



# Perspectives by Ruth Lea

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## **Adverse demographic trends in Europe: ageing populations and relative economic decline**

### *Introduction*

In the current debate about a possible German bail-out for Greece, one factor is increasingly clear. And that is the extreme electoral unpopularity in Germany of such a generous show of EU solidarity to ameliorate Greece's problems. Part of the unpopularity relates to the unpalatable idea of bailing out the profligate and dishonest Greek government. But it is also about the disparity of Greek and German retirement pension rules. Even the prospect that Greece was planning to raise the legal retirement age from 61 to 63 as part of its austerity package seems to have been like a red rag to a bull in Germany, which recently raised its legal age from 65 to 67.<sup>1</sup>

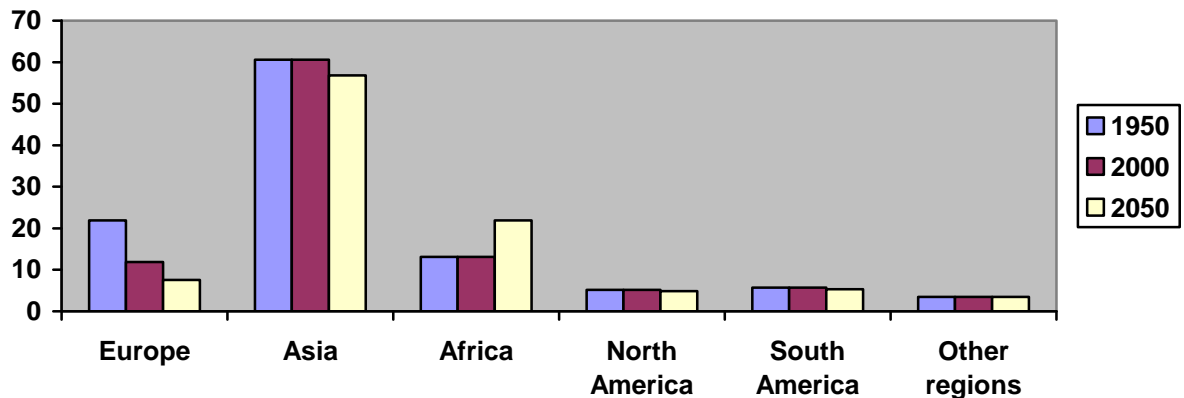
Germany increased its retirement age to 67 in response to its ageing population and adverse demographics. It is, perhaps, little appreciated that Germany's population has already begun to contract and there is absolutely no doubt that it is ageing. Along with Japan, the Republic of Korea and several of the Eastern European countries (of which Russia and Poland are the most significant) Germany's demographics are the most adverse of any major country.

### *Global demographic trends to 2050: background*

Germany's declining population should be seen in the overall context of Europe's drop in the share of global population and, if the UN population projections are proved correct, in an absolute fall in population starting in the second half of this decade.<sup>2</sup> The UN's data suggest that Europe's population will peak in the mid-2010s at 734 million and then start slipping back. By contrast all the other major regions are expected to show continuing growth up to 2050.

Annex table 1 shows that Europe's population made up nearly 22% of the 1950 total world population (2.5 billion), dropping to nearly 12% in 2000 (of the total 6.1 billion) and can be expected to about 7½% in 2050 (of the total 9.15 billion). Over the century from 1950 to 2050 the shares of Asia and the Americas remain relatively stable, with Africa the big gainer. Chart 1 shows the main trends in world population.

