Economic Convergence and Divergence of Southern Mediterranean Countries with the European Union

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One of the main objectives of the Euro-Mediterranean Partnership is to enhance economic and financial cooperation between member countries and to create an area of shared prosperity through sustainable socioeconomic development. Therefore, one of the Partnership's strategies is to promote economic conditions that foster growth.

In this article, we will examine the economic transformation processes that have taken place since 1995[1] in member countries of the Euro-Mediterranean Partnership in order to determine whether these processes have contributed to the convergence of the southern Mediterranean economies with the economies of the European Union.

To do so, we must determine the extent to which the southern Mediterranean economies have closed the gap with the economies of the Member States of the European Union (EU) and whether there is a trend toward homogenisation.

We will likewise look at whether the incorporation of new countries in 2004 and 2007, giving rise to the present-day EU-27, has had any effect on the economic convergence or divergence between the countries on both shores of the Mediterranean.

Real Convergence

Economic convergence refers to the tendency of economies to draw even over a given period of time, i.e., it occurs when per capita income growth has been faster in those countries that began with a lower per capita income than in those countries that were initially better off.

To analyse the real convergence of the economies on both shores of the Mediterranean since the Euro-Mediterranean Partnership was launched, we will first look at the evolution of the gross domestic product (GDP) per capita of the southern economies compared to that of the countries of the European Union, understood first as the 15 Member States that made up the Union in 1995 and then as the current group of 27 Member States.

Chart 3 compares GDP per capita (PPP)[2] between 1995 and 2007 in the southern Mediterranean countries participating in the Barcelona Process[3] with the mean for the EU-15. In other words, if we assume that the standard mean per capita income in the 15 Member States of the EU is 100, the chart shows the income for each southern Mediterranean country as an equivalent percentage thereof.

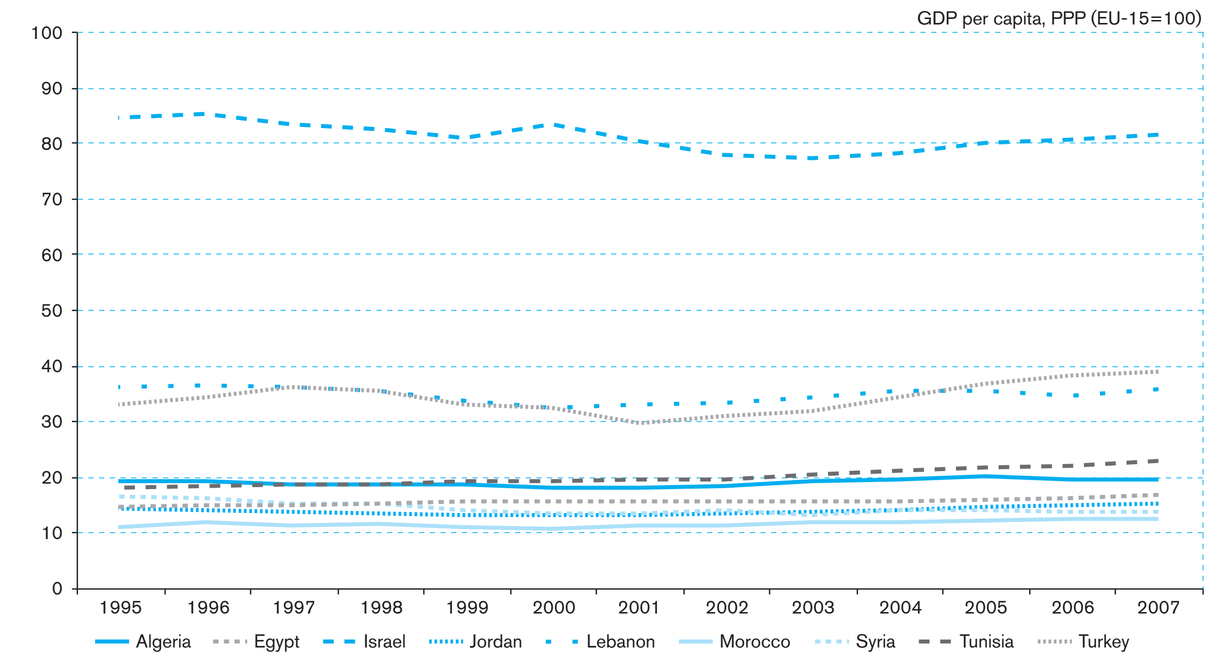
The most noticeable finding is the large gap in GDP per capita between the EU-15 and the southern Mediterranean countries (except for Israel). None of the southern countries have income equal to even just 40% of the EU-15 GDP throughout the entire period.

[1] In 1995, the Euro-Mediterranean Partnership was comprised of the member countries of the European Union (Germany, Belgium, France, Italy, Luxembourg, the Netherlands, Denmark, Ireland, the United Kingdom, Greece, Spain, Portugal, Austria, Finland and Sweden), 10 southern Mediterranean countries (Algeria, Egypt, Israel, Jordan, Lebanon, Morocco, the Palestinian Authority, Syria, Tunisia and Turkey) and two countries that joined the EU in 2004 (Cyprus and Malta).

[2] Gross domestic product (GDP) per capita on a purchasing-power parity (PPP) basis, expressed in current international dollars. Source: International Monetary Fund, *World Economic Outlook* database, 22 April 2009.

[3] The Palestinian Authority has not been included due to the lack of comparable data.

CHART 3 Evolution of the Relationship between GDP per Capita (PPP) in Southern Mediterranean Countries and the EU-15 between 1995 and 2007



Additionally, over the thirteen-year period, the shares remain virtually unchanged, indicating that there has been virtually no trend toward economic convergence. The poorest economies continue to equal only a fraction of the EU-15 economies and have narrowed the gap by only two or three percentage points.

