

**Athens Institute for Education and Research
ATINER**



**ATINER's Conference Paper Series
MDT2012-0024**

**Demographic Transitions and Social Changes in
Mediterranean Countries**

Barbara Zagaglia
Assistant Professor of Demography
Università Politecnica delle Marche
Italy

Eros Moretti
Full Professor of Demography
Università Politecnica delle Marche
Italy

Athens Institute for Education and Research
8 Valaoritou Street, Kolonaki, 10671 Athens, Greece
Tel: + 30 210 3634210 Fax: + 30 210 3634209
Email: info@atiner.gr URL: www.atiner.gr
URL Conference Papers Series: www.atiner.gr/papers.htm

Printed in Athens, Greece by the Athens Institute for Education and Research.
All rights reserved. Reproduction is allowed for non-commercial purposes if the source
is fully acknowledged.

ISSN **2241-2891**

An Introduction to ATINER's Conference Paper Series

ATINER started to publish this conference papers series in 2012. It includes only the papers submitted for publication after they were presented at one of the conferences organized by our Institute every year. The papers published in the series have not been refereed and are published as they were submitted by the author. The series serves two purposes. First, we want to disseminate the information as fast as possible. Second, by doing so, the authors can receive comments useful to revise their papers before they are considered for publication in one of ATINER's books, following our standard procedures of a blind review.

Dr. Gregory T. Papanikos
President
Athens Institute for Education and Research

This paper should be cited as follows:

Zagaglia, Barbara and Moretti, Eros (2012) "**Demographic Transitions and Social Changes in Mediterranean Countries**" Athens: ATINER'S Conference Paper Series, No: MDT2012-0024.

[Demographic Transitions and Social Changes in Mediterranean Countries]

Barbara Zagaglia
Assistant Professor of Demography
Università Politecnica delle Marche
Italy
Eros Moretti
Full Professor of Demography
Università Politecnica delle Marche
Italy

Abstract

We analyse and compare demographic transitions and the changes in family behaviours that have occurred in the principal Mediterranean countries from the 1950s to nowadays.

In France, Italy, and Spain, on the northern rim, the First Transition have already ended and the Second Transition was entered, with an evident break between them. In these countries the TFR has fallen permanently below the replacement level of generations and union formation and childbearing have been markedly and continuously postponed.

In Algeria, Morocco, Tunisia, Egypt, and Turkey, on the southern rim, the mortality transition seems to have reached its conclusion, but there are significant differences in fertility as regards both intensity and cadence. The three countries of the Maghreb seem to have arrived at similar reproductive behaviours: a TFR close to replacement level or below (Tunisia), widespread use of modern contraception methods and, more significantly, a marked delay in the timing of fertility in tandem with an noticeable postponement of union formation, especially in Algeria. For them the pause between the First and Second Transition seem to have disappeared and a single evolutionary path emerges instead. These findings cannot be extended to Egypt and Turkey, which exhibit a demographic dynamics that is far more complex and difficult to place within a rigid interpretative paradigm.

Finally, the “demographic gift” provided by demographic transitions on the southern rim was differently exploited and, in some cases, it seems to translate into social pressure and political instability.

Keywords: Demographic Transitions; family behaviors; Mediterranean countries.
Contact Information of Corresponding author: e-mail: b.zagaglia@univpm.it

Introduction

If we exclude the entirely atypical case of France, the modernization of demographic behaviours in Europe began with a systematic decline in the death rate in the early decades of the nineteenth century in certain Northern European countries, and only around 1870-80 in most of the remaining European countries. It was only some decades later that the birth rate began to decline as a result of changes in reproductive behaviour.

Overall, this process, which is known as “demographic transition”, took a long time to come about in Europe. If we refer to the scheme proposed by Chesnais (1986), it ranged from the approximately 150 years of the Nordic model to the 80-90 years of the Mediterranean one. Although the starting times are very different, Chesnais frames the transition in nearly all European countries within a very short time period: between 1960 and 1970, when the return to equilibrium in crude birth and death rates (for a sufficiently long time interval – at least five years – to exclude disruptive effects due to non-demographic factors) generated a zero or moderately positive population growth rate.

A few years later, certain social and cultural changes occurred which engendered a new phase which some authors have termed the “Second Demographic Transition” (Lesthaeghe, 1995; Van de Kaa, 1987). This new phase, which was characterized by a further reduction in fertility and a modification in its calendar, is associated with transformations in familial behaviours which can be traced back to changes in values across Western societies.¹

On the other hand, in the so-called Third World countries², the mortality transition began in the twentieth century, and in some countries only after the Second World War. For these countries the fall in mortality, which was particularly rapid and often due to exogenous factors,³ brought about a demographic increase far higher than that in Europe; hence the need, from the 1970s onwards, to introduce family planning policies in order to drive the birth rate down.

Today, fertility have fallen below the level of the replacement of generations, not only in Europe and the other developed countries but also in areas of the Third World, where in many countries the Total Fertility Rate (TFR) has reached nearly 2.1 children per woman.⁴

¹ For a detailed presentation of this theory, see, for example, Zagaglia (2006).

² With the term “Third World” we refer to the definition used in the period following the Second World War: that is, to all countries that were not a part of the First World (including the West and Japan) and the Second World (the Soviet Bloc).

³ One need only consider the role of penicillin in reducing infant mortality.

⁴ The 2.1 value of the TFR, which is the main indicator of fertility, is the value estimated as being necessary to maintain generational replacement in the context of a low mortality. It corresponds to a zero population growth rate.

The northern rim of the Mediterranean region – with the exception of France – records especially low fertility rates, whilst in the southern and eastern rims,⁵ in almost all cases, the TFR is still above replacement level.

The purpose of this paper is to compare demographic transitions in various regions: the European areas of the northern Mediterranean rim countries and the demographic transitions of the countries of the southern rim. Given the evolutionary framework outlined above, we thought it advisable to consider the period from 1950 to the present day. Our analysis, which is based on an ample UN data series, focuses on the three largest countries of the northern rim (France, Italy, and Spain), and the three main areas of the southern rim (Egypt, Maghreb⁶, and Turkey).

The paper is organized as follows: section 2 describes the Demographic Transition while section 3 illustrates the changes in the reproductive behaviours and in family dynamics in the Mediterranean Region. Finally, section 4 concludes, with some remarks on the relationships among demographic, economic and political aspects of changes.

2. Demographic transition in the Mediterranean Region

Major socio-economic and demographic transformations have occurred in the countries of the Mediterranean Basin in recent decades. If we dwell briefly on the demographic aspect alone, the balance in population size between the countries on the two rims, the north and the south, have undergone profound changes. While most of the over 223 million individuals who populated the Mediterranean rim countries in 1950 lived in the northern rim, today, sixty years later, the half a billion people who live in the region are mainly concentrated in the countries of the southern rim. Italy, France, and Spain, the most populous countries in the region in mid-twentieth century, have given way to Egypt, the countries of the Maghreb Region, and Turkey, where approximately 46% of the total population is concentrated⁷.

