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An Phríomh-Oifig Staidrimh

Measuring Ireland's Progress

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Contents

Preface

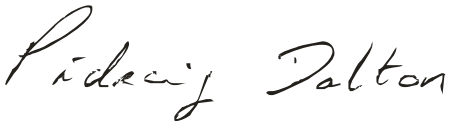
The progress indicators used in this report provide an overall view of the economic, social and environment situation in Ireland. The indicators are generally presented in both a national time series and an international context, to permit benchmarking over time and across countries. Data are given for 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 on 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.*

In June 2012 the CSO launched a new web-based report which brings together national data on 27 key short-term economic indicators together in a timely and accessible way[1].

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 publishes an annual Factbook[2] covering more than 100 indicators. 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.



Pádraig Dalton
Director General

[1] http://www.cso.ie/indicators/Maintable.aspx
[2] http://www.oecd-ilibrary.org/economics/oecd-factbook-2011-2012_factbook-2011-en

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 2003-2005[3] requested the CSO to support a move towards more evidence-based policy-making by developing a set of national progress indicators. In its report, *Developing Irish Social and Equality Statistics to meet Policy Needs*, the NSB asked the CSO to prepare a preliminary national progress indicators report[4]. 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*[5]. 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 ninth 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)**.**

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).

[3] Department of the Taoiseach (2003): *Sustaining Progress, Social Partnership Agreement 2003-2005.*
[4] Recommendation 10.
[5] NSB (2003), *Strategy for Statistics, 2003-2008*, Stationery Office, Dublin.

QNHS results for all years in this report are presented for Q2.

The figures in the tables and graphs reflect the data availability position as of August 2012.

The following symbol is used:
: data not available.

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
	1.11	Ireland: Central and Local Government current expenditure
Gross fixed capital formation	1.12	Ireland and EU: Gross fixed capital formation
	1.13	EU: Gross fixed capital formation
International transactions	1.14	EU: Current account balance
	1.15	EU: Direct investment flows
International trade	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: Primary and lower secondary average class size
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 for recorded crimes
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 generated and treated
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

Ireland had the lowest inflation in the EU between 2007 and 2011 but prices remain high by EU standards. Ireland was the fifth most expensive EU state in 2011, after Denmark, Sweden, Finland and Luxembourg with prices 17% above the EU average. However this represents a considerable improvement on 2008 when Irish prices were the second highest in the EU, at 30% above the EU average.

After three successive years of falling GDP, Ireland recorded a positive GDP growth rate in 2011 of 1.4%. The public balance deficit was the highest of any EU member state at just over 13% of GDP, while government debt increased to just over 108% of GDP, having been at only 25% of GDP in 2007. The number of new houses and apartments, after peaking at almost 90,000 in 2006, collapsed to 10,480 in 2011, below the level in 1970. Ireland's employment rate was below the EU average, and its unemployment rate was the fifth highest rate in the EU. The productivity of the Irish workforce remained above the EU average.

Ireland has the highest fertility rate and the lowest divorce rate in the EU, its population is increasing at a higher rate than in any other EU country and it has the highest proportion of young people and the second lowest proportion of old people in the EU. 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. The proportion of the population aged 25-34 in Ireland that has completed third-level education is the third highest in the EU. Over the six-year period 2005-2011, the number of kidnapping and related offences increased by over 40% while the number of weapons and explosives offences increased by over a third and the number of controlled drug offences increased by just under a third. The number of murders/manslaughters recorded in Ireland fell from its peak of 84 in 2007 to 44 in 2011.

Economy: The GDP growth rate was 1.4% in 2011. The public balance deficit was 13.1% of GDP, the largest of any EU member state but a big improvement on 2010 when it was 31.2%. And government debt increased substantially to 108.2% of GDP in 2011, the third highest debt/GDP ratio in the EU, having been 24.8% only four years previously. Nonetheless, in 2011 Ireland had the fourth highest GDP per capita in the EU at 27% above the EU average, although, based on GNI, Ireland was the eleventh highest at 2% above the EU average. Ireland's gross fixed capital formation fell sharply since 2007 to only 10.1% of GDP in 2011, lower than any other EU state. The productivity of the Irish workforce in 2011, measured by GDP per person employed, was nearly 40% higher than the EU average. As Irish employees work longer hours, the productivity per hour worked is relatively lower, but still 28% 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) over the period 2007-2011 was the lowest in the EU. Ireland had the fifth highest price levels in the EU in 2011 with prices 17% above the EU average and only Denmark, Sweden, Finland and Luxembourg were more expensive. However this is an improvement on 2008 when price levels in Ireland were 30% above the EU average and were the second highest in the EU. (Tables 1.21 and 1.23)

Employment and unemployment: The employment rate (for those aged 15-64) in Ireland rose from 65.2% in 2002 to 69.2% in 2007, but fell to 59.1% by 2012. The male employment rate was stable over the 2002 to 2008 period at about 76% but fell sharply over the next three years to 62.9% in 2012. The female employment rate increased from 55.2% in 2002 to 60.7% in 2007 before falling to 55.4% in 2012. In 2011, Ireland's employment rate was below the EU average, and its unemployment rate was the fifth highest rate in the EU. (Tables 3.1, 3.2 and 3.6)

Social cohesion: In 2010, 6.2% of the population were in consistent poverty. This was an increase on the level recorded in 2009, when 5.5% 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 1985 and 2010. Ireland's net official development assistance increased from 0.52% of GNI in 2006 to 0.59% in 2008, before declining to 0.51% in 2010, which is short of the UN 2007 target of 0.7%. (Tables 4.6, 4.9, 4.10 and 4.12)

Education: Real expenditure per student in Ireland increased over the period 2002-2011 by close to a third at first level and by 27% at second level. However there was a decrease of 13.8% at third level over the same time period. In 2011, 46.3% 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 10.6% in 2011, better than the EU average of 13.5%. Average class size at primary level in Ireland in 2009/2010 was 24.1, the second highest in the EU. (Tables 5.1, 5.5, 5.6, 5.7 and 5.12)

Health: Current public expenditure on health care in Ireland averaged €3,219 per person in 2010 (at constant 2011 prices), an increase of close to a third on 2001. Life expectancy at birth in Ireland in 2010, as calculated by Eurostat, is 78.7 years for males and 83.2 years for females, above the EU averages. 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, 6.3 and 6.4)

Population: Ireland had the highest percentage increase in population between 2001 and 2011 in the EU. The rate of natural increase of the population in Ireland was 10.4 per 1,000 in 2010 compared with an EU average of only 1.0. Ireland had the highest fertility rate in the EU in 2010 at 2.07; the EU average was 1.59. The divorce rate in Ireland was 0.7 divorces per 1,000 population in 2010, the lowest rate in the EU. In 2011, Ireland had the highest proportion of young people (0-14) in the EU, and the second 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 7.4, 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 10,480 in 2011, below the level in 1970. The average value of a new housing loan in Ireland rose from €114,800 in 2001 to €270,200 in 2008 before dropping by nearly a quarter to €206,700 in 2010. (Tables 8.1 and 8.3)

Crime: The number of kidnapping and related offences increased by over 40% over the six year period 2005-2011, the number of weapons and explosives offences increased by over a third and the number of controlled drug offences increased by just under a third. However, the number of murders/manslaughters in Ireland decreased from its peak of 84 in 2007 to 44 in 2011. (Tables 9.1 and 9.6)

Environment: Ireland's greenhouse gas emissions were at 110% of 1990 levels in 2010. This was lower than the Kyoto 2008-2012 target (by three percentage points). The level of acid rain precursor emissions fell from 464.6 SO_2 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 38% in 2010, from just under a quarter in 2003, and 53% of waste was landfilled. The landfill percentage varies widely in EU states, from 98.5% in Bulgaria to only 0.3% in Germany, where recycling and incineration rates are high. (Tables 10.1, 10.7, 10.8 and 10.9)

2.2 Indicators

1.1 Ireland: GDP and GNI, 2002–2011

Year	GDP (€b)	GNI (€b)	GNI as % of GDP (%)	GNI at constant 2010 prices per capita (€)
2002	130.9	108.7	83.1	28,854
2003	140.8	120.5	85.6	29,755
2004	150.2	128.8	85.7	30,391
2005	163.0	140.6	86.2	31,393
2006	177.7	155.8	87.6	32,645
2007	188.7	163.4	86.6	33,136
2008	178.9	154.9	86.6	31,927
2009	161.3	134.3	83.3	29,200
2010	156.5	131.3	83.9	29,368
2011	159.0	128.3	80.7	28,557

Source: CSO National Accounts

- Gross Domestic Product in Ireland (at current market prices) increased in 2011, for the first time in four years. Having peaked at €188.7 billion in 2007, GDP fell 5.2% in 2008, 9.8% in 2009 and 3% in 2010 before increasing by 1.6% to €159 billion in 2011.
- Gross National Income per capita (at constant 2010 prices) amounted to €28,557 in 2011, less than the 2002 value of €28,854. Having increased each year between 2002 and 2007, it decreased in 2008 and 2009, rose slightly in 2010 and fell again in 2011.
- 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 7% of GDP. The gap reflects the importance of foreign direct investment to the Irish economy. In 2011 Luxembourg had a GNI/GDP ratio of 71.6 compared with 80.7 for Ireland, while the average for EU countries was 100.1.

1.2 EU: GDP and GNI at current market prices, 2011

Country	GDP (€b)	GNI (€b)	GNI as % of GDP (%)
Denmark	239.2	246.9	103.2
Sweden	386.8	395.2	102.2
Germany	2,570.8	2,620.4	101.9
France	1,996.6	2,034.2	101.9
Belgium	368.3	374.6	101.7
Finland	191.6	193.7	101.1
Netherlands	602.1	608.1	101.0
United Kingdom	1,747.0	1,764.4	101.0
Latvia	20.0	20.2	100.7
EU	**12,638.0**	**12,649.6**	**100.1**
Austria	300.2	299.2	99.7
Italy	1,580.2	1,569.7	99.3
Romania	136.5	134.7	98.7
Slovenia	35.6	35.0	98.3
Slovakia	69.1	67.8	98.1
Spain	1,073.4	1,048.1	97.6
Bulgaria	38.5	37.5	97.4
Greece	215.1	208.2	96.8
Cyprus	17.8	17.2	96.6
Portugal	170.9	164.8	96.4
Lithuania	30.7	29.6	96.3
Poland	370.0	353.9	95.6
Estonia	16.0	15.2	94.9
Hungary	100.5	94.6	94.1
Czech Republic	154.9	144.4	93.2
Malta	6.4	6.0	93.0
Ireland	**159.0**	**128.3**	**80.7**
Luxembourg	42.8	30.6	71.6
Switzerland	478.8	501.6	104.8
Norway	349.1	355.2	101.8
Croatia	44.9	43.3	96.5
Iceland	10.0	8.5	85.2
Turkey	553.9	416.0	75.1
Macedonia	7.3	:	:

Source: Eurostat, CSO National Accounts

1.3 EU: GDP growth rates, 2007-2011

%

Country	2007	2008	2009	2010	2011
Estonia	7.5	-3.7	-14.3	2.3	7.6
Lithuania	9.8	2.9	-14.8	1.4	5.9
Latvia	9.6	-3.3	-17.7	-0.3	5.5
Poland	6.8	5.1	1.6	3.9	4.3
Sweden	3.3	-0.6	-5.0	6.2	3.9
Slovakia	10.5	5.8	-4.9	4.2	3.3
Germany	3.3	1.1	-5.1	3.7	3.0
Austria	3.7	1.4	-3.8	2.3	3.0
Finland	5.3	0.3	-8.4	3.7	2.9
Romania	6.3	7.3	-6.6	-1.6	2.5
Malta	4.4	4.1	-2.6	2.5	2.1
Belgium	2.9	1.0	-2.8	2.2	1.9
Bulgaria	6.4	6.2	-5.5	0.4	1.7
Czech Republic	5.7	3.1	-4.7	2.7	1.7
France	2.3	-0.1	-3.1	1.7	1.7
Luxembourg	6.6	0.8	-5.3	2.7	1.6
Hungary	0.1	0.9	-6.8	1.3	1.6
EU	**3.2**	**0.3**	**-4.3**	**2.0**	**1.5**
Ireland (GDP)	**5.4**	**-2.1**	**-5.5**	**-0.8**	**1.4**
Netherlands	3.9	1.8	-3.5	1.7	1.2
Denmark	1.6	-0.8	-5.8	1.3	0.8
United Kingdom	3.6	-1.0	-4.0	1.8	0.8
Spain	3.5	0.9	-3.7	-0.1	0.7
Cyprus	5.1	3.6	-1.9	1.1	0.5
Italy	1.7	-1.2	-5.5	1.8	0.4
Slovenia	6.9	3.6	-8.0	1.4	-0.2
Portugal	2.4	0.0	-2.9	1.4	-1.6
Ireland (GNI)	**4.0**	**-1.8**	**-7.8**	**0.8**	**-2.5**
Greece	3.0	-0.2	-3.3	-3.5	-6.9
Turkey	4.7	0.7	-4.8	9.0	8.5
Iceland	6.0	1.3	-6.8	-4.0	3.1
Macedonia	6.1	5.0	-0.9	2.9	3.0
Switzerland	3.8	2.2	-1.9	3.0	2.1
Norway	2.7	0.0	-1.7	0.7	1.4
Croatia	5.1	2.1	-6.9	-1.4	0.0

Source:Eurostat, CSO National Accounts

- The GDP growth rate in Ireland was over 5% in 2007 but fell sharply to -2.1% in 2008, with a further steep decline to -5.5% in 2009. In 2010 the growth rate recovered somewhat but remained negative at -0.8%. However in 2011 the GDP growth rate was positive again at 1.4%
- The growth rate in GDP in Ireland in 2011 was the tenth lowest in the EU.
- The highest GDP growth rate in 2011 was in Estonia at 7.6%, followed by Lithuania at 5.9%.
- GDP growth rates were positive in every EU country in 2011 with the exceptions of Greece, Portugal and Slovenia.
- The growth rate in GNI in Ireland was -2.5% in 2011, following positive growth of 0.8% in 2010 and negative growth of -7.8% in 2009.

1.4 EU: GDP per capita in Purchasing Power Standards, 2007–2011[6]

EU=100

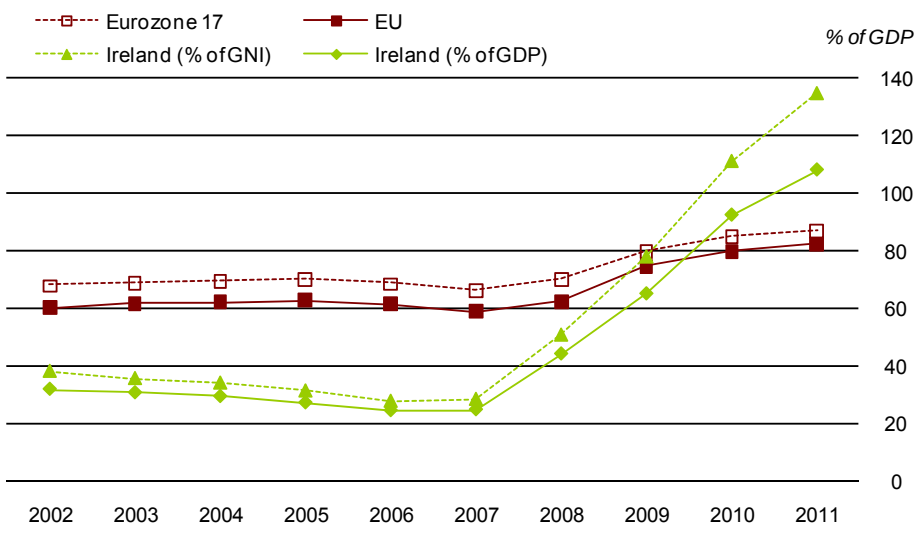
Country	2007	2008	2009	2010	2011
Luxembourg	275	279	266	271	274
Netherlands	132	134	132	133	131
Austria	124	124	125	126	129
Ireland (GDP)	**148**	**133**	**128**	**127**	**127**
Sweden	125	124	120	124	126
Denmark	123	125	123	127	125
Germany	116	116	116	118	120
Belgium	116	116	118	119	118
Finland	118	119	115	115	116
United Kingdom	116	112	111	112	108
France	108	107	108	108	107
Ireland (GNI)	**128**	**115**	**106**	**105**	**102**
Italy	104	104	104	100	101
EU	**100**	**100**	**100**	**100**	**100**
Spain	105	104	103	100	99
Cyprus	93	98	98	95	92
Slovenia	88	91	87	85	84
Malta	76	79	82	82	83
Greece	90	92	94	90	82
Czech Republic	83	81	82	80	80
Portugal	79	78	80	80	77
Slovakia	68	73	73	73	73
Estonia	70	69	64	64	67
Hungary	62	64	65	65	66
Poland	54	56	61	63	65
Lithuania	59	61	55	57	62
Latvia	56	56	51	55	58
Romania	42	47	47	47	49
Bulgaria	40	44	44	44	45
Norway	182	192	176	181	189
Switzerland	139	143	144	147	151
Iceland	121	124	118	111	110
Croatia	61	63	62	61	61
Turkey	45	47	46	49	52
Macedonia	31	34	36	36	36

Source: Eurostat

- Despite the drop in GDP in recent years, Ireland still had the fourth highest GDP per capita within the EU in 2011, expressed in terms of purchasing power standards. Using this measure Ireland was 48% above the EU average in 2007 but has since fallen to 27% above in 2011.
- The pattern of GNI per capita in Ireland is similar, falling from 28% above the EU average in 2007 to just 2% above by 2011.
- In 2011 all twelve of the new EU Member States, as well as Spain, Greece and Portugal, were below the EU average.

[6] Break in series in 2010 for Latvia.

1.5 Ireland, EU and Eurozone: General government consolidated gross debt, 2002–2011



Source: Eurostat, CSO National Accounts

- General government consolidated gross debt as a percentage of GDP in Ireland declined from 31.9% to 24.8% over the 2002-2007 period but increased steeply in 2008 to 44.2%. The debt to GDP ratio has continued to increase strongly each year since 2008 to stand at 108.2% in 2011. The debt to GNI ratio in Ireland followed a similar pattern and rose steeply from 28.6% in 2007 to 135.3% in 2011.
- Ireland had the third highest debt to GDP ratio in the EU in 2011, behind Greece and Italy.
- The Eurozone 17 figure over the period 2002 to 2008 remained close to 70% before rising over the last three years to stand at 87.2% in 2011. The new EU Member States had lower than average debt to GDP ratios in 2011.

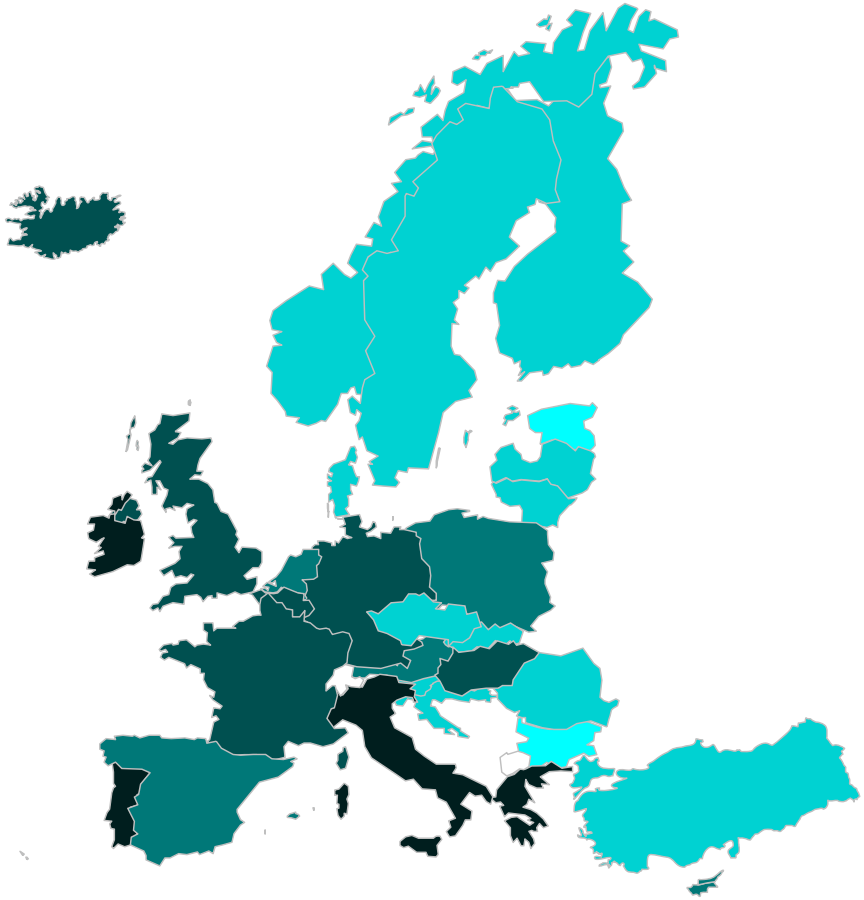
1.6 EU: General government consolidated gross debt, 2007–2011

% of GDP

Country	2007	2008	2009	2010	2011
Estonia	3.7	4.5	7.2	6.7	6.0
Bulgaria	17.2	13.7	14.6	16.3	16.3
Luxembourg	6.7	13.7	14.8	19.1	18.2
Romania	12.8	13.4	23.6	30.5	33.3
Sweden	40.2	38.8	42.6	39.4	38.4
Lithuania	16.8	15.5	29.4	38.0	38.5
Czech Republic	27.9	28.7	34.4	38.1	41.2
Latvia	9.0	19.8	36.7	44.7	42.6
Slovakia	29.6	27.9	35.6	41.1	43.3
Denmark	27.1	33.4	40.6	42.9	46.5
Slovenia	23.1	21.9	35.3	38.8	47.6
Finland	35.2	33.9	43.5	48.4	48.6
Poland	45.0	47.1	50.9	54.8	56.3
Netherlands	45.3	58.5	60.8	62.9	65.2
Spain	36.3	40.2	53.9	61.2	68.5
Cyprus	58.8	48.9	58.5	61.5	71.6
Malta	62.3	62.3	68.1	69.4	72.0
Austria	60.2	63.8	69.5	71.9	72.2
Hungary	67.1	73.0	79.8	81.4	80.6
Germany	65.2	66.7	74.4	83.0	81.2
EU	**59.0**	**62.5**	**74.8**	**80.0**	**82.5**
United Kingdom	44.4	54.8	69.6	79.6	85.7
France	64.2	68.2	79.2	82.3	85.8
Eurozone 17	**66.3**	**70.1**	**79.9**	**85.3**	**87.2**
Belgium	84.1	89.3	95.8	96.0	98.0
Portugal	68.3	71.6	83.1	93.3	107.8
Ireland (GDP)	**24.8**	**44.2**	**65.1**	**92.5**	**108.2**
Italy	103.1	105.7	116.0	118.6	120.1
Ireland (GNI)	**28.6**	**51.0**	**78.3**	**111.6**	**135.3**
Greece	107.4	113.0	129.4	145.0	165.3
Norway	51.5	48.2	43.5	43.7	29.0
Iceland	28.5	70.3	87.9	93.1	98.8
Croatia	32.9	28.9	35.3	:	:
Turkey	39.4	39.5	45.4	:	:

Source: Eurostat, CSO National Accounts

1.7 EU: General government consolidated gross debt map[7], 2011

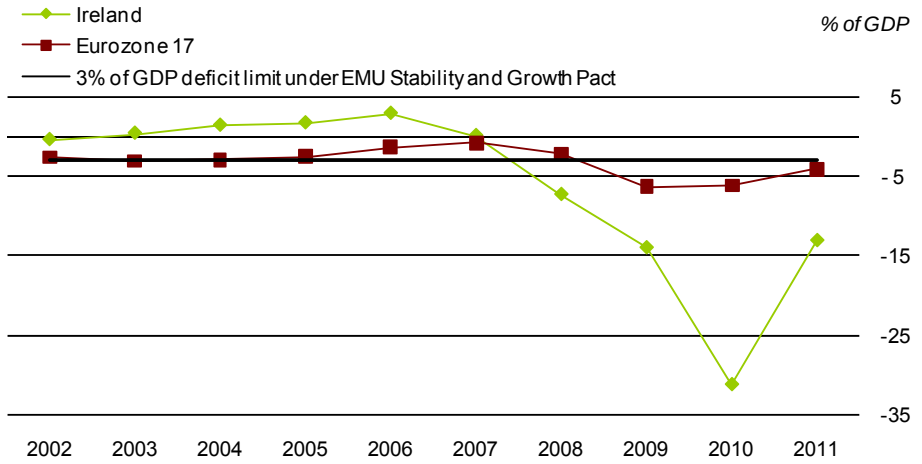


[7] 2009 data used for Croatia and Turkey.

1.8 EU: Public balance map[8], 2011

[8] 2009 data used for Croatia and Turkey.

1.9 Ireland and Eurozone: Public balance, 2002–2011



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% of GDP followed by a very steep decline to -31.2% in 2010. The public balance deficit was reduced in 2011 but was still negative, standing at -13.1%.

- In 2011 Ireland had the largest public balance deficit in the EU, followed by Greece, Spain and the United Kingdom. Twenty four of the EU member states had a public balance deficit in 2011 and seventeen EU member states exceeded the 3% of GDP deficit limit under the EMU Stability and Growth Pact.

1.10 EU: Public balance, 2007–2011

% of GDP

Country	2007	2008	2009	2010	2011
Hungary	-5.1	-3.7	-4.6	-4.2	4.3
Estonia	2.4	-2.9	-2.0	0.2	1.0
Sweden	3.6	2.2	-0.7	0.3	0.3
Finland	5.3	4.3	-2.5	-2.5	-0.5
Luxembourg	3.7	3.0	-0.8	-0.9	-0.6
Germany	0.2	-0.1	-3.2	-4.3	-1.0
Denmark	4.8	3.2	-2.7	-2.5	-1.8
Bulgaria	1.2	1.7	-4.3	-3.1	-2.1
Austria	-0.9	-0.9	-4.1	-4.5	-2.6
Malta	-2.4	-4.6	-3.8	-3.7	-2.7
Czech Republic	-0.7	-2.2	-5.8	-4.8	-3.1
Latvia	-0.4	-4.2	-9.8	-8.2	-3.5
Belgium	-0.1	-1.0	-5.6	-3.8	-3.7
Italy	-1.6	-2.7	-5.4	-4.6	-3.9
Eurozone 17	**-0.7**	**-2.1**	**-6.4**	**-6.2**	**-4.1**
Portugal	-3.1	-3.6	-10.2	-9.8	-4.2
EU	**-0.9**	**-2.4**	**-6.9**	**-6.5**	**-4.5**
Netherlands	0.2	0.5	-5.6	-5.1	-4.7
Slovakia	-1.8	-2.1	-8.0	-7.7	-4.8
Poland	-1.9	-3.7	-7.4	-7.8	-5.1
France	-2.7	-3.3	-7.5	-7.1	-5.2
Romania	-2.9	-5.7	-9.0	-6.8	-5.2
Lithuania	-1.0	-3.3	-9.4	-7.2	-5.5
Cyprus	3.5	0.9	-6.1	-5.3	-6.3
Slovenia	0.0	-1.9	-6.1	-6.0	-6.4
United Kingdom	-2.7	-5.0	-11.5	-10.2	-8.3
Spain	1.9	-4.5	-11.2	-9.3	-8.5
Greece	-6.5	-9.8	-15.6	-10.3	-9.1
Ireland (GDP)	**0.1**	**-7.3**	**-14.0**	**-31.2**	**-13.1**
Ireland (GNI)	**0.1**	**-8.4**	**-16.8**	**-37.6**	**-16.4**
Norway	17.5	18.8	10.6	11.2	13.6
Iceland	5.4	-13.5	-10	-10.1	-4.4
Croatia	-2.5	-1.4	-4.1	:	:
Turkey	-1	-2.2	-6.7	:	:

Source: Eurostat, CSO National Accounts

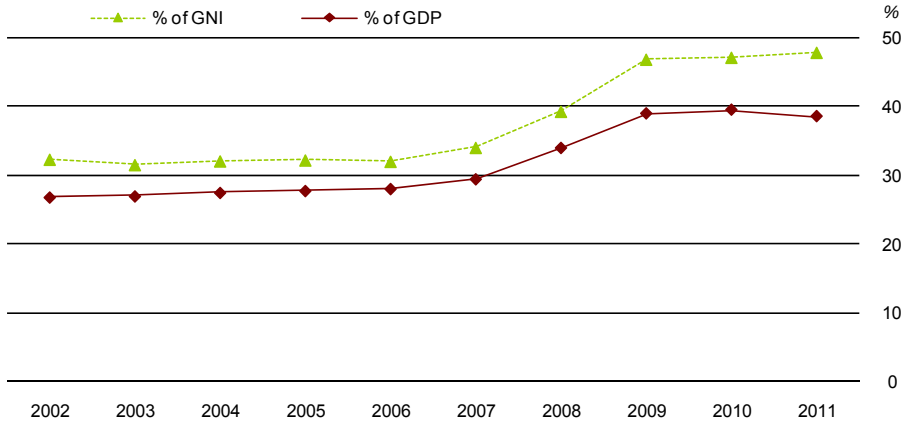
1.11 Ireland: Central and Local Government current expenditure, 2002–2011

%

Year	% of GDP	% of GNI
2002	26.8	32.3
2003	27.0	31.5
2004	27.5	32.0
2006	27.7	32.2
2007	28.0	32.0
2008	29.4	34.0
2009	33.9	39.2
2000	38.9	46.7
2010	39.4	47.0
2011	38.5	47.7

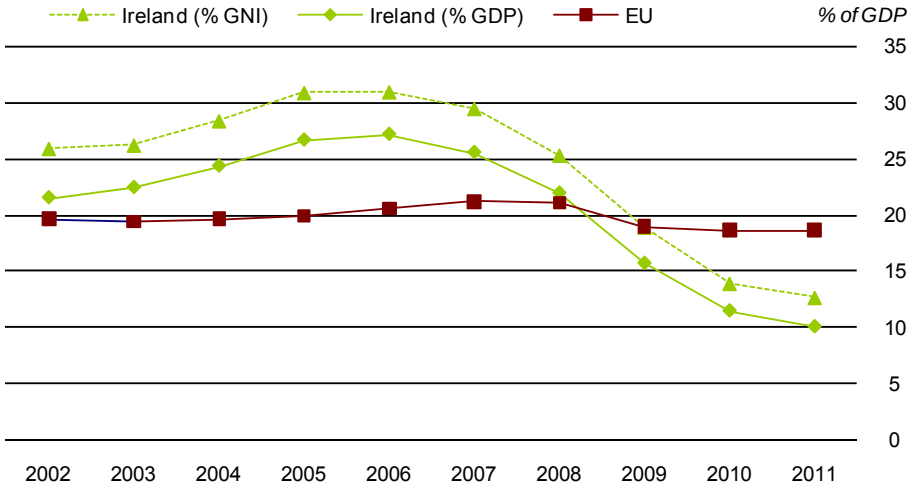
Source: CSO National Accounts

Ireland: Central and Local Government current expenditure as a % of GNI and GDP, 2002–2011



- Current expenditure by central and local government as a percentage of GDP increased each year between 2002 and 2010, rising from just over a quarter of GDP in 2001 (26.8%) to 39.4% in 2010. However there was a small decline in 2011 when current expenditure by central and local government fell to 38.5% of GDP.
- Current expenditure by central and local government amounted to nearly half (47.7%) of GNI in 2011.