Three distinct groups emerge:

- The first consists only of Israel, which ranged from 85% to 75% over the period. This notwithstanding, it should be noted that, whilst there have been no major changes, neither has Israeli income tended to approach 100% of the mean European income, but rather the gap has widened.
- The second group includes Turkey and Lebanon. These two economies ranged, with minor fluctuations, between 30% and 40% of the European GDP per capita over the years studied.
- Finally, the third group consists of the remaining countries, including Algeria, Tunisia, Egypt, Jordan, Morocco and Syria. This group oscillates within a band of 10% to 20% (in Tunisia's case, reaching 22%-23% in recent years), but likewise shows no significant changes.

Let us now examine the behaviour of the economies of two groups of countries:

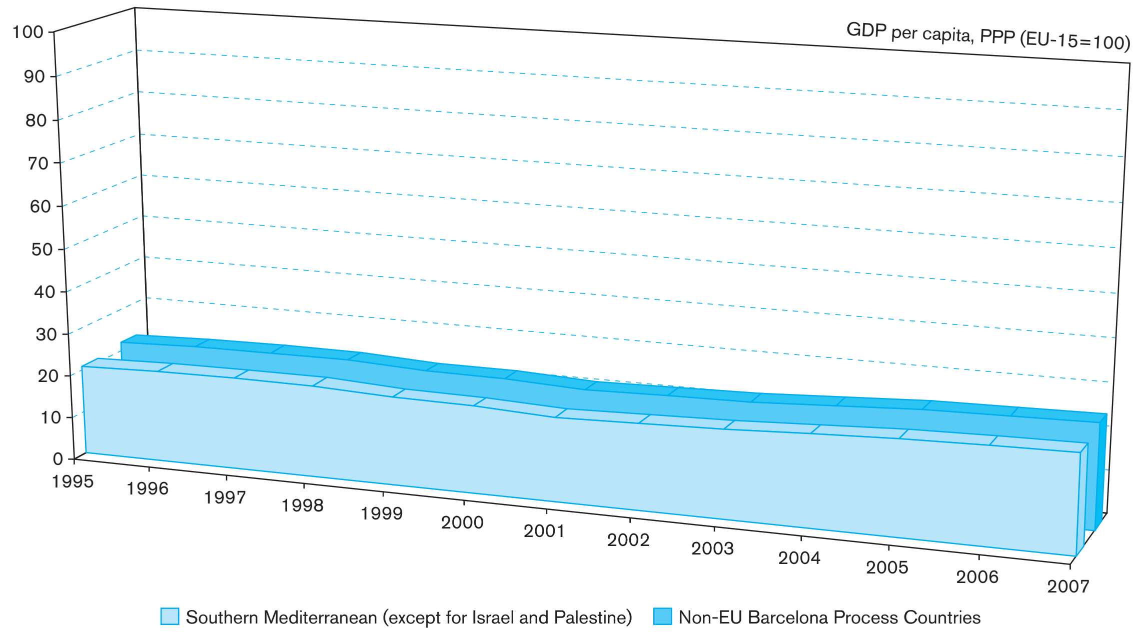
1. First, the southern Mediterranean countries that were part of the Euro-Mediterranean Partnership in 1995, but are not members of the European Union.
2. Second, a group of southern countries (excluding Israel and Palestine), including two countries that, whilst not members of the Euro-Mediterranean Partnership over the period studied, must be taken into account when looking at the economic behaviour of the southern Mediterranean region as a whole: Libya and Mauritania.[4]

Both groups register incomes slightly above 20%, but these levels remain virtually unchanged throughout the 1995-2007 period.

The group of non-EU countries from the Euro-Mediterranean Partnership averages one to two percent-

[4] Although not a member, Libya has been invited to the Euro-Mediterranean Foreign Affairs Conferences since Stuttgart in 1999 and currently holds observer status in the Union for the Mediterranean (UfM). Mauritania, which is currently a member of the UfM, has also been invited to Euro-Mediterranean ministerial conferences in its capacity as a member of the Arab Maghreb Union (AMU), which was invited along with the League of Arab States.

CHART 4 Evolution of the Relationship between GDP per capita (PPP) in Two Groups of Southern Mediterranean Countries and the EU-15 between 1995 and 2007



age points more than the 'Southern Mediterranean' group. This is due to the impact of Israel, the country with the highest GDP per capita in the group, whose income is considerably higher than the rest.

The second group has a lower average since, despite including Libya, which has a GDP per capita equal to approximately 40% of the EU-15's, it also includes the lowest-income country: Mauritania. Mauritania significantly trails (by 4-5 percentage points) the second-to-last country on the list, Morocco.

It may still be too early to see a clear narrowing of the gap in GDP per capita between southern countries and the Member States of the European Union

The enlargement of the European Union did not take place until 2004 and 2007; however, we will now look at what happens if we use the standard mean for the EU-27 since 1995. As seen in Chart 5, the southern economies still show no clear trend toward convergence with the new European mean, although the overall gap is somewhat smaller.

Although nearly half the countries of the EU-27 did not become members until 2004 or 2007, the differences in income trends between southern Mediterranean and European countries are similar to those in the comparison with the average for the EU-15 above. The behaviour is fairly stable throughout the period, although following the entry of the new countries into the European Union, southern incomes did move a few percentage points closer to the EU standard mean.

The gap between the economies remains significant. Turkey and Lebanon are the only two countries (other than Israel) to reach 40% of the EU mean. Of the rest, only Tunisia and Algeria register incomes in excess of 20%. Thus, it may still be too early to see a clear narrowing of the gap in GDP per capita between southern countries and the Member States of the European Union.

