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An Analysis of Demographic Changes in the Euro-Mediterranean Region and Migration Movements in the EU

Go-EuroMed Working Paper 0713

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Contents

1. Introduction

This document introduces a summary of the evolution of the principal demographic trends displayed by the Euro Mediterranean region (Euromed)[1] and for each of the 11 countries that it encompasses. We analyse population projections for 2050 using the fertility rate, mortality under the age of five, and life expectancy.

An analysis of the main parameters reveals a slow increase in the future working age population (15-64 years) of these countries in contrast with the forecast of developed countries. We anticipate, therefore, a scenario of increased migratory pressure in the next coming decades.

Developed countries will experience dramatic changes in their demographic trends. The retirement of the wide baby-boom generations, the increase in life expectancy and the decline in fertility ratios are likely to modify the size and the age-structure of their populations. Recently, migration has received widespread attention as a solution to expected population decline and ageing in these countries.

Over the last century, the world population increased from 2 to 6 billion people. Since 1990, the 15-29 age group, which constitutes the main source of new entrants on the labour markets, has been decreasing rapidly. Furthermore, the average age of the labour force, which had remained quite stable at around 40 years over several decades, has started to increase since 1995 at a speed of 1 year every 7 years. Finally, the 65-years and older cohort is expected to grow rapidly in the next few years. As a result, labour capacity will be considerably reduced in the EU over the next decades, particularly after 2015.

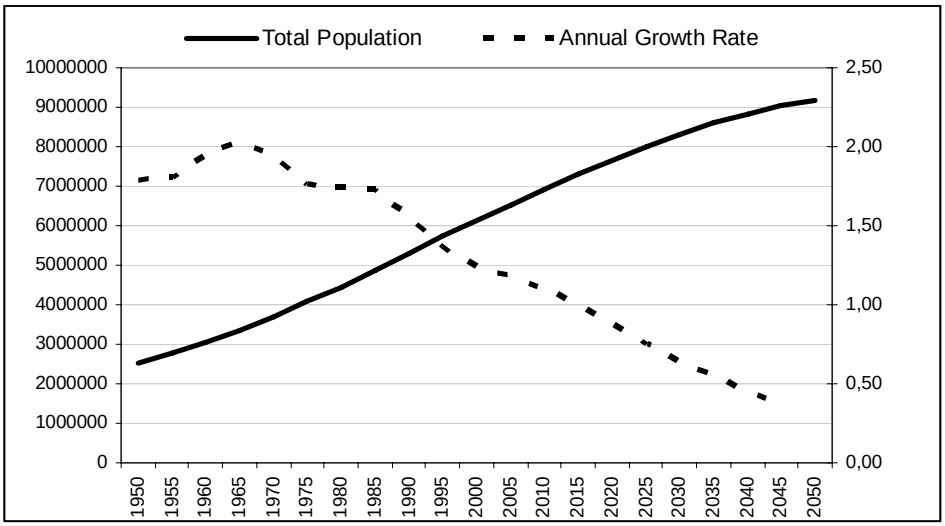
A brief analysis of past and future demographic trends underlines the importance of international migration in population growth and working-age population growth. We will pay attention to the impact of migration on European labour markets. Participation rate, employment rate and unemployment rate are some of the indicators used to show the importance of migration on labour market.

[1] We refer to the Mediterranean region as the EU defines it, i.e. encompassing those non EU member states countries which border the Mediterranean (Morocco, Algeria, Tunisia, Libya, Egypt, Jordan, the Palestinian Territories, Israel, Lebanon, Syria and Turkey).

2. Increase in world's population until 2050 and differential population growth between developed and less developed regions

According to the "medium variant" review of the 2006 UN World Population Prospects, that assumes a sharp fertility decrease, the world's population could increase by 2,5 billion people in the next 43 years. Even though the annual growth rate is decreasing, it still results in a population increase by the same amount as the total number of people living in 1950 or today's population in China or India.

Graph 1. Increase in World's Population until 2050

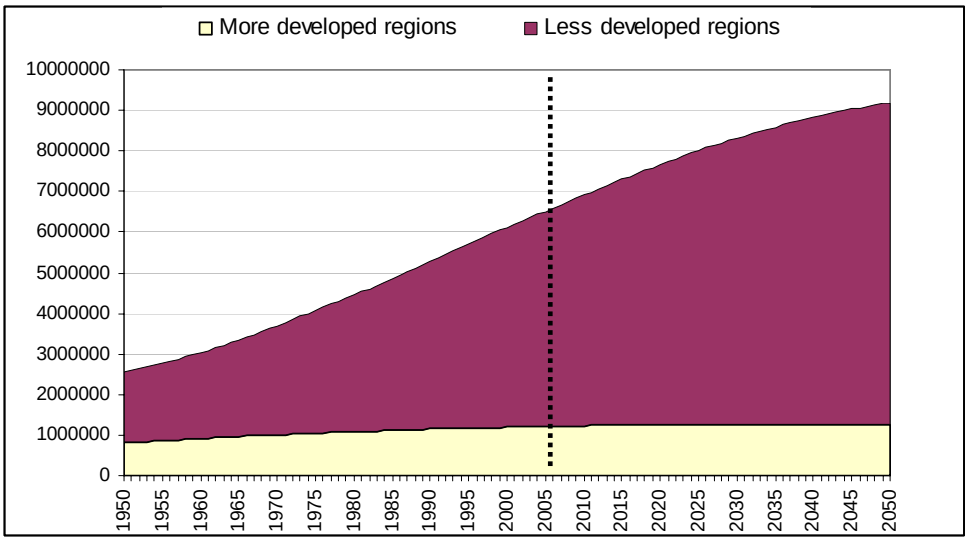


Source: World Population Prospects. Estimates 2006 revised. UN Population Division.

Global population growth is the result of the combination of two unbalanced demographic trends: a rapid increase in population growth in developing and less-developed countries and stagnation in developed countries.

This well-know disequilibrium would sharpen in the global scenario that we have projected as a result of the persistent slow-down trend, and even decrease, observed in many developed countries. Estimates indicate that in 2050 86% of the world's population will live in areas considered nowadays as relatively less developed. This percentage is 82% today and it was 68% 50 years ago.

Graph 2. Differential population growth between developed[2] and less developed regions[3]



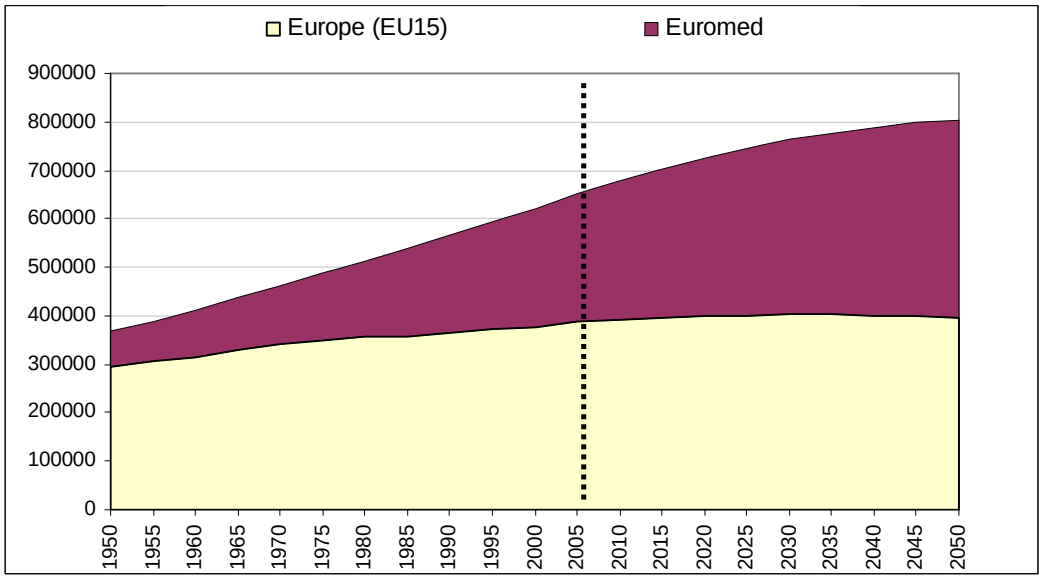
Source: World Population Prospects. Estimates 2006 revised. UN Population Division.

The European continent and the Euromed region are an excellent example of this sharp contrast between regions. As shown in Graph 3, population growth for the 15 more developed countries of the European Union is null between 2007 and 2050. This contrasts with the estimated increase of more than a 133 million people for the Euromed region over the same period for the "medium variant" scenario. It is worth noting that the projected increase from now to 2050 equals the total amount of population living in the region in 1975.

[2] They comprise all regions of Europe plus Northern America, Australia/New Zealand and Japan.

[3] They comprise all regions of Africa, Asia (excluding Japan), Latin America and the Caribbean plus Melanesia, Micronesia and Polynesia.

Graph 3. Population growth in the EU (15) – Euromed

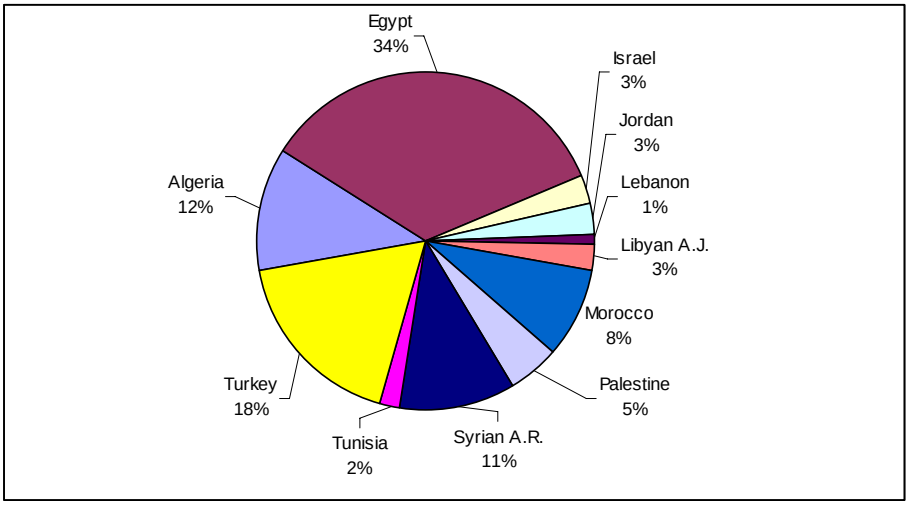


Source: World Population Prospects. Estimates 2006 revised.UN Population Division.

3. Evolution of the main demographic trends in Euromed Countries

The distribution of population growth projected for the different countries of the Euromed region up to 2050 is obviously related to the relative size of each country. More than half of the population growth will take place in Egypt (34%) and Turkey (18%). This proportion reaches 75% if we include Algeria (12%) and Syria (11%).

