-49 years. A value of 2.1 is generally considered to be the level at which the population would replace itself in the long run, ignoring migration.

Lone parent families (7.12)

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.

Living alone (7.13)

See the household Internet access indicator in Section 2 for a definition of private households.

Divorce rate (7.14)

The divorce rate is the number of divorces in a given year per 1,000 population.

8 Housing

Dwelling completions (8.1 and 8.2)

Dwellings completed 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. The house completions data series is based on the number of new dwellings connected by ESB Networks. These represent the number of homes completed and available, and do not reflect any work-in-progress. ESB Networks indicated that there was a higher backlog in work-in-progress in 2005 than usual (estimated as being in the region of 5,000 units). This backlog was cleared through the connection of an additional 2,000 houses in Q1 2006 and 3,000 houses in Q2 2006. The 2005 and 2006 completion figures have been amended for Table 8.1 accordingly.

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

Nature of occupancy data has in the past been collected in each Census of Population conducted at the start of a decade. These data will now be collected at each Census of Population.

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 (8.3 and 8.4)

In Table 8.3 mortgage interest rates are calculated from Building Society information in Ireland. Rates from Permanent TSB and First Active plc are included in the Building Society information. Annuity and endowment mortgages are included. The data in Table 8.3 contain an unquantified element of refinancing of existing mortgages (e.g., involving the redemption of an existing mortgage and its replacement with a mortgage from a different lender).

The interest rates shown in Table 8.4 are part of the **MFI interest rate statistics** as described in the notes on Table 1.18. Rates are as at end December of each year and cover both floating (variable) rates and rates fixed for up to one year.

The Eurozone in Table 8.4 refers to those countries which are members of the Euro in the particular year. For details on countries who are members of the Euro see section 1.

9 Crime

Recorded crime and detection rates (9.1 to 9.5)

The data on recorded crime and detection rates is supplied by the Crime Unit in the CSO and features data recorded on the Garda PULSE (Police Using Leading Systems Effectively) and the FCPS (Fixed Charge Penalty System) systems which refer only to crime incidents known to An Garda Síochána and recorded as such. The classification used is the Irish Crime Classification System (ICCS), full details of which are available via the CSO homepage at www.cso.ie.

Murders/manslaughters (9.6)

Murder and manslaughter offences are listed under Homicide Offences in the Irish Crime Classification system. Murder refers to intentional killing while manslaughter refers to unintentional killing.

10 Environment

Greenhouse gases (10.1 and 10.2)

This indicator shows trends in anthropogenic emissions of the **greenhouse gases**: carbon dioxide (CO₂), nitrous oxide (N₂O), methane (CH₄) and three halocarbons, hydrofluorocarbons (HFCs), perfluorocarbons (PFCs) and sulphur hexafluoride (SF₆), weighted by their global warming potentials. The figures are given in CO₂ equivalents.

Under the **Kyoto Protocol**, industrialised countries have a legally binding commitment to reduce their collective greenhouse gas emissions by at least 5% compared with 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% compared with 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 CO₂ equivalent.

Global warming potentials can be used to convert the emissions of individual gases into CO₂ 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:

<i>CO₂ equivalents per tonne of gas emitted</i>	
Emitted gas	Global warming potential over 100 years
Carbon dioxide (CO ₂)	1
Methane (CH ₄)	21
Nitrous oxide (N ₂ O)	310

The EPA have continued to revise the data series for Ireland over time.

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 2000 for Graphs 10.3 and 10.4.

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 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 on behalf of Local Authorities. Samples are

taken from over 3,000 locations around Ireland. These biological surveys began in 1971. 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)

The pollutants of most concern for **urban air quality** are particulate matter (PM₁₀), nitrogen dioxide and, to a lesser extent, ozone. Information on measurements of PM₁₀ collected by the Environmental Protection Agency is presented in this report.

The main sources of PM₁₀ are the combustion of solid fuels and road traffic, in particular, emissions from diesel engines. Other particulates include dust from roads, industrial emissions and natural substances such as windblown sea salt.