This notwithstanding, it must be remembered that these trends do not offer information on whether per capita income has grown significantly or negligibly over the period. What they do tell us is that the behaviour of GDP per capita growth has been similar, with a slight tendency toward greater growth among those countries that had the lowest incomes to start with.

Another interesting way to look at economic trends on both shores of the Mediterranean is to consider the member countries of the Euro-Mediterranean

CHART 5 **Evolution of the Relationship between GDP per capita (PPP) in Southern Mediterranean Countries and the EU-27 between 1995 and 2007**

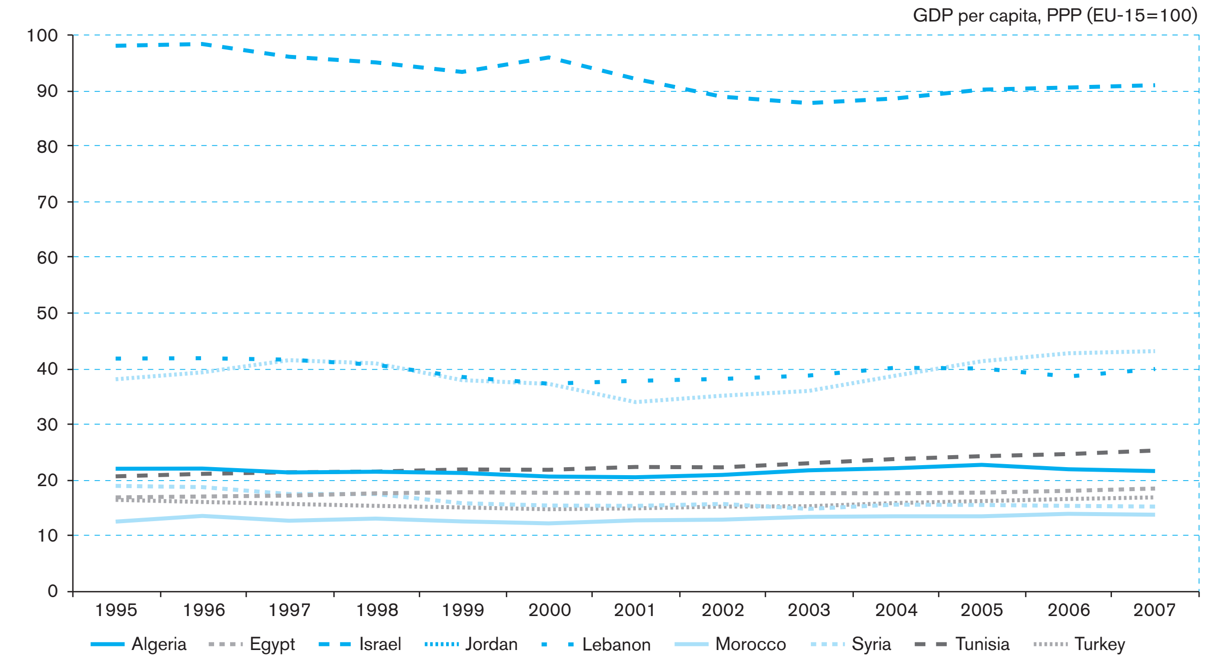
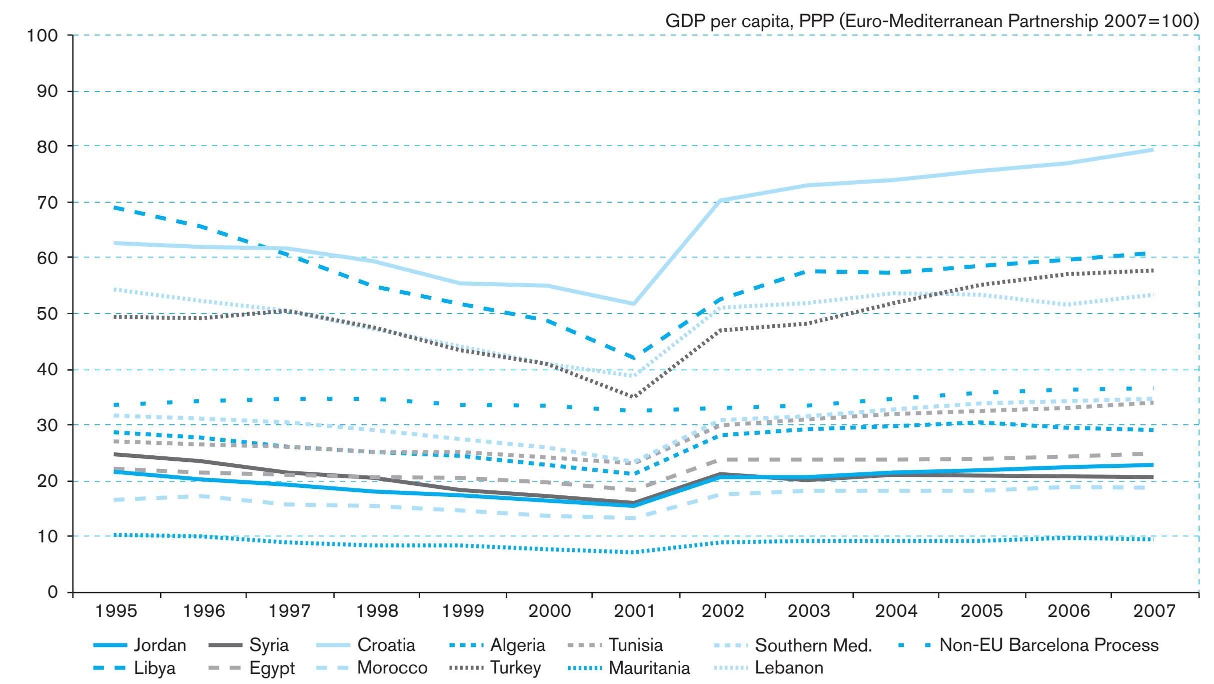


CHART 6 **Evolution of the Relationship between GDP per capita (PPP) in the Euro-Mediterranean Partnership Countries between 1995 and 2007**



Partnership as a group.[5] Chart 6 shows the percentage of the group mean reached by each southern country and the trends toward narrowing the gap over the period spanning from 1995 to 2007.