Graph 4. Percentual distribution of projected population growth up to 2050: Euromed countries

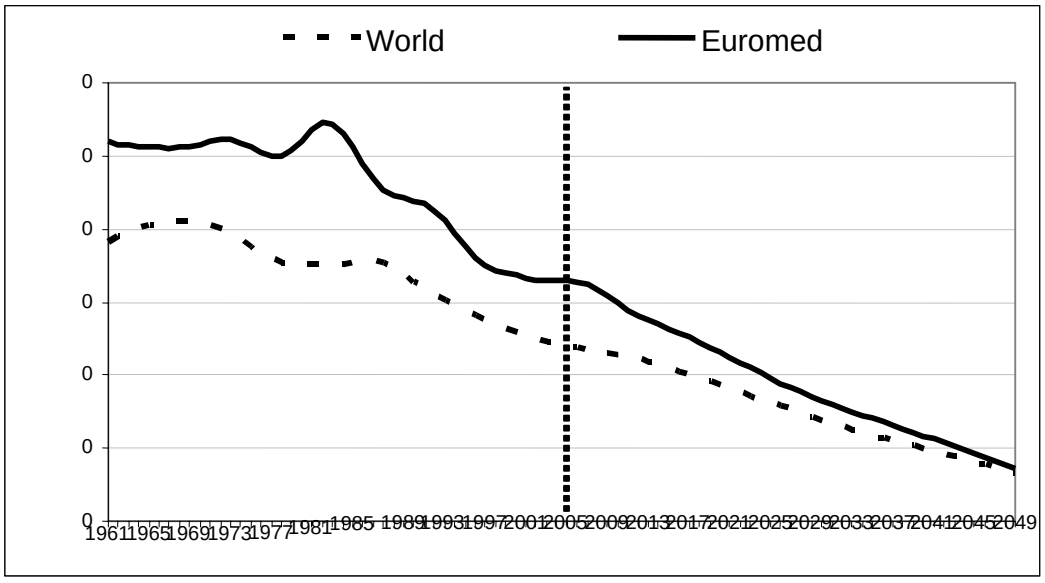


Source: World Population Prospects. Estimates 2006 revised. UN Population Division.

When disregarding the size of each country, we observe a large disparity in the evolution of each country. Table 1 in the annex shows that the estimated population growth between 2005 and 2050 is explosive for Palestine (with an average growth above 2.2%) and very high for Syria and Jordan (1.3% for both countries). Below the region's average (0.9% yearly growth between 2007 and 2050), we find countries such as Turkey (0.7%), Tunisia and Lebanon (both countries display a 0.6% yearly average growth rate).

In general terms, the Euromed population will continue to grow at a rate above the world average up until the end of the projection period. It is worth noting, however, that the yearly growth differential for the Mediterranean countries that reached an average of 0.93% between 1980 and 1985 will gradually slow down until almost converging at the end of the projection period.

Graph 5. Population Growth: World and Euromed Area



Source: World Population Prospects. Estimates 2006 revised. UN Population Division.

The population forecast for the Euromed area is the result of the consolidation of the trend observed for the principal demographic variables:

On one hand, the average weighted fertility rate for the region[4] that started to slow down sharply in the first half of the 60s will gradually decrease over the following years and it will be below the world average after 2010. At the end

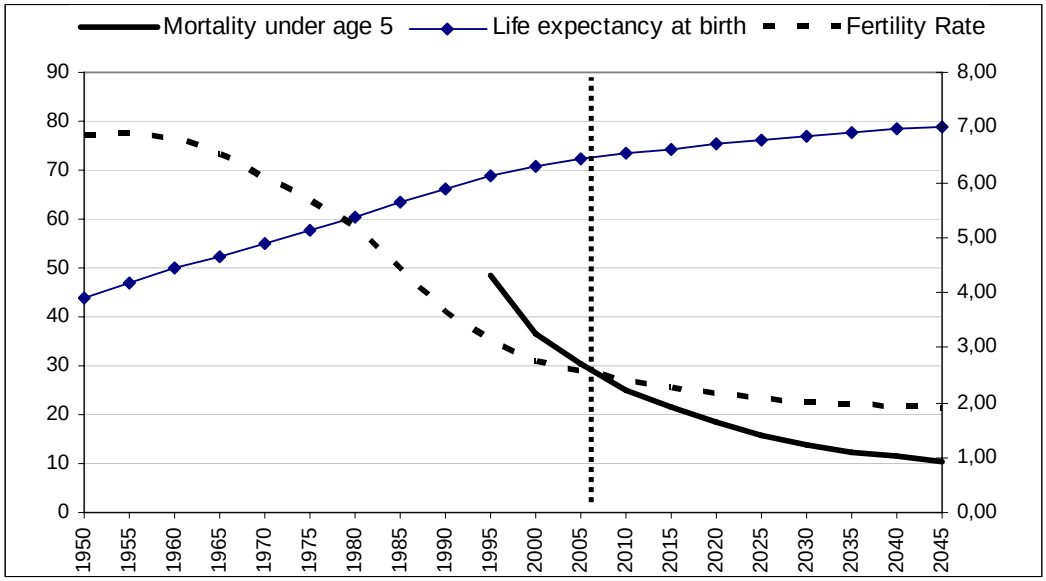
[4] Weighted as a function of total population for each of the countries of the region.

of the projected period the fertility rate will fluctuate at a level around 1.9 children per female. This level is slightly lower than the average level for developing countries.

Secondly, mortality under the age of five that already started to decline at the beginning of the 20th century, will continue to decrease in the region at a weighted yearly average rate close to 4% until 2010, between 2.5% and 3% from 2010 to 2035 and between 1.7% and 2.5% from 2035 to 2050 when it will reach approximately 10.5 deaths per 1000 births.

Finally, not only the mortality rate under the age of five will decline, but there will also be an improvement of life expectancy at birth of between 8 and 12 months each five-year period. In 2050, the region's population will reach a weighted average of life expectancy of 79 years.

Graph 6. Fertility rate, mortality under age of 5, and life expectancy at birth: Forecasts for the Euro Mediterranean region

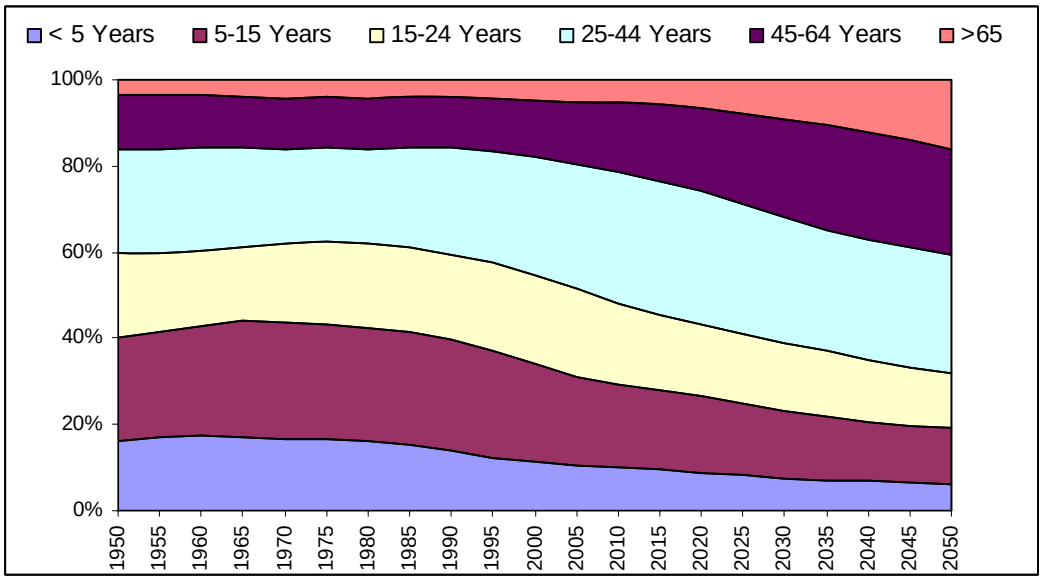


Source: World Population Prospects. Estimates 2006 revised. UN Population Division.

The comparative chronological analysis of the development displayed by the principal demographical variables sheds light on the evolution of the region's demographic pyramid. The combination of an acute reduction of infant mortality together with a slower and later decline on fertility rates has widened the labour force section of the demographic pyramid. To be sure, a fertility rate above 6 children per female up to the mid 70s that decreased slowly had the result that during the mid 80s the percentage of

the population aged between 5 and 15 years was 26% of the total. This results in 21% of total population aged between 15 and 24 in the mid 90s which finally implies that 30% of today's total population is between 25 and 44 years.

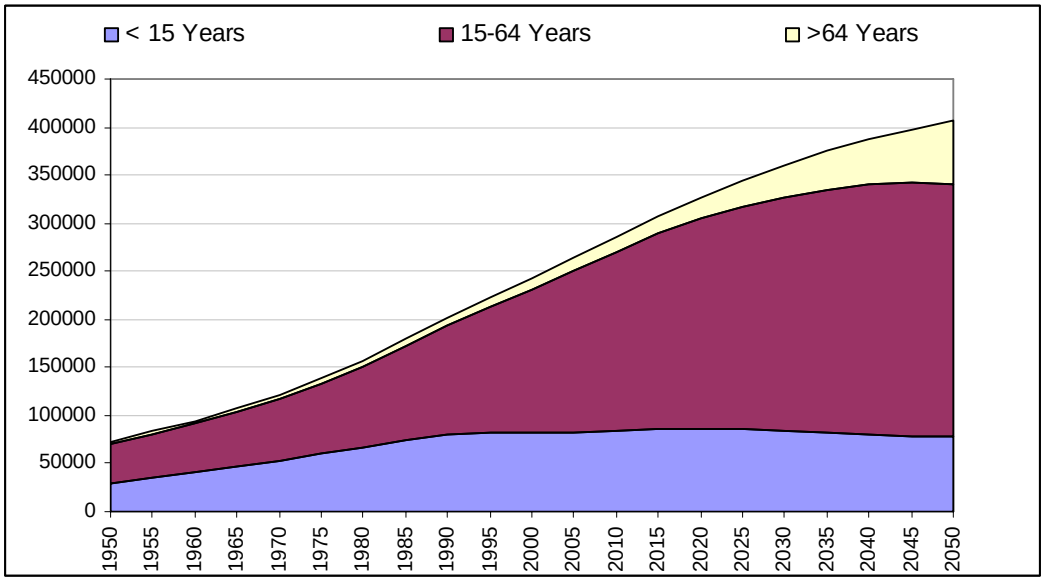
Graph 7. Population evolution by age sections in the Euromed



Source: World Population Prospects. Estimates 2006 revised. UN Population Division.

The percentage of potential working population reveals an abrupt demographic change regarding the relative composition of the population. The percentage of the population which is potentially active has increased 12 percentage points since the mid 80s. The working-age population is approximately 170 million people, equivalent to the total EU-15 labour force.

