

Population Review

Volume 53, Number 2, 2014

Type: Article pp. 1-22

Aging and Demographic Weakness in the European Union: The Spanish Model

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Abstract

The population in the European Union has remained stagnant for many years. The continued decline in birth rate and increasing life expectancy are leading to an aging population. In Spain, this aging process has been accelerated. The Spanish case requires a complex multidisciplinary analysis to achieve a proper understanding of this population phenomenon that has serious consequences for Spain. This paper analyzes the causes of the aging population and its future consequences. Multiple data sources, mostly from the National Institute of Statistics and Ministry of Labour and Social Security, are used to support the analyses. For several years, many immigrants have arrived in Spain, resulting in a significant increase in population and a decrease in the rates of aging. A positive and intense migratory balance has stopped, and shows signs of change. Numerous elements indicate that the Spanish economy does not suffer a transient crisis situation; there is a depletion of the production model, hindering a quick exit from the situation of economic and financial crisis. In this context, it is not easy to get a new and favorable migratory balance. A significant Spanish demographic weakness is confirmed; the population structure has not changed despite the recent intense immigration process. The threat of the demographic regression is announced in a near temporal horizon.

Keywords

Population, immigration, demographic crisis, Spain, European Union

Introduction

Spain, like the majority of countries within the European Union (EU), has shown a trend towards a stagnant and aging population (Casas 2002; European Commission 2012). This similarity, however, presents an interesting situation: the problem of an aging population in Spain began later and is advancing faster than it did in other EU countries. The wide territorial analysis conducted in this study sheds light on some of the more critical problems related to the declining demographic in Spain.

The weakening demographic in the European Union: a compromising situation

The EU, for more than half a century, has been growing and increasing the extent of its territory. This explains the EU's complexity and diversity, which is particularly apparent when looking at the state rather than regional level. Even though the available statistical information enables us to analyze European affairs down to the regional level, it is more opportune to look at Europe as a whole in order to make more accurate comparisons on a global scale. A global analysis is the only way to gauge the real significance of the EU on a more extensive scale while at the same time determining whether or not population trends are generalized on the continent (Coleman 2002).

The countries in the EU span 4.3 km², which represents 2.88 per cent of the world's landmass. Furthermore, the EU's demographic is significant, with 7.15 per cent of the world's population. As shown in table 1, there are currently 501.1 million people living within the EU. The population density in the EU is thus greater than in most other parts of the world. Nevertheless, the demographic importance of the EU in relation to the rest of the world has been decreasing. Not even a century ago, the population in the territory of what is now the EU represented more than 30 per cent of the world's population (Livi 1998). By the time the founding treaties of the EU took effect, the proportion of countries that made up the EU had declined to 15 per cent in relation to the rest of the world (Bardet and Dupaquier 2000). This backward movement continues. Over the past decade, the proportion of the EU population compared to the rest of the world has decreased from 7.53 per cent to 7.15 per cent (see table 1). The fertility rate in the EU has collectively declined. The datum 1.6 is very far from the 2.1 minimum required to replenish the population. Distinct differences between EU countries exist, but none exceed or reach the minimum threshold. Ireland has the highest fertility rate in the EU, at 2.07. By contrast, in some places, the rate remains lower than 1.5, as is the case in Hungary and Portugal. The countries with the largest population size (and the biggest impact on the evolution of the population in general) stand out for their reduced fertility rates: Germany, 1.36; Italy, 1.42; and Spain, 1.40. Only Great Britain and France approach the rate required to reproduce

Table 1. Basic demographic figures of the European Union

	2000	2010
Total population (millions)	489,6	501,1
Total fertility rate	1,47	1,60
Average growth rate	0,4	0,3
Annual demographic growth (2000-2010)	-	0,23
Population significance of the EU/ World (%)	7,53	7,26
Mean age of women at childbirth, selected year	29,1	29,7
Life expectancy: men and women.	73,8 79,7	76,4 82,4
Foreigners (total figure, in millions)	22,1	31,7
Citizens of other EU MS	8,1	11,9
Citizens from other countries in partnership with the EU	14,0	19,8
Foreigners, residents of the EU (% of total population)	4,51%	6,4%
Mean age of the population (years)	38	40,9
Proportion of the total EU population according to age (% total)	-	-
0-14 years	14,7	14,2
15 to 64 years	68,5	68,4
Over 65 years	16,8	17,4
80 years +	4,4	4,7
Welfare benefits	22,7	25,9
Pensioners (millions)	102,3	119,6

Source: Eurostat

the population. The EU, as a whole, is characterized by weak birth rates, which are lower than those in other regions of the world. This is not a recent occurrence (Lesthaegue and Willens 1999). Furthermore, this particular demographic transition is coupled with a second phase marked by the predominance of structural changes in sociological and family behaviors (Pinelly et al. 2001).

The mortality rate has also been progressively declining in recent decades in the EU. There is currently an annual average of about 5 million deaths in the EU — the consequence of mortality rates of close to 8 per 1,000 people. Furthermore, the average life expectancy in the EU is now greater than 80 years for women and is approaching that number for men. EU life expectancy figures have not stopped growing and are among some of the highest in the world.