[5] Although the European Union enlargement countries were not part of the Euro-Mediterranean Partnership until their accession to the EU (except for Malta and Cyprus, which were members from the start), for this comparison we will look at all 27 members of the EU-27 since 1995.

As seen in the comparison with EU countries, Lebanon and Turkey have the highest per capita incomes among the non-EU Barcelona Process countries.[6] Both countries experienced fluctuations over the period, with a sharp drop in 2001, from which they later recovered to reach GDPs per capita of about 53% and 57%, respectively, of the Euro-Mediterranean mean.

The rest of the Barcelona Process countries –Algeria, Egypt, Jordan, Morocco, Syria and Tunisia– had a relatively stable evolution within the group as a whole, without major changes. Algeria and Tunisia have the highest incomes in the group. Indeed Tunisian income has topped 30% since the turn of the century. Syria is the only country to show the opposite trend, as its GDP per capita at the end of the period is farther from the mean than it was at the start. Finally, special attention should be called to Morocco, which is the only Euro-Mediterranean Partnership country that, despite climbing a few percentage points over the period, by 2007 still had not reached 20% of the mean GDP per capita of the group as a whole.

Separately, the chart also shows the behaviour of Libya and Mauritania, as well as the mean income for the southern Mediterranean as a whole (excluding Israel and Palestine), which remained above 30% almost every year, except for the drop registered between 1998 and 2001.

As for Libya (the only country with observer status in the recently created Union for the Mediterranean), attention should be called to its GDP per capita. In 1995, this figure stood at nearly 70% of the Euro-Mediterranean mean. In contrast, by the end of the period, after moments in which it had fallen to barely more than 40%, it stood at 60% of the mean GDP per capita for the group.

Mauritania is clearly the country that is farthest behind, with a per capita income that does not reach 10% of the Euro-Mediterranean average and that showed no signs of increasing between 1995 and 2007.

Finally, the chart also shows the evolution of a EU candidate country: Croatia. Unlike the other countries, which saw only minor increases, Croatia has shown a clear trend toward convergence with the mean for the Euro-Mediterranean as a whole, narrowing the gap by almost 20 percentage points over the period in question. By 2007, it had climbed to almost 80% of the mean. As for convergence with the standard mean for the EU-27, by 2007 Croatia's income stood at nearly 60% (unlike the southern Mediterranean countries, whose incomes did not reach 50%). By way of comparison, Spain's GDP per capita climbed from 70% to 80% of the EU-15's GDP per capita between the late 1980s and 1995.

Rate of Convergence and Dispersion

As seen in Chart 6, the Mediterranean economies show no significant trend toward real convergence with the Member States of the European Union. To determine the extent to which per capita income has grown faster in the initially lower-income countries than in the initially higher-income ones, we will now look at the rate of this convergence (beta-convergence).

The higher the rate of convergence, the faster the lower-income countries are narrowing the gap with the higher-income ones. The narrower the gap in per capita income between the different countries, the slower this rate will be.

Additionally, we will look at the evolution of the dispersion (sigma-convergence)[7] and disparities in GDP per capita between the different groups of countries. Chart 7 shows the relationship between annual per-capita growth from 1995 to 2007 and GDP per capita at the start of the period (1995) for the Member States of the EU-15, the southern Mediterranean countries that are not members of the EU but have been part of the Euro-Mediterranean Partnership since 1995 and Libya and Mauritania.

The relationship between the variables (i.e., between annual GDP per capita growth and the initial GDP value) yields a correlation coefficient of nearly zero. Regardless, the almost negligible positive trend that can be seen shows that there was no real economic convergence. In other words, those countries that, from the outset, had lower GDP per capita (the southern Mediterranean countries) have not experienced higher growth rates than those that began with higher GDP per capita (the Member States of the EU-15). Consequently, according to this chart, there is no trend toward narrowing the per capita income gaps within this group of countries, but rather the gaps have tended to remain constant.

[6] Except for Israel, which is not included on the chart, since its GDP per capita is higher than the mean for Euro-Mediterranean Partnership countries.

[7] Beta-convergence and sigma-convergence were proposed by Xavier Sala i Martín in 1990.

CHART 7 **Beta-convergence of Member States of the EU-15 and Southern Mediterranean Countries between 1995 and 2007**