**Chart 1 Regional shares of world population (%): 1950, 2000 and 2050**

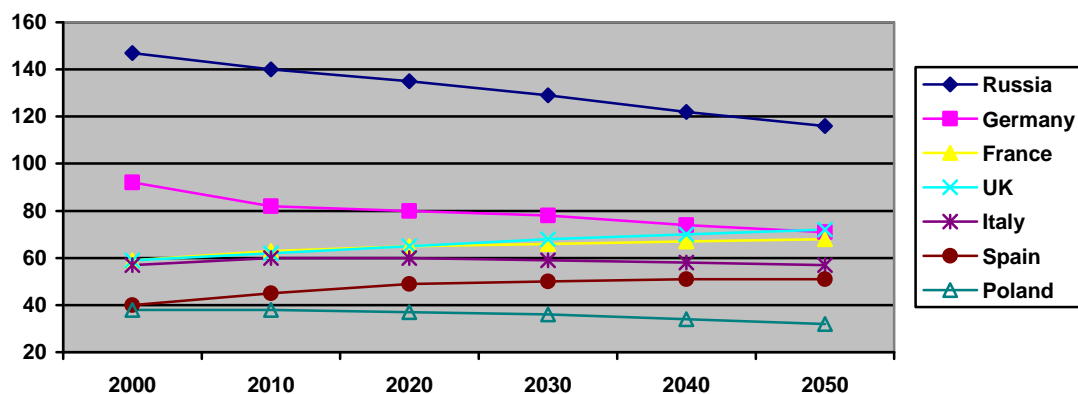


Source for all the charts: UN World Population database, the 2008 revision, medium variant.

As we have discussed in previous Perspectives, the economic implications for Europe are profound.<sup>3,4</sup> The region can only decline relatively and the UK needs to look to other, growing markets if it is to better its economic prospects as the century progresses. As already stated, Germany's population has already peaked and is now falling. By 2050 it is projected to be 71 million compared with today's 82 million. In contrast France's and, especially, the UK's populations are expected to continue rising. By 2050 these two countries could have populations of 68 million and 72 million respectively. In this scenario Britain's population could be the largest in Western Europe in 2050 – greater even than Germany's.

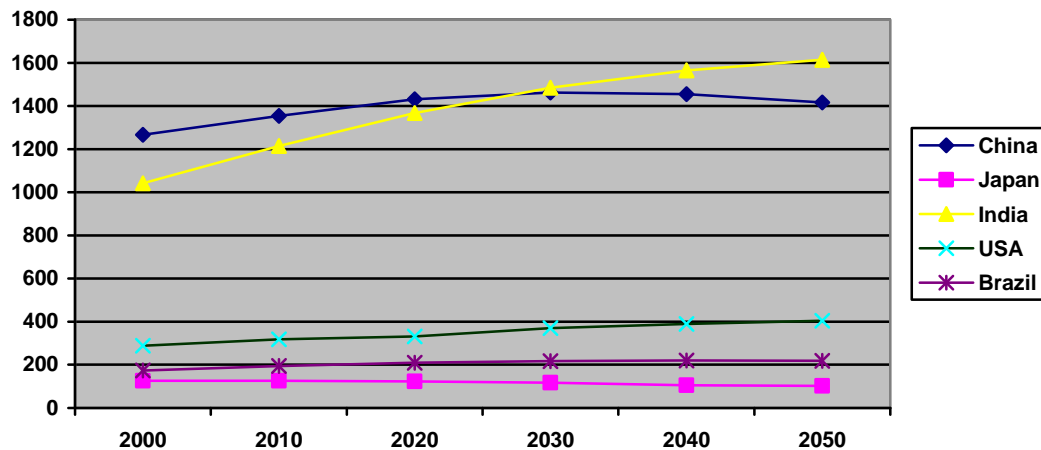
The situation in Eastern Europe is parlous. Russia's demographics are especially dire with population, having peaked in the mid-1990s, dropping from the current 140 million to 116 million by the middle of this century. Poland's demographics are similar – as are Bulgaria's, Romania's and Hungary's.

**Chart 2a Population projections, key countries: Europe, 2000-2050**



Within Asia, falling populations in Japan (already peaked in the mid-2000s) and later China (expected to peak around 2030) are offset by rapidly expanding populations in India (1,614 million by 2050), Pakistan (335m), Indonesia (288m), Bangladesh (225m) and Iran (97m). Growth is rapid in Africa with Nigeria's population predicted to rise to 289 million by 2050, Ethiopia's to 174m, DR Congo's to 148m and Egypt's to 129m. North America is dominated by the USA, where the population is expected to continue rising to 2050, but Brazil's population, perhaps surprisingly, is projected to decline modestly in a region where overall growth is expected to continue.