In spite of a substantial increase in the mean average life expectancy rate, Europe's aging population ensures that there will be a progressive rise in the number of deaths in the foreseeable future. If birth rates continue to be lower than mortality rates, a demographic decline will materialize, particularly if not compensated for by a new wave of immigration from the outside (Orzechowska 2002). However, the efficacy of this "immigration theory" remains uncertain (United Nations, Department of Economic and Social Affairs, Population Division 2000). On this point, the data show that in 2010, the number of immigrants living within the EU reached more than 31.7 million; this number only refers to those

immigrants under government control. Exempt from this figure are those who, for their own reasons, were present in the EU as illegal immigrants, and this segment of the population continues to grow.

Over the past decade, the number of immigrants living in Europe rose by 9.6 million. The internal differences from one EU country to another, however, are acute (EU 2011). The largest collective of immigrants (in millions of people) can be found in the following countries: Germany (7.15); Spain (5.65); Great Britain (4.18); Italy (3.89); and France (3.73). These five countries combined account for 24.6 million immigrants — about 80 per cent of the total immigrant population in Europe. The distribution of these immigrants shows even greater contrast when analyzing their proportion (i.e. the importance of immigration in each country). The mean average within the EU is 6.32 immigrants for every 100 residents. There are extreme cases, such as Luxembourg, where the average reaches 43 per cent, followed by Latvia (17.4 per cent); Cyprus (15.9 percent); Greece (15.9 per cent); and Spain (12.3 per cent). In contrast, in some countries the figure is insignificant (less than or equal to 1 per cent): Bulgaria, Poland, Romania, Lithuania and Slovakia.

These immigration figures must be moderated, however, when the primary objective is to evaluate their importance and impact within the total population of the EU. For example, 11.9 million of the 31.7 million immigrants in the European Union (i.e. 37.53 per cent) are EU citizens residing in an EU country other than their own. This figure only reflects the movement of EU residents. This is a substantial number, yet it would be a lot higher with improved accessibility and integration between the different EU countries. Such improvements could produce an influx of immigration between EU countries, resulting in economic improvement and increased production, revenue and salary as well as in lower unemployment rates. The figures in table 1 show that the number of foreigners living in the EU from countries outside the EU is relatively small. According to official data (table 1), this number reaches 19.8 million immigrants or 3.95 per cent of the total population of the EU, representing an increase of 5.8 million people over the last ten years, which confirms a growing trend. Without the support of immigration, the population of the EU would not have grown during the last ten years (King 2002). The weakness of the demographic evolution in the EU has thus been offset by foreign immigration. This phenomenon is therefore of great importance to European demographics (Salt 2001).

The increase in the aging population is another significant issue in European demographics. The average age of the population in the EU has steadily increased, from 38 in 2000 to 40.9 in 2010, and is now the highest in the world, with the notable exception of Japan. Numerous aspects of European life stem from this issue, which has created a problem with regards to demographic renewal. As is the case with the other previously mentioned demographic figures, the differences between countries are significant. Consequently, in some cases (e.g. Germany, 44.2; Italy, 43.1; and Finland. 42.0) the

average age is even higher than the EU average of 40.9. Slovakia and Cyprus have some of the lowest figures, with average ages of 36.9 and 36.2, respectively.

The pyramid structure showing the mean age range in the EU confirms a clear imbalance: a strong reduction at the bottom of the pyramid contrasts with an increase in the upper part. Taking reference from the three biggest age groups, the imbalance is not only clear but also continues to increase over time (see table 1). The proportion of the older generation (65 years and over) exceeds that of young people (-15 years) by a significant 3.2 points. This gap has grown by 1.1 points over the last ten years.

It is important to remember that the proportion of the older population presents considerable differences from one country to another in the EU (Begeot and Fernández 1997). The biggest differences exist in countries whose population models went through intense changes many years ago. Germany occupies a large place in this hierarchy with 20.7 per cent of the population 65 years and over, followed by Italy, with a figure of close to 20.3 per cent. In contrast, those countries with an older population below the European average are Great Britain (16.4 per cent) and France (16.6 per cent). Young people (-15 years) also show various percentages among EU countries, representing more than 18.5 per cent of the population in both Cyprus and Slovakia, in comparison to more modest figures in other countries, such as Germany (14.2 per cent) and in Italy (14.3 per cent). The magnitude of the aging population in Europe is particularly striking when measuring the extent of the older population. The threshold of 80 years of age is quite significant. This age group hardly existed years ago and thus contributed to a very limited extent to the world's population. Nowadays, the significance of this segment of the population is growing. In 2000, 4.4 per cent of the total population in the EU was 80 or over; by 2010, that figure had risen to 4.7 per cent. In some countries, such as in Germany (5.8 per cent), Switzerland (5.3 per cent) and France (5.2 per cent), the rate is even higher.

The greater proportion of individuals who are 80 years of age or older and the aging population in general have led to elevated and growing dependency rates. The average in 2000 was 22.7 per cent and by 2010 had reached 25.9 per cent. However, these figures do not represent the whole of the EU. In some countries, such as Germany (31.3 per cent) and Italy (30.8 per cent), dependency rates reach an extreme of over 30 per cent. At the same time, the rates remain lower in other EU countries, such as Cyprus (18.6 per cent). These dependency rates generate numerous consequences in terms of labour and productivity, and at the economic and social level (Coppel et al. 2001). Only higher productivity rates will make it possible to maintain such high dependency rates in a manner that will allow EU citizens to enjoy the same amount of social and welfare benefits that they enjoy today (Hantrais 1995).

