

EU population reaches 500 million

More information: www.populationeurope.org

Country	Population size on January 1st, 2009 (millions)	Projected population size, 2030 (millions)	Projected population size (zero migration), 2030 (millions)	Number of live births, 2008 (thousands)		Average net migration 2004-2008 (thousands)	Net migration (estimates), 2009 (thousands)	Total fer- tility rate, 2008	Adjusted total fer- tility rate, 2005-2007	Completed cohort fertility, women born 1968 (children per woman)	Mean age at first birth, 2008 (years)	Male life expect- ancy at birth, 2008 (years)	Female life expect- ancy at birth, 2008 (years)	expect- ancy at	Female life expect- ancy at age 65, 2008 (years)	Proportion of the population aged 65+, 2009 (%)	1		Projected population median age, 2030 (years)	Old-age depend- ency ratio 65+/ 15-64, 2009 (%)	Projected old-age depend- ency ratio 65+/15-64, 2030 (%)	Projected old-age dependency ratio 65+/ 15-64 (zero migration), 2030 (%)	Proportion with a re- maining life expectancy of 15 years or less, 2009 (%)	Projected proportion with a re- maining life expectancy of 15 years or less, 2030 (%)	Unemployment rate, 2009 (%)	Fossil-fuel CO ₂ emissions per capita, 2006 (metric tons of carbon per capita)	Country
Albania	3.2	3.4	3.6	36.3	16.1	-7.7	-5.5	1.59*	1.80*	2.62*	23.4*	72.1	78.6	-	-	9.5	17.2	29.8	39.9	14.1	26.2	24.7	7.2	10.8	13.6	0.37	Albania
Andorra	0.1	-	-	0.9	0.2	1.9	0.7	1.29	1.43	-	-	-	-	-	-	12.3	-	38.8	-	16.8	-	-	-	-	-	-	Andorra
Armenia	3.2	3.2	3.4	41.2	27.4	-6.9	-5.9	1.43	1.60*	1.91	24.0	70.2	76.7	13.1	16.0	10.4	18.1	32.3	42.2	14.7	27.0	25.6	10.4	14.7	28.6	0.37	Armenia
Austria	8.4	9.1	8.3	77.8	75.1	39.4	17.6	1.41	1.66	1.62	27.8	77.8	83.3	17.7	21.1	17.4	24.1	41.3	45.4	25.7	39.4	44.8	10.9	12.8	4.8	2.37	Austria
Azerbaijan	8.7	10.4	10.4	152.1	52.7	-0.4	1.0	1.93	1.96*	2.19	24.8	71.0	76.1	14.5	16.3	6.8	13.0	28.8	37.7	9.6	19.2	19.2	6.6	9.2	6.1	1.13	Azerbaijan
Belarus	9.7	8.9	8.7	107.9	133.9	4.5	12.2	1.42	1.47*	1.65	24.5	64.5	76.2	11.7	16.6	14.1	19.0	38.3	43.8	19.8	28.4	28.8	15.2	17.8	0.8	1.93	Belarus
Belgium	10.7	12.0	10.9	125.0	101.6	52.1	55.1	1.82	1.85	1.85	27.9*	77.1	82.6	17.3	21.0	17.2	23.3	40.8	43.4	26.0	38.7	43.0	12.2	13.1	7.9	2.78	Belgium
Bosnia and Herzegovina	3.8	-	-	34.2	34.0	1.1	1.0	1 47	1 72	1 (1	24.8*	-	77.0	12.5	167	17.4		- 41 1	46.0	-	-	-	16.7	10.6	23.4	1.95	Bosnia and Herzegovin
Bulgaria Croatia	7.6	6.8 4.4	6.8	77.7	110.5	-1.1	-0.9 7.1	1.47	1.73	1.61	25.0	69.8	77.0	13.5	16.7	17.4	22.7	41.1	46.8	25.2	35.5	35.4	16.7	18.6	6.8	1.70	Bulgaria Croatia
Cyprus	0.8	1.1	4.2 0.9	43.8 9.2	52.2	10.0	0.9	1.47 1.46	1.63 1.96	1.80 2.22	26.9 28.3	72.4 78.5	79.7 83.1	14.3 17.9	18.0	17.3 12.7	22.9 18.7	41.1 35.9	45.1 40.7	25.7 18.2	36.6 29.5	38.5 36.0	15.3 8.4	16.8 10.5	9.1 5.3	1.45 2.75	Cyprus