PM₁₀ are very small particles which can penetrate deep into the respiratory tract. Inhalation of these particles can increase the risk, frequency and severity of respiratory and cardiopulmonary disorders. PM₁₀ in the atmosphere can result from direct emissions (primary PM₁₀) or from emissions of gaseous precursors (oxides of nitrogen, sulphur dioxide and ammonia) which are transformed by chemical reaction in the atmosphere (secondary PM₁₀).

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

- ◆ The limit value for PM₁₀ is 50 µg/m³ (24 h average) not to be exceeded on more than 35 days per calendar year, from 2005.

The **PM₁₀ 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 PM₁₀ is 50 µg/m³ (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% 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.

The category "other towns" in this table are Athlone, Balbriggan, Bray, Carlow, Celbridge, Clonmel, Drogheda, Dundalk, Ennis Galway, Kilkenny, Letterkenny, Limerick, Mullingar, Naas, Navan, Newbridge, Sligo, Tralee, Waterford and Wexford. A sub-sample of these towns is measured each year, as in general, towns with similar population and with similar source effects from transport, industry and domestic heating tend to show similar air quality profiles. The data for "other towns" is from the following towns:

2000	Limerick
2001	Galway
2002	Drogheda
2003	Galway
2004	Clonmel
2005	Wexford
2006	Ennis
2007	Waterford
2008	Galway
2009	Drogheda

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 (since 1998); Celbridge, Galway, Leixlip, Naas and Waterford (since 2000); and Bray, Kilkenny, Sligo and Tralee (since 2003).

Acid rain precursors (10.7)

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** (SO₂).

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 (NH₃) 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:

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 (10.8 and 10.9)

Municipal waste means household waste as well as commercial and other waste that, because of its nature or composition, is similar to household waste. Municipal waste consists of three main elements – household, commercial (including non-process industrial waste), and street cleansing waste (street sweepings, street bins and municipal arks and cemeteries maintenance waste, litter campaign material and fly tipped material). Municipal waste is a part of the overall amount of waste generated (e.g. industrial process waste is not municipal waste).

Recovery of waste means any operation the principal result of which is waste serving a useful purpose by replacing other materials which would otherwise have been used to fulfil a particular function, or waste being prepared to fulfil that function, in the plant or in the wider economy. Recovery operations include material recovery (i.e., recycling), energy recovery (i.e., use as a fuel) and biological recovery (e.g., composting).

Landfill is defined as deposit on, in or under land, or specially engineered landfill, including placement into lined discrete cells which are capped and isolated from one another and the environment, or permanent storage, including emplacement of containers in a mine. 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 in Table 10.9 is measured in kg per person per year using population figures on 1 January of each year.

Transport (10.10 to 10.15)

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. The number of private cars in table 10.10 are as at December 31 of the relevant year.

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 inland freight transport volume** indicator is the ratio between tonne-kilometres and GDP indexed on 2000.

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

GDP is measured in euro at constant 2000 prices.