What is causing population aging in the EU? In general, the predominant way of life in Europe, measured in social and economic terms, has made having children less desirable and necessary now than it was in the past, or as it still is in other parts of the world (Sardon 2002). To give an example of this, the age at which people are having their first child has increased to almost 30 years of age, and in some countries the number is even higher, as in Ireland (31.2) and Italy (31.1). The youngest average age for having a child can be found in Romania (26.9), a number which is higher than in the majority of other countries around the world. Several reasons why people are waiting longer to start families in the EU are presented below.

i) *Economic factors*: Each child supposes direct, indirect and induced costs that affect parents to a greater extent than the subsequent economic benefits. Also, the cost of housing is related to low birth rates. The only exceptions to the low birth rates are found among those who enjoy high purchasing power or are able to make significant reductions in their means and standards of living. Nevertheless, in wealthy areas, economic well-being also has a negative impact on birth rates.

ii) *Sociological and lifestyle changes*: There has been a deep sociological transformation in the EU, which has affected establishments, family habits, homes and relationships. In European society, new guidelines for behaviour have developed that do not particularly favour the creation of large families (Billari and Wilson 2001). Furthermore, the number of children born out of wedlock in the EU has increased from 17.4 per cent (per cent of births in that year) in 1990 to 38.8 per cent in 2010, which is a significant change.

iii) *The modern welfare society*: Many countries in Europe have aptly been characterized as “welfare states.” Now, however, the public has been given the responsibility of bearing many of the costs that were once covered by the welfare state. The idea of childhood and everything related to it has been one of the most important aspects of the welfare state. Nevertheless, provisions that children need from infancy to maturity, which came to be expected, are no longer being covered (in many cases) in the current economic crisis in Europe, which has caused frustration and dejection. Parents thus have to shoulder the burden. Relying on the state to cover the costs of children is obviously illogical but nevertheless determines social behaviour (van Dalen 2007).

iv) *Incorporation of women into the labour market*: Women entering the workforce is a common and widespread trend in the EU; the phenomenon significantly reduces birth rates because many women choose to work instead of having many (if any) children.

The immediate consequences of the numerous demographic policies prevailing in the European Union are difficult to calibrate in the medium term, but some reflections concerning the most relevant

aspects related to the aging population are possible. The most prominent effects confirm the reality of a European demographic whose growth has been reduced to the point where there seems to be no immediate progress, but in fact an extreme period of decline. Generational replacement is barely assured, and the aging trend continues. Despite the significant migratory flows from other countries mentioned above, if similar social behaviour continues, it will intensify the effects of aging. The consequential effects of the aging of the population can currently be perceived, although the direst predictions may not come to fruition. Analyzing any future issue is always risky as the course of events is never completely predictable. However, if we apply logic about the present reality, we can make certain deductions about the future as follows:

- The production system in the EU will be marked by new demographic growth (Djajic 2001). The readjustments will have to be done within the new scenario of a globalized world, which has significantly changed the way goods and services are produced (Dehesa 2007).
- Increasing the number of immigrants as a strategy to offset demographic weakness poses numerous risks. It will be difficult to ensure that immigration meets the demands for qualified workers in the EU (Greenway and Nelson 2001). Additionally, the ability of numerous immigrant groups to integrate is questionable (Geddes 2000).
- A smaller working population will have to deal with an increasingly aging population (Massey et al. 1998).
- The welfare state, erected decades ago, may be compromised in its ability to continue to fund and support popular social programs (Hillman 2003). Furthermore, its sustainability in the future will be more difficult and costly with an increasingly aging demographic structure (Herce 2002). Only with weighty reforms will the essentials be maintained.

Other social and sociological consequences are also likely to occur. If new problems are not addressed properly, the future effects of the aging population could potentially be devastating.

Spain's demographic decline: a paradigmatic reality

When considering the marked differences between the countries in the EU, the case of Spain is interesting due to the seriousness of the results of population aging and the speed of the country's growth. Up until the last half of the 20th century, a demographic transition had not yet occurred (Reques 2006). The birth rate remained high (more than 20 to every thousand) and the death rate was low (less than 9 per thousand). The rate of natural increase exceeded 10 points. Natural population growth increased every year by more than 300,000 habitants. This resulted in an increase in the population from 30.7 million in 1960 to 36.0 million in 1975 (see table 2).

Table 2. Population and evolution of the basic gross rate

Period	Birth rate (by 1000 h.)	Death rate (by 1000 h.)	Natural increase rate	Vegetative growth (absolute values)
1900	34,56	24,43	10,13	190.754
1950	20,38	9,81	10,57	297.788
1960	21,37	8,62	12,75	392.405
1970	20,10	8,38	11,72	422.063
1980	16,92	7,98	8,94	281.674
1990	10,33	8,57	1,76	68.283
2000	9,88	8,95	0,93	37.241
2001	9,98	8,84	1,14	47.733
2002	10,14	8,92	1,22	51.642
2003	10,52	9,16	1,36	58.076
2004	10,65	8,71	1,94	83.608
2005	10,75	8,93	1,82	79.755
2006	10,96	8,43	2,53	111.904
2007	10,98	8,59	2,39	107.889
2008	11,38	8,47	2,91	134.305
2009	10,75	8,34	2,41	110.508
2010	10,57	8,35	2,22	102.694
2015*	9,76	8,80	0,96	44.060
2020*	8,69	9,10	-0,41	-18.969