Czech Republic	10.5	10.9	10.3	119.6	104.9	49.1	35.0	1.50	1.79	1.90	27.3	74.1	80.5	15.3	18.8	14.9	22.2	39.2	46.2	20.9	35.2	37.4	11.5	15.7	6.7	3.05	Czech Republic
Denmark	5.5	6.0	5.6	65.0	54.6	13.5	27.8	1.89	1.97*	1.97	28.4	76.5	81.0	16.6	19.5	15.9	22.2	40.3	41.8	24.1	37.7	39.9	11.2	14.0	6.0	2.71	Denmark
Estonia	1.3	1.3	1.3	16.0	16.7	0.1	0.1	1.65	1.90	1.88	25.8	68.7	79.5	13.6	18.9	17.1	21.3	39.3	43.6	25.2	34.1	34.1	14.7	15.2	13.8	3.56	Estonia
Finland	5.3	5.7	5.5	59.5	49.1	11.1	13.5	1.85	1.93	1.90	28.2	76.5	83.3	17.5	21.4	16.7	25.8	41.8	44.5	25.2	44.7	46.4	11.0	15.5	8.2	3.45	Finland
France	62.4	69.6	67.1	796.0	532.1	125.8	74.8	1.99	2.13*	2.01	27.8*	77.9	84.9	18.5	23.1	16.7	23.6	39.7	42.3	25.7	40.5	42.1	10.5	12.3	9.5	1.71	France
Georgia	4.4	4.1	4.5	56.6	43.0	7.7	-10.2	1.67	_	1.71	24.8	69.0	78.8	13.8	19.0	14.4	21.3	36.4	44.0	21.0	33.7	30.9	11.8	13.5	16.5	0.34	Georgia
Germany	82.0	81.0	76.9	682.5	844.4	36.2	-55.7	1.38	1.62*	1.49	28.5	77.6	82.7	17.6	20.7	20.4	27.9	43.7	48.4	30.9	47.5	50.8	13.5	15.6	7.5	2.67	Germany
Greece	11.3	11.7	10.8	118.3	108.0	39.5	35.9	1.51	1.52	1.73	28.7	77.7	82.4	17.8	19.8	18.7	24.5	41.4	47.8	27.9	39.2	42.8	13.8	14.7	9.5	2.36	Greece
Hungary	10.0	9.7	9.2	99.1	130.0	17.6	15.7	1.35	1.65	1.92	27.2	70.0	78.3	14.0	18.1	16.4	21.3	39.6	45.3	23.8	33.0	34.3	14.2	16.6	10.0	1.56	Hungary
Iceland	0.3	0.4	0.4	4.8	2.0	3.2	-3.6	2.15	2.22	2.40	26.5	80.0	83.3	18.4	20.6	11.6	17.5	34.5	37.6	17.2	28.4	32.6	7.7	8.5	3.0	1.98	Iceland
Ireland	4.5	5.6	5.2	75.1	28.2	45.4	-43.9	2.10	2.08	2.10	28.7	77.5	82.3	17.2	20.4	11.0	17.0	33.8	39.0	16.2	26.6	28.6	7.6	9.6	11.9	2.82	Ireland
Italy	60.0	63.3	56.7	576.7	582.6	433.6	383.4	1.42	1.47*	1.52	-	78.7	84.0	17.9	21.6	20.1	26.4	42.8	49.3	30.6	43.0	48.4	13.2	14.4	7.8	2.19	Italy
Kosovo	2.2	-	-	34.4	6.9	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	46.3	-	Kosovo
Latvia	2.3	2.1	2.1	23.9	31.0	-1.5	-4.6	1.44	1.61	1.80	25.3	67.0	77.8	13.0	17.9	17.3	21.5	39.8	44.7	25.1	33.5	33.5	15.7	16.4	17.1	0.89	Latvia
Liechtenstein	0.04	-	-	0.4	0.2	0.1	0.2	1.45	1.56*	-	-	80.0	85.4	18.5	22.2	12.9	-	40.3	-	18.2	-	-	-	-	-	-	Liechtenstein
Lithuania	3.3	3.1	3.2	35.1	43.8	-7.2	-15.5	1.47	1.75	1.81	25.8	66.3	77.6	13.4	18.1	16.0	21.2	38.9	43.4	23.2	33.7	32.3	13.8	15.2	13.7	1.14	Lithuania
Luxembourg Macadonia EVD	0.5	0.6	0.5	5.6	3.6	5.9	6.8	1.60	2.05	1.81	-	78.1	83.1	17.4	21.0	14.0	19.5	38.7	41.0	20.5	31.3	38.6	9.5	10.1	5.4	6.53	Luxembourg Massdania FVD
Macedonia, FYR	2.0	2.1	2.1	22.9	19.0	-0.4	-0.5 2.1	1.47	1.72	2.22	25.7	72.4	76.5	13.7	15.6	11.5	18.4	35.5	42.7	16.3	28.0	27.8 42.7	11.7	15.2	33.8	1.45	Macedonia, FYR
Malta Moldova	3.6	0.4 3.1	0.4 3.4	4.1 39.0	3.2 41.9	-3.2	-2.3	1.44 1.27	1.59 1.46*	1.79 2.12*	27.2	77.1 65.5	82.3 73.2	17.0 12.1	20.1	14.1	24.4 18.2	39.0 33.7	45.2 43.2	20.1	39.9 26.7	24.3	10.4	15.4 17.4	6.9 4.0	0.60	Malta Moldova