The variations in demographic performance are explained by the natural dynamics of the various countries belonging to the two macro areas within the paradigm of Demographic Transition. In this case, in fact, migration is a significant, but secondary, component of demographic evolution.

The countries of Europe, with the exception of Albania, have had very low rates of natural increase owing to low birth and death rates, whilst for the entire period, African and Middle Eastern countries have recorded not only high, but often also

⁵ Hereafter referred to simply as the southern shore, following the distinction usually drawn in the literature (see e.g. Di Comite & Moretti, 1999).

⁶ The smaller area consisting of Algeria, Morocco, and Tunisia.

⁷ For more detailed data, see Moretti & Zagaglia (forthcoming), of which this study is a more detailed extension.

increasing, rates of natural growth. The former are in the final stages of demographic transition, while the latter are only at the beginning of the new demographic regime.⁸

Figures 1 and 2 furnish a detailed picture of the trends of vital rates and the stage of transition of the main countries in the area.⁹ On the northern rim (Figure 1), France, which is the oldest transition country, differs because of the continuing slow reduction in both birth rates and mortality rates, which have given rise to a low, but fairly stable, rate of natural population growth. Two phases are especially evident: the first from the 1950s to the mid-1970s, when there was a greater reduction in the birth rate, and the second, from the mid-1970s onwards, with a slow reduction in the birth rate and a largely constant growth rate.

In Italy, while the death rate has remained constant for the entire period considered, the birth rate remained at an average annual level of 18 per thousand until the early 1970s, and then rapidly declined to values similar to those of mortality in the early 1990s. Thereafter, the closing of the gap between the two rates has led to a zero or negative rate of increase.

In Spain, the natural growth rate was fairly high until the mid-1970s because of a greater difference between the two growth rates: the birth rate was higher, and the mortality rate was lower. In the case of Spain, the gap only closed in the mid-1990s, and it has opened up again in recent years because of an upturn in the birth rate.

As regards the countries of the southern rim, Figure 2 shows that the reduction in mortality had already begun in the middle of the last century. Mortality – with an annual average rate of between 19 (in Turkey) and 26 (in Morocco) per thousand – continued to decline at a similar rate in the five countries considered, until it reached the current levels of 5-6 deaths per every thousand inhabitants. In these five countries, life expectancy at birth has increased greatly for both sexes, and for female it is currently in excess of 73 (from 73.44 in Morocco to 76.04 in Tunisia), which is the value suggested by Chesnais as marking the end of the mortality transition.

It was the levels and dynamics of the birth rate – very high at the beginning of the 1950s – which determined the varying developments in the rate of natural growth, which still today is markedly positive.

The dynamics was substantially similar in the three Maghreb countries. In Algeria, the birth rate was high for a longer period (until the first half of the 1970s), whereas in Tunisia the reduction was evident from the second half of the 1960s onwards, and the rate began to drop again after a pause in the 1970s. The maximum natural growth rates during the transitional period were over 30 per thousand in Algeria and Morocco,

⁸ For an analytical study and a formalization of transitional processes at a global level, see the important study by Chesnais (1986), and for a brief, updated presentation, see, for example, Micheli (2010) and Farina (2010). For a detailed analysis of the transition in Europe, see the results of the Princeton Project led by Ansley J. Coale (Coale and Watkins, 1986).

⁹ Here, we use the classic scheme of Demographic Transition proposed by Chesnais (1986).

and only slightly lower in Tunisia. In all three countries, a balance between the two rates seems to have been reached at the turn of the new millennium.

It would seem that Turkey, which was in a more advanced stage of transition than the other countries of the southern rim in the 1950s, is also reaching an equilibrium. The reduction in Turkey has been gradual as regards both deaths and births.

In Egypt, the process has been slower. Here, mortality has fallen in an almost linear fashion, and the birth rate has dropped at a similar rate, so that the rate of natural growth has remained more or less constant at levels above 25 per thousand since the beginning of the 1990s. Still today, with the rate at 19 per thousand, Egypt has the highest population growth rate of all the countries under consideration.¹⁰

3. Reproductive behaviours and family dynamics

Birth rates (like death rates) are influenced by the age structure of the population – older on the northern rim, younger on the southern one. The differences in reproductive behaviours can be illustrated more clearly by considering another indicator, the Total Fertility Rate¹¹, the evolution of which is reported in Figure 3. This clearly shows how female reproductive behaviours in the largest countries of the area have changed over time and are today differentiated.

It is evident that over time there has been an overall convergence in the average number of children per woman on the two rims, especially in the last ten years.

In the European countries of the northern rim, fertility fell below the replacement level from the second half of the 1970s onwards (first in France and Italy, and then in Spain). Despite a dramatic reduction, the countries of the southern rim have remained at levels over and above the threshold of 2.1 children per woman since the beginning of the new millennium. But currently even Tunisia has dropped below the replacement level of generations (the average number of children per women was 2.04 in the five-year period 2005-2010), while Turkey has only slightly higher values (2.14). Egypt, on the other hand, has maintained a high fertility rate in the past fifteen years, in both absolute and relative terms.

The fertility transition took place at different times in the countries of the southern rim, but in any event it occurred there before it did in the other countries of the Arab world (Rashad, 2000). Egypt and Turkey, which started from similar fertility levels, were the first to reduce them. However, while Turkey exhibited continuous decline, fertility dynamics in Egypt underwent alternating periods of accelerated and moderate

¹⁰ And one of the highest rates among all the countries in the area.

¹¹ The Total Fertility Rate, which indicates the average number of children per woman, is an indicator purged of mortality and the age structure. Moreover, it is calculated without considering migratory movements by the female population to which it refers.

decreases. In the Maghreb region, the reductions in fertility took place first in Tunisia, followed by Morocco, and finally, in the second half of the 1970s, by Algeria.

One of the factors indubitably responsible for reductions in fertility is the spread of contraception.^{12,13} In this respect, too, the differences between the two rims have been virtually annulled. All the countries have been affected by it, and some or other birth control method is currently used by the majority of couples in a stable union (over 60%), with a more extensive use in France (76.6%) and Turkey (73%). Whilst in France contraception methods are almost exclusively modern,¹⁴ in Turkey a significant amount of birth control is practiced using traditional methods of contraception. The countries of the southern rim are undoubtedly distinguished by the speed at which the use of contraceptive methods has spread, and the strong commitment of states to family planning has certainly had an effect in those countries.¹⁵ A further significant characteristic is that contraception consists almost exclusively of modern, and predominantly female, methods, while the use of a condom, which Islam considers to be a symbol of Western culture and associates with prostitution (Salvini, 1996), has not spread, with the exception of Turkey (see Tables 1 and 2).¹⁶

The “*more* traditional” contraceptive methods,¹⁷ which have almost disappeared in Tunisia and Turkey, continue to be used, albeit to a residual extent (by around 2-3 couples out of 100), in the other countries of North Africa (Algeria, Egypt, and Morocco).