Source: Ministry of Labour and Social Security. Annual results of migration, National Institute of Statistics (INE), Authors *Scope of INE, X-2011

The progressive decrease in the birth rate in Spain correlates with the demographic transition in terms of similar conditions in other countries in the EU (Thumerelle 1997; Billari and Kohler 2002). The difference with Spain lies in the fact that this process occurred both rapidly and abruptly (Reques 2011). Over the last 20 years, the birth rate has halved: 20.10 per thousand in 1970 versus 10.33 in 1990 (Abellán 1992). A precise analysis of the following aspects of the situation in Spain will help us understand what has happened:

i) The economic growth rate in Spain was one of the highest in the world during the 1960s, and until 1974 the annual average economic growth rate remained above 5 per cent (Wright 1976). Linked to this, a notable transformation occurred in the entire productive system, with significant growth in industry and development in the service sector (Harrison 1993; Salmon 1995).

ii) The social changes induced by the transformation of the productive system were acute. Rural exodus and massive concentration in the cities began to be generalized (Serrano and Calmés 1998). This phenomenon of rural exodus modified the traditional way of life and was sustained by non-traditional households/families with an ever-decreasing number of children (Burriel 2003).

iii) The end of the long dictatorship of General Franco and the transition to a democratic system under a democratic monarchy in 1975 gave way to the creation of a new reality. According to Sánchez (2003), the traditional way of life characterized by big families and a largely rural population was becoming something of the past, evolving towards a new way of life characterized by smaller families and a more urban population. In little time, a new legal framework was established which modified family life and supported new, liberating customs.

iv) A new mindset and way of life were quickly established following the model of the more developed countries in Europe (Bagavos and Fotakis 2000). Spain, in a very short time period, managed to cover ground that had taken far longer to realize in other countries in Europe, such as France.

It is more complex to explain the reasons why over the years such a low birth rate has been maintained in Spain. On this point, the following issues need to be presented and analyzed:

i) Over the last 20 years, there have been distinct periods of contrasting change in the Spanish economy. These periods of crisis and change can be delineated as follows: from 1978-85; 1992-97; and 2007 to the present. Times of substantial economic growth (1986-1991 and 1998-2007) have been marked by the desire to increase the degree of product consumption, making it more costly to raise families. In general, the profound social/sociological transformation that has occurred in Spain over the last several decades has favored a decline in the birth rate (Chesnais 1992).

ii) All public authorities have not considered the demographic situation as a central issue of national interest (Burriel 2003). The few actions undertaken have been politically slanted and incoherent, with clear deficiencies and without resulting in progressive stability. Economic incentives to boost births have been much lower in Spain in comparison to neighbouring countries, such as France.

The aforementioned factors help to explain why children are becoming less of a presence in daily life in Spanish society in comparison to the past (De Rose and Raccioni 2001). An increasing number of Spanish families are more inclined to have smaller families with only one child or two at the most

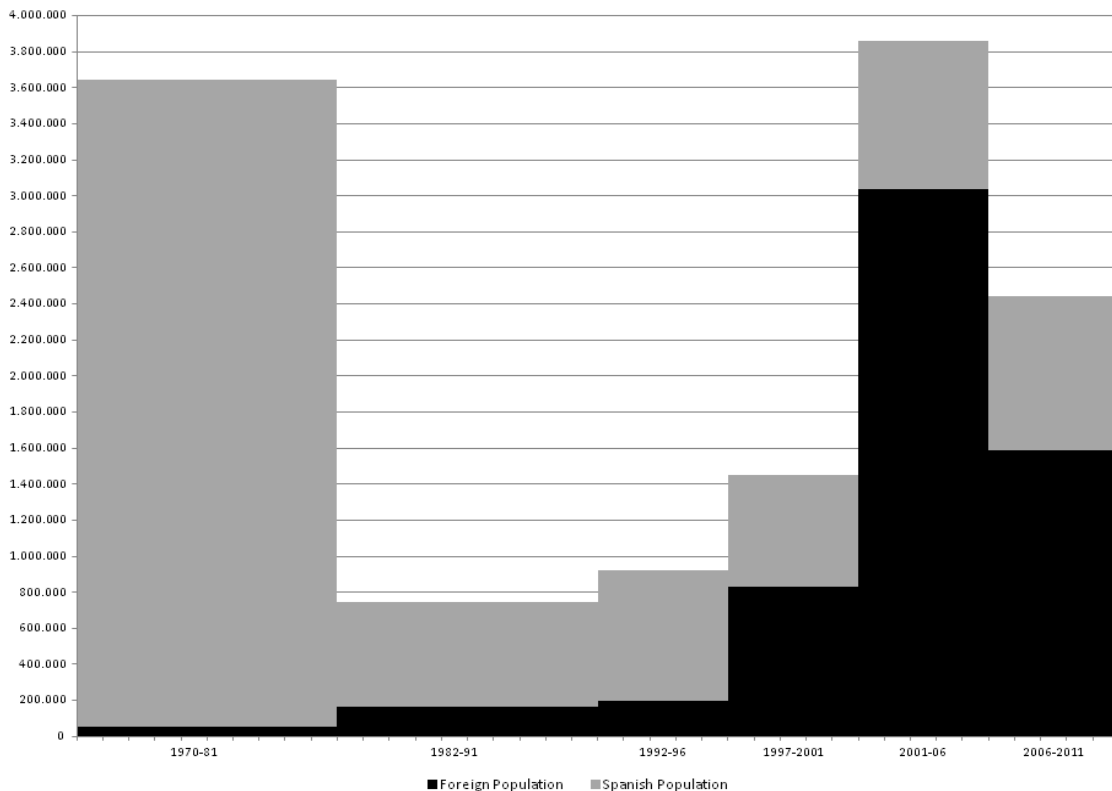
(any more than this would be an exception). This explains the diminishing average number of children per family, currently at 1.40.

