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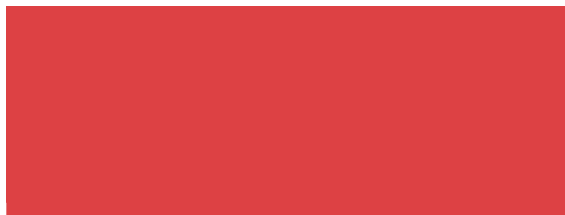
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Economic Polarization in the Mediterranean Basin

Joan Esteban



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1. Introduction

The formation of the European Union started with the integration of the continental European economies that were most similar to each other. The experience was successful and those economies grew faster than their neighbours. The wish to achieve a larger Europe and the need to avoid excessive dramatic differences in well-being with the neighbouring countries drove –and is still driving– to further enlargements of the Union. Each enlargement has had stimulating effects on the newly integrated countries. As a matter of fact, inequality in per capita incomes across the 15 present European countries has been decreasing significantly and steadily.

Table 1
Countries accessing the EU
with income below EU average

	Year of accession	Income at accession	Income
Ireland	1973	61	122
Greece	1981	69	70
Spain	1986	72	82
Portugal	1986	55	74
Finland	1995	97	102
European Union		100	100

Source: *European Economy*

However, the success in raising the per capita income of new member countries has at the same time widened the gap with respect to the ones still outside. This wider gap then becomes a new matter of concern to the European Union and the borders of the candidate countries are pushed further away. This process of pushing out the borders of the Union towards the east is evident. A future membership of Russia is now no longer unthinkable. Yet, the process towards the south does not seem to be making much progress. The case of Turkey is not following a steady path, while the relationship between the EU and the non-EU countries of the Mediterranean basin is still quite ambiguously defined.

After the *Euro-Mediterranean Conference* held in Barcelona in 1995, these countries became EU partners, which meant that the Mediterranean basin would become a free-trade area by 2010. This free-trade agreement excluded commodities in which the non-EU partners have a comparative advantage, such as agricultural products and textiles. But, even in these terms, neither party is taking the steps necessary to its implementation by the planned date. All EU efforts seem to be

entirely consumed by the enlargement towards Eastern Europe, pulling the Mediterranean front down in the priority ladder.

Is the EU right in doing so? Can the development of the non-EU Mediterranean countries be postponed to a later date? The answer to these questions depends on whether a real cleavage North/South exists in the Mediterranean basin. Do the EU countries show their neighbours the way to follow or has the gap become too wide to bridge?

2. Inequality across countries in the Mediterranean

The traditional way of thinking about the previous questions has been in terms of inequality. How much inequality there is and/or whether it is increasing or decreasing has been considered the relevant information. In Table 2 we present data on the per capita income of twelve Mediterranean countries for the period 1961-1998.¹ The incomes have been normalized every year to the population-weighted average Mediterranean per capita income. Notice that in such thirty-seven year long period the demographic weight of South and Eastern Mediterranean countries has substantially increased with respect to the EU member countries. Therefore, the average Mediterranean income carries increasing population weight from the poorer countries which, in turn, drives the average down. Lastly, let me stress that, because in every year the per capita incomes are relative to the Mediterranean average, increases in a country's relative income across time mean that this country has grown faster than the average growth of the region.

Table 2
Mediterranean countries:
per capita income 1961-1998

	1961	1970	1980	1990	1998
Morocco	0.31	0.31	0.34	0.35	0.35
Syria	0.32	0.33	0.32	0.29	0.35
Egypt	0.33	0.31	0.32	0.33	0.34
Tunisia	0.44	0.36	0.50	0.49	0.55
Algeria	0.50	0.45	0.61	0.48	0.38
Turkey	0.52	0.48	0.49	0.55	0.64
Jordan	0.56	0.34	0.50	0.39	0.38
Greece	0.82	1.00	1.12	1.12	1.18
Spain	0.96	1.11	1.11	1.28	1.44
Israel	1.20	1.19	1.21	1.28	1.42
Italy	1.46	1.52	1.62	1.76	1.78
France	1.65	1.70	1.73	1.84	1.85
Mediterranean	1.00	1.46	1.87	2.12	2.30