1.12 Ireland and EU: Gross fixed capital formation, 2002–2011



Source: Eurostat, CSO

- Between 2002 and 2006, Ireland had a higher rate of investment in gross fixed capital formation than the EU average, rising from 21.5% of GDP to 27.1% over this time period.
- However, in 2007 the rate of investment declined and has decreased each year since then to stand at 10.1% in 2011, well below the EU average of 18.6%. This drop in investment over the last five 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 2011 in the EU at 10.1% of GDP followed by Greece and the United Kingdom while eleven countries had rates of investment above 20%.

1.13 EU: Gross fixed capital formation, 2007–2011

% of GDP

Country	2007	2008	2009	2010	2011
Romania	30.2	31.9	24.4	24.0	24.6
Czech Republic	27.0	26.8	24.8	24.4	23.9
Slovakia	26.2	24.8	20.7	22.2	22.4
Spain	30.7	28.7	24.0	22.9	21.7
Estonia	35.5	29.7	21.5	18.8	21.5
Latvia	34.1	29.7	21.6	18.3	21.5
Austria	21.4	21.6	20.7	20.5	21.4
Belgium	21.7	22.3	20.9	20.2	20.9
Bulgaria	28.7	33.6	28.9	22.8	20.9
Poland	21.6	22.3	21.2	19.9	20.2
France	20.9	21.3	19.5	19.4	20.1
Finland	21.3	21.4	19.7	18.9	19.6
Italy	21.5	21.0	19.4	19.6	19.5
Slovenia	27.8	28.8	23.4	21.6	19.5
Luxembourg	20.7	20.7	19.1	18.4	19.0
EU	**21.2**	**21.1**	**19.0**	**18.6**	**18.6**
Netherlands	20.0	20.5	19.4	18.2	18.6
Sweden	19.6	20.0	18.0	18.1	18.4
Germany	18.4	18.6	17.2	17.5	18.2
Portugal	22.2	22.5	20.6	19.8	18.1
Lithuania	28.1	25.3	17.2	16.3	17.6
Denmark	21.7	21.0	18.6	17.2	17.2
Hungary	21.8	21.7	20.7	18.0	16.8
Cyprus	22.1	22.9	20.5	19.5	16.6
Malta	21.7	17.9	15.8	17.6	15.0
United Kingdom	17.7	16.8	14.9	14.9	14.2
Greece	24.0	22.1	19.1	16.6	14.0
Ireland (% of GNI)	**29.4**	**25.3**	**18.9**	**13.9**	**12.6**
Ireland (% of GDP)	**25.5**	**21.9**	**15.7**	**11.5**	**10.1**
Turkey	21.4	19.9	16.9	18.9	21.9
Norway	22.3	21.2	21.9	19.8	20.2
Switzerland	21.7	21.3	19.9	20.0	20.2
Macedonia	19.6	21.0	19.9	19.1	19.9
Croatia	26.2	27.4	24.5	20.6	18.8
Iceland	28.5	24.5	13.9	12.9	14.1

Source: Eurostat, CSO National Accounts

1.14 EU: Current account balance, 2007–2011

current account balance as % of GDP

Country	2007	2008	2009	2010	2011
Netherlands	6.7	4.3	4.1	7.1	9.2
Sweden	9.2	8.8	7.0	6.9	7.2
Luxembourg	10.1	5.1	6.5	7.7	7.1
Denmark	1.4	2.9	3.3	5.5	6.5
Germany	7.4	6.2	5.9	6.1	5.7
Estonia	-15.9	-9.7	3.7	3.6	3.2
Austria	3.5	4.9	2.7	3.0	1.9
Hungary	-7.3	-7.3	-0.1	1.2	1.4
Ireland	**-5.4**	**-5.7**	**-2.3**	**1.1**	**1.1**
Bulgaria	-25.2	-23.1	-8.9	-1.0	0.9
Slovakia	-5.3	-6.2	-2.6	-3.5	0.1
Eurozone 17	**0.1**	**-1.6**	**-0.2**	**-0.1**	**0.0**
EU	**-1.0**	**-2.1**	**-0.8**	**-0.7**	**-0.6**
Finland	4.3	2.6	1.8	1.4	-0.7
Belgium	1.6	-1.6	-1.6	1.4	-0.8
Slovenia	-4.8	-6.9	-1.3	-0.8	-1.1
Latvia	-22.4	-13.2	8.6	3.0	-1.2
Lithuania	-14.4	-12.9	4.4	1.5	-1.6
United Kingdom	-2.5	-1.4	-1.5	-3.3	-1.9
France	-1.0	-1.7	-1.5	-1.7	-2.2
Czech Republic	-4.3	-2.1	-2.4	-3.9	-2.9
Malta	-6.3	-5.0	-8.3	-6.3	-3.1
Italy	-1.3	-2.9	-2.0	-3.5	-3.2
Spain	-10.0	-9.6	-4.8	-4.5	-3.5
Poland	-6.2	-6.6	-3.9	-4.6	-4.3
Romania	-13.4	-11.6	-4.2	-4.4	-4.4
Portugal	-10.1	-12.6	-10.9	-10.0	-6.4
Greece	-14.6	-14.9	-11.1	-10.1	-9.8
Cyprus	-11.7	-15.6	-10.7	-9.9	-10.4
Croatia	-7.1	-8.7	-4.9	-0.8	-0.8
Iceland	-15.7	-27.6	-12.1	-8.1	-7.2
Turkey	-5.9	-5.6	-2.2	-6.4	-10.0
Norway	13.9	17.5	13.3	12.3	:

Source: Eurostat, CSO Balance of Payments

- The deficit in the current account in Ireland's balance of international payments rose from 5.4% of GDP in 2007 to 5.7% in 2008 and then decreased to 2.3% in 2009. However in 2010 the deficit changed to a surplus of 1.1% of GDP and stayed at this level in 2011.
- Sixteen member states had current account deficits in 2011, with the largest in Cyprus (10.4%) and Greece (9.8%).

1.15 EU: Direct investment flows, 2010-2011

% of GDP

	Inward		Outward	
Country	2010	2011	2010	2011
Luxembourg	386.0	544.5	-345.6	-489.5
Belgium	17.3	18.0	-11.9	-13.8
Malta	12.8	7.1	-1.1	-0.2
Latvia	1.6	5.5	-0.1	-0.3
Ireland	**20.7**	**5.2**	**-10.8**	**1.9**
Denmark	-2.4	4.4	-1.1	-7.1
Portugal	1.2	4.4	3.3	-5.3
Bulgaria	3.4	3.5	-0.5	-0.4
Austria	1.1	3.4	-2.0	-7.3
Hungary	1.8	3.0	-1.0	-3.1
Lithuania	2.1	2.8	-0.2	-0.4
Poland	1.9	2.8	-1.2	-1.0
Czech Republic	3.1	2.5	-0.6	-0.5
Sweden	-0.3	2.3	-3.9	-5.3
United Kingdom	2.3	2.2	-1.4	-4.2
Slovakia	0.5	2.2	-0.4	-0.5
Slovenia	0.8	2.2	0.2	-0.1
Eurozone 17	**1.8**	**2.1**	**-3.0**	**-3.7**
Netherlands	-1.2	1.9	-7.1	-2.7
Spain	2.9	1.8	-2.8	-2.4
France	1.3	1.5	-3.3	-3.7
Italy	0.4	1.5	-1.6	-2.7
Romania	1.8	1.4	0.0	0.0
Germany	1.4	1.1	-3.3	-1.5
Cyprus	3.3	1.1	-3.0	7.4
Estonia	8.1	0.8	-0.7	6.5
Greece	0.1	0.6	-0.3	-0.6
Finland	2.8	0.0	-4.4	-2.1
Iceland	2.0	7.3	19.6	1.0
Croatia	0.7	2.3	0.3	-0.1
Turkey	1.2	2.1	-0.2	-0.3
Norway	2.9	:	-2.9	:

Source: Eurostat, CSO Balance of Payments

- Direct investment in Ireland by foreign companies in 2011, at 5.2% of GDP, was positive but was a decrease on the 2010 value of 20.7% of GDP. Direct investment abroad by Irish investors in foreign companies showed a disinvestment of 1.9% of GDP in 2011, compared with an investment of 10.8% of GDP in 2010. Increases in outward direct investment are shown with a negative sign.

1.16 EU: Exports of goods and services, 2007–2011

exports as % of GDP

Country	2007	2008	2009	2010	2011
Luxembourg	162.2	154.7	141.5	156.3	154.9
Ireland	**80.0**	**82.8**	**90.2**	**100.5**	**105.1**
Estonia	71.1	74.1	70.3	85.3	100.4
Malta	89.9	87.7	83.6	94.9	97.3
Hungary	80.8	81.3	77.4	86.1	92.1
Slovakia	86.5	86.2	70.2	80.9	88.6
Belgium	81.2	82.4	70.7	78.9	83.0
Netherlands	71.7	72.8	64.5	73.8	78.6
Lithuania	53.7	59.5	54.3	68.2	77.9
Czech Republic	68.4	64.7	60.0	68.2	75.0
Slovenia	69.3	67.0	58.1	65.0	71.6
Bulgaria	59.4	58.0	47.6	57.5	66.6
Latvia	41.5	42.0	43.2	53.3	58.7
Austria	57.8	58.3	49.3	53.3	56.3
Denmark	52.0	54.4	47.2	50.0	53.4
Germany	47.3	48.3	42.5	47.5	50.7
Sweden	50.7	52.2	47.2	48.9	49.1
Poland	40.8	40.0	39.4	42.2	44.8
Cyprus	47.1	45.0	40.2	41.5	42.7
Finland	45.9	47.2	37.8	40.7	40.0
Romania	29.2	30.3	30.6	35.4	38.4
Portugal	32.8	33.2	28.7	31.5	36.1
United Kingdom	25.8	28.3	27.5	29.5	31.5
Spain	27.2	26.7	24.1	27.3	30.2
Italy	28.8	28.5	23.7	26.6	28.7
France	27.0	27.1	23.6	25.8	27.3
Greece	21.9	23.1	18.3	20.0	22.7
Iceland	34.5	45.6	52.6	56.4	58.9
Croatia	42.2	42.0	36.7	39.7	42.0
Turkey	22.3	23.9	23.4	21.4	23.7
Norway	44.9	47.7	42.7	41.2	:

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, 2007–2011

imports as % of GDP

Country	2007	2008	2009	2010	2011
Greece	33.1	34.7	26.1	26.7	28.6
France	28.4	29.3	25.4	28.1	30.1
Italy	29.0	29.2	24.2	28.5	30.2
Spain	33.6	32.2	25.7	29.3	30.8
United Kingdom	29.1	31.7	29.7	32.3	33.7
Portugal	40.3	42.7	35.7	38.2	39.3
Finland	40.6	43.1	35.8	39.1	40.1
Sweden	43.5	45.6	40.7	42.6	43.0
Romania	43.2	43.5	36.6	41.2	43.6
Germany	40.3	42.0	37.6	41.9	45.5
Cyprus	53.6	56.4	45.7	47.7	46.3
Poland	44.1	44.8	40.1	44.1	46.4
Denmark	49.5	51.1	43.3	44.5	47.9
Austria	53.2	53.5	45.6	49.8	53.9
Latvia	62.1	55.8	44.3	54.2	62.1
Bulgaria	79.1	78.6	55.8	59.6	65.8
Netherlands	62.9	64.3	57.6	65.9	70.0
Czech Republic	65.5	62.1	55.7	64.9	70.8
Slovenia	71.1	70.3	56.8	64.7	71.3
Lithuania	67.0	71.2	55.6	69.2	79.2
Ireland	**70.2**	**73.8**	**74.9**	**81.7**	**83.8**
Belgium	79.8	84.6	70.3	78.1	84.2
Hungary	80.2	81.0	72.6	79.8	84.9
Slovakia	87.0	88.1	70.3	81.8	85.6
Malta	91.9	89.2	84.8	93.5	92.2
Estonia	81.0	79.5	64.5	77.9	93.6
Luxembourg	118.4	115.7	102.2	110.2	113.6
Turkey	27.4	28.7	24.6	27.0	32.9
Croatia	49.3	49.7	39.8	39.5	41.7
Iceland	44.6	50.1	44.2	46.3	50.7
Norway	29.8	28.9	27.7	28.1	:

Source: Eurostat, CSO Balance of Payments

- Exports as a % of GDP are the second highest in the EU, after Luxembourg, while imports are the seventh highest in the EU.

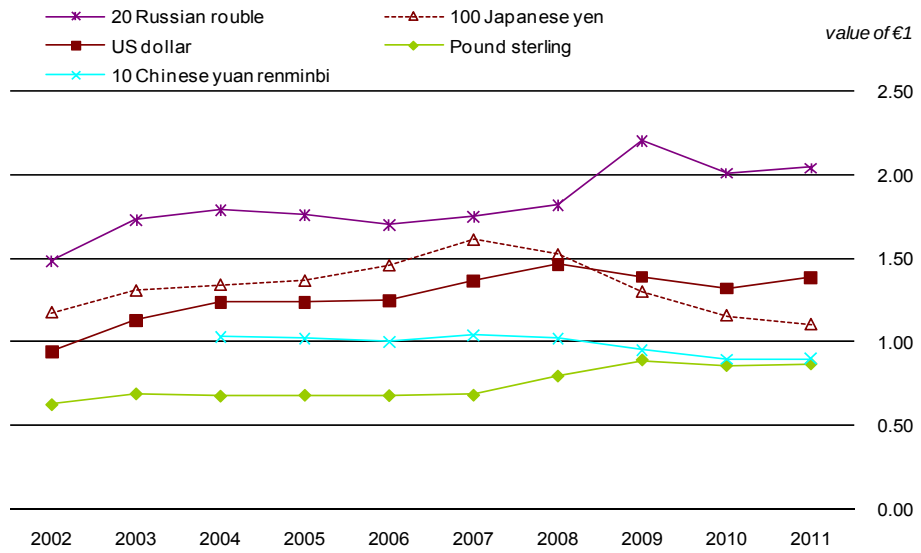
1.18 International: Bilateral euro[9] exchange rates, 2002–2011

value of €1

Year	US dollar	Pound sterling	Japanese yen	Chinese yuan renminbi	Russian rouble
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
2011	1.392	0.868	111.0	9.00	40.88

Source: European Central Bank

Bilateral euro exchange rates, 2002-2011



[9] 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, Slovakia joined on 1 January 2009 and Estonia became the 17th country in the Eurozone when it joined on 1 January 2011.

1.19 Ireland: Harmonised competitiveness indicator[10], 2002–2011

1999Q1=100

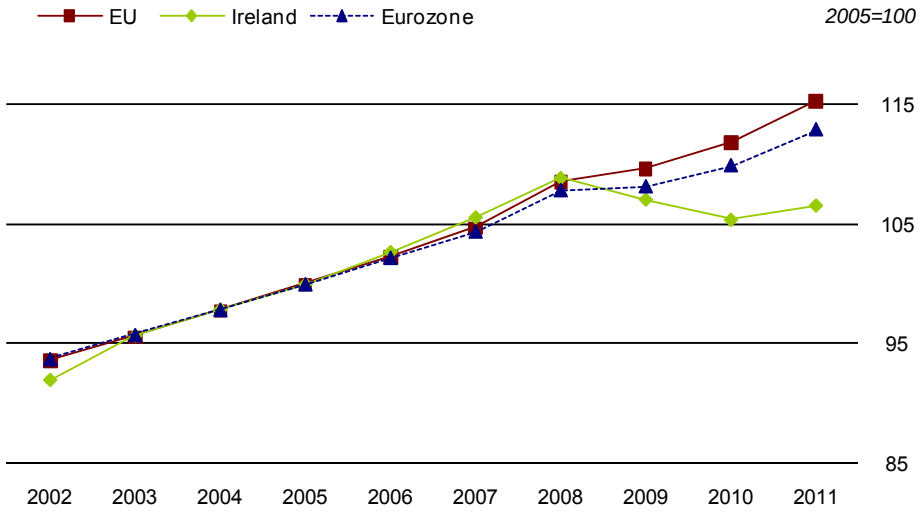
Year	Nominal HCI	Real HCI (Deflated by consumer prices)	Real HCI (Deflated by producer prices)
2002	93.5	101.1	101.0
2003	101.8	112.4	108.6
2004	104.7	115.8	108.3
2005	104.1	115.0	105.8
2006	104.2	115.5	106.1
2007	107.1	119.1	108.0
2008	111.6	123.1	112.3
2009	112.5	121.0	111.7
2010	107.8	111.6	105.9
2011	108.6	110.2	105.1

Source: Central Bank, Financial Services Authority of Ireland

- The euro appreciated significantly in value against the dollar between 2002 and 2004, from 0.946 in 2002 to 1.244 dollars in 2004. Between 2004 and 2006 the value of the euro against the US dollar was 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 and rising in 2011 to 1.392.
- The relationship between the euro and the pound sterling was stable between 2002 and 2007. In 2008 and 2009 there was a sharp rise in the euro against sterling to 0.891 followed by a slight decrease over the last two years to stand at 0.868 in 2011.
- 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 (deflated by consumer prices) disimproved over the period 2002-2008, from 101.1 in 2002 to 123.1 in 2008, mainly due to higher inflation and an appreciating euro. This indicator improved slightly in 2009 and improved more significantly in 2010 to 111.6, mainly due to deflation and a depreciating euro. There was a further small improvement in the real HCI in 2011 to 110.2.

[10] See Appendix 1.

1.20 Ireland and EU: Harmonised Index of Consumer Prices, 2002–2011



Source: Eurostat HICP

- Between 2002 and 2008 the rate of change in consumer prices in Ireland, as measured by the Harmonised Index of Consumer Prices, 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 well below the rate in the EU and the Eurozone. In 2011 consumer prices in Ireland increased but the rate continued to be lower than in the EU and the Eurozone.
- The rate of change in consumer prices in Ireland between 2007 and 2011 was the lowest in the EU.
- The seven EU countries with the highest cumulative rate of change in consumer prices between 2007 and 2011 joined the EU within the last 8 years.

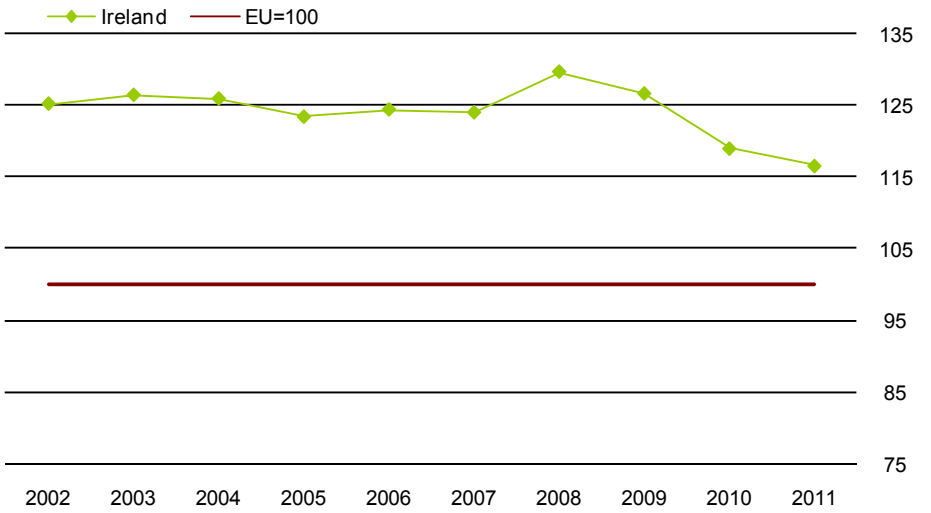
1.21 EU: Harmonised Index of Consumer Prices, 2007–2011

2005=100

Country	2007	2008	2009	2010	2011
Ireland	**105.6**	**108.9**	**107.1**	**105.4**	**106.6**
Netherlands	103.3	105.5	106.6	107.6	110.2
Germany	104.1	107.0	107.2	108.4	111.1
France	103.6	106.8	106.9	108.8	111.3
Sweden	103.2	106.7	108.7	110.8	112.3
Portugal	105.5	108.3	107.4	108.9	112.7
Eurozone 17	**104.4**	**107.8**	**108.2**	**109.9**	**112.9**
Austria	103.9	107.3	107.7	109.5	113.4
Denmark	103.5	107.3	108.4	110.8	113.8
Italy	104.3	108.0	108.8	110.6	113.8
Finland	102.9	106.9	108.7	110.5	114.2
Malta	103.3	108.1	110.1	112.4	115.1
Belgium	104.2	108.9	108.9	111.4	115.3
EU	**104.7**	**108.6**	**109.6**	**111.9**	**115.4**
Cyprus	104.5	109.0	109.2	112.0	115.9
Czech Republic	105.1	111.7	112.4	113.7	116.2
Spain	106.5	110.9	110.6	112.9	116.4
Slovakia	106.2	110.4	111.4	112.2	116.8
Luxembourg	105.7	110.0	110.0	113.1	117.3
Slovenia	106.4	112.3	113.3	115.6	118.0
United Kingdom	104.7	108.5	110.8	114.5	119.6
Poland	103.9	108.3	112.6	115.6	120.1
Greece	106.4	110.9	112.4	117.7	121.4
Estonia	111.5	123.3	123.6	127.0	133.4
Lithuania	109.8	122.0	127.1	128.6	133.9
Hungary	112.3	119.1	123.9	129.7	134.8
Bulgaria	115.6	129.4	132.6	136.6	141.2
Romania	111.8	120.7	127.4	135.2	143.0
Latvia	117.3	135.2	139.6	137.9	143.7
Switzerland	101.8	104.2	103.4	104.1	104.2
Norway	103.2	106.7	109.2	111.8	113.1
Croatia	106.0	112.2	114.7	115.9	118.5
Iceland	108.5	122.3	142.2	152.8	159.2
Turkey	118.9	131.3	139.5	151.4	161.2

Source: Eurostat HICP

1.22 Ireland and EU: Comparative price levels of final consumption by private households including indirect taxes, 2002–2011[11]



Source: Eurostat HICP

- Between 2002 and 2009 price levels for final consumption by private households in Ireland were about 25% above the EU average with a spike in 2008 when our price levels were about 30% above the EU average.
- However price levels for final consumption by private households in Ireland decreased in 2010 and 2011 to stand at 16.7% above the EU average in 2011, giving Ireland the fifth highest prices levels among EU countries, after Denmark, Sweden, Finland and Luxembourg.
- Bulgaria was the cheapest country by far in the EU in 2010, with prices at about half of the EU average.

1.23 EU: Comparative price levels of final consumption by private households including indirect taxes, 2007–2011[11]

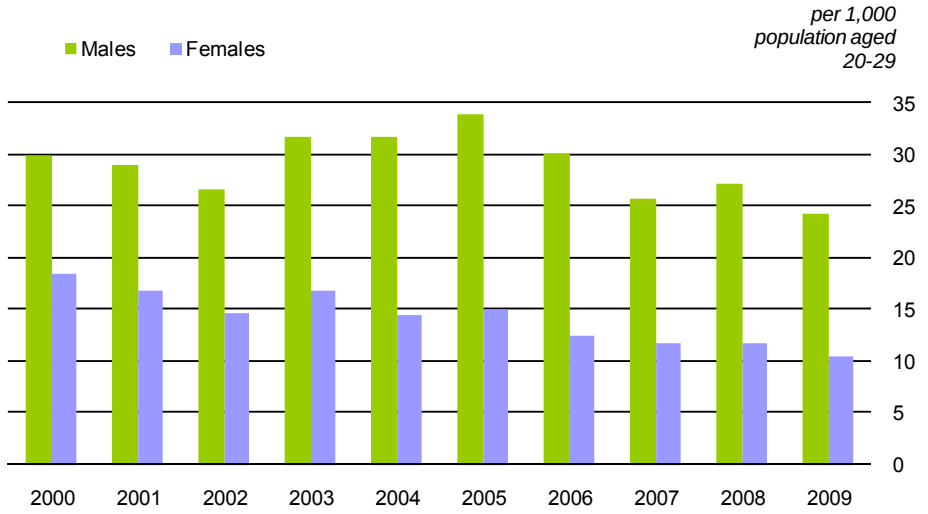
EU=100

Country	2007	2008	2009	2010	2011
Bulgaria	45.6	49.4	51.3	50.8	51.0
Romania	63.8	63.1	57.6	58.8	59.8
Poland	61.7	69.2	58.2	61.9	60.1
Hungary	66.7	69.4	63.4	64.9	64.3
Lithuania	60.0	65.9	67.4	65.1	65.6
Slovakia	63.2	69.8	73.6	71.7	72.4
Latvia	66.6	75.0	76.0	72.2	74.1
Czech Republic	62.4	77.2	73.1	75.2	76.7
Malta	75.5	77.4	78.4	78.0	78.0
Estonia	73.4	76.7	76.5	74.8	78.9
Slovenia	78.9	82.8	85.6	84.6	83.5
Portugal	85.7	87.9	89.2	88.2	87.5
Cyprus	88.3	87.7	90.1	89.2	89.4
Greece	89.8	91.7	95.0	95.1	95.1
Spain	92.9	95.1	97.8	97.1	97.4
EU	**100.0**	**100.0**	**100.0**	**100.0**	**100.0**
United Kingdom	114.0	103.0	96.6	100.3	101.7
Italy	102.5	102.4	104.9	103.5	103.1
Germany	101.7	103.5	106.1	104.3	103.4
Eurozone 17	**101.3**	**103.2**	**105.6**	**104.2**	**104.0**
Austria	102.6	105.1	108.0	106.3	106.7
Netherlands	102.0	104.1	107.8	107.6	108.0
France	108.1	110.7	112.4	110.8	110.7
Belgium	107.4	110.3	112.3	111.4	111.8
Ireland	**124.1**	**129.7**	**126.7**	**119.1**	**116.7**
Luxembourg	114.8	117.2	120.9	120.5	121.9
Finland	119.6	120.7	124.7	123.5	125.2
Sweden	115.6	112.9	108.5	121.6	127.8
Denmark	137.3	139.7	143.8	142.4	142.2
Macedonia	44.6	46.3	45.4	44.5	45.2
Turkey	70.1	68.2	63.5	71.3	62.3
Croatia	71.9	74.1	75.5	75.9	73.8
Iceland	148.9	116.8	100.8	110.4	113.5
Norway	137.5	140.6	137.1	148.4	150.7
Switzerland	125.1	128.5	138.5	147.6	161.8

Source: Eurostat HICP

[11] Break in series in 2005.

