

# EU Employment and Social Situation

## Quarterly Review

March 2013

*Special Supplement on Demographic Trends*

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## Table of Contents

<b>Introduction</b>	4
<b>Population change and age structure</b>	4
Over half a billion inhabitants in the EU on 1 January 2012 and still growing	4
Net migration as the main driver of population growth in the EU-27	5
Population increased in 19 EU Member States	6
Population ageing continues in the EU-27	7
<b>Fertility</b>	10
Just below 1.6 live births per woman in the EU-27	11
Mean age at childbirth and at first child are increasing	12
<b>Mortality</b>	13
Life expectancy is increasing	13
Falling infant mortality	16
<b>Migration and migrant population</b>	17
Immigration to the EU-27 at 1.7 million	17
Foreign population at 20.7 million and foreign-born population at 33.0 million in EU-27	19
Acquisition of citizenship down by 3.5% in 2011	21
<b>Marriages and divorces</b>	23
Fewer marriages, more divorces	23
A rise in births outside marriage	24
<b>Population development and employment growth</b>	26
Scenarios for the EU-27	26
Differences among Member States	28

## Introduction

This Eurostat<sup>1</sup> report presents an overview of recent demographic trends in the European Union<sup>2</sup> and in Croatia, based on data available at Eurostat.

Eurostat compiles, monitors and analyses a wide range of demographic data, including statistics on populations at national and regional level and on various demographic factors (births, deaths, marriages and divorces, immigration and emigration) influencing the size, structure and specific characteristics of these populations.

Population change and the structure of the population are gaining importance in the political, economic, social and cultural spheres. Demographic trends in population growth, fertility, mortality and migration are closely followed by policy-makers.

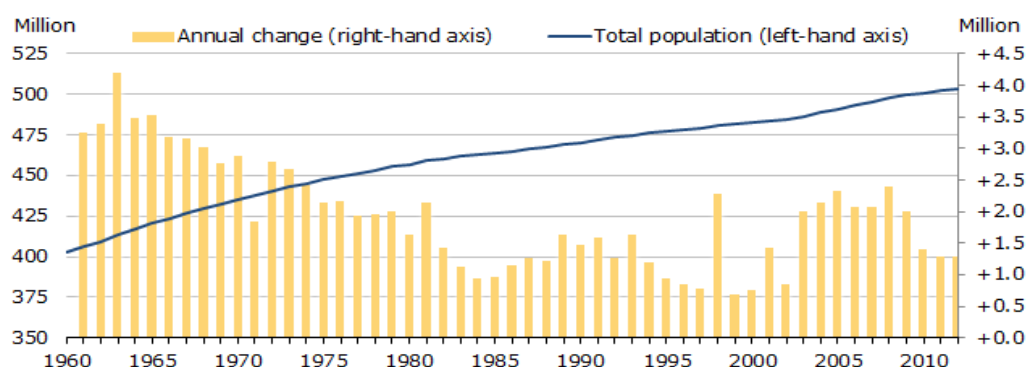
## Population change<sup>3</sup> and age structure

The current demographic situation in the EU-27 is characterised by continuing population growth. However, while the population of the EU-27 as a whole still increased in 2012, the population in eight EU-27 Member States declined.

### Over half a billion inhabitants in the EU on 1 January 2012 and still growing

On 1 January 2012<sup>4</sup> the population of the EU-27 was estimated at 503.7 million; this was 1.3 million people more than the year before, and continuing a pattern of uninterrupted EU-27 population growth since 1960. The number of inhabitants in the EU-27 grew from 402.6 million in 1960 by more than 100 million persons up to 2012. However, the rate of population growth has been gradually slowing down in recent decades. In the period 1992-2011, the EU-27 population increased on average by about 1.5 million persons per year compared to an annual average of around 3.3 million persons per year in the 1960s.

**Chart 1: Population on 1 January, EU-27, 1960-2012**



Source: Eurostat (online data code: demo\_gind)

Note: Excluding French overseas departments up to and including 1997. See also footnote 4.

<sup>1</sup> Eurostat is the statistical office of the European Union (<http://ec.europa.eu/eurostat>).

<sup>2</sup> The European Union refers to the 27 Member States at 1 January 2013 (EU-27). In view of Croatia's accession to European Union on 1 July 2013, the available data for Croatia are enclosed in the report, but not aggregated in the EU level.

<sup>3</sup> Population change or population growth in a given year is the difference between the population size on 1 January of the given year and on 1 January of the following year. It consists of two components: natural change (the difference between the number of live births and the number of deaths) and net migration (the difference between the number of immigrants and the number of emigrants). For the 'population change' statistics, Eurostat produces net migration figures by taking the difference between total population change and natural change; this concept is referred to in this chapter as 'net migration plus statistical adjustment'. The statistical adjustments corresponds to all changes in the population that cannot be classified as births, deaths, immigration or emigration, and may sometimes overcome the net migration.

<sup>4</sup> A population and housing census was conducted in all EU Member States and in the EU acceding and candidate countries in 2011. It is usual practice for countries to revise their annual population estimates once the results of the population and housing census are available. The following countries have already transmitted data to Eurostat based on the results of their 2011 censuses: Bulgaria, the Czech Republic, Ireland, Latvia, Lithuania, Malta, Poland, Portugal and Slovakia for the population on 1 January 2011 and 2012; Cyprus: 1 January 2010, 2011 and 2012; Luxembourg: 1 January 2012. Population estimates based on the results of the census may introduce breaks in series for the size and structure of populations, with an impact on the demographic indicators.



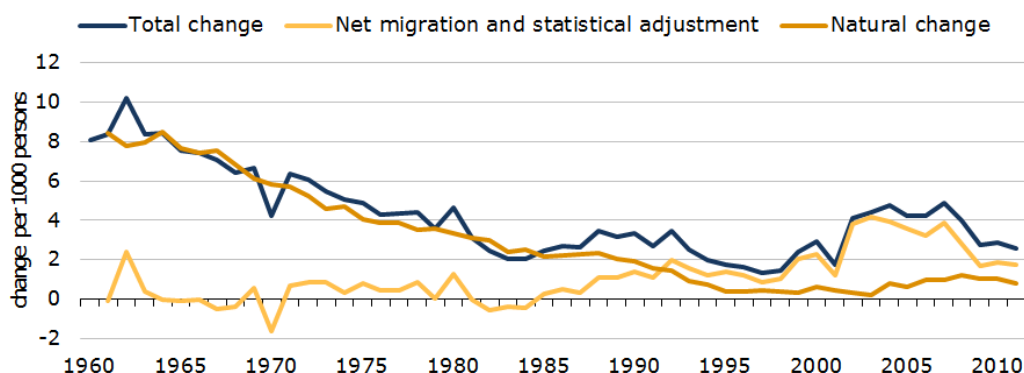
## Net migration as the main driver of population growth in the EU-27

In 2011, natural increase (the positive difference between live births and deaths) contributed 31% (0.4 million) to population growth in the EU-27. Some 69% of the growth thus came from net migration plus statistical adjustment, which continued to be the main determinant of population growth, accounting for 0.9 million in 2011.

Compared to 2010, both components of population growth, natural change and net migration, decreased in 2011. In terms of crude rates, the population growth of 2.9 per 1000 persons in 2010 was due to a natural increase of 1.0 and net migration of 1.9. In 2011, within the total population growth of 2.6 per 1000 persons, natural increase accounted for 0.8 and net migration for 1.8.

The contribution of net migration including statistical adjustment to total population growth has exceeded the share of natural increase since 1992 (see Chart 2), peaking in 2003 (95% of the total population growth). Since then, it has decreased somewhat. Conversely, the share of natural change in total population growth rose up to 2009 (38%), but has declined again in recent years (from 2010 onwards).

**Chart 2: Population change by component (annual crude rates), EU-27, 1960-2011**

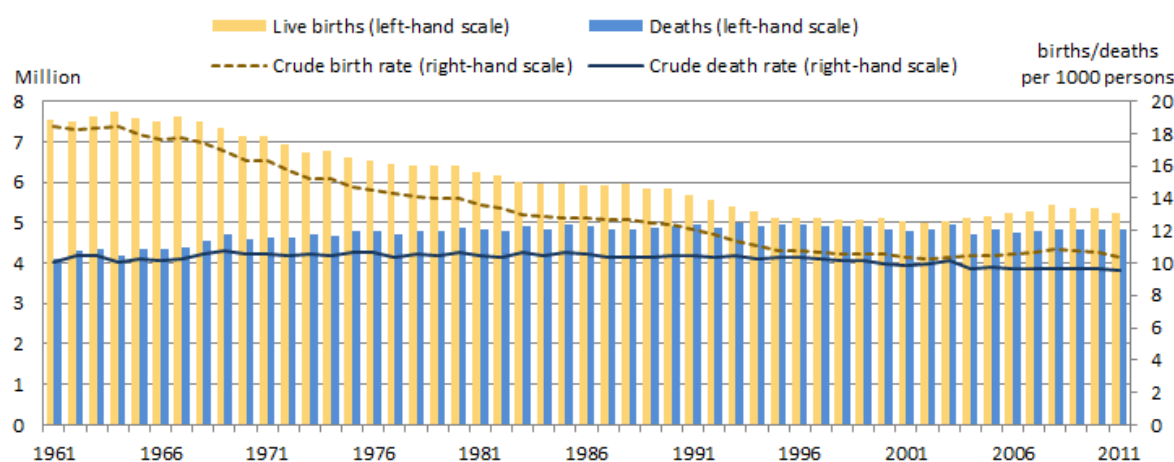


Source: Eurostat (online data code: demo\_gind)

Note: Excluding French overseas departments up to and including 1997. See also footnote 4.

The relatively low contribution of natural increase to total population growth is the result of two factors: firstly, net migration in the EU-27 has increased considerably since the mid-1980s; secondly, the number of births has fallen, while the number of deaths has increased. The gap between live births and deaths (see Chart 3) has considerably narrowed since 1960. Since the number of deaths is expected to increase as the baby-boom generation ages, and assuming that fertility remains at a relatively low level, a negative natural change (more deaths than births) cannot be excluded in the future. In this case, the extent of population decline or growth will thus depend on the contribution made by migration.

**Chart 3: Live births and deaths, EU-27, 1961-2011**



Source: Eurostat (online data code: demo\_gind)

Note: Excluding French overseas departments up to and including 1997.

## Population increased in 19 EU Member States

The number of inhabitants in individual EU Member States on 1 January 2012 ranged from 81.8 million in Germany to 0.4 million in Malta. Germany together with France, the United Kingdom and Italy comprised more than half (54 %) of the total EU-27 population on 1 January 2012.

Although the population of the EU-27 as a whole increased during 2011, population growth was unevenly distributed across the Member States. A total of 19 EU Member States saw an increase in their populations, while the number of inhabitants fell in eight Member States and in Croatia (see Table 1). Cyprus, Luxembourg, Belgium, United Kingdom, Sweden and France recorded the highest population growth rates in 2011 (more than 5 per 1000 persons), which was more than twice the EU-27 average of 2.6 per 1000 persons. The largest relative decreases in population were reported by Latvia (-16.0 per 1000 persons) and Lithuania (-14.8 per 1000 persons).

**Table 1: Demographic balance, 2011 (thousand persons)**

	Population, 1.1.2011	Live births	Deaths	Natural change	Net migration and statistical adjustment	Total change between 1.1.2011 and 1.1.2012	Population, 1.1.2012
<b>EU-27</b>	<b>502369.2</b>	<b>5229.8</b>	<b>4822.3</b>	<b>407.5</b>	<b>886.7</b>	<b>1294.2</b>	<b>503663.6</b>
BE	11000.6	128.7	106.0	22.7	71.5	94.2	11094.9
BG	7369.4	70.8	108.3	-37.4	-4.8	-42.2	7327.2
CZ	10486.7	108.7	106.8	1.8	16.9	18.7	10505.4
DK	5560.6	59.0	52.5	6.5	13.4	19.9	5580.5
DE	81751.6	662.7	852.3	-189.6	281.8	92.1	81843.7
EE	1340.2	14.7	15.2	-0.6	0.0	-0.5	1339.7
IE	4570.7	74.7	29.0	45.7	-33.6	12.0	4582.8
EL	11309.9	106.4	111.1	-4.7	-15.1	-19.8	11290.1
ES	46152.9	470.6	386.0	84.5	-41.2	43.4	46196.3
FR	64994.9	824.3	545.2	279.0	53.8	332.8	65327.7
IT	60626.4	546.6	593.4	-46.8	241.1	194.3	60820.7
CY	839.8	9.6	5.5	4.1	18.1	22.2	862.0
LV	2074.6	18.8	28.5	-9.7	-23.1	-32.8	2041.8
LT	3052.6	34.4	41.0	-6.7	-38.2	-44.8	3007.8
LU	511.8	5.6	3.8	1.8	11.0	12.8	524.9
HU	9985.7	88.0	128.8	-40.7	12.8	-28.0	9957.7
MT	415.8	4.3	3.3	1.0	0.7	1.7	417.5
NL	16655.8	180.1	135.7	44.3	30.2	74.5	16730.3
AT	8404.3	78.1	76.5	1.6	37.1	38.8	8443.0
PL	38529.9	388.4	375.5	12.9	-4.3	8.6	38538.4
PT	10572.2	96.9	102.8	-6.0	-24.3	-30.3	10541.8
RO	21413.8	196.2	251.4	-55.2	-2.8	-58.0	21355.8
SI	2050.2	21.9	18.7	3.2	2.1	5.3	2055.5
SK	5392.4	60.8	51.9	8.9	3.0	11.9	5404.3
FI	5375.3	60.0	50.6	9.4	16.6	26.0	5401.3
SE	9415.6	111.8	89.9	21.8	45.5	67.3	9482.9
UK	62515.4	807.8	552.2	255.5	218.6	474.2	62989.6
HR	4412.1	41.2	51.0	-9.8	-4.2	-14.0	4398.2

Source: Eurostat (online data code: demo\_gind)

Note: Estonia: the population estimates do not include information on net migration. See also footnote 4.

Analysing the two components of population change at national level, eight types of population change can be distinguished, by growth or decline and the relative weights of natural change and net migration — see Table 2 for the full typology. In 2011, the highest rates for natural increase were registered in Ireland (10.0 per 1000 persons), followed at some distance by Cyprus (4.8), France (4.3) and the United Kingdom (4.1), while the largest negative natural changes occurred in Bulgaria (-5.1 per 1000 persons), Latvia (-4.7) and Hungary (-4.1). In relative terms, Cyprus (21.3 per 1000 persons) and Luxembourg (21.2) had the largest positive net migration rates in 2011, while Lithuania (-12.6 per 1000 persons) and Latvia (-11.2) recorded the highest negative net migration rates.

**Table 2: Contribution of natural change and net migration (and statistical adjustment) to population change, 2011**

Demographic drivers	EU Member States and Croatia
<b>Growth due to:</b>	
Only natural change	Ireland, Spain, Poland
Mostly natural change	France, Malta, Netherlands, Slovenia, Slovakia, United Kingdom
Mostly net migration (and adjustment)	Belgium, Czech Republic, Denmark, Cyprus, Luxembourg, Austria, Finland, Sweden
Only net migration (and adjustment)	Germany, Italy
<b>Decline due to:</b>	
Only natural change	Estonia, Hungary
Mostly natural change	Bulgaria, Romania, Croatia
Mostly net migration (and adjustment)	Greece, Latvia, Lithuania, Portugal
Only net migration (and adjustment)	-

Source: Eurostat (online data code: demo\_gind)

Of the 19 EU Member States where the population increased in 2011, 14 saw both natural increase and net migration contributing to population growth. In Ireland, Spain and Poland, natural increase was the driver of population growth, while net migration was negative. Conversely, population growth was due solely to migration in Germany and Italy, while their natural change was negative.