Source: *European Economy*

The figures in Table 2 clearly illustrate our opening observations. The EU countries on the northern shore –we include Israel in this group– have significantly reduced their income differences over the period. In 1961, France was twice as rich as Greece, while in 1998 France was only 57% richer. Spain and Israel have experienced similar trends. Yet, this tendency of the per capita incomes to converge has not been shared by all countries. In 1961 Jordan was next to Greece in the income ladder, with the latter 46% above. In 1998 Greece was more than 3.1 times richer than Jordan. Jordan has not done well over the period. Let us thus take Turkey, now the richest country in this group. In 1961 Greece was 56% richer than Turkey, but was 83% richer in 1998. Countries within the EU –again including Israel– have been converging in incomes while the gap with the non-EU Mediterranean countries has been widening.

We have described a number of changes that appear to operate in opposite directions. What are the implications for the degree of inequality? We shall measure inequality by means of the most popular indicator: the Gini index.² In Table 3 we give the absolute value of the Gini index over the same period, together with the relative values assuming 1961 equal to 100.

Table 3
Inequality in the Mediterranean basin (Gini index)

	Gini absolute	Gini relative
1961	0.29	100
1970	0.31	107
1980	0.32	109
1990	0.34	119
1998	0.34	119

Source: *Penn World Tables (PWT60)*

In Table 3 we observe that inequality has increased over these 37 years. The increase, however, has been moderate and has taken the form of jumps concentrated in the sixties and in the eighties.

What can be said of the *absolute level* of inequality in the Mediterranean basin? Table 4 helps in putting this into perspective. We compare here the international inequality in the region with other geographical areas. From Table 4 we learn that the Mediterranean basin is a region with high cross-country inequality: four times as much as within the European Union and 2.6 times as much as among Latin American countries. Yet, the regional inequality is substantially less than the one observed in South-East Asia.

Table 4

International inequality in different regions in 1990³

	Gini absolute	Gini relative
EU (15 countries)	0.08	100.0
Latin America (15 countries)	0.13	159.5
Mediterranean Basin (12 countries)	0.34	408.7
Africa (39 countries)	0.35	414.4
South-East Asia (6 countries)	0.53	632.5

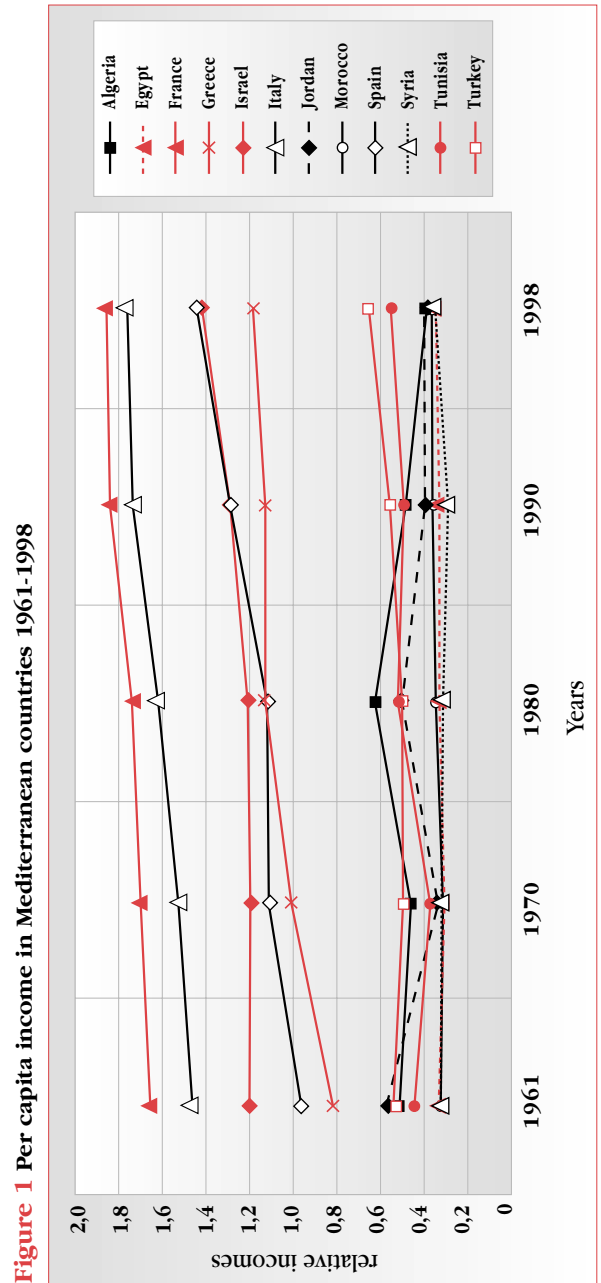
Source: Penn World Tables (PWT60)