Montenegro	0.6	0.7	0.7	8.3	5.7	-0.2	0.04	1.75	1.68*	- 2.12	26.5	72.8	78.1	14.8	17.1	12.9	19.1	35.4	41.7	19.1	29.6	29.5	11.4	14.1	30.3	0.00	Montenegro
Netherlands	16.5	17.8	17.1	184.6	135.1	-5.7	39.7	1.77	1.79	1.78	29.1	78.4	82.5	17.4	20.7	15.0	23.7	40.3	43.0	22.3	39.5	43.2	10.2	13.6	3.4	2.81	Netherlands
Norway	4.8	5.7	5.2	60.5	41.7	27.6	36.0	1.96	2.00	2.08	27.8	78.4	83.2	17.6	21.0	14.7	21.0	38.5	41.4	22.1	34.5	38.1	10.0	11.9	3.1	2.35	Norway
Poland	38.1	37.4	37.3	414.5	379.4	-18.7	-15.4	1.39	1.50	1.90	26.0	71.3	80.0	14.8	19.1	13.5	22.5	37.5	45.5	18.9	35.2	35.3	11.0	15.6	8.2	2.28	Poland
Portugal	10.6	11.3	10.2	104.6	104.3	28.1	14.6	1.36	1.56	1.75	27.7	76.2	82.4	16.9	20.3	17.6	23.6	40.4	46.7	26.3	37.6	41.4	12.9	14.3	9.6	1.55	Portugal
Romania	21.5	20.2	20.1	221.9	253.2	-4.4	-2.5	1.35	1.55	1.72	25.2	69.7	77.2	14.0	17.2	14.9	19.8	38.0	45.5	21.3	29.6	29.6	13.8	16.0	6.9	1.24	Romania
Russia	141.9	133.0	128.5	1713.9	2076.0	178.9	257.1	1.49	1.52	1.62	24.4	61.8	74.2	11.8	16.1	13.3	19.1	37.7	43.3	18.5	28.8	29.7	13.6	17.2	6.3	2.99	Russia
San Marino	0.03	-	-	0.3	0.2	0.3	-0.9	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1.6	-	San Marino
Serbia	7.3	6.8	6.6	69.1	102.7	5.1	3.1	1.39	1.62	2.02	26.3	71.3	76.6	13.8	16.0	17.1	22.3	41.3	45.2	25.4	35.1	35.8	17.1	18.9	13.6	1.39	Serbia
Slovakia	5.4	5.5	5.4	57.4	53.2	4.8	3.9	1.32	1.66	2.00	26.4	70.8	79.0	13.8	17.8	12.1	20.6	36.5	45.2	16.7	31.6	31.9	10.8	15.4	12.0	1.89	Slovakia
Slovenia	2.0	2.1	2.0	21.8	18.3	9.5	18.0	1.53	1.60	1.80	28.2	75.5	82.6	16.4	20.5	16.4	25.1	41.2	47.6	23.6	40.8	43.7	11.7	15.2	5.9	2.06	Slovenia
Spain	45.8	51.6	45.3	519.1	392.6	594.9	78.9	1.46	1.40	1.53	29.5	78.0	84.3	18.0	21.9	16.6	23.2	39.5	47.8	24.3	36.2	40.0	11.3	12.1	18.0	2.18	Spain
Sweden	9.3	10.5	9.6	109.3	91.4	42.5	67.6	1.91	1.94	1.99	28.8	79.2	83.3	18.0	21.0	17.8	22.8	40.7	42.4	27.1	38.2	42.3	11.7	13.4	8.3	1.53	Sweden
Switzerland	7.7	8.9	7.8	76.7	61.2	54.2	42.8	1.50	1.60*	1.66	29.6	79.8	84.6	18.9	22.3	16.6	23.7	41.2	44.8	24.3	38.6	47.2	10.0	11.8	3.4	1.52	Switzerland
Turkey	71.5	85.5	85.5	1262.3	454.0	27.5	112.8	2.10	2.13*	2.92*	21.8*	71.4	75.8	-	-	6.8	11.4	28.5	35.6	10.2	16.7	16.7	7.3	9.8	12.5	1.01	Turkey
Ukraine	46.0	40.4	40.2	510.6	754.5	8.6	14.9	1.46	1.55	1.62	24.3	62.3	74.0	11.9	15.9	15.9	19.9	39.2	44.1	22.7	30.2	30.3	16.5	18.1	6.4	1.86	Ukraine
United Kingdom EU-27	61.6 497.8	71.2 527.7	65.1 493.7	794.4 5393.8	579.7 4832.0	217.5 1739.9	186.0 938.9	1.96 1.60	2.07* 1.72	1.90 1.74	27.5 27.8	77.7 76.1	81.9 82.2	17.5 17.0	20.2 20.5	16.2 17.2	20.6 23.7	39.4 40.6	40.4 45.3	24.5 25.7	33.9 38.7	38.5 41.7	11.3	11.8	7.6 8.9	2.56 2.25	United Kingdom EU-27
United States	305.5	373.5	-	4251	2453	933.9	854.9	2.12	2.14	2.13	25.6	75.1	80.2	17.0	19.7	12.9	19.3	36.9	38.7	19.2	31.6	-	_	-	9.3	5.18	United States
Japan	127.5	115.2	-	1108	1142	19.4	-20.6	1.37	1.44*	1.51	28.9	79.3	86.1	18.6	23.6	22.7	31.8	44.6	52.3	35.6	54.4	-	-	-	5.1	2.80	Japan