Appendix 2 Data sources

Domain and sub-domain	Indicator	Data source	
Economy			
Gross Domestic Product	1.1	Ireland: GDP and GNI	CSO, National Accounts
	1.2	EU: GDP and GNI at current market prices	CSO, Annual Population estimates
	1.3	EU: GDP growth rates	Eurostat Statistics: ⁵² Economy and Finance\National accounts (including GDP)\Annual national accounts\Income, saving and net lending/net borrowing – Current prices
	1.4	EU: GDP per capita in Purchasing Power Standards	Eurostat Statistics: Europe 2020 indicators\Structural indicators\General economic background
Government debt	1.5	Ireland, EU and Eurozone: General government consolidated gross debt	Eurostat Statistics: Europe 2020 indicators\Structural indicators\General economic background
	1.6	EU: General government consolidated gross debt	Eurostat Statistics: Economy and Finance\Government finance statistics\Government deficit and debt
	1.7	EU: General government consolidated gross debt map	Eurostat Statistics: Economy and Finance\Government finance statistics\Government deficit and debt
Public balance	1.8	EU: Public balance map	Eurostat Statistics: Economy and Finance\Government finance statistics\Government deficit and debt
	1.9	Ireland and Eurozone: Public balance	Eurostat Statistics: Economy and Finance\Government finance statistics\Government deficit and debt
	1.10	EU: Public balance	Eurostat Statistics: Economy and Finance\Government finance statistics\Government deficit and debt
	1.11	Ireland: Central and Local Government current expenditure	CSO, National Accounts
Gross fixed capital formation	1.12	Ireland and EU: Gross fixed capital formation	Eurostat Statistics: Economy and Finance\National accounts (including GDP)\Annual national accounts\GDP and main aggregates\GDP and main components - current prices
	1.13	EU: Gross fixed capital formation	Eurostat Statistics: Economy and Finance\National accounts (including GDP)\Annual national accounts\GDP and main aggregates\GDP and main components - current prices
International transactions	1.14	EU: Current account balance	Eurostat Statistics: Economy and Finance\Balance of payments – International transactions\Balance of payments statistics and international investment positions\Balance of payments by country
	1.15	EU: Direct investment flows	Eurostat Statistics: Economy and Finance\National accounts (including GDP)\Annual national accounts\GDP and main aggregates\GDP and main components - current prices

⁵² <http://epp.eurostat.ec.europa.eu/porta/page/portal/statistics/themes>

Domain and sub-domain	Indicator	Data source
International trade	1.16	EU: Exports of goods and services Eurostat Statistics: Economy and Finance\Balance of payments – International transactions\Balance of payments statistics and international investment positions\Balance of payments by country Economy and Finance\National accounts (including GDP)\Annual national accounts\GDP and main aggregates\GDP and main components - current prices
	1.17	EU: Imports of goods and services Eurostat Statistics: Economy and Finance\Balance of payments – International transactions\Balance of payments statistics and international investment positions\Balance of payments by country Economy and Finance\National accounts (including GDP)\Annual national accounts\GDP and main aggregates\GDP and main components - current prices
Exchange rates	1.18	International: Bilateral euro exchange rates European Central Bank, Monthly Bulletin, Table 8.2 Bilateral exchange rates
	1.19	Ireland: Harmonised competitiveness indicator CSO, National Accounts Central Bank, Financial Services Authority of Ireland
Harmonised Index of Consumer Prices	1.20	Ireland and EU: Harmonised Index of Consumer Prices Eurostat Statistics: Economy and Finance\Harmonised indices of consumer prices\Prices\Harmonised indices of consumer prices – Annual data
	1.21	EU: Harmonised Index of Consumer Prices Eurostat Statistics: Economy and Finance\Harmonised indices of consumer prices\Prices\Harmonised indices of consumer prices – Annual data
Price levels	1.22	Ireland and EU: Comparative price levels of final consumption by private households including indirect taxes Eurostat Statistics: Europe 2020 indicators\Structural indicators\Economic reform
	1.23	EU: Comparative price levels of final consumption by private households including indirect taxes Eurostat Statistics: Europe 2020 indicators\Structural indicators\Economic reform
Innovation and technology		
Science and technology graduates	2.1	Ireland: Mathematics, science and technology graduates Eurostat Statistics: Population and social conditions\Education and training\Education\Education indicators non-finance\Tertiary education graduates CSO, Annual population estimates
	2.2	EU: Mathematics, science and technology PhDs awarded Eurostat Statistics: Population and social conditions\Education and training\Education\Education indicators non-finance\Tertiary education graduates
Research and development expenditure	2.3	Ireland and EU: Gross domestic expenditure on R&D Eurostat Statistics: Europe 2020 indicators\Structural indicators\Innovation and research
	2.4	EU: Gross domestic expenditure on R&D Eurostat Statistics: Europe 2020 indicators\Structural indicators\Innovation and research
Patent applications	2.5	Ireland and EU: European Patent Office applications Eurostat Statistics: Europe 2020 indicators\Structural indicators\Innovation and research
	2.6	EU: European Patent Office applications Eurostat Statistics: Europe 2020 indicators\Structural indicators\Innovation and research
Household Internet access	2.7	Ireland: Private households with a computer connected to the Internet CSO, Information Society and Telecommunications
	2.8	EU: Private households with Internet access Eurostat Statistics: Science and technology\Information society statistics\Policy indicators\Citizens access to and use of the Internet
Employment and unemployment		
Employment rate	3.1	Ireland: Employment rates CSO, QNHS
	3.2	EU: Employment rates by sex Eurostat Statistics: Europe 2020 indicators\Structural indicators\Employment CSO, QNHS