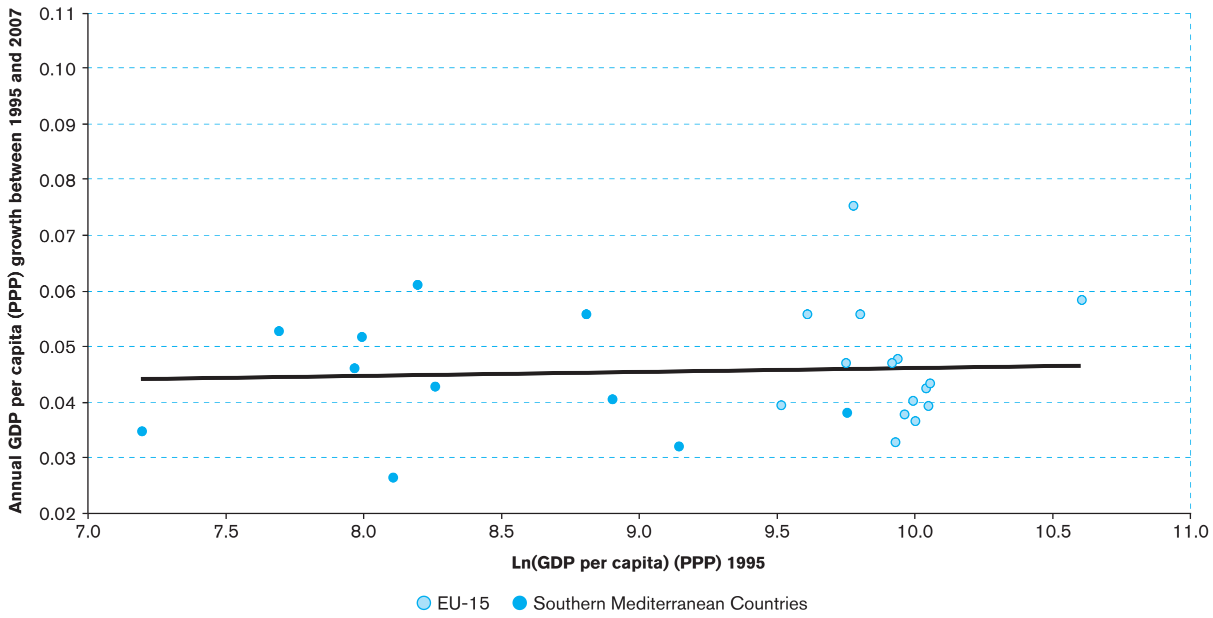
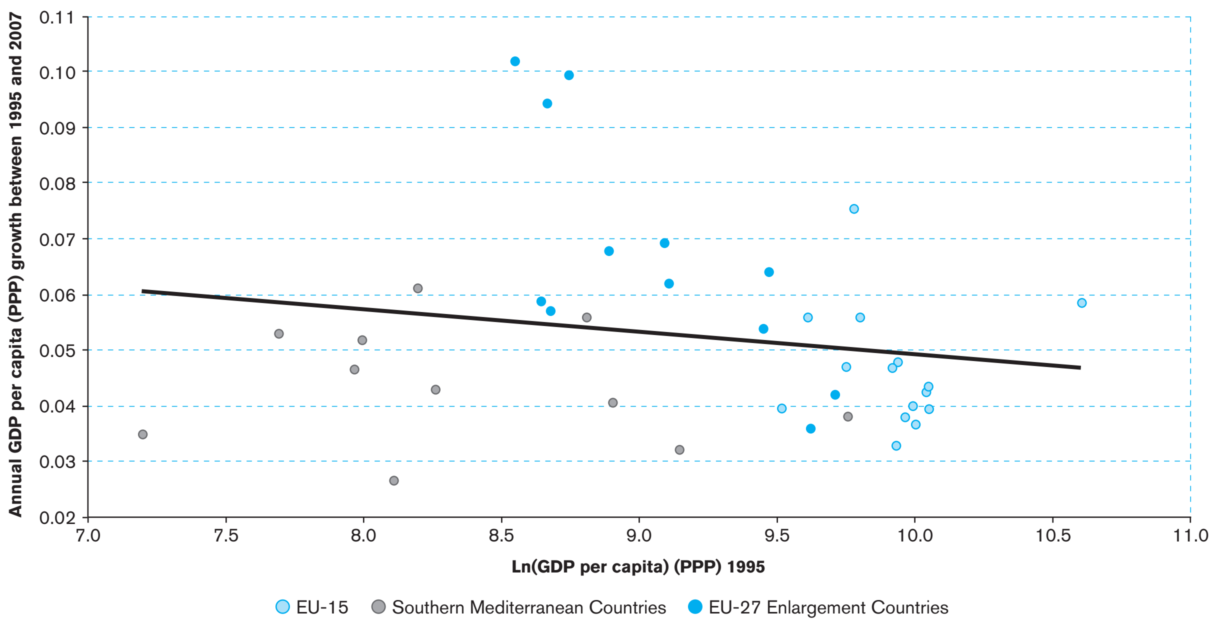


CHART 8 **Beta-convergence of Member States of the EU-27 and Southern Mediterranean Countries between 1995 and 2007**



If we consider all current members of the EU and the southern Mediterranean countries, the following relationship between growth and initial GDP can be seen in Chart 8.

Here, in contrast, an inverse relationship can be seen between per capita income growth and each country's position at the outset. Consequently, in this group, beta convergence between the countries can be seen.

However, the rate at which the different countries are converging is quite low. Therefore, as seen in the percentage comparison of southern countries' incomes to the Euro-Mediterranean mean, the countries are only very gradually closing the gap.

The fact that no convergence was found in the first group of Euro-Mediterranean countries (which included only the Member States of the EU-15),

CHART 9 Dispersion of GDP per Capita between the EU-15 and Southern Mediterranean Countries between 1995 and 2007