Putting all this information together we can conclude that the Mediterranean basin is a region showing high levels of inequality. This inequality is possibly due to the fact that, in spite of their geographical vicinity, the national economies are very different from one other. Furthermore, those countries that have opened their trade after joining the EU have seen their distances with respect to other European countries reduced. Finally, data suggest that this situation is quite stable, with only minor changes in the inequality across countries.

3. Inequality and polarization

Can we be satisfied with this explanation? Taking a closer look at Table 1 we find that under a seemingly stable situation there are significant changes in the region. These can best be grasped by looking at Figure 1, where we simply plot the data in Table 2.

In order to interpret Figure 1 let us first concentrate on the situation in 1961. We start from the lowest income countries. We first encounter three countries with a very similar income. These are Morocco, Syria and Egypt.



Next comes an intermediate country, Tunisia, with an income 33% above that of Egypt. Above Tunisia we find another group of three countries –Algeria, Turkey and Jordan– with similar incomes that are more than 25% above that of Tunisia. We then have Greece with an income 45% higher than Jordan, followed by Spain which is 17% higher than Greece. Israel is 25% above Spain, Italy 22% higher than Israel. On top of the income ladder we have France with an income 13% higher than Italy.

The overall picture of the Mediterranean basin at 1961 gives us an extremely large spread of per capita incomes, with France 5.3 times the income of Morocco, but with the countries spread on this interval in a nearly uniform way. The ladder going from Morocco to France is divided up into 6 or 7 steps at a distance between 25% and 45% from each other. Countries located at a particular point in the ladder could reasonably aspire to move one step up.

Let us now turn to the scenario in 1998, 37 years later. We now find at the bottom of the ladder a group of five countries –Morocco, Syria, Egypt, Algeria and Jordan– all with incomes in the range 0.34-0.38. Then we have Tunisia and Turkey with per capita incomes of 0.55 and 0.64, respectively. The country coming next is Greece with a per capita income 87% above Turkey. Finally, Spain and Israel have successfully closed the gap with Italy and France. As Figure 1 clearly shows, we have ended up in a situation in which no country that was below 0.65 in 1961 has succeeded in crossing this threshold level, while the countries above –starting at 0.81– have all experienced rapid growth. The Mediterranean basin appears to be increasingly polarized. There are much fewer steps in the income ladder and the ones remaining are much taller.

Why has such a neat change in the distribution not been properly captured by the inequality index? The reason is that the very concept of inequality, as defined by modern economics, is not suited for this type of phenomenon. The one broad notion of inequality that is generally accepted today by economists was conceived by Dalton in 1920. The point is intuitive and crisp: considering any given distribution of income, if one unit of income is transferred from anyone to somebody with lower income, the new distribution should be considered less unequal. All standard measures of inequality satisfy this principle. Notice, however, that this principle does not require that the donor be rich and the beneficiary poor. It simply says that one has to be above the other.