Graph 8. Evolution of Euromed potentially active population



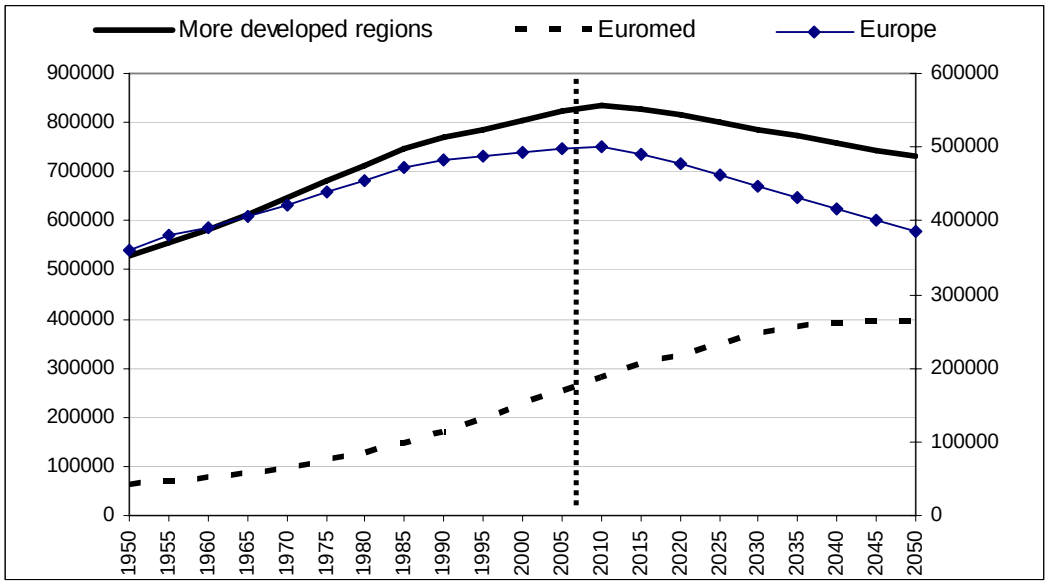
Source: World Population Prospects. Estimates 2006 revised. UN Population Division.

As displayed by the previous graphs, the vast majority of forecasts indicate that this process will become more acute in the next few years, reaching its maximum point around the year 2035. In 2035 68% of the population, i.e. more than 250 million people, will be between 15 and 64 years even with the improvement in life expectancy in the last few years and the gradual decrease in the fertility ratio.

This general trend described for the Euromed countries sharply contrasts with the demographic change in developed countries. In the following graph, we show the evolution of the potentially active population for the Euromed area within the total for Europe[5] and for developed countries (see definition of area countries in the footnote).

[5] Albania, Andorra, Austria, Belarus, Belgium, Bosnia and Herzegovina, Bulgaria, Channel Islands, Croatia, Czech Republic, Denmark, Estonia, Faeroe Islands, Finland, France, Germany, Gibraltar, Greece, Holy See, Hungary, Iceland, Ireland, Isle of Man, Italy, Latvia, Liechtenstein, Lithuania, Luxembourg, Malta, Monaco, Montenegro, Netherlands, Norway, Poland, Portugal, Republic of Moldova, Romania, Russian Federation, San Marino, Serbia, Slovakia, Slovenia, Spain, Sweden, Switzerland, The former Yugoslav Republic of Macedonia, Ukraine, United Kingdom of Great Britain and Northern Ireland.

Graph 9. Population 15- 64 in Euromed, more developed regions and Europe



Source: World Population Prospects. Estimates 2006 revised. UN Population Division.

As displayed by the diagram, there are obvious contrasts between Europe and Euromed. A simple calculation such as the ratio of 15 to 64 years old population in both areas resulted in 8.74 in 1950 declining to 2.95 in 2005. The ratio would decline even further by 2050 reaching 1.4. Thus, the potentially active population in Europe would only be 1.4 times higher than in Euromed at the end of the projection period. These results enable us to design a clear analytical framework on the challenges that both areas will face in the next few years:

A scenario of sustained economic growth in Europe will inevitably encourage a widespread immigration process that will compensate for the decrease in working age population.

On the other hand, even though population rejuvenation is potentially positive, if accompanied by poor economic performance and slow job creation in Euromed it could result in a sharp labour force crowd-out effect towards more developed areas (Europe or other regions).

Both regions will face the pressure of providing services for the older population. While this phenomenon is already well-known in Europe, it will become even more relevant given the large percentage of population aged 65 and older estimated for the near future. In Euromed, this pressure will be lower but newer and meaningful, from a quantitative point of view, for the first time in their history. A larger volume of older population could

jeopardize a weak social security system. To be sure, the population over 65 has constituted less than 5% of total population in the last few decades. However, at the end of the projection period it could reach 16%, i.e. 65 million people, 5 times more than the current elderly population.

It is important to point out that the aforementioned projections are calculated under the "medium variant" projection carried out by the United Nations. This projection is based on an assumption of steep fertility decline. However, it is possible that future fertility rates will display levels similar to today's. For example, if we assume that the fertility rate ratio shows the average for the period 2005-2010 then the potentially active population could reach 320 million people in the Euromed area (20% more than under the "medium variant" projection) while in Europe it could decline to 366 or even below 326 million (15% of the projection under the "medium variant).

We now disaggregate the trends that we have described and analyse the likely evolution of each of the 11 countries in the region. While the general trend is shared by most of the countries, there are some individual particularities that are worth describing (see table 2 in annex).

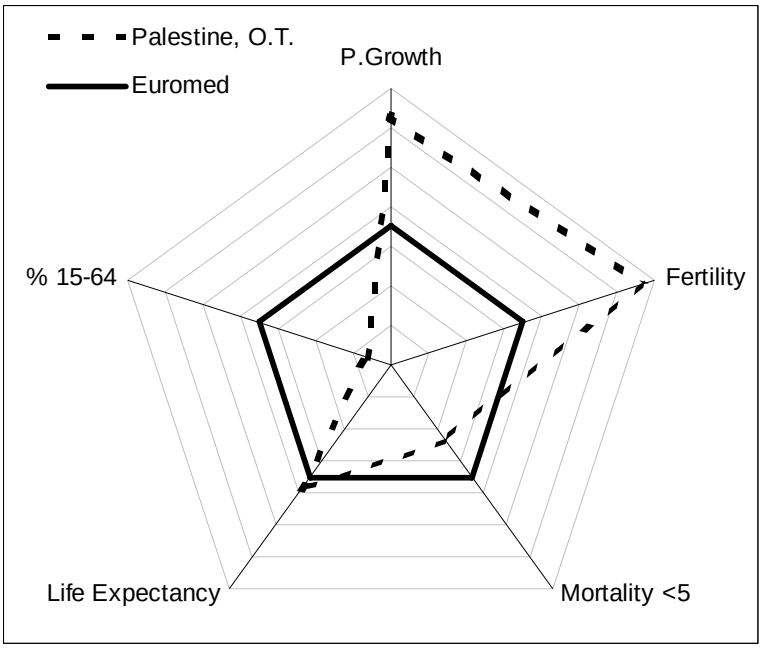
Palestine

Palestine is, together with Israel, one of the countries that diverge from the rest of the Euromed region. Fertility rates are higher than the rest of the region (5.09 in 2005 vis-à-vis 2.56) and will continue to be higher despite the expected rapid decline. The projected number of children is an average of 3.17 for the period 2005-2050 while 2.08 for the rest of the countries in the area.

Expected population growth, approximately 2.3% a year, is therefore higher than the region's average (more than double).

Mortality under the age of five is slightly lower than in the rest of the region while life expectancy is relatively similar. This will result in a relative decline in population growth in the segment 15 to 64 years of age, which will reach an average of 59% of the population for the period 2005-2050.

Graph 10. Main demographic parameters for Palestine vis-à-vis the Euromed – Average Values 2005 – 2050



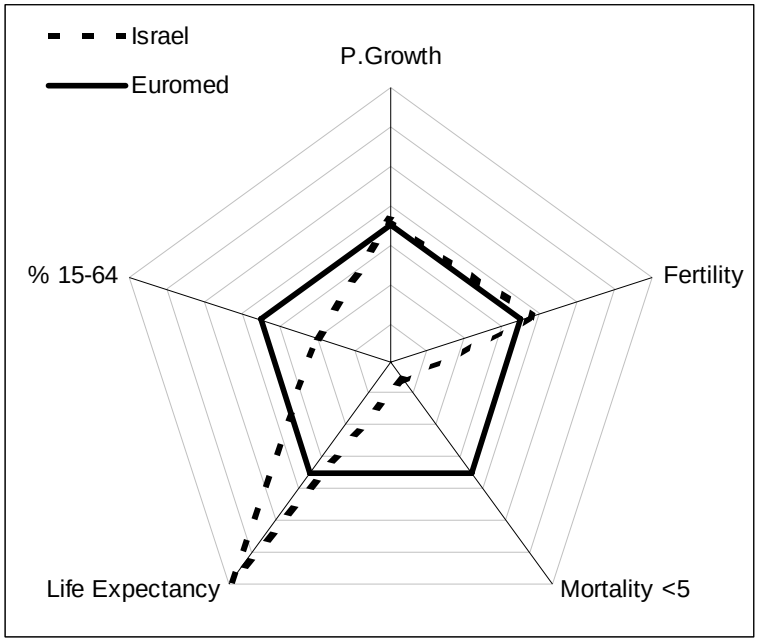
Source: Authors' own elaboration.

Israel

Israel is, as we have already mentioned, the second exception in the region. What distinguishes Israel from the rest is a high life expectancy level that reached 80 years in 2005; in sharp contrast with the 72 year average of the rest of the Euromed region. Moreover, mortality under the age of five is currently even lower than that observed in many developed countries.

The projected population growth is similar to that calculated for the region. Potential working age population for the period 2005 – 2050 will be approximately 62% of total population.

Graph 11. Main demographic parameters for Israel vis-à-vis the Euromed – Average Values 2005 – 2050



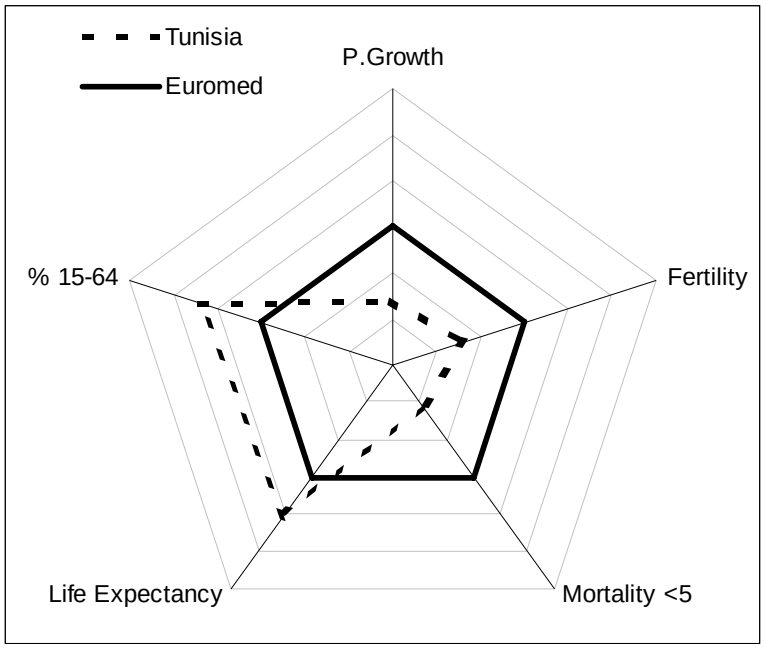
Source: Authors' own elaboration.