**Table 3: Crude rates of population change, 2009-2011 (change per 1000 persons)**

	Total change			Natural change			Net migration and statistical adjustment		
	2009	2010	2011	2009	2010	2011	2009	2010	2011
<b>EU-27</b>	<b>2.8</b>	<b>2.9</b>	<b>2.6</b>	<b>1.1</b>	<b>1.0</b>	<b>0.8</b>	<b>1.7</b>	<b>1.9</b>	<b>1.8</b>
BE	8.0	10.2	8.5	2.1	2.3	2.1	5.9	7.9	6.5
BG	-5.6	-7.8	-5.7	-3.6	-4.6	-5.1	-2.1	-3.2	-0.7
CZ	3.7	2.5	1.8	1.0	1.0	0.2	2.7	1.5	1.6
DK	4.2	4.7	3.6	1.4	1.6	1.2	2.8	3.0	2.4
DE	-2.4	-0.6	1.1	-2.3	-2.2	-2.3	-0.1	1.6	3.4
EE	-0.2	0.0	-0.4	-0.2	0.0	-0.4	0.0	0.0	0.0
IE	4.0	2.9	2.6	10.6	10.4	10.0	-6.6	-7.5	-7.3
EL	4.0	0.4	-1.8	0.9	0.5	-0.4	3.1	-0.1	-1.3
ES	3.5	3.6	0.9	2.4	2.3	1.8	1.1	1.3	-0.9
FR	4.8	5.2	5.1	4.3	4.4	4.3	0.5	0.8	0.8
IT	4.9	4.7	3.2	-0.3	-0.3	-0.8	5.2	5.1	4.0
CY	7.8	24.8	26.2	5.5	5.7	4.8	2.3	19.2	21.3
LV	-5.7	-8.4	-16.0	-3.6	-4.8	-4.7	-2.1	-3.5	-11.2
LT	-6.2	-25.7	-14.8	-1.6	-2.0	-2.2	-4.6	-23.7	-12.6
LU	17.2	19.3	24.7	4.0	4.2	3.5	13.2	15.1	21.2
HU	-1.7	-2.9	-2.8	-3.4	-4.0	-4.1	1.7	1.2	1.3
MT	1.8	7.8	4.1	2.2	2.4	2.4	-0.4	5.4	1.7
NL	5.4	4.9	4.5	3.1	2.9	2.7	2.3	2.0	1.8
AT	2.4	3.5	4.6	-0.1	0.2	0.2	2.5	3.3	4.4
PL	0.8	0.9	0.2	0.9	0.9	0.3	0.0	-0.1	-0.1
PT	1.0	-0.1	-2.9	-0.5	-0.4	-0.6	1.4	0.4	-2.3
RO	-1.7	-2.3	-2.7	-1.6	-2.2	-2.6	-0.1	0.0	-0.1
SI	7.2	1.6	2.6	1.5	1.8	1.6	5.6	-0.3	1.0
SK	2.3	1.9	2.2	1.5	1.3	1.7	0.8	0.6	0.5
FI	4.7	4.4	4.8	2.0	1.9	1.7	2.7	2.6	3.1
SE	9.1	8.0	7.1	2.3	2.7	2.3	6.7	5.3	4.8
UK	7.0	7.8	7.6	3.7	3.9	4.1	3.3	3.9	3.5
HR	-2.1	-3.1	-3.2	-1.8	-2.0	-2.2	-0.3	-1.1	-0.9

Source: Eurostat (online data code: demo\_gind)

Note: Estonia: the population estimates do not include information on net migration. See also footnote 4.

Eight EU Member States and Croatia reported a negative total population change in 2011. In most cases, this was mainly due to negative net migration (Greece, Latvia, Lithuania and Portugal) supplemented by negative natural change. Conversely, the population decrease was mostly driven by negative natural change in Bulgaria, Romania and Croatia supplemented by negative net migration. In Estonia and Hungary the population decline was due solely to negative natural change, which offset positive net migration.

### **Population ageing continues in the EU-27**

The age structure of the population in the EU-27 is becoming older, due to increasing life expectancy and consistently low levels of fertility over the past decades. Population ageing is a general process across the EU Member States and is expected to continue in the coming decades.

#### **Population age structure on 1 January 2012**

Table 4 shows the distribution of population by major age groups in the EU-27. On 1 January 2012, the young population (0-14 years old) accounted for 15.6%, the population aged 15-64 (considered to be the working age population for the purpose of this publication) for 66.6% and the population aged 65 and above for 17.8%.

Across the Member States, the young population (0-14 years old) was largest in Ireland (21.6%) and smallest in Germany (13.2%). The reverse was observed for older persons in the total population, where Germany and Italy recorded the highest proportion (both 20.6%) and Ireland had the lowest share (11.9%).

The median age of the EU-27 population on 1 January 2012 was 41.5 years. This means that half of the EU-27 population today is 41.5 years old or more, while half is younger. The median age of the population in the Member States ranges from 35.0 years in Ireland to 45.0 years in Germany (see Table 5), confirming the relatively young and relatively old population structures in these two countries.

Age dependency ratios are used as indicators of the potential support needed by young people (aged 0-14 years) and/or older people (aged 65 years or over) from the working-age population. The ratios are expressed in terms of the relative size of the young and/or older population compared with the working-age population.

**Table 4: Population age structure by major age groups, 1 January 2012**

	0-14 years old		15-64 years old		65 years old or over		80 years old or over	
	thousand persons	%	thousand persons	%	thousand persons	%	thousand persons	%
<b>EU-27</b>	<b>78535.3</b>	<b>15.6</b>	<b>335371.0</b>	<b>66.6</b>	<b>89757.2</b>	<b>17.8</b>	<b>24887.5</b>	<b>4.9</b>
BE	1885.9	17.0	7284.0	65.7	1924.9	17.3	572.6	5.2
BG	980.0	13.4	4966.2	67.8	1381.1	18.8	303.4	4.1
CZ	1541.2	14.7	7262.8	69.1	1701.4	16.2	396.4	3.8
DK	986.5	17.7	3626.0	65.0	968.1	17.3	230.4	4.1
DE	10832.1	13.2	54131.1	66.1	16880.6	20.6	4401.2	5.4
EE	207.7	15.5	901.7	67.3	230.3	17.2	59.8	4.5
IE	990.3	21.6	3047.6	66.5	544.9	11.9	130.6	2.9
EL	1622.7	14.4	7444.3	65.9	2223.0	19.7	592.4	5.2
ES	7026.6	15.2	31140.0	67.4	8029.7	17.4	2409.4	5.2
FR	12139.0	18.6	42005.9	64.3	11182.8	17.1	3597.3	5.5
IT	8528.2	14.0	39736.4	65.3	12556.0	20.6	3719.7	6.1
CY	142.2	16.5	609.3	70.7	110.4	12.8	24.8	2.9
LV	292.2	14.3	1370.1	67.1	379.5	18.6	91.8	4.5
LT	448.2	14.9	2016.2	67.0	543.3	18.1	137.9	4.6
LU	90.0	17.1	361.6	68.9	73.3	14.0	20.5	3.9
HU	1441.8	14.5	6835.4	68.6	1680.5	16.9	413.8	4.2
MT	61.6	14.7	287.2	68.8	68.7	16.5	15.1	3.6
NL	2896.7	17.3	11117.3	66.5	2716.4	16.2	686.0	4.1
AT	1224.4	14.5	5719.8	67.7	1498.9	17.8	417.6	4.9
PL	5819.0	15.1	27394.5	71.1	5325.0	13.8	1390.3	3.6
PT	1560.0	14.8	6933.0	65.8	2048.8	19.4	554.8	5.3
RO	3211.4	15.0	14938.5	70.0	3205.9	15.0	713.7	3.3
SI	294.1	14.3	1416.3	68.9	345.0	16.8	89.1	4.3
SK	832.6	15.4	3881.1	71.8	690.7	12.8	157.1	2.9
FI	889.0	16.5	3532.6	65.4	979.6	18.1	263.2	4.9
SE	1584.3	16.7	6113.9	64.5	1784.7	18.8	498.2	5.3
UK	11007.8	17.5	41298.0	65.6	10683.7	17.0	3000.6	4.8
HR	654.3	14.9	2965.7	67.7	758.9	17.3	172.0	3.9

Source: Eurostat (online data code: demo\_pjan)

Note: EU-27 excludes French overseas departments in 1992. The population of unknown age is redistributed for calculating the proportion of the age groups. See also footnote 4.

In 2012, the old-age dependency ratio (population aged 65 or over in relation to the population aged 15-64) in the EU-27 was 26.8%. This means that the EU had almost 4 persons of working age for every person aged 65 years or over. The old-age dependency ratio in the Member States ranged from 17.8% in Slovakia to 31.6% in Italy.

Further, the total age dependency ratio (calculated as the ratio of children aged 14 and below and older persons aged 65 and above to the population aged 15-64) was 50.2% in the EU-27, equivalent to about two working-age people for each dependent person. In 2012, the lowest total age dependency ratio was in Slovakia (39.2%) and the highest in France (55.5%).

The population pyramids presented in Chart 5 show the structure of the population by sex and by five-year age groups. Each bar corresponds to the share of the given sex and age group in the total population (men and women combined).

The EU-27 population pyramid in 2012 is narrow at the bottom and is becoming more like a rhomboid due to the baby boomer cohorts resulting from the high fertility rates in several European countries in the mid-1960s (known as the 'baby boom'). The baby boomers continue to represent a major part of the working-age population. The first of these large cohorts born over a period of 20-30 years are now reaching retirement age, as illustrated by the comparison with the 1992 population pyramid. The baby boom bulge is moving up the population pyramid, leaving the middle (working-age population, aged 15-64) and the base (aged 0-14) narrower.

#### *Past and current population ageing trends in the EU-27*

Population ageing is a long-term trend that began several decades ago in the EU-27. It is visible in the development of the age structure of the EU population and is reflected by an increasing share of older persons coupled with a declining share of working-age persons in the total population. To illustrate this trend, the evolution of the population structure between 1992 and 2012 is analysed below.

Between 1992 and 2012, the proportion of working-age population (15-64 years) in the EU-27 increased by 0.5 percentage points, while the proportion of older population (aged 65 and above) increased by 3.7 percentage points (see Chart 4). This increase came at the expense of a decrease of 3.5 percentage points in the proportion of younger people (0-14 years).



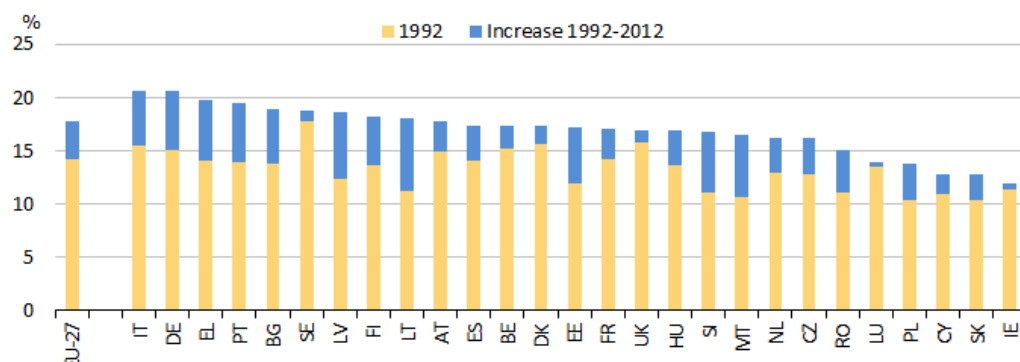
**Table 5: Population age structure indicators, 1992 and 2012**

	Median age (year)		Young age dependency ratio (%)		Old age dependency ratio (%)		Total age dependency ratio (%)	
	1992	2012	1992	2012	1992	2012	1992	2012
<b>EU-27</b>	<b>35.7</b>	<b>41.5</b>	<b>28.5</b>	<b>23.4</b>	<b>21.1</b>	<b>26.8</b>	<b>49.6</b>	<b>50.2</b>
BE	36.6	41.0	27.3	25.9	22.9	26.4	50.1	52.3
BG	37.1	42.7	29.4	19.7	20.8	27.8	50.2	47.5
CZ	35.6	40.1	30.8	21.2	19.1	23.4	50.0	44.6
DK	37.3	40.8	25.1	27.2	23.1	26.7	48.2	53.9
DE	37.7	45.0	23.8	20.0	21.8	31.2	45.6	51.2
EE	34.8	40.0	33.3	23.0	18.2	25.5	51.5	48.6
IE	29.7	35.0	42.2	22.5	18.3	17.9	60.6	50.4
EL	36.3	42.6	28.0	21.8	21.0	29.9	49.0	51.7
ES	34.2	40.7	28.0	22.6	21.0	25.8	49.0	48.4
FR	35.0	40.2	30.8	28.9	21.6	26.6	52.5	55.5
IT	37.6	43.8	22.3	21.5	22.4	31.6	44.7	53.1
CY	31.2	35.8	40.4	23.3	17.3	18.1	57.7	41.5
LV	35.0	41.8	32.5	21.3	18.6	27.7	51.1	49.0
LT	32.9	41.6	33.9	22.2	17.0	26.9	50.9	49.2
LU	36.5	39.1	25.7	24.9	19.7	20.3	45.4	45.1
HU	36.8	40.3	29.1	21.1	20.4	24.6	49.5	45.7
MT	33.5	40.4	34.7	21.4	16.0	23.9	50.8	45.4
NL	34.9	41.3	26.6	26.1	18.8	24.4	45.4	50.5
AT	35.6	42.4	26.1	21.4	22.1	26.2	48.3	47.6
PL	32.8	38.4	37.7	21.2	15.9	19.4	53.6	40.7
PT	34.8	42.3	29.0	22.5	20.9	29.6	49.9	52.1
RO	33.4	39.0	34.3	21.5	16.6	21.5	50.9	43.0
SI	34.8	42.0	29.1	20.8	16.1	24.4	45.2	45.1
SK	31.6	37.7	37.8	21.5	16.0	17.8	53.8	39.2
FI	36.9	42.2	28.6	25.2	20.3	27.7	48.8	52.9
SE	38.4	40.8	28.5	25.9	27.7	29.2	56.2	55.1
UK	35.9	39.8	29.7	26.7	24.3	25.9	54.0	52.5
HR	:	41.7	:	22.1	:	25.6	:	47.7

Source: Eurostat (online data code: demo\_pjanind)

Note: EU-27 excludes French overseas departments in 1992. See also footnote 4.

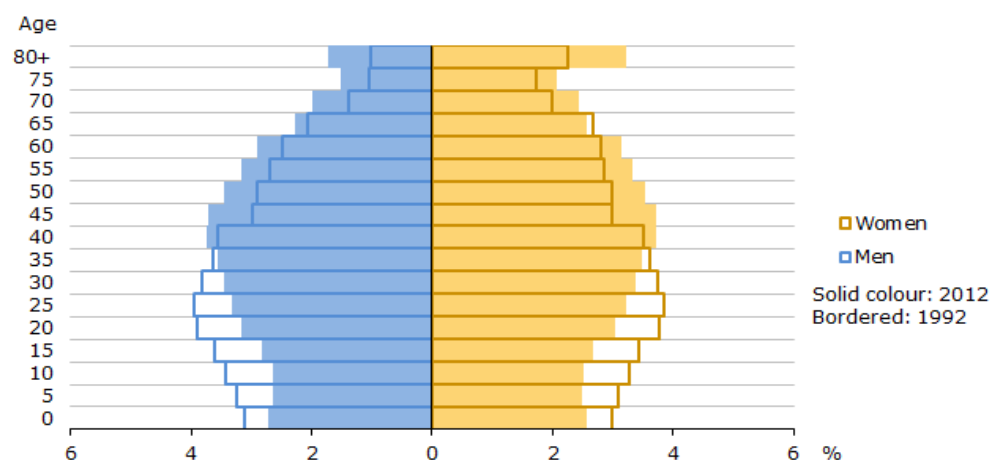
**Chart 4: Population aged 65 years or over (% of the total population)**



Source: Eurostat (online data code: demo\_pjanind)

Note: EU27 excludes French overseas departments in 1992. See also footnote 4.