2.1 Ireland: Mathematics, science and technology graduates, 2000–2009



Source: Eurostat

- Over the period 2000 to 2006, the proportion of male mathematics, science and technology graduates was close to or above 30 per 1,000 males aged 20-29. The proportion fell in 2007 to 25.5, rose slightly to 27.1 in 2008 but fell again in 2009 to 24.1. The proportion of female graduates in these disciplines per 1,000 females aged 20-29 has fallen by over 40% between 2000 and 2009, from 18.5 per 1,000 females to 10.5.

- In 2009 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 2009, while Sweden had the highest rate at 1.5.

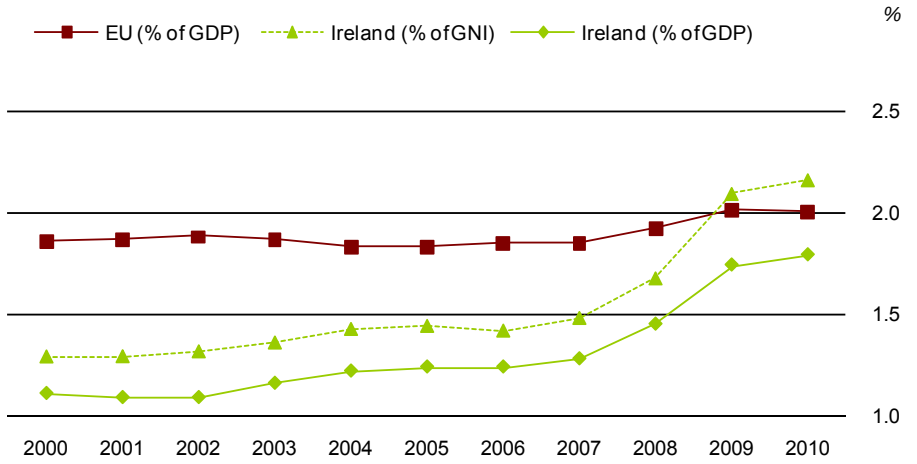
2.2 EU: Mathematics, science and technology PhDs awarded, 2005–2009

per 1,000 population aged 25-34

Country	2005	2006	2007	2008	2009
Sweden	1.0	1.7	1.7	1.6	1.5
Finland	1.2	1.3	1.4	1.2	1.1
Germany	0.9	0.9	0.9	1.0	1.0
United Kingdom	0.9	1.0	1.0	0.9	1.0
France	0.7	0.7	0.8	0.8	0.9
Austria	0.8	0.8	0.8	0.9	0.9
Ireland	**0.7**	**0.8**	**0.7**	**0.8**	**0.8**
Portugal	1.1	1.3	1.4	1.3	0.8
Belgium	0.6	0.6	0.6	0.7	0.7
Czech Republic	0.6	0.6	0.6	0.7	0.7
Denmark	0.6	0.6	0.6	0.6	0.7
Slovenia	0.6	0.6	0.6	0.7	0.7
Slovakia	0.5	0.5	0.6	0.6	0.7
EU	**0.6**	**0.6**	**0.6**	**0.6**	**0.6**
Netherlands	0.5	0.5	0.5	0.5	0.6
Romania	0.2	0.2	0.2	0.3	0.5
Estonia	0.3	0.3	0.4	0.5	0.4
Spain	0.4	0.4	0.4	0.4	0.4
Lithuania	0.2	0.3	0.3	0.3	0.3
Hungary	0.1	0.1	0.2	0.2	0.3
Poland	0.3	0.5	0.3	0.3	0.3
Bulgaria	0.2	0.2	0.2	0.2	0.2
Latvia	0.2	0.1	0.2	0.2	0.2
Cyprus	0.0	0.1	0.1	0.1	0.1
Greece	0.4	:	0.3	0.3	:
Italy	0.5	0.6	:	:	:
Malta	:	0.0	0.1	0.1	0.0
Switzerland	1.3	1.5	1.5	1.4	1.5
Norway	0.6	0.5	0.7	0.9	0.7
Croatia	0.3	0.3	0.3	0.3	0.3
Iceland	0.0	0.2	0.1	0.2	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, 2000–2010



Source: Eurostat, Forfás

- Between 2000 and 2010 expenditure on research and development as a % of GDP was less than the EU average, although the gap narrowed during 2008, 2009 and 2010, helped somewhat by falling levels of GDP.
- In 2010 Ireland's expenditure as a % of GNI at 2.16% exceeded the EU average of 2%.
- The big research and development investors in 2010 were Finland and Sweden. Investment was also high in Denmark, Germany and Austria.

2.4 EU: Gross domestic expenditure on R&D, 2000–2010[12]

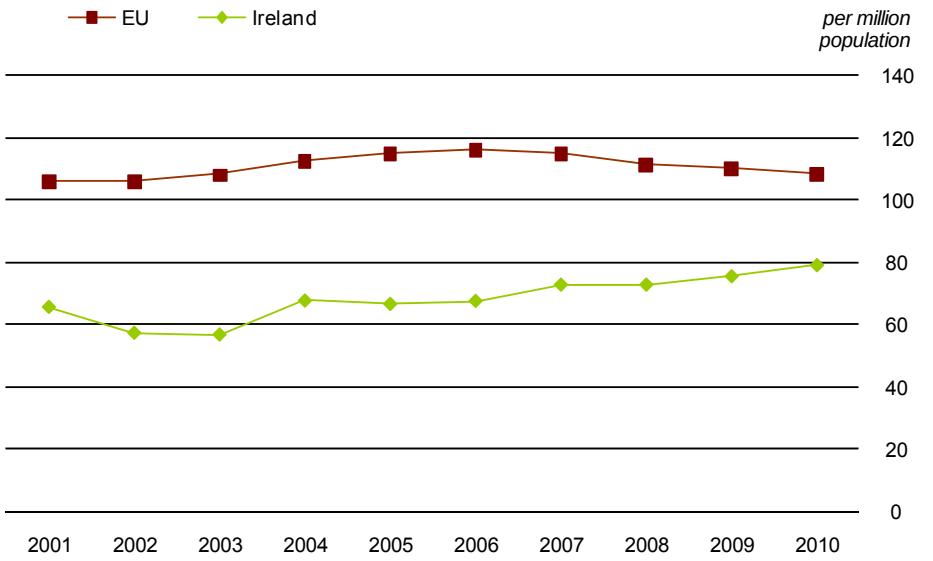
% of GDP

Country	2000	2005	2010
Finland	3.35	3.48	3.87
Sweden	4.13	3.56	3.42
Denmark	2.24	2.46	3.06
Germany	2.47	2.51	2.82
Austria	1.93	2.46	2.76
France	2.15	2.11	2.26
Ireland (GNI)	**1.29**	**1.44**	**2.16**
Slovenia	1.38	1.44	2.11
EU	**1.86**	**1.83**	**2.00**
Belgium	1.97	1.83	1.99
Netherlands	1.94	1.90	1.83
Ireland (GDP)	**1.11**	**1.24**	**1.79**
United Kingdom	1.81	1.73	1.77
Luxembourg	1.65	1.56	1.63
Estonia	0.60	0.93	1.62
Portugal	0.73	0.78	1.59
Czech Republic	1.17	1.35	1.56
Spain	0.91	1.12	1.39
Italy	1.04	1.09	1.26
Hungary	0.81	0.94	1.16
Lithuania	0.59	0.75	0.79
Poland	0.64	0.57	0.74
Malta	:	0.57	0.63
Slovakia	0.65	0.51	0.63
Bulgaria	0.51	0.46	0.60
Latvia	0.45	0.56	0.60
Cyprus	0.25	0.41	0.50
Romania	0.37	0.41	0.47
Greece	0.58	0.60	:
Iceland	2.67	2.77	3.11
Switzerland	2.53	2.90	2.99
Norway	1.59	1.52	1.71
Turkey	0.46	0.58	0.85
Croatia	:	0.87	0.73

Source: Eurostat

[12] 2009 data used for 2010 for Iceland and Turkey, 2008 data used for 2010 for Switzerland. 2004 data used for 2005 for Switzerland. 2001 data used for 2000 for Norway, Sweden and Greece.

2.5 Ireland and EU: European Patent Office applications, 2001–2010

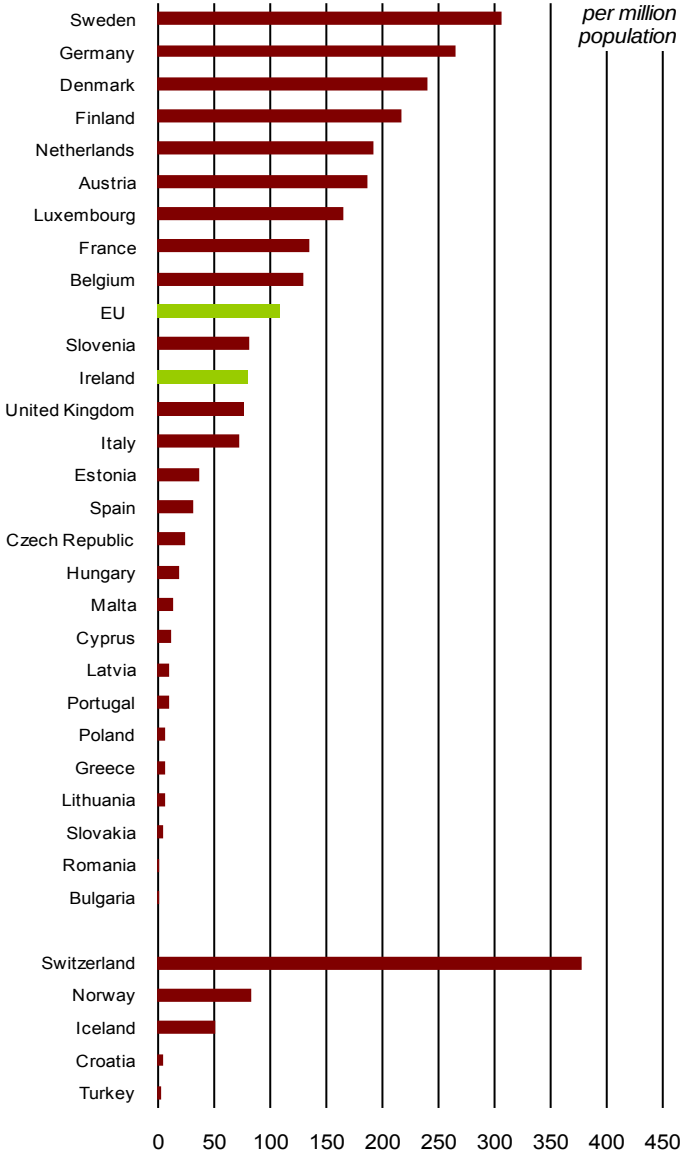


Source: Eurostat, EPO

- The rate of applications from Ireland to the European Patent Office is significantly lower than the EU average. There were about 60 applications from Ireland per million population over the time period 2001 to 2006 and this rate increased slightly over the following four years to stand at 79 per million population in 2010. The EU rate has stayed reasonably stable over this time period and in 2010 stood at close to 109 per million population.

- The EU average masks large variations, as graph 2.6 shows. The rate is negligible in Bulgaria, Romania, Slovakia and Lithuania and highest for Sweden at 307 per million population. But the highest rate by far is for Switzerland which, at 379 applications per million population, is nearly five times the Irish rate.

2.6 EU: European Patent Office applications, 2010[13]



Source: Eurostat, European Patent Office

[13] 2009 data used for Latvia and Malta.

2.7 Ireland: Private households[14] with a computer connected to the Internet, 1998–2011

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
2011	78	65

Source: CSO

- Over three-quarters (78%) of all private households in Ireland had a computer connected to the Internet in 2011. 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 94%, had the highest rate of household internet access in the EU in 2011 while Ireland, at 78%, was ranked eighth in the EU. The EU average was 73% of households.

2.8 EU: Private households with Internet access, 2007–2011[14]

% of households

Country	2007	2008	2009	2010	2011
Netherlands	83	86	90	91	94
Luxembourg	75	80	87	90	91
Sweden	79	84	86	88	91
Denmark	78	82	83	86	90
Finland	69	72	78	81	84
Germany	71	75	79	82	83
United Kingdom	67	71	77	80	83
Ireland	**57**	**63**	**67**	**72**	**78**
Belgium	60	64	67	73	77
France	49	62	63	74	76
Malta	54	59	64	70	75
Austria	60	69	70	73	75
EU	**54**	**60**	**65**	**70**	**73**
Slovenia	58	59	64	68	73
Estonia	53	58	63	68	71
Slovakia	46	58	62	67	71
Czech Republic	35	46	54	61	67
Poland	41	48	59	63	67
Hungary	38	48	55	60	65
Spain	45	51	54	59	64
Latvia	51	53	58	60	64
Italy	43	47	53	59	62
Lithuania	44	51	60	61	62
Portugal	40	46	48	54	58
Cyprus	39	43	53	54	57
Greece	25	31	38	46	50
Romania	22	30	38	42	47
Bulgaria	19	25	30	33	45
Iceland	84	88	90	92	93
Norway	78	84	86	90	92
Croatia	41	45	50	56	61
Turkey	20	25	30	42	43
Macedonia	:	29	42	46	:

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.

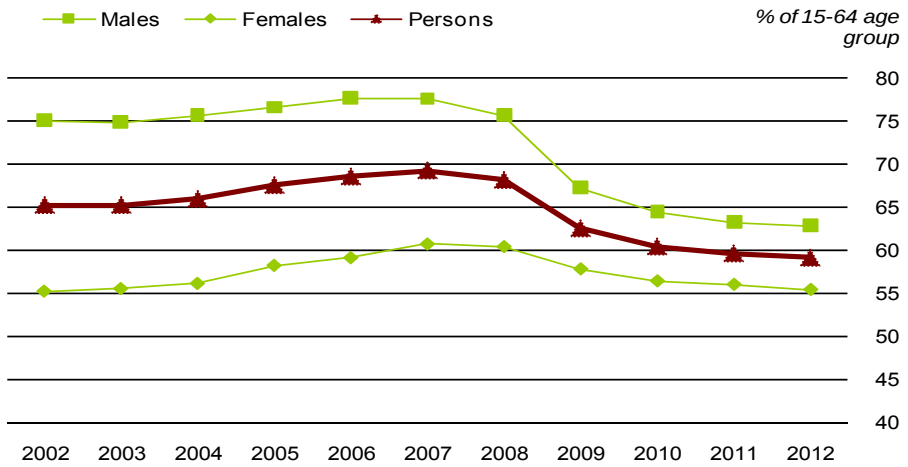
3.1 Ireland: Employment rates by sex, 2002-2012

% of population aged 15-64

Year	Persons	Males	Females
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	59.6	63.3	56.0
2012	59.1	62.9	55.4

Source: CSO QNHS

Ireland: Employment rates by sex, 2002-2012



- The overall employment rate in Ireland for those aged 15-64 rose from 65.2% in 2002 to 69.2% in 2007, before decreasing sharply over the next few years to 59.1% in 2012. The male employment rate was stable over the 2002 to 2008 period at about 76% but declined steeply over the next three years to 62.9% in 2012. The female employment rate increased from 55.2% in 2002 to 60.7% in 2007 before falling to 55.4% in 2012.

- The male employment rate in Ireland was 19.9 percentage points above the female rate in 2002 but this gap had narrowed to just 7.5 percentage points by early 2012.

3.2 EU: Employment rates by sex, 2011

% of population aged 15-64

Country	Total Persons	Males	Females	Gender differential
Netherlands	74.9	79.8	69.9	9.9
Sweden	74.1	76.3	71.8	4.5
Denmark	73.1	75.9	70.4	5.5
Germany	72.5	77.3	67.7	9.6
Austria	72.1	77.8	66.5	11.3
United Kingdom	69.5	74.5	64.5	10.0
Finland	69.0	70.6	67.4	3.2
Cyprus	68.1	74.7	61.6	13.1
Czech Republic	65.7	74.0	57.2	16.8
Estonia	65.1	67.7	62.8	4.9
Luxembourg	64.6	72.1	56.9	15.2
Slovenia	64.4	67.7	60.9	6.8
EU	**64.3**	**70.1**	**58.5**	**11.6**
Portugal	64.2	68.1	60.4	7.7
France	63.8	68.1	59.7	8.4
Belgium	61.9	67.1	56.7	10.4
Latvia	61.8	62.9	60.8	2.1
Lithuania	60.7	60.9	60.5	0.4
Poland	59.7	66.3	53.1	13.2
Ireland	**59.6**	**63.3**	**56.0**	**7.3**
Slovakia	59.5	66.3	52.7	13.6
Bulgaria	58.5	60.9	56.2	4.7
Romania	58.5	65.0	52.0	13.0
Spain	57.7	63.2	52.0	11.2
Malta	57.6	73.6	41.0	32.6
Italy	56.9	67.5	46.5	21.0
Hungary	55.8	61.2	50.6	10.6
Greece	55.6	65.9	45.1	20.8
Switzerland	79.3	85.3	73.2	12.1
Iceland	78.5	80.3	76.6	3.7
Norway	75.3	77.1	73.4	3.7
Croatia	52.4	57.9	47.0	10.9
Turkey	48.4	69.2	27.8	41.4
Macedonia	43.9	52.3	35.3	17.0

Source: Eurostat LFS, CSO QNHS

- Ireland's overall employment rate, at 59.6%, was the ninth lowest rate in the EU in 2011 and well below the EU average of 64.3%. The highest employment rate in the EU was in the Netherlands at 74.9% while the lowest was in Greece at 55.6%.

3.3 Ireland: GDP in Purchasing Power Standards per hour worked and per person employed[15], 2001–2011

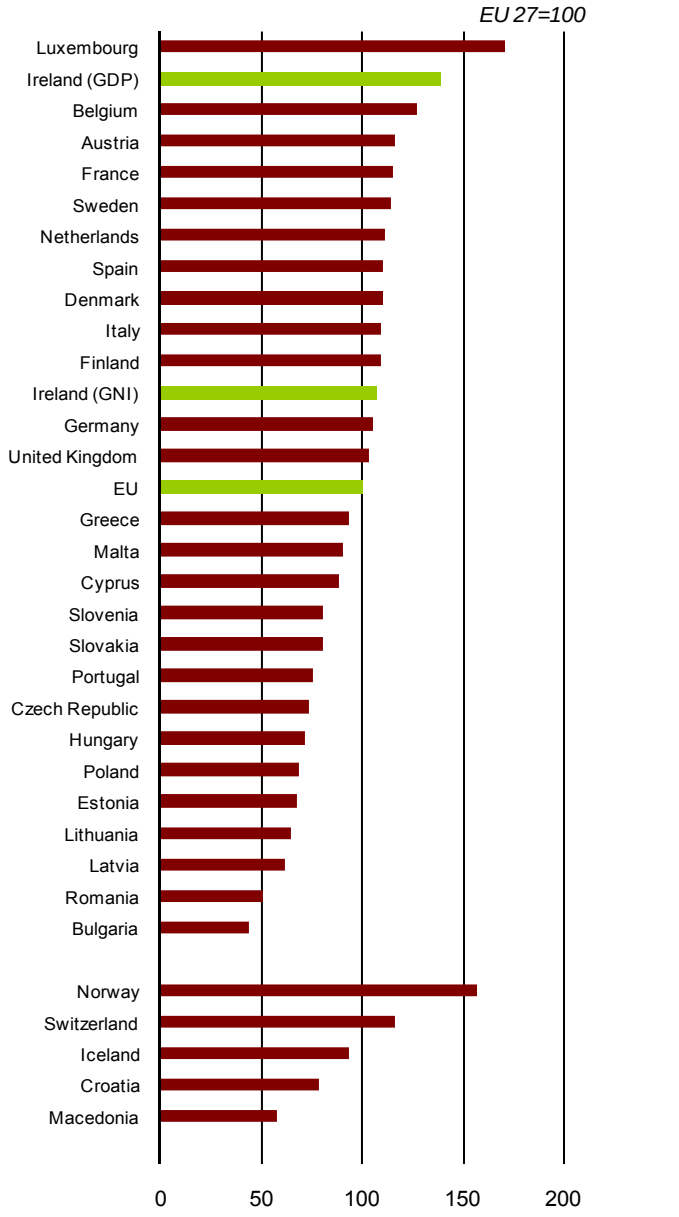
EU=100

Year	per hour worked	per person employed
2001	114.3	129.7
2002	119.5	135.3
2003	122.2	137.7
2004	122.7	137.2
2005	120.8	135.8
2006	121.3	136.4
2007	123.4	137.8
2008	116.3	128.5
2009	120.0	132.0
2010	125.6	136.9
2011	128.0	139.5

Source: Eurostat

- The productivity of the Irish workforce can be measured by GDP in Purchasing Power Standards (PPS) per person employed. In 2011 productivity per person employed was nearly 40% higher than the EU average. As Irish employees work longer hours, productivity per hour worked is lower, at 28% above the EU average.
- Ireland had the second highest productivity rate among EU states in 2011, after Luxembourg when measured using GDP. However, when measured using GNI, Irish productivity was the eleventh highest in the EU in 2011.
- The twelve new EU member states, along with Greece and Portugal, have productivity rates lower than the EU average.

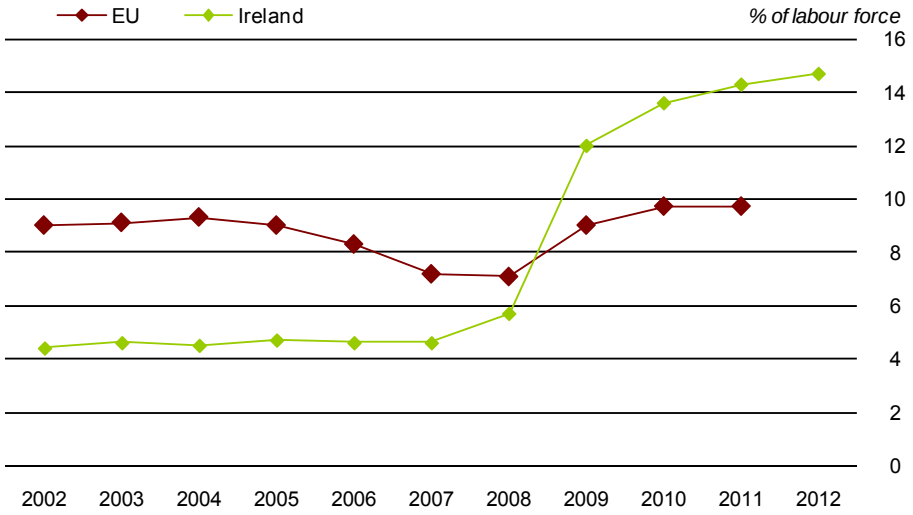
3.4 EU: GDP in Purchasing Power Standards per person employed, 2011



Source: Eurostat

[15] See Appendix 1 for details of PPS. Break in series in 2005.

3.5 Ireland and EU: Unemployment rates, 2002-2012



Source: Eurostat, CSO

- The unemployment rate in Ireland had fallen to 4.4% in 2002 having been significantly higher in the 1990s. Over the following five 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 three years to stand at 14.7% in 2012.

- Up to 2008 the unemployment rate in Ireland was consistently lower than the rate for the EU. However by 2011 the unemployment rate in Ireland, at 14.3%, was the fifth highest in the EU, well above the EU average of 9.7%. The highest unemployment rate in the EU in 2011 was in Spain (21.8%).

- Fourteen EU countries, including Ireland, had higher male than female unemployment rates in 2011, with Ireland having the largest gender differential in the EU: 17.5% of males and 10.4% of females were unemployed.

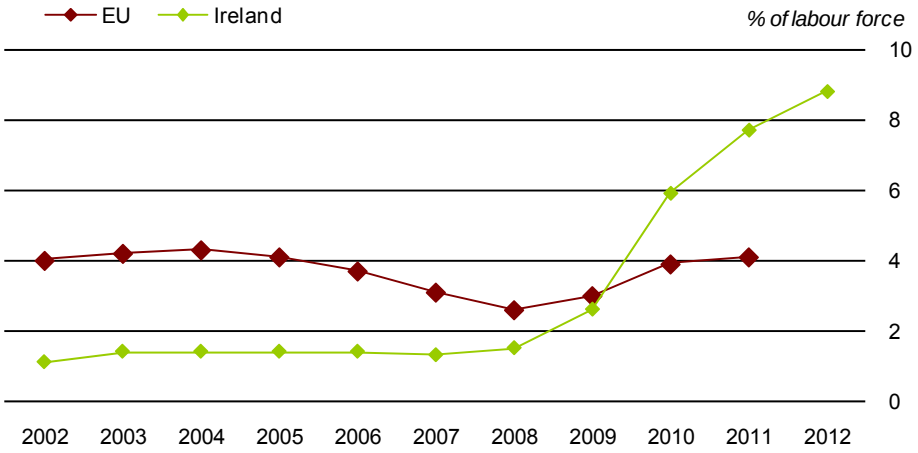
3.6 EU: Unemployment rates by sex, 2011

% of labour force

Country	Total Persons	Males	Females	Gender differential
Austria	4.2	4.1	4.4	-0.3
Netherlands	4.4	4.5	4.4	0.1
Luxembourg	4.9	3.9	6.3	-2.4
Germany	6.0	6.3	5.7	0.6
Malta	6.5	6.2	7.1	-0.9
Czech Republic	6.8	5.9	8.0	-2.1
Belgium	7.2	7.2	7.2	0.0
Denmark	7.7	7.9	7.6	0.3
Romania	7.7	8.2	7.1	1.1
Sweden	7.7	7.7	7.6	0.1
Cyprus	7.9	8.1	7.8	0.3
Finland	7.9	8.6	7.2	1.4
United Kingdom	8.2	8.8	7.4	1.4
Slovenia	8.3	8.3	8.3	0.0
Italy	8.5	7.7	9.7	-2.0
France	9.3	8.9	9.8	-0.9
EU	**9.7**	**9.7**	**9.8**	**-0.1**
Poland	9.8	9.1	10.5	-1.4
Hungary	11.0	11.0	11.0	0.0
Bulgaria	11.3	12.5	10.0	2.5
Estonia	12.8	13.4	12.1	1.3
Portugal	13.4	13.2	13.5	-0.3
Slovakia	13.6	13.6	13.6	0.0
Ireland	**14.3**	**17.5**	**10.4**	**7.1**
Latvia	15.6	17.9	13.3	4.6
Lithuania	15.6	18.0	13.2	4.8
Greece	17.9	15.2	21.6	-6.4
Spain	21.8	21.3	22.3	-1.0
Norway	3.3	3.5	3.0	0.5
Switzerland	4.2	3.8	4.5	-0.7
Iceland	7.1	8.0	6.2	1.8
Turkey	9.0	8.4	10.3	-1.9
Croatia	13.9	14.1	13.6	0.5
Macedonia	31.6	31.9	31.0	0.9

Source: Eurostat LFS

3.7 Ireland and EU: Long–term unemployment rates, 2002–2012



Source: Eurostat, CSO

- The long-term unemployment rate (those unemployed for a year or more) in Ireland was fairly stable at around 1.4% between 2002 and 2008 but it increased sharply to 5.9% by 2010 and continued to rise since then to stand at 8.8% in 2012.
- The EU long-term unemployment rate was around 4% between 2002 and 2005 and then decreased over the following few years to 2.6% in 2008 before rising to 4.1% in 2011.
- In 2011 the long-term unemployment rate for Ireland was 7.7%, compared with an EU average of 4.1%, and was the sixth highest in the EU.
- The long-term unemployment rate for men in Ireland was over twice that for women in 2011 while at EU level the rates for women and men were similar.