Although low levels of fertility are associated with an extensive use of contraceptives, where fertility is especially low, contraception is predominantly a means to “space” rather than “limit” births, as confirmed by the weakening of the link between the two variables – prevalence of contraceptives and TFR – in correspondence with low values of Total Fertility Rate (see Figure 4).

It is precisely in relation to reproductive cadence that one sees the greatest differences in behaviours between the countries of the two rims of the Mediterranean.

¹² Contraception is one of the so-called “intermediate” or “proximate” variables of fertility. Factors – both biological and behavioural – that influence fertility directly are defined in this way. Variations in fertility levels are necessarily due to one or more proximate determinants (Bongaarts and Potter, 1983).

¹³ The spread in the use of modern contraception methods is a distinctive characteristic of, as well as an essential condition for, the new demographic revolution (Lesthaeghe, 1995)

¹⁴ Among the modern contraceptive methods are condoms, the Pill, sterilization, IUDs and diaphragms. For a complete list of types of contraceptive considered to be modern, see United Nations, 2011.

¹⁵ Financed by the international agencies, and recognized as an indispensable tool for containing the excessively high population growth considered to be an obstacle to economic development (United Nations, 2010).

¹⁶ In particular, contraception has spread in the countries of the Maghreb without substantial differences. But whereas in Algeria and Morocco use of the contraceptive pill has spread more than any other form, in Tunisia the IUD is most widely used. In the 1980s and 1990s in Tunisia, the number of women who chose sterilization was of a certain significance (14.5% in the mid-1990s), but this number is significantly lower today.

¹⁷ These include prolonger abstinence, breast feeding, lactation amenorrhea, and tradition contraception practices.

Unlike in the case of intensity, in that of cadence the tendency has not been towards standardization, but rather towards differentiation. Currently, in fact, the fertility calendar is indubitably more dissimilar than it was at the beginning of the 1970s (see Figure 5).

At the beginning of the 1970s, in all the countries considered, most births occurred before the woman reached the age of 30,¹⁸ with a greater frequency between the ages of 25 and 29 (Table 3 and Figure 5a). Turkey was an exception to this pattern on the southern Mediterranean rim, as was France on the northern rim, where the calendar was set earlier, and fertility was higher between 20 and 24 years of age (1.47 children per woman in Turkey, and 0.79 in France) (Figure 5a).

Compared with other countries of the southern rim, in Turkey and Egypt the average number of children per woman was lower at higher ages, which confirms a more advanced fertility transition process. In the same period, women aged between 35 and 39 in Tunisia, Morocco, and Algeria were still having more than one child on average.

In the course of the six decades considered, the process of childbearing postponement has involved all the larger countries of the area, but with very different intensities and timeframes. The process was especially intense on the northern rim (in Spain, and above all in Italy, but much less so in France), and on the southern rim in Tunisia and, especially, Algeria, where the timing of fertility is currently much more similar to that of the countries of the northern rim than it is to the other countries in the region. In Tunisia, fertility is low among women aged under 25, and it is concentrated between the ages of 25 and 34 (60.3% of TFR accumulates in this age range). In Algeria, fertility declines only slightly after the age of 30, and remains relatively high even at more advanced ages (see Figure 5b). In these countries, in fact, the postponing of childbearing has only been evident in the past ten years.¹⁹ Childbearing occurs especially early in Egypt, and above all in Turkey, where more than 70% of births occur before the age of 30, and over 60% are concentrated between the ages of 20 and 30 (Table 3).

Changes in couple formation (beginning and duration) have undoubtedly modified reproductive outcomes in the Mediterranean Basin. Almost all births occur within a stable, constant relationship: the start of the union establishes the calendar, as does the intensity.^{20, 21}

¹⁸ On average, women on the southern rim had already given birth to more than three children before reaching their thirtieth birthday, while women on the northern rim had had around half that number.

¹⁹ For reasons of space, we shall not report the complete temporal series of specific fertility rates by age here, but they are available from the authors on request.

²⁰ Marriage and consensual unions are the socially approved contexts for reproduction.

²¹ Marriage and matrimonial dissolution are jointly an especially significant proximate variable of fertility. They determine the effective length of the reproductive period (Bongaarts and Potter, 1983).

In all the larger countries of the Mediterranean, the mean age at union formation has increased, as is clear from the values of the female SMAM (*Singulate Mean Age at Marriage*)²² reported in Table 4. In countries with low and delayed fertility – those on the northern Mediterranean rim, that is – the average age at which couples begin life together was already higher in the 1970s than it was in most countries on the southern rim; it has increased further, particularly since the 1990s, and currently stands at around 30. The average age is very high in France, where consensual unions and divorce are more widespread.

Algeria, which has late and moderate fertility, is the southern rim country where the increase has been most evident (8.4 years in a fifteen-year period), and the SMAM is 29.5 years of age. In this country, life as a couple begins especially late, as confirmed by the very small percentage of married women aged between 15 and 24 (see Table 4). In Tunisia – where fertility is low and quite late, and where in the 1970s there was a less early nuptiality pattern compared with the other countries of the southern rim – despite the incompleteness of the data, the trend indicates a situation similar to that of Algeria. In Turkey and Egypt, which have high and early fertility, women continue to become part of a couple earlier than they did the 1970s: the SMAM has risen only slightly, and today is 23.4 years of age in Turkey, and 23.0 in Egypt. In these latter two countries, 12 women out of 100 aged between 15 and 19, and around half of those aged between 20 and 24, are married.

The situation is different in Morocco, where at the beginning of the 1970s, couple formation was particularly precocious (the SMAM was 19.1 years of age in 1971, and the percentage of married women aged between 15 and 19 was 30.9%). Today, the postponement does not appear to be particularly significant (in 2004, almost 11% of women in the 15-19 age range and 37% of those aged between 20 and 24 were married), which places Morocco in an intermediate situation with respect to the other countries in the region with regard to the intensity and cadence of nuptiality, in the broadest sense of the term.

The picture would not be complete unless consideration is made of the fact that not only is marriage – or at least couple formation – later than it used to be, but also increasing numbers of women remain outside wedlock. The change that has taken place in the institution of marriage is, in fact, far more profound than has been described thus far.

This significant change is evidenced by the data reported in Table 5, which show the distribution of women of childbearing age according to civil status. The average number of married women has diminished to a larger extent in the countries where falls in fertility levels have been the greatest, and/or fertility has fallen to an especially low level, and/or the postponement of childbearing has been most evident. In these

²² The average number of years lived as a “single” person among women of reproductive age (15-49), where the term “single” means “not in a couple” (neither married nor in a consensual union).

same countries, on the other hand, the average percentage of unmarried women has risen.²³

4. Concluding remarks

In sections 2 and 3 we analysed the evolutions of demographic transitions, and the changes in family behaviours that have occurred in the past sixty years in the principal countries of the two Mediterranean rims.