**Chart 5: Population pyramids, EU-27, 1992 and 2012 (% of the total population)**



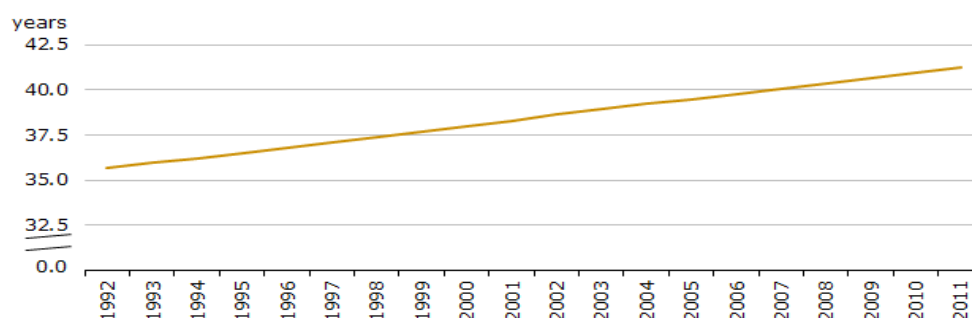
Source: Eurostat (online data code: demo\_pjan)

Note: EU-27 excludes French overseas departments in 1992. See also footnote 4.

Since the proportion of older people increased between 1992 and 2012, the top of the 2012 age pyramid is larger. This relative growth is due primarily to the gains in longevity and is known as 'ageing at the top' of the population pyramid, as a consequence of the significant increase in life expectancy at birth recorded in all EU-27 Member States over the past decades.

The consistently low levels of fertility over the decades have contributed to population ageing, with fewer births leading to a decline in the proportion of young people in the total population. This process is known as 'ageing at the bottom' of the population pyramid, and can be observed in the narrowing base of the population pyramids between 1992 and 2012 (see Chart 5).

**Chart 6: Median age of population, EU-27, 1992-2012**

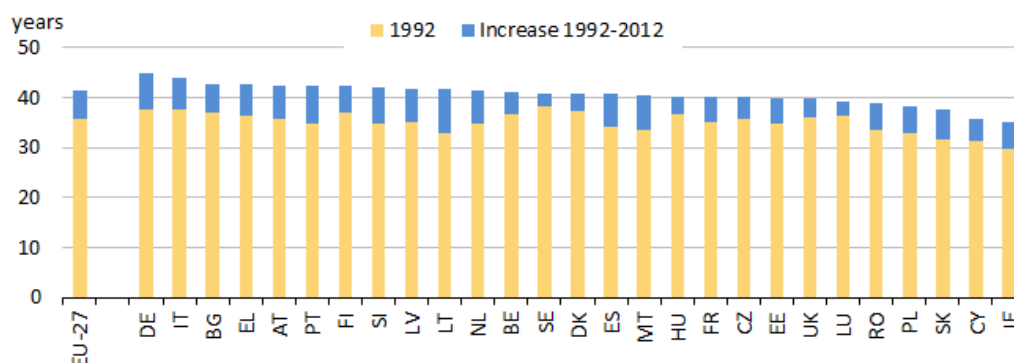


Source: Eurostat (online data code: demo\_pjanind)

Note: EU27 excludes French overseas departments in 1992. See also footnote 4.

The development in the median age of the EU-27 population also provides an illustration of population ageing. In the EU-27, the median age of the total population rose continuously from 35.7 years in 1992 to 41.5 in 2012, as shown in Chart 6. It increased in all Member States over that period (Chart 7).

**Chart 7: Median age of population**



Source: Eurostat (online data code: demo\_pjanind)

Note: EU27 excludes French overseas departments in 1992. See also footnote 4.

## Fertility

Fertility steadily declined from the mid-1960s to the turn of the century in the EU countries. At the beginning of the last decade, however, the total fertility rate in the EU-27 has shown some signs of rising again.

In 2011, 5.2 million children were born in the EU-27, corresponding to a crude birth rate (the number of live births per 1000 persons) of 10.4. The highest annual total for the EU-27 was recorded in 1964 with 7.7 million live births. From the 1960s up to the beginning of the 21st century, the number of live births in the EU-27 declined sharply from 7.5 million to a low of 5.0 million in 2002 (see Chart 3). This was followed by a modest rebound in the number of live births, with 5.4 million children born in the EU-27 in 2008, in turn followed by further annual reductions during the period 2009-2011.

## Just below 1.6 live births per woman in the EU-27

In recent decades Europeans have generally been having fewer children, which partly explains the slowdown in the EU-27's population growth. The main indicator of fertility is the Total Fertility Rate (TFR): this is the mean number of children that would be born alive to a woman during her lifetime if she were to conform to the age-specific fertility rates for a given year throughout her childbearing years. A total fertility rate of around 2.1 live births per woman is considered to be the replacement level: in other words, the average number of live births per woman required to keep the population size constant in the absence of inward or outward migration. A TFR below 1.3 live births per woman is described as 'lowest-low fertility'. TFR is used as an indicator for the fertility level and is comparable across countries since it takes into account changes in the size and structure of the population.

**Table 6: Total fertility rates and mean age of women at childbirth, EU-27, 2002-2011**

	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011
<b>Total fertility rate</b>	1.46	1.47	1.50	1.51	1.54	1.56	1.60	1.59	1.60	1.57
<b>Mean age of women at childbirth</b>	29.2	29.3	29.4	29.5	29.6	29.7	29.7	29.8	30.0	30.0

Source: Eurostat (online data code: demo\_find)

Note: See footnote 4.

The total fertility rate in the EU-27 has declined to well below the replacement level in recent decades. As shown in Table 6, the total fertility rate was 1.46 live births per woman in the EU-27 in 2002, the first year in which information is available for all 27 Member States. A slight recovery was subsequently observed in most EU Member States, with the EU-27 average increasing to 1.60 live births per woman up to 2010, but then decreasing to 1.57 in 2011.

Table 7 shows the TFR in the EU countries and Croatia for selected years. The indicator declined steeply between 1980 and 2000-2002 in many countries to far below the replacement level: in 2000 values had fallen below 1.3 in Bulgaria, the Czech Republic, Greece, Spain, Italy, Slovenia and Slovakia. After bottoming out between 2000 and 2002, the TFR has increased again in most Member States in the nine years to 2011, with all EU countries seeing rates above 1.3 with the exception of Hungary, Poland and Romania.

**Table 7: Total fertility rates, selected years**

	1960	1970	1980	1990	2000	2002	2006	2009	2010	2011
<b>EU-27</b>	:	:	:	:	:	1.46	1.54	1.59	1.60	1.57
<b>BE</b>	2.54	2.25	1.68	1.62	1.67	1.65	1.80	1.84	1.86	1.81
<b>BG</b>	2.31	2.17	2.05	1.82	1.26	1.21	1.38	1.57	1.49	1.51
<b>CZ</b>	2.09	1.92	2.08	1.90	1.14	1.17	1.33	1.49	1.49	1.43
<b>DK</b>	2.57	1.95	1.55	1.67	1.77	1.72	1.85	1.84	1.87	1.75
<b>DE</b>	:	:	:	:	1.38	1.34	1.33	1.36	1.39	1.36
<b>EE</b>	:	:	:	2.05	1.38	1.37	1.55	1.62	1.63	1.52
<b>IE</b>	3.78	3.85	3.21	2.11	1.89	1.97	1.92	2.10	2.07	2.05
<b>EL</b>	2.23	2.40	2.23	1.40	1.26	1.27	1.40	1.52	1.51	1.42
<b>ES</b>	:	:	2.20	1.36	1.23	1.26	1.37	1.39	1.38	1.36
<b>FR</b>	2.73	2.47	1.95	1.78	1.89	1.88	2.00	2.00	2.03	2.01
<b>IT</b>	2.37	2.38	1.64	1.33	1.26	1.27	1.35	1.41	1.41	1.40
<b>CY</b>	:	:	:	2.41	1.64	1.49	1.45	1.51	1.44	1.35
<b>LV</b>	:	:	:	:	:	1.23	1.35	1.31	1.17	1.34
<b>LT</b>	:	2.40	1.99	2.03	1.39	1.24	1.31	1.55	1.55	1.76
<b>LU</b>	2.29	1.97	1.50	1.60	1.76	1.63	1.65	1.59	1.63	1.52
<b>HU</b>	2.02	1.98	1.91	1.87	1.32	1.30	1.34	1.32	1.25	1.23
<b>MT</b>	:	:	1.99	2.04	1.70	1.45	1.39	1.43	1.38	1.49
<b>NL</b>	3.12	2.57	1.60	1.62	1.72	1.73	1.72	1.79	1.79	1.76
<b>AT</b>	2.69	2.29	1.65	1.46	1.36	1.39	1.41	1.39	1.44	1.42
<b>PL</b>	:	:	:	2.06	1.37	1.25	1.27	1.40	1.38	1.30
<b>PT</b>	3.16	3.01	2.25	1.56	1.55	1.47	1.36	1.32	1.36	1.35
<b>RO</b>	:	:	2.43	1.83	1.31	1.25	1.32	1.38	1.33	1.25
<b>SI</b>	:	:	:	1.46	1.26	1.21	1.31	1.53	1.57	1.56
<b>SK</b>	3.04	2.41	2.32	2.09	1.30	1.19	1.24	1.41	1.40	1.45
<b>FI</b>	2.72	1.83	1.63	1.78	1.73	1.72	1.84	1.86	1.87	1.83
<b>SE</b>	:	1.92	1.68	2.13	1.54	1.65	1.85	1.94	1.98	1.90
<b>UK</b>	:	:	1.90	1.83	1.64	1.64	1.84	1.94	1.98	1.96
<b>HR</b>	:	:	:	:	:	1.34	1.38	1.49	1.46	1.40

Source: Eurostat (online data code: demo\_find)

Note: See footnote 4.

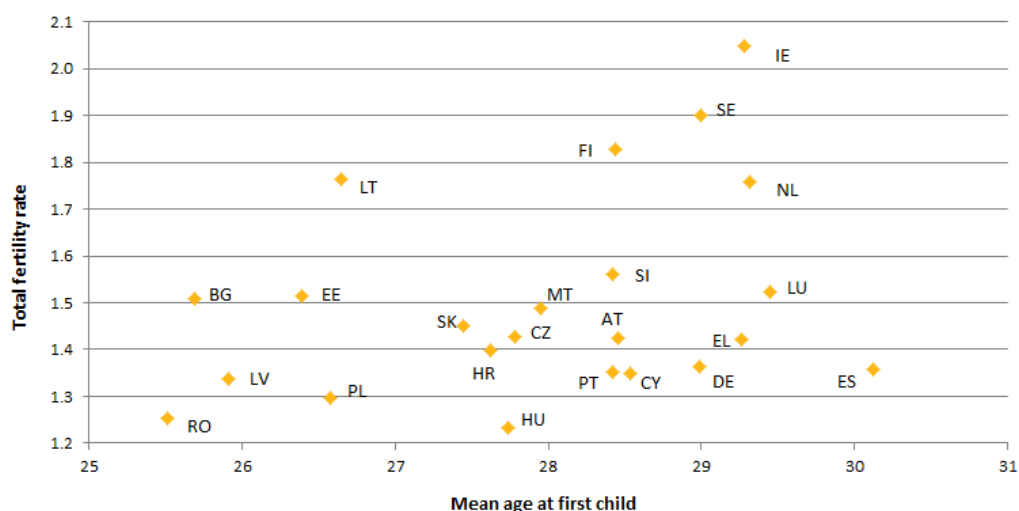
In the past 50 years, total fertility rates in the Member States have in general been converging: in 1960 and in 1980, the disparity between the highest (Ireland) and the lowest (Hungary in

1960, Luxembourg in 1980) was 1.7 while in 1970 it was around 2.0. By 1990 this difference had decreased to 1.1 (between Cyprus and Italy). Since 2000 it has fallen to around 0.8, Ireland and Hungary representing the two extremes in 2011. Ireland and France continued to report the highest fertility rates for the most recent period available (2011), with just over 2.0 live births per woman. In contrast, the lowest fertility rates in 2011 were recorded in Hungary (1.2 live births per woman) and in Poland and Romania (1.3 live births per woman). Among the countries for which 1990 data are available, nine Member States (Belgium, Denmark, Greece, France, Italy, the Netherlands, Slovenia, Finland and United Kingdom), had a 2011 TFR equal to or higher than their 1990 TFR. On the other hand, the TFR fell by more than 30% between 1990 and 2011 in Cyprus, Hungary, Poland, Romania and Slovakia. In absolute terms, the decline in the total fertility rate was largest in Cyprus, from 2.41 in 1990 to 1.35 in 2011.

### **Mean age at childbirth and at first child are increasing**

Another reason that partly explains the downward trend in fertility rates within the EU is the decision of many parents to delay starting a family. While only a relatively short time series is available for the EU-27 as a whole, Table 6 shows that the mean age of women at childbirth continued to rise between 2002 and 2011, when it stood at 30.0 years. On the other hand, the slight increase in the total fertility rate observed in recent years may, in part, be attributed to a catching-up process following this postponing of the decision to have children. When women give birth later in life, the total fertility rate tends to decrease at first, before subsequently recovering. A more precise indicator for the postponement of births is the mean age of mothers at the birth of the first child. This indicator is not available for all Member States, so it is not available for the EU-27.

**Chart 8: Mean age of women at first child and total fertility rate, 2011**



Source: Eurostat (online data code: demo\_find)

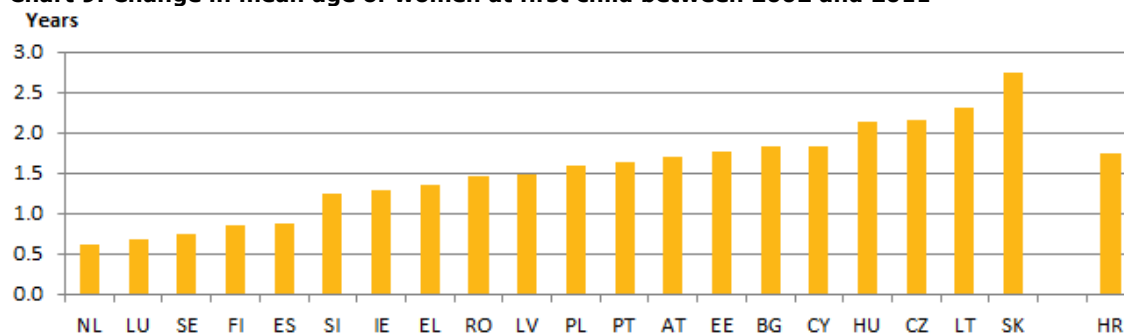
Note: EU-27, BE, DK, FR, IT and UK mean age at first child is not available. See also footnote 4.

Chart 8 shows that many of the countries with the highest total fertility rate also show high mean age for women at the birth of the first child. Four different groups of countries can be broadly identified based on their average value of the TFR (roughly equal to 1.6) and on their average value of the mean age at first child (roughly equal to 28): one group is composed of Ireland, the Netherlands, Finland and Sweden, where both the TFR and the mean age at first child are above that average. In the opposite quadrant are most of the countries that joined the EU after 2004, plus Croatia: in these countries both the TFR and the mean age of mothers at first child are below the average values. The third group of countries have mothers with a higher age at first childbirth and a lower TFR compared to the average: this is the case in Germany, Greece, Spain, Cyprus, Luxembourg, Austria, Portugal and Slovenia. The fourth and last group contains just Lithuania, where the TFR is higher than the average but mothers are younger at first child.