In short, all of these elements combine to contribute to low birth rates in Spain, which are the lowest not only in Europe, but also in the world. A weak increase in birth rates in Spain in recent years has been temporary and can be linked to the massive increase of immigrants and their families (Gozálvez 2008).

Population increase due to immigration

The extent of the evolution of the Spanish population in recent years is notable (Pérez et al. 2001). In order to simplify our analysis of the trends, it is helpful to establish various phases for organizing the key information. Figure 1 is a guide to these phases, which are delineated as follows:

Figure 1. Growth of the population residing in Spain



i) From 1970 to 1981, a substantial population increase was noted in Spain (3.6 million), representing an increase of 10.6 per cent. In this phase, however, the effect of immigration was minor (1.37 per cent). The growth in this period was supported by natural population growth and high, though falling, birth rates (dropping from 20.10 to 16.92 for every thousand people), together with low mortality rates. The capacity for balancing and renovating the demographic was still plausible.

ii) Between 1982 and 1991, traditional behaviour changed. The decline in birth rates was remarkably steep, falling by more than 7 points, while at the same time mortality rates broke the decreasing trend, increasing by 1 point. The demographic transition progressed as the natural population growth declined. Immigration increased, though weakly, by 0.16 million, which represented 21.5 per cent of the total population growth. Overall, this increase along with the increase in the resident population barely totalled more than 0.74 million people within the course of this decade (Izquierdo 1996).

iii) In the following five years, 1992-1996, the same structural trend that occurred before continued but with some intense changes: the population increased by 0.92 million, of which 21.1 per cent came from immigration.

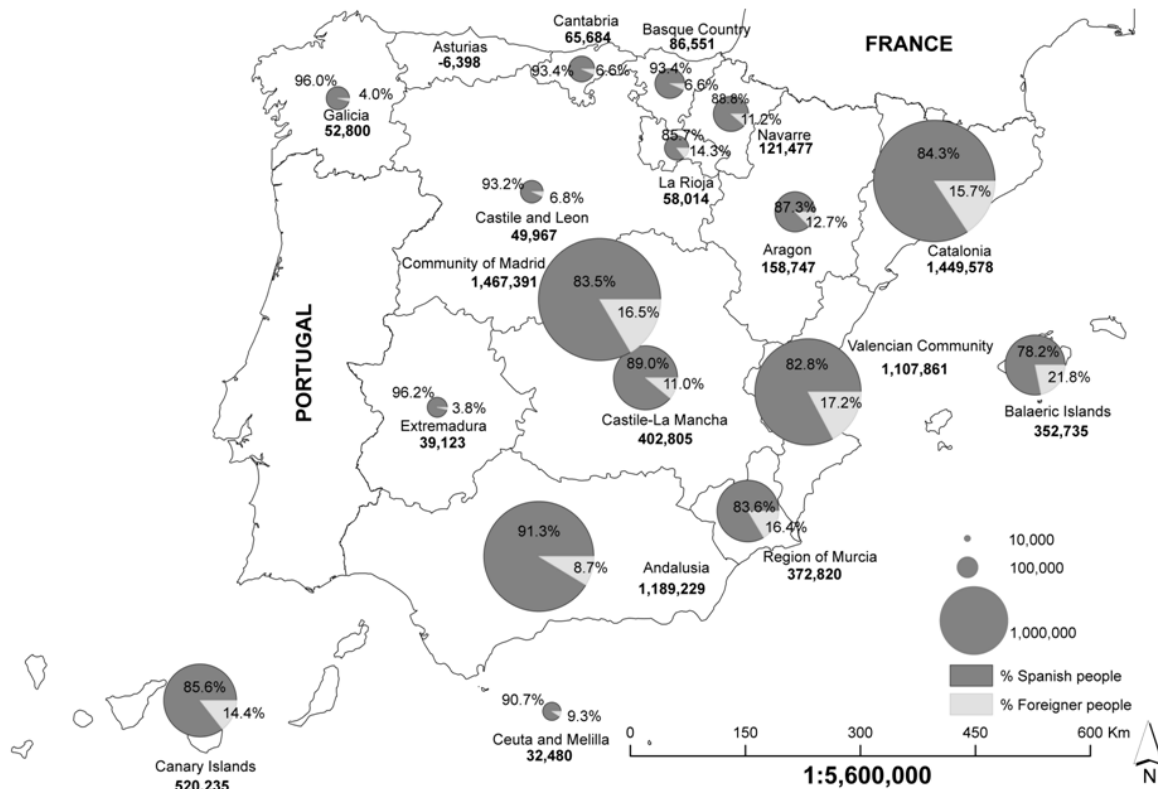
iv) The last phase, from 1997 to 2010, is the period in which we find the biggest population growth in Spain's history, with an increase of more than 6.6 million people (Izquierdo 2006). During this period, the increase of foreign residents exceeded 4.5 million (a record increase), representing 69.3 per cent of total population growth. In certain years, immigration represented 80 per cent of the increase. The greatest increase in immigration in Spain was recorded between 2002 and 2008. These figures are detailed in table 3, and their territorial distribution is shown in figure 2.