Domain and sub-domain	Indicator	Data source	
Labour productivity	3.3	Ireland: GDP in Purchasing Power Standards per hour worked and per person employed	Eurostat Statistics: Europe 2020 indicators\Structural indicators\General economic background
	3.4	EU: GDP in Purchasing Power Standards per person employed	Eurostat Statistics: Europe 2020 indicators\Structural indicators\General economic background
Unemployment rate	3.5	Ireland and EU: Unemployment rates	Eurostat Statistics: Europe 2020 indicators\Structural indicators\Employment
	3.6	EU: Unemployment rates by sex	Eurostat Statistics: Europe 2020 indicators\Structural indicators\Employment
	3.7	Ireland and EU: Long-term unemployment rates	Eurostat Statistics: Europe 2020 indicators\Structural indicators\Social cohesion
	3.8	EU: Long-term unemployment rates by sex	Eurostat Statistics: Europe 2020 indicators\Structural indicators\Social cohesion
Jobless households	3.9	Ireland: Population aged 18-59 living in jobless households	Eurostat Statistics: Europe 2020 indicators\Structural indicators\Social cohesion
	3.10	EU: Population aged 18-59 living in jobless households	Eurostat Statistics: Europe 2020 indicators\Structural indicators\Social cohesion
Older workers	3.11	EU: Employment rate of persons aged 55-64 by sex	Eurostat Statistics: Europe 2020 indicators\Structural indicators\Employment
Social cohesion			
Social protection expenditure	4.1	Ireland and EU: Social protection expenditure	Eurostat Statistics: Population and social conditions\Social protection\Social protection expenditure\Expenditure-main results
	4.2	EU: Social protection expenditure in Purchasing Power Parities per capita	Eurostat Statistics: Population and social conditions\Social protection\Social protection expenditure\Expenditure-main results
	4.3	EU: Social protection expenditure by type	Eurostat Statistics: Population and social conditions\Social protection\Social protection expenditure\Expenditure-main results
Risk of poverty	4.4	EU: At risk of poverty rates	Eurostat Statistics: Population and social conditions\Income, social inclusion and living conditions\Income distribution and monetary poverty\Monetary poverty\Low income
	4.5	Ireland: At risk of poverty rates by age and sex	CSO, EU Survey on Income and Living Conditions
	4.6	Ireland: Persons in consistent poverty by age and sex	CSO, EU Survey on Income and Living Conditions
	4.7	Ireland: Persons in consistent poverty by principal economic status	CSO, EU Survey on Income and Living Conditions
Gender pay gap	4.8	EU: Gender pay gap	Eurostat Statistics: Europe 2020 indicators\Structural indicators\Employment
Voter turnout	4.9	Ireland: Numbers voting in Dáil elections	Department of the Environment, Heritage and Local Government, Franchise Section
	4.10	EU: Votes recorded at national parliamentary elections	International Institute for Democracy and Electoral Assistance, Statistics on voter turnout, http://www.idea.int/vt/index.cfm
Official development assistance	4.11	Ireland: Net official development assistance	Irish Aid Annual Report, Department of Foreign Affairs, Annex 1, Ireland's Official Development Assistance
	4.12	EU: Net official development assistance	OECD, Development Co-operation Report, 2007, Statistical Annex, Table 4
Education			
Education expenditure	5.1	Ireland: Real current public expenditure on education	Department of Education and Science, Key Education Statistics
	5.2	Ireland: Student numbers by level	Department of Education and Science, Key Education Statistics
	5.3	EU: Public expenditure on education	Eurostat Statistics: Population and social conditions\Education and training\Education\Indicators on education finance
Pupil-teacher ratio	5.4	EU: Ratio of students to teachers	Eurostat Statistics: Population and social conditions\Education and training\Education\Education indicators non-finance\Pupil/Student – teacher ratio and average class size