Tunisia

Tunisia exhibits the lowest fertility rate of the area. This will result in little population growth that, when combined with a small rate of mortality under the age of five (the third lowest after Israel and Palestine) and a life expectancy ratio two points over the region's average, will produce the largest average population rejuvenation for the period 2005-2050.

Population aged between 15 and 64 could reach 71% of total population around 2015. However, the gradual ageing of the population and the lack of generational replacement will gradually decrease the pressure until reaching 66% at the end of the projection period.

Graph 12. Main demographic parameters for Tunisia vis-à-vis the Euromed – Average Values 2005 – 2050



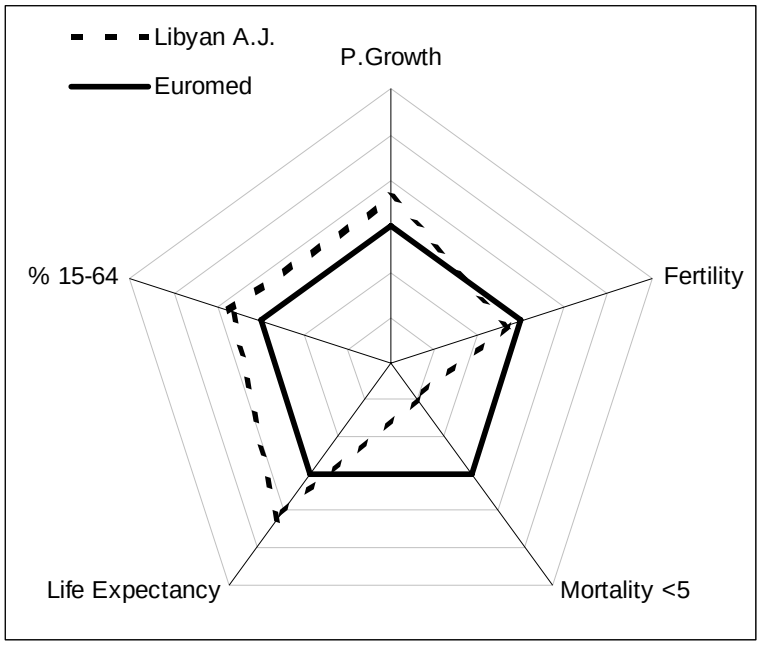
Source: Authors' own elaboration.

Libya

Libya also displays a slow rate of mortality under the age of five and life expectancy higher than the region's average. However, the fertility rate was in 2005 higher than in Tunisia; 2.7 children per female, which is slightly higher than the average for the region. As a consequence, the projected population growth will be above the average and one of the highest in the region despite the expected gradual decline.

While the pressure that could be exerted by the potentially active population is not as high as in Tunisia, it could reach rates of 70% around 2030 – 2040. It would later stagnate parallel to the evolution projected for the rest of the region.

Graph 13. Main demographic parameters for Libya vis-à-vis the Euromed - Average Values 2005 – 2050



Source: Authors' own elaboration.

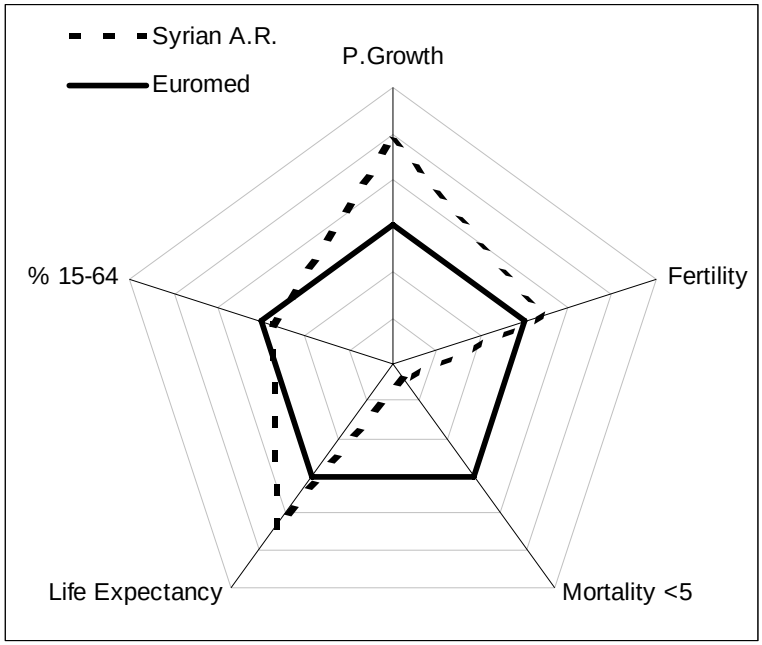
Syria

Syria shares some of the features described for Libya. To be sure, Libya displays low levels of mortality under the age of five and a high life expectancy rate. However, Syria's fertility rate is even higher than Libya's.

Population growth is, therefore, slightly higher than the region's average and it will continue to be higher during the projection period. With the exception of the unusual case of Palestine, Syria leads the region regarding population growth.

Syria displays one the highest population rates in relative terms for ages 15 to 64 during the projection period. As for Libya and Tunisia, Syria's population aged 15 to 64 will reach 70% of the total around 2035-2040.

Graph 14. Main demographic parameters for Syria vis-à-vis the Euromed – Average Values 2005 – 2050



Source: Authors' own elaboration.

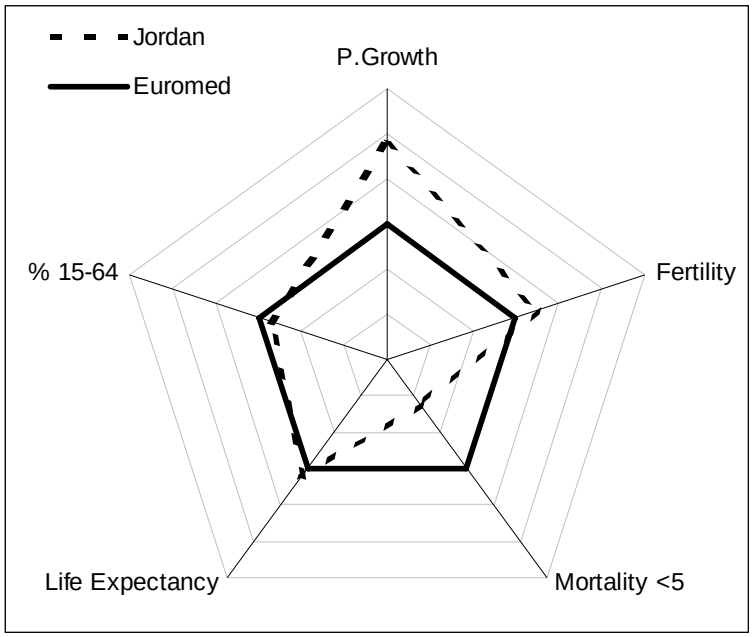
Jordan

Jordan displays similar key demographic features to those described for Syria: a relatively high life expectancy, high fertility rates, and mortality under the age of five clearly below average.

Population growth in Jordan is, therefore, very similar to Syria's. Jordan will experience the highest rate of population growth in the area at the end of the current decade. It is also, together with Syria, the country that will exhibit the highest average population growth in the next 40 to 50 years.

Population aged 15 to 64 will be high although lower than in Syria as a consequence of the higher rate of mortality under the age of five and lower life expectancy rate in Jordan.

Graph 15. Main demographic parameters for Jordan vis-à-vis the Euromed – Average Values 2005 – 2050



Source: Authors' own elaboration.

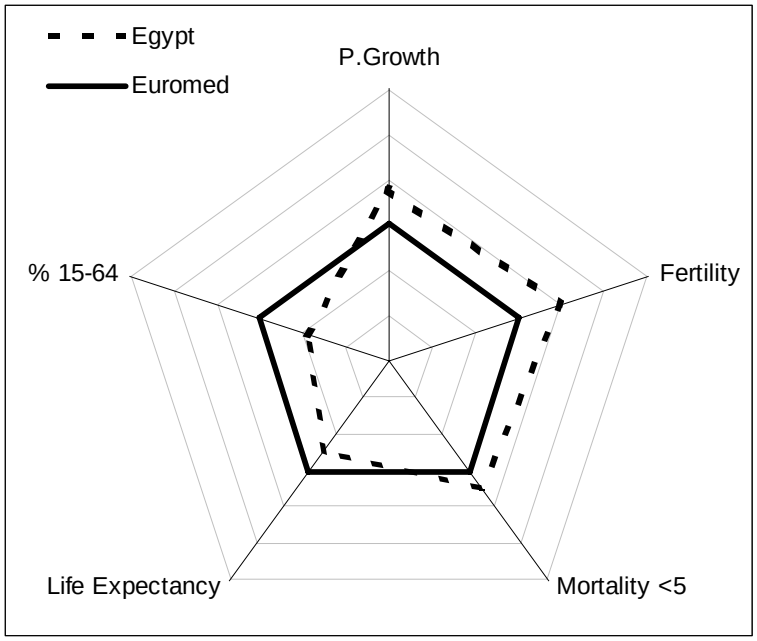
Egypt

Egypt exhibits a completely different demographic profile. As is the case in Syria, Jordan and Libya, Egypt displayed a fertility rate of 2.7 children per female in 2005. However, the Egyptian fertility rate will continue to be high in the long-run and it has been projected that Egypt's fertility rate will be in 2050 even higher than the unusual Palestinian case. Furthermore, life expectancy in Egypt is, together with Morocco, the lowest in the region and will continue to be low in the next 35 to 40 years. Mortality under the age of five is above the region's average.

High fertility rates will be compensated by low life expectancy rates and a higher mortality under the age of five. Thus, population growth – even though expected to be very high in the next few years – will not reach the amounts identified for Syria and Jordan.

Population growth will exhibit replacement features and therefore pressure from potentially active population will be among the lowest in the region and only above Israel and Palestine.

Graph 16. Main demographic parameters for Egypt vis-à-vis the Euromed – Average Values 2005 – 2050



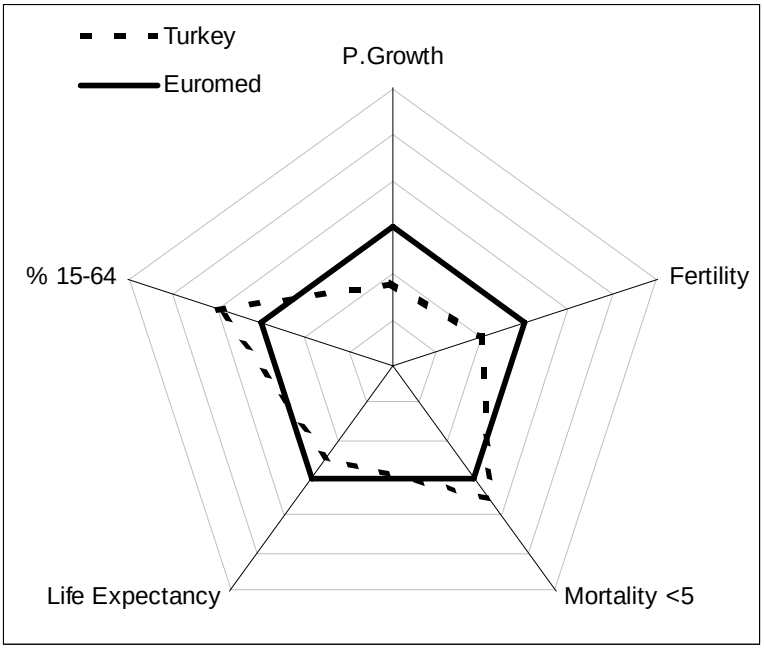
Source: Authors' own elaboration.