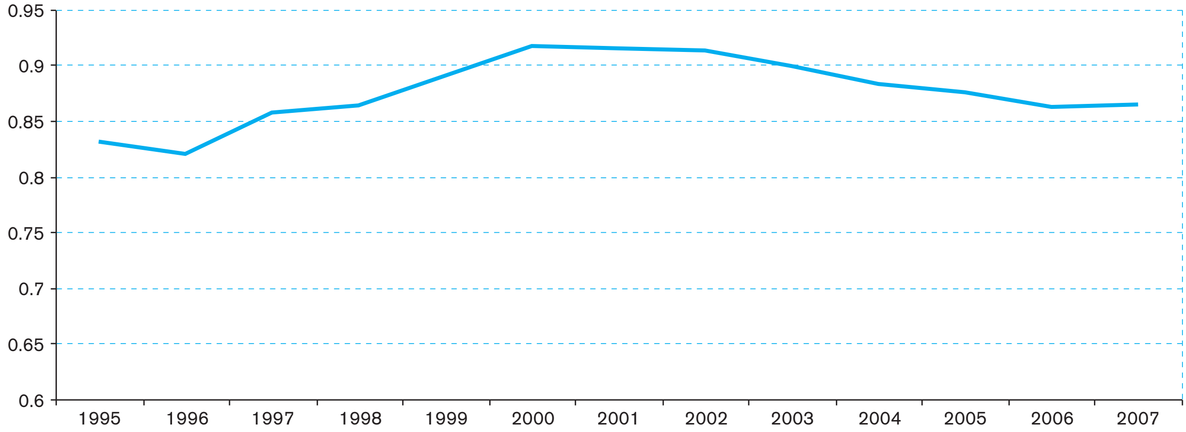
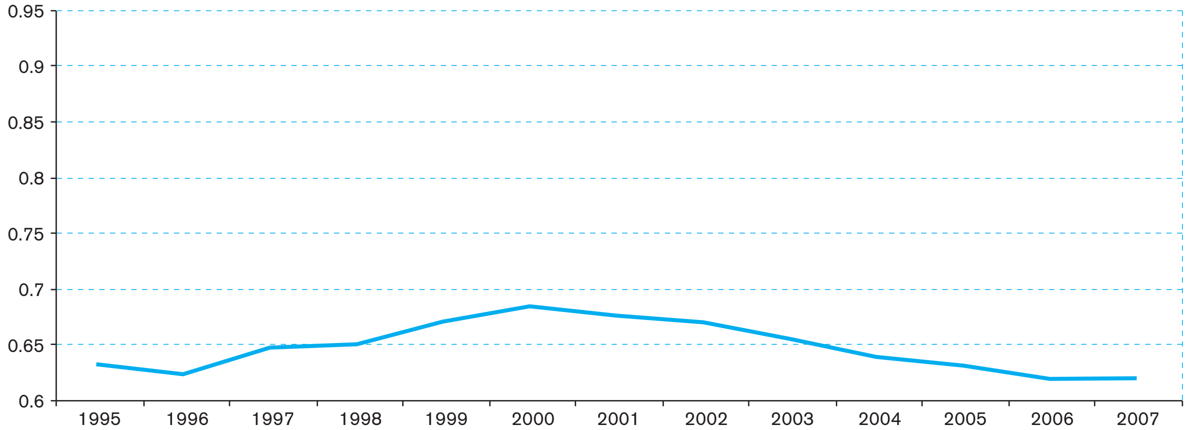


CHART 10 Dispersion of GDP per Capita between the EU-27 and Southern Mediterranean Countries between 1995 and 2007

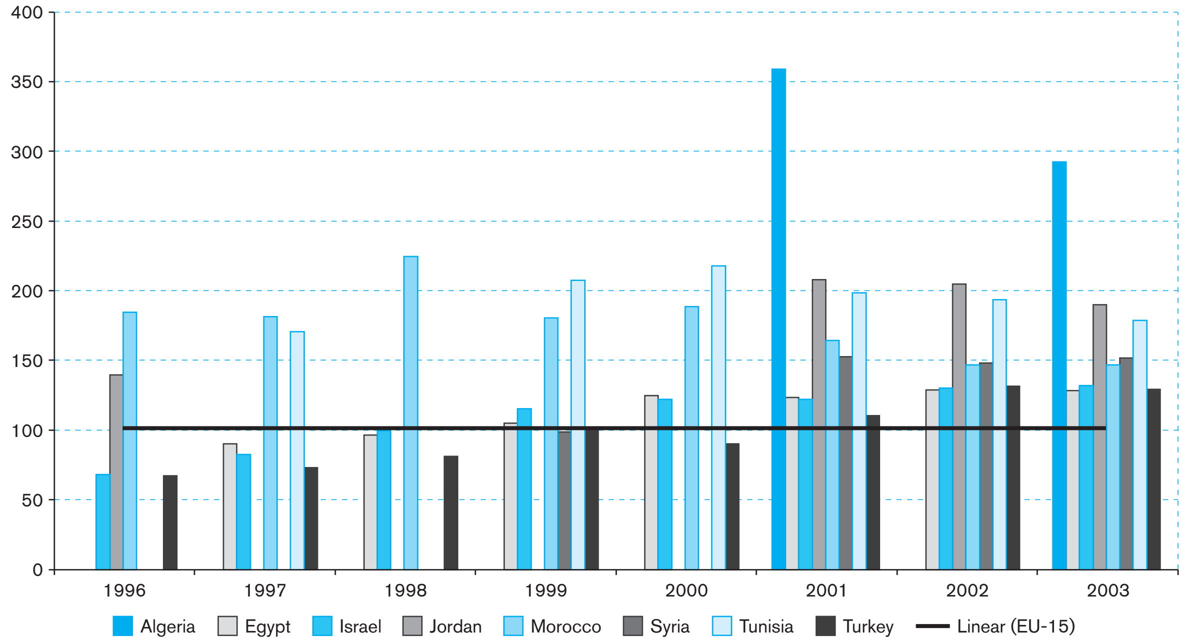


while convergence could be seen in the second group (which included all members of the EU-27) is mainly due to the strong GDP per capita growth experienced in recent years by the economies of certain new members of the European Union. Specifically, of the eight countries registering the highest annual per capita income growth between 1995 and 2007, seven are part of the EU enlargement (Latvia, Estonia, Lithuania, Slovakia, Poland, Slovenia and Hungary) and one belonged to the first group of EU countries (Ireland). The first southern Mediterranean country to make the list is Tunisia, which ranks ninth.