On the northern rim, as in most European countries, there is an evident break between the First and Second Transitions: the former ended in the 1960s, and the latter began some years later, and reproductive behaviours altered as regards both intensity – with a further, permanent fall below the replacement level of generations – and cadence, with the postponement of marriage and, especially, childbearing. As in the countries of Central and Northern Europe, and as documented by Lesthaeghe (see e.g. Lesthaeghe, 2010), the central feature of the Second Transition may therefore be regarded as the change in cadence: the new timeframes and modes of life involve a postponement of decisions concerning the life of a couple, and variations in childbirth are more of a choice than a consequence.

On the southern rim, at least in the five countries that we have analysed, the mortality transition seems to have reached its conclusion, but there are significant differences in fertility. The three countries of the Maghreb (Algeria, Morocco, and Tunisia), seem to have arrived, albeit by different routes, at similar reproductive behaviours: a TFR close to replacement level,²⁴ widespread use of modern contraception methods prevalently female and, more significantly, a marked delay in the timing of fertility²⁵. The case of Turkey and Egypt is different: in those countries, the mean age at union formation is still low, but the other indicators yield extremely varied results: in Egypt, the TFR is still high (3.09 in 2006), and the use of traditional contraceptive methods is infrequent; in Turkey, the TFR level is much lower (2.17 in 2007), and the use of contraception is especially high, with a significant share of male contraception and use of condoms.

There is one particularly significant aspect on the southern rim: the pause between the First and Second Transition seems to have disappeared. A single evolutionary path emerges instead, with characteristics that vary from country to country.

In Europe, the demographic revolution had to await economic and social transformations which took an especially long time because of the constraints imposed

²³ It should be taken into due consideration that the values reported sometimes include, and sometimes exclude, women in consensual unions.

²⁴ The TFR has fallen below replacement levels in Tunisia, and is at only slightly higher levels in Algeria and Morocco.

²⁵ More recent in Morocco and Tunisia, consolidated over the entire period analysed in Algeria.

by religious tradition, the family of origin, and last but not least, the difficulty of separating sexual and reproductive behaviours. It was only from the 1970s onwards that certain factors were in place: the influence of 1968 on the behaviour of young Europeans and legislation on families and civil rights should not be ignored.

Given their geographical and cultural proximity to certain European countries, strengthened by the role played by migration, young North Africans may have enjoyed especially favourable conditions, and they may have ended up by following a completely new social and cultural path which has probably worked in favour of the transformation of demographic behaviours. In the case of these countries, this induces us to reject the hypothesis of the two transitions, and – as certain authors (among the most authoritative, Caldwell, 2004) have claimed – to consider instead the hypothesis of a single reference theoretical model.

Although we have not gone into detail on all the aspects that characterize the Second Transition, we conclude that it does not seem possible to extend the findings on the three countries of the Maghreb to Egypt and Turkey, which exhibit a demographic dynamics that is far more complex and difficult to place within a rigid interpretative paradigm.

Finally, some considerations about the relationship between the dynamics of population and economic growth are due.

Only considering the countries of the southern rim of the Mediterranean and the last most significant period as regards the demographic and social changes (1999-2009, the last available ten-year period), we can observe as follow. In 1999, the two richest countries among the five considered were Turkey and Tunisia. In ten years, GNI per capita more than doubled in Turkey while it increased slightly in Tunisia, descending from the second to the third position after Algeria (see table 6).

The fertility decline, that has been the driving force of the demographic changes, seems to be not correlated to the GNI per capita, neither in absolute terms nor in relation to its increment. Otherwise, reproductive changes seem associated to more complex factors than the mere economic growth. In accordance with Bongaart (2002) and Lesthaeghe (1995, 2010) the interpretative key of demographic changes seems to be the social, economic, and cultural developments.

The composition of population by age, as a consequence of the demographic transition, has undergone well evident transformations. That holds for both the proportion of population under the age of 15 and, especially, for the proportion of population aged 15-64 years (see table 7).

As a result, the Young-age Dependency Ratio has declined in all countries we analyzed, in some cases also by over 20%. In particular in Turkey, that showed the lowest value in 1999, it declined from 48.4% to 40.3%, whereas in Tunisia the fall was specially remarkable (from 58.3% to 36.8%).

The increase in labour supply, when the economic expansion is remarkable, like in Turkey, can meet the domestic increase in the demand of labour. But when the

economic expansion is too moderate, like in Tunisia, the increase in labour supply is inevitably transformed in migratory pressure.

Thus, in conclusion, the so-called “demographic gift” can be a benefit for a country in presence of a remarkable increase of GNI (or GDP as an alternative measure of economic growth). On the contrary, if GNI (or GDP) does not grow or grows too slowly, increasing unemployment and low wages not only can increase the migratory pressure but can also cause instability of social peace with youth more and more unsatisfied by the answers of the ruling class as the news items of the last year demonstrate.

References

Bongaarts, J. & R.G. Potter (1983). *Fertility, Biology, and Behavior. An analysis of the proximate determinants*. New York: Academic Press.

Bongaarts, J. (2002). 'The end of fertility transition in the developing world'. In: UN, *Completing the fertility transition. Bulletin of the United Nations Special Issues Nos 48/49*.

Chesnais, J.C. (1986). 'La transition démographique. Etapes, formes, implications économique'. *Travaux et Documents 113*. Paris: PUF.

Coale A.J. & S. Cotts Watkins (eds.) (1986). *The decline of fertility in Europe*. Princeton, New York: Princeton University Press.

Caldwell, J.C. (2004). 'Demographic theory: A long view'. *Population and Development Review* 30 (2): 297-316.

Di Comite L. & E. Moretti (1999). *Geopolitica del Mediterraneo*. Roma: Carocci Editore. [In Italian].

Farina, P. (2010). 'Le demografie degli altri'. In: G.A. Micheli, *Demografie*, 209-246. Milano: McGraw-Hill [In Italian].

Ined. (Different years). *Population and Sociétés*. Paris.

Lesthaeghe, R. (1995). 'The second demographic transition in Western countries: An interpretation'. In: K.O. Mason & A.-M. Jensen (eds.), *Gender and family change in industrialized countries*, 17-62. Oxford: Clarendon Press.

Lesthaeghe, R. (2010). 'The unfolding story of the Second Demographic Transition'. *Population and Development Review* 36(2): 211-251.

Micheli, G.A. (2010). 'La popolazione europea sul lungo periodo'. In: G.A. Micheli, *Demografie*, 1-42. Milano: McGraw-Hill. [In Italian].

Moretti E. & B. Zagaglia (forthcoming) 'Il Mediterraneo tra Prima e Seconda Transizione'. In: S. Girone, R.Pace, & A.M. Valleri (eds), *Il Mediterraneo uno studio una passione. Studi in onore di Luigi Di Comite*, Bari: Cacucci. [In Italian].