Domain and sub-domain	Indicator	Data source
Third level education	5.5	EU: Average class size at ISCED levels 1 and 2 Eurostat Statistics: Population and social conditions\Education and training\Education\Education indicators non-finance\Pupil/Student – teacher ratio and average class size
	5.6	Ireland: Persons aged 25-34 with third-level education CSO, QNHS
	5.7	EU: Persons aged 25-34 with third-level education by sex CSO, Annual population estimates
Literacy	5.8	Ireland: Student performance on the reading, mathematical and scientific literacy scales by sex Eurostat Statistics: Population and social conditions\Labour market (including LFS – Labour Force Survey)\Employment and unemployment (Labour Force Survey)\LFS series – detaild annual survey results\Total Population
	5.9	EU: Student performance on the reading, mathematical and scientific literacy scales OECD, PISA 2009
Early school leavers	5.10	Ireland: Early school leavers by labour force status and sex OECD, PISA 2009
	5.11	Ireland: Proportion of the population aged 20-64 with at least upper secondary education CSO, QNHS
	5.12	EU: Early school leavers Eurostat Statistics: Europe 2020 indicators\Structural indicators\Social cohesion
Health		
Health care expenditure	6.1	Ireland: Current public expenditure on health care Department of Health and Children, Health Statistics, Table L6 CSO, Annual population estimates CSO, National accounts
	6.2	EU: Total expenditure on health as percentage of GDP World Health Organisation, Health for All Database http://data.euro.who.int/hfad/
Life expectancy	6.3	Ireland: Life expectancy at birth and at age 65 by sex CSO, Vital Statistics, Irish Life Tables No 15, 2005-2007
	6.4	EU: Life expectancy at birth by sex Eurostat Statistics: Population and social conditions\Population\Demography\Demography - National data\National data\Mortality
Population		
Population distribution	7.1	Ireland: Population distribution by age group CSO, Annual population estimates
	7.2	Ireland: Household composition CSO, QNHS
	7.3	EU: Population Eurostat Statistics: Population and social conditions\Population\Demography\Demography - National data\National data\Population
	7.4	EU: Population change Eurostat Statistics: Population and social conditions\Population\Demography\Demography - National data\National data\Population
Migration	7.5	Ireland: Migration and natural increase CSO, Annual migration estimates
	7.6	Ireland: Immigration by country of origin CSO, Annual migration estimates
	7.7	Ireland and EU: Rate of natural increase of population Eurostat Statistics: Population and social conditions\Population\Demography\Demography - National data\National data\Population
Age of population	7.8	Ireland: Age dependency ratio CSO, Annual population estimates
	7.9	EU: Young and old as proportion of population aged 15-64 Eurostat Statistics: Population and social conditions\Population\Demography\Demography - National data\National data>Main demographic indicators