Chart 9 illustrates the increase in the mean age at first child between 2002 and 2011 for the countries where the information is available for both years. The increase was higher than 2 years in the Czech Republic, Lithuania, Hungary and Slovakia, but around 0.5 years in Luxembourg and in the Netherlands.



**Chart 9: Change in mean age of women at first child between 2002 and 2011**



Source: Eurostat (online data code: demo\_find)

Note: See footnote 4.

## Mortality

Over past years, the annual number of deaths in the EU-27 has remained fairly stable at around 4.9 million. In 2011, some 4.8 million persons died in the EU-27 — this was broadly in line with the annual number of deaths recorded over the previous four decades. A peak was reached in 1993 and in 1995, with about 5 million deaths. The crude death rate, which is the number of deaths per 1000 persons, was 9.6 in the EU-27 in 2011 (see Chart 3).

The most commonly used indicator for analysing mortality is life expectancy at birth: this is the mean number of years that a person can expect to live at birth if subjected to current mortality conditions throughout the rest of his or her life. It is a simple but very powerful way of illustrating the trend in mortality. The total number of deaths depends on the size of the cohorts reaching the end of their life cycle and on mortality rates. Economic development and the improvement in environmental conditions, improved lifestyles, advances in healthcare and medicine, including reduced infant mortality, have resulted in a continuous and rapid increase in life expectancy at birth across Europe during the last century. This process has been going on for longer in Europe than in most other countries of the world, making the EU-27 a world leader for life expectancy. Over the past 50 years life expectancy at birth has increased by about 10 years for both men and women in the EU-27. Further gains will be achieved mostly from the reduction in mortality at older ages. Besides the reduction in fertility, the gradual reduction in mortality is the main factor contributing to the ageing of the population in the EU-27. While life expectancy is rising in all Members States major differences still exist between and within countries (for example, by sex).

## Life expectancy is increasing

Life expectancy in the EU-27 is generally higher than in most other regions of the world. Life expectancy at birth in the EU-27 was estimated at 80.4 years in 2011 — 83.2 years for women and 77.4 years for men. This indicator is only available from 2002 to 2011 for the EU-27 as a whole, but even this relatively short period of 10 years saw an increase in life expectancy of 2.3 years for women and 2.9 years for men (see Table 8).

**Table 8: Life expectancy at birth, EU-27, 2002-2011**

	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011
<b>Men</b>	74.5	74.6	75.2	75.4	75.8	76.1	76.4	76.7	77.0	77.4
<b>Women</b>	80.9	80.8	81.5	81.6	82.0	82.2	82.4	82.6	82.9	83.2
<b>Total</b>	77.7	77.8	78.4	78.5	79.0	79.2	79.4	79.7	80.0	80.4

Source: Eurostat (online data code: demo\_mlexpec)

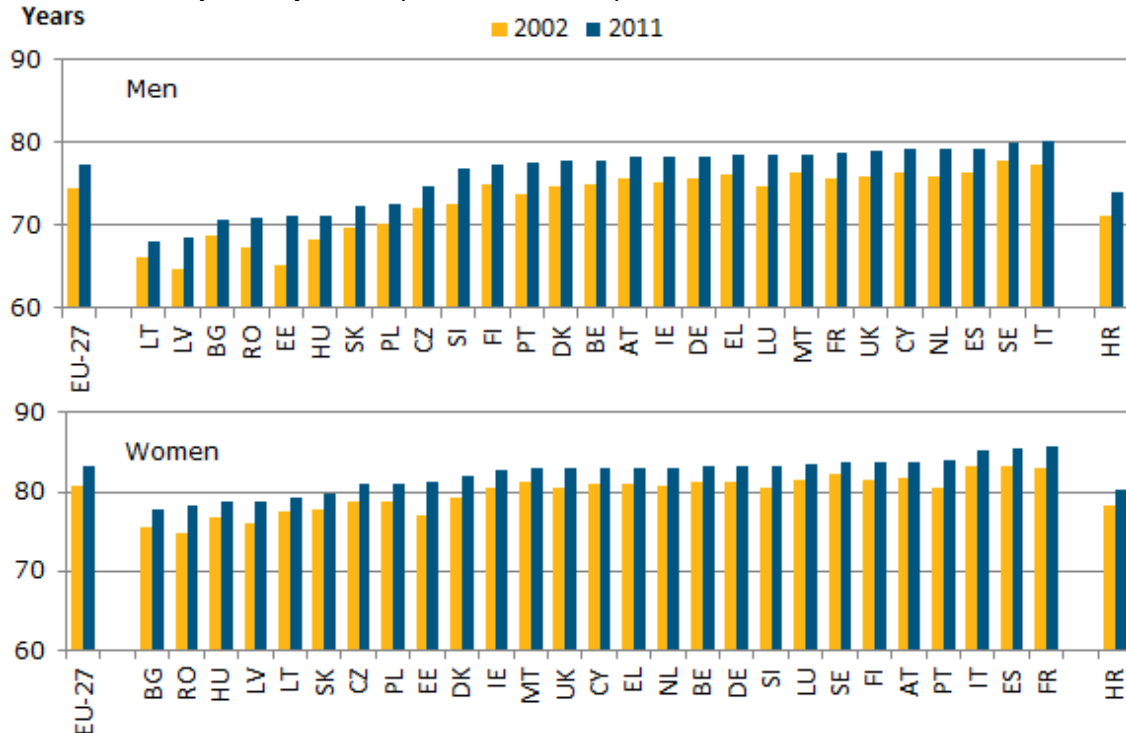
Note: 2011 estimated. See also footnote 4.

Significant differences in life expectancy at birth are nevertheless observed between the EU Member States, as shown in Chart 10.

For men the lowest life expectancy in 2011 was recorded in Lithuania (68.1 years) and the highest in Italy (80.1 years). For women, the range was narrower, from a low of 77.8 years in Bulgaria to a high of 85.7 years in France. To compare, in 2002, the lowest and highest life expectancies were recorded in Latvia (64.7 years) and Sweden (77.7) for men, and in Romania (74.7 years) and Spain (83.3) for women. In the 10 years between 2002 and 2011, the rise in

life expectancy at birth for men in the EU Member States ranged from a minimum of 1.9 years (in Bulgaria and Lithuania) to a maximum of 6.0 years (in Estonia). For women, the increase ranged from 1.6 years (in Sweden) to 4.3 years (in Estonia). In 2002, the differences between the highest and lowest life expectancies among EU Member States amounted to 13.1 years for men and 8.6 for women. In 2011, the differences were 12.0 years for men and 7.9 years for women. Thus, while life expectancy has been increasing in all countries, it has increased slightly more in some of the countries where it was lower. However, this catching-up has been slow in two of the low-life-expectancy countries, Bulgaria and Romania.

**Chart 10: Life expectancy at birth, men and women, 2002 and 2011**

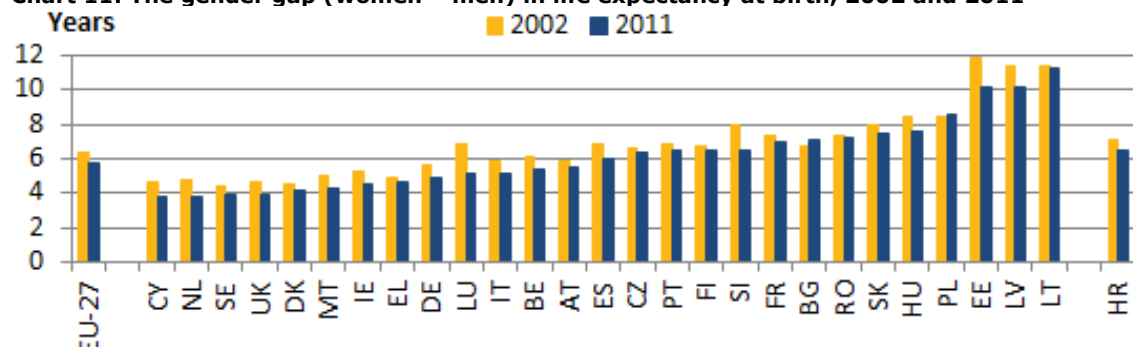


Source: Eurostat (online data code: demo\_mlexpec)

Note: EU-27, BE and IT: 2011 estimated. See also footnote 4.

In 2011, the gender gap at birth was 5.8 years of life expectancy (see Chart 11), with women live longer than men in all EU countries. However, the gap varied substantially between EU Member States. In 2011, the largest difference between the sexes was found in Lithuania (11.2 years) and the smallest in Cyprus and the Netherlands (both 3.8 years). In the Baltic States, women can expect to live more than 10 years longer than men. Conversely, the gender gap is less than 5 years in nine Member States. In the 10 years up to 2011, the gender gap decreased, with the exception of Bulgaria, where it increased by 0.3 years, and Poland, where it remained constant. The reduction in the gender gap at birth was largest in absolute terms in Luxembourg (from 6.9 years in 2002 to 5.1 years in 2011) and Estonia (from 11.8 years in 2002 to 10.1 years in 2011). In the EU-27, the gender gap at birth decreased from 6.4 years in 2002 to 5.8 in 2011.

**Chart 11: The gender gap (women – men) in life expectancy at birth, 2002 and 2011**



Source: Eurostat (online data code: demo\_mlexpec)

Note: EU-27, BE and IT: 2011 estimated. See also footnote 4.

As people live longer, interest has shifted to the older generations. Table 9 shows life expectancy at age 65 by sex for the EU-27 from 2002 to 2011: these are the only years for which information is available for all 27 Member States. As can be seen, the increase in life expectancy for men and women at age 65 was 1.9 and 2.0 years respectively. The gender gap at age 65 decreased slightly to 3.5 years in 2011, down from 3.6 years in 2002.

**Table 9: Life expectancy at age 65, EU-27, 2002-2011**

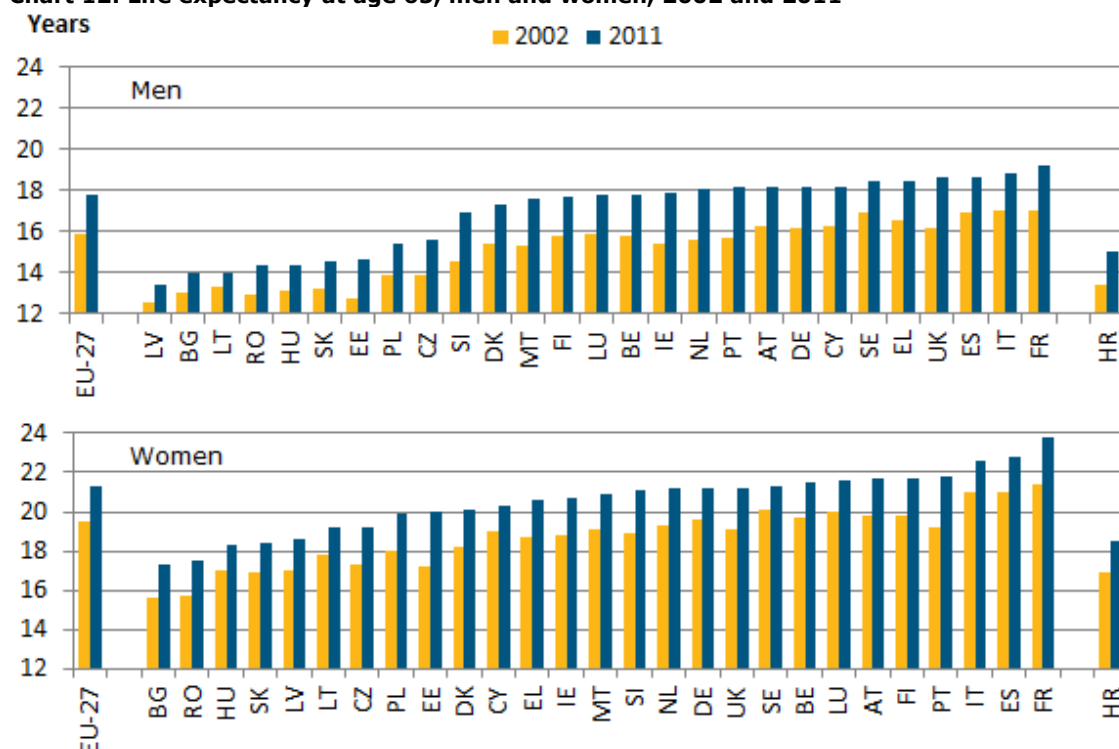
	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011
<b>Men</b>	15.9	15.9	16.4	16.5	16.8	17.0	17.2	17.3	17.5	17.8
<b>Women</b>	19.5	19.4	20.0	20.0	20.4	20.5	20.7	20.9	21.0	21.3
<b>Total</b>	17.9	17.8	18.4	18.4	18.8	18.9	19.1	19.3	19.4	19.7

Source: Eurostat (online data code: demo\_mlexpec)

Note: 2011 estimated. See also footnote 4.

Chart 12 shows life expectancy at age 65 by country and by sex. In 2011, upon reaching the age of 65, the average man could expect to live additional 13.4 (in Latvia) to 19.3 years (in France). The life expectancy of women at age 65 was higher, ranging in 2011 from 17.3 years in Bulgaria to 23.8 years in France.

**Chart 12: Life expectancy at age 65, men and women, 2002 and 2011**

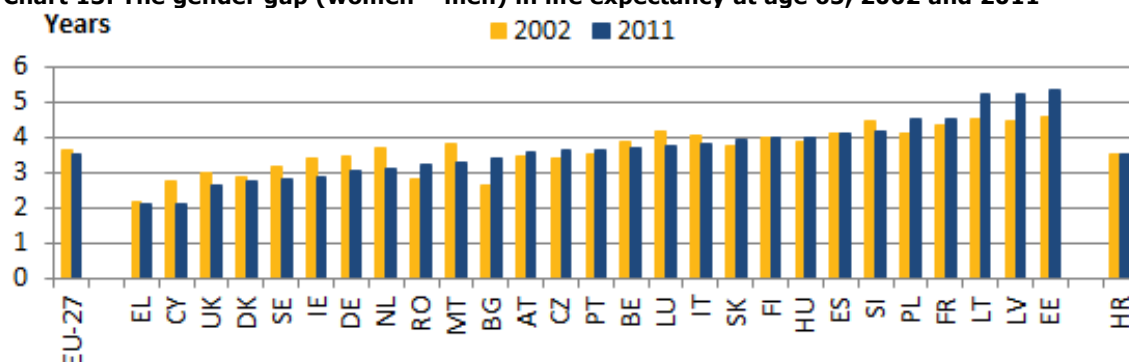


Source: Eurostat (online data code: demo\_mlexpec)

Note: EU-27, BE and IT: 2011 estimated. See also footnote 4.

Chart 13 shows the changes in the gender gap in life expectancy at age 65 between 2002 and 2011 by country: due to the faster increase in life expectancy for women at older ages, the gender gaps at age 65 increased in more than half the countries over that period. The largest increase was in Estonia and Latvia: +0.8 years between 2002 and 2011. The gender gap decreased in the other Member States, by more than half a year in Ireland, Cyprus, Malta and the Netherlands. In 2011 the largest gender gaps were in the Baltic States, where women could expect to live more than 5 years longer than men. At the other end of the scale, the smallest gap, 2.1 years, was in Greece and Cyprus.