**Chart 2b Population projections, key countries: excluding Europe, 2000-2050**

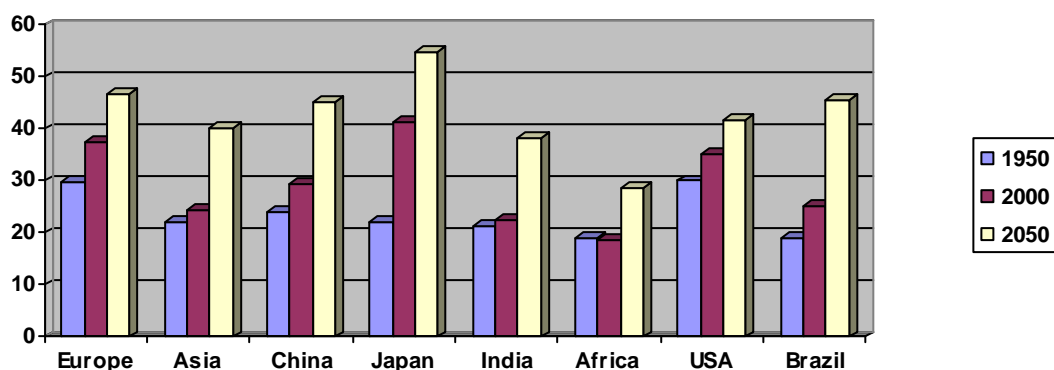


*Ageing populations – especially in Europe and Asia*

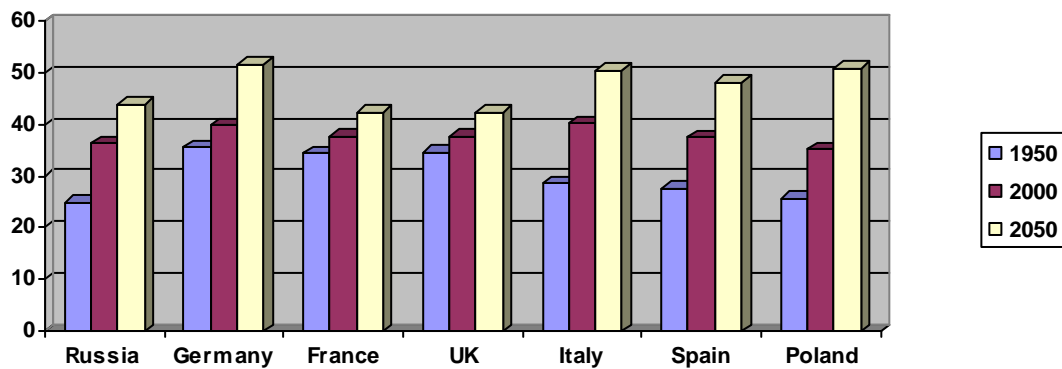
Since 1950 populations in all the main regions, with the exception of Africa, have all aged. Annex table 2 provides the details. By 2050 all the regions, without exception, are projected to age. Europe is expected to have the highest median age of all the regions by 2050 (nearly 47 years). But Japan’s projected median age is nearly 55 years, reflecting a combination of low fertility rates and high longevity. Asia, generally, will age significantly.

Within Europe Germany, of the major countries, is expected to show the highest median age by 2050 – closely followed by Poland and Italy. Russia’s “ageing” is restrained by relatively low life expectancy, especially for men. (Expectancy actually fell in the 1990s and early 2000s.) France and, especially, the UK are relatively well placed. The policy implications of these ageing societies is profound – not least of all for pensions and long-term care.<sup>5</sup>