In order to illustrate the critical importance of this point, let us consider a distribution with four individuals with incomes 2, 4, 6 and 8. The mean income is 5. Suppose that the richest transfers one unit to the one immediately below and that the individual just below the mean income transfers one unit to the poorest individual. We will obtain a new distribution with two income levels only. The lowest income will now be 3 and there will be two individuals with this income. The highest income will be 7, again with two individuals endowed with this income. From the inequality point of view we have to accept that with these transfers inequality has definitely come down. However, here too we will face a society with “fewer and taller steps”. If we consider that our example refers to social groups of equal size –with millions of individuals– we will all agree that a two-class society with a sharp inter-class distance is more prone to conflict than the original four-class society with shorter steps from one to next. Our example

strongly suggests that inequality might not be the concept best suited to capture social cohesion and potential conflict.

4. Introducing the notion of polarization

Polarization is an elusive concept. It is widely used in Political Science and Sociology, and almost completely alien to Economics, but lacks a clear, precise definition. Esteban and Ray (1994) have provided a rigorous conceptualisation of the notion of polarization together with the corresponding measure.

Loosely speaking, in any given distribution of income (but it could as well be political opinions or the ethnic composition of a society) the term polarization means the extent to which a population is clustered around a small number of distant poles. There are a number of social and economic phenomena for which the knowledge of the degree of clustering can be more informative than a measure of inequality. Besides our motivating problem of the increasing polarization in the Mediterranean, there are other relevant examples such as labour market segmentation, dualization of the economy in developing countries, or distribution of firms by size in a given industry. And, of course, we can find in the social sciences such significant problems as social class, ethnic, religious or tribal and nationalistic conflicts, which clearly have more to do with the polarization of the attributes than with the inequality of their distribution over the population.

It is plain that the common thread running through all these phenomena is that the more polarized a society is, the more likely it seems

that a conflict can break out. In fact, the notion of polarization in Esteban and Ray (1994) is a deliberate attempt at capturing the degree of potential conflict inherent to a given distribution. Indeed, most social scientists would agree that political or social conflict is more likely under a distribution of the population on two equally sized peaks –rather than under a distribution showing extreme inequality. In the former distribution we shall have two groups of significant size with sharply defined political options. In the latter distribution we shall instead have all but one person showing a particular view while there will be only one at the other extreme of the political spectrum. Thus, it is polarization –and not inequality– what matters for conflict.⁴

In order to present the notion of polarization let us think for a moment of polarization within a society. Every society can be thought of as an amalgamation of groups, where two individuals drawn from the same group are “similar”, and from different groups, are “different” relative to the given set of attributes. In Esteban and Ray (1994) polarization of a distribution of individual attributes is viewed as exhibiting the following basic features:

1. It is a matter of groups –isolated individuals should have little weight.
2. There must be a high degree of homogeneity within each group.
3. There must be a high degree of heterogeneity across groups.
4. There must be a small number of significantly sized groups.

Each feature mentioned above is closely linked to the formation of social tension. The

existence of an isolated individual with very different characteristics from the clustered groups plays a negligible role in the development of social conflict. Furthermore, if each group consists of very similar individuals, then it is likely that their objectives too will be very similar, and so they will form a stronger unit because of their mutual sense of identification. Therefore, higher within-group homogeneity is bound to increase social tension. Likewise, if there is a clear difference between two groups, then this heterogeneity across groups will *ceteris paribus* contribute to tensions. For it is more likely that the objectives of the two groups will come into conflict. Finally, a small number of groups serves to localize the feelings of conflict and avoids the multilateral checks and balances that ease tension.

It is worth noting here that some of the above features can be made compatible with Dalton's principle of equalizing transfers, while others cannot. The effects of across-group heterogeneity and of the smaller number of groups do not contradict Dalton's principle. In contrast, increased within-group internal homogeneity would be recorded as a reduction in inequality, whilst we would expect a rise in polarization. The same goes for the role of small sized, extreme values in a distribution.

In Esteban and Ray (1994) polarization is viewed as sum of antagonisms between individuals that belong to different groups. Antagonism is the joint result of inter-group alienation, combined with the sense of identification with the own group. This yields a broad class of polarization measures. For this broad class of measures the four features listed above (expressed in the form of axioms) turn out to be necessary and sufficient to characterize a specific measure of polarization.