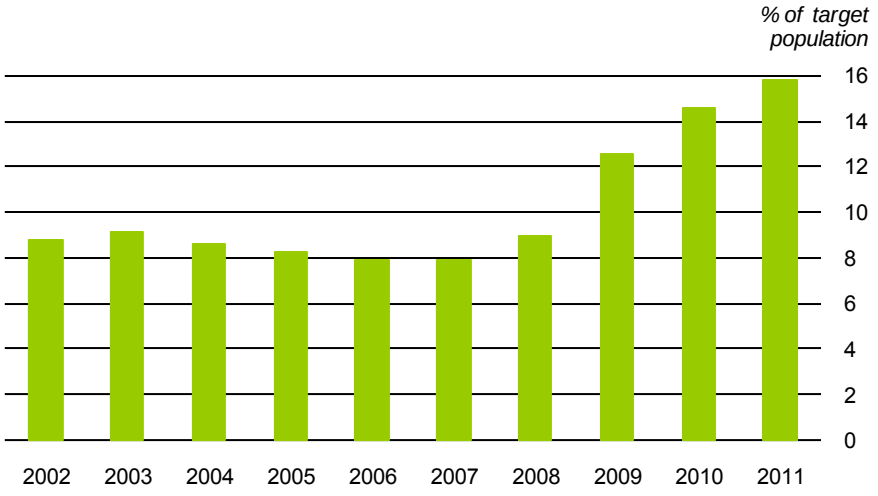
3.8 EU: Long–term unemployment rates by sex, 2011

% of labour force

Country	Total Persons	Males	Females
Austria	1.1	1.1	1.0
Luxembourg	1.4	1.3	1.6
Sweden	1.4	1.6	1.2
Netherlands	1.5	1.6	1.4
Cyprus	1.6	1.7	1.5
Finland	1.7	2.2	1.2
Denmark	1.8	2.0	1.7
Czech Republic	2.7	2.4	3.2
United Kingdom	2.7	3.3	2.0
Germany	2.8	3.1	2.6
Malta	3.0	3.3	2.5
Romania	3.1	3.4	2.8
Belgium	3.5	3.4	3.6
Poland	3.6	3.3	4.0
Slovenia	3.6	3.7	3.5
France	4.0	3.9	4.2
EU	**4.1**	**4.2**	**4.1**
Italy	4.4	3.9	5.0
Hungary	5.2	5.2	5.3
Portugal	6.2	6.1	6.4
Bulgaria	6.3	7.0	5.5
Estonia	7.1	7.9	6.4
Ireland	**7.7**	**10.4**	**4.5**
Lithuania	8.0	9.3	6.7
Latvia	8.4	10.4	6.3
Greece	8.8	6.7	11.5
Spain	9.0	8.6	9.5
Slovakia	9.2	9.3	9.0
Norway	0.8	0.9	0.7
Turkey	2.1	1.6	3.2
Croatia	8.6	8.6	8.6

Source: Eurostat LFS

3.9 Ireland: Population aged 18–59 living in jobless households[16], 2002–2011



Source: Eurostat LFS

- The proportion of the population aged 18-59 living in jobless households in Ireland was relatively stable over the period 2002 to 2008, generally around 8% or 9%. However the proportion increased sharply in 2009 to 12.6% and continued to increase over the last two years to stand at 15.8% in 2011.
- In 2011, Ireland had the highest proportion in the EU of 18-59 year olds living in jobless households.

3.10 EU: Population aged 18–59 living in jobless households[16], 2007–2011

% of target population

Country	2007	2008	2009	2010	2011
Czech Republic	6.5	6.0	6.7	6.7	6.7
Cyprus	4.7	4.9	5.6	5.9	6.7
Malta	7.7	8.1	8.2	7.5	7.1
Luxembourg	7.0	7.9	7.3	6.7	7.5
Austria	7.1	7.0	7.3	7.2	7.5
Netherlands	6.5	5.9	6.0	7.2	7.6
Portugal	5.7	5.5	6.7	7.2	8.3
Slovakia	8.9	7.5	8.2	9.2	8.7
Germany	9.6	9.2	9.4	9.1	9.0
Slovenia	6.5	6.4	7.5	8.3	9.0
Estonia	6.0	6.2	10.4	12.2	10.3
Latvia	6.6	6.4	10.5	11.5	10.3
Finland	9.1	8.1	9.7	9.5	10.3
Poland	11.6	10.1	10.2	10.3	10.4
Denmark	8.1	6.8	8.3	9.7	10.9
EU	**9.3**	**9.1**	**10.1**	**10.4**	**11.1**
Italy	9.2	9.6	10.4	11.0	11.2
France	10.0	9.7	10.4	10.4	11.5
Romania	10.4	10.5	10.9	11.0	12.1
Sweden	:	:	11.3	10.9	12.3
United Kingdom	10.7	10.7	11.5	11.9	12.6
Spain	6.2	7.4	10.8	11.8	12.9
Belgium	12.3	12.0	12.8	12.5	13.0
Hungary	11.9	12.5	13.1	12.9	13.1
Lithuania	7.0	9.0	12.0	13.8	13.5
Bulgaria	10.2	9.0	9.7	12.0	14.1
Greece	8.0	7.5	8.5	10.3	15.3
Ireland	**7.9**	**9.0**	**12.6**	**14.6**	**15.8**
Croatia	11.3	10.8	11.2	12.5	13.3
Turkey	15.8	16.2	17.4	15.5	14.0
Macedonia	24.2	20.7	18.8	19.2	19.6

Source: Eurostat LFS

[16] 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, 2011

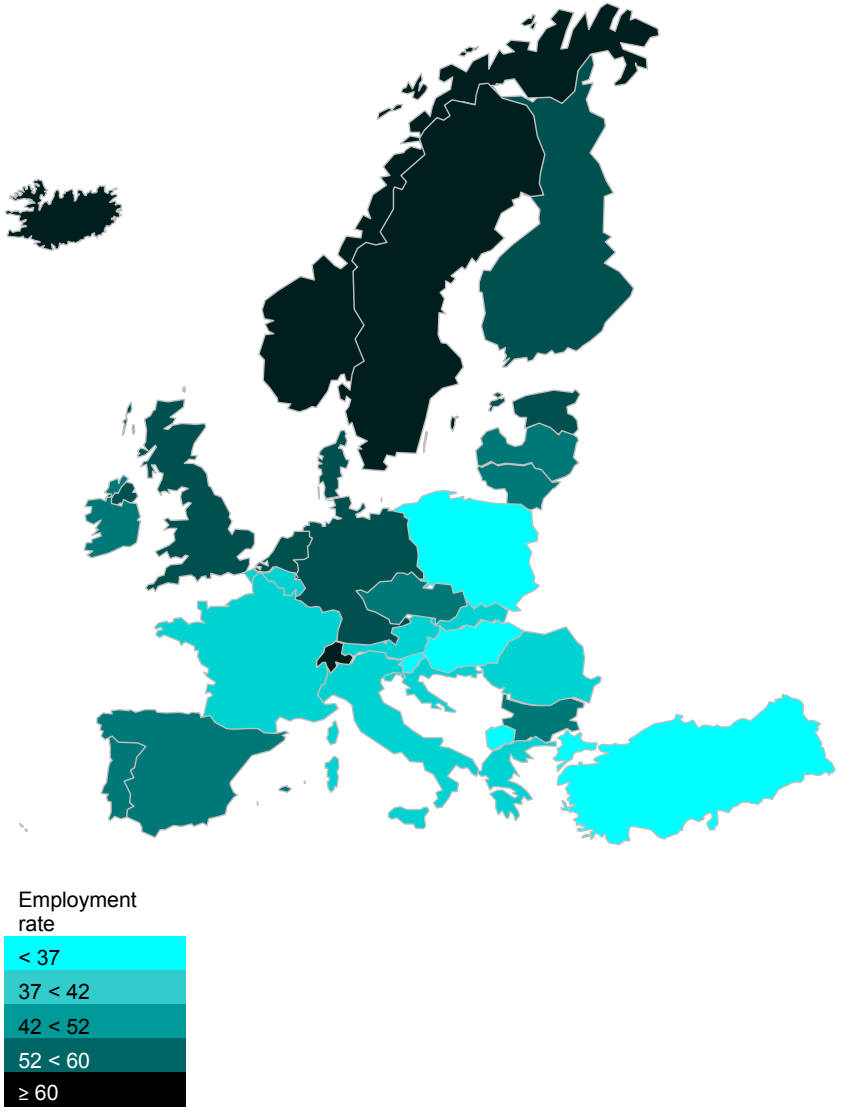
% of 55-64 age group

Country	Total Persons	Males	Females
Sweden	72.3	75.7	68.9
Germany	59.9	67.0	53.0
Denmark	59.5	63.8	55.3
Estonia	57.2	57.3	57.1
Finland	57.0	56.8	57.2
United Kingdom	56.7	64.2	49.6
Netherlands	56.1	65.8	46.4
Cyprus	55.2	69.8	41.1
Latvia	51.1	52.6	49.9
Lithuania	50.5	54.5	47.4
Ireland	**50.0**	**57.2**	**42.9**
Portugal	47.9	54.2	42.1
Czech Republic	47.6	58.9	37.2
EU	**47.4**	**55.2**	**40.2**
Spain	44.5	53.9	35.6
Bulgaria	43.9	49.9	38.8
Austria	41.5	50.6	32.9
France	41.4	44.0	39.0
Slovakia	41.4	52.6	31.5
Romania	40.0	48.9	32.2
Greece	39.4	52.3	27.3
Luxembourg	39.3	47.0	31.3
Belgium	38.7	46.0	31.6
Italy	37.9	48.4	28.1
Poland	36.9	47.8	27.3
Hungary	35.8	39.8	32.4
Malta	31.7	50.1	13.8
Slovenia	31.2	39.5	22.7
Iceland	79.2	82.0	76.3
Norway	69.6	72.9	66.1
Switzerland	69.5	79.1	60.0
Croatia	37.1	48.4	27.0
Macedonia	35.4	47.3	24.0
Turkey	31.4	45.4	17.9

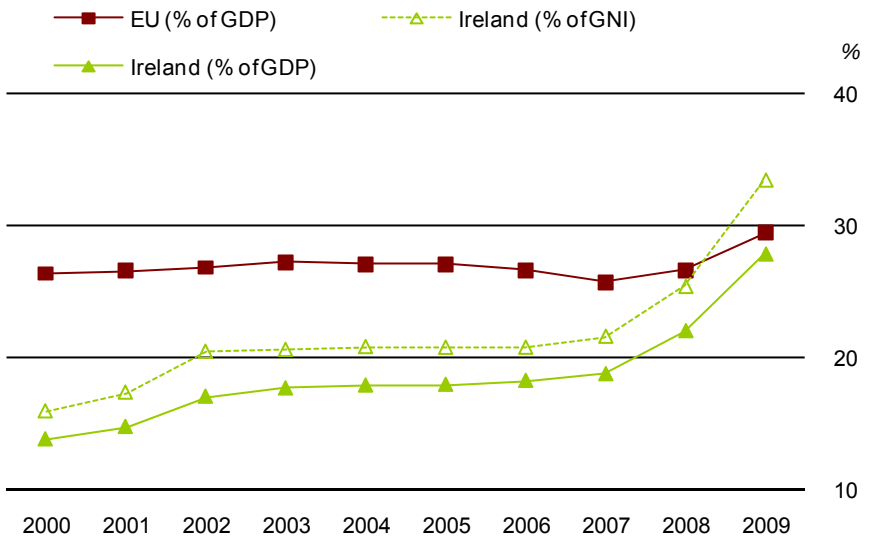
Source: Eurostat LFS

- Ireland had the eleventh highest employment rate for people aged 55-64 in the EU in 2011 at 50% and was above the EU average of 47.4%. The highest rate, by a wide margin, was in Sweden at 72.3%.
- In Ireland, 57.2% of men aged 55-64 were employed in 2011 compared with 42.9% of women. In the EU the rates were 55.2% for males and 40.2% for females.

EU: Employment rate of persons aged 55-64 by sex, 2011



4.1 Ireland and EU: Social protection expenditure, 2000–2009



Source: Eurostat, CSO National Accounts

- Social protection expenditure[17] as a proportion of GDP was lower in Ireland over the period 2000-2009 than the EU average but increased strongly over this period, rising from 13.8% in 2000 to 27.9% in 2009.
- In 2009 social protection expenditure as a proportion of GNI, at 33.5%, was above the EU average of 29.5%.
- Social protection expenditure on a per capita basis in Ireland increased from 5,841 PPPs in 2005 to 8,377 PPPs in 2009. This placed Ireland seventh among EU countries in 2009 and above the EU average.
- Luxembourg's expenditure on social protection in 2009 was the highest by far in the EU at 14,495 PPPs per capita.

4.2 EU: Social protection expenditure in Purchasing Power Parities[18] per capita, 2005-2009

PPP per capita

Country	2005	2006	2007	2008	2009
Luxembourg	12,398	13,066	13,247	14,085	14,495
Netherlands	8,182	8,930	9,357	9,499	9,699
Denmark	8,396	8,578	8,804	9,129	9,497
Austria	8,079	8,412	8,580	8,824	9,009
Sweden	8,518	8,828	9,123	9,091	9,005
Germany	7,816	7,894	8,020	8,087	8,505
Ireland	**5,841**	**6,319**	**6,929**	**7,361**	**8,377**
Belgium	7,356	7,541	7,744	8,122	8,350
France	7,789	7,895	8,233	8,210	8,306
Finland	6,858	7,129	7,446	7,757	8,129
United Kingdom	7,193	7,414	6,751	7,488	7,724
Italy	6,210	6,559	6,919	7,218	7,283
EU	**6,084**	**6,301**	**6,426**	**6,683**	**6,935**
Spain	4,714	5,070	5,412	5,730	6,087
Greece	5,062	5,395	5,579	6,061	6,086
Portugal	4,380	4,583	4,692	4,741	5,086
Slovenia	4,521	4,705	4,708	4,869	5,027
Cyprus	3,730	3,972	4,190	4,469	4,819
Czech Republic	3,268	3,409	3,724	3,796	4,059
Malta	3,238	3,318	3,438	3,623	3,785
Hungary	3,110	3,348	3,487	3,667	3,517
Slovakia	2,232	2,448	2,721	2,905	3,241
Estonia	1,738	1,892	2,122	2,561	2,870
Poland	2,273	2,378	2,468	2,615	2,810
Lithuania	1,578	1,756	2,135	2,470	2,743
Latvia	1,388	1,544	1,564	1,783	2,050
Romania	1,055	1,163	1,405	1,665	1,866
Bulgaria	1,239	1,282	1,418	1,684	1,784
Norway	9,434	9,814	10,213	10,615	10,856
Iceland	6,325	6,202	6,461	6,750	7,032
Switzerland	8,760	8,982	9,571	9,451	:

Source: Eurostat

[17] In 2011 Ireland had the second 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).

[18] See Appendix 1 for details of PPPs.

4.3 EU: Social protection expenditure by type, 2009[19]

% of GDP

Country	Family/ Children	Unemployment	Sickness and dis-ability	Old age and sur-vivors	Housing & social exclusion	Total
Ireland (GNI)	**4.4**	**3.7**	**14.5**	**8.0**	**1.1**	**33.5**
Denmark	4.2	2.1	12.5	12.1	1.6	33.4
France	2.6	1.9	11.2	14.4	1.4	33.1
Sweden	3.2	1.3	12.6	13.3	1.2	32.1
Netherlands	1.3	1.4	12.8	11.7	2.4	31.6
Germany	3.2	1.9	12.1	12.1	0.8	31.4
Austria	3.1	1.8	9.9	14.7	0.5	30.8
Belgium	2.2	3.8	10.2	11.6	1.0	30.4
Finland	3.3	2.4	11.1	11.3	1.2	30.3
Italy	1.4	0.8	9.0	17.1	0.1	29.8
EU	**2.3**	**1.7**	**10.6**	**12.8**	**1.0**	**29.5**
United Kingdom	1.8	0.8	11.7	12.2	1.7	29.2
Greece	1.8	1.6	9.2	13.5	1.1	28.0
Ireland (GDP)	**3.7**	**3.1**	**12.1**	**6.7**	**0.9**	**27.9**
Portugal	1.5	1.4	9.4	13.0	0.3	26.9
Spain	1.5	3.7	9.0	9.8	0.5	25.0
Slovenia	2.1	0.6	9.6	11.0	0.5	24.3
Hungary	3.0	1.0	7.8	10.5	0.8	23.4
Luxembourg	4.0	1.3	8.4	8.2	0.8	23.1
Lithuania	2.8	0.9	7.5	9.0	0.4	21.3
Cyprus	2.2	1.0	5.8	9.1	2.5	20.9
Czech Republic	1.4	1.1	7.9	9.1	0.3	20.4
Malta	1.3	0.6	7.0	10.3	0.6	20.0
Poland	0.8	0.4	6.2	11.8	0.2	19.7
Estonia	2.3	1.2	7.3	8.1	0.1	19.2
Slovakia	1.7	1.0	7.4	7.7	:	18.8
Bulgaria	2.0	0.5	5.3	8.6	0.2	17.2
Romania	1.7	0.4	5.8	8.8	0.2	17.1
Latvia	1.7	1.6	5.2	7.8	0.3	16.8
Norway	3.2	0.7	12.9	8.1	0.9	26.4
Switzerland	1.3	0.6	9.6	12.5	0.8	26.4
Iceland	3.2	1.7	12.6	5.9	1.7	25.4

Source: Eurostat

- Ireland's expenditure on social protection was 27.9% of GDP compared with an EU average of 29.5%, while Ireland's expenditure was just over a third of GNI, (33.5%), which was the highest proportion in the EU.
- Social protection expenditure on old age and survivors was 6.7% of GDP and 8% of GNI in Ireland in 2009, compared with 12.8% in the EU, partly reflecting the fact that in 2011 Ireland had the second lowest proportion of persons aged over 65 in the EU.
- Social protection expenditure on families/children, unemployment and sickness and disability in Ireland was 18.9% of GDP in 2009, higher than the EU average of 14.6%.

[19] Data for Switzerland is from 2008.

4.4 EU: At risk of poverty rates[20], 2010

% of population

Country	Before pensions & social transfers	After pensions	After pensions & social transfers	Reduction
Czech Republic	37	18	9	28
Netherlands	37	21	10	27
Slovakia	38	20	12	26
Austria	43	24	12	31
Hungary	51	28	12	39
Slovenia	40	24	13	27
Sweden	42	27	13	29
Finland	41	27	13	28
Denmark	39	29	13	26
France	45	25	13	31
Belgium	41	27	15	27
Luxembourg	45	29	15	31
Malta	36	23	16	21
Germany	44	24	16	28
Estonia	41	25	16	25
Ireland	**51**	**40**	**16**	**35**
EU	**43**	**26**	**16**	**27**
Cyprus	31	23	17	14
United Kingdom	44	31	17	27
Poland	43	24	18	26
Portugal	43	26	18	26
Italy	44	23	18	25
Greece	43	24	20	23
Lithuania	48	32	20	28
Bulgaria	41	27	21	20
Spain	43	28	21	22
Romania	47	28	21	26
Latvia	44	29	21	22
Iceland	33	23	10	23
Norway	39	27	11	28
Switzerland	35	23	15	20
Croatia	45	30	21	24

Source: Eurostat, EU SILC

[20] 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).

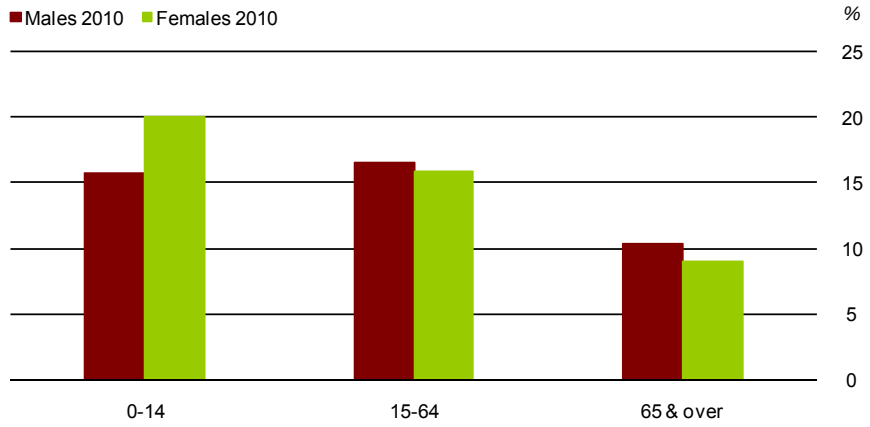
4.5 Ireland: At risk of poverty rates by age and sex[21], 2009-2010

% of age group

	2009			2010		
Age group	Males	Females	Total	Males	Females	Total
0-14	16.8	16.7	16.8	15.7	20.0	17.8
15-64	14.0	14.0	14.0	16.5	15.9	16.2
65 & over	8.9	10.2	9.6	10.3	9.1	9.6
Total	**14.1**	**14.1**	**14.1**	**15.7**	**15.9**	**15.8**

Source: CSO, EU SILC

Ireland: At risk of poverty rates by age and sex[21], 2010



- In 2010 Ireland and Hungary had the joint highest percentage in the EU of population at risk of poverty, before pensions and social transfers. The at risk of poverty rate in Ireland after pensions and social transfers, at 16%, was the same as the average EU rate.
- 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 21%.
- In 2010 the proportion of persons at risk of poverty in Ireland was 15.8% with similar rates for males and females. The rates for men and women aged 15 and over were similar while for those aged under 15 the rates were higher for girls, with 20% of girls at risk of poverty compared with 15.7% of boys.

[21] 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, 2009-2010

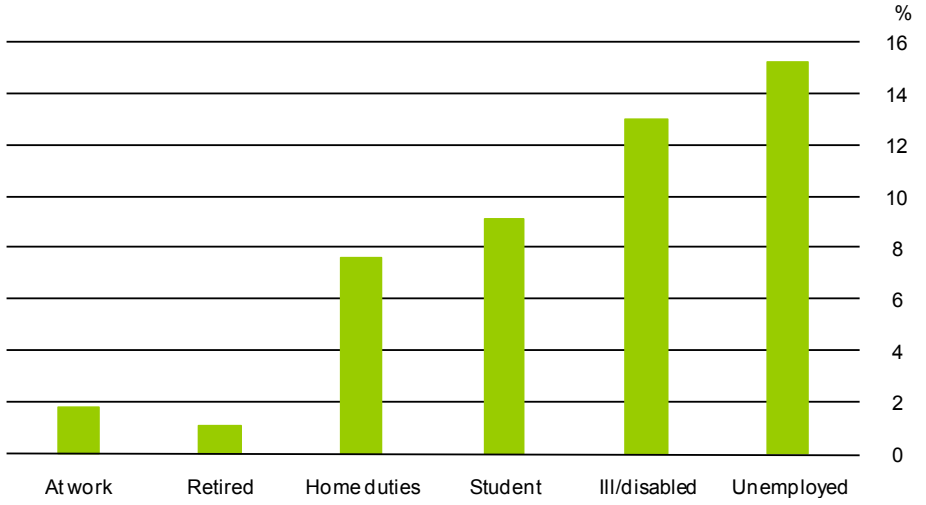
% of age group

	2009			2010		
Age group	**Males**	**Females**	**Total**	**Males**	**Females**	**Total**
0-14	7.9	8.6	8.2	5.6	9.3	7.4
15-64	5.5	5.2	5.3	6.7	6.8	6.8
65+	0.8	1.4	1.1	1.2	0.6	0.9
Total	**5.5**	**5.4**	**5.5**	**5.9**	**6.6**	**6.2**

Source: CSO, EU SILC

- In 2010, 6.2% of the population were living in consistent poverty. This was an increase on the level recorded in 2009, when 5.5% of the population was living in consistent poverty. The rate of consistent poverty was slightly higher among females, at 6.6%, compared with 5.9% for males.
- Younger people are more likely to be in consistent poverty with 7.4% of children under the age of fifteen in consistent poverty in 2010, and girls were more likely to be in consistent poverty than boys. Less than 1% of those aged 65 and over were in consistent poverty in 2010.

4.7 Ireland: Persons in consistent poverty by principal economic status, 2010



Source: CSO, EU SILC

- In 2010, 15.2% of unemployed persons, 13% of ill or disabled people and 9.1% of students were in consistent poverty compared with just 1.8% of people at work.

4.8 EU: Gender pay gap[22], 2008–2010

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

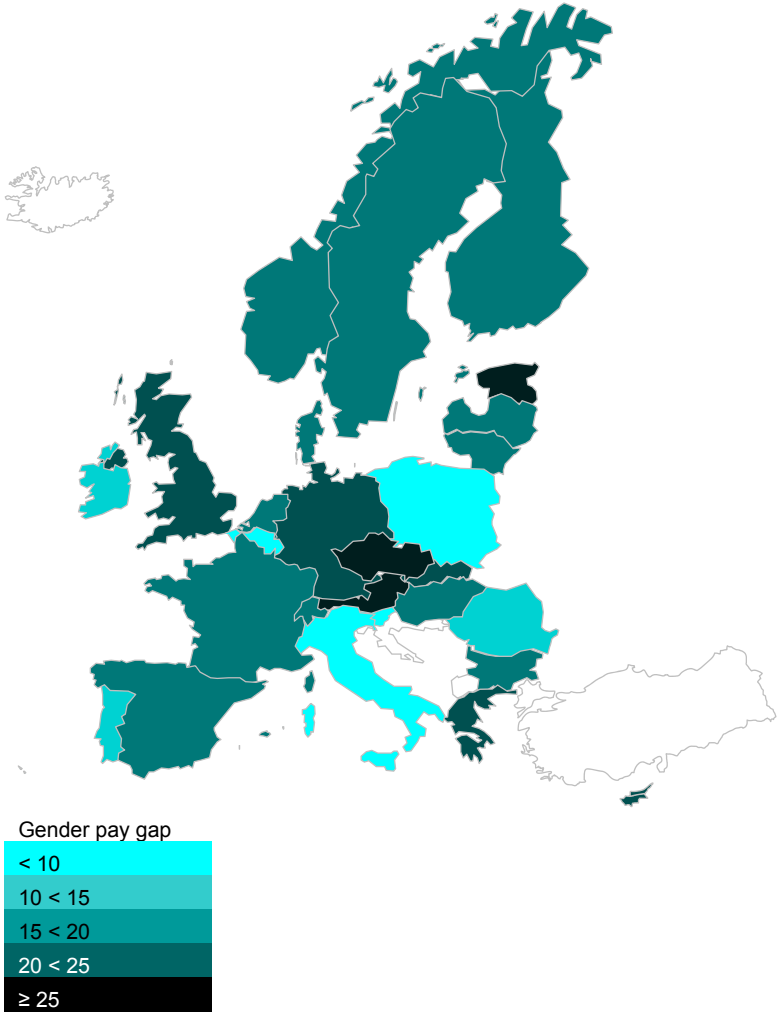
Country	2008	2009	2010
Poland	10	10	2
Slovenia	9	3	4
Italy	5	6	6
Malta	9	7	6
Belgium	9	9	9
Luxembourg	12	13	12
Romania	9	8	13
Ireland	**13**	**13**	**13**
Portugal	9	10	13
Lithuania	22	15	15
Bulgaria	14	15	16
Sweden	17	16	16
Denmark	17	17	16
France	17	16	16
EU	**17**	**17**	**16**
Spain	16	17	17
Latvia	13	15	18
Hungary	18	17	18
Netherlands	20	19	19
Finland	20	20	19
United Kingdom	21	21	20
Slovakia	21	22	21
Cyprus	22	21	21
Germany	23	23	23
Czech Republic	26	26	26
Austria	26	25	26
Estonia	28	:	:
Greece	22	:	:
Norway	17	17	16
Switzerland	19	:	:

Source: Eurostat, EU Structure of Earnings Survey

[22] 2007 data used for Switzerland for 2008.

- On average, female employees were paid 13% an hour less than male employees in Ireland in 2010 while the average EU gender pay gap was 16%.
- Of those EU countries for which data were available in 2009, Poland had the lowest gender pay gap at 2% while Austria and the Czech Republic had the highest at 26%.

EU: Gender pay gap[23], 2010



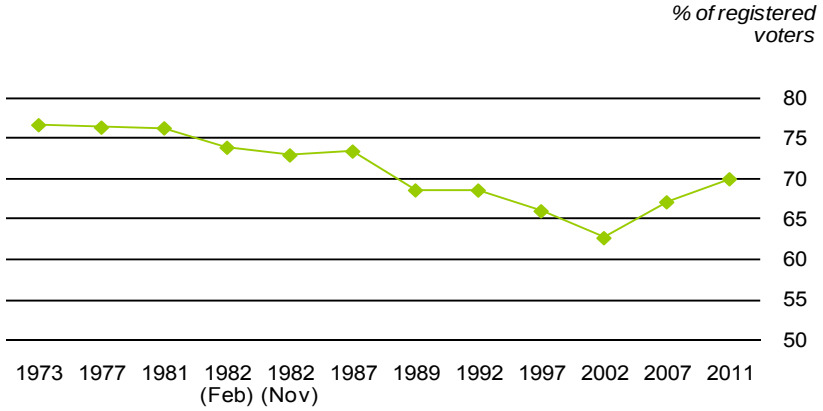
[23] 2008 data used for Estonia and Greece and 2007 data used for Switzerland.

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

Year of election	Registered voters (000's)	Votes recorded (000's)	%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 1985-2010.