Notes: Numbers in italics refer to years different from the one in the column heading. Asterisks indicate different calculation methods applied by VID. Apart from the EU-27 are computed as weighted averages. For further information about projection assumptions, data sources, country-specific definitions and notes see www.populationeurope.org.

European Union reaches 500 Million through Combination of Accessions, Migration and Natural Growth

Like any other population, the population of the European Union (EU) changes as a consequence of the interplay of three factors: fertility (births), mortality (deaths) and the balance of in- and out-migration. In addition, the EU has a further source of population growth through the accessions of new member states as it occurred in 1973, 1981, 1986, 1990 (incorporation of East Germany), 1995, 2004 and 2007. Since the beginning of the post-war integration process in Europe, marked by the foundation of the European Coal and Steel Community in 1952, the population of the EU has more than tripled from 160 million to 500 million. The enlargement process was in fact the main reason for this remarkable population growth, with the population of the six founding members (Belgium, France, Germany, Italy, Luxembourg, and the

members (Belgium, France, Germany, Italy, Luxembourg, and the Netherlands) increasing 'only' to 218 million in 2009 (Figure 2).

The 500 million mark was reached in the present-day EU of 27 countries (excluding French overseas territories) during the first half of 2010. During the last three years, 2007–9, the balance of births and deaths was slightly positive for all 27 countries taken together, but somewhat negative for the twelve recent accession countries that joined the EU in 2004 and 2007 (see more details on the reverse side). But the more important growth factor over the past three years was significant net-migration gain from countries outside the EU. National differentials in migration patterns are also the main reason why over the past two decades

countries in the West of the continent tended to grow while those in the East showed declining population sizes (see Figure 1).

Uncertainties about the most recent trend in migration are also the primary reason why it is not possible to precisely determine the date when the 500 million mark was reached. Due to the recent economic crisis, net-migration gains fell in many countries and projections based on previous levels are in all likelihood too high. A more precise picture will only be available after the current round of population censuses in Europe has been analyzed, probably in 2012. When this is done, we will be able to estimate the '500 million day' with a higher precision.

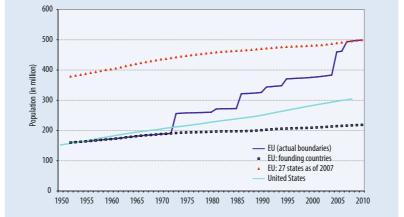


Figure 2: Population growth in the European Union and its predecessor as compared with the United States, 1952-2010

Figure 2 depicts the growth of the EU population since the 1950s and compares it to that of the United States of America. It shows that in 1954 the total population of the founding member countries of today's EU exactly equalled that of the USA, both having populations of 163 million. Since then the population of the USA has grown consistently more rapidly than that of the EU founding members and reached 300 million in 2007, a fact that was widely discussed in the American and international media. But the figure also shows the different steps of EU expansion which brought the total population of the EU far above that of the USA.

Over the coming decades the population of the EU-27 as a whole is expected to continue growing although from around 2015 onwards deaths are likely to outnumber births. Hence the subsequent population growth is expected to come entirely from the future migration gains originating from the countries outside the EU. Assuming rather stable migration patterns as observed over the past years with a slowly declining tendency still results in an increase of the EU population to around 528 million by 2030.

In thinking about the future we have to be aware that such projections are associated with great uncertainties. Migration flows are the most volatile component of population change



Year
Figure 3: Probabilistic projection of the population of Europe to 2100 (all 48 countries)

and the migration consequences of the current economic crisis clearly illustrate this point. But in the longer run the uncertainties associated with future fertility and mortality trends also lead to significant uncertainty ranges in future population sizes. While most traditional population projections — such as the high, medium and low variants published by the United Nations — only project the uncertainties derived from three different assumed fertility trends, probabilistic population projections can depict the uncertainty in total population size resulting from the combination of the uncertainties of future fertility, mortality and migration paths. Such probabilistic projections are carried out by running thousands of independent simulations based on different fertility, mortality and migration assumptions. As a result they provide predicted distributions of future population sizes.

Turkey, all of Russia as well as the Caucasus countries), Figure 3 shows a probabilistic population projection for Europe until the end of this century.¹ The yellow line at the centre gives the median with half of the simulated cases above and half below. The orange areas give the 95 percent range which opens more, the further one goes into the future. While the total European population is currently slightly above 800 million, it is expected to start declining slowly over the next decades, with the median at around 700 million in 2050. During the

Going beyond the EU to all 48 European countries included in this data sheet (thus including

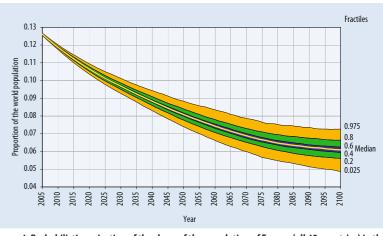


Figure 4: Probabilistic projection of the share of the population of Europe (all 48 countries) in the total world population to 2100

second half of the century the decline accelerates, with the median showing a fall of the total European population to around half a billion, comparable to the EU population today. But the uncertainty range of this projection is considerable, depending primarily on uncertain future fertility and migration trends. This shrinking of Europe's population will initially happen in the context of a growing world population, although we expect an end of world population growth during the second half the century.² These combined trends will result in a significant decline of the share of Europe's population in the total world population from currently 12 percent to around 8 percent by the middle of the century, and further to only 5–7 percent toward the end of the century (see Figure 4).

50 years ago the six founding members of the EU comprised about 6 percent of the world population of that day. At present the EU-27 has 7.3 percent of the current world population of 6.9 billion. 50 years from now, in 2060, the population of all of Europe will also be around 7.3 percent of the world population. But the share of the population of the current EU will fall to around 5.7 percent — unless it continues to grow through further accessions.