Rashad, H. (2000). 'Demographic transition in Arab countries: A new perspective'. *Journal of Population Research*, 17(1): 83-101.

Salvini, S. (1996). 'Paesi Musulmani'. In: G. Dalla Zuanna (eds.), *Contraccezione e aborto alle soglie del 2000. Paesi poveri e Paesi ricchi a confronto*, 41-72, Roma: Dipartimento di Scienze Demografiche, Università degli Studi di Roma "La Sapienza".

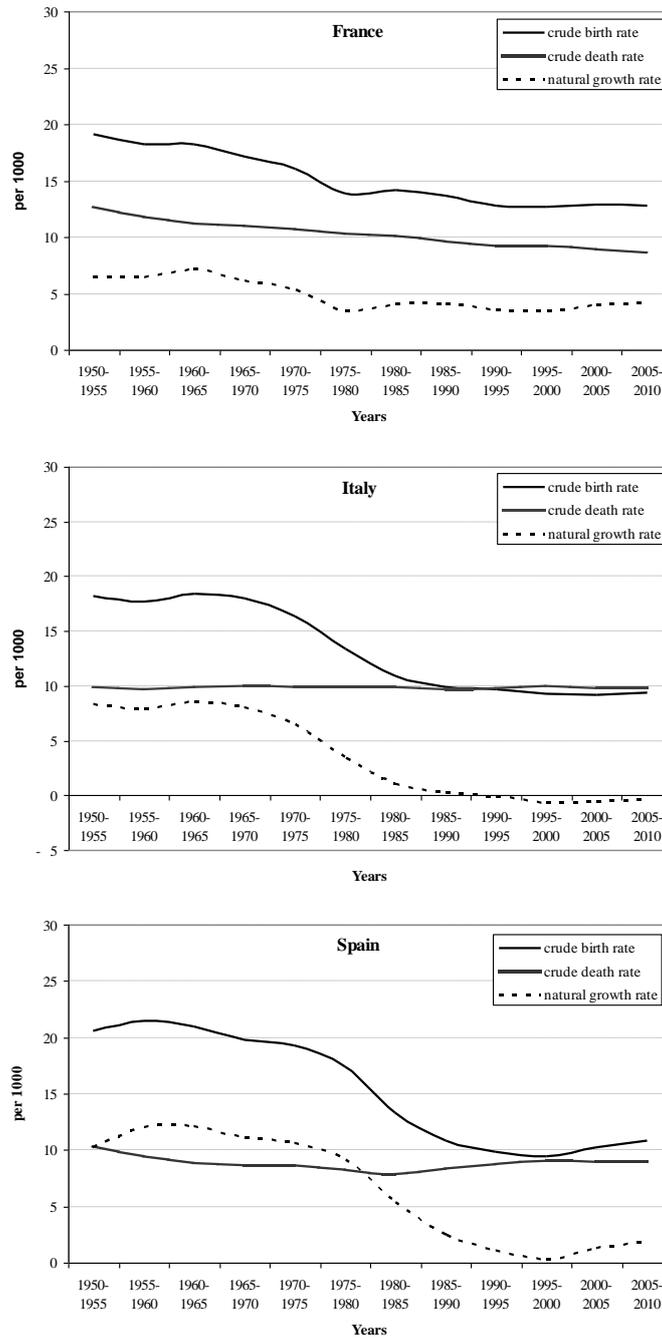
United Nations, Department of Economic and Social Affairs. Population Division (2010). *World Population Policies 2009*, New York.

United Nations, Department of Economic and Social Affairs. Population Division (2011). *World Contraceptive Use 2010*. (POP/DB/CP/Rev2010)

Van de Kaa, D. J. (1987). 'Europe's Second Demographic Transition', *Population Bulletin* 42(1), Washington.

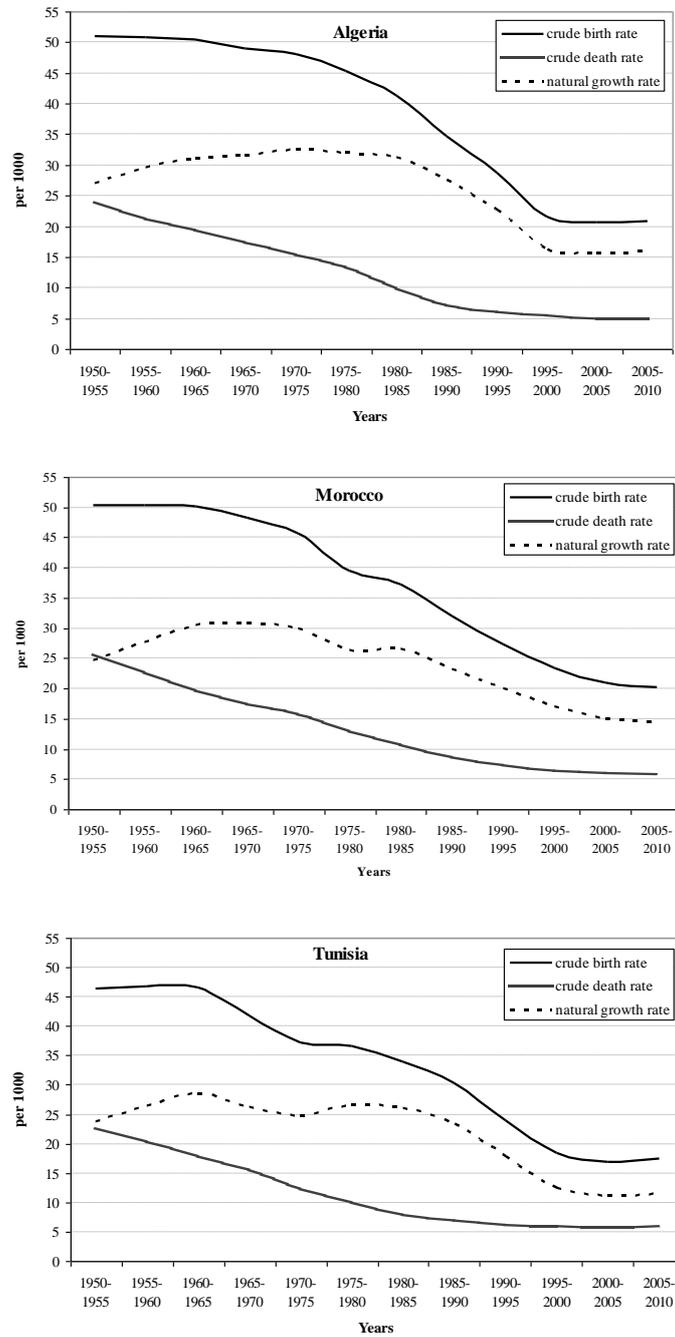
Zagaglia B. (2006). 'I comportamenti riproduttivi nelle società post-transizionali: un puzzle di teorie. Un tentativo di sistemazione teorica', *Quaderno n.255*. Ancona: Dipartimento di Economia, Università Politecnica delle Marche. [In Italian].
Available at: <http://www.dises.univpm.it/WP2006> [20 May 2012]