- 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 2005-2010. The average turnout for EU countries in that period was 68.7%. 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, 1985–2010

Country	1985-1990 (% of registered voters)	1995-2000 (% of registered voters)	2005-2010 (% of registered voters)
Malta	96.1	96.3	93.3
Luxembourg	87.4	86.5	90.9
Belgium	93.5	90.9	90.1
Cyprus	94.6	90.1	89.0
Denmark	85.1	85.9	85.6
Sweden	87.9	81.4	83.3
Italy	88.9	82.9	82.1
Austria	88.3	83.2	80.1
Netherlands	83.0	73.2	77.9
Spain	70.2	73.2	76.0
Germany	84.3	82.2	74.2
Greece	84.2	75.6	72.5
EU	**78.4**	**73.1**	**68.7**
Ireland	**70.9**	**65.9**	**67.0**
Finland	72.1	66.9	65.0
United Kingdom	75.4	71.5	63.6
Czech Republic	96.3	75.1	63.5
Slovenia	:	72.0	63.1
Latvia	81.2	71.9	62.9
Estonia	78.2	62.9	61.9
Portugal	74.0	63.7	61.9
France	72.3	68.0	60.0
Hungary	44.1	57.0	58.5
Bulgaria	:	58.9	58.3
Slovakia	96.3	84.2	56.8
Poland	70.3	47.9	47.3
Romania	:	70.6	39.2
Lithuania	:	55.6	32.4
Iceland	90.1	85.7	84.4
Turkey	93.3	86.2	84.2
Norway	83.6	78.3	76.9
Croatia	:	72.7	59.6
Macedonia	:	50.5	57.0
Switzerland	47.5	42.7	48.3

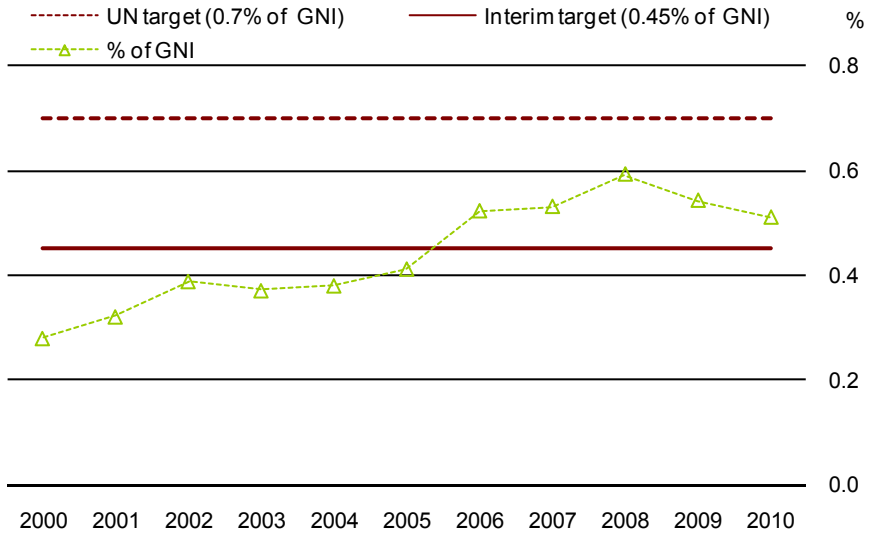
Source: International Institute for Democracy and Electoral Assistance

4.11 Ireland: Net official development assistance, 2000–2010

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
2010	657.8	0.51

Source: Irish Aid, Department of Foreign Affairs

Ireland: Net official development assistance, 2000-2010



4.12 EU: Net official development assistance, 2006–2010

% of GNI

Country	2006	2007	2008	2009	2010
Luxembourg	0.89	0.92	0.97	1.04	1.09
Sweden	1.02	0.93	0.98	1.12	0.97
Denmark	0.80	0.81	0.82	0.88	0.90
Netherlands	0.81	0.81	0.80	0.82	0.81
Belgium	0.50	0.43	0.48	0.55	0.64
United Kingdom	0.51	0.35	0.43	0.52	0.56
Finland	0.40	0.39	0.44	0.54	0.55
Ireland	**0.52**	**0.53**	**0.59**	**0.54**	**0.51**
France	0.47	0.38	0.39	0.47	0.50
Spain	0.32	0.37	0.45	0.46	0.43
Germany	0.36	0.37	0.38	0.35	0.38
Austria	0.47	0.50	0.43	0.30	0.32
Portugal	0.21	0.22	0.27	0.23	0.29
Greece	0.17	0.16	0.21	0.19	0.17
Italy	0.20	0.19	0.22	0.16	0.15
Norway	0.89	0.95	0.88	1.06	1.10
Switzerland	0.39	0.38	0.42	0.45	0.41

Source: OECD Development Co-operation Report

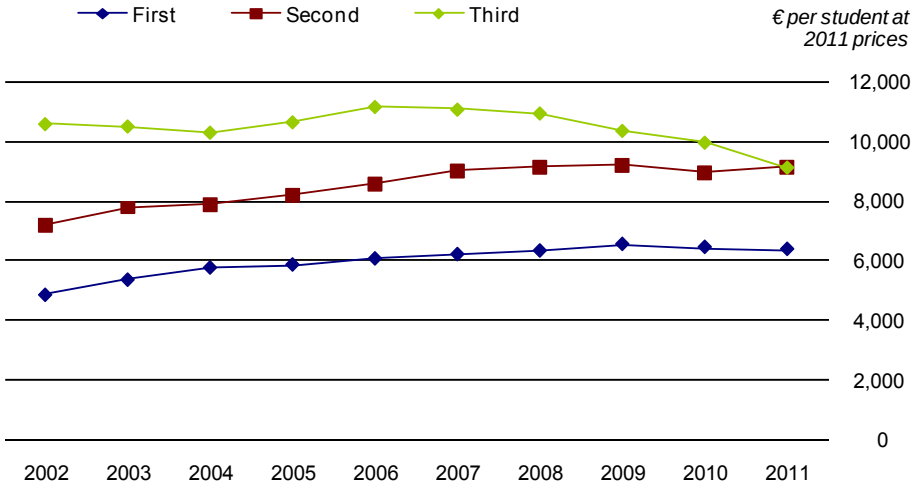
- Net official development assistance in Ireland as a percentage of Gross National Income increased from 0.28% in 2000 to 0.59% in 2008 before dropping to 0.51% in 2010.
- In 2010, the Irish contribution was above the 2002 interim Irish Government target of 0.45% of GNI but below the UN 2007 target of 0.7%.
- Four EU countries (Luxembourg, Sweden, Denmark and the Netherlands) and Norway exceeded the UN target in 2010.

5.1 Ireland: Real current public expenditure on education, 2002–2011

	€ per student at 2011 prices			*€m at 2011 prices*
	Level			
Year	First	Second	Third	Real current public expenditure
2002	4,860	7,176	10,552	6,181
2003	5,356	7,775	10,473	6,644
2004	5,756	7,863	10,264	6,848
2005	5,856	8,202	10,612	7,082
2006	6,055	8,558	11,128	7,439
2007	6,197	9,014	11,037	7,761
2008	6,315	9,140	10,909	8,003
2009	6,532	9,204	10,325	8,251
2010	6,434	8,928	9,926	8,217
2011	6,368	9,113	9,091	8,207

Source: Department of Education and Skills, CSO

Ireland: Real current public expenditure on education, 2002-2011



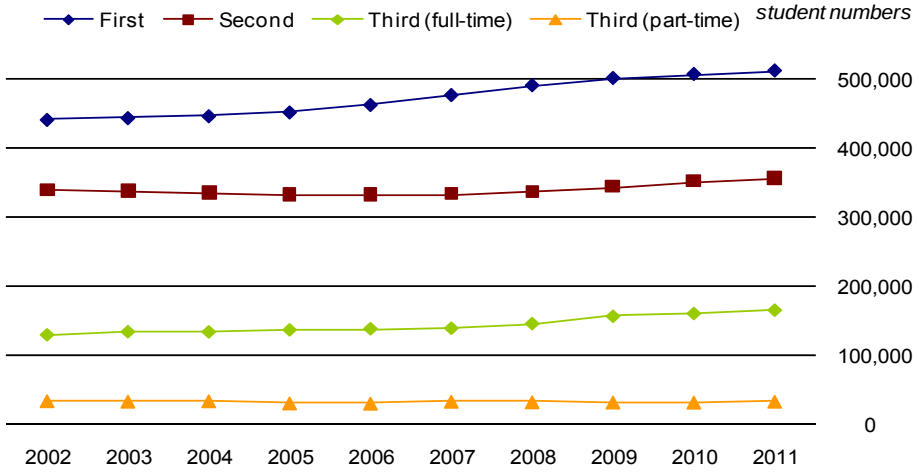
- Real expenditure per student in Ireland increased over the period 2002-2011 by close to a third (31%) at first level and by 27% at second level. There was a decrease of 13.8% at third level over the same time period.
- Real expenditure per student in 2011 at primary level was over two-thirds that at third level (70%). Real expenditure per student at second level was 68% that at third level in 2002 but increased steadily over the period 2002-2011 and by 2011 was just ahead of third level expenditure.

5.2 Ireland: Student numbers[24] by level, 2002-2011

	number			
	Level			
Year	First	Second	Third (full-time)	Third (part-time)
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	352,855	161,159	32,622
2011	512,375	357,283	166,163	33,919

Source: Department of Education and Skills

Ireland: Student numbers[26] by level, 2002-2011



- Student numbers increased by 15.9% at first level and 5.2% at second level between 2002 and 2011. Over the same period, the number of full-time third level students increased strongly by 28.5% while the number of part-time students dropped slightly by 2.2%.

[24] Only students in institutions which are aided by the Department of Education and Skills are included in this table.

5.3 EU: Public expenditure on education[25], 2007–2009

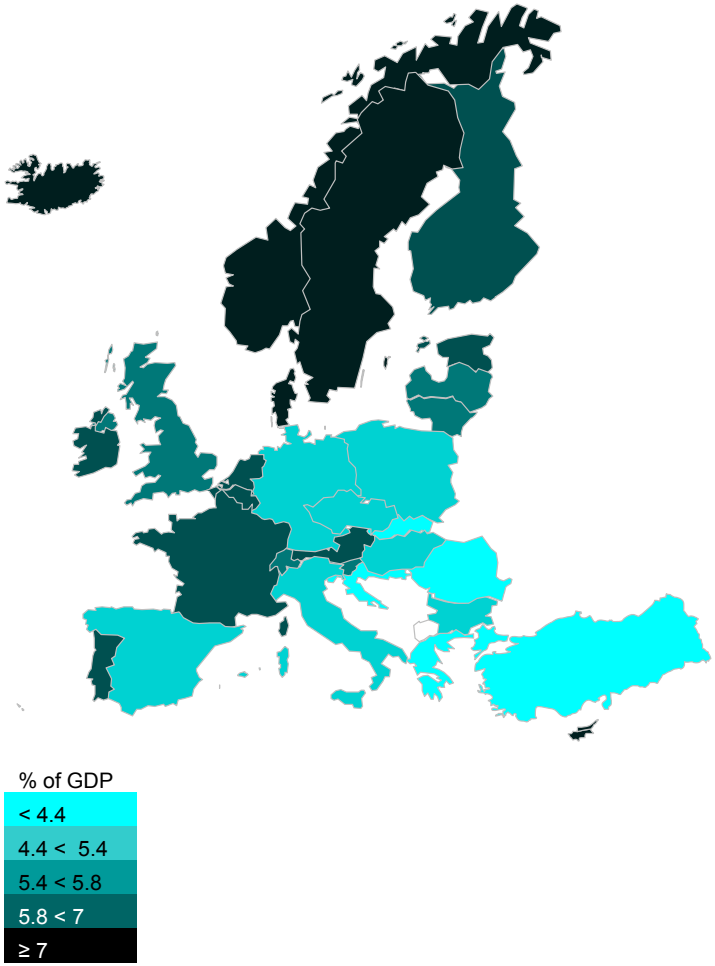
	% of GDP			per pupil/student in €PPS
Country	**2007**	**2008**	**2009**	**2009**
Denmark	7.8	7.7	8.7	9,597
Cyprus	7.0	7.5	8.0	10,316
Ireland GNI	**5.6**	**6.6**	**7.8**	**7,881**
Sweden	6.6	6.8	7.3	8,036
Finland	5.9	6.1	6.8	7,031
Belgium	6.0	6.4	6.6	8,459
Ireland GDP	**4.9**	**5.7**	**6.5**	**7,881**
Estonia	4.7	5.6	6.1	4,026
Austria	5.3	5.5	6.0	:
Netherlands	5.3	5.5	5.9	7,837
France	5.6	5.6	5.9	7,317
Portugal	5.1	4.9	5.8	5,950
Slovenia	5.2	5.2	5.7	6,621
United Kingdom	5.4	5.4	5.7	6,501
Latvia	5.0	5.8	5.6	3,735
Lithuania	4.6	4.9	5.6	3,533
Malta	6.3	5.9	5.5	6,771
EU	**5.0**	**5.1**	**5.4**	**6,387**
Hungary	5.3	5.1	5.1	4,028
Poland	4.9	5.1	5.1	4,266
Germany	4.5	4.6	5.1	6,732
Spain	4.3	4.6	5.0	8,048
Italy	4.3	4.6	4.7	6,729
Bulgaria	3.9	4.4	4.6	2,803
Czech Republic	4.1	3.9	4.4	4,788
Romania	4.3	:	4.2	2,538
Slovakia	3.6	3.6	4.1	4,016
Greece	4.1	:	:	4,479
Luxembourg	3.2	:	:	13,055
Iceland	7.4	7.6	7.8	7,861
Norway	6.7	6.4	7.3	10,442
Switzerland	5.1	5.2	5.6	9,370
Croatia	4.0	4.3	4.3	4,201
Turkey	2.8	:	:	1,335

Source: Eurostat

[25]For public expenditure on education per pupil/student in €PPS 2005 data was used for Greece, 2006 data used for Turkey and 2007 for Luxembourg. 2005 data used for Greece and 2006 data used for Turkey for public expenditure on education as a % of GDP.

- Public expenditure on education in Ireland as a percentage of both GDP and GNI increased between 2007 and 2009, due partly to the decrease in GDP/GNI over this time period.
- When expenditure is examined per pupil/student in Purchasing Power Standards (PPS), Ireland was above the EU average in 2009, with the seventh highest expenditure in the EU.

EU: Public expenditure on education, 2009[26]



[26] 2005 data used for Greece, 2006 for Turkey and 2007 for Luxembourg.

5.4 EU: Ratio of students to teachers, 2009/2010[27]

ratio

Country	Primary and secondary	Primary	Lower secondary	Upper secondary
Lithuania	8.3	9.9	7.8	:
Poland	11.2	10.0	12.7	12.1
Greece	8.6	10.1	7.7	7.3
Luxembourg	9.5	10.1	24.3	7.6
Hungary	11.4	10.8	10.7	12.5
Portugal	8.9	10.9	7.9	7.2
Italy	11.7	11.3	11.9	12.1
Denmark	:	11.5	:	:
Sweden	12.0	11.7	11.4	13.1
Latvia	11.2	11.9	9.3	12.1
Austria	10.4	12.2	9.3	10.1
Belgium	10.5	12.4	8.1	10.1
Spain	11.3	13.2	10.1	9.6
Cyprus	11.5	14.0	10.0	10.1
Finland	13.8	14.0	9.8	17.1
Malta	10.5	14.4	8.1	12.1
Netherlands	16.1	15.7	:	16.5
Ireland	**15.2**	**15.9**	**:**	**14.4**
Estonia	16.0	16.2	14.9	16.6
Slovenia	12.7	16.2	8.0	14.3
Germany	16.1	16.7	14.9	13.2
Romania	14.3	16.7	12.2	14.9
Slovakia	14.8	17.1	13.6	14.6
Bulgaria	13.6	17.6	12.7	11.9
Czech Republic	14.2	18.7	11.2	14.0
France	14.4	18.7	15.0	9.7
United Kingdom	17.3	19.8	17.1	15.2
Iceland	10.6	10.3	:	11.3
Norway	10.0	10.5	9.9	9.4
Croatia	11.6	14.7	10.6	10.6
Macedonia	13.8	16.1	11.4	14.8
Turkey	20.5	21.7	:	17.6

Source: Eurostat, Department of Education and Skills

- Ireland had a student to teacher ratio of 15.9 at primary education level (ISCED 1) in 2009/2010. This was the tenth highest ratio in the EU. The overall student to teacher ratio for first and second level education for Ireland in 2009/2010 was 15.2, which was the fifth highest ratio out of 26 countries in the EU for which data were available.

[27] 2006/2007 data used for Greece.

5.5 EU: Primary and lower secondary average class size, 2009/2010[28]

number

Country	Primary	Lower Secondary
Lithuania	15.3	20.4
Luxembourg	15.6	19.4
Latvia	15.9	16.8
Greece	17.1	22.1
Cyprus	17.5	21.1
Slovakia	17.8	20.5
Estonia	17.9	18.5
Austria	18.4	22.0
Romania	18.4	20.3
Slovenia	18.4	19.6
Poland	18.6	22.9
Malta	18.7	20.2
Italy	18.8	21.3
Denmark	19.3	20.0
Finland	19.4	20.3
Czech Republic	19.9	21.4
Portugal	20.1	22.1
Hungary	20.8	21.4
Bulgaria	21.0	22.2
Spain	21.2	24.3
Germany	21.5	24.7
Netherlands	22.4	:
France	22.7	24.5
Ireland	**24.1**	**20.3**
United Kingdom	24.4	19.4
Croatia	17.5	21.6
Iceland	18.0	19.8
Switzerland	19.1	18.5
Macedonia	19.4	19.9
Turkey	26.1	:

Source: Eurostat, Department of Education and Skills

- In 2009/2010, the average class size in Ireland for primary education was 24.1, the second highest among reporting EU countries, after the United Kingdom. The lowest average class size for primary education was 15.3 in Lithuania. However, at ISCED 2 level (lower secondary) Ireland had the eighth lowest ratio.

[28] 2005/2006 used for primary for the Netherlands and 2006/2007 data used for lower secondary for Ireland.

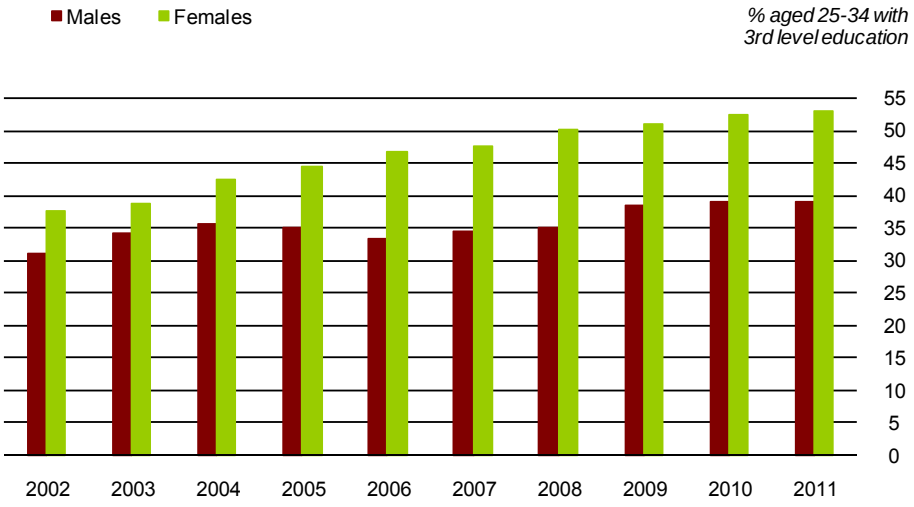
5.6 Ireland: Persons aged 25–34 with third-level education, 2002–2011

% of population aged 25-34

Year	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
2011	46.3	39.1	53.1

Source: CSO QNHS

Ireland: Persons aged 25-34 with third-level education, 2002-2011



- Over the period 2002-2011, the proportion of females aged 25-34 in Ireland with 3rd level education rose from 37.5% in 2002 to 53.1% in 2011. 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 39.1% in 2011.

- In 2011, 46.3% of the population aged 25-34 in Ireland had third level education, which was the third highest rate in the EU and compares with 33.5% across the EU as a whole. In all EU countries more females than males aged 25-34 had third level education while Latvia the highest percentage points differential of 22.8.

5.7 EU: Persons aged 25–34 with third-level education by sex, 2011[29]

% of population aged 25-34

Country	Total Persons	Males	Females	Percentage points differential
Lithuania	48.0	39.2	57.1	-17.9
Cyprus	47.1	41.2	53.0	-11.8
Ireland	**46.3**	**39.1**	**53.1**	**-14.0**
Luxembourg	45.1	42.6	47.4	-4.7
United Kingdom	43.6	40.9	46.5	-5.6
Sweden	43.1	35.8	50.7	-15.0
Belgium	42.6	36.6	48.6	-12.0
France	41.4	37.1	45.6	-8.5
Finland	39.3	30.7	48.4	-17.6
Estonia	39.0	29.5	48.5	-19.0
Netherlands	38.9	34.7	43.1	-8.4
Poland	38.2	30.2	46.5	-16.3
Spain	38.2	33.4	43.2	-9.8
Denmark	35.6	29.1	42.0	-12.9
Latvia	34.5	23.4	46.2	-22.8
EU 27	**33.5**	**29.1**	**38.0**	**-8.9**
Slovenia	33.3	23.0	44.7	-21.6
Greece	30.6	25.3	36.3	-11.0
Germany	27.7	25.6	29.8	-4.2
Hungary	27.2	22.0	32.7	-10.7
Portugal	26.9	21.6	32.3	-10.7
Slovakia	25.7	20.8	30.8	-10.0
Malta	24.9	22.9	26.9	-4.0
Czech Republic	24.8	21.7	28.1	-6.4
Bulgaria	21.3	16.7	26.1	-9.4
Austria	21.1	19.6	22.6	-3.0
Italy	20.8	16.3	25.5	-9.2
Romania	20.6	18.7	22.6	-3.9
Norway	46.4	38.8	54.3	-15.5
Switzerland	39.5	40.4	38.5	1.9
Iceland	37.1	28.3	45.9	-17.6
Macedonia	25.0	21.7	28.5	-6.8
Turkey	17.8	19.1	16.5	2.6
Croatia	17.0	13.5	20.6	-7.1

Source: Eurostat LFS

[29] 2010 data used for Romania and Cyprus and data for EU calculated using 2010 data for these 2 countries and 2011 for remaining countries.

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

Mean score of 15 year old students

	Ireland		All OECD countries	
Literacy type	**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 EU: Student performance on the reading, mathematical and scientific literacy scales, 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 leavers[30] by labour force status and sex, 2011

000s

Labour force status	Total Persons	Males	Females
In employment	6.6	4.0	2.6
Unemployed	11.3	8.6	2.7
Unemployment rate of persons aged 18-24 (%)	29.5	35.9	23.0
Unemployment rate of early school leavers (%)	63.1	68.2	50.9

Source: CSO QNHS

5.11 Ireland: Proportion of the population aged 20–64 with at least upper secondary education, 2011

% of age group

Age group	Total Persons	Males	Females
20-24	87.6	85.3	89.8
25-34	84.6	81.6	87.4
35-44	79.1	75.9	82.3
45-54	68.1	64.7	71.5
55-64	52.4	49.8	55.0

Source: CSO QNHS

- The unemployment rate for persons in Ireland aged 18-24 with, at most, lower secondary education was 63.1% in 2011, compared with 29.5% for that age group overall.
- More than 87% of persons aged 20-24 in 2011 had completed second level education or higher. This figure decreased for older age groups down to just over half (52.4%) 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 10.6% in 2011. The EU average rate was 13.5% and varied from one in twenty five (4.2%) in Slovenia to over a third (33.5%) in Malta.
- The proportion of males aged 18-24 who left school early is higher than females in all EU countries (for which data are available by gender) with the sole exception of Bulgaria.

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

5.12 EU: Early school leavers[30], 2011

% of population aged 18-24

Country	Total Persons	Males	Females
Slovenia	4.2	5.7	2.5
Czech Republic	4.9	5.4	4.4
Slovakia	5.0	5.4	4.6
Poland	5.6	7.4	3.8
Luxembourg	6.2	7.6	:
Sweden	6.6	7.8	5.3
Lithuania	7.9	10.6	5.0
Austria	8.3	8.8	7.8
Netherlands	9.1	10.8	7.2
Denmark	9.6	12.1	7.0
Finland	9.8	11.2	8.4
Ireland	**10.6**	**12.5**	**8.7**
Estonia	10.9	13.1	8.6
Cyprus	11.2	15.1	8.1
Hungary	11.2	12.1	10.3
Germany	11.5	12.4	10.6
Latvia	11.8	15.9	7.7
France	12.0	13.9	10.2
Belgium	12.3	14.9	9.7
Bulgaria	12.8	12.0	13.7
Greece	13.1	16.1	10.1
EU	**13.5**	**15.3**	**11.6**
United Kingdom	15.0	16.2	13.8
Romania	17.5	18.5	16.6
Italy	18.2	21.0	15.2
Portugal	23.2	28.2	18.1
Spain	26.5	31.0	21.9
Malta	33.5	38.9	27.6
Croatia	4.1	4.8	3.4
Switzerland	6.3	6.8	5.7
Macedonia	13.5	11.9	15.2
Norway	16.6	19.9	13.1
Iceland	19.7	22.2	17.1
Turkey	41.9	37.7	45.7

Source: Eurostat LFS

6.1 Ireland: Current public expenditure on health care, 2001–2010

Year	Current public expenditure			
	Total (€m)	% of GNI	% of GDP	Per capita at constant 2011 prices (€)
2001	6,802	6.8	5.8	2,456
2002	7,933	7.3	6.1	2,627
2003	8,853	7.3	6.3	2,737
2004	9,653	7.5	6.4	2,755
2005[31]	11,160	7.9	6.8	3,004
2006	12,248	7.9	6.9	3,067
2007	13,736	8.4	7.3	3,197
2008	14,588	9.4	8.2	3,170
2009	15,073	11.2	9.3	3,233
2010	14,452	11.0	9.2	3,219

Source: Department of Health, CSO

- Non-capital public expenditure on health care in Ireland as a proportion of GNI increased strongly over the period 2001 to 2010, from 6.8% to 11%.
- An average of €3,219 per person was spent on current public expenditure on health care in Ireland in 2010 (at constant 2011 prices) while the average in 2001 was €2,456. This represented an increase of under a third (31.1%) between 2001 and 2010, with most of this increase occurring between the years 2001 and 2007.
- Ireland's total expenditure on public and private health was 9.7% of GDP in 2009, an increase from 7.5% in 2007. This increase is due in part to the fall in GDP between 2007 and 2009. The EU average was 9.8% of GDP while eight countries had expenditures of more than 10% of GDP.
- Ireland had the eighth highest expenditure on health in PPS $ per capita in 2009 in the EU while the lowest was in Romania.

[31] Break in series in 2005, see Appendix 1 for more details.

6.2 EU: Total expenditure[32] on health as percentage of GDP, 2007–2009

	% of GDP			*PPS $ per capita*
Country	**2007**	**2008**	**2009**	**2009**
Belgium	10.8	11.1	11.8	4,237
France	11.0	11.2	11.7	3,934
Ireland (GNI)	**8.7**	**10.1**	**11.7**	**4,005**
Germany	10.4	10.6	11.3	4,129
Portugal	10.4	10.6	11.3	2,704
Denmark	9.7	9.9	11.2	4,118
Austria	10.3	10.5	11.0	4,242
Netherlands	9.7	9.9	10.8	4,389
Greece	9.7	10.1	10.6	3,085
Sweden	9.1	9.4	9.9	3,690
EU	**8.9**	**9.2**	**9.8**	**3,152**
Ireland (GDP)	**7.5**	**8.7**	**9.7**	**4,005**
Finland	8.2	8.8	9.7	3,357
Spain	8.5	9.0	9.7	3,150
Italy	8.4	8.7	9.5	3,027
United Kingdom	8.4	8.7	9.3	3,399
Slovenia	7.8	8.3	9.1	2,476
Slovakia	7.7	8.0	8.5	1,898
Luxembourg	7.1	6.8	7.8	6,526
Czech Republic	6.8	7.1	7.6	1,924
Malta	7.5	7.3	7.5	4,264
Bulgaria	6.6	7.1	7.4	986
Hungary	7.5	7.2	7.3	1,441
Poland	6.4	7.0	7.1	1,359
Estonia	5.2	6.1	7.0	1,373
Lithuania	6.2	6.6	6.6	1,097
Latvia	6.2	6.6	6.5	996
Cyprus	6.0	6.0	6.0	1,825
Romania	5.2	5.4	5.4	773
Switzerland	10.6	10.7	11.3	5,072
Norway	8.9	8.5	9.7	5,395
Iceland	9.3	9.2	8.2	3,095
Croatia	7.6	7.8	7.8	1,553
Macedonia	6.9	6.8	6.9	749
Turkey	6.0	6.1	6.7	965

Source: WHO Health for All Databases

[32] Public and private. See Appendix 1 for details of PPS.

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

years

Period	At birth		At 65 years	
	Males	Females	Males	Females
1925-1927	57.4	57.9	12.8	13.4
1935-1937	58.2	59.6	12.5	13.1
1940-1942	59.0	61.0	12.3	13.2
1945-1947	60.5	62.4	12.0	13.1
1950-1952	64.5	67.1	12.1	13.3
1960-1962	68.1	71.9	12.6	14.4
1965-1967	68.6	72.9	12.4	14.7
1970-1972	68.8	73.5	12.4	15.0
1978-1980	69.5	75.0	12.4	15.4
1980-1982	70.1	75.6	12.6	15.7
1985-1987	71.0	76.7	12.6	16.2
1990-1992	72.3	77.9	13.4	17.1
1995-1997	73.0	78.5	13.8	17.4
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, as calculated by the CSO, 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.
- Life expectancy at birth for males in Ireland in 2010, as calculated by Eurostat, was 78.7 years, 2 years higher than the EU average, while female life expectancy at birth in 2010 was 83.2 years, 0.6 years higher than the EU average.
- Life expectancy at birth in the EU in 2010 for males was highest in Sweden at 79.6 years and for females was highest in Spain at 85.3 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 Sweden and the United Kingdom at 4 years and highest in Lithuania at 10.9 years. The corresponding difference for Ireland was 4.5 years.