¹ Lutz, W., W. Sanderson, and S. Scherbov. 2008. The coming acceleration of global population ageing. Nature 451: 716–719. ² Lutz, W., W. Sanderson, and S. Scherbov. 2001. The end of world population growth. Nature 412: 543–545.

Regional overview

POPULATION CHANGE

Region	Population size on January 1st, 2009 (millions)	Projected population size, 2030 (millions)	Annual rate of population change, 2004-2008 (per 1000)	Projected annual rate of population change, 2009-2030 (per 1000)
Southern Europe	129.0	139.4	10.1	3.7
Western Europe	156.2	176.9	6.4	5.9
German-speaking countries	98.1	99.0	0.2	0.5
Nordic countries	25.2	28.3	5.6	5.5
Central-Eastern Europe	77.4	76.4	-0.3	-0.6
South-Eastern Europe	42.3	39.9	-2.2	-2.8
Eastern Europe	201.1	185.3	-4.4	-3.9
Caucasus	16.4	17.7	7.0	3.9
EU-27	497.8	527.7	4.5	2.8
EU-15	394.4	427.1	5.9	3.8
EU-12 (new members)	103.3	100.6	-0.9	-1.3

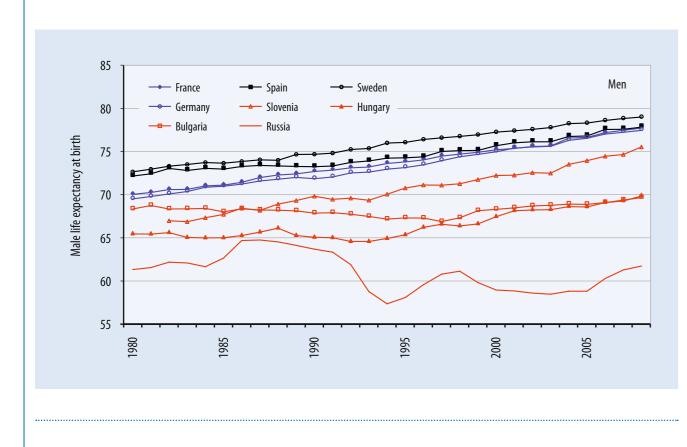
POPULATION AGEING

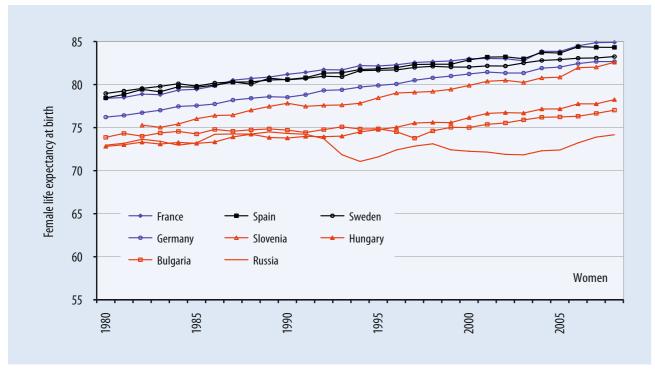
Region	Proportion of the population aged 65+, 2009 (%)	Projected proportion of the population aged 65+, 2030 (%)	Old-age dependency ratio 65+/15-64, 2009 (%)	Projected old-age dependency ratio 65+/15-64, 2030 (%)
Southern Europe	18.5	24.8	27.6	39.6
Western Europe	16.2	22.2	24.6	37.0
German-speaking countries	19.8	27.2	29.9	45.9
Nordic countries	16.5	22.9	25.0	38.5
Central-Eastern Europe	14.5	22.1	20.6	34.8
South-Eastern Europe	15.1	20.4	21.9	31.1
Eastern Europe	13.9	19.2	19.5	29.0
Caucasus	9.5	15.8	13.6	23.8
EU-27	17.2	23.7	25.7	38.7
EU-15	17.9	24.2	27.0	40.0
EU-12 (new members)	14.7	21.6	20.9	33.6

FERTILITY INDICATORS

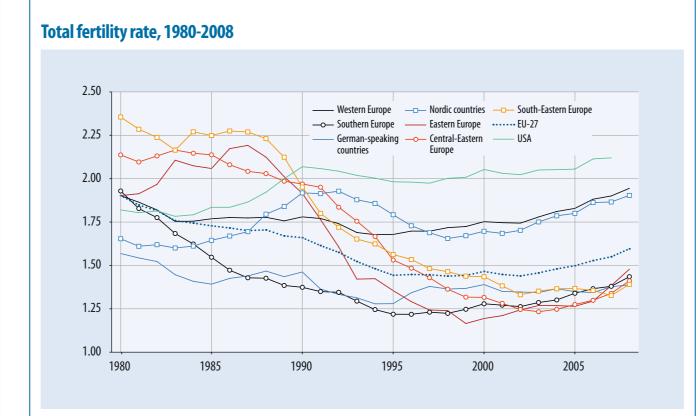
Region	Total fertility rate, 2008	Adjusted total fertility rate, 2006	Mean age at first birth, 2008	Completed cohort fertility, women born 1968
Southern Europe	1.44	1.46	29.0	1.57
Western Europe	1.94	2.05	27.9	1.93
German-speaking countries	1.39	1.62	28.5	1.51
Nordic countries	1.90	1.96	28.3	1.99
Central-Eastern Europe	1.41	1.60	26.5	1.89
South-Eastern Europe	1.41	1.62	25.3	1.85
Eastern Europe	1.48	1.52	24.4	1.63
Caucasus	1.76	1.86	24.6	2.01
EU-27	1.60	1.72	27.8	1.74
EU-15	1.65	1.75	28.3	1.71
EU-12 (new members)	1.40	1.60	26.1	1.84