The rate at which the different countries are converging is quite low

Notwithstanding the above, the fact that there has been beta convergence does not necessarily mean that the dispersion of GDP per capita has decreased. To determine that, we must see whether there has also been sigma convergence. In other words, we must determine whether the gap between the economies was narrowed over the period in question. Obviously, if the first condition is not true (i.e., if the poorest economies did not grow faster than the richest ones), the dispersion will not have been reduced.
The following charts (Chart 9 and 10) show the dispersion of GDP per capita between 1995 and 2007. Chart 9 includes the group of Euro-Mediterranean countries consisting of the EU-15 and the southern Mediterranean countries, while Chart 10 also includes the newest Member States of the enlarged European Union.
Chart 9 (which does not include the newest members of the enlarged EU) shows that dispersion

CHART 11 Evolution of Unemployment in the EU-15 and Southern Mediterranean Countries between 1996 and 2003



increased over the second half of the 1990s, then began to drop off, although it never returned to the original 1995 levels. As seen in Chart 7 (beta-convergence), the lowest-income countries did not grow faster than the highest-income ones. Consequently, the evolution of the dispersion over the period cannot be negative. The dispersion within the group increased somewhat over the thirteen-year period and, therefore, no sigma convergence can be seen. In contrast, the chart for the group of Barcelona Process countries (the EU-27 and non-European countries) shows that the strong growth of the newest members of the EU favoured convergence in per capita income (Chart 8). The economies that began with the lowest GDP per capita have grown faster than those that, in 1995, had the highest GDP per capita. Chart 10 moreover shows that the dispersion between them likewise decreased.

The initial dispersion in this second group was already lower than that of the first group, as it includes the economies of the EU enlargement, which, in general, began with a GDP per capita that was higher than the GDP of the southern Mediterranean countries but lower than that of the EU-15. Although here, too, the dispersion increased in the late 1990s, it later fell off sharply until reaching a level somewhat lower than that registered in 1995. Consequently, real GDP per capita is converging.

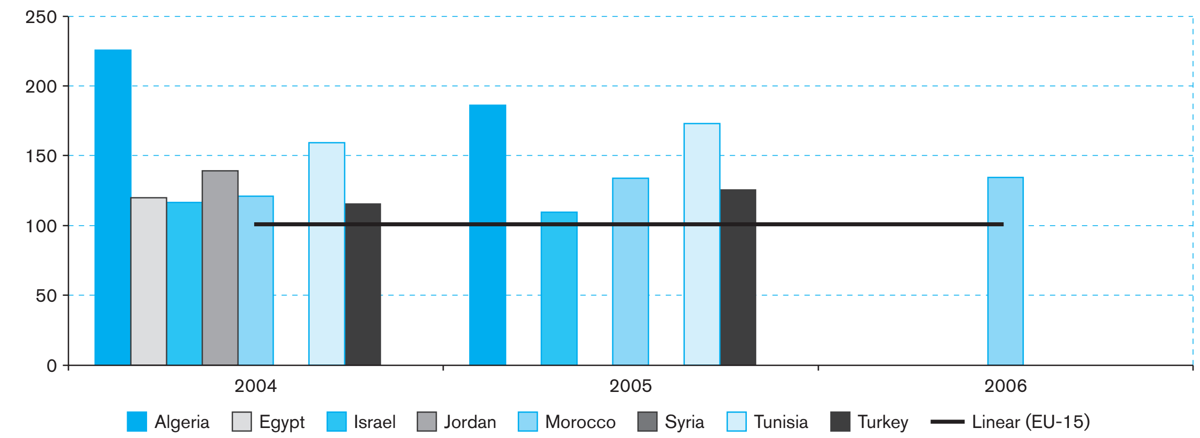
Unemployment Rate

To assess the real convergence of a group of countries, other variables in addition to GDP per capita must be taken into account. Some of these variables include unemployment, national disposable income per capita, human and technological capital, social welfare expenditures, etc. In Chart 11, we will look at the evolution of unemployment rates in the Euro-Mediterranean countries in order to determine whether these rates are tending to converge or whether, in contrast, the gaps between them have grown larger.

For many of the southern Mediterranean countries, data are not available for all the years under consideration. Regardless, we have taken the data for some of them for 1997 to 2003 in order to compare them to the mean for the 15 Member States of the European Union over the same period. As seen in Chart 11, the data for the southern shore are completely heterogeneous and vary considerably over the seven-year period in question.

Countries such as Morocco, Jordan or Tunisia registered unemployment rates well above the EU mean throughout the period. At some points in the late 1990s, Morocco's rates even doubled that of the EU-15, although it is likewise true that these rates fell sharply at the turn of the century.

CHART 12 Evolution of Unemployment in the EU-25 and Southern Mediterranean Countries between 2004 and 2006



Egypt, Israel and Turkey behaved differently. Their unemployment rates remained below the European average until 2000. In contrast, from 2001 on, they surpassed the European rate, showing a tendency to widen the gap between them.

Chart 12 shows the evolution between 2004 and 2006, this time including the newest members of the EU in 2004 (the Czech Republic, Poland, Hungary, Slovakia, Lithuania, Latvia, Estonia, Slovenia, Cyprus and Malta):

As seen in Chart 12, despite the inclusion of ten new countries in the European Union, the southern Mediterranean countries continued to register high and heterogeneous unemployment rates. No clear trend can be seen toward a narrowing of the gap between the rates on both sides of the Mediterranean, although, as noted, the lack of available data for the south makes it difficult to draw clear conclusions regarding the convergence or divergence thereof.

Nominal Convergence

Another way to assess convergence between countries is nominal convergence, which refers to basic macroeconomic concepts, mainly of a monetary nature. To determine whether there has been nominal convergence between the countries on both shores of the Mediterranean since 1995, the convergence criteria established under the Treaty on European Union for entry in the Economic and Monetary Union are usually used, namely: inflation, long-term interest rates, public deficit, public debt and exchange rates.