Table 3. Resident population growth in Spain (total figures and percentages)

Period	Total Figures			Percentages	
	Immigrants	Spanish	Total residents in Spain	Immigrants/ increase in total population	Spanish/ increase in total population
1970-81	50.215	3.590.658	3.640.873	1,37	98,63
1982-91	162.713	580.611	743.324	21,89	78,11
1992-1996	195.081	729.042	924.122	21,11	78,89
1997-2001	828.343	619.106	1.447.450	57,23	42,77
2002-2010	3.769.788	1.413.349	5.183.137	72,73	27,27

Source: INE (National Institute of Statistics). Data from respective censuses. For Migration, INE, Electoral roll and annual migrations (Ministry of Labour and Social Security). Own elaboration.

Figure 2. Increase and territorial distribution of the population in Spain (1996-2011)



Some of the basic factors and motives contributing to Spanish immigration figures are as follows:

i) The majority of the foreign immigrants, more than 80 per cent, came with the objective to find a job that would improve their economic situation (Carrasco 1999). The biggest group of these people came from Eastern Europe (predominantly from Romania, around 0.8 million), followed by the Maghreb (0.7 million from Morocco) and South America, of which the majority originated in Ecuador (0.5 million) (Arango 2002). Others chose to immigrate to Spain to relax or for retirement, although these numbers were much less significant (Rodríguez et al. 2005; Huete 2009).

ii) As a whole, the significance of immigration increased from 3 to 12 per cent in relation to the entire population, though the territorial distribution of immigrants was highly irregular. As figure 2 illustrates, it oscillated from values of around 3 per cent (in Extremadura, Galicia and Asturias) to 20 per cent (in the Balearic Islands, Valencia, Madrid and Murcia). Differences in the labour market in each of these regions and their dissimilar production structure were the primary determinants of the values (Pajares 2011). Foreign residents have unquestionably contributed to the impetus of the national productive system and the creation of wealth. Among other aspects, foreign residents increased domestic demand (in the broadest sense). They also contributed substantially to the increase

in population, which increased from 14 million in 1996 to 20.1 million in 2008 (Dolado and Vázquez 2007). The number of working immigrants exceeded 2 million in 2007.

iii) Immigrants occupy mainly low-skill positions requiring minimal qualifications, most evident in the agriculture and construction sector and also in the service industry (Cuadrado et al. 2009). In general, such jobs are characterized by minimal preparation requirements and informal methods of payment (Baldwin and Arango 1999). This low pay type of work has traditionally favoured the inclusion of women in the working world (Martinez 1998). Immigrants also contributed to an increase in labour mobility among the national population.

iv) The large number of immigrants has largely favoured economic growth — internal, European and worldwide (Castles and Miller 2003; World Bank 2011). Immigration enables companies to produce with reduced labour costs (Borjas 1994). Moreover, social forces like unions have not opposed immigration as it does not directly harm Spanish workers (Solé and Parella 2001). Furthermore, the public administration sector, though from a different political stance, believes that the massive arrival of immigrants will have more advantages than disadvantages in the short term and that it will not hinder the development of their political programs.

v) Government (national and regional) has lacked the experience to deal with the massive arrival of foreign immigrants (Serrano 1999). The attempts made to control and organize it have been weak and inefficient (Pérez et al. 2001). Government has neither had the ability nor shown any intention to launch a global plan that contemplates introducing immigration into a political demographic characterized by weakness.

vi) The recent increase in the foreign population and its dynamism do not favour the integration of immigrants into Spanish society (López 2000). There has not been time to complete the usual process of family reunification.

The economic crisis that began in 2007 represents a new stage in Spanish demographics (Serrano, 2010; Elias 2011). After several years of crisis, the economic and social effects have not diminished (Montoro et al. 2011). In 2011, there was more emigration than immigration. It is still necessary to confirm this new migration trend, its future and the importance of the numbers of immigrants returning to their home countries (VV.AA 2011). Currently, the social and economic situation still does not favour the arrival of new foreign immigrants. The most prominent consequences of immigration in Spain, focusing on demographic significance, can be summarized as follows:

i) Immigrants have been the fundamental cause of the recent overall increase in the resident population in Spain (Gozálvez 2008).

ii) Immigrants have clearly contributed to increasing regional imbalances in the spatial distribution of society due to their irregular territorial distribution (Reig 2007).

iii) Immigrants have contributed to an increase in the overall general birth rate between the years 2005 to 2011. The number of children born to foreign parents in Spain increased from 3.2 per cent in 1996 to 20.4 per cent in 2008 (Abellán 2003). In terms of overall significance and global progression, this figure represents only a modest boost. The lowest Spanish birth rate was recorded in the year 2000 (9.88 for every 1,000 people). This number rose to 11.38 in 2008. As a whole, these results are similar to neighbouring countries (Toulemon 2004).