Life expectancy at birth, selected European countries





Total fertility rate in selected regions of Europe and USA



Population change, selected countries and regions of Europe

LARGEST POPULATION GAIN (1990-2010)

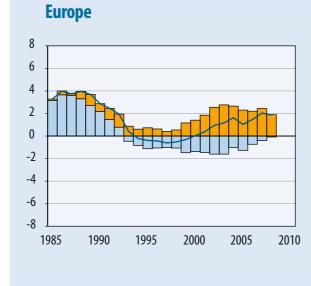
Country	Population	% change	
	1990	2010	
Turkey	55.5	72.3	30.2
Ireland	3.5	4.5	27.0
Spain	38.8	46.0	18.6
Switzerland	6.7	7.8	16.3
Kosovo	1.9	2.2	15.2
Norway	4.2	4.9	14.7
Greece	10.1	11.3	11.7
Netherlands	14.9	16.6	11.3

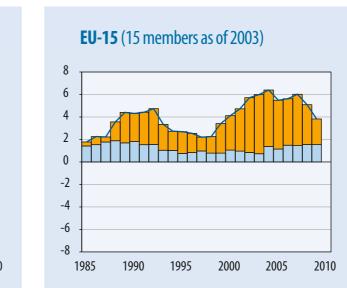
LARGEST POPULATION LOSS (1990-2010)

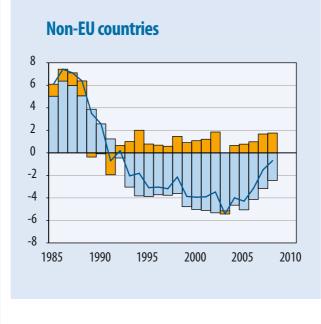
Country	Population	% change	
	1990	2010	
Latvia	2.7	2.3	-15.7
Estonia	1.6	1.3	-14.7
Bosnia and Herzegovina	4.5	3.9	-14.5
Bulgaria	8.8	7.6	-13.6
Ukraine	51.8	45.7	-11.7
Lithuania	3.7	3.3	-9.9
Romania	23.2	21.5	-7.5
Croatia	4.8	4.4	-7.5

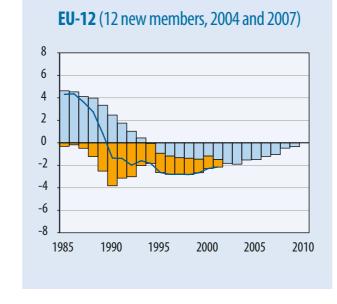
Note: Tables exclude countries with population below 1 million and the Caucasus countries.

Population change in regions of Europe









Net migration, per 1000 Natural increase, per 1000

Note: For the EU-12 net migration is not shown after 2001 due to unreliable data.

Austria is an example of a low-fertility country with comparatively smaller fluctuations in the TFR during the last two decades. Fertility postponement has proceeded with a lower intensity there and consequently the gap between the TFR and the adjusted TFR is less pronounced (see Figure 2). In 1986-2006, the average TFR level was 1.42, whereas the average for the adjusted TFR was 1.64. So far there have been no signs of a diminishing of the tempo effect as shown by a steady increase in the mean age at first birth and the persisting gap between the TFR and the adjusted TFR.

In Spain (see Figure 3) the pattern has been quite different, with the adjusted TFR at first following the decline in the conventional TFR and a divergence only emerging in the early 1990s. Recently the increase in the mean age at first birth has levelled off at a high value close to 29.5 years. As a consequence, the difference between the two fertility measures has disappeared, resulting in an increase in

After 2000, prior to the economic recession, many European countries saw a remarkable upturn in period Total Fertility Rates, bringing them to the highest level during the last two decades in some cases. This analysis illustrates such trend reversals in the Czech Republic and Spain and shows that they were to some extent an expected consequence of the diminishing postponement of childbearing. This is also indicated by a comparatively much smaller or no increase in the adjusted TFR in recent years.