The polarization measure obtained can be written as:

$$P^{ER}(\mathbf{p}, \mathbf{y}) = \sum_{i=1}^n \sum_{j=1}^n p_i^{1+\alpha} p_j |y_i - y_j|, \quad 1 \leq \alpha \leq 1.6$$

where y_i and p_i are the (log) representative income and relative size of group i , respectively. The terms $|y_i - y_j|$ stand for the alienation –distance– felt between individuals of incomes y_i and y_j , while p_i^α stands for the sense of identification of each of the p_i members of group i with their own group. Therefore, $p_i^\alpha |y_i - y_j|$ is the antagonism felt by each individual of group i with respect to each member of group j .

The free parameter α indicates the degree of polarization aversion displayed by the measure. The larger α is the sharper the difference in behaviour between the measure of polarization and standard inequality indices will be.⁵ In order to see the role of parameter α , suppose that all countries of a particular region could be grouped in three income levels, with the two higher groups having the same size. Suppose now that these two groups fused into one with their joint average income. How should we value this change from the point of view of polarization? The answer clearly depends on the size of the third group. If this group were very small, most of the existing polarization was between the other two, equal-sized groups. If these two groups have been fused, most of the polarization will have disappeared. Yet, if the third group is large, the fusion of the other two will create a large, commensurate group and hence we would expect polarization to increase. How large the third group has to be to make the fusion of the other two to increase polarization depends on the value of α . When α is large (close to 1.6) the fusion will increase polarization even when the third group is not very large.

The Esteban-Ray measure attains its maximum polarization when the population is concentrated on two equally sized poles located at the maximum distance from each other. However, the measure captures not only the extent to which a distribution is bi-polarized, but the concentration around any number of poles as well. Of course, the fewer the number of poles the higher is the recorded polarization.

The Esteban-Ray measure presupposes that the population is already structured into groups. This creates some difficulties for its mechanical application to distributions over variables that, like income, take on a large number of values. Two countries with per capita incomes that differ a few euros from each other clearly cannot be considered income-antagonized. In order to solve this difficulty, Esteban, Gradín and Ray (1999) have adapted the original measure to be applicable to this kind of distribution.⁶ In our analysis of the degree of polarization in the Mediterranean basin we shall follow their approach.

In a nutshell, the idea is as follows. Polarization is still taken to be a matter of groups. The main point is how to reduce a given distribution into a simplified one in which the population has been concentrated into a small number of groups. This simplification of distributions into a small number of categories such as “the poor”, “the rich” or “the lower/upper middle class” and so on, is what we all informally use when comparing distributions. This informal description can be seen as a simplified representation of the true distribution in which the population is concentrated on a few representative incomes. Motivated by the common, shared intuition for these categorizations, Esteban, Gradín and Ray (1999)

formalized a methodology that, given the number of groups that we want to work with, identifies the income bounds between groups that minimize the error made by this simplification. This procedure is identical to taking the income limits defining the groups in such a way that average within-group cohesion is maximal.

Once the simplified representation of the distribution into groups has been established, we can compute the across-groups polarization using the Esteban-Ray polarization measure. But, to complete the analysis we have to correct our measure of polarization for the degree of cohesion within the defined groups, measured by the Gini index within each group. The higher the within-group dispersion the lower the polarization of a given group configuration. The measure finally proposed by Esteban, Gradín and Ray (1999), P^{EGR} , can be written as

$$P^{EGR}(\alpha, \beta) = P^{ER}(\alpha) - \beta[G(f) - G(\pi, \mu)],$$

where $P^{ER}(\alpha)$ stands for the Esteban-Ray measure, $G(f)$ for the Gini index of the original distribution and $G(\pi, \mu)$ for the Gini index of the simplified distribution with π being the vector of group sizes and μ the vector of the corresponding representative incomes. Finally, β is a free parameter measuring our sensitivity towards within-group cohesion. The term in brackets –total inequality minus across-groups inequality– measures internal inequality within the groups.

Summarizing, in order to analyse the degree of polarization of a given income distribution –over Mediterranean countries, in our case– we proceed as follows. We first obtain the simplified representation of the original distribution into a small number of groups (two to four). This simplified representation consists of the

representative income of each group and its population. This information *per se* is quite useful in understanding the essential features of any given distribution. We also obtain the residual within-group inequality telling us about how well defined –i.e. internally cohesive– groups are. We finally compute the polarization corresponding to the simplified distribution and deduct internal group dispersion.