The process of social integration of the large group of immigrant population is still underway with many outstanding questions to be answered and problems to be solved. Despite shifts, the contribution of immigrants to the overall rejuvenation of the population in Spain is very small and is hardly noticeable within the general aging trend. This concept is further analyzed below.

Constant and rapid process of aging of the Spanish population

The accelerated aging process in Spain is the result of the rapid succession and combination of the two phases of the usual demographic transition model. The most outstanding consequence is the quick and progressive pace towards an older and stagnant population. Nevertheless, indicators show that Spain is not the most extreme case in the EU, but it is quickly moving towards being so (Macarrón 2011). Essentially, the two most basic elements contributing to this evolution stem from the abruptly reduced and unmaintained birth rate and the increase in the average life expectancy. These realities define the present and shed light on Spain's future. A quick analysis of these issues can be seen in the data collected in table 4 and illustrated in figure 3, with three age pyramids corresponding to the most representative stages of the age groups.

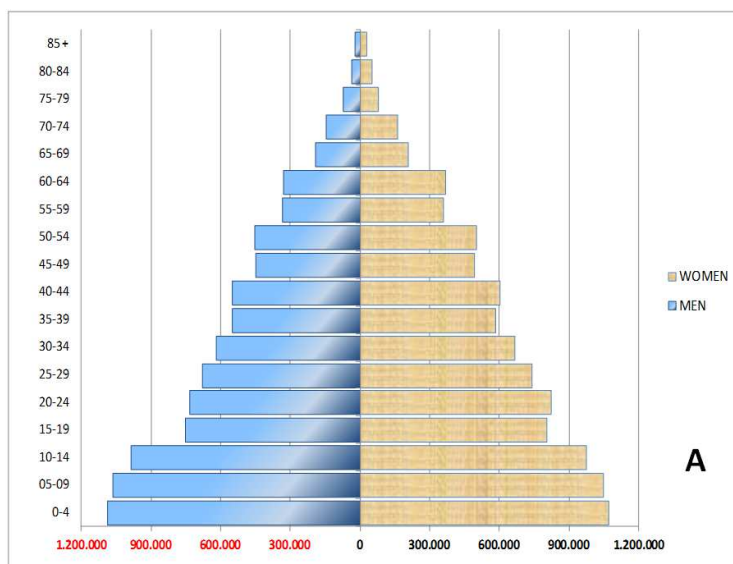
The data show that the proportion of the three age groups did not substantially change between 1950 and 1970, a period in which the demographic transition had not yet provoked its consequences. In recent years, however, the age structure has experienced constant, progressive and rapid transformation. There has been a progressive decline in the number of young people, few changes to the number of middle-aged individuals and continued growth in the aging population. Only in the

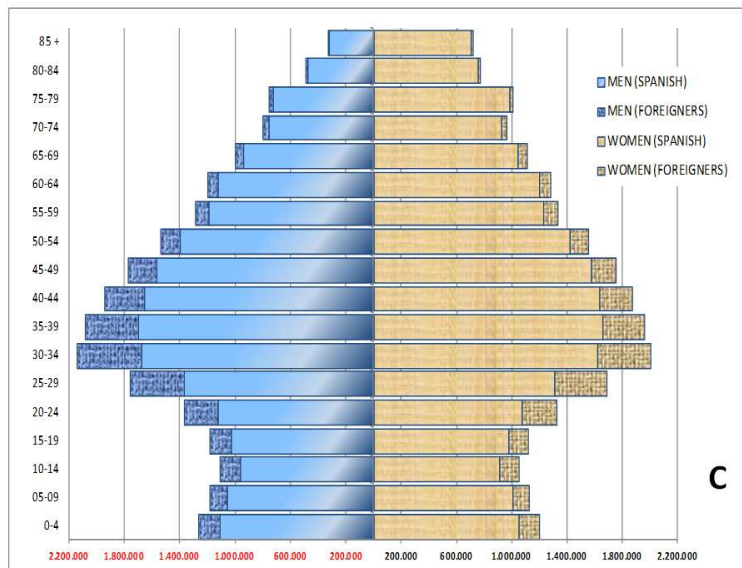
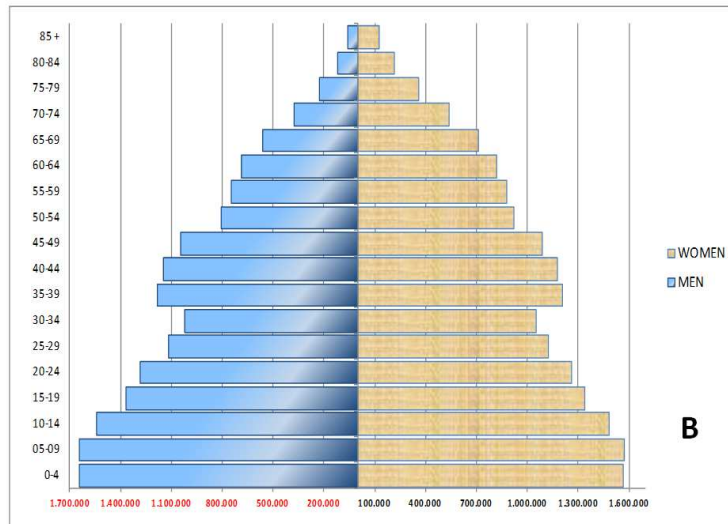
Table 4. Structure of the resident population in Spain by age (main groups)