Turkey

Turkey displays, like Egypt, a high mortality rate under the age of five and a low life expectancy rate. However, Turkey enjoys a relatively low fertility rate. Data from 2005 shows that Turkey, together with Tunisia, enjoys the lowest fertility rate in the region.

In the medium term, however, forecasts show a marked improvement in mortality under the age of five and life expectancy, which together with the currently low fertility rate will result in fast population growth for the section 15 to 64. This percentage, which is currently 66%, could reach 69% of total population by 2015. At the end of the projection period it would decline to 64%.

Graph 17. Main demographic parameters for Turkey vis-à-vis the Euromed – Average Values 2005 – 2050



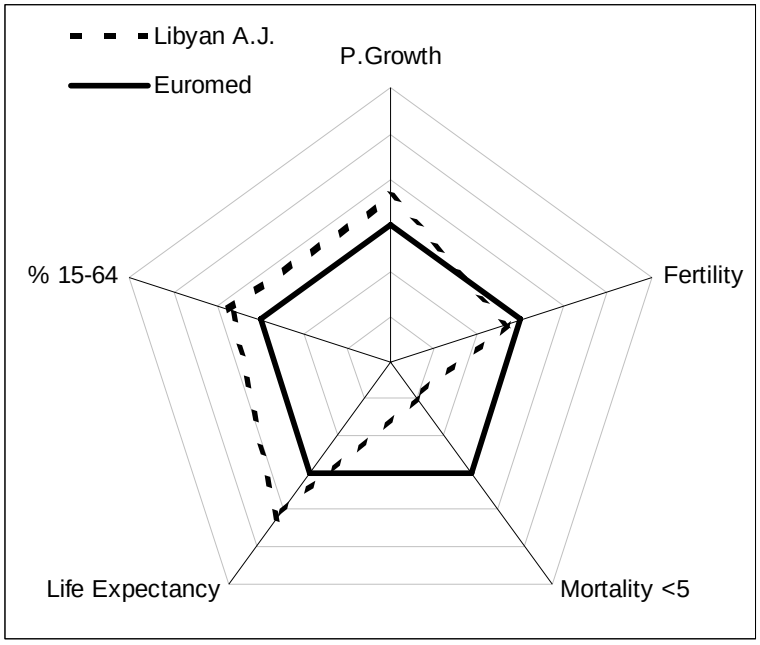
Source: Authors' own elaboration.

Lebanon

Lebanon, like Turkey, exhibits a relatively low fertility rate and a life expectancy lower than some countries in the region. Mortality under the age of five has improved in recent years, reaching levels under the region's average.

It is expected that Lebanon will maintain balanced population growth. The working age population group will reach a ratio of 68% for several years and will decline to 64% at the end of the projection period.

Graph 18. Main demographic parameters for Lebanon vis-à-vis the Euromed – Average Values 2005 – 2050



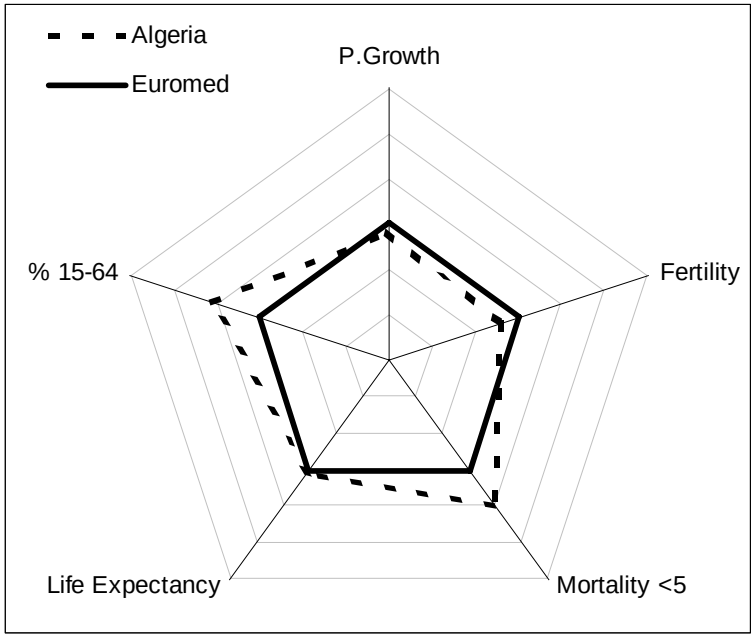
Source: Authors' own elaboration.

Algeria

Algeria displays, like Turkey and Lebanon, a life expectancy ratio lower than the whole region's. As in Lebanon, Algeria has enjoyed a significant improvement in mortality under the age of five in the last few years; declining from 56 dead per 1000 births in 1990 to 33 in 2005).

Algeria's fertility rate is slightly higher than the Turkish and the Lebanese rates, implying population growth rates of 1.5% until 2013. The combination of the fertility rate and the improvement in life expectancy could increase the pressure of the population aged 15 to 64 up to 68% of total in 2020. Then, the ratio would decline to 64% when population growth starts to slow down as fertility rates reach 1.85 children per female.

Graph 19. Main demographic parameters for Algeria vis-à-vis the Euromed – Average Values 2005 – 2050



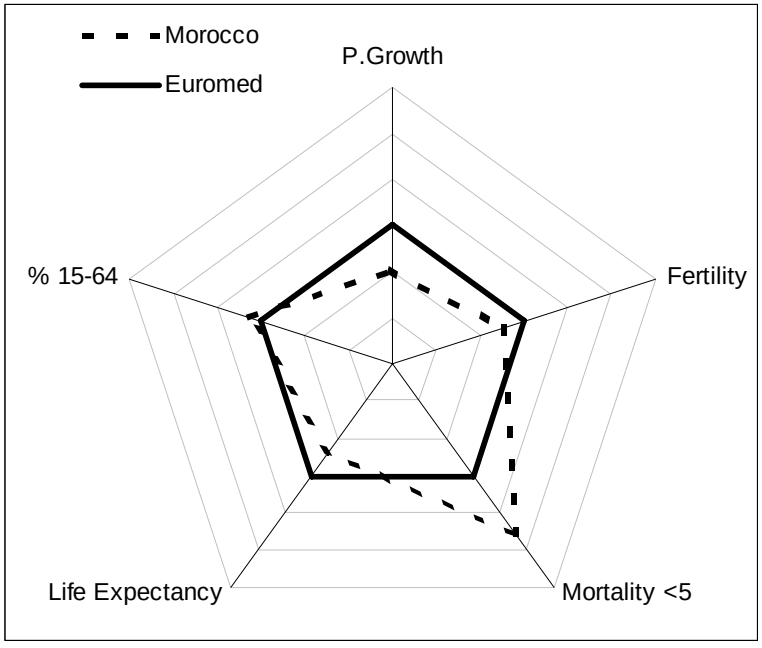
Source: Authors' own elaboration.

Morocco

Morocco exhibits the highest values for mortality under the age of five and the lowest life expectancy rate of the region. As in the Algerian case, there has been a relevant improvement in the last years; mortality under the age of five has dropped from 52.2 children per 1.000 births to 35.7 in less than 10 years (1995 and 2005 data respectively). Despite this improvement, mortality under the age of five and life expectancy are above (and below, respectively) the standard for the region and will continue to be until the end of the projection period.

Given that the fertility rate is not very high in Morocco, the expected population growth is lower than the region's average. Moreover, the improvement in mortality under the age of five will generate an increase in working age population from the current 64% of the total to 68% around 2035.

Graph 20. Main demographic parameters for Morocco vis-à-vis the Euromed – Average Values 2005 – 2050

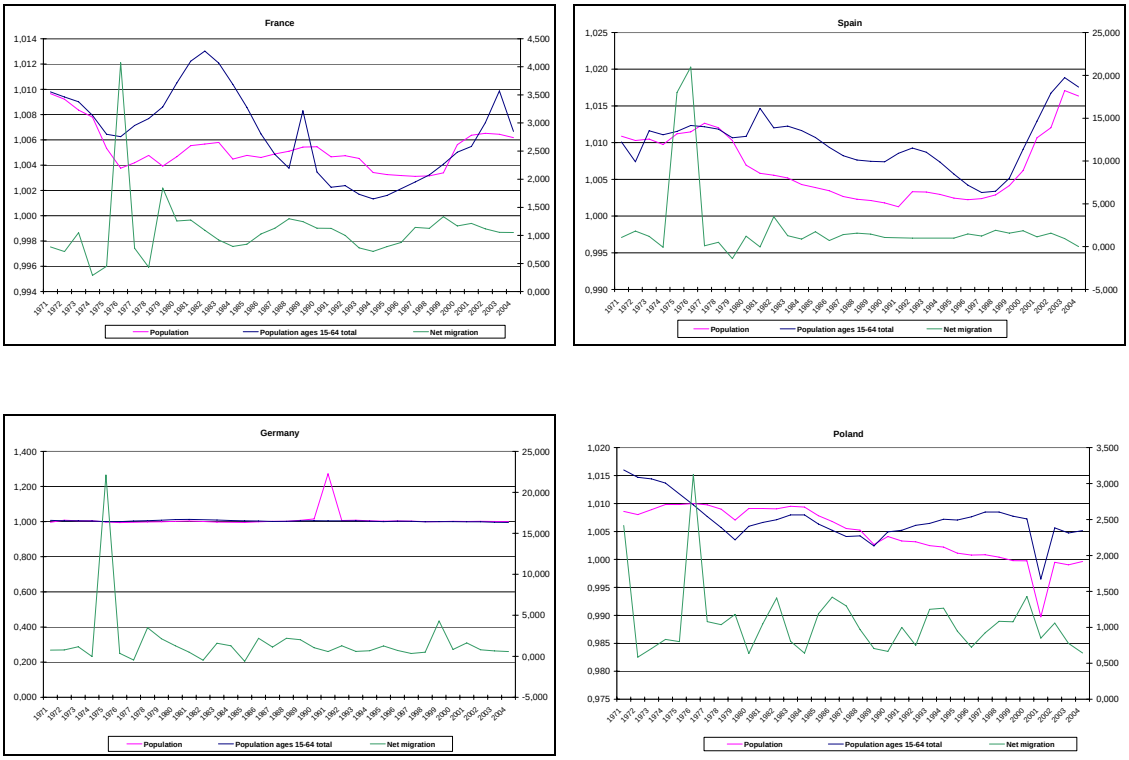


Source: Authors' own elaboration.