Chart 13 shows the evolution of inflation[8] in the different countries, bearing in mind the following criterion under the Treaty on European Union, whereby each '…Member State [must have] a price performance that is sustainable and an average rate of inflation, observed over a period of one year before the examination, that does not exceed by more than 1.5 percentage points that of, at most, the three best performing Member States in terms of price stability'.

As seen in Chart 13, the gap between inflation rates narrowed over the period observed.

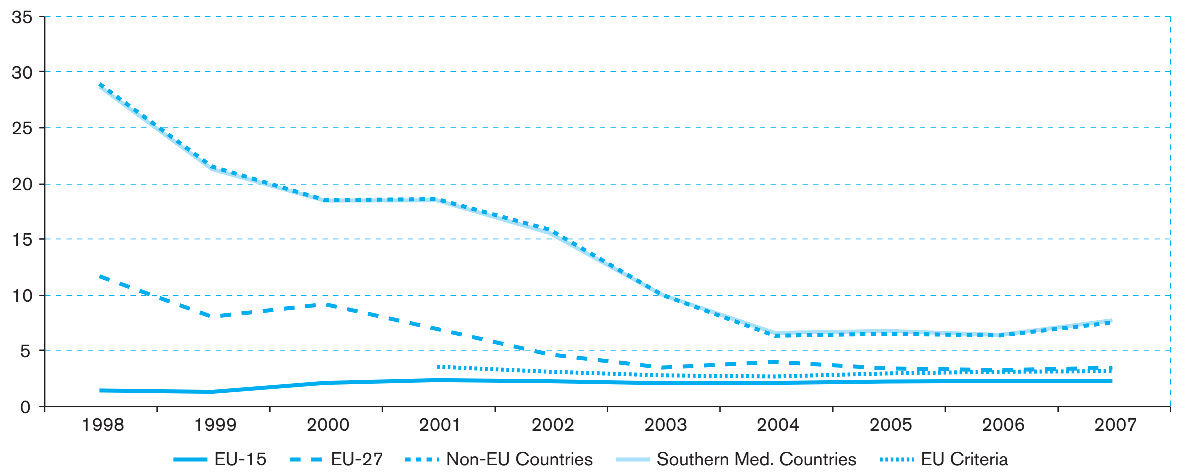
The inflation rates in the Member States of the EU-15 always adhere to the criteria for joining the Monetary Union. When we add the rest of the EU-27 countries to this group, we see that they begin to converge at the turn of the century and that they meet the TEU criteria as of 2006.

It is worth noting that inflation rates in Mediterranean countries have been quite heterogeneous throughout the period and that, therefore, the specific rates in some of the countries included in that group may differ significantly from the average for the southern Mediterranean region as a whole.

However, the evolution of both groups of countries from outside the European Union, that is, of the group of Mediterranean states that were part of the Barcelona Process in 1995 and the group of southern Mediterranean states including Libya and Mauritania (except for Israel and Palestine), is virtually identical.

[8] Sources: International Monetary Fund, *World Economic Outlook* database, 22 April 2009; World Bank.

CHART 13 **Evolution of Inflation in the EU-27 and Southern Mediterranean Countries between 1998 and 2007 in Relation to the European Economic and Monetary Union's Convergence Criteria**



As seen in Chart 13, the southern Mediterranean countries started off with very high unemployment rates, primarily due to the high unemployment rate in Turkey (the second most populous country after Egypt), which did not recover until the mid-2000s.
As of 2004, the gap began to narrow, eventually settling at approximately 4.5 percentage points above the criterion for inclusion in the Monetary Union, that is, 1.5 percentage points higher than the average of the three lowest inflation rates in the Euro Area.

Conclusions

When considering only the first 15 countries to form part of the European Union, real convergence between the southern Mediterranean economies and the Member States of the EU over the period was non-existent. Per capita income in the south did not grow faster than in the EU-15 over the years in question and, thus, income dispersion between the two groups increased. In contrast, if we consider all member countries of the Euro-Mediterranean Partnership, including all 27 current members of the European Union, gradual per-capita economic convergence can be seen. This is due to the strong growth undergone by many of the EU's newest members in recent years.
As for inflation, one of the main variables for measuring nominal convergence, the gap between southern Mediterranean and EU countries has narrowed, although in 2007 it was nevertheless considerable.
In light of the foregoing, it remains to be seen whether the economic and financial cooperation strategies of the member countries of the Euro-Mediterranean Partnership will yield results and, thus, whether there will be a clear trend toward economic convergence.

References

BARRO, Robert J. and SALA I MARTÍN, Xavier. *Economic Growth*, London: McGraw-Hill, 2203, 2nd edition.

ESCOT, Lorenzo and GALINDO, Miguel Ángel. 'Evidencia empírica de la convergencia real.' P.T., No. 3/00. Madrid: Universidad Complutense de Madrid.

LÓPEZ MARTÍNEZ, I. 'Convergencia nominal y convergencia real de España y Portugal con la Unión Europea (1986-1999)', *Estudios de Economía Aplicada*. Madrid: Asociación de Economía Aplicada (ASEPELT), 2001.

WORLD BANK: www.worldbank.com

Barcelona Declaration and Euro-Mediterranean Partnership: http://europa.eu/legislation_summaries/external_relations/relations_with_third_countries/mediterranean_partner_countries/index_en.htm

Gateway to the European Union: http://europa.eu

INTERNATIONAL LABOUR ORGANIZATION: www.ilo.org

INTERNATIONAL MONETARY FUND (IMF): www.imf.org

ORGANISATION FOR ECONOMIC COOPERATION AND DEVELOPMENT (OECD): www.oecd.org