6.4 EU: Life expectancy at birth by sex, 2010[33]

years

Country	Males	Females	Gender differential
Sweden	79.6	83.6	4.0
Italy	79.4	84.6	5.2
Malta	79.2	83.6	4.4
Spain	79.1	85.3	6.2
Netherlands	78.9	83.0	4.1
Ireland	**78.7**	**83.2**	**4.5**
Cyprus	78.6	83.6	5.0
United Kingdom	78.6	82.6	4.0
Greece	78.4	82.8	4.4
France	78.3	85.3	7.0
Germany	78.0	83.0	5.0
Luxembourg	77.9	83.5	5.6
Austria	77.9	83.5	5.6
Belgium	77.6	83.0	5.4
Denmark	77.2	81.4	4.2
Finland	76.9	83.5	6.6
EU	**76.7**	**82.6**	**5.9**
Portugal	76.7	82.8	6.1
Slovenia	76.4	83.1	6.7
Czech Republic	74.5	80.9	6.4
Poland	72.1	80.7	8.6
Slovakia	71.7	79.3	7.6
Hungary	70.7	78.6	7.9
Estonia	70.6	80.8	10.2
Bulgaria	70.3	77.4	7.1
Romania	69.8	77.4	7.6
Latvia	68.6	78.4	9.8
Lithuania	68.0	78.9	10.9
Switzerland	80.3	84.9	4.6
Iceland	79.8	84.1	4.3
Norway	79.0	83.3	4.3
Croatia	73.5	79.9	6.4
Turkey	73.3	78.8	5.5
Macedonia	72.9	77.2	4.3

Source: Eurostat

[33] 2009 data for EU, Italy, Cyprus, Romania and Turkey.

7.1 Ireland: Population distribution by age group, 2003–2012

	%					000 persons
Year	0-14	15-24	25-44	45-64	65 and over	Total
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	20.2	15.2	32.1	21.8	10.8	4,375.8
2008	20.4	14.9	32.1	21.8	10.8	4,485.1
2009	20.7	14.3	31.9	22.1	11.0	4,533.4
2010	21.0	13.5	31.7	22.4	11.3	4,554.8
2011	21.3	12.7	31.7	22.7	11.6	4,574.9
2012	21.7	12.1	31.3	23.0	12.0	4,585.4

Source: CSO Population and Migration Estimates[34]

- The population increased by 15.2% to 4.59 million persons over the period 2003-2012. The proportion of the population aged 25-64 increased from 51.9% in 2003 to 54.3% in 2012. Conversely, there was a decrease in the 15-24 age group from 16% of the population in 2003 to 12.1% in 2012.

7.2 Ireland: Household composition, 2002–2011

				000 households	Persons
Year	Total households	1 person households	2 person households	3 or more person households	Average household size
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
2011	1,633.5	359.3	487.5	786.6	2.75

Source: CSO QNHS

- In Ireland, average household size decreased from 2.91 persons in 2002 to 2.75 persons in 2011.
- The total number of households grew by over a fifth (21.2%) between 2002 and 2011 but there was a large variability in the growth of different size households. The number of two person households increased by 40.9% while the number of 3 or more person households increased by just under 12%.

[34] Persons in April of each year. Data for 2012 is preliminary.

7.3 EU: Population 2001 and 2011[35]

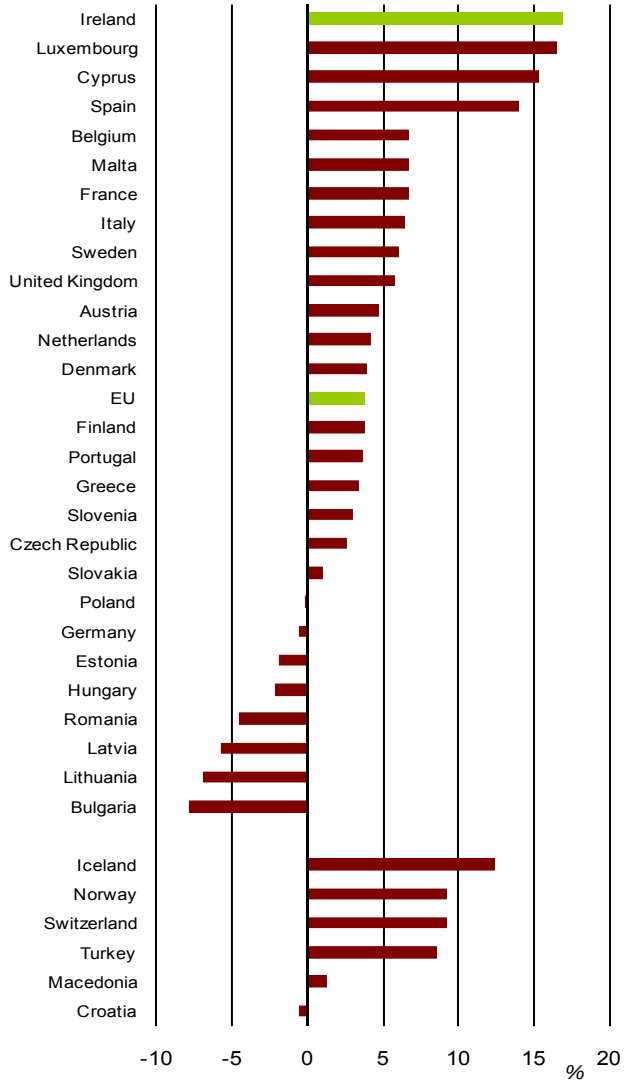
persons

Country	2001	2011	Change
EU	**483,797,028**	**502,477,005**	**18,679,977**
Germany	82,259,540	81,751,602	-507,938
France	60,979,315	65,048,412	4,069,097
United Kingdom	58,999,781	62,435,709	3,435,928
Italy	56,960,692	60,626,442	3,665,750
Spain	40,476,723	46,152,926	5,676,203
Poland	38,253,955	38,200,037	-53,918
Romania	22,430,457	21,413,815	-1,016,642
Netherlands	15,987,075	16,655,799	668,724
Greece	10,931,206	11,309,885	378,679
Belgium	10,263,414	10,951,665	688,251
Portugal	10,256,658	10,636,979	380,321
Czech Republic	10,266,546	10,532,770	266,224
Hungary	10,200,298	9,985,722	-214,576
Sweden	8,882,792	9,415,570	532,778
Austria	8,020,946	8,404,252	383,306
Bulgaria	8,149,468	7,504,868	-644,600
Denmark	5,349,212	5,560,628	211,416
Slovakia	5,378,783	5,435,273	56,490
Finland	5,181,115	5,375,276	194,161
Ireland	**3,832,783**	**4,480,858**	**648,075**
Lithuania	3,486,998	3,244,601	-242,397
Latvia	2,364,254	2,229,641	-134,613
Slovenia	1,990,094	2,050,189	60,095
Estonia	1,366,959	1,340,194	-26,765
Cyprus	697,549	804,435	106,886
Luxembourg	439,000	511,840	72,840
Malta	391,415	417,617	26,202
Turkey	67,895,581	73,722,988	5,827,407
Switzerland	7,204,055	7,866,500	662,445
Norway	4,503,436	4,920,305	416,869
Croatia	4,438,868	4,412,137	-26,731
Macedonia	2,031,112	2,057,284	26,172
Iceland	283,361	318,452	35,091

Source: Eurostat

[35] Population on the 1st January of specific year.

7.4 EU: Population change, 2001-2011[35]



Source: Eurostat

- Ireland had the highest percentage increase in population between 2001 and 2011 in the EU while eight EU countries experienced population decline over the same period.

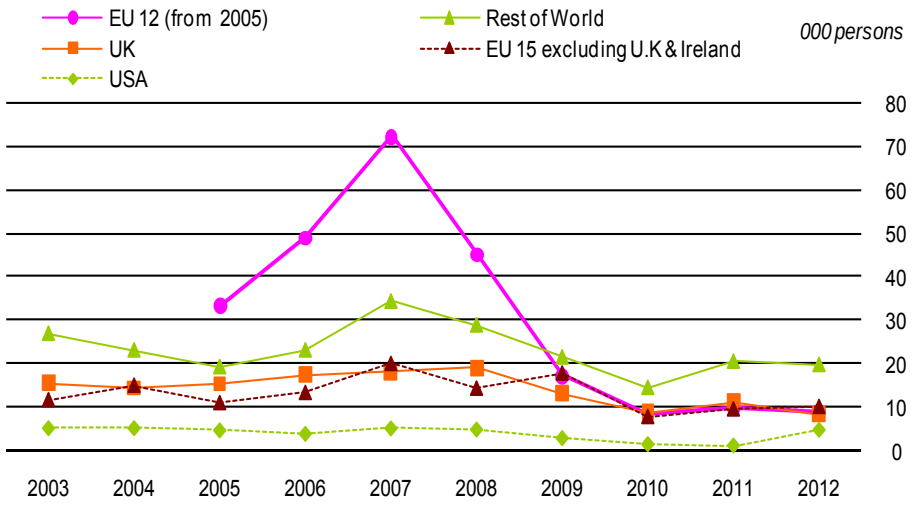
7.5 Ireland: Migration and natural increase[36], 2003–2012

000 persons

Year	Inward migration	Outward migration	Net migration[37]	Natural increase	Population change
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	151.1	46.3	104.8	38.2	142.9
2008	113.5	49.2	64.3	44.9	109.2
2009	73.7	72.0	1.6	46.7	48.3
2010	41.8	69.2	-27.5	48.8	21.4
2011	53.3	80.6	-27.4	47.5	20.1
2012	52.7	87.1	-34.4	44.9	10.5

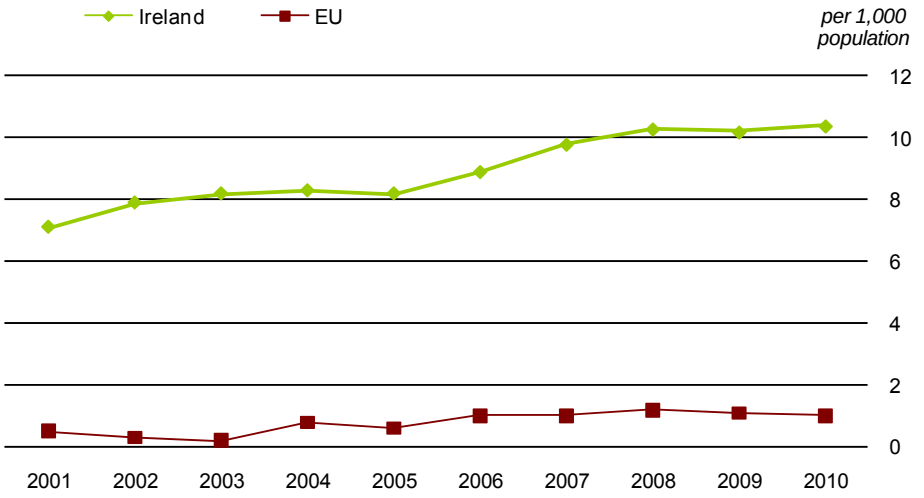
Source: CSO Population and Migration Estimates

7.6 Ireland: Immigration by country of origin, 2002–2011



Source: CSO Population and Migration Estimates

7.7 Ireland and EU: Rate of natural increase of population, 2001–2010

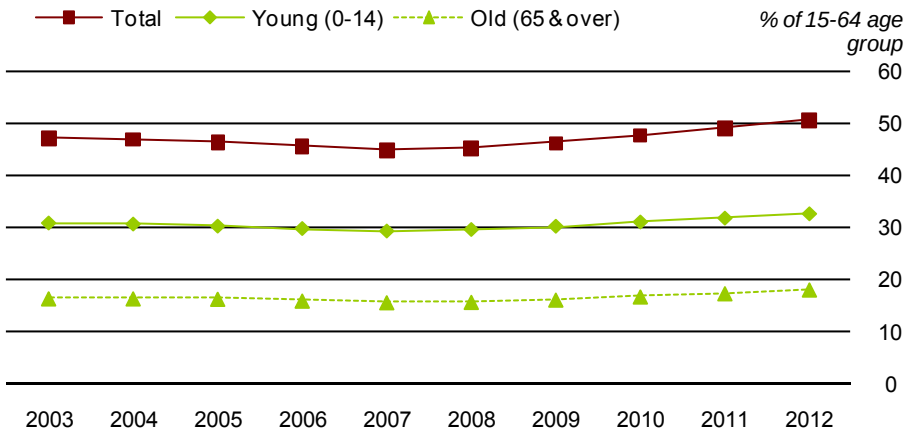


Source: Eurostat

- Net migration was positive between 2003 and 2009 and increased from 30,700 in 2003 to 104,800 in 2007 before decreasing sharply to 1,600 in 2009. However net migration was negative in 2010, 2011 and 2012, i.e., more people left the country than arrived. Net migration fell to minus 27,500 in 2010, remained at about this level in 2011 and decreased again in 2012 to minus 34,400.
- Annual immigration into Ireland rose steeply from 60,000 persons in 2003 to peak at 151,100 in 2007 before falling back sharply to 41,800 persons in 2010 and then rising slightly to stand at 52,700 in 2012.
- The level of annual emigration from Ireland was 29,300 in 2003 and there was little change in 2004 or 2005 but it has increased nearly every year since then to 87,100 persons in 2012.
- In 2005 about 33,700 persons moved to Ireland from the 12 new EU countries who joined in 2004 and 2007, rising to 72,600 in 2007, falling back sharply to just 8,700 in 2010 and staying fairly close to this level over the following two years.
- The rate of natural increase of the population in Ireland was 10.4 per 1,000 population in 2010 compared with an average of 1 per 1,000 in the EU. The EU rate was consistently below 1 over the period 2001-2005 before rising to 1 in 2006, whereas the rate for Ireland increased from 7.1 per 1,000 in 2001.

[36] Data refer to the 12 months up to April of each year. Data for 2012 is preliminary.
[37] Net migration is the number of immigrants less emigrants.

7.8 Ireland: Age dependency ratio, 2003–2012



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 (31.9%) and the second lowest proportion of persons aged 65 and over (17.3%) in 2011.
- This resulted in a combined age dependency ratio of 49.2% in Ireland in 2011 which was similar to the average for other EU member states although markedly different in composition.
- In 2011 France had the highest combined age dependency ratio in the EU at 54.5 while Slovakia had the lowest at 38.2.
- 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, 2011[38]

% of population aged 15-64

Country	Young and old	Young (0-14)	Old (65 & over)
Slovakia	38.2	21.1	17.1
Poland	40.1	21.1	19.0
Cyprus	42.7	24.1	18.6
Czech Republic	42.7	20.6	22.2
Romania	43.0	21.7	21.4
Slovenia	44.3	20.5	23.9
Malta	44.5	22.1	22.4
Latvia	45.2	20.0	25.2
Hungary	45.6	21.3	24.4
Luxembourg	45.9	25.7	20.3
Bulgaria	46.0	20.1	25.9
Lithuania	46.1	22.0	24.1
Spain	47.4	22.2	25.2
Austria	47.7	21.7	26.0
Estonia	47.8	22.7	25.2
Ireland	**49.2**	**31.9**	**17.3**
Netherlands	49.3	26.1	23.3
EU 27	**49.5**	**23.3**	**26.2**
Portugal	49.9	22.7	27.2
Greece	50.7	21.7	29.0
Germany	51.5	20.3	31.2
Finland	51.6	25.0	26.5
United Kingdom	51.6	26.4	25.2
Belgium	51.7	25.6	26.0
Italy	52.3	21.4	30.9
Denmark	53.1	27.4	25.7
Sweden	54.0	25.6	28.4
France	54.5	28.6	25.9
Macedonia	41.2	24.6	16.5
Switzerland	47.0	22.3	24.7
Croatia	47.4	22.2	25.2
Turkey	48.9	38.1	10.8
Iceland	49.7	31.3	18.4
Norway	51.1	28.3	22.8

Source: Eurostat

[38] Data refer to estimated situation at January. 2010 data used for Belgium, Cyprus and Romania and EU calculated using 2010 for these 3 countries and 2011 data for the remaining EU countries.

7.10 Ireland and EU: Total fertility rate, 2001–2010

Projected number of children a woman will have

Year	EU	Ireland
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	2.10
2009	1.59	2.10
2010	:	2.07

Source: Eurostat, CSO Vital Statistics

- The total fertility rate in Ireland rose from 1.96 in 2001 to reach 1.98 by 2003 before decreasing to 1.88 in 2005. It then increased to 2.1 in 2008 and 2009 before dropping slightly to 2.07 in 2010.
- Over the time period 2002 to 2009 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 2010, while Latvia, at 1.17, had the lowest rate. Iceland had the highest rate of all the reported countries with a fertility rate of 2.2.
- The new member states, together with the Mediterranean countries, tended to have the lowest fertility rates.

7.11 EU: Total fertility rate[39], 2000–2010

Projected number of children a woman will have

Country	2000	2005	2010
Ireland	**1.90**	**1.88**	**2.07**
France	1.89	1.94	2.03
Sweden	1.54	1.77	1.98
United Kingdom	1.64	1.78	1.94
Denmark	1.77	1.80	1.87
Finland	1.73	1.80	1.87
Belgium	1.67	1.76	1.84
Netherlands	1.72	1.71	1.79
Estonia	1.38	1.50	1.63
Luxembourg	1.76	1.63	1.63
EU	**1.45**	**1.51**	**1.59**
Slovenia	1.26	1.26	1.57
Lithuania	1.39	1.27	1.55
Cyprus	1.64	1.42	1.51
Greece	1.26	1.33	1.51
Czech Republic	1.14	1.28	1.49
Bulgaria	1.26	1.32	1.49
Austria	1.36	1.41	1.44
Italy	1.26	1.32	1.41
Slovakia	1.30	1.25	1.40
Germany	1.38	1.34	1.39
Spain	1.23	1.35	1.38
Poland	1.35	1.24	1.38
Malta	1.70	1.38	1.38
Romania	1.31	1.32	1.38
Portugal	1.55	1.40	1.36
Hungary	1.32	1.31	1.25
Latvia	1.23	1.31	1.17
Iceland	2.08	2.05	2.20
Turkey	:	:	2.04
Norway	1.85	1.84	1.95
Macedonia	1.88	1.46	1.56
Switzerland	1.50	1.42	1.50
Croatia	1.34	1.41	1.46

Source: Eurostat

[39] 2002 data used for 2000 for EU, Latvia and Croatia. 2009 data used for 2010 for EU, Belgium, Cyprus, Romania, the United Kingdom and Switzerland.

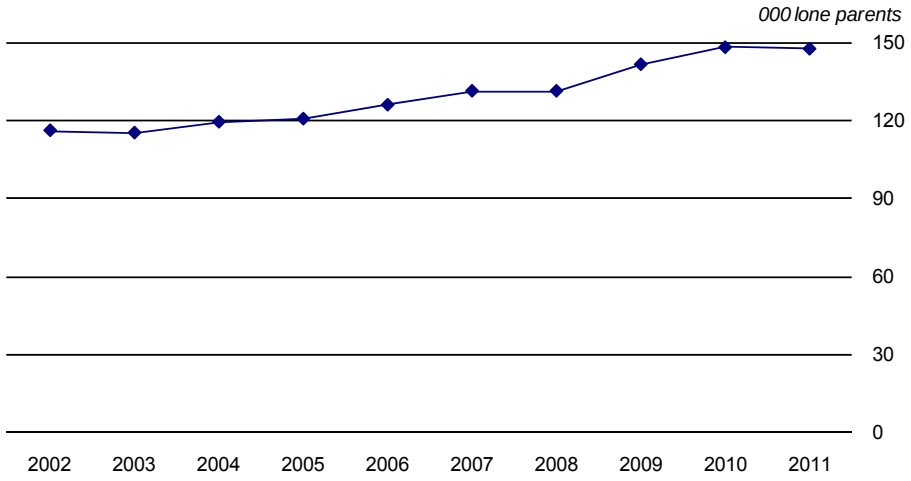
7.12 Ireland: Lone parent families with children aged under 20 by sex of parent, 2002–2011

000 families

Year	Male	Female	Total
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
2011	14.1	133.3	147.4

Source: CSO QNHS

Ireland: Lone parent families with children aged under 20, 2002-2011



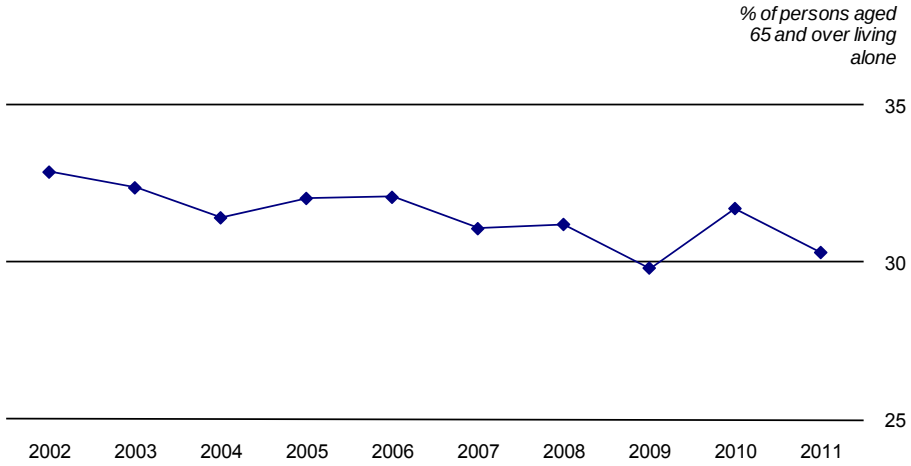
- The number of lone parent families whose youngest child was less than 20 increased by nearly 30% between 2002 and 2011, from 115,800 families in 2002 to 147,400 families in 2011.
- Throughout the time period 2002-2011 over 90% of lone parent families whose youngest child was less than 20 were headed by a female.

7.13 Ireland: Persons aged 65 and over living alone by sex, 2002–2011

	000 persons aged 65 and over living alone			*%*	
Year	**Persons**	**Males**	**Females**	**% of all house-holds**	**% of persons aged 65 and over**
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
2011	158.6	52.5	106.2	11.7	30.3

Source: CSO QNHS

Ireland: Persons aged 65 and over living alone, 2002-2011



- There were 158,600 persons aged 65 and over living alone in 2011 compared with 143,500 in 2002.
- There were over twice as many women aged 65 and over living alone in 2011 as there were men.
- Just over 30% of persons aged 65 and over were living alone in 2011.

7.14 EU: Divorce rate, 2006–2010

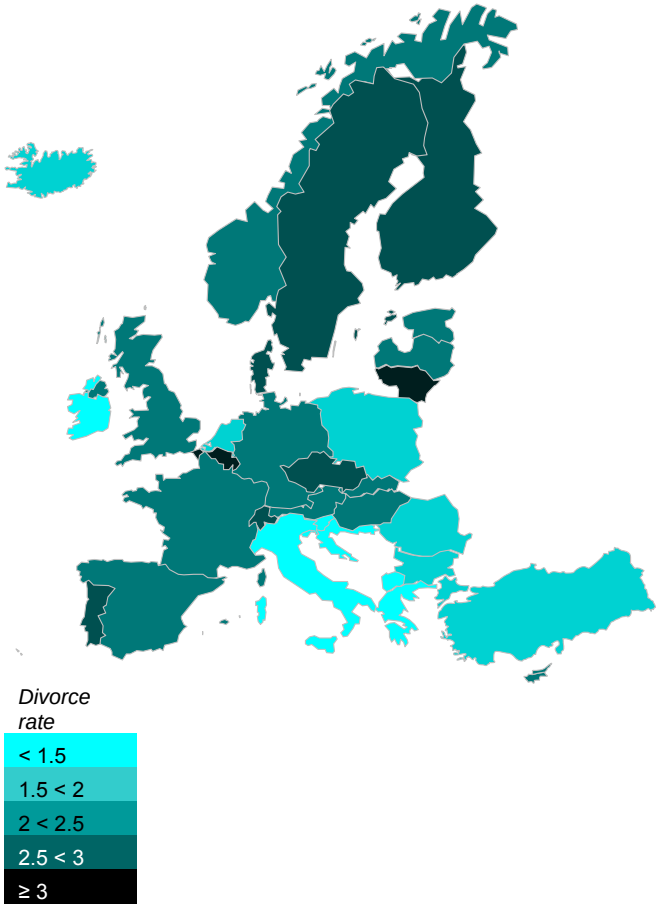
Divorces per 1,000 population

Country	2006	2007	2008	2009	2010
Ireland	**0.9**	**0.8**	**0.8**	**0.7**	**0.7**
Italy	0.8	0.9	0.9	0.9	:
Slovenia	1.2	1.3	1.1	1.1	:
Greece	1.2	1.2	1.2	:	:
Poland	1.9	1.7	1.7	1.7	1.6
Romania	1.5	1.7	1.7	1.5	1.5
Bulgaria	1.9	2.1	1.9	1.5	1.5
EU	**2.1**	**2.1**	**2.0**	**:**	**:**
Luxembourg	2.5	2.3	2.0	2.1	2.1
Netherlands	1.9	2.0	2.0	1.9	:
France	2.2	2.1	2.1	:	:
Cyprus	2.3	2.1	2.1	2.2	:
United Kingdom	2.4	2.4	2.2	2.0	:
Germany	2.3	2.3	2.3	2.3	2.3
Slovakia	2.4	2.3	2.3	2.3	2.2
Sweden	2.2	2.3	2.3	2.4	2.5
Spain	2.9	2.8	2.4	2.1	2.2
Austria	2.5	2.5	2.4	2.2	2.1
Hungary	2.5	2.5	2.5	2.4	2.4
Portugal	2.3	2.4	2.5	2.5	:
Finland	2.5	2.5	2.5	2.5	2.5
Estonia	2.8	2.8	2.6	2.4	2.2
Denmark	2.6	2.6	2.7	2.7	2.6
Latvia	3.2	3.3	2.7	2.3	2.2
Czech Republic	3.1	3.0	3.0	2.8	2.9
Lithuania	3.3	3.4	3.1	2.8	3.0
Belgium	2.8	2.8	3.3	3.0	3.0
Macedonia	0.7	0.7	0.6	0.6	0.8
Croatia	1.0	1.1	1.1	1.1	1.1
Turkey	1.3	1.3	1.4	1.6	1.6
Iceland	1.6	1.7	1.7	1.7	1.8
Norway	2.3	2.2	2.1	2.1	2.1
Switzerland	2.8	2.6	2.6	2.5	2.8

Source: Eurostat

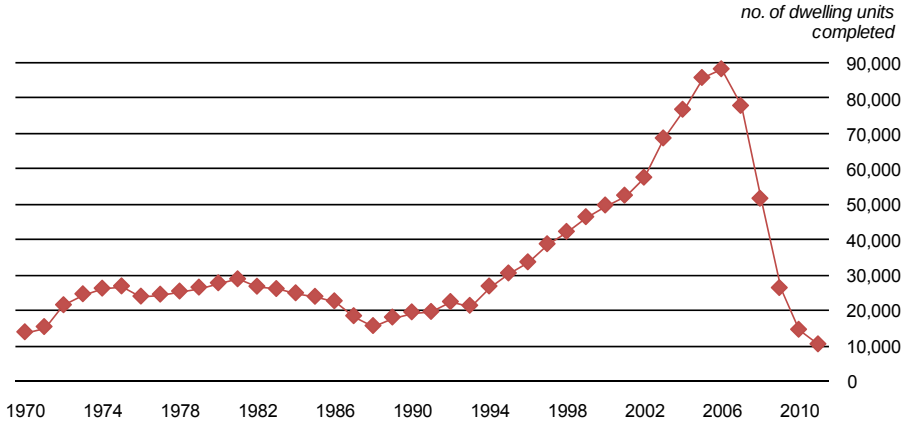
- The divorce rate in Ireland has fallen slightly between 2006 and 2010, from 0.9 divorces per 1,000 population in 2006 to 0.7 in 2010.
- In 2008, (the most recent year for which data are available for all EU countries with divorce[40]), the divorce rate in the EU was 2 divorces per 1,000 population. Belgium, at 3.3, had the highest divorce rate in 2008 and Ireland, at 0.8, had the lowest.

EU: Divorce rate[41], 2010



[40] Malta became the last EU country to pass a divorce law on 1 October 2011.
[41] 2009 data used for Italy, Slovenia, Netherlands, Cyprus, the United Kingdom and Portugal and 2008 data used for Greece and France.