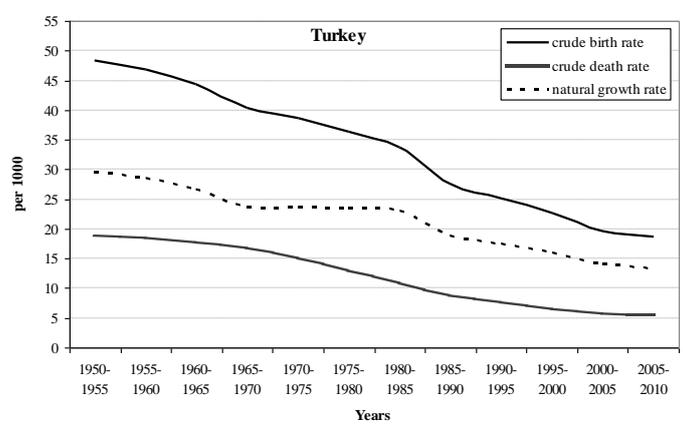
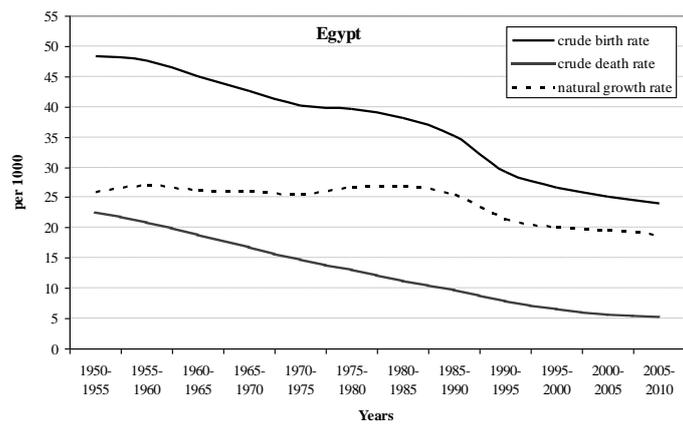
Figure 1. Crude birth and mortality rates, and the natural growth rate in the principal countries of the northern rim of the Mediterranean. Years 1950-2010.



Source: Our calculations on UN data (United Nations, *World Population Prospects: The 2010 Revision. CD-ROM Edition, 2011*)

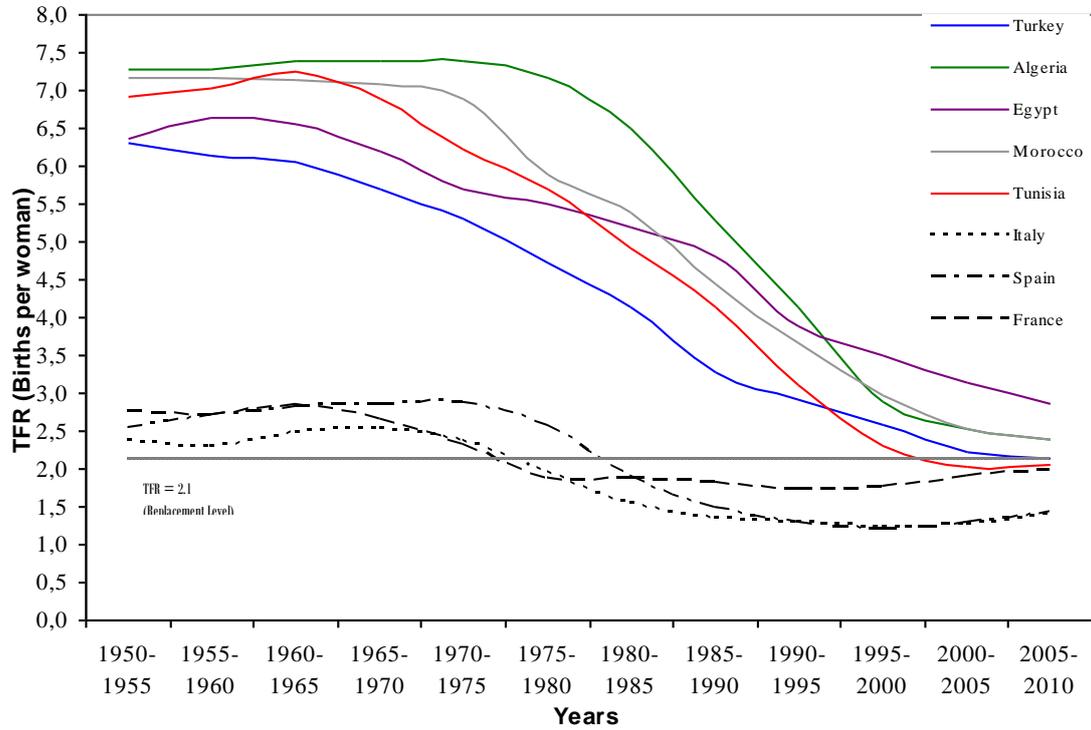
Figure 2 - Crude birth and mortality rates, and the natural growth rate in the main countries of the southern rim of the Mediterranean. Years 1950-2010.





Source: Our calculations on UN data (United Nations, World Population Prospects: The 2010 Revision. CD-ROM Edition, 2011),

Figure 3. Evolution of the Total Fertility Rate in the larger Mediterranean countries. Years 1950-2010.



Source: Our elaborations of UN data (United Nations, World Population Prospects: The 2010 Revision. CD-ROM Edition, 2011).

Table 1. Prevalence of use of contraceptive methods in the principal Mediterranean countries. (Women in a stable union, 15-49 years old).

	End of the 1970s				
	All methods	Modern methods	% of total	Traditional methods	% of total
	(1)	(2)		(3)	
Algeria*	35.8	31.3	87.43	4.5	12.57
Egypt	24.9	22.4	89.96	2.4	9.64
France**	78.7	47.6	60.48	31.1	39.52
Italy***	78.0	32.7	41.92	45.3	58.08
Morocco	19.4	16.4	84.54	3.0	15.46
Spain	47.1	18.6	39.49	25.8	54.78
Tunisia	31.4	24.7	78.66	6.7	21.34
Turkey	50.4	17.8	35.32	32.6	64.68

	Latest available year				
	All methods	Modern methods	% of total	Traditional methods	% of total
	(1)	(2)		(3)	
Algeria	61.4	52.0	84.69	9.4	15.31
Egypt	60.3	57.6	95.52	2.7	4.48
France	76.6	74.8	97.65	1.7	2.22
Italy****	62.7	40.6	64.75	22.1	35.25
Morocco	63.0	52.0	82.54	11.0	17.46
Spain	65.7	62.3	94.82	3.5	5.33
Tunisia	60.2	51.5	85.55	8.7	14.45
Turkey	73.0	46.0	63.01	27.0	36.99

* 1986/87; ** age 20-44; *** age 18-44; **** 1995-1996, age 20-49.