**Chart 13: The gender gap (women – men) in life expectancy at age 65, 2002 and 2011**



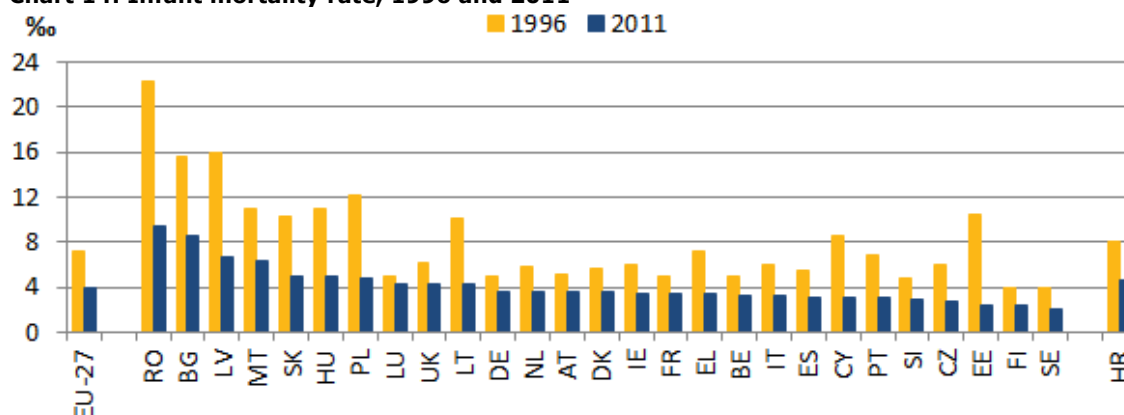
Source: Eurostat (online data code: demo\_mlexpec)

Note: EU-27, BE and IT: 2011 estimated. See also footnote 4.

### Falling infant mortality

Life expectancy at birth is improved by the reduced probability of dying. One of the most significant changes in recent decades has been the reduction in infant mortality rates. Around 20 thousand children died before reaching one year of age in the EU-27 in 2011, the most recent year for which data are available; this figure was almost 37 thousand in 1996, which is the first year for which information is available for all Member States and Croatia.

**Chart 14: Infant mortality rate, 1996 and 2011**



Source: Eurostat (online data code: demo\_minfind)

The infant mortality rate almost halved in the EU-27 during the 15 years from 1996 to 2011, from 7.2 to 3.9 deaths per 1000 live births (see Chart 14). The biggest reductions were generally recorded in those EU Member States with higher than average levels of infant mortality in 1996. The decrease in the central and eastern Member States is greater than in the other Member States. Despite this progression, some Member States still had relatively high infant mortality rates in 2011, e.g. Romania (9.4 deaths per 1000 live births) and Bulgaria (8.5‰). In 2011, the lowest infant mortality rates in the EU-27 were in Sweden (2.1 deaths per 1000 live births), Finland (2.4‰) and Estonia (2.5‰), about one-fourth of the rates recorded in Romania and Bulgaria.



## Migration and migrant population

### Immigration to the EU-27 at 1.7 million

During 2011 there were an estimated 1.7 million immigrants to the EU-27 from a country outside the EU-27. In addition, 1.3 million people previously residing in an EU-27 Member State migrated to another Member State.

**Table 10: Immigration, 2009-2011 (in absolute numbers and as a percentage of total immigration)**

	Total 2009	Total 2010	Total 2011	Nationals 2011		Foreigners 2011					
	thousand	thousand	thousand	thousand	%	Total thousand	%	EU-27 thousand	%	Non EU-27 thousand	%
<b>EU-27 (s)</b>	<b>1609.2</b>	<b>1747.8</b>	<b>1671.5</b>								
BE	;	131.2	144.7	18.4	12.7	125.9	87.0	61.4	42.4	64.5	44.6
BG	;	;	;	;	;	;	;	;	;	;	;
CZ	75.6	48.3	27.1	8.1	30.0	19.0	70.0	10.7	39.5	8.3	30.5
DK	51.8	52.2	52.8	18.3	34.6	34.6	65.4	18.1	34.3	16.4	31.1
DE	347.3	404.1	489.4	89.4	18.3	398.9	81.5	226.4	46.3	172.5	35.2
EE	3.9	2.8	3.7	2.0	54.8	1.7	45.1	0.1	1.7	1.6	43.5
IE	37.4	39.5	52.3	19.7	37.6	32.4	61.9	20.2	38.6	12.2	23.2
EL	;	119.1	110.8	60.5	54.5	50.4	45.5	19.1	17.3	31.2	28.2
ES	499.0	465.2	457.6	42.1	9.2	415.5	90.8	142.1	31.0	273.4	59.7
FR (p)	;	251.2	267.4	107.3	40.1	160.0	59.9	70.0	26.2	90.0	33.7
IT	442.9	458.9	385.8	31.5	8.2	354.3	91.8	113.8	29.5	240.5	62.3
CY	11.7	20.2	23.0	2.1	8.9	21.0	91.0	13.1	57.0	7.8	33.9
LV	2.7	2.4	7.3 (b)	1.5	20.4	5.8	79.6	1.1	15.0	4.7	64.6
LT	6.5	5.2	15.7	14.0	89.3	1.7	10.7	0.5	3.2	1.2	7.5
LU	15.8	17.0	20.3	1.2	5.7	19.1	94.1	15.0	73.8	4.1	20.3
HU	27.9	;	;	;	;	;	;	;	;	;	;
MT	7.2	8.2	5.5	1.8	32.3	3.7	67.7	;	;	;	;
NL	128.8	;	;	;	;	;	;	;	;	;	;
AT	73.3	73.9	104.4	8.1	7.7	96.1	92.1	64.5	61.8	31.6	30.3
PL	;	;	;	;	;	;	;	;	;	;	;
PT (p)	32.3	27.6	19.7	12.5	63.6	7.2	36.4	2.0	10.3	5.1	26.1
RO	;	;	;	;	;	;	;	;	;	;	;
SI	30.3	15.4	14.1	3.3	23.6	10.8	76.4	2.0	14.1	8.8	62.3
SK	15.6	13.8	4.8	1.1	22.3	3.8	77.7	3.2	65.5	0.6	12.2
FI	26.7	25.6	29.5	9.1	30.7	20.1	68.3	8.4	28.6	11.7	39.8
SE	102.3	98.8	96.5	20.6	21.4	75.5	78.3	25.1	26.0	50.4	52.3
UK	566.5	591.0	566.0	78.4	13.9	487.6	86.1	174.1	30.8	313.5	55.4
HR	;	;	8.5	4.7	55.3	3.8	44.6	1.1	12.3	2.8	32.3

Source: Eurostat (online data code: migr\_imm5prv, migr\_imm1ctz)

Note: The individual values do not add up to the total due to rounding and to exclusion of the 'unknown' citizenship group from the table. (p): provisional data; (b): break in series; (s): estimated.

Thus, about 3.2 million people immigrated<sup>5</sup> to one of the EU-27<sup>6</sup> Member States, while at least 2.3 million emigrants were reported to have left an EU-27 Member State. It should be noted that these figures do not represent the migration flows to/from the EU as a whole, since they also include flows between different EU Member States.

The United Kingdom reported the largest number of immigrants (566044) in 2011, followed by Germany (489422), Spain (457649) and Italy (385793). These four Member States together accounted for 60.3% of all immigrants to EU-27 Member States.

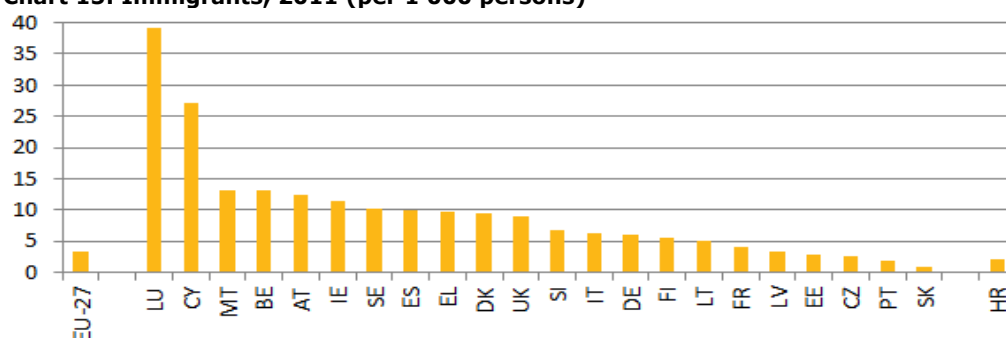
Spain reported the highest number of emigrants in 2011 (507742), followed by the United Kingdom (350703), Germany (249045) and France (213367). 16 of the EU-27 Member States reported more immigration than emigration in 2011, but in Bulgaria, the Czech Republic, Ireland, Greece, Spain, Poland, Romania and the three Baltic Member States emigrants outnumbered immigrants.

Relative to the size of the resident population, Luxembourg recorded the highest number of immigrants in 2011 (38 immigrants per 1000 persons), followed by Cyprus (26) and Malta (13).

The highest rates of emigration in 2011 were reported for Ireland (19 emigrants per 1 000 persons) and Lithuania (18 emigrants per 1000 persons).

<sup>5</sup> A person is considered to have immigrated if he or she establishes his or her usual residence in a Member State for at least twelve months, having previously been usually resident in another Member State or a third country as set out in Article 2 of Regulation (EC) 862/2007

**Chart 15: Immigrants, 2011 (per 1 000 persons)**

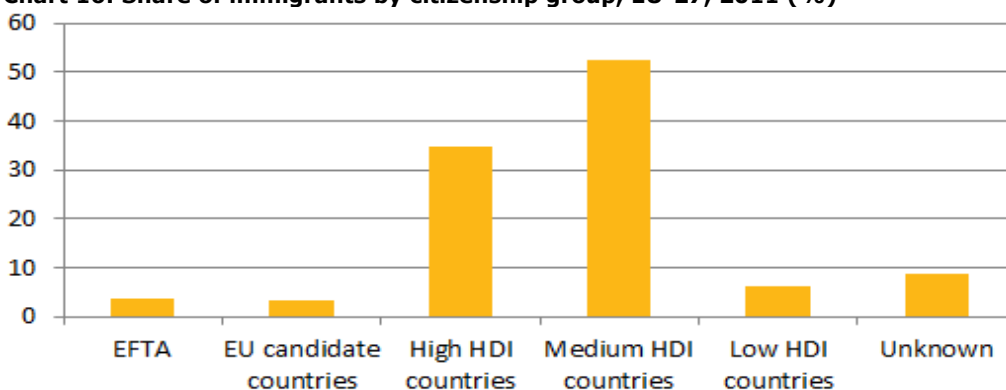


Source: Eurostat (online data code: migr\_imm1ctz and migr\_pop1ctz)

Note: Data on the number of persons refer to 1 January 2012 for HR.

Citizens of non-EU countries can be categorised according to the level of development of their country of citizenship, based on the Human Development Index (HDI) calculated by the United Nations. By this measure, the largest share (52.4% of all immigrants to the EU) are from medium HDI countries and 34.6% are from high HDI (but non-EU) countries. By contrast, low HDI countries (6.3%), EFTA countries (3.6%) and Candidate countries (3.1%) accounted for relatively low shares of total immigration to the EU-27 in 2011.

**Chart 16: Share of immigrants by citizenship group, EU-27, 2011 (%)**

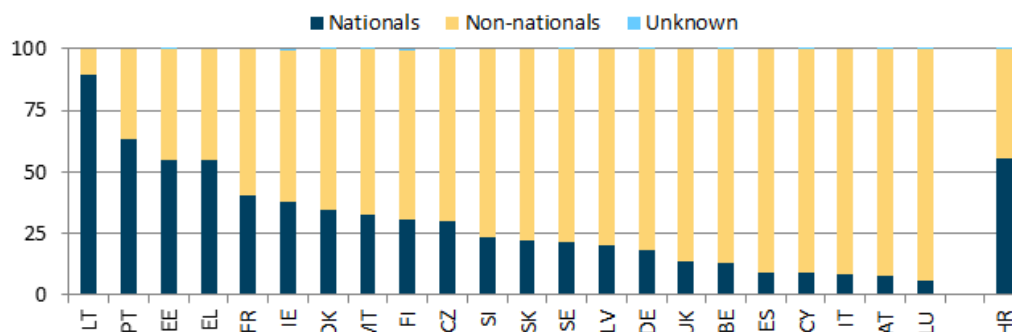


Source: Eurostat (online data code: migr\_imm5prv)

Note: Candidate countries as of 1 January 2011: Montenegro, Croatia, former Yugoslav Republic of Macedonia and Turkey.

In 2011, the relative share of returning nationals within the total number of immigrants was highest in Lithuania (89.3% of all immigrants), Portugal (63.6%), Croatia (55.3%), Estonia (54.8%) and Greece (54.5%). These were the only EU Member States to report return migration higher than 50%. By contrast, Luxembourg, Austria, Italy, Cyprus and Spain reported relatively low shares, as return migration in 2011 accounted for less than 10% of immigrants.

**Chart 17: Share of return migrants, EU-27, 2011 (%)**



Source: Eurostat (online data code: migr\_imm1ctz)

Regarding the gender distribution of immigrants in 2011, there were slightly more men than women as a whole (52.1% compared to 47.9%). The country reporting the highest share of male immigrants was Slovakia (62.4%); by contrast, the highest share of female immigrants was reported in Cyprus (55.2%).

## Foreign population at 20.7 million and foreign-born population at 33.0 million in EU-27

The EU-27 foreign population (people residing in an EU-27 Member State with citizenship of a non EU-27 Member State) on 1 January 2012 was 20.7 million, representing 4.1% of the EU-27 population. In addition, there were 13.6 million persons living in an EU-27 Member State with citizenship of another EU-27 Member State on 1 January 2012.

Due to better data availability, information on citizenship has often been used to study populations with a foreign background. However, since citizenship can change over time, it is also useful to present information by country of birth.

There were 33.0 million people born outside a country of the EU-27 on 1 January 2012 and there were 17.2 million persons who were born in a different EU-27 Member State from the country of residence. Only in Luxembourg, Ireland, Hungary, Cyprus and Malta did foreign-born persons from other EU-27 countries outnumber those born outside the EU-27. People born abroad outnumbered foreign citizens in all Member States, except Luxembourg, Latvia and the Czech Republic.