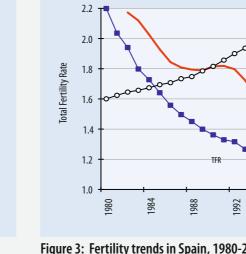


Figure 3: Fertility trends in Spain, 1980-2008

Country rankings

POPULATION SIZE

Rank	Population size on January 1st, 2009 (millions)	Projected population size, 2030 (millions)			
	EU-27	497.8	EU-27	527.7		
	USA	305.5	USA	373.5		
1	Russia	141.9	Russia	133.0	1	
	Japan	127.5	Japan	115.2		
2	Germany	82.0	Turkey	85.5	2	
3	Turkey	71.5	Germany	81.0	3	
4	France	62.4	United Kingdom	71.2	4	
5	United Kingdom	61.6	France	69.6	5	
6	Italy	60.0	Italy	63.3	6	
7	Ukraine	46.0	Spain	51.6	7	
8	Spain	45.8	Ukraine	40.4	8	
9	Poland	38.1	Poland	37.4	9	
10	Romania	21.5	Romania	20.2	10	

PERIOD TOTAL FERTILITY

MEAN AGE OF MOTHER AT FIRST BIRTH

ANNUAL NET MIGRATION RATE

RATE Rank Rank Mean age of mother at first birth, 2008 (years) 2.15 2.22 1 Switzerland 29.6 29.5 USA 2.12 2.14 2 Spain 3 Netherlands 29.1 2 Turkey 2.10 2.13 Ireland 2.10 2.08 28.9 28.8 4 France 1.99 2.13 4 Sweden 28.7 5 United Kingdom 1.96 2.07 5 Greece EU-27 1.60 1.72 EU-27 27.8 24.4 1.36 1.56 34 Russia 36 Portugal 1.35 1.55 24.3 Romania 35 Ukraine 23.9 1.35 1.65 38 Hungary 36 Moldova 1.32 1.66 37 23.4 39 Slovakia

Rank	Annual net migration (2004–2008, per 1000)	rate
1	Spain	13.5
2	Cyprus	13.0
3	Luxembourg	12.5
4	Ireland	10.7
5	Iceland	10.5
	EU-27	3.5
36	Poland	-0.5
37	Latvia	-0.6
38	Moldova	-0.9
39	Lithuania	-2.1
40	Albania	-2.7

LIFE EXPECTANCY AT BIRTH,

Rank Male life expectancy at birth, 2008 (years)

Iceland

Sweden

Cyprus

38 Belarus Ukraine 40 Russia

Switzerland

1.27 1.46

40 Moldova

21.8

LIFE EXPECTANCY AT BIRTH,

38 Turkey

	Rank	Female life expectancy at birth, 2008 (years)					
.0		Japan	86.1				
.8	1	France	84.9				
.3	2	Switzerland	84.6				
.2	3	Spain	84.3				
.7	4	Italy	84.0				
.5	5	Austria	83.3				
.1		EU-27	82.2				
.3	36	Belarus	76.2				
.5	37	Turkey	75.8				
.5	38	Russia	74.2				
.3	39	Ukraine	74.0				
ጸ	40	Moldova	73 2				

DIFFERENCE IN MALE AND **AT BIRTH**

	Rank	Difference in male and female life expectancy, 2008 (years)						
	1	Russia	12.4					
	2	Ukraine	11.7					
	3	Belarus	11.6					
	4	Lithuania	11.3					
	5	Estonia	10.8					
		EU-27	6.1					
	36	United Kingdom	4.2					
	37-38	Macedonia, FYR	4.1					
	37-38	Sweden	4.1					
	39	Netherlands	4.0					
	40	Iceland	3.3					

OLD-AGE DEPENDENCY RATIO (65+/15-64)

Rank	Old-age dependency ratio, 2009 (%)			Projected old-age dependency ratio, 2030 (%)		
	Japan	35.6		Japan	54.4	
1	Germany	30.9	1	Germany	47.5	
2	Italy	30.6	2	Finland	44.7	
3	Greece	27.9	3	Italy	43.0	
4	Sweden	27.1	4	Slovenia	40.8	
5	Portugal	26.3	5	France	40.5	
	EU-27	25.7		EU-27	38.7	
36	Macedonia, FYR	16.3	36	Macedonia, FYR	28.0	
37	Ireland	16.2	37	Moldova	26.7	
38-39	Moldova	14.1	38	Ireland	26.6	
38-39	Albania	14.1	39	Albania	26.2	
40	Turkey	10.2	40	Turkey	16.7	

PROPORTION OF THE POPULATION AGED 65+

Rank	Proportion of the population aged 65+, 2	2009 (%)	Rank	Projected proportion of the population ag 2030 (%)	ed 65+,
	Japan	22.7		Japan	31.8
1	Germany	20.4	1	Germany	27.9
2	Italy	20.1	2	Italy	26.4
3	Greece	18.7	3	Finland	25.8
4	Sweden	17.8	4	Slovenia	25.1
5	Portugal	17.6	5	Greece	24.5
	EU-27	17.2		EU-27	23.7
36	Macedonia, FYR	11.5	36	Moldova	18.2
37	Ireland	11.0	37	Iceland	17.5
38	Moldova	10.2	38	Albania	17.2
39	Albania	9.5	39	Ireland	17.0
40	Turkey	6.8	40	Turkey	11.4

POPULATION MEDIAN AGE

Rank	Population median age, 2009 (years)		Rank	Projected population median age, 2030 (years)	
	Japan	44.6		Japan	52.3
1	Germany	43.7	1	Italy	49.3
2	Italy	42.8	2	Germany	48.4
3	Finland	41.8	3-4	Greece	47.8
4	Greece	41.4	3-4	Spain	47.8
5	Serbia	41.3	5	Slovenia	47.6
	EU-27	40.6		EU-27	45.3
36	Iceland	34.5	36	United Kingdom	40.4
37	Ireland	33.8	37	Albania	39.9
38	Moldova	33.7	38	Ireland	39.0
39	Albania	29.8	39	Iceland	37.6
40	Turkey	28.5	40	Turkey	35.6