N.B. Owing to the joint use of certain methods, the total of the values in columns (2) and (3) may not coincide with the values in column (1)

Source: Our elaborations of UN data (United Nations, World Contraceptive Use 2010, 2011 (POP/DB/CP/Rev2010)).

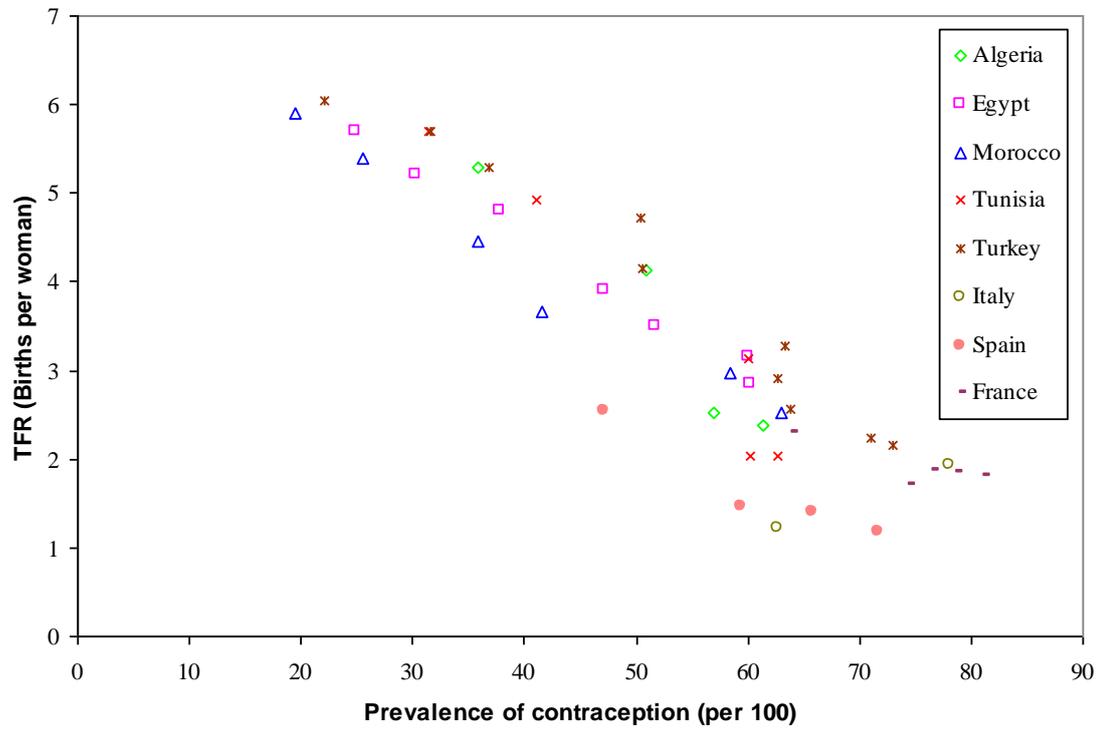
Table 2. Prevalence of male contraceptive methods in the principal Mediterranean countries. (Women in a stable union, 15-49 years old).

	End of the 1970s		Latest available year	
	Male contraception	Use of condoms	Male contraception	Use of condoms
Algeria	2.3*	0.5	5.0	2.3
Egypt	0.0**	0.0	0.9	0.7
France	40.9***	7.7	7.8	6.8
Italy	49.2	13.3	32.5	14.2
Morocco	1.4	0.3	5.9	1.5
Spain	26.2	4.6	34.6	24.8
Tunisia	3.2	1.2	1.9	1.3
Turkey	26.5	4.1	40.6	14.3

* 1992; **1974/75; *** 1971/1972, age below 45; age 20-44,

Source: Our calculations on UN data (United Nations, *World Contraceptive Use 2010, 2011 (POP/DB/CP/Rev2010)*).

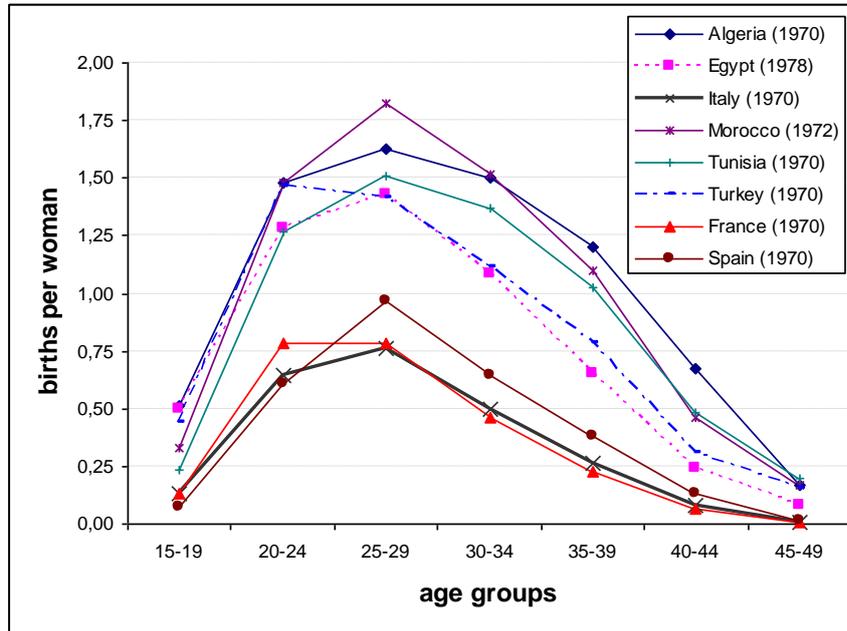
Figure 4. Prevalence of contraception and TFR in the larger countries of the Mediterranean Basin, 1960/65-2005/10.