**Table 11: Foreign and foreign-born population by group of citizenship and country of birth, 1 January 2012, (in absolute numbers and as a percentage of the total foreign/foreign-born population)**

	Foreigners						Foreign-borns					
	Total		EU-27 citizens		Non EU-27 citizens		Total		Born in EU-27		Born outside EU-27	
	thousand	%	thousand	%	thousand	%	thousand	%	thousand	%	thousand	%
<b>EU-27 (s)</b>	<b>20709.9</b>	<b>4.1</b>					<b>32967.0</b>	<b>6.5</b>				
BE	1224.9	11.0	778.6	7.0	446.3	4.0	1699.2	15.3	797.1	7.2	902.1	8.1
BG	42.4	0.6	11.3	0.2	31.1	0.4	88.1	1.2	32.9	0.4	55.1	0.8
CZ	423.0	4.0	151.3	1.4	271.7	2.6	390.8	3.7	138.2	1.3	252.7	2.4
DK	358.7	6.4	134.9	2.4	223.8	4.0	531.5	9.5	169.2	3.0	362.3	6.5
DE	7409.8	9.1	2744.8	3.4	4665.0	5.7	9931.9	12.1	3453.4	4.2	6478.5	7.9
EE	206.6	15.7	14.4	1.1	192.2	14.6	210.8	16.0	19.8	1.5	191.0	14.5
IE	487.9	10.6	388.8	8.5	99.1	2.2	685.5	15.0	504.7	11.0	180.8	3.9
EL	975.4	8.6	151.2	1.3	824.2	7.3	1259.9	11.2	320.7	2.8	939.2	8.3
ES	5562.1	12.0	2354.5	5.1	3207.6	6.9	6555.0	14.2	2353.4	5.1	4201.6	9.1
FR	3858.3	5.9	1353.1	2.1	2505.2	3.8	7358.2	11.3	2131.4	3.3	5226.9	8.0
IT	4825.6	7.9	1450.1	2.4	3375.4	5.5	5457.8	9.0	1747.7	2.9	3710.1	6.1
CY	172.4	20.0	108.3	12.6	64.1	7.4	200.3	23.2	108.5	12.6	91.8	10.6
LV	332.9	16.3	6.7	0.3	326.2	16.0	298.0	14.6	30.4	1.5	267.6	13.1
LT	20.6	0.7	3.0	0.1	17.6	0.6	147.8	4.9	18.1	0.6	129.7	4.3
LU	229.9	43.8	198.7	37.9	31.2	5.9	216.2	41.2	164.7	31.4	51.5	9.8
HU	207.6	2.1	127.9	1.3	79.7	0.8	465.6	4.7	316.2	3.2	149.4	1.5
MT	20.5	4.9	-	-	-	-	-	-	-	-	-	-
NL	697.7	4.2	360.8	2.2	336.9	2.0	1906.3	11.4	473.1	2.8	1433.2	8.6
AT	947.7	11.2	382.7	4.5	565.0	6.7	1332.8	15.8	550.5	6.5	782.3	9.3
PL (p)	57.5	0.1	18.4	0.0	39.0	0.1	674.9	1.8	265.2	0.7	409.7	1.1
PT (p)	438.1	4.2	108.0	1.0	331.1	3.1	853.8	8.1	212.1	2.0	641.7	6.1
RO (p)	36.5	0.2	7.0	0.0	29.5	0.1	193.5	0.9	87.1	0.4	106.4	0.5
SI	85.6	4.2	6.1	0.3	79.5	3.9	230.1	11.2	21.4	1.0	208.7	10.2
SK	70.7	1.3	54.0	1.0	16.7	0.3	156.9	2.9	131.8	2.4	25.1	0.5
FI	181.7	3.4	68.3	1.3	113.4	2.1	260.9	4.8	93.3	1.7	167.5	3.1
SE	646.1	6.8	276.0	2.9	370.1	3.9	1426.4	15.0	489.5	5.2	936.9	9.9
UK	4802.3	7.6	2344.1	3.7	2458.2	3.9	7625.8	12.1	2575.7	4.1	5050.1	8.0
HR	23.3	0.5	7.7	0.2	15.6	0.3	-	-	-	-	-	-

Source: Eurostat (online data code: migr\_pop1ctz)

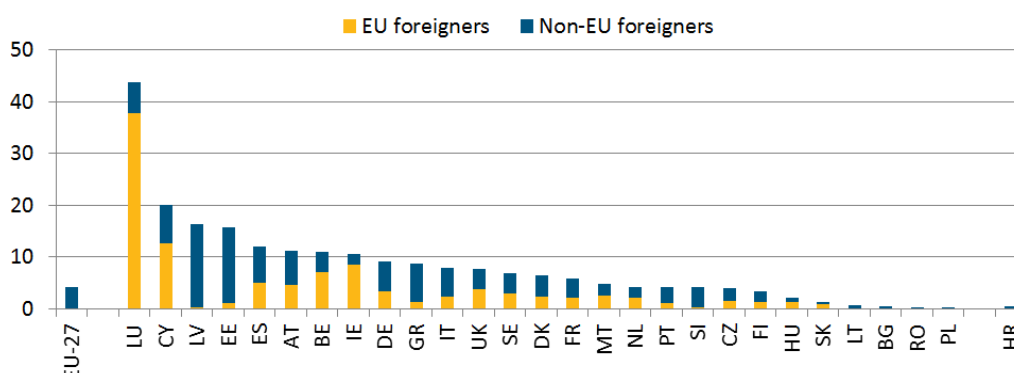
Note: The individual values do not add up to the total due to rounding and to exclusion of the 'unknown' citizenship group from the table. Population data for HR comes from 2011 Census as on 31 March 2011. (p): provisional data; (s): estimated.

In absolute terms, the largest numbers of foreigners living in the EU on 1 January 2012 were found in Germany (7.4 million), Spain (5.5 million), Italy (4.8 million), the United Kingdom (4.8 million) and France (3.8 million). Non-nationals in these five Member States collectively represented 77.1% of the total number of non-nationals living in the EU-27, while the same five Member States had a 62.9% share of the EU's population. In relative terms, the EU-27 Member State with the highest share of non-nationals was Luxembourg, where they accounted for 43.8% of the total population. The vast majority (86.4%) of non-nationals living in Luxembourg were citizens of other EU Member States. As at 1 January 2012, a high proportion of non-nationals (10% or more of the resident population) was also observed in Cyprus, Latvia, Estonia, Spain, Austria and Belgium.

In most EU Member States the majority of non-nationals are citizens of non-EU countries. At the beginning of 2012 citizens of other EU-27 Member States represented the majority of non-nationals living in Luxembourg, Ireland, Belgium, Slovakia, Cyprus and Hungary. In Latvia and Estonia, the proportion of citizens from non-EU countries is particularly large due to the high

number of recognised non-citizens (mainly former Soviet Union citizens, who are permanently resident in these countries but have not acquired citizenship).

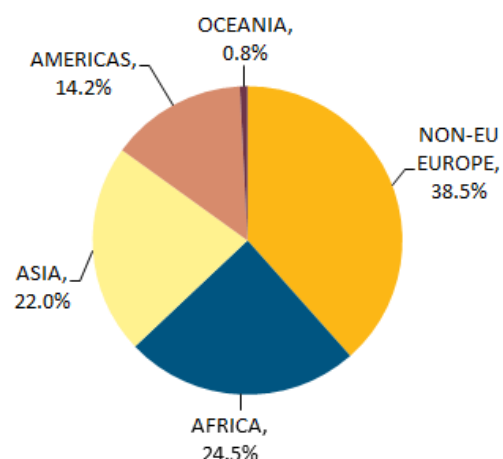
**Chart 18: Share of foreigners in the resident population, EU-27, 1 January 2012, (%)**



Source: Eurostat (online data code: migr\_pop1ctz)

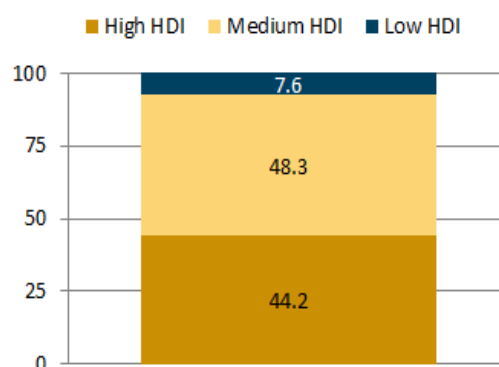
Looking at the distribution by continent of citizens of non-EU countries living in the EU, the largest proportion (38.5%) were citizens of a European country outside the EU-27. A total of 7.9 million citizens from European countries outside the EU-27 were residing in the EU at the start of 2012; among these more than half were citizens of Turkey, Albania or Ukraine. The next biggest group was from Africa (24.5%), followed by Asia (22.0%), the Americas (14.2%) and Oceania (0.8%). More than half the African citizens living in the EU were from North Africa, often from Morocco or Algeria. Many Asian citizens living in the EU came from southern or eastern Asia, in particular from India or China. Citizens of Ecuador and the United States made up the largest share of non-nationals from the Americas living in the EU.

**Chart 19: Citizens of non-EU countries resident in the EU-27 by continent of origin, 1 January 2012, (%)**



Source: Eurostat

**Chart 20: Non-EU citizens resident in the EU-27 by level of human development index (HDI) of country of citizenship, 1 January 2012 (%)**



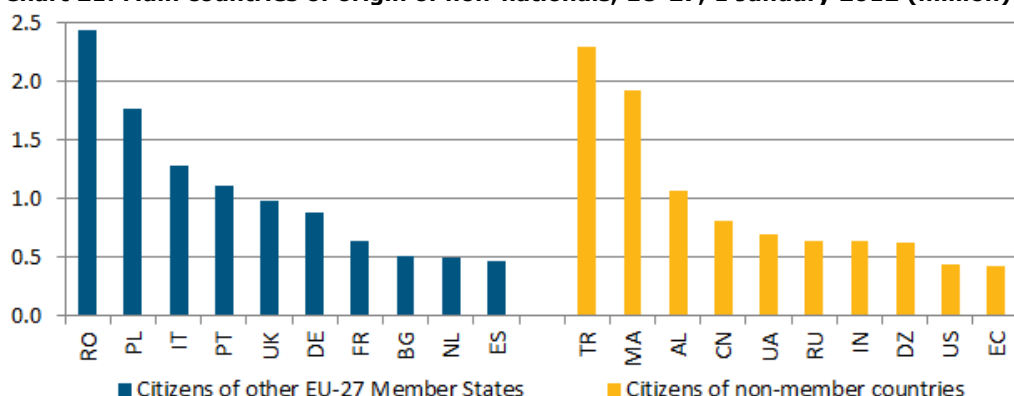
Among the non-EU citizens living in the EU-27 in 2012, some 44.2% were citizens of a high HDI country (with Turkey, Albania and Russia accounting for almost half), while a slightly higher share (48.3%) came from medium HDI countries (one fifth from Morocco, followed by China and Ukraine), the remaining 7.6% were from low HDI countries (30% with Nigerian or Iraqi citizenship).

The citizenship structure of the population of non-nationals living in the EU varies greatly between Member States. It is influenced by factors such as labour migration, historical links between countries of origin and destination, and established networks in destination countries. Romanians (living in another EU Member State) and Turkish citizens were the biggest groups of non-nationals living in the EU-27 in 2012. There were 2.3 million citizens from each of these countries, each group accounting for 7.0% of all non-nationals living in the EU-27 in 2012. The third largest group was Moroccans (1.9 million people, or 5.6% of all non-nationals). The group of non-nationals living in the EU with the most significant increase over the period from 2001 to



2012 was Romanians (living in another EU Member State), their numbers increasing almost eight-fold from 0.3 million in 2001 to 2.4 million by 2012.

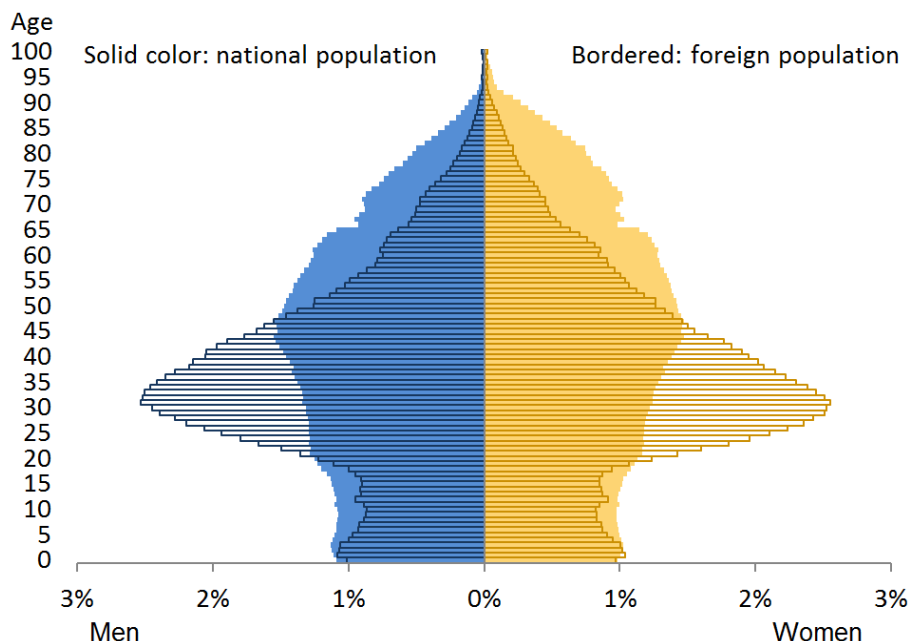
**Chart 21: Main countries of origin of non-nationals, EU-27, 1 January 2012 (million)**



Note 1: Estimates Eurostat

An analysis of the age structure of the population shows that, for the EU-27 as a whole, the foreign population was younger than the national population. The distribution by age of foreigners shows, compared to nationals, a greater proportion of relatively young working age adults. In 2012, the median age of the national population in the EU-27 was 41.9 years, while the median age of foreigners living in the EU was 34.7 years.

**Chart 22: Age structure of the national and foreign population, EU-27, 1 January 2012 (%)**



Source: Eurostat (online data code: migr\_pop2ctz)

### **Acquisition of citizenship down by 3.5% in 2011**

The number of people acquiring the citizenship of an EU-27 Member State in 2011 was 782200, corresponding to a 3.5% decrease with respect to 2010. 2010 saw the greatest number of people acquiring the citizenship of an EU Member State since 2001, and the first time that the total number rose above 0.8 million.

The United Kingdom had the highest number of persons acquiring citizenship in 2011, at 177 600 (or 22.7% of the EU-27 total). The next highest numbers were in France (114584), Spain (114599) and Germany (109594); none of the remaining Member States granted citizenship to more than 100000 people in 2011.

**Table 12: Number of persons having acquired the citizenship of the reporting country, 2001-2011 (thousand)**

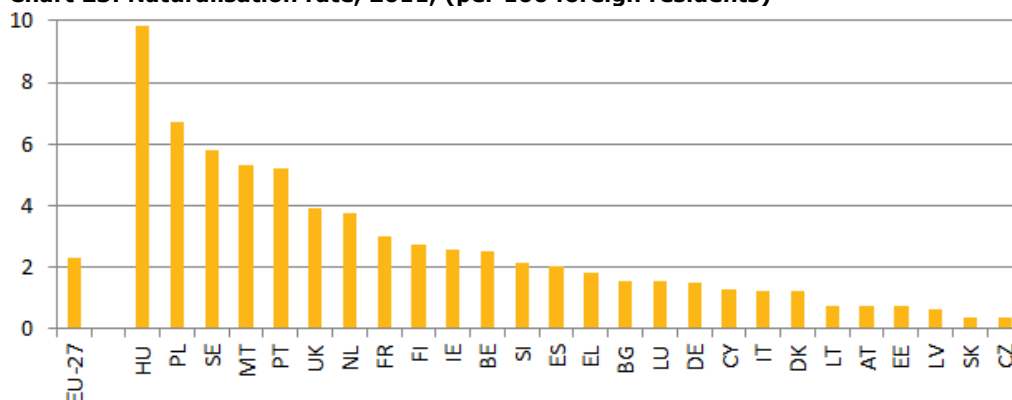
	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011
<b>EU-27</b>	<b>663.3</b>	<b>662.5</b>	<b>651.9</b>	<b>719.1</b>	<b>723.6</b>	<b>735.9</b>	<b>707.1</b>	<b>698.7</b>	<b>766.5</b>	<b>810.5</b>	<b>782.2</b>
BE	62.2	46.4	33.7	34.8	31.5	31.9	36.1	37.7	32.8	34.6	29.8
BG	:	3.5	4.4	5.8	5.9	6.7	6.0	7.1	1.0	0.9	0.6
CZ	6.3	3.3	2.2	5.0	2.6	2.3	2.4	1.2	1.1	1.1	1.6
DK	11.9	17.3	6.6	15.0	10.2	8.0	3.6	6.0	6.9	4.0	4.2
DE	180.3	154.5	140.7	127.2	117.2	124.6	113.0	94.5	96.1	104.6	109.6
EE	3.1	4.1	3.7	6.5	7.1	4.8	4.2	2.1	1.7	1.2	1.5
IE	2.8	:	4.0	3.8	4.1	5.8	4.6	3.2	4.5	6.4	10.7
EL	:	:	1.9	1.4	1.7	2.0	3.9	16.9	17.0	9.4	17.5
ES	16.7	21.8	26.5	38.2	42.9	62.4	71.9	84.2	79.6	123.7	114.6
FR	127.5	128.1	144.6	168.8	154.8	147.9	132.0	137.5	135.8	143.3	114.6
IT	10.4	10.7	13.4	19.1	28.7	35.3	45.5	53.7	59.4	65.9	56.2
CY	:	0.1	0.2	4.5	4.0	2.9	2.8	3.2	4.1	1.9	2.2
LV	9.9	9.4	10.0	17.2	20.1	19.0	8.3	4.2	3.2	3.7	2.5
LT	0.5	0.5	0.5	0.6	0.4	0.5	0.4	0.3	0.2	0.2	0.3
LU	0.5	0.8	0.8	0.8	1.0	1.1	1.2	1.2	4.0	4.3	3.4
HU	8.6	3.4	5.3	5.4	9.9	6.1	8.4	8.1	5.8	6.1	20.6
MT	1.2	0.8	0.6	0.6	0.6	0.5	0.6	0.6	0.8	0.9	1.1
NL	46.7	45.3	28.8	26.2	28.5	29.1	30.7	28.2	29.8	26.3	28.6
AT	31.7	36.0	44.7	41.6	34.9	25.7	14.0	10.3	8.0	6.1	6.7
PL	1.1	1.2	1.7	1.9	2.9	1.1	1.5	1.8	2.5	2.9	3.4
PT	2.2	2.7	2.4	2.9	3.0	4.4	:	22.4	24.2	21.8	23.2
RO	0.4	0.2	0.1	0.3	0.8	0.0	0.0	5.6	9.4	:	:
SI	1.3	2.8	3.3	3.3	2.7	3.2	1.6	1.7	1.8	1.8	1.8
SK	2.9	3.5	3.5	4.0	1.4	1.1	1.5	0.5	0.3	0.2	0.3
FI	2.7	3.0	4.5	6.9	5.7	4.4	4.8	6.7	3.4	4.3	4.6
SE	36.4	37.8	33.2	28.9	39.6	51.2	33.6	30.5	29.5	32.5	36.6
UK	89.8	120.1	130.5	148.3	161.8	154.0	164.5	129.3	203.6	194.8	177.6

Source: Eurostat (online data code: migr\_acq)

In absolute terms, the highest decreases were observed in France (28691 fewer persons were granted French citizenship compared to 2010), followed by the United Kingdom (17277), Italy (9785) and Spain (9122). The highest decreases in relative terms were recorded in Latvia (32.6% fewer persons acquired citizenship in 2011) and Bulgaria (31.2%).