PROPORTION OF THE POPULATION THAT HAS A REMAINING LIFE EXPECTANCY OF 15 YEARS OR LESS

Rank	Proportion of the population that has a remaining life expectancy of 15 years or less, 2009 (%)			Projected proportion of the population that has a remaining life expectancy of 15 years or less, 2030 (%)	
1	Serbia	17.1	1	Serbia	18.9
2	Bulgaria	16.7	2	Bulgaria	18.6
3	Ukraine	16.5	3	Ukraine	18.1
4	Latvia	15.7	4	Belarus	17.8
5	Croatia	15.3	5	Moldova	17.4
36	Cyprus	8.4	36	Cyprus	10.5
37	Iceland	7.7	37	Luxembourg	10.1
38	Ireland	7.6	38	Turkey	9.8
39	Turkey	7.3	39	Ireland	9.6
40	Albania	7.2	40	Iceland	8.5

Note: Data for the USA and Japan are shown in italics and displayed only when their values fall between top five or bottom five European countries. Caucasus countries, Andorra, Bosnia and Herzegovina, Kosovo, Liechtenstein, Monaco and San Marino are not ranked. The proportion of the population that has a remaining life expectancy of 15 years or less is calculated as follows: from a period life table we select all single-year age groups that have a remaining life expectancy of 15 or less years and calculate what proportion of the total population has ages that fall into this category.

Tempo Effect and Adjusted TFR

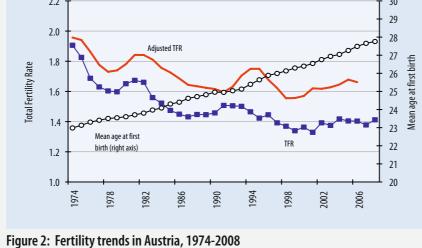
The conventionally reported indicator of the level of fertility in a given calendar year, the period Total Fertility Rate or TFR, reflects the interplay of two components: tempo (timing) and quantum (level) of fertility. When the age at which women give birth changes, the TFR is affected by this shift. In Europe women in many countries have been putting off births until higher ages for several decades, and, as a result, the mean age of childbearing has risen steadily. This childbearing postponement results in a decline in the number of births in a given period and therefore depresses the period TFR, even if the number of children that women have over their life course does not change. One can also think of this tempo effect in terms of an expansion of the interval between generations during which fewer births fall into each calendar year.

In order to come up with a measure of the level of fertility that is free from the tempo effect and thus constitutes a better indicator of the average number of children per woman in a given year than the period TFR, the "tempo-adjusted TFR" has been developed. In this datasheet the adjusted TFR is calculated on the basis of the Bongaarts-Feeney (1998) formula which uses fertility data by birth order (see online Appendix for more details). When available, the datasheet gives the mean of the adjusted



TFR for the three-year period of 2005-2007. This reduces annual fluctuations that are often quite large in the adjusted TFR. For countries where no such data are available for 2005–2007 the adjusted TFR is estimated either with the most recent available data or from the overall mean age of childbearing. The table on the front side shows both the conventional and adjusted TFR for individual countries in Europe. To gain a better understanding of these two indicators and their interplay with the changes in the mean age at first birth, this box provides an illustration of their developments in three European

Figure 1 illustrates the tempo adjustment for the Czech Republic where childbearing postponement the TFR to the level of the adjTFR by 2006. became particularly pronounced after 1990. The period TFR fell sharply in tandem with an increase in the mean age at childbearing, reaching a low of 1.13 in 1999. Subsequently, the TFR has recovered substantially and increased to 1.50 in 2008. However, the adjusted TFR has remained at a considerably higher level after 1990 and reached 1.80 in 2005-2007. This indicates that most of the precipitous fall in the TFR during the 1990s was driven by marked postponement of first births rather than by a genuine decline in fertility level and suggests a potential for a further increase in the period TFR.



Notes: EU-15 refers to the EU member states prior to 2004; EU-12 (new members) covers 12 countries are included only in regional overview and country ranking figures and tables. Caucasus region. Countries with total population below 100 000 are not included in regional overview and country ranking figures and tables. Caucasus region. Countries are included only in regional overview and country ranking figures and tables. Data for France exclude overseas departments. Data for Cyprus refer to the government controlled area only. Definition of regions in the regional overview and countries except Turkey and Caucasus region. overview take into account geo-political criteria as well as similarity in demographic trends, the United Kingdom); German-speaking countries (Poland, Solvenia, Solvenia); Western Europe (Polatical criteria as well as similarity in demographic trends, the United Kingdom); German-speaking countries (Poland, Slovakia, Slovenia); Western Europe (Relgium, France, Ireland, Luxembourg, the Netherlands, the United Kingdom); German-speaking countries (Poland, Slovakia, Slovenia); South-Eastern Europe (Albania, Bosnia and Herzegovina, Bulgaria, FYR Macedonia, Montenegro, Romania, Serbia); Eastern Europe (Belarus, Moldova, Russia, Ukraine); Caucasus (Armenia, Azerbaijan, Georgia).