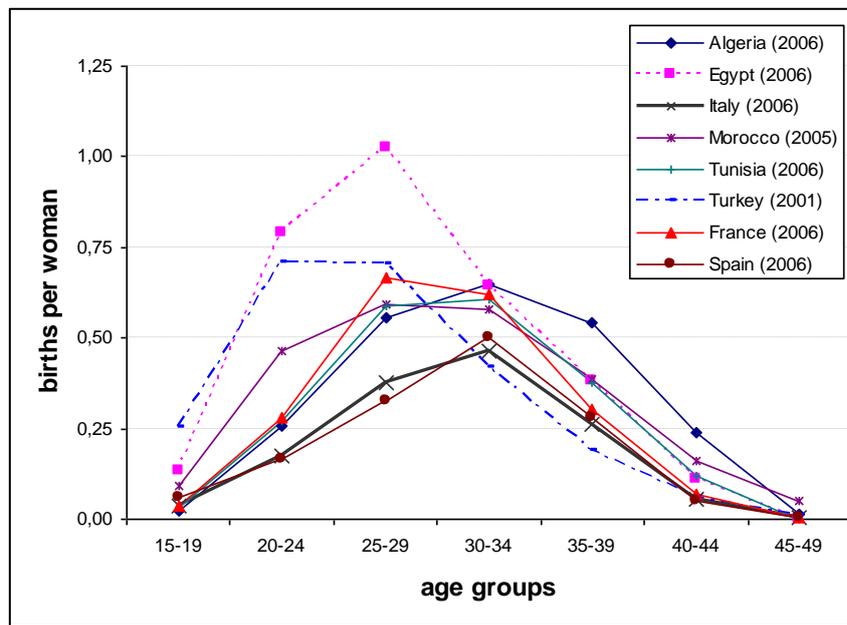
*Note: Historical series of indicators, not considered to be complete for certain countries.
Source: Our elaborations of UN data.*

Figure 5. Age-specific fertility rates, five-year age groups: Principal Mediterranean countries. Years 1970 and 2006.

a)



b)



Source: Our calculations on UN data (United Nations, World Fertility Data2008, (POP/DB/Fert/Rev2008)).

Table 3. Cumulative fertility by age in the main countries of the Mediterranean Basin. Selected years.

<i>Country</i>	<i>Reference year</i>	<i>Cumulative TFR 15-19</i>	<i>Cumulative TFR 15-29</i>	<i>Cumulative TFR 15-39</i>	<i>Cumulative TFR 15-49</i>
Algeria	1970	7.14	50.49	88.22	100.00
	1984	2.23	42.51	86.88	100.00
	1995	2.99	44.16	88.60	100.00
	2006	0.97	36.67	89.01	100.00
Egypt	1978	9.41	60.84	93.92	100.00
	1986	8.85	60.87	94.78	100.00
	1993	8.85	64.86	95.24	100.00
	2006	4.35	63.15	96.48	100.00
France	1970	5.33	69.08	97.02	100.00
	1985	3.16	68.68	98.32	100.00
	1995	2.04	56.50	97.47	100.00
	2005	3.02	53.63	97.09	100.00
Italy	1970	5.59	64.49	96.39	100.00
	1985	4.28	65.99	98.12	100.00
	1995	2.85	51.99	97.27	100.00
	2005	2.43	42.42	95.86	100.00
Morocco	1972	4.79	52.80	90.85	100.00
	1985	5.07	48.09	86.45	100.00
	1995	5.72	48.04	88.07	100.00
	2005	3.87	49.46	90.97	100.00
Spain	1970	2.49	58.50	94.91	100.00
	1985	5.61	63.54	96.69	100.00
	1995	3.26	49.15	97.72	100.00
	2005	4.24	39.49	96.35	100.00
Tunisia	1970	3.80	49.48	88.84	100.00
	1985	3.38	50.13	92.00	100.00
	1995	2.55	48.42	92.28	100.00
	2005	1.42	43.38	94.07	100.00
Turkey	1970	7.80	58.50	91.85	100.00
	1985	9.20	66.33	94.79	100.00
	1995	9.90	72.76	95.81	100.00
	2001	10.85	71.06	97.02	100.00

Source: Our calculations on UN data (United Nations, World Fertility Data2008, (POP/DB/Fert/Rev2008)).

Table 4. Indicators of the cadence of union formation in the main Mediterranean countries.

Country	Singulate Mean Age at Marriage (SMAM)			% of married women 15-19 years of age		% of married women 20-24 years of age	
	1970s	Latest available year	Δ	1970s	Latest available year	1970s	Latest available year
Algeria (1977, 2002)	21.0	29.5	8.4	22.5	1.8	64.9	16.1
Egypt (1976, 2005)	21.4	23.0	1.6	21.1	12.3	59.0	49.9
France (1970, 2006)	22.3	31.6	9.2	6.2	0.2	53.3	5.9
Italy (1971, 2006)	22.6	30.0	7.4	6.3	0.6	43.0	10.0
Morocco (1971, 2004)	19.1	26.4	7.3	30.9	10.7	75.9	37.0
Spain (1970, 2001)	23.7	29.3	5.6	3.0	1.1	31.4	8.5
Tunisia (1975, 1994)	22.6	26.6	4.0	10.4	3.0	53.3	27.1
Turkey (1970, 2003)	20.3	23.4	3.1	19.6	11.9	85.7	48.6

Note: Reference year in parentheses.

Source: Our elaborations of UN data (United Nations, World Marriage Data 2008, 2009 (POP/DB/Marr/Rev2008)).

**Table 5. Distribution of women of childbearing age (15-49) according to marital status in the principal Mediterranean countries.
(Percentage values)**

Country	Year	<i>Unmarried</i>	<i>Married</i>	<i>Other (1)</i>
Algeria	1977	26.89	66.05	7.06*
	2002	54.34	42.45	3.21
Egypt	1976	30.41	63.96	5.64
	2005	32.45	63.01	4.54*
France	1970	30.76	65.53	3.71
	2006	53.15	39.30	7.55
Italy	1971	32.63	64.79	2.58*
	2006	43.07	54.25	2.67
Morocco	1971	19.78	72.27	7.94
	2004	42.62	52.25	5.13
Spain	1970	36.42	61.58	2.00
	2001	45.82	48.76	5.42
Tunisia	1975	33.76	62.39	3.85
	1994	43.87	53.35	2.77
Turkey	1970	23.76	73.24	3.00
	2003	29.82	66.65	3.53*
(1) Divorced, widowed				
* including separated women				

Note: Weighted averages of distribution among five-year age categories of the female population by marital status; proportional weight to the female population in each age interval.

Source: Our calculations on UN data (United Nations, World Marriage Data 2008, 2009 (POP/DB/Marr/Rev2008); United Nations, World Population Prospects: The 2010 Revision. CD-ROM Edition, 2011).

Table 6. GNI PPP, per capita

	<i>1999</i>	<i>2009</i>	<i>Δ%</i>
Algeria	4,840	8,110	67.6
Egypt	3,460	5,680	62.2
Morocco	3,320	4,400	32.5
Tunisia	5,700	7,810	37.0
Turkey	6,440	13,500	109.6

Source: Population and Sociétés, different years.

Table 7. Percentage distribution of population by age intervals and Young-age Dependency Ratio (P_{0-14}/P_{15-64})

	1999				2009			
	0-14	15-64	65+	YDR	0-14	15-64	65+	YDR
Algeria	39	57	4	68.4	28	67	5	41.8
Egypt	39	57	4	68.4	33	62	5	53.2
Morocco	34	61	5	55.7	29	65	6	44.6
Tunisia	35	60	5	58.3	25	68	7	36.8
Turkey	31	64	5	48.4	27	67	6	40.3

Source: Population and Sociétés, different years.