Domain and sub-domain	Indicator		Data source
Fertility	7.10	Ireland and EU: Total fertility rate	CSO, Vital Statistics Eurostat Statistics: Population and social conditions\Population\Demography\Demography - National data\National data\Fertility
	7.11	EU: Total fertility rate	Eurostat Statistics: Population and social conditions\Population\Demography\Demography - National data\National data\Fertility
Lone parent families	7.12	Ireland: Lone parent families with children aged under 20 by sex of parent	CSO, QNHS
Living alone	7.13	Ireland: Persons aged 65 and over living alone by sex	CSO, QNHS
Divorce	7.14	EU Divorce rate	Eurostat Statistics: Population and social conditions\Population\Demography\Demography – National data\Marriage and Divorce
Housing			
Dwelling completions	8.1	Ireland: Dwellings completed	Department of the Environment, Heritage and Local Government, Annual Housing Statistics Bulletin
	8.2	Ireland: Nature of occupancy of private households	CSO, Census of Population
Mortgages	8.3	Ireland: Housing loans paid	Department of the Environment, Heritage and Local Government, Annual Housing Statistics Bulletin
	8.4	Eurozone: Interest rates for household mortgages (new business)	Central Bank, Financial Services Authority of Ireland European Central Bank
Crime			
Recorded crimes	9.1	Ireland: Recorded crimes by type of offence	CSO, Garda Recorded Crime Statistics
Detection rate	9.2	Ireland: Detection rates	CSO, Garda Recorded Crime Statistics
Recorded incidents	9.3	Ireland: Recorded incidents of driving /in charge of a vehicle while over legal alcohol limit per 100,000 population	CSO, Garda Recorded Crime Statistics
	9.4	Ireland: Recorded incidents of burglary per 100,000 population	CSO, Garda Recorded Crime Statistics
	9.5	Ireland: Recorded incidents of controlled drug offences per 100,000 population	CSO, Garda Recorded Crime Statistics
Murder/manslaughter	9.6	Ireland: Recorded victims of murder/manslaughter	CSO, Garda Recorded Crime Statistics
Environment			
Greenhouse gases	10.1	Ireland: Total net greenhouse gas emissions	Eurostat Statistics: Europe 2020 indicators\Structural indicators\Environment Environmental Protection Agency, Ireland's Greenhouse Gas Emissions in 2006
	10.2	EU: Net greenhouse gas emissions and Kyoto 2008-2012 target	Eurostat Statistics: Europe 2020 indicators\Structural indicators\Environment Environmental Protection Agency, Ireland's Greenhouse Gas Emissions in 2006
Energy intensity of economy	10.3	Ireland: Gross inland consumption of energy divided by GDP	Eurostat Statistics: Europe 2020 indicators\Structural indicators\Environment
	10.4	EU: Gross inland consumption of energy divided by GDP	Eurostat Statistics: Europe 2020 indicators\Structural indicators\Environment
River water quality	10.5	Ireland: River water quality	Environmental Protection Agency
Urban air quality	10.6	Ireland: Particulate matter in urban areas	Environmental Protection Agency
Acid rain precursors	10.7	Ireland: Acid rain precursor emissions	CSO, Environmental Accounts
Waste management	10.8	Ireland: Total waste collected and percentage landfilled by type	Environmental Protection Agency

Domain and sub-domain	Indicator	Data source	
Transport	10.9	EU: Municipal waste collected and landfilled	Eurostat Statistics: Europe 2020 indicators\Structural indicators\Environment
	10.10	Ireland: Private cars under current licence	Department of Transport, Irish Bulletin of Vehicle and Driver Statistics, Table 1.
	10.11	EU: Passenger cars per 1,000 population aged 15 and over	CSO, Annual population estimates Eurostat Statistics: Transport\Regional transport\Stock of vehicles by category at regional level
	10.12	Ireland and EU: Share of road transport in total inland freight transport	Eurostat Statistics: Europe 2020 indicators\Structural indicators\Environment
	10.13	EU: Share of road transport in total inland freight transport	Eurostat Statistics: Europe 2020 indicators\Structural indicators\Environment
	10.14	Ireland and EU: Index of inland freight transport volume	Eurostat Statistics: Europe 2020 indicators\Structural indicators\Environment
	10.15	EU: Index of inland freight transport volume	Eurostat Statistics: Europe 2020 indicators\Structural indicators\Environment