One final word on the number of groups. The choice of the number of groups is left to the discretion of the analyst. In many circumstances, which is the best simplified representation will be self-evident. As a general guidance, let me remark that, as we increase the number of groups, our simplified representation becomes more accurate, but less sharp and telling. The fall in the degree of error made is not linear. Going beyond three or four groups gives very minor improvements in the accuracy of the representation. As our representation becomes less sharp, the fall in the recorded polarization is not compensated for by the higher degree of within-group cohesion. For a given distribution, beyond three or four groups the P^{EGR} measure will start falling as we represent the distribution into a larger number of groups. In the present analysis we shall take this particular convention, namely that the appropriate number of groups is the one that, everything taken together, yields the maximum value of the polarization index, as measured by P^{EGR} .

We now turn to the application of this methodology to the analysis of the polarization in the Mediterranean basin.

5. Economic polarization in the Mediterranean basin

We shall now proceed to the measurement of the income polarization across the Mediterranean countries in the period 1961-1998. Specifically, we shall measure the level of bi- and tri-polarization for high degrees of sensitivity towards polarization and towards group cohesion. To this effect we have chosen to work with the parameter values $\alpha=1.5$ and $\beta=2$. As it will become apparent from the coming analysis, for this specific case there is no gain in considering the Mediterranean as divided into more than three groups of countries.

When measuring the degree of bi-polarization we assume that the distribution of income over countries can be meaningfully divided into two blocks only. As it turns out, in any distribution the most efficient dividing line between two groups always is the joint weighted mean income. Countries with relative, normalized income per capita below unity belong to the group of “poor” countries and those above to the group of “rich” countries. We shall then compute the degree of bi-polarization corresponding to this dualized representation of the distribution and examine its evolution. Moreover, we shall also discuss whether this particular representation is meaningful as compared with a three-group schematic representation of the same distribution. For the case of a three-group representation, the optimal location of the dividing incomes follows a similar principle as before. As shown in Esteban, Gradín and Ray (1999), the optimal dividing line between any two adjacent groups is the joint average income level. It is plain that the within-group inequality for the three groups will be less than for the two-group case because the

Table 5
Income polarization across countries
in the Mediterranean basin

	Bi-polarization	Tri-polarization	Inequality-Gini
1961	0.06	0.09	0.29
1970	0.08	0.11	0.31
1980	0.09	0.10	0.32
1990	0.12	0.13	0.34
1998	0.13	0.10	0.34

Source: Penn World Tables (PWT60)

representation error made is obviously smaller. Yet, representing the area with three groups does *per se* imply that we are assuming a lower degree of polarization than in the bi-polar case. Each effect runs in opposite direction. As indicated above, we shall consider the best representation the one giving the highest level of polarization over all possible group representations.

Let us proceed to the examination of the empirical results. In Table 5 we present the indexes of bi- and tri-polarization, together with the index of inequality for contrast. The same information is depicted in Figure 2, where we take 1961 equal to 100 for the three indices.

The diagnosis emerging from our analysis is clear. The degree of polarization around two groups has more than doubled over the period under consideration. Yet, polarization around three nodes has been swinging up and down without a trend. The dramatic increase in polarization around two camps throughout this period of 37 years has to be contrasted with the moderate increase in inequality, as already discussed. The diagrammatic representation in Figure 2 is most telling of the main trends.

Which is the most appropriate representation of the Mediterranean basin? Is the Mediterranean a two or a three group region? We have already mentioned the criterion of choosing the number of groups that yields the maximum value of the recorded polarization. From this standpoint, the Mediterranean basin was a region that in 1961 was best described as essentially formed by three types of countries –corresponding to different stages of development– but has now clearly turned into a two-pole area.