8.1 Ireland: Dwellings completed, 1970–2011



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

- 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 five years to 10,480 in 2011, below 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 to that in 1991 and stood at 79.8%, however it fell back sharply to 70.8% in the 2011 census.
- The proportion of households in Ireland that were rented decreased from 35.6% in 1961 to 17.9% in 1991 before rising over the next 20 years to stand at 27.7% in 2011.

8.2 Ireland: Nature of occupancy[42] of private households, 1961–2011

% 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
2011	70.8	27.7	1.6

Source: CSO Census of Population

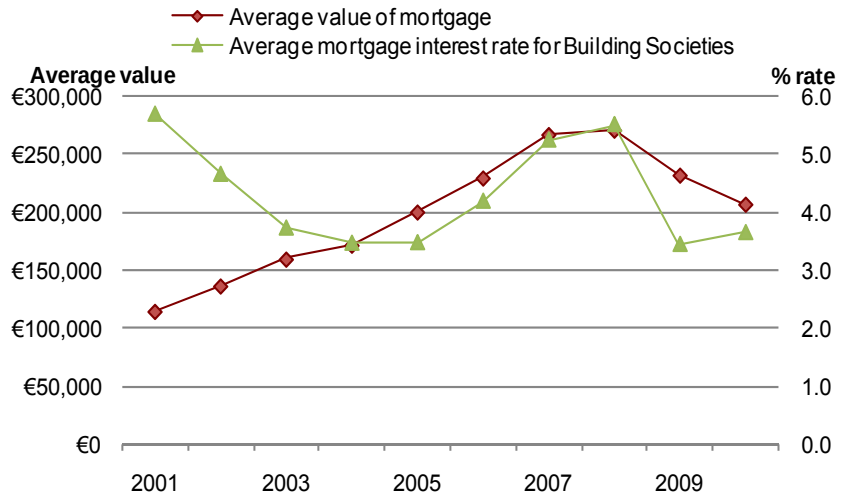
[42] 'Not stated' replies excluded.

8.3 Ireland: Housing loans paid, 2001–2010

Year	New houses	Other houses	Total	Value (€m)	Average value of mortgage (€000)	Average mortgage interest rate for building societies (%)
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
2010	6,923	11,459	18,382	3,799	206.7	3.66

Source: Department of the Environment, Community and Local Government

Ireland: Housing loans paid 2001-2010



8.4 Eurozone: Interest rates for household mortgages (new business), 2007–2011

interest rate

Country	2007	2008	2009	2010	2011
Finland	4.92	4.07	1.92	2.08	2.52
Ireland	**5.07**	**4.33**	**2.61**	**3.01**	**2.98**
Austria	5.73	5.61	2.91	2.75	3.16
Estonia	6.17	7.38	7.59	4.62	3.32
Malta	:	3.81	3.48	3.42	3.38
Spain	5.35	5.63	2.45	2.52	3.47
Eurozone	**5.32**	**5.09**	**2.71**	**2.78**	**3.49**
Italy	5.48	4.91	2.24	2.52	3.64
Germany	5.97	5.38	3.36	3.38	3.67
France	5.01	5.52	3.38	3.06	3.70
Belgium	5.26	4.87	2.92	3.12	3.82
Slovenia	6.45	6.28	3.36	3.35	3.89
Netherlands	5.41	5.32	3.84	3.58	4.07
Greece	4.76	4.92	3.08	3.65	4.18
Portugal	5.18	4.96	2.22	2.96	4.25
Slovakia	:	6.59	5.26	4.74	4.93
Cyprus	:	6.47	5.01	5.16	5.73
Luxembourg	4.83	4.22	2.03	1.88	:

Source: European Central Bank

- The average value of a new housing loan in Ireland increased strongly from €114,800 in 2001 to €270,200 in 2008 before falling sharply to €231,600 in 2009 and decreasing again in 2010 to €206,700. The mortgage interest rate dropped from 5.69% in 2001 to 3.48% in 2004. By 2008 rates had increased to 5.51% followed by a decrease to 3.46% in 2009 with a small rise to 3.66% in 2010.
- The number of loans taken out for housing rose from 66,786 in 2001 to a peak of 111,253 in 2006 before collapsing to 18,382 in 2010.
- The interest rate for new mortgages in Ireland, at 2.98%, was the second lowest rate in the Eurozone at the end of 2011, when the average rate for the Eurozone was 3.49%.

9.1 Ireland: Recorded crimes by type of offence, 2005, 2010 and 2011

Offence group	2005	2010	2011
Homicide offences	126	90	66
Sexual offences	1,801	2,339	2,025
Attempts/threats to murder, assaults, harassment and related offences	13,687	17,439	16,742
Dangerous or negligent acts[43]	170,579	204,376	:
Kidnapping and related offences	74	130	106
Robbery, extortion and hijacking offences	2,424	3,183	2,911
Burglary and related offences	26,381	25,377	27,494
Theft and related offences	73,078	76,492	76,894
Fraud, deception and related offences	4,012	4,953	5,319
Controlled drug offences	13,322	19,943	17,710
Weapons and explosives offences	2,560	4,092	3,481
Damage to property and to the environment	39,728	39,122	35,660
Public order and other social code offences	55,483	54,899	49,026
Road and traffic offences[43]	187,078	258,724	:
Offences against government, justice procedures and organisation of crime	7,792	11,413	10,026
Offences not elsewhere classified[43]	2,232	3,336	:

Source: CSO Crime statistics

9.2 Ireland: Detection rates for recorded crimes, 2005, 2010 and 2011

%

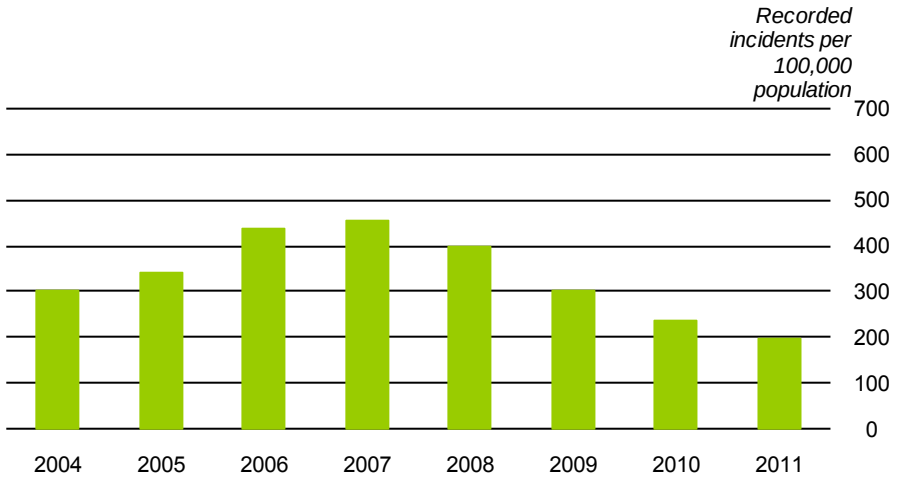
Offence group	2005	2010	2011
Homicide offences	83.3	83.3	86.4
Sexual offences	53.4	54.4	56.1
Attempts/threats to murder, assaults, harassment and related offences	59.8	63.3	62.4
Dangerous or negligent acts[43]	98.9	99.5	:
Kidnapping and related offences	58.1	61.5	67.0
Robbery, extortion and hijacking offences	40.8	54.0	49.5
Burglary and related offences	17.8	25.5	23.3
Theft and related offences	32.0	38.1	36.1
Fraud, deception and related offences	58.3	50.9	44.8
Controlled drug offences	95.4	98.6	98.8
Weapons and explosives offences	84.9	90.3	89.4
Damage to property and to the environment	18.5	23.2	22.6
Public order and other social code offences	82.8	93.9	94.0
Road and traffic offences[43]	98.6	98.7	:
Offences against government, justice procedures and organisation of crime	98.4	98.5	99.2
Offences not elsewhere classified[43]	59.0	62.4	:

Source: CSO Crime statistics

- The number of kidnapping and related offences increased by over 40% between 2005 and 2011, rising from 74 recorded offences in 2005 to 106 in 2011. There were also noticeable increases over the same time period in weapons and explosives offences, which rose from 2,560 to 3,481 and in controlled drug offences, which rose from 13,322 to 17,710.
- The number of homicide offences fell by close to 50% between 2005 and 2011, falling from 126 to 66. There was also a small decrease in public order and other social code offences, falling from 55,483 to 49,026.
- The largest single category of offences in 2010 was road and traffic which recorded 258,724 cases.
- The detection rate for public order and other social code offences rose by 11.2 percentage points between 2005 and 2011, while the rate for kidnapping and related offences rose by 8.9 percentage points. Over the same period the detection rate for fraud, deception and related offences decreased by 13.5 percentage points. Certain crimes, by their nature, are detected more frequently than others, such as dangerous or negligent acts (which are mainly speeding offences) and road and traffic offences.

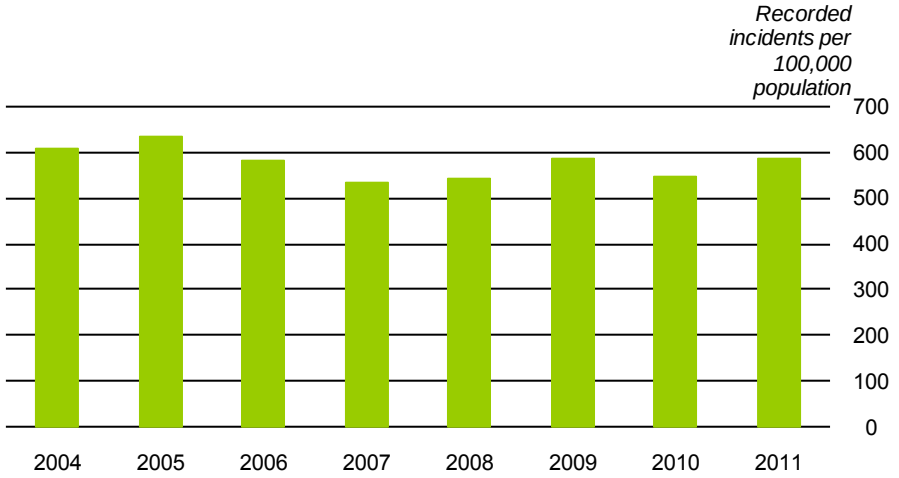
[43] Data for 2011 not yet available.

9.3 Ireland: Recorded incidents of driving/in charge of a vehicle while over legal alcohol limit per 100,000 population, 2004-2011



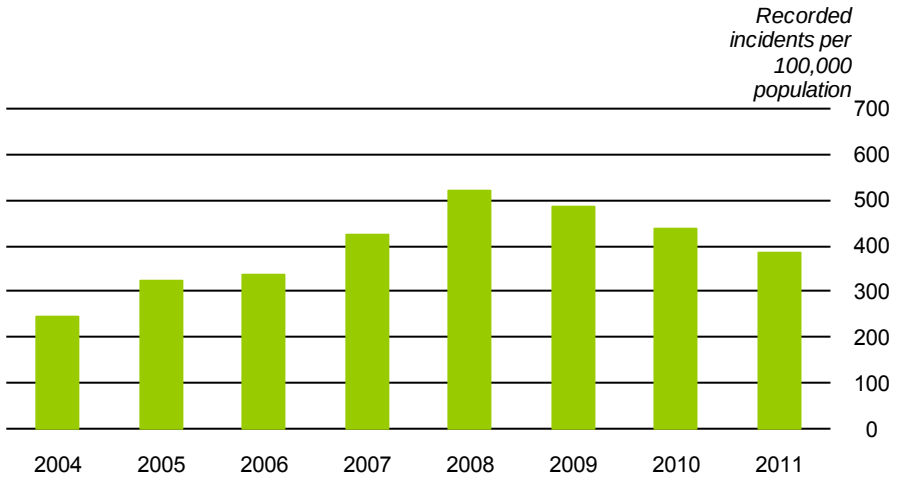
- Incidents of driving/in charge of a vehicle while over legal alcohol limit rose gradually between 2004 and 2007, from 301 to 453 incidents per 100,000 of the population, before falling back sharply to 197 incidents per 100,000 of the population in 2011.

9.4 Ireland: Recorded incidents of burglary per 100,000 population, 2004-2011



- Incidents of burglary increased slightly from 610 to 633 incidents per 100,000 of the population between 2004 and 2005, before falling back to 533 incidents per 100,000 in 2007. In 2008 and 2009 there was a gradual increase in the recorded incidents of burglary to 584 incidents per 100,000 in 2009, followed by a small decrease to 547 in 2010 and a rise in 2011 to 587.

9.5 Ireland: Recorded incidents of controlled drug offences per 100,000 population, 2004-2011



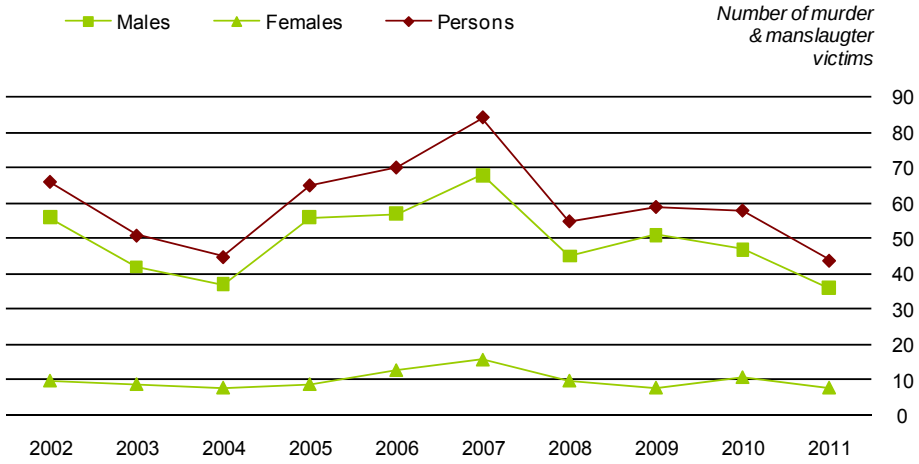
- Incidents of controlled drug offences increased steadily over the period 2004 to 2008, rising from 244 to 522 incidents per 100,000 of the population, before falling back to 387 incidents per 100,000 in 2011.

9.6 Ireland: Recorded victims of murder/manslaughter, 2002–2011

	number of murders/manslaughters			%
Year	Persons	Males	Females	% male
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	59	51	8	86
2010	58	47	11	81
2011	44	36	8	82

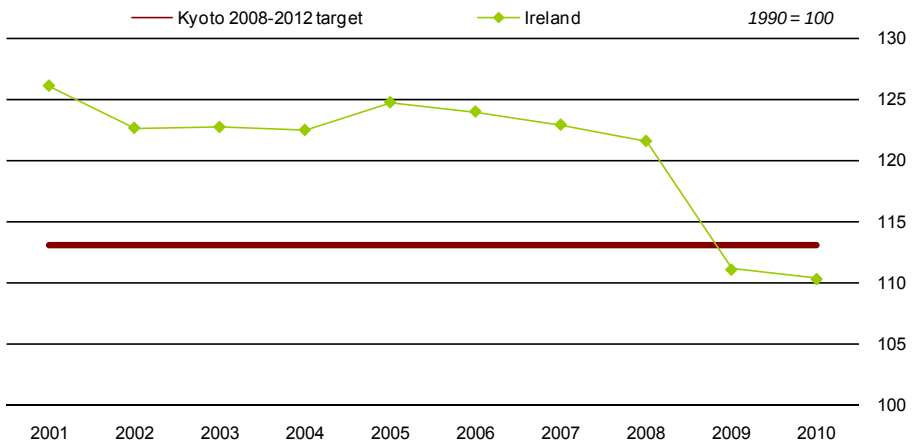
Source: CSO Crime statistics

Ireland: Recorded victims of murder/manslaughter, 2002-2011



- There were 44 victims of murder or manslaughter in Ireland in 2011, of which 36 were male and 8 female. The total number of victims fell to 45 in 2004 and rose over the next three years to a peak of 84 in 2007, but then dropped back sharply in 2008 to 55 and decreased to 44 in 2011.
- The number of female victims of murder or manslaughter remained fairly stable over 2002-2006. It then peaked at 16 in 2007 and fell back to 8 in 2011.

10.1 Ireland: Total net greenhouse gas emissions, 2001–2010



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 2001 when it was 126% of the 1990 level. Between 2002 and 2008 the level of emissions was in the range of 122% to 125% of the 1990 level but fell sharply in 2009 to 111% of the 1990 level, below the Kyoto target of 113, and decreased again in 2010 to 110%.

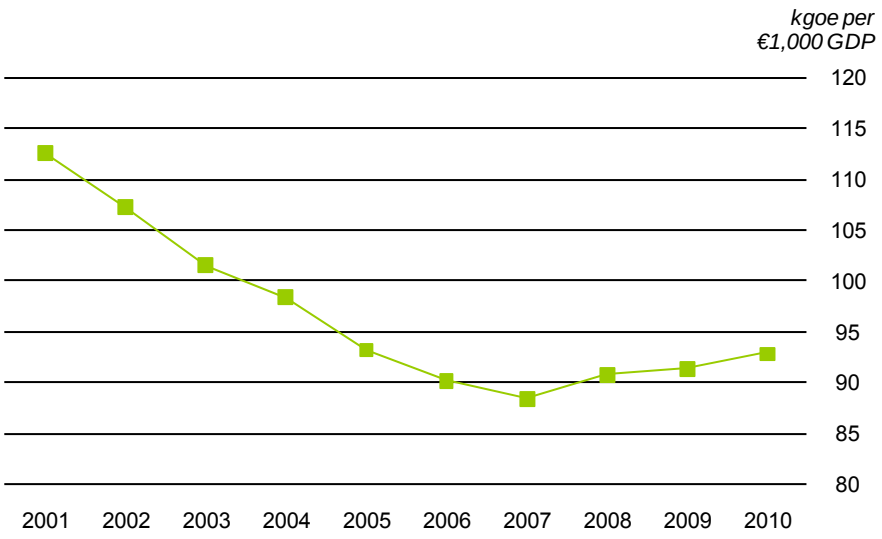
- In 2010 Ireland's level of emissions, at 110%, was considerably higher than the EU 15 average of 89% of 1990 levels and was the fourth highest in the 25 EU states for which data were available.

10.2 EU: Net greenhouse gas emissions, 2010, and Kyoto 2008–2012 target

	1990=100		*%*
Country	**2010**	**2008-2012 Kyoto target**	**2010 level as % of Kyoto target**
Lithuania	42	92	45.7
Romania	44	92	47.8
Bulgaria	46	92	50.0
Latvia	47	92	51.1
Estonia	48	92	52.2
Hungary	59	94	62.8
Slovakia	64	92	69.6
Poland	71	94	75.5
Czech Republic	72	92	78.3
Germany	76	79	96.2
United Kingdom	76	88	86.9
Denmark	88	79	111.4
EU 15	**89**	**92**	**96.7**
Belgium	91	93	98.4
Luxembourg	92	72	127.8
Sweden	92	104	88.5
France	93	100	93.0
Slovenia	96	92	104.3
Italy	97	94	103.7
Netherlands	99	94	105.3
Finland	105	100	105.0
Austria	107	87	123.0
Ireland	**110**	**113**	**97.3**
Greece	111	125	88.8
Portugal	117	127	92.1
Spain	123	115	107.0
Switzerland	103	92	112.0
Norway	109	101	107.9
Iceland	135	110	122.7

Source: Eurostat, Environmental Protection Agency

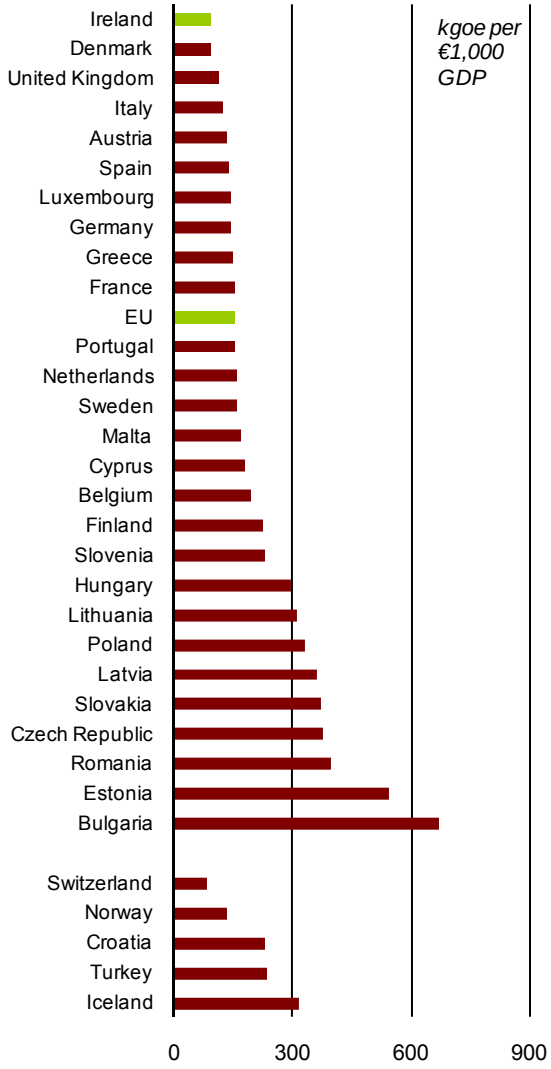
10.3 Ireland: Gross inland consumption of energy divided by GDP, 2001–2010



Source: Eurostat

- Ireland's energy intensity ratio improved from 112.5 in 2001 to 88.4 in 2007 before deteriorating slightly over the following three years to stand at 92.8 in 2010. This ratio is calculated by dividing total usage of coal, electricity, oil, natural gas and renewable energy by GDP.
- Ireland had the lowest ratio in the EU 2010, while the ten countries with the highest ratios were all new member states.

10.4 EU: Gross inland consumption of energy divided by GDP, 2010[44]



Source: Eurostat

[44] 2006 data used for Iceland.

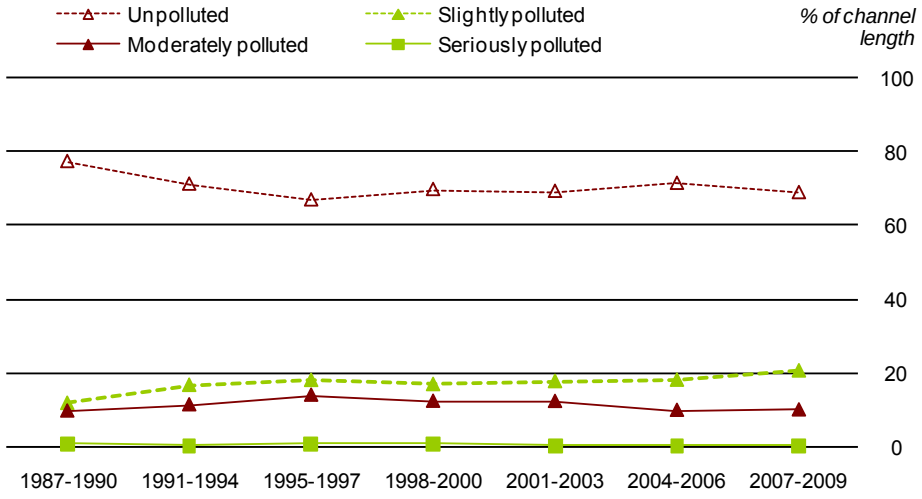
10.5 Ireland: River water quality, 1987–2009

% of channel length

Quality	Unpolluted	Slightly polluted	Moderately polluted	Seriously polluted	Total
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%.

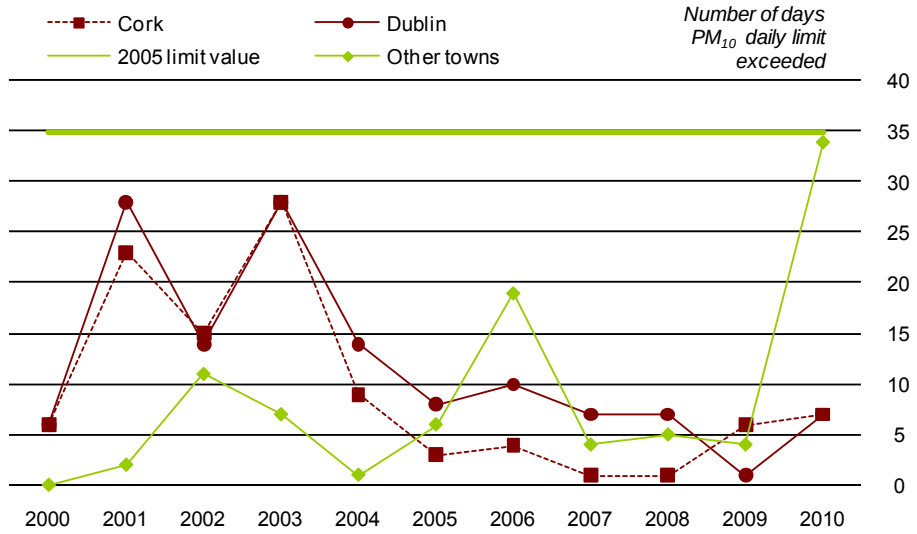
10.6 Ireland: Particulate matter[45] in urban areas, 2000–2010

µg per m³

Year	Dublin		Cork		Other towns[46]	
	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
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
2010	19	7	22	7	27	34

Source: Environmental Protection Agency

Ireland: Particulate matter[47] in urban areas, 2000-2010



- The average readings for Particulate Matter (PM_{10}) in Dublin rose from 19 µg/m³ in 2000 to 28 in 2001, fell to 20 µg/m³ in 2004 and then remained at this level or below between 2004 and 2010.
- The levels for Cork were in the range of 22 to 26 µg/m³ between 2000 and 2004 before dropping to less than 20 µg/m³ between 2005 and 2009 and then rising to 22 µg/m³ in 2010.
- The levels for other towns in Ireland have been more variable, falling from 24 µg/m³ in 2000 to a value of 6 µg/m³ in 2001 before rising to values in the range 18 to 32 µg/m³ between 2002 and 2010.
- European legislation contains limit values which permit PM_{10} to exceed 50 µg/m³ on not more than 35 days per annum from 2005. This limit was regularly broken in Dublin in the 1990s but has not been broken since then anywhere in Ireland although the limit was close to being broken in 2010 for towns other than Dublin or Cork.

[45] The nature, source, health and environmental effects of Particulate matter (PM_{10}) are described in Appendix 1.

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

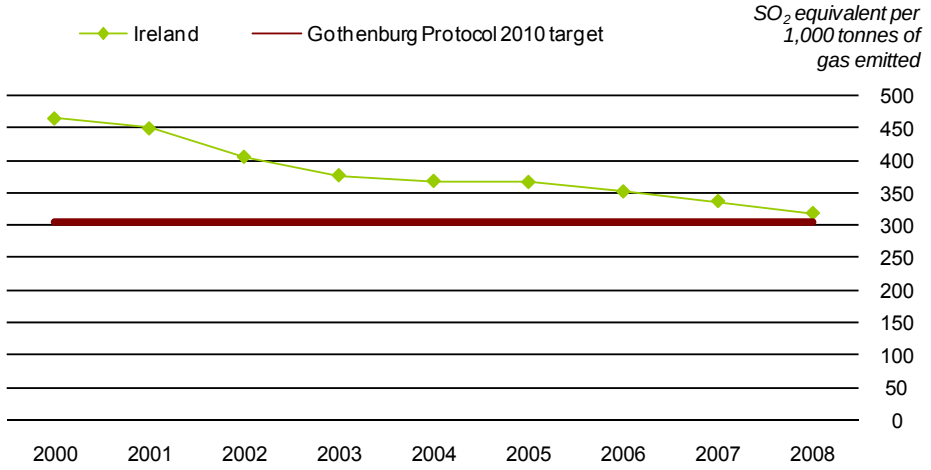
10.7 Ireland: Acid rain precursor emissions, 2000–2008

SO_2 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 SO_2 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 2003-2010

	000 tonnes			% of waste generated	
Year	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
2010	2,846.1	1,084.9	1,495.6	38.1	52.5

Source: Environmental Protection Agency, National Waste Report series

- The quantity of waste generated in Ireland increased each year between 2003 and 2007 resulting in an increase of 13.2% over this period. However between 2007 and 2010 the amount of waste generated decreased sharply by 16.2%.
- Waste recovered as a percentage of waste generated rose from 24.2% to 38.1% between 2003 and 2010, while waste landfilled as a percentage of waste generated was close to 60% between 2003 and 2009 before falling to 52.5% in 2010.
- 38.1% of municipal waste was recycled in Ireland in 2010, just below the EU average of 38.4. The highest recycling rate was in Austria at nearly 70% while the lowest rate was in Bulgaria where no waste was recycled.
- The proportion of municipal waste landfilled in Ireland in 2010 was 52.5%, which was considerably above the EU average of 37.1%. Countries such as Germany and the Netherlands have extremely low landfill levels because they recycle and incinerate 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 Cyprus at 760kg. Latvia had the least waste generated per person in 2009 at 304kg.