One indicator commonly used to measure the effect of national policies on citizenship is the 'naturalisation rate' or the ratio between the total number of citizenships granted and the stock of foreign residents in a country at the beginning of the year. The country with the highest naturalisation rate in 2011 was Hungary (9.8 acquisitions per 100 foreign residents), followed by Poland (6.7) and Sweden (5.8), while Malta, Portugal and the United Kingdom all reported rates between 4 and 5 acquisitions per 100 foreign residents.

**Chart 23: Naturalisation rate, 2011, (per 100 foreign residents)**



Source: Eurostat (online data code: migr\_acq and migr\_pop1ctz)

About 86.7% of those who acquired citizenship of an EU-27 Member State in 2011 were previously citizens of a non-EU country. This was the case in nearly all of the Member States. These new EU-27 citizens came mainly from Africa (26.2% of the total), Asia (22.6%), non-EU27 Europe (18.9%) and North and South America (16.9%). EU-27 citizens who acquired citizenship of another Member State amounted to 82 263 persons, accounting for 10.5% of the total. In absolute terms, the main groups of EU citizens acquiring citizenship of another EU Member State were Romanians becoming citizens of Hungary (15658 persons) and Italy (3921 persons), Poles becoming citizens of Germany (4344 persons) and Portuguese becoming citizens of France (3805 persons).

In Luxembourg and Hungary the majority of new citizenships granted were to citizens of another EU Member State. In the case of Luxembourg, Portuguese citizens accounted for the largest share, while in the case of Hungary those acquiring citizenship were almost exclusively Romanians.

As in previous years, the largest groups of new citizens in the EU Member States in 2011 were citizens of Morocco (64200, corresponding to 8.2% of all citizenships granted) and Turkey (48800, or 6.2%). Compared with 2010, the number of Moroccan citizens acquiring citizenship of an EU Member State decreased by 4.4%, while the figure for Turkish citizens fell by 2.0%. The largest share of Moroccans acquired their new citizenship in France (32.6%), Spain (22.4%) and Italy (16.7%), while the highest proportion of Turkish nationals acquired their new citizenship in Germany (57.5%) and France (12.9%).

## Marriages and divorces

The number of marriages is decreasing and the number of divorces is increasing, although the trend in marriages may be due in part to ageing of the population. In addition, more and more children are being born to un-married women, and the countries with the highest extramarital birth rates are often also those with the highest fertility rates.

Marriage as recognised by the law in each country has long been considered to indicate family formation. However, the analysis of trends in family formation and dissolution based on just marriage and divorce data might not offer a full picture. Legal alternatives to marriage, like registered partnership, have become more widespread and national legislation has evolved to confer more rights on unmarried couples. Alongside these new legal forms, other forms of non-marital relationships have appeared, making it more difficult for statisticians to collect data that can be compared across countries.

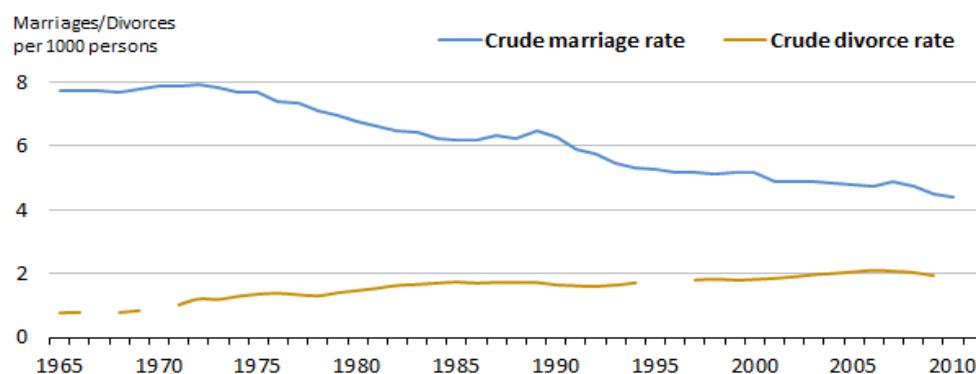
Due to differences in the timing and formal recognition of changing patterns of family formation and dissolution, these concepts have become more difficult to operationalise.

## Fewer marriages, more divorces

2.2 million marriages took place in the EU-27 in 2010 and 1.0 million divorces occurred in the EU-27 in 2009, according to the most recent available aggregated data. These figures may be expressed as 4.4 marriages for every 1000 persons (i.e. the crude marriage rate) and 1.9 divorces for every 1000 persons (i.e. the crude divorce rate).

Since 1965, the crude marriage rate in the EU-27 has declined by some 43 % in relative terms (from 7.7 per 1000 persons in 1965 to 4.4 in 2010).

**Chart 24: Crude marriage and divorce rates, EU-27**



Source: Eurostat (online data codes: demo\_nind and demo\_ndivind)

Note: The series of divorce rate in EU-27 is discontinued due to unavailability of data by Member States to be aggregated.

At the same time, marriages have become less stable in the EU-27, as indicated by the increase in the crude divorce rate from 0.8 per 1000 persons in 1965 to 2.1 in 2007. Part of this increase is due to the fact that in several countries divorce was legalised during the period. Over 2008 and 2009, however, the annual number of divorces decreased slightly to 1.9 per 1000 persons in 2009.

Table 13 shows that, in 2011, the crude marriage rate among the EU-27 Member States was highest in Cyprus (7.3 per 1000 persons), Lithuania (6.3) and Malta (6.1). At the other end of

the scale, the lowest crude marriage rates were reported by Bulgaria (2.9 per 1000 persons), Slovenia (3.2) and Luxembourg (3.3).

**Table 13: Crude marriage rate (marriages per 1000 persons)**

	1960	1970	1980	1990	2000	2009	2010	2011
<b>EU-27</b>	7.1	7.9	6.8	6.3	5.2	4.5	4.4	
BE	7.1	7.6	6.7	6.5	4.4	4.0	3.9	4.1
BG	8.8	8.6	7.9	6.9	4.3	3.4	3.2	2.9
CZ	7.7	9.2	7.6	8.8	5.4	4.6	4.4	4.3
DK	7.8	7.4	5.2	6.1	7.2	6.0	5.6	4.9
DE	9.5	7.4	6.3	6.5	5.1	4.6	4.7	4.6
EE	10.0	9.1	8.8	7.5	4.0	4.0	3.8	4.1
IE	5.5	7.0	6.4	5.1	5.0	4.9	4.6	4.3
EL	7.0	7.7	6.5	5.8	4.5	5.2	5.0	4.9
ES	7.8	7.3	5.9	5.7	5.4	3.8	3.6	3.4
FR	7.0	7.8	6.2	5.1	5.0	3.9	3.9	3.6
IT	7.7	7.3	5.7	5.6	5.0	3.8	3.6	3.4
CY	-	8.6	7.7	9.7	13.4	7.9	7.3	7.3
LV	11.0	10.2	9.8	8.9	3.9	4.4	4.1	5.2
LT	10.1	9.5	9.2	9.8	4.8	6.2	5.7	6.3
LU	7.1	6.4	5.9	6.1	4.9	3.5	3.5	3.3
HU	8.9	9.3	7.5	6.4	4.7	3.7	3.6	3.6
MT	6.0	7.9	8.8	7.1	6.7	5.7	6.2	6.1
NL	7.7	9.5	6.4	6.5	5.5	4.4	4.5	4.3
AT	8.3	7.1	6.2	5.9	4.9	4.2	4.5	4.3
PL	8.2	8.6	8.6	6.7	5.5	6.6	6.0	5.4
PT	7.8	9.4	7.4	7.2	6.2	3.8	3.8	3.4
RO	10.7	7.2	8.2	8.3	6.1	6.3	5.4	4.9
SI	8.8	8.3	6.5	4.3	3.6	3.2	3.2	3.2
SK	7.9	7.9	7.9	7.6	4.8	4.9	4.7	4.7
FI	7.4	8.8	6.1	5.0	5.1	5.6	5.6	5.3
SE	6.7	5.4	4.5	4.7	4.5	5.1	5.3	5.0
UK	7.5	8.5	7.4	6.6	5.2	4.3	4.5	-
HR	8.9	8.5	7.2	5.8	4.9	5.1	4.8	4.6

Source: Eurostat (online data code: demo\_nind)

Note: EU-27 excludes French overseas departments for 1960 to 1990. CY: Up to and including 2000, data refer to total marriages contracted in the country, including marriages between non-residents; 2009-2011 data refer to marriages where at least one spouse was resident in the country.

As regards divorce, Ireland (0.7 per 1000 persons) and several southern European Member States, including Italy (0.9), Slovenia (1.1) and Greece (1.2) have significantly lower crude divorce rates than Latvia (4.0 per 1000 persons), Lithuania (3.4) and Belgium (2.9). Divorce became legal in Malta in 2011, so the first data available in 2011 show only 0.1 divorces per 1000 persons.

**Table 14: Crude divorce rate (divorces per 1000 persons)**

	1960	1970	1980	1990	2000	2009	2010	2011
<b>EU-27</b>	0.5	1.0	1.5	1.6	1.8	1.9		
BE	0.5	0.7	1.5	2.0	2.6	3.0	2.7	2.9
BG	1.1	1.2	1.5	1.3	1.3	1.5	1.5	1.4
CZ	1.4	2.2	2.6	3.1	2.9	2.8	2.9	2.7
DK	1.5	1.9	2.7	2.7	2.7	2.7	2.6	2.6
DE	1.0	1.3	1.8	1.9	2.4	2.3	2.3	2.3
EE	2.1	3.2	4.1	3.7	3.1	2.4	2.2	2.3
IE	-	-	-	-	0.7	0.7	0.7	0.7
EL	0.3	0.4	0.7	0.6	1.0	1.2	-	-
ES	-	-	-	0.6	0.9	2.1	2.2	2.2
FR	0.7	0.8	1.5	1.9	1.9	2.0	2.1	2.0
IT	-	0.3	0.2	0.5	0.7	0.9	0.9	-
CY	-	0.2	0.3	0.6	1.7	2.2	2.3	2.3
LV	2.4	4.6	5.0	4.0	2.6	2.3	2.2	4.0
LT	0.9	2.2	3.2	3.4	3.1	2.8	3.0	3.4
LU	0.5	0.6	1.6	2.0	2.4	2.1	2.1	-
HU	1.7	2.2	2.6	2.4	2.3	2.4	2.4	2.3
MT	-	-	-	-	-	-	-	0.1
NL	0.5	0.8	1.8	1.9	2.2	1.9	2.0	2.0
AT	1.1	1.4	1.8	2.1	2.4	2.2	2.1	2.1
PL	0.5	1.1	1.1	1.1	1.1	1.7	1.6	1.7
PT	0.1	0.1	0.6	0.9	1.9	2.5	2.6	2.5
RO	2.0	0.4	1.5	1.4	1.4	1.5	1.5	1.7
SI	1.0	1.1	1.2	0.9	1.1	1.1	1.2	1.1
SK	0.6	0.8	1.3	1.7	1.7	2.3	2.2	2.1
FI	0.8	1.3	2.0	2.6	2.7	2.5	2.5	2.5
SE	1.2	1.6	2.4	2.3	2.4	2.4	2.5	2.5
UK	-	1.0	2.6	2.7	2.6	2.0	2.1	-
HR	1.2	1.2	1.2	1.1	1.0	1.1	1.1	1.3

Source: Eurostat (online data code: demo\_ndivind)

Note: EU-27 excludes French overseas departments for 1960 to 1990. Divorce was not possible by law in Italy until 1970, in Spain until 1981, in Ireland until 1995 and in Malta until 2011.

### ***A rise in births outside marriage***

The proportion of births outside marriage in the EU-27 in 2011 was 39.5%. It continues to increase, signalling new patterns of family formation alongside the more traditional pattern where children are born within marriage. Extramarital births occur in non-marital relationships, among cohabiting couples and to lone parents.