4. Demographic trends and migration movements in the European Union

Net migration movements and population growth are characterized by a number of troughs and peaks that generally correspond to well-defined historical developments. The German population has remained stable during the last 30 years with the exception of a peak in 1990 that corresponds to the fall of the Iron Curtain. At that time an exodus of population from East to West took place resulting in an increase of German population of 27%. France and Spain have generally the same evolution of the 15-64 age group population (graph 21).

Graph 21. Population growth and migration movements

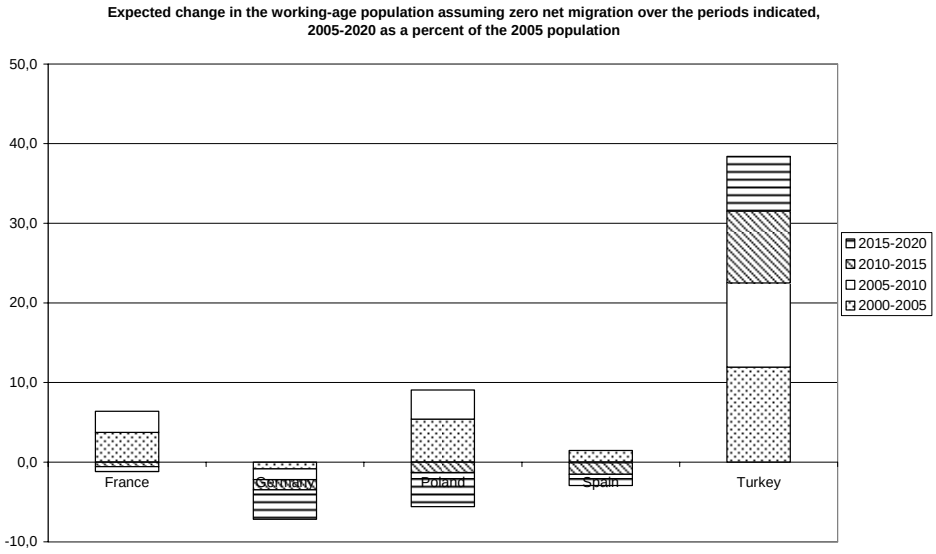


Source: World Bank Data Base and OCDE Report "International Migration Outlook 2007".

In 2005, the first cohort of post–World-War-II baby boomers entered its 60th year. Over the next 20 years the cohorts exiting the labour force will be larger than those entering in this category due to the birth rate decrease that followed the baby boom period. This means that without positive net migration the working age population will begin to decline. Under the scenario of no migration, Italy and Germany are expected to show a

decrease in working age population during the period 2000-2005. For Spain the decrease is expected five years later and for France ten years later (graph 22).

Graph 22. Changes in working age population[6]



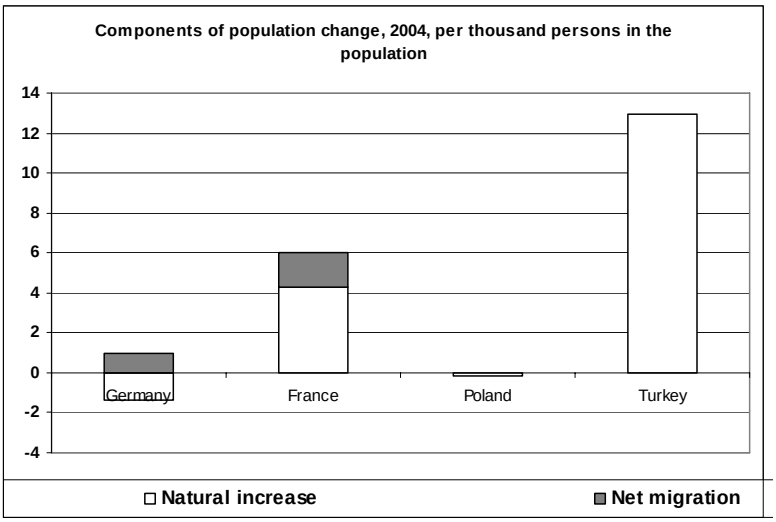
Source: OCDE Report "International Migration Outlook 2007".

In some countries migration has already compensated the decrease in working age population. More than 40% of the immigrant population in European countries belong to 25-44 age group (in France 66% of immigrants are aged 25-44). Taking the age structure of immigration (table 3) and total population into account, the loss of growth of the working age population in 2006 in case of no migration would be 0.2% annually in Germany, 1.7% in Spain and 0.3% in France.

The contribution of international migration to population growth compared to the natural increase (the excess of births over deaths) is increasingly important. For example, Italy has the highest contribution of net migration to population growth in 2004 (graph 23). One exception is France where the contribution of natural increase on population growth is greater than that of net migration.

[6] The working age population 15-64 for the year 2010 was estimated by taking the population 10-59 observed in 2005 and ageing it 5 years, under the assumption of no death and no migration; the working age population 15-64 for the year 2015 was estimated by taking the population 5-54 observed in 2005 and ageing it 10 years, under the assumption of no death and no migration; the working age population 15-64 for the year 2020 was estimated by taking the population 0-49 observed in 2005 and ageing it 15 years, under the assumption of no death and no migration.

Graph 23. Components of population change



Source: OECD Report "International Migration Outlook 2007".

Alders *et al.* (2007) have developed a general methodology for constructing predictive distributions for fertility, mortality and migration combining three approaches: time series analysis, historical forecast errors and expert judgements.[7] The results are, for some sections, consistent with those of the UN while they conflict in other sections. Concerning population growth, they expect a modest annual growth of 0.2% in the 18 European countries studied, reaching 427 million inhabitants by 2050. According to the UN 2004 revision, population in the selected countries will decrease between 2030 and 2050 from 407 million to 400 million, after an initial increase from the current level of 392 million (United Nations, 2005).

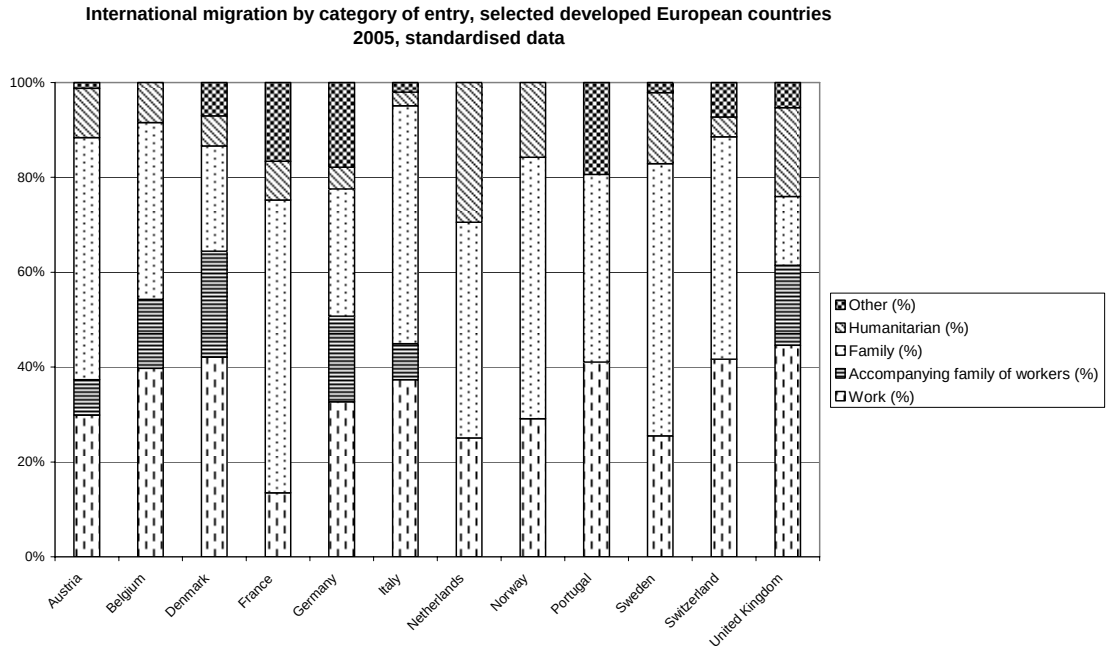
While some recovery in fertility rate is likely, there is no evidence that it will raise significantly above current levels. Regarding mortality, most demographic forecasts expect a slowdown on the improvement of life expectancy, eventually leading to stagnation. The UPE team expects that the current decline rates will continue, thus leading to a larger future population than predicted by the official agencies. Increased immigration and larger life expectancy imply that the number of people aged 65 and older appears rather high in the UPE forecast. For France, Italy and Germany the UPE forecasts of people aged 65 and older in 2050 are much higher (18.20 million, 19.29 million and 25.02 million respectively) compared to the estimations of the UN (17.11 million, 18.09 million and 22.38 million).

[7] This analysis was developed within the framework of the project "Uncertain Population of Europe" (UPE).

Migration and labour markets

In most European countries, family reunification, family formation (marriage) as well as accompanying family of immigrant workers are the main reasons for permanent migration. In France, Belgium, Norway and Austria, family migration represents more than 50% of total permanent migration. However, work migration appears to be very important too. With the exception of France where work migration represents only 13.5% of migration, the rest of the European countries exhibit between 25% and 45% of permanent type immigrants arriving in Europe for work-related reasons (graph 24).

Graph 24. Categories of international migration



Source: OECD Report "International Migration Outlook 2007".

In Spain, 3% of total workers affiliated to Social Security and registered as employed were foreign in the year 2000. This percentage increased to 9.8% in 2006, revealing the strong presence of migrant workers in the Spanish economy (Ministerio de Trabajo y Asuntos Sociales, 2006).

Due to historical links and geographical proximity, migration from African countries is an issue of concern to most OCDE European countries. Flows from Maghreb countries are higher in France, Belgium, Spain, Italy and the Netherlands. Among Maghreb countries, Morocco is by far the most important source of labour immigration to

European countries. This is especially relevant for Spain where inflows have increased during the past years, reaching 250.693 foreign workers affiliated to Social Security and registered as employed as of December 2006 (Ministerio de Trabajo y Asuntos Sociales, 2006).[8] In France the proportion of immigrants from Morocco has oscillated between 15% and 20% since 1998.

Since 1995, most European countries have experienced strong growth in employment. The largest increase over the period 2000-2005 was observed in Spain (table 4). The net job creation amounted to nearly 2 million in France and 7 million in Spain. Immigration has largely contributed to such increase. With the exception of France, immigrant employment displays stronger growth than the labour market as a whole. The evolution of immigrant employment is principally determined by the inflows of foreign workers over the considered period of time.

Immigrant employment is concentrated in the service sectors, in activities such as construction, hotels and restaurants. Nowadays, tertiary activities in developed countries account for a key share of employment in general and immigrant employment in particular. Table 5 shows that around 40% of foreign-born workers employed in the services sector are domestic and related helpers, cleaners and launderers (Austria Germany, Greece and Italy). Portugal and the UK constitute an interesting exception where foreign workers take advantage of a specific market niche: health care.