10.9 EU: Municipal waste generated and treated, 2010[47]

	kg per person			% of municipal waste	
Country	Generated	Landfilled	Recycled	Incinerated	Landfilled
Austria	591	4	69.7	29.6	0.7
Germany	583	2	61.9	37.7	0.3
Belgium	466	6	57.7	34.3	1.3
Netherlands	595	2	50.8	32.6	0.3
Sweden	465	4	49.2	48.6	0.9
Luxembourg	678	120	46.8	35.4	17.7
Slovenia	422	272	46.0	1.2	64.5
Denmark	673	23	42.2	54.2	3.4
United Kingdom	521	255	38.8	11.5	48.9
EU	**502**	**186**	**38.4**	**21.5**	**37.1**
Ireland	**636**	**334**	**38.1**	**3.8**	**52.5**
France	532	166	35.0	34.0	31.2
Spain	535	310	33.1	9.2	57.9
Finland	470	212	32.8	22.1	45.1
Italy	531	254	32.2	14.3	47.8
Poland	315	193	21.6	1.0	61.3
Hungary	413	284	21.5	9.9	68.8
Cyprus	760	610	19.7	0.0	80.3
Estonia	311	199	19.6	0.0	64.0
Portugal	514	318	18.7	19.3	61.9
Greece	457	374	18.2	0.0	81.8
Czech Republic	317	205	15.8	14.8	64.7
Malta	591	485	13.0	0.0	82.1
Latvia	304	275	9.5	0.0	90.5
Slovakia	333	260	8.7	10.2	78.1
Lithuania	381	328	5.0	0.0	86.1
Romania	365	290	1.1	0.0	79.5
Bulgaria	410	404	0.0	0.0	98.5
Switzerland	707	0	50.5	49.6	0.0
Norway	469	28	42.2	50.3	6.0
Iceland	572	387	14.9	10.5	67.7
Croatia	369	348	4.1	0.0	94.3
Macedonia	351	351	0.0	0.0	100.0
Turkey	407	340	0.0	0.0	83.5

Source: Eurostat

[47] 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, 2001–2010

000s

Year	Private cars under current licence	Private cars per 1,000 population aged 15 and over
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
2010	1,872.7	535

Source: Department of Transport

- The number of private cars per 1,000 population aged 15 and over in Ireland rose from 459 in 2001 to 548 in 2008 before falling slightly to 540 in 2009 and decreasing again to 535 in 2010.

- In 2009, the number of cars per 1,000 population aged 15 and over varied from 817 in Luxembourg to 233 in Romania. Of the 24 EU countries for which data were available in 2009, Ireland had the tenth lowest number of passenger cars per 1,000 population aged 15 and over.

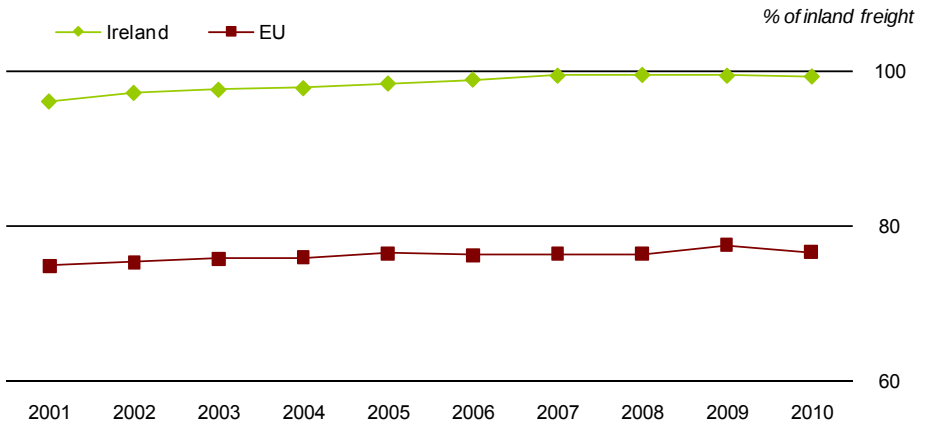
10.11 EU: Passenger cars per 1,000 population aged 15 and over, 2006–2010

cars per 1,000 population aged 15 and over

Country	2006	2007	2008	2009	2010
Luxembourg	818	823	828	817	:
Italy	699	702	704	704	708
Cyprus	597	643	681	698	694
Malta	650	662	678	669	689
Finland	576	587	613	626	645
Austria	606	608	609	615	623
Slovenia	570	586	604	606	604
France	602	606	596	599	:
Lithuania	560	558	586	596	598
Germany	651	657	581	583	590
Belgium	571	575	579	581	586
Spain	563	572	573	563	566
Netherlands	542	552	560	562	566
Sweden	561	563	560	558	556
Ireland	**528**	**545**	**548**	**540**	**535**
Greece	477	501	523	532	:
Poland	419	454	499	511	:
Czech Republic	470	486	497	494	499
Estonia	485	459	483	479	486
Latvia	418	461	475	463	327
Bulgaria	265	313	358	380	398
Hungary	347	353	358	353	350
Slovakia	297	317	340	347	:
Romania	176	195	221	233	237
Denmark	458	467	470	:	:
United Kingdom	564	568	552	:	:
Switzerland	622	625	622	615	617
Norway	558	570	573	551	584
Croatia	384	397	412	408	404
Turkey	118	:	131	135	140

Source: Eurostat

10.12 Ireland and EU: Share of road transport in total inland freight transport[48], 2001–2010



Source: Eurostat

- Road transport accounted for 96% of total inland freight transport in Ireland in 2001. This share has gradually increased to reach 99.2% in 2010, compared with an EU average of 76.5%.
- Ireland's use of road in inland freight transport in 2010 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. Only 38.1% of inland freight was transported by roads in Latvia in 2010.

10.13 EU: Share of road transport in total inland freight transport, 2006–2010

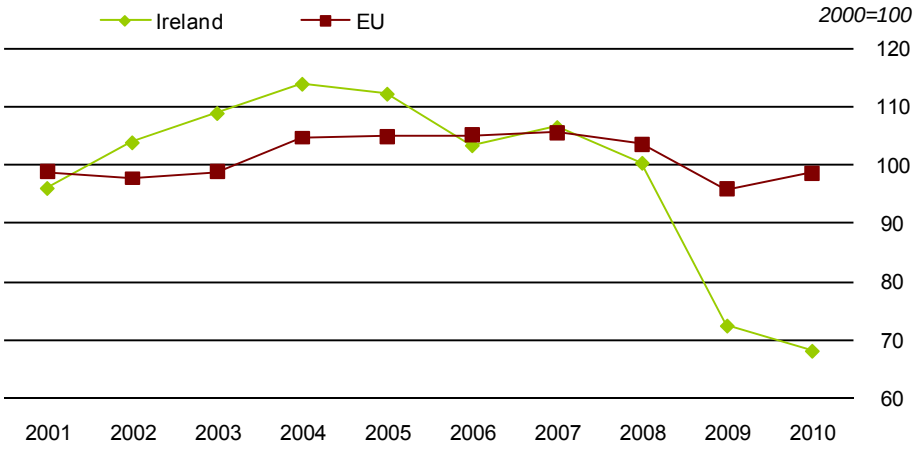
% of inland freight

Country	2006	2007	2008	2009	2010
Latvia	39.0	41.9	38.7	30.2	38.1
Estonia	34.7	43.2	55.3	47.3	45.8
Romania	70.5	71.3	70.2	60.0	49.2
Austria	63.2	60.9	58.6	59.5	56.3
Lithuania	58.4	58.5	58.0	59.9	59.1
Sweden	64.2	63.6	64.9	63.2	60.7
Netherlands	63.1	59.4	59.9	63.8	62.3
Germany	65.9	65.7	65.5	67.0	64.9
Bulgaria	69.0	70.1	66.9	67.4	68.1
Belgium	71.1	69.7	68.5	72.9	69.5
Slovakia	68.8	71.8	73.8	77.9	74.8
Finland	72.8	73.9	74.1	75.7	75.0
Hungary	71.6	74.5	74.7	78.8	75.1
EU	**76.2**	**76.3**	**76.3**	**77.5**	**76.5**
Czech Republic	76.1	74.7	76.7	77.8	79.0
Poland	70.4	73.5	75.9	80.5	81.2
France	80.9	80.9	80.7	81.0	82.2
Slovenia	78.2	79.2	82.2	84.0	82.3
Denmark	91.8	92.2	91.3	90.8	87.0
United Kingdom	85.8	88.9	88.3	87.8	88.7
Italy	88.5	87.6	88.3	90.4	90.4
Luxembourg	91.5	91.2	93.6	94.6	93.5
Portugal	94.9	94.7	93.9	94.3	93.9
Spain	95.4	95.8	95.7	96.4	95.8
Greece	98.1	97.1	97.3	98.1	98.0
Ireland	**98.8**	**99.3**	**99.4**	**99.3**	**99.2**
Cyprus	100.0	100.0	100.0	100.0	100.0
Malta	100.0	100.0	100.0	100.0	100.0
Croatia	74.8	74.0	72.7	73.7	71.2
Norway	85.3	84.7	85.0	84.0	85.0
Iceland	100.0	100.0	100.0	100.0	:
Macedonia	93.1	88.4	84.3	:	:
Turkey	94.9	94.9	:	:	:

Source: Eurostat

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

10.14 Ireland and EU: Index of inland freight transport volume[49], 2001–2010



Source: Eurostat

- The volume of inland freight transport in Ireland grew at a faster pace than constant price GDP during the period 2001 to 2004, with the index of inland freight transport volume rising from 96 in 2001 to 113.8 in 2004.
- However between 2004 and 2008 the volume of inland freight transport fell slightly to reach 100.3 in 2008 and then decreased sharply over the next two years to stand at 68.2 in 2010. Thus over the 2004-2010 period inland freight transport grew at a slower pace than constant price GDP.
- Slovenia recorded the fastest growth in the EU between 2000 and 2010 in inland freight transport relative to GDP growth with an index of 160.2 in 2010.

10.15 EU: Index of inland freight transport volume[49], 2006–2010

2000=100

Country	2006	2007	2008	2009	2010
Denmark	80.7	78.0	73.8	68.2	62.5
Belgium	82.5	80.0	73.5	67.0	66.5
Cyprus	77.6	76.2	80.1	60.1	67.0
Estonia	79.4	68.7	63.9	63.2	67.1
Ireland	**103.3**	**106.4**	**100.3**	**72.5**	**68.2**
France	87.8	88.9	84.0	72.7	73.9
United Kingdom	86.2	85.5	81.6	74.6	76.1
Finland	81.4	76.4	79.0	75.6	78.1
Austria	101.6	97.0	91.3	79.1	80.5
Luxembourg	88.7	90.5	86.0	80.4	82.0
Netherlands	95.2	91.1	89.0	80.6	85.3
Malta	92.8	88.8	85.3	87.6	85.4
Czech Republic	92.2	85.0	84.8	77.5	85.7
Slovakia	87.0	92.2	91.5	86.2	85.8
Sweden	94.8	94.1	96.9	86.6	87.9
Italy	94.8	90.4	91.3	87.6	90.3
EU	**105.1**	**105.6**	**103.5**	**95.8**	**98.6**
Germany	109.1	110.2	108.7	100.9	102.4
Romania	171.4	165.6	148.5	113.0	105.8
Latvia	92.4	96.3	100.8	103.0	107.0
Spain	129.3	133.2	124.2	111.7	111.5
Greece	131.9	105.8	109.7	111.4	120.6
Portugal	154.0	155.3	132.6	124.5	121.8
Lithuania	118.5	120.6	118.9	117.7	128.5
Hungary	118.9	134.1	132.4	133.1	131.6
Poland	116.2	122.6	123.4	125.4	139.7
Bulgaria	117.0	115.1	118.9	144.6	156.2
Slovenia	132.3	138.6	152.7	147.5	160.2
Norway	109.8	107.6	113.9	105.0	110.4
Iceland	119.2	:	:	:	:
Macedonia	198.5	141.2	:	:	:
Turkey	81.7	79.8	:	:	:

Source: Eurostat

[49] 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 (1.5 to 1.7)

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 (1.8 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 (1.12 and 1.13)

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 (1.14 and 1.15)

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 (1.16 and 1.17)

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 (1.18 and 1.19)

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 (1.20 and 1.21)

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 (1.22 and 1.23)

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.

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 3.11)

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.

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 year for the SES is 2009 and Eurostat computed the gender pay gap for this year on this

basis. For subsequent years (2010) 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 Skills (excluding FAS). Expenditure not allocated by level is excluded from the total. 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 2011. For comparison purposes, the all items CPI index rescaled to base mid-December 2006 is also shown in the table below:

Price index bases:	*2011=100*	*Mid-December 2006=100*
Year	**Government current expenditure**	**All items CPI index**
2002	77.1	87.0
2003	81.3	90.1
2004	86.6	92.0
2005	89.9	94.3
2006	94.3	98.0
2007	98.2	102.8
2008	102.6	107.0
2009	102.9	102.2
2010	98.6	101.2
2011	100.0	103.8

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 Skills.

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	ISCED 4 included in ISCED 3.
Cyprus	ISCED 3 includes ISCED 2.
Czech Republic	ISCED 3 includes ISCED 4 and ISCED 5B
Denmark	ISCED 2 is included in ISCED 1.
Estonia	ISCED 3 includes vocational programmes at ISCED 2 and 4
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.
Italy	Public sector only.
Lithuania	ISCED 3 included in ISCED 2
Luxembourg	ISCED 3 includes teachers from ISCED 2 private institutions.
Macedonia	ISCED 3 includes ISCED 4.
Netherlands	ISCED 1 includes ISCED 0. ISCED 3 includes ISCED 2 and 4. Public sector only.
Norway	Public sector only. ISCED 3 includes ISCED 4.
Portugal	ISCED 4 included in ISCED 3.
United Kingdom	ISCED 3 includes ISCED 4.

The following qualifications regarding the data in Table 5.5 should be borne in mind:

Ireland	Public sector only at ISCED 1.
Switzerland	Public sector only.

For both Tables 5.4 and 5.5 the data for Belgium exclude the German community and exclude students in private independent institutions.

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 and thus 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.

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 2011 (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.

Life expectancies in Table 6.3 are taken from the Life Tables calculated by the CSO (which are published after each Census of Population) while those in Table 6.4 are calculated by Eurostat.

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 years from 2006 to 2012. The difference between the two concepts in 2006 and 2011 (years in which a Census of Population was conducted) was very small.

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 rate at which the population in a developed country 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 know to An Garda Síochána and recorded as such. Data from the FCPS is not yet available for the year 2011 and thus complete information for 2011 is not available on recorded crimes or detection rates for dangerous or negligent acts, road and traffic offences and offences not elsewhere classified. 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 (CO_2), nitrous oxide (N_2O), methane (CH_4) and three halocarbons, hydrofluorocarbons (HFCs), perfluorocarbons (PFCs) and sulphur hexafluoride (SF_6), weighted by their global warming potentials. The figures are given in CO_2 equivalents.

Under the **Kyoto Protocol**, industrialised countries have a legally binding commitment to reduce their collective greenhouses 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 CO_2 equivalent.

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

CO_2 equivalents per tonne of gas emitted

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

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 (PM_{10}), nitrogen dioxide and, to a lesser extant, ozone. Information on measurements of PM_{10} collected by the Environmental Protection agency is presented in this report.

The main sources of PM_{10} 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.

PM_{10} 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. PM_{10} in the atmosphere can result from direct emissions (primary PM_{10}) or from emissions of gaseous precursors (oxides of nitrogen, sulphur dioxide and ammonia) which are transformed by chemical reaction in the atmosphere (secondary PM_{10}).

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

- The limit value for PM_{10} is 50 µg /m^3 (24 h average) not to be exceeded on more than 35 days per calendar year, from 2005.

The **PM_{10} indicator** shows percentages of urban population potentially exposed to concentration levels exceeding the limit value for the protection of human health in a calendar year. The limit value for PM_{10} is 50 µg/m^3 (24h average) not to be exceeded on 35 or more days per calendar year, from 2005. For each urban station the number of days with a daily averaged concentration in excess of the limit value is calculated from the available hourly or daily values. The selected urban stations include station types "urban" and "street". Only time series with a data capture of at least 75% 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
2010 Ennis

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** (SO_2).

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

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

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

SO_2 equivalents per tonne of gas emitted

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

Waste management (10.8 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 CSO, Annual Population estimates
	1.2	EU: GDP and GNI at current market prices	Eurostat Statistics:[50]: Themes\Economy and Finance\National accounts (including GDP)\Data\Database\Annual national accounts\Income, saving and net lending/net borrowing – Current prices
	1.3	EU: GDP growth rates	Eurostat Statistics: Themes\Economy and Finance\National accounts (including GDP)\Data\Main_tables\GDP and main components
	1.4	EU: GDP per capita in Purchasing Power Standards	Eurostat Statistics: Themes\Economy and Finance\National accounts (including GDP)\Data\Main_tables\GDP and main components
Government debt	1.5	Ireland, EU and Eurozone: General government consolidated gross debt	Eurostat Statistics: Themes\Economy and Finance\Government finance statistics\Data\Database\Government deficit and debt
	1.6	EU: General government consolidated gross debt	Eurostat Statistics: Themes\Economy and Finance\Government finance statistics\Data\Database\Government deficit and debt
	1.7	EU: General government consolidated gross debt map	Eurostat Statistics: Themes\Economy and Finance\Government finance statistics\Data\Database\Government deficit and debt
Public balance	1.8	EU: Public balance map	Eurostat Statistics: Themes\Economy and Finance\Government finance statistics\Data\Database\Government deficit and debt
	1.9	Ireland and Eurozone: Public balance	Eurostat Statistics: Themes\Economy and Finance\Government finance statistics\Data\Database\Government deficit and debt
	1.10	EU: Public balance	Eurostat Statistics: Themes\Economy and Finance\Government finance statistics\Data\Database\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: Themes\Economy and Finance\National accounts (including GDP)\Data\Database\Annual national accounts\GDP and main aggregates\GDP and main components - current prices
	1.13	EU: Gross fixed capital formation	Eurostat Statistics: Themes\Economy and Finance\National accounts (including GDP)\Data\Database\Annual national accounts\GDP and main aggregates\GDP and main components - current prices
International transactions	1.14	EU: Current account balance	Eurostat Statistics: Themes\ Economy and Finance\Balance of payments – International transactions\Data\Database\Balance of payments statistics and international investment positions\Balance of payments by country Themes\Economy and Finance\National accounts (including GDP)\Data\Database\Annual national accounts\GDP and main aggregates\GDP and main components - current prices

[50] http://epp.eurostat.ec.europa.eu/portal/page/portal/statistics/

Domain and sub-domain	Indicator		Data source
	1.15	EU: Direct investment flows	Eurostat Statistics: Themes\ Economy and Finance\Balance of payments – International transactions\Data\Database\Balance of payments statistics and international investment positions\Balance of payments by country Themes\Economy and Finance\National accounts (including GDP)\Data\Database\Annual national accounts\GDP and main aggregates\GDP and main components - current prices
International trade	1.16	EU: Exports of goods and services	Eurostat Statistics: Themes\ Economy and Finance\Balance of payments – International transactions\Data\Database\Balance of payments statistics and international investment positions\Balance of payments by country Themes\Economy and Finance\National accounts (including GDP)\\Data\Database\Annual national accounts\GDP and main aggregates\GDP and main components - current prices
	1.17	EU: Imports of goods and services	Eurostat Statistics: Themes\ Economy and Finance\Balance of payments – International transactions\Data\Database\Balance of payments statistics and international investment positions\Balance of payments by country Themes\Economy and Finance\National accounts (including GDP)\Data\Database\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: Themes\Economy and Finance\Harmonised indices of consumer prices\Data\Database\Harmonised indices of consumer prices
	1.21	EU: Harmonised Index of Consumer Prices	Eurostat Statistics: Themes\Economy and Finance\Harmonised indices of consumer prices\Data\Database\Harmonised indices of consumer prices
Price levels	1.22	Ireland and EU: Comparative price levels of final consumption by private households including indirect taxes	Eurostat Statistics: Themes\Economy and Finance\Purchasing power parities\ Data\Main_tables
	1.23	EU: Comparative price levels of final consumption by private households including indirect taxes	Eurostat Statistics: Themes\Economy and Finance\Purchasing power parities\ Data\Main_tables
Innovation and technology			
Science and technology graduates	2.1	Ireland: Mathematics, science and technology graduates	Eurostat Statistics: Themes\Population and social conditions\Education and training\Data\Database\Education\Education indicators non-finance\Tertiary education graduates CSO, Annual population estimates
	2.2	EU: Mathematics, science and technology PhDs awarded	Eurostat Statistics: Themes\Population and social conditions\Education and training\Data\Database\Education\Education indicators non-finance\Tertiary education graduates
	2.3	Ireland and EU: Gross domestic expenditure on R&D	Eurostat Statistics: Search_database\Tables on EU Policy\Globalisation Indicators\Technology
	2.4	EU: Gross domestic expenditure on R&D	Eurostat Statistics: Search_database\Tables on EU Policy\Globalisation Indicators\Technology
Patent applications	2.5	Ireland and EU: European Patent Office applications	Eurostat Statistics: Themes\Science and technology\Data\Main_tables\Patent statistics
	2.6	EU: European Patent Office applications	Eurostat Statistics: Themes\Science and technology\Data\Main_tables\Patent statistics

Domain and sub-domain	Indicator		Data source
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: Themes\Industry, trade and services/Information society\Data\Main_tables\Information society: Structural Indicators
Employment and unemployment			
Employment rate	3.1	Ireland: Employment rates by sex	CSO, QNHS
	3.2	EU: Employment rates by sex	Eurostat Statistics: Themes\Population and social conditions\Labour Market\Employment and unemployment\Data\Database\LFS series detailed annual survey results\Employment rates – LFS series
Labour productivity	3.3	Ireland: GDP in Purchasing Power Standards per hour worked and per person employed	Eurostat Statistics: Themes\Economy and Finance\National Accounts\Data\Main_tables\ Auxiliary indicators to National Accounts
	3.4	EU: GDP in Purchasing Power Standards per person employed	Eurostat Statistics: Themes\Economy and Finance\National Accounts\Data\Main_tables\ Auxiliary indicators to National Accounts
Unemployment rate	3.5	Ireland and EU: Unemployment rates	Eurostat Statistics: Themes\Population and social conditions\Labour Market\Employment and unemployment\Data\Database\LFS series detailed annual survey results\Total unemployment – LFS series
	3.6	EU: Unemployment rates by sex	Eurostat Statistics: Themes\Population and social conditions\Labour Market\Employment and unemployment\Data\Database\LFS series detailed annual survey results\Total unemployment – LFS series
	3.7	Ireland and EU: Long-term unemployment rates	Eurostat Statistics: Themes\Population and social conditions\Labour Market\Employment and unemployment\Data\Database\LFS main indicators\Unemployment – LFS adjusted series
	3.8	EU: Long-term unemployment rates by sex	Eurostat Statistics: Themes\Population and social conditions\Labour market \Employment and unemployment\Data\Database\LFS main indicators\Unemployment – LFS adjusted series
Jobless households	3.9	Ireland: Population aged 18-59 living in jobless households	Eurostat Statistics: Themes\Population and social conditions\Labour market\Employment and unemployment\Data\Main_tables\ LFS main indicators\Employment – LFS adjusted series\Population, activity and inactivity – LFS adjusted series
	3.10	EU: Population aged 18-59 living in jobless households	Eurostat Statistics: Themes\Population and social conditions\Labour market\Employment and unemployment\Data\Main_tables\LFS main indicators\Employment – LFS adjusted series\Population, activity and inactivity – LFS adjusted series
Older workers	3.11	EU: Employment rate of persons aged 55-64 by sex	Eurostat Statistics: Themes\Population and social conditions\Labour market\Employment and unemployment\Data\Main_tables\LFS main indicators\Employment – LFS adjusted series
Social cohesion			
Social protection expenditure	4.1	Ireland and EU: Social protection expenditure	Eurostat Statistics: Themes\Population and social conditions\Social protection\Data\ Database\Social protection expenditure\Expenditure - main results
	4.2	EU: Social protection expenditure in Purchasing Power Parities per capita	Eurostat Statistics: Themes\Population and social conditions\Social protection\Data\ Database\Social protection expenditure\Expenditure - main results
	4.3	EU: Social protection expenditure by type	Eurostat Statistics: Themes\Population and social conditions\Social protection\Data\ Database\Social protection expenditure\Expenditure - main results

Domain and sub-domain	Indicator		Data source
Risk of poverty	4.4	EU: At risk of poverty rates	Eurostat Statistics: Themes\Population and social conditions\Income, social inclusion and living conditions\Data\Database\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: Themes\Population and social conditions\Labour Market\Earnings\ Data\Main_tables
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 Skills, Key Education Statistics
	5.2	Ireland: Student numbers by level	Department of Education and Skills, Key Education Statistics
	5.3	EU: Public expenditure on education	Eurostat Statistics: Themes\Population and social conditions\Education and training\Data\Database\Education\Indicators on education finance
Pupil-teacher ratio	5.4	EU: Ratio of students to teachers	Eurostat Statistics: Themes\Population and social conditions\Education and training\Education\Data\Database\Education indicators non-finance\Pupil/Student – teacher ratio and average class size
	5.5	EU: Primary and lower secondary average class size	Eurostat Statistics: Themes\Population and social conditions\Education and training\Education\Data\Database\Education indicators non-finance\Pupil/Student – teacher ratio and average class size
Third level education	5.6	Ireland: Persons aged 25-34 with third-level education	CSO, QNHS CSO, Annual population estimates
	5.7	EU: Persons aged 25-34 with third-level education by sex	Eurostat Statistics: Themes\Population and social conditions\Labour market (including LFS – Labour Force Survey)\Employment and unemployment (Labour Force Survey)\Data\Database\LFS series – detailed annual survey results\Total Population
Literacy	5.8	Ireland: Student performance on the reading, mathematical and scientific literacy scales by sex	OECD, PISA 2009
	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	CSO, QNHS
	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: Themes\Population and social conditions\Education and training\ Data\Main_tables\Education attainment, outcomes and returns of education
Health			

Domain and sub-domain	Indicator		Data source
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/hfadb/
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: Themes\Population and social conditions\Population\Data\ Database\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: Themes\Population and social conditions\Population\ Data\Database\Demography\Demography - National data\National data\Population
	7.4	EU: Population change	Eurostat Statistics: Themes\Population and social conditions\Population\ Data\Database\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: Themes\Population and social conditions\Population\ Data\Database\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: Themes\Population and social conditions\Population\ Data\Database\Demography\Demography - National data\National data\Main demographic indicators
Fertility	7.10	Ireland and EU: Total fertility rate	CSO, Vital Statistics
			Eurostat Statistics: Themes\Population and social conditions\Population\ Data\Database\Demography\Demography - National data\National data\Fertility
	7.11	EU: Total fertility rate	Eurostat Statistics: Themes\Population and social conditions\Population\ Data\Database\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: Themes\Population and social conditions\Population\ Data\Database\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

Domain and sub-domain	Indicator		Data source
	8.4	Eurozone: Interest rates for household mortgages (new business)	Eurostat Statistics: Themes\Economy and Finance\Interest rates\Data\Database\Retail bank interest rates\MFI interest rates – Loans to households
Crime			
Recorded crimes	9.1	Ireland: Recorded crimes by type of offence	CSO, Garda Recorded Crime Statistics
Detection rate	9.2	Ireland: Detection rates for recorded crimes	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: Themes\Environment and energy\Environment\Data\ Main_tables\Greenhouse gases
			Environmental Protection Agency, Ireland's Greenhouse Gas Emissions in 2006
	10.2	EU: Net greenhouse gas emissions and Kyoto 2008-2012 target	Eurostat Statistics: Themes\ Environment and energy\Environment\Data\ Main_tables\Greenhouse gases
			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: Themes\EU Policy Indicators\Europe 2020\Data\Main_tables\Climate change and energy
	10.4	EU: Gross inland consumption of energy divided by GDP	Eurostat Statistics: Themes\ EU Policy Indicators\Europe 2020\Data\Main_tables\Climate change and energy
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
	10.9	EU: Municipal waste generated and treated	Eurostat Statistics: Search_database\Tables on EU Policy\Structural Indicators\Environment
Transport	10.10	Ireland: Private cars under current licence	Department of Transport, Irish Bulletin of Vehicle and Driver Statistics, Table 1.
			CSO, Annual population estimates
	10.11	EU: Passenger cars per 1,000 population aged 15 and over	Eurostat Statistics: Transport\Data\Database\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: Search_database\Tables on EU Policy\Structural Indicators\Environment
	10.13	EU: Share of road transport in total inland freight transport	Eurostat Statistics: Search_database\Tables on EU Policy\Structural Indicators\Environment
	10.14	Ireland and EU: Index of inland freight transport volume	Eurostat Statistics: Search_database\Tables on EU Policy\Structural Indicators\Environment
	10.15	EU: Index of inland freight transport volume	Eurostat Statistics: Search_database\Tables on EU Policy\Structural Indicators\Environment