Period	0-14 years		15-64		65 and over	
	Total	%	Total	%	Total	%
1900	6.233.748	33,10	11.629.147	61,75	967.754	5,13
1950	7.333.791	26,03	18.815.944	66,78	2.022.533	7,17
1960	8.128.188	26,41	20.137.350	65,43	2.511.397	8,16
1970	9.467.426	27,81	21.346.412	62,70	3.227.644	9,48
1981	10.397.631	27,59	23.590.468	62,60	3.694.256	9,80
1991	7.571.053	19,47	25.941.307	66,73	5.359.908	13,79
2000	5.964.626	14,89	27.379.473	68,36	6.705.609	16,74
2008	6.619.536	14,62	31.143.415	68,77	7.520.308	16,61
2009	7.229.745	15,49	31.651.375	67,83	7.780.830	16,68
2010	7.341.367	15,60	31.680.896	67,11	7.929.269	17,19
2011	7.427.313	15,75	31.630.653	67,08	8.092.853	17,17

Source: Own elaboration from figures of the annual statistics of Spain, INE

Figure 3. Population pyramids: (A) 1900, (B) 1970 and (C) 2010





years 2010 and 2011 were there slight increases in the number of young people, but this did not stop the growing proportion of the elderly. The Spanish National Institute of Statistics predicts that by the end of this decade (2020), there will be even greater contrasts between the young and elderly population and that the proportion of older people will be significantly greater. In 2010, the statistics in Spain reflected nearly the same averages as in the rest of the EU. However, if expectations are met, by 2020 the proportion of older people will exceed the European average.

It is important to keep in mind that prognoses regarding the future can be uncertain and should be approached cautiously. However, the following current data can be used in order to consider preventative measures, without provoking alarm:

i) Current birth rates are difficult to increase because numerous changes would need to be made regarding many of the causes for the decreasing rates listed above (typical of the first stage in the

demographic transition), as well as regarding the numerous causes linked to the second phase, such as evolving temperaments and social behaviour. Furthermore, given the current context of an impending structural economic crisis, designating all necessary economic resources to favour social politics (when this will not help encourage or improve the low birth rates) is not a feasible solution (García and Myro 2009). A policy designed to create a new production model in the Spanish economy that would help ease the current economic crisis would take many years to achieve (Maroto 2010). As a result, no significant changes are expected in terms of current behaviors related to the birth rate in Spain. Additionally, we cannot rely on immigration to alleviate the problem of low birth rates even if the immigrants do choose to stay in Spain and continue to bring their families to live with them (Gozálvez 2010). Research has shown that immigrants tend to eventually imitate the social behaviors of the majority of the population (Moreno and Bruquetas 2011). In conclusion, if the current fertility rates remain as low as they are, the size of the aging population will continue to increase.

ii) The proportion of the elderly population will continue to grow due to the aging population, which currently accounts for more than 17 per cent of the total population. The increasing average life expectancy will contribute to the aging of the population. The percentage of people older than 80 has grown in recent years, increasing from 0.96 per cent of the total Spanish population in 1950 to 1.92 per cent in 1981, and 4.88 per cent in 2010.

iii) The data confirm that the flow of migration is now showing signs of slowing compared to the last few years (La Cuesta and Puente 2010). While immigrant numbers had been on the rise since 1975, progressive reductions in the statistics have been notable since 2008. In 2010 the positive migration balance was reduced to 62,157 immigrants. In 2011, the migration balance in relation to countries outside Spain became negative for the first time since 1975 (-50,088). The Spanish National Institute of Statistics predicts that the negative migratory balance will continue for the next several years, with values of around 100,000 people per year. If we do nothing to control these three issues and sustain birth rates, we could be heading towards a situation in which the proportion of the aging population will not stop increasing as time passes. This could ultimately create a recessive demographic trend.

Conclusion

Over the years, the population structure within the EU has been characterized by decreasing birth rates and an aging population, even taking into account the substantial variances between EU countries. Although Spain was late in terms of developing this trend in comparison with other EU countries, the different demographic elements we are now seeing confirm that the country is heading in the same direction towards an aging population. If the process continues without any changes, birth rates will continue to drop and the aging population will be even more pronounced. The EU

population has only increased thanks to the arrival of immigrants. Spain is an example of the accelerated process of growth through immigration. Nevertheless, the current economic crisis has led to a drastic change in migratory flows that has held up recent increases in the population. If the negative migratory balance continues, the demographic weakness in Europe will increase.

For the whole of Europe, an aging population does not favourably affect the economy (Borjas 1994). In Spain, the poor economic situation has contributed to the strong imbalance in the demographic situation. If the economy does not continue to grow, it will become even more difficult to maintain a welfare state, which is likely to contribute to further declines in the birth rate (Moreno and Bruquetas 2011). An aging demographic is not the best foundation for bringing about the changes necessary to renew the production model (Velarde 2011). If the current demographic trends continue, Spain faces a very uncertain future.

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