**Chart 3a Median age, years: regions and key countries (excluding Europe), 1950-2050**



**Chart 3b Median age, years: key countries, Europe, 1950-2050**

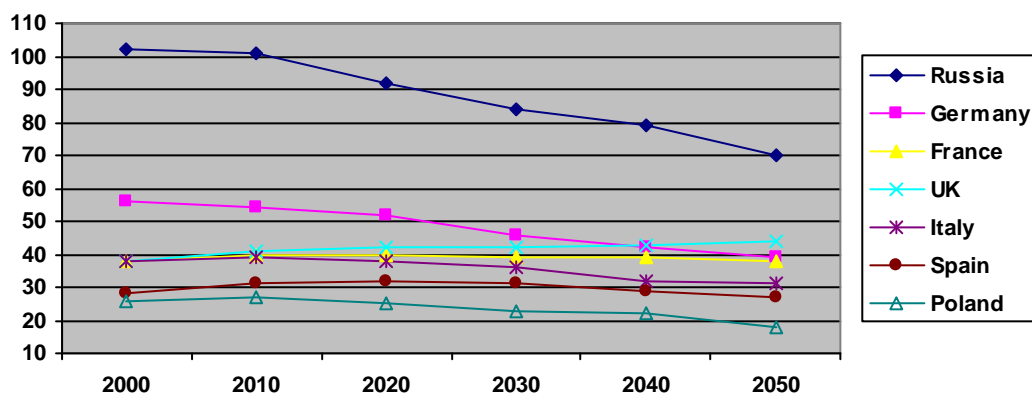


*Working population data*

Population declines in some economies combined with ageing results in sharp falls in working populations in some countries. (The working population is customarily taken to be aged 15-64, though increasingly people will be expected and/or obliged to work beyond 65.) Annex table 3 provides the detailed data.

The most affected region is Europe where the working population, which has probably already peaked, is expected to drop by nearly 20% between 2000 and 2050. Of the major countries Germany, Russia and Poland are all projected to experience falls of around 30% over this period. By any standards, these are significant declines. It is estimated that working populations in Germany and Russia are already falling. The fall in Italy over the period could be around 20%. The UK is the only major economy where the working population is expected to continue rising over the period.

**Chart 4a Working population (aged 15-64 only) projections of key countries: Europe, 2000-2050**

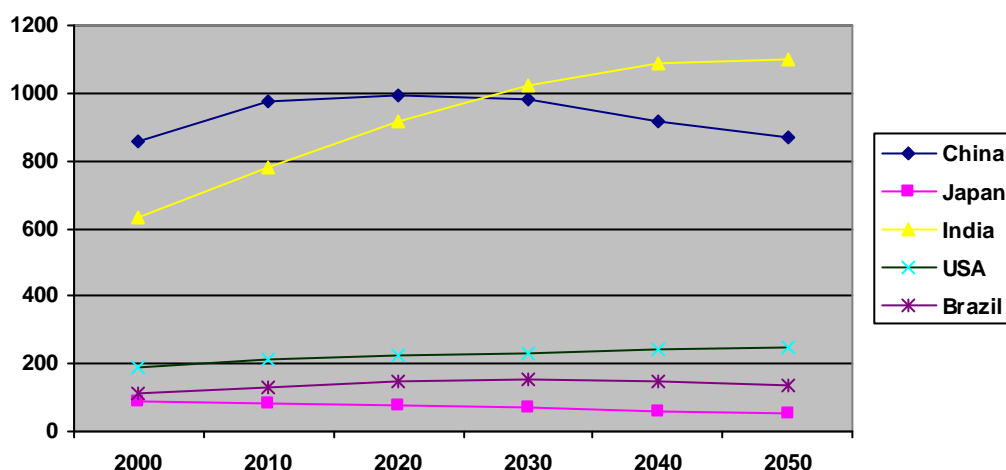


The story in Asia is a “tale of two parts” with Japan (where the working population peaked in the mid-1990s) and China (where it is expected to peak as early as 2015) shrinking by the middle of the century – but India continuing to expand. Indeed the demographics of China are such that it is sometimes argued that China “will get old before it gets rich” – irrespective of the 10% growth rates currently being clocked up. China’s average per capita income is estimated to be about \$6,000 (2008, PPP basis, see annex table 4), compared with \$36,000 for, say, the UK. If, for the sake of illustration, China grew by 10% for the next 20 years, GDP would indeed rise approximately six-fold – but given the fact that working age population would

already have been falling for 15 years, such an achievement would be increasingly difficult.

The working population for Japan is expected to decline by 40% between 2000 and 2050 – the greatest fall of any major country.