**Table 15: Live births outside marriage (% share of total live births)**

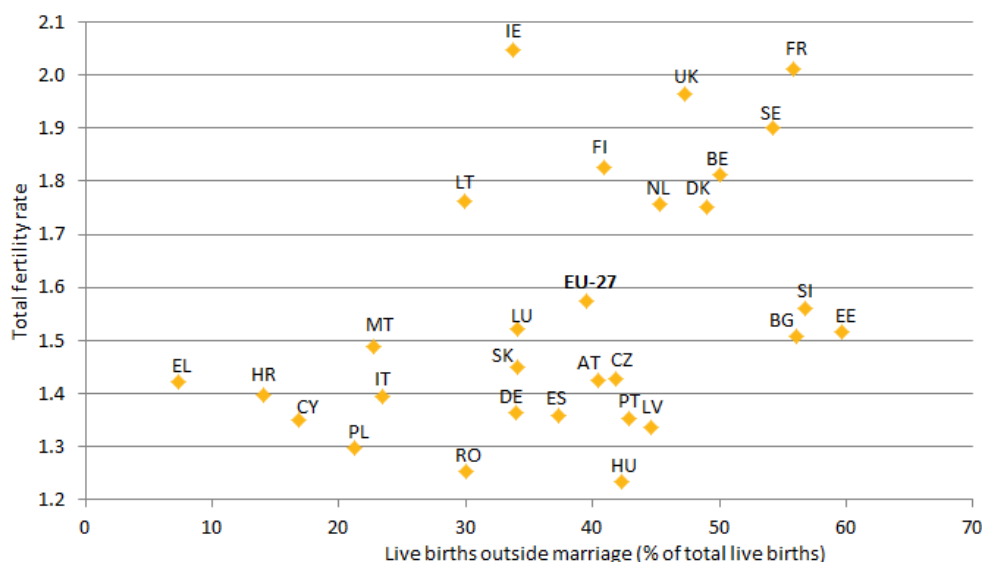
	1960	1970	1980	1990	2000	2009	2010	2011
<b>EU-27</b>	17.4	27.4	37.3	38.3	39.5			
BE	2.1	2.8	4.1	11.6	28.0	45.5	46.0	50.0
BG	8.0	8.5	10.9	12.4	38.4	53.4	54.1	56.1
CZ	4.9	5.4	5.6	8.6	21.8	38.8	40.3	41.8
DK	7.8	11.0	33.2	46.4	44.6	46.8	47.3	49.0
DE	7.6	7.2	11.9	15.3	23.4	32.7	33.3	33.9
EE	1.6	2.7	5.9	14.6	31.5	59.2	59.1	59.7
EL	1.2	1.1	1.5	2.2	4.0	6.6	7.3	7.4
ES	2.3	1.4	3.9	9.6	17.7	34.5	35.5	37.4
FR	6.1	6.8	11.4	30.1	43.6	53.7	55.0	55.8
IT	2.4	2.2	4.3	6.5	9.7	19.8	21.5	23.4
CY	11.9	11.4	12.5	16.9	40.3	43.5	44.1	44.6
LV	3.2	4.0	6.0	12.8	21.9	32.1	34.0	34.1
LT	5.5	5.4	7.1	13.1	29.0	40.8	40.8	42.3
LU	0.7	1.5	1.1	1.8	10.6	27.4	25.2	22.7
MT	1.4	2.1	4.1	11.4	24.9	43.3	44.3	45.3
NL	13.0	12.8	17.8	23.6	31.3	39.3	40.1	40.4
PL	9.5	7.3	9.2	14.7	22.2	38.1	41.3	42.8
PT	3.2	4.0	6.0	12.8	21.9	32.1	34.0	34.1
RO	5.5	5.4	7.1	13.1	29.0	40.8	40.8	42.3
SI	0.7	1.5	1.1	1.8	10.6	27.4	25.2	22.7
SK	4.7	6.2	5.7	7.6	18.3	31.6	33.0	34.0
FI	4.0	5.8	13.1	25.2	39.2	40.9	41.1	40.9
SE	11.3	18.6	39.7	47.0	55.3	54.4	54.2	54.3
UK	5.2	8.0	11.5	27.9	39.5	46.3	46.9	47.3
HR	7.4	5.4	5.1	7.0	9.0	12.9	13.3	14.0

Source: Eurostat (online data code: demo\_find)

Note: EU-27 excludes French overseas departments for 1960 to 1990 and excludes Romania for 1990.

Extra-marital births increased in almost every country in the EU-27 during 2011, with the exception of Ireland, Malta and Sweden. In six Member States the majority of live births are now outside marriage: Estonia (59.7%), Slovenia (56.8%), Bulgaria (56.1%), France (55.8%), Sweden (54.3%) and Belgium (50.0%). Mediterranean countries like Greece, Croatia, Cyprus, Italy and Malta, along with Poland, Lithuania and Romania, are at the other end of the scale with a large proportion, over 70%, of births occurring within marriage.

**Chart 25: Proportion of live births outside marriage and total fertility rate, 2011**



Source: Eurostat (online data code: demo\_find)

Countries with higher proportions of births outside marriage often have higher fertility rates. In France, Sweden, Belgium, Denmark, the United Kingdom and Netherlands, high rates of live births outside marriage (above 45% of total live births) are associated with total fertility rates above the EU-27 average (1.57 live births per woman in 2011) (Chart 25).

## Population development and employment growth

A what-if analysis can be instructive and tell how far employment growth can be sustained under current demographic trends. The analysis below is based on the 2010 Eurostat demographic projections. The scenarios are exclusively on the supply side and do not take into account projections of labour demand.

Europe 2020 targets promote lower school drop-out rates, higher rates of tertiary education and higher employment. In the past, school drop-out rates have been decreasing, though not as fast as targeted earlier; tertiary education has been increasing steadily; employment grew until 2008, then decreased, especially for young adults and migrants.

In 2010, 14 % of EU residents aged 18-24 were not in education or training and did not have an upper secondary school diploma. They are called 'early leavers' and the aim is to bring this figure down to 10 % by 2020. Even though more young adults complete secondary education and more are motivated to continue with education or training, if current trends continue, the outcome is likely to fall short of the objective.

On the other hand, the education levels of today's 20-24 year-olds is higher than it was 10 years ago. As a result, at current growth rates, in 2020, 40 % of 30-34 year-olds are likely to have a tertiary degree, thereby achieving the tertiary education target.

### Scenarios for the EU-27

The estimates in the text above, and those in Chart 26 and Table 16, are based on Eurostat's Population projections (Europop 2010) and annual Labour Force Survey employment and education attainment rates, as well as assumptions based on the Europe 2020 targets on education and employment.

**Chart 26 : Population by sex, age group and employment, EU-27, 2010 and 2030 (million)**



Source: Eurostat (online data codes: proj\_10c, lfsa\_ergan, lfsa\_ergaed, lfsa\_pgaed) and DG EMPL computations

In Chart 26, the 2030 employment counts were computed by assuming that employment rates remain constant across ages, sex, origin and education level, whereas educational attainment rates follow observed trends. This means that the education levels of each 5-year cohort (for instance, those aged 20-24 in 2010) will change over time according to changes observed in the period 2006-2011; as a result, during the following five projection years, some of its ISCED<sup>7</sup> 0-2 people will graduate to ISCED 3-4 and some of its (and newly graduated) ISCED 3-4 will graduate to ISCED 5-6. These graduation rates are assumed to depend on age and to remain constant in the future.

Education trends consist of two components. The first is the educational level of young adults (aged 15-19). The ISCED 3-4 attainment of this group has been increasing and this trend is assumed to continue, tapering to a maximum of 25 % in the long run. Transitions between

<sup>7</sup> International Standard Classification of Education, see <http://www.uis.unesco.org/Education/Pages/international-standard-classification-of-education.aspx>

education levels at successive ages are assumed to be constant. It must be considered that as education levels continue rising, they continue to raise employment rates. In present scenarios, as better-educated cohorts replace less-well educated ones, the global employment rate rises and so does overall employment.

The observed overall increase so far is largely the net effect of composition change, where the positive impact of the increase in educational attainment more than offsets the negative impact of our active-age population becoming increasingly older or of migrant origin (non-EU-27).

Under these assumptions, Chart 26 shows total employment declining by 5 million, that is 2.5 %, from 2010 to 2030; the employment rate of those aged 20-64 in 2020 would be 68.5 %, a slight increase and far below the Europe 2020 target. The reason for this change would be the rise in education levels, mitigated by an ageing population and a growing proportion of migrants. Economic dependency<sup>8</sup> would rise from 1.32 % in 2010 to 1.47 % in 2030. In Table 16, this is the 'trend education with constant employment rates' scenario.

The Social Investment Package<sup>9</sup> calls for measures that increase labour participation, employability and productivity. It is important to analyse the feasibility and consequences of raising education levels and labour participation to assess the suitability of the measures envisaged.

For instance, focusing on opportunities for disadvantaged workers may bring in more people with lower skills, and the changing skills composition would affect productivity<sup>10</sup>. In addition, it pays to understand the impact of current population trends in education.

Table 16 summarises employment in 2020 and 2030 under several scenarios. Its purpose is to analyse the difficulty and impact in 2030 of reaching the Europe 2020 employment objectives.

The first scenario includes demographic change but no rise in educational attainment. It is purely mechanical and its only purpose is to assess the impact of skills renewal due to cohort turnover: as older, less-well-educated worker cohorts leave the labour market, younger, better-educated cohorts join it. Although skills renewal is now slower than it was in the past 2-3 decades because of demographic changes, the impact remains high.

The second scenario allows for education to continue progressing as it did in the past, thereby shifting overall employment. Without an effort to attain the Europe 2020 employment objectives, the EU-27 workforce will become older, but also better educated. As a result, employment will be stable until 2020, but will decrease by 2-3 % by 2030, feeling the impact of demographics. The declining population of working age will increasingly consist of older workers.

The third scenario assumes that the Europe 2020 targets on education will be attained and the trend towards a better-educated work force will continue after 2020. Here we should underline that:

- under the assumption that current education transitions continue, the tertiary education target would also be attained;
- Europe 2020 education targets will have a small impact on employment in 2030. This is because the targeted increase in tertiary attainment and the reduction in early leavers will affect only the very young cohorts of workers, so that the effect will not materialise by 2030; however, the impact will be far larger after 2030.

The fourth scenario assumes that, in addition to the Europe 2020 target for education, the target on employment will also be attained. As regards those aged 65 and above, this scenario envisages the same rates of increase for employment as for people aged 55-64. Employment rate increases from 2010 to 2020 then assumed go on till 2030.

But attaining the Europe 2020 employment target would require tapping into a potential labour force consisting largely of older people and so-far inactive migrants. These cohorts tend to be less educated than the rest of the labour force. This means that not only will activating them be harder, but also that they will contribute to the less-skilled workforce, whereas there is strong

<sup>8</sup> Economic dependency is the ratio between the number of people not in employment and those who are.

<sup>9</sup> See COM(2013) 83.

<sup>10</sup> See Employment and Social Developments in Europe, Chapter 4, p. 279.

evidence suggesting that demand in future decades will concentrate on high-skilled rather than low-skilled workers<sup>11</sup>.

**Table 16: Work force scenarios under Europe 2020 assumptions, EU-27, 2020 and 2030**

	2010	2020				2030			
		Employment			Europe 2020 target	Employment			Europe 2020 target
		Constant employment rates				Constant employment rates			
		Education				Education			
		Constant	Trend	Europe 2020 targets		Constant	Trend	Europe 2020 targets	
Early leavers (%)	14.1	14.1	13.3	10.3	10.3	14.1	13.1	10.1	10.1
Tertiary education, age 30-34 (%)	33.5	33.5	39.9	39.9	39.9	33.5	40.9	42.7	42.7
Employment rate, age 20-64 (%)	68.6	67.1	68.5	68.6	75.0	66.0	68.3	68.5	77.9
Employment, total, million, of which:	218.7	204.0	219.0	220.0	241.0	206.0	214.0	214.0	246.0
ISCED 0-2 <sup>(1)</sup>	50.4	51.0	43.0	42.0	50.0	51.0	38.0	36.0	47.0
ISCED 5-6 <sup>(1)</sup>	60.7	58.0	73.0	73.0	75.0	53.0	79.0	80.0	84.0
Women	98.6	96.0	99.0	99.0	114.0	91.0	97.0	97.0	117.0
Migrants	8.5	14.0	14.0	14.0	17.0	19.0	19.0	19.0	25.0
Age 55 and above	32.8	36.0	38.0	38.0	46.0	37.0	40.0	40.0	52.0
Economic dependency (%)	1.32	1.42	1.37	1.37	1.15	1.56	1.47	1.47	1.14

Source: Eurostat (online data codes: proj\_10c, lfsa\_ergan, lfsa\_ergaed, lfsa\_pgaed) and DG EMPL computations.

Note: (1) only EU citizens.

Employment gains among women and young people, who tend to be better educated, may be easier to achieve and yield higher productivity gains; however, they alone will not mean the Europe 2020 employment target is met. Up skilling via continuing education and training is another way to motivate and nurture a productive workforce<sup>12</sup>.

### **Differences among Member States**

Population developments in the various Member States differ, as the rate of ageing varies and these find themselves in different phases. For instance, eastern States have relatively young and slowly-ageing populations now, but face the prospect of very rapid ageing from 2025 onwards<sup>13</sup>. In addition, some Member States already make better use of their potential work forces, with higher education and employment rates than others.

In the past two decades, employment and productivity growth fuelled economic growth in roughly equal measure. The observed pre-crisis 1 % employment growth ended in 2008. When the crisis abates, employment can resume growth, but this will be limited in future.

Demographic ageing and workforce decline will create bottlenecks to the available labour force in the medium term, even though, at present, countries still have un-deployed human resources which could potentially yield further employment growth.

Chart 27 outlines the Member States' different potentials for continuing employment growth. Assuming that the EU's economic and social system will need 1 % employment growth, Member States differ as to when such a 'sustainable' growth path will have to come to an end simply because human resources become scarce.

Two scenarios are presented<sup>14</sup>:

- Under the first scenario, there will be no further progress in activation; its growth-end year is the upper end of the blue bar in Chart 27.
- Under the second scenario, each country exploits the maximum activation potential of women, older people, and educational progress; its growth-end year is the upper end of the yellow bar in Chart 27. Four Member States can continue growing beyond 2040.

<sup>11</sup> See for instance <http://www.cedefop.europa.eu/EN/publications/20633.aspx>.

<sup>12</sup> Source: <http://ec.europa.eu/social/main.jsp?langId=en&catId=113&newsId=1774&furtherNews=yes>, chapter 6.9.

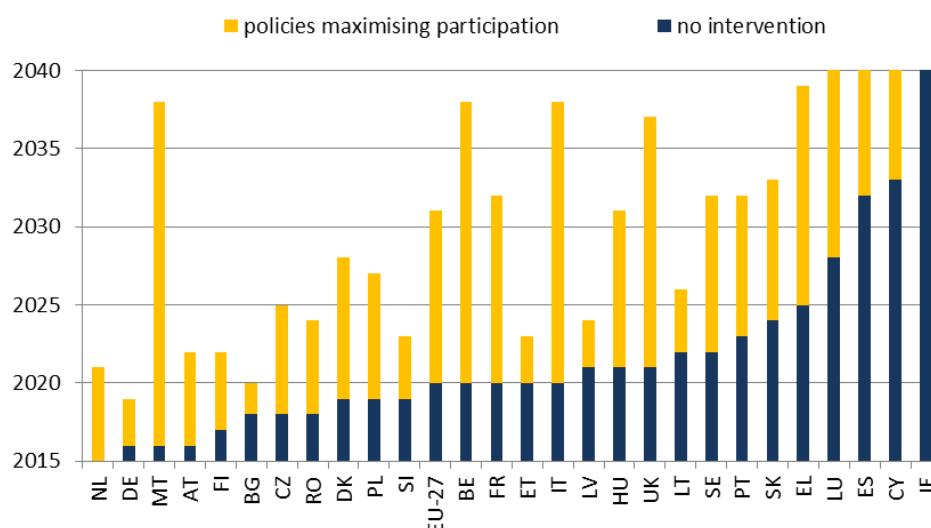
<sup>13</sup> See the 2010 Demography Report (chapter I.5).

<sup>14</sup> See draft paper of C. Fotakis, J. Peschner (2013), 'Growth potential of EU human resources and policy implications for future economic growth', not yet published.

The Member States with the longer bars, whose maximum potential for growth reaches further into the future, are of two types. Some have strong population growth and slow ageing, such as Ireland; others have large unused capacity to tap by increasing participation in (education and) labour.

More critically, the EU-27 is projected to have a large shortfall of well-educated (ISCED 5-6) workers. Although their number will grow by virtue of rising education levels in the population, this projected growth is slower than the increase in demand.

**Chart 27: Year in which a continued 1 % employment growth from 2011 is projected to stop, by country**



Source: Fotakis/Peschner (2013)<sup>6</sup> based on Eurostat LFS

In addition, the untapped potential consists mainly of less-well educated people, for two reasons. First, the better educated are already well involved in the labour market. Secondly, the most promising sources of additional labour, i.e. older people and migrants, tend to be less well educated than prime-age EU nationals.

Thus, as regards high-skilled workers, the time-window for growth is more limited. Even the best activation policies can only palliate and delay the onset of shortages for just a few years.



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