When considering foreign-born employed that have lived in the country for 10 years or less, the results show that, in several EU member countries, immigrants have lower qualifications than native-born workers. This is the case in France, Greece, Italy, Portugal and Spain. There are countries, such as Ireland, that seek to hire foreign workers with higher skills than those enjoyed by native born workers (table 6 and 7).

In several member countries there is an obvious trend of concentration of foreign workers in low-skilled jobs. In the case of Spain, we apply correspondence factorial analysis to data on native-born and foreign workers' occupations obtained from the Active Population Survey carried out by the Instituto Nacional de Estadística (last trimester of 2004). The results illustrate that there are two demographic groups clearly differentiated in terms of their occupations. Graph 1 in the annex shows that Spanish nationality is highly linked to occupational categories that require some type of qualification. There are two types of significant statistical relations; the first one between non-EU 15 foreigners and the ninth occupational category and the second one

[8] 81% of the total are male workers.

between Spanish workers and occupational categories from one to eight (Argerey, 2006).[9]

The differences in terms of unemployment between the native born population and immigrants have decreased over the last ten years in most European countries (table 8). However, Germany and France display higher unemployment rates for foreign-born population than for native population. As for the children of immigrants, the unemployment rate is higher than for the children of natives. The situation improves for the second generation. In countries such as Italy and Spain where migration inflows are a relatively recent event, the place of birth does not show a significant relation with the unemployment rate (table 9).

5. Conclusions

In this paper we have conducted forecasts of population growth up to 2050 for the Euromed region and the whole of the developed countries. The existence of markedly different demographic behavioural patterns in the European Union and in the Euromed region leads us to conclude that migration flows are and will be a key determinant of demographic evolution in the next decades. Our results sustain that such flows will move to Europe and will originate in the South.

We have also analysed migration flows that aim towards Europe, focusing on countries such as France and Spain and paying special attention to economic immigrants (those who are part of the labour market).

According to the forecast put forward by the latest UN World Population Prospects report, the consolidation of specific demographic trends in the Euromed region, such as the decline in the mortality under the age of five, improvements in life expectancy and fertility reduction, will slow down the population growth ratios in the next 40 years, even when they are still higher than those of developed countries.

Population growth in developing countries is directly related to immigration flows. Immigration compensates the decrease in working age population. This effect is especially relevant in several members of the European Union.

The contribution of foreign workers to European labour markets has increased significantly in the past years acquiring a special relevance in sectors such as the services sector. Immigrant workers generally have a lower educational level than native-born workers, especially in Southern European countries. They also tend to work

[9] Occupational Categories are described in the last table in the annex.

in low-skilled sectors. In the past few years, however, their unemployment rate vis-à-vis that of native-born workers has decreased.

To conclude, we sustain that the immigration flows originating in the Euromed area could contribute to ease the demographic disequilibria that the European Union will suffer in the next few decades. Moreover, such flows could balance the markedly different demographic trends observed in both regions.

6. References

1. Alders, M., Keilman, N., Cruijsen, H. (2007) “Assumptions for long-term stochastic population forecasts in 18 European countries,” *European Journal of Population*, 23 (1), pp. 33-69.
2. Argerey, P. (2006) “El impacto económico de la inmigración en Europa. Estudio de un caso particular: España,” PhD Thesis, Universidad Complutense de Madrid.
3. Artus, P. (2004), "Une anomalie dangereuse pour les pays avancés: certains pays à faible revenu ont un niveau d'éducation et de qualification élevé", Document de travail n°99, CDC-IXIS, Paris.
4. Artus, P. (2006), "Ouverture des échanges avec les émergents, flux de capitaux, flux migratoires", Document de travail n°15, CDC-IXIS, Paris.
5. Docquier, F. Marfouk, A (2006), “International migration by educational attainment (1990-2000)”, In C. Ozden and M. Schiff (eds). *International Migration, Remittances and the Brain Drain*, McMillan and Parlgrave: New York
6. International Organization of Migration (2005), “The potential gains from international migration”, in Global Economic Prospects 2006.
7. Ministerio de Trabajo y Asuntos Sociales (varios años) Anuario de estadísticas labourales y de asuntos sociales (http://www.mtas.es/estadisticas/anuario.htm)
8. OECD (2007), “International Migration Outlook”, OECD Annual Report.
9. United Nations (2000) *Replacement Migration: Is it A Solution to Declining and Ageing Populations?*, Population Newsletter (United Nations Population Division, New York).
10. World Bank (2006) Global Economic Prospects – Economic Implications of Remittances and Migration.

7. Annex

Table 1. Population (2005 real data and 2050 projections) for Euromed countries

	1970-2007				**2007-2050**			
	Annual Average Growth				Population		Growth	
	70-80	80-90	90-00	00-07	2007	2050	*Accumulated*	*Average*
Palestine O.T	2,7%	3,8%	3,9%	3,6%	4017	10265	155,5%	2,2%
Syrian A.R.	3,5%	3,6%	2,7%	2,7%	19929	34887	75,1%	1,3%
Jordan	3,5%	3,8%	4,1%	2,9%	5924	10121	70,8%	1,3%
Egypt	2,2%	2,4%	1,9%	1,8%	75498	121219	60,6%	1,1%
Libyan A.J.	4,4%	3,7%	2,1%	2,0%	6160	9683	57,2%	1,1%
Israel	2,6%	1,8%	3,0%	1,9%	6928	10527	51,9%	1,0%
Algeria	3,2%	3,0%	2,0%	1,5%	33858	49610	46,5%	0,9%
Morocco	2,5%	2,4%	1,6%	1,2%	31224	42583	36,4%	0,7%
Turkey	2,5%	2,2%	1,8%	1,4%	74877	98946	32,1%	0,7%
Tunisia	2,3%	2,5%	1,6%	1,1%	10327	13178	27,6%	0,6%
Lebanon	1,4%	0,6%	2,3%	1,2%	4099	5221	27,4%	0,6%
Total Area	**2,6%**	**2,5%**	**2,0%**	**1,7%**	**272841**	**406240**	**48,9%**	**0,9%**

Source: World Population Prospects. Estimates 2006 revised.UN Population Division.

Table 2. Main demographic parameters for Euromed countries-Average values 2005 – 2050

	Pop. Growth Rate[10]	Fertility Rate[11]	Mortality Rate <5 years[12]	Life Expectancy[13]	% Pop. aged 15-64[14]
Algeria	0,9%	2,00	19,16	76,00	0,68
Egypt	1,2%	2,24	18,09	75,33	0,65
Israel	1,0%	2,17	4,08	83,18	0,63
Jordan	1,4%	2,17	13,18	76,12	0,66
Lebanon	0,6%	1,93	15,93	75,59	0,67
Libyan A.J.	1,1%	2,02	12,57	77,24	0,67
Morocco	0,8%	2,00	20,46	75,24	0,67
Palestine, O.T.	2,3%	3,17	12,07	76,73	0,59
Syrian A. R.	1,4%	2,15	11,42	77,32	0,66
Tunisia	0,6%	1,84	12,87	77,06	0,68
Turkey	0,7%	1,90	18,21	75,32	0,68
Euromed[15]	**1,0%**	**2,08**	**17,08**	**75,91**	**0,66**

Source: Authors' own elaboration based on World Population Prospects. Estimates 2006 revised. UN Population Division.

[10] Average exponential rate of growth of the population over a given period. It is calculated as ln(Pt/P0)/t where t is the length of the period. It is expressed as a percentage.

[11] The average number of children a hypothetical cohort of women would have at the end of their reproductive period if they were subject during their whole lives to the fertility rates of a given period and if they were not subject to mortality. It is expressed as children per woman.

[12] Probability of dying between birth and exact age 5. It is expressed as deaths per 1,000 births.

[13] The average number of years of life expected by a hypothetical cohort of individuals who would be subject during all their lives to the mortality rates of a given period. It is expressed as years.

[14] De facto population as of 1 July of the year indicated and in the age group indicated and the percentage it represents with respect to the total population.

[15] Weighted Average (by total population in each country).

Table 3. Age structure of working age migrants (2006)

	15-24	25-44	45-64	>65
France		66	25	9
Spain	16	41	20	23
Germany	8	40	27	25

Source: IXIS CIB database (Artus, 2006).

Table 4. Employment change, total and foreign-born, 1995-2005

	Employment (thousands)				**Increase in employment (thousands)**	
	Foreign-born		Total			
	1995	2005	1995	2005	Foreign-born	Total
France	2 336	2 552	21 927	24 205	216	2 278
Germany	4 199	4 892	36 208	35 705	693	- 502
Spain	227	2 448	11 895	18 760	2 221	6 865

Source: OCDE Report “International Migration Outlook 2007”.

Table 5. Share of foreign-born employed within selected occupations in the service sector, 2004-2005 (%)

	Computing professionals	College/University Teaching professionals	Health professionals	Housekeeping and restaurant services workers	Personal care and related workers	Domestic and related helpers, cleaners and launderers	Plumbers and co	Total Employment
Czech Republic	3.8	4.0	3.8	2.1	2.2	4.9	1.4	2.0
Hungary			5.3	2.6		2.1	2.2	2.1
Finland						4.9		2.3
Denmark			8.4	12.2	7.5	15.3	6.2	6.0
Italy		6.0	4.0	13.4	12.2	37.0	6.1	6.8
Norway			12.1	15.5	7.5	19.8		6.8
Portugal			16.1	9.4	5.6	12.1	9.1	7.4
Greece			4.0	15.1	17.4	45.9	23.1	8.6
United Kingdom	16.2	15.5	28.4	17.3	9.5	13.1	4.7	9.6
Spain	7.0	8.9	4.1	21.0	11.6	27.6	9.3	9.8
France	12.6	17.3	16.9	17.1	10.2	20.3	13.1	10.6
Ireland	19.1	22.1	16.4	20.4	12.0	16.5	7.7	10.7
Belgium	14.3		9.7	20.4	10.4	18.5	12.1	10.9
Netherlands	10.6		9.9	15.0	14.1	23.3	10.1	11.1
Sweden	10.1	18.5	17.1	23.3	14.4	32.4	6.8	12.3
Austria	16.9	24.0	14.1	26.2	15.6	43.5	16.6	14.5
United States	22.3	20.3	10.1	17.6	17.1	36.1		15.5
Germany	12.8	20.4	14.3	28.8	13.1	39.5	16.2	15.9
Switzerland	24.6	41.7	32.8	49.1	28.4	55.8	32.5	24.3
Luxembourg	64.4		36.2	77.8	28.9	82.1	55.6	43.9

Source: OCDE Report “International Migration Outlook 2007”

Table 6. Skilled immigration

	Immigrants (% in total population)		Skilled immigrants (% in total number of immigrants)			
			M	M	F	F
	1995	2005	1990	2000	1990	2000
France	8.7	8.5	21.9	21.9	8.6	16.4
Germany	5.5	7.3	21.8	25.5	17.0	21.0
Spain	3.3	4.5	9.5	12.2	17.5	16.8
UK	6.8	8.3	13.9	17.8	20.5	34.5
US	8.7	11.7	39.2	51.3	40.1	42.5
EU 15	5.5	6.7	15.5	18.6	17.1	23.1