**Chart 4b Working population (aged 15-64 only) projections of key countries: excluding Europe, 2000-2050**



*The EU needs to lessen the cost burden on business*

Given the demographic prospects, the EU seems relatively unconcerned about the implications for overall competitiveness. It can take comfort from still being a relatively wealthy region of the world economy - or at least the western member states can claim this. But this cannot be guaranteed going forward. Germany has at least grasped the nettle of a higher pension age and the pension age is also set to rise in the UK.

Granted the EU is developing a new “EU2020” strategy to replace the failed Lisbon agenda which was launched in March 2000 with the aim of turning the EU into the world’s “most competitive and dynamic knowledge-based economy” by 2010. But the strategy talks in vague terms about “a new sustainable social market economy, a smarter, greener economy where our prosperity will result from innovation and from using resources better, and where knowledge will be a key input.”<sup>6</sup> It appears to be short of hard-headed policies to tackle not just the aftershocks of the recent economic and financial crises – which are worrying enough – but also the demographic realities.

And there appears to be little acknowledgement in the institutions of the EU that the cost burdens on business need to be reduced in order to support the much-needed sharpening up of competitiveness. On the contrary, business costs look set to rise further. The Women’s Rights Committee of the European Parliament, apparently oblivious of the economic difficulties of many of the member states, recently voted for a significant extension of costly maternity leave rights.<sup>7</sup> And the EU is pressing on with its costly, competitiveness-damaging low carbon, climate change policies, despite its isolation at the UN climate summit in Copenhagen last December.<sup>8,9</sup>

## References

1. Charlemagne's notebook, "What makes Germans so cross about Greece?" 23 February 2010, [www.economist.com/blogs/charlemagne](http://www.economist.com/blogs/charlemagne).
2. UN, Department of Economic and Social Affairs, *World Population Prospects*, the 2008 revision, medium variant, available from [www.un.org/esa](http://www.un.org/esa). Please note a presentational point: the UN publishes projections on its website for every 5<sup>th</sup> year, thus 2010, 2015, 2020 etc up to the year 2050.
3. Ruth Lea, "Globalisation and demography are changing the world", Arbuthnot Banking Group, 31 March 2008.
4. Ruth Lea, "The changing global landscape: G20 comes of age", Arbuthnot Banking Group, 5 October 2009.
5. Ruth Lea, "The public finances are shocking – but an ageing population means there is worse to come", Arbuthnot Banking Group, 19 October 2009.
6. EU Commission, "Public Consultation on the future of the EU 2020 strategy", 24 November 2009, available from <http://ec.europa.eu>
7. David Charter, "EU plans longer maternity leave", Times, 24 February 2010.
8. Ruth Lea, "The lack of reliable and affordable energy supplies could seriously damage British manufacturing", Arbuthnot Banking Group, 20 January 2009, touches on the cost implications of the EU's Emissions Trading System (ETS).
9. BBC website, "Why did Copenhagen fail to deliver a climate deal?" 22 December 2009.

## Annex tables

**Table 1 Population estimates, billions, selected % shares in brackets**

	1950	2000	2010	2020	2030	2040	2050	Peak & decline
<b>World</b>	2.5	6.1	6.9	7.7	8.3	8.8	9.15	Na
Europe:	0.547 (21.9%)	0.726 (11.9%)	0.733	0.733	0.724	0.708	0.691 (7.6%)	2015
Russia	0.103	0.147	0.140	0.135	0.129	0.122	0.116	1995
Germany	0.068	0.082	0.082	0.080	0.078	0.074	0.071	2005
France	0.042	0.059	0.063	0.065	0.066	0.067	0.068	Na
UK	0.051	0.059	0.062	0.065	0.068	0.070	0.072	Na
Italy	0.046	0.057	0.060	0.060	0.059	0.058	0.057	2015
Spain	0.028	0.040	0.045	0.049	0.050	0.051	0.051	Na
Poland	0.025	0.038	0.038	0.037	0.036	0.034	0.032	1995
Asia:	1.4 (56.0%)	3.7 (60.6%)	4.2	4.6	4.9	5.1	5.2 (56.8%)	Na
China	0.540	1.267	1.354	1.431	1.462	1.455	1.417	2030
Japan	0.082	0.127	0.127	0.124	0.117	0.106	0.102	2005
India	0.371	1.042	1.214	1.367	1.485	1.565	1.614	Na
Africa	0.2 (8.0%)	0.8 (13.1%)	1.0	1.3	1.5	1.8	2.0 (21.9%)	Na
North America:	0.171 (6.8%)	0.319 (5.2%)	0.352	0.383	0.410	0.432	0.448 (4.9%)	Na
USA	0.157	0.288	0.318	0.332	0.370	0.389	0.404	Na
South America:	0.112 (4.5%)	0.347 (5.7%)	0.393	0.430	0.458	0.475	0.482 (5.3%)	Na
Brazil	0.54	0.174	0.195	0.209	0.217	0.220	0.219	2040
Other regions	(2.8%)	(3.5%)					(3.5%)	Na

Source: UN, Department of Economic and Social Affairs, *World Population Prospects*, the 2008 revision, medium variant, available from [www.un.org/esa](http://www.un.org/esa). The share for "other" is calculated as a residual.

Note the UN publishes projections for every 5<sup>th</sup> year only, thus: 2010, 2015, 2020, 2025, 2030, 2035, 2040, 2045 and up to 2050.

**Table 2 Median age, years**

	1950	2000	2025	2050
<b>World</b>	24.0	26.6	32.8	38.4
Europe:	29.7	37.6	44.0	46.6
Russia	25.0	36.5	41.7	44.0
Germany	35.7	40.0	48.8	51.7
France	34.5	37.7	42.9	44.8
UK	34.6	37.7	40.8	42.5
Italy	28.6	40.3	48.7	50.5
Spain	27.7	37.6	45.9	48.2
Poland	25.8	35.3	43.8	51.0
Asia:	22.3	24.3	33.5	40.2
China	23.9	29.6	38.9	45.2
Japan	22.3	41.4	50.6	54.9
India	21.3	22.6	29.9	38.4
Africa	19.2	18.5	22.2	28.5
North America:	29.8	35.3	39.1	42.1
USA	30.0	35.1	38.7	41.7
South America:	20.4	25.0	33.8	42.1
Brazil	19.2	25.3	35.8	45.6

Source: UN World Population database, the 2008 revision, medium variant.

**Table 3 Working Population (aged 15-64 only), millions: key regions and countries**

	1950	2000	2025	2050	Change, 1950-2000	Change: 2000-2050	Peak & decline
<b>World</b>	1,536	3,843	5,262	5,865	2,307	2,022 (53%)	Na
Europe:	359	492	467	398	133	-94 (-19%)	2010
Russia	67	102	87	70	35	-32 (-31%)	2000
Germany	46	56	50	39	10	-17 (-30%)	2000
France	28	38	40	38	10	0	2010
UK	34	38	42	44	4	6 (16%)	Na
Italy	30	38	38	30	8	-8 (-21%)	2010
Spain	18	28	32	27	10	-1 (-4%)	2020
Poland	16	26	24	18	10	-8 (-31%)	2010
Asia:	839	2,350	3,227	3,387	1,511	1,037 (44%)	Na
China	338	855	996	870	517	15 (2%)	2015
Japan	49	86	72	52	37	-34 (-40%)	1995
India	221	633	972	1,098	412	465 (73%)	Na
Africa	123	445	828	1,300	322	855 (192%)	Na
Americas:							
USA	102	190	227	248	88	58 (31%)	Na
Brazil	30	113	150	137	80	24 (21%)	2030

Source: UN World Population database, the 2008 revision, medium variant.

**Table 4 GNI per capita, 2008, selected countries, PPP basis, \$000**

Rank	Economy	PPP, international dollars (thousands)
2	Luxembourg	64.3
4	Norway	58.5
11	US	47.0
12	Switzerland	46.5
16	Hong Kong, China	44.0
27	Canada	36.2
28	UK	36.1
29	Germany	35.9
32	Japan	35.2
34	France	34.4
71	Russian Federation	15.6
95	Brazil	10.1
122	China	6.0
155	India	3.0

Source: IMF, September 2009, available from [www.imf.org](http://www.imf.org). See also Ruth Lea, "The changing global landscape: G20 comes of age", Arbuthnot Banking Group, 5 October 2009.

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