Source: F. Docquier, A.Marouk (2005) database

Table 7 – Educational attainment of employed population by birth status

Country		Foreign-born employed								Native-born employed 2005			
		1995, present in the country for 10 years or less				2005, present in the country for 10 years or less				completed their studies 10 years ago or less			
		Below upper secondary	Upper secondary	Tertiary	Total	Below upper secondary	Upper secondary	Tertiary	Total	Below upper secondary	Upper secondary	Tertiary	Total
Austria	Thousands	76.2	93.8	25.9	195.9	31.0	78.4	35.5	144.8	134.3	553.3	228.9	916.5
	%	*39*	*48*	*13*	100.0	*21*	*54*	*24*	100.0	*15*	*60*	*25*	100.0
Belgium	Thousands	14.2	11.2	21.0	46.4	41.1	33.0	69.7	143.8	88.8	374.8	472.2	935.8
	%	*31*	*24*	*45*	100.0	*29*	*23*	*48*	100.0	*9*	*40*	*50*	100.0
Denmark	Thousands	5.1	9.3	9.0	23.4	16.7	21.3	25.8	63.8	194.7	407.1	362.7	964.5
	%	*22*	*40*	*38*	100.0	*26*	*33*	*40*	100.0	*20*	*42*	*38*	100.0
France	Thousands	57.7	43.2	46.9	147.8	152.8	97.0	136.0	385.8	975.3	2,216.9	2,566.8	5758.9
	%	*39*	*29*	*32*	100.0	*40*	*25*	*35*	100.0	*17*	*38*	*45*	100.0
Greece	Thousands	36.4	31.1	15.5	82.9	99.5	80.7	24.5	204.7	66.6	440.2	309.3	816.1
	%	*44*	*38*	*19*	100.0	*49*	*39*	*12*	100.0	*8*	*54*	*38*	100.0
Ireland	Thousands	3.4	4.0	9.6	17.1	16.5	43.2	55.6	115.4	11.1	53.6	77.0	141.7
	%	*20*	*24*	*56*	100.0	*14*	*37*	*48*	100.0	*8*	*38*	*54*	100.0
Italy	Thousands	32.6	14.8	14.6	62.0	385.9	386.8	94.1	866.8	536.4	2,196.9	1,238.2	3971.5
	%	*53*	*24*	*24*	100.0	*45*	*45*	*11*	100.0	*14*	*55*	*31*	100.0
Luxembourg	Thousands	11.4	3.6	4.9	19.9	7.1	9.2	18.1	34.3	3.9	14.4	11.2	29.5
	%	*57*	*18*	*25*	100.0	*21*	*27*	*53*	100.0	*13*	*49*	*38*	100.0
Netherlands	Thousands	37.1	66.7	37.6	141.4	38.4	76.5	48.7	163.5	605.5	1,080.4	933.7	2619.5
	%	*26*	*47*	*27*	100.0	*23*	*47*	*30*	100.0	*23*	*41*	*36*	100.0
Portugal	Thousands	17.4	8.3	5.1	30.8	70.2	34.9	21.6	126.8	423.2	276.6	325.1	1024.8
	%	*56*	*27*	*16*	100.0	*55*	*28*	*17*	100.0	*41*	*27*	*32*	100.0
Spain	Thousands	20.3	9.1	19.3	48.8	709.4	635.6	381.7	1726.7	1,132.1	981.1	2,318.4	4431.6
	%	*42*	*19*	*40*	100.0	*41*	*37*	*22*	100.0	*26*	*22*	*52*	100.0
Sweden	Thousands	18.0	31.4	30.6	80.0	16.5	43.1	44.3	103.9	109.6	481.9	465.7	1057.1
	%	*23*	*39*	*38*	100.0	*16*	*41*	*43*	100.0	*10*	*46*	*44*	100.0
United Kingdom	Thousands	282.2	61.1	86.1	429.5	112.2	700.9	302.5	1115.6	351.2	3,875.3	3,331.9	7558.4
	%	*66*	*14*	*20*	100.0	*10*	*63*	*27*	100.0	*5*	*51*	*44*	100.0

Source: European Community Labour Force Survey (data provided by Eurostat).

Table 8. Labour market indicators: native born versus foreign born

			France	Germany	Spain
Participation rate (%)	Native-born	1995	68,4	..	59,4
		2000	69,6	72,1	64,9
		2005	69,6	74,8	68,6
	Foreign-born	1995	66,7	..	64,2
		2000	67,4	64,8	71,4
		2005	66,6	68,7	78,7
Unemployment rate (%)	Native-born	1995	11,2	..	22,8
		2000	9,4	7,4	13,9
		2005	8,6	10,4	9,1
	Foreign-born	1995	17,6	..	27,0
		2000	16,7	12,6	15,9
		2005	14,7	17,0	11,3
Employment rate (%)	Native-born	1995	60,7	..	45,8
		2000	63,1	66,7	55,9
		2005	63,6	67,0	62,3
	Foreign-born	1995	55,0	..	46,8
		2000	56,2	56,7	60,0
		2005	56,8	57,0	69,8

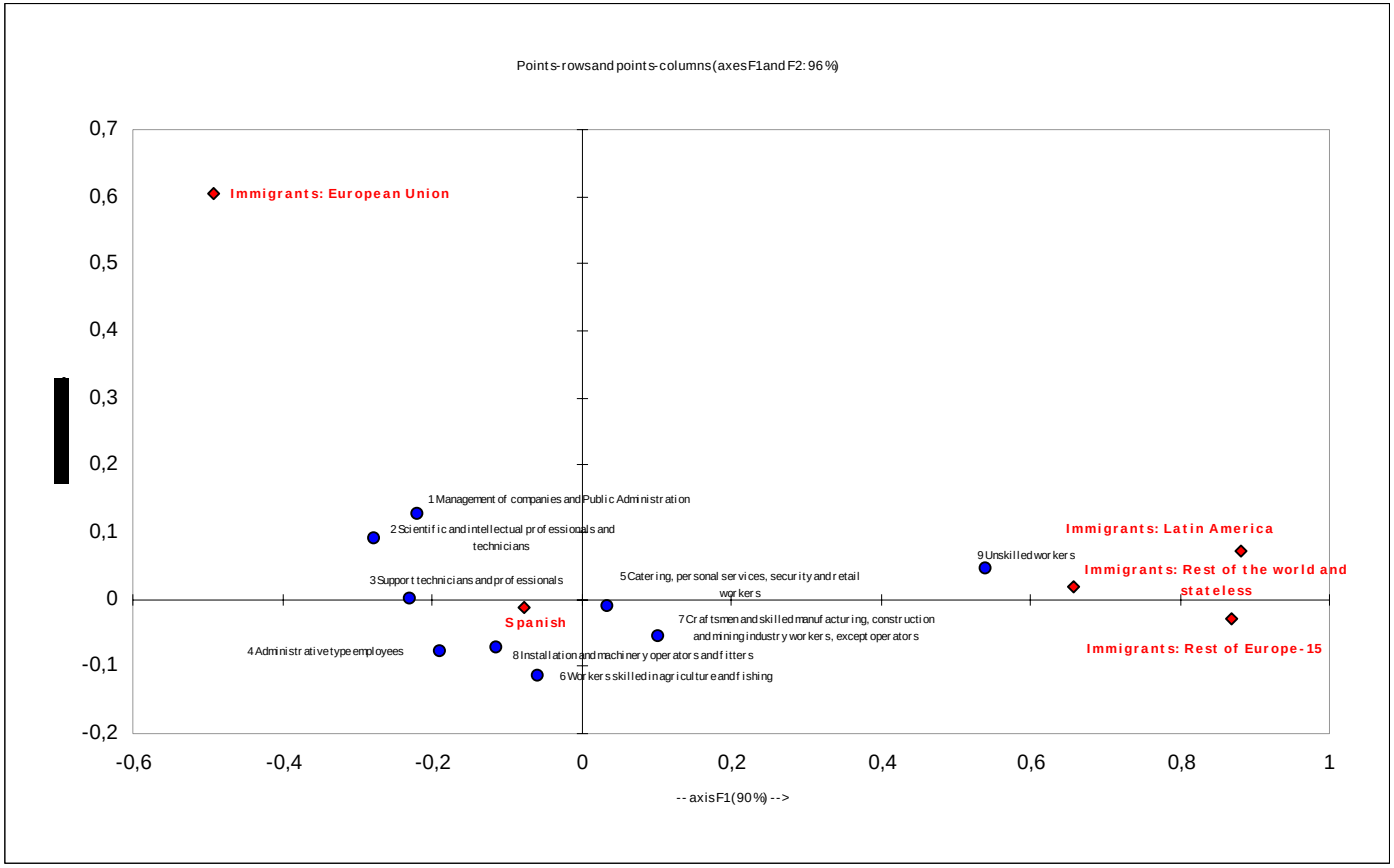
Source: OCDE Report “International Migration Outlook 2007”

Table 9. Labour market situation of foreign- and native-born populations in selected OECD countries, 1995 and 2005

Unemployment rate (%), men and women				
	Native-born		Foreign-born	
	1995	2005	2000	2005
Austria	4.1	4.3	8.0	10.8
Belgium	8.4	6.9	15.8	17.1
Czech Republic	..	7.7	..	12.9
Denmark	7.3	4.5	9.5	9.8
Finland	17.0	8.2	-	18.3
France	11.2	8.6	16.7	14.7
Germany	..	10.4	12.6	17.0
Greece	9.0	9.7	14.6	10.2
Hungary	..	7.2	-	4.6
Iceland	..		..	
Ireland	12.0	4.1	5.7	6.0
Italy	11.9	7.4	12.1	9.5
Luxembourg	2.6	3.6	2.9	5.6
Netherlands	6.0	4.0	6.3	10.8
Norway	..	4.2	6.1	10.6
Portugal	7.2	7.5	4.5	9.0
Slovak Republic	..	16.3	..	25.5
Spain	22.8	9.1	15.9	11.3
Sweden	7.3	7.9	11.6	14.9
Switzerland	..	3.1	..	8.6
United Kingdom	8.5	4.3	8.8	7.3

Source: OCDE Report “International Migration Outlook 2007”

Graph 1. Relationship between nationality and occupation in Spain, 2004. Correspondence factorial analysis[16]



Source: Argerey (2006).

[16] Physical proximity between two points within the same category indicates that both behave in a similar way.

National Occupational Classification	
0	Armed forces
1	Management of companies and Public Administration
2	Scientific and intellectual professionals and technicians
3	Support technicians and professionals
4	Administrative type employees
5	Catering, personal services, security and retail workers
6	Workers skilled in agriculture and fishing
7	Craftsmen and skilled manufacturing, construction and mining industry workers, except operators
8	Installation and machinery operators and fitters
9	Unskilled workers

Source: Instituto Nacional de Estadística, Spain