This is an important result of our analysis of polarization in the Mediterranean. Let us understand in greater detail the forces driving this process. In the first place, we shall examine how good an approximation we achieve when representing the income distribution across the Mediterranean countries by two and three groups. Consistently with our methodology, we can measure the degree of approximation by the percentage of the total, actual inequality explained by each simplified representation into

Figure 2
Polarization and inequality among
Mediterranean countries

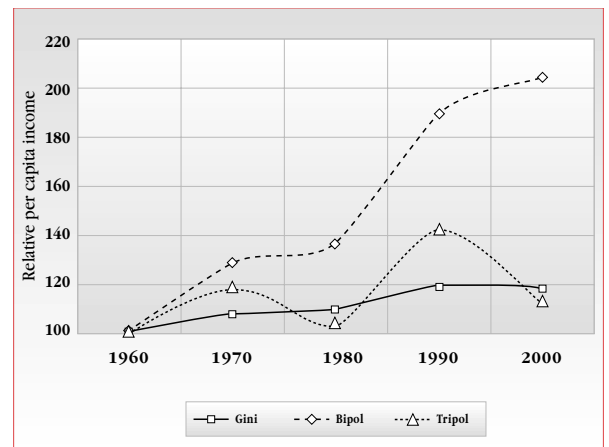


Table 6
Percentage of inequality explained by 2
and 3 group representation

	2 groups	3 groups
1961	0.82	0.94
1970	0.83	0.95
1980	0.84	0.95
1990	0.87	0.95
1998	0.88	0.94

Source: Penn World Tables (PWT60)

two and three poles. This information is provided in Table 6.

Our first observation is that a crude two-pole representation can account for as much as 88% of total inequality. A simplified representation into three groups accounts for nearly all the existing inequality. Note further that while the accuracy of the three-group representation has remained essentially stable, the significance of the two-group representation has been steadily increasing. By 1998 the jumping from two to three groups increases the percentage of explained inequality by a mere 7%. An implication of this result is that we are being very accurate when describing the Mediterranean basin as split into two camps. The error made is small compared with the gain in sharpness of analysis.

Let me underline that the process described in Table 6 can also be meaningfully interpreted through its complement. Indeed, the difference between the recorded percentages and unity is the degree of within-group dispersion in the interior of the two groups. The data in Table 5 tell us that over the period of consideration the two groups –rich and poor– have gained in internal cohesion, i.e. the remaining inequality has been diminishing.

The intermediate steps for the computation of the polarization measure PEGR contain relevant information. Table 7 provides the data on population size and representative income of the two groups we are using as a simplified representation of the income distribution.

The sharp population shift between the two groups in the sixties corresponds to Greece and Spain crossing above the mean income. They joined the club of the rich initially formed by Israel, Italy and France. After 1970 no country has crossed the border. The steady increase in size by the poor group is due to higher demographic growth in the poorer countries. More significantly, the income distance between the two groups has been steadily increasing. In 1998 the distance between the two groups was 27% wider than in 1961.

Summarizing our results, we have seen a sharp increase in the degree of bi-polarization in the Mediterranean basin. This increase has been driven in almost every dimension possible. Both groups, rich and poor, have become internally more cohesive. Furthermore, this change has come with a significant widening of the income gap between the two groups. The relative group

Table 7
Size and income of the two-group representation

	poor group		rich group		Income distance rich to poor
	population	income	population	income	
1961	0.56	0.58	0.44	1.54	0.97
1970	0.42	0.39	0.58	1.45	1.05
1980	0.47	0.43	0.53	1.50	1.07
1990	0.52	0.42	0.48	1.62	1.20
1998	0.55	0.45	0.45	1.68	1.22

Source: Penn World Tables (PWT60)

sizes, though, have played a less clear role as they have come close to and then departed from the polarization maximizing equalization of sizes.

6. Concluding remarks

In this paper we have examined the degree of income polarization among the countries in the Mediterranean basin. From our analysis there is a clear picture emerging. At the beginning of our period of study the region is characterized by extreme differences in per capita incomes among countries. The 5-to-1 ratio between the two extremes (France and Morocco) was paved by a sequence of countries never distant more than 46% from each other. In spite of the enormous distance between the extremes each country had another country leading ahead at an attainable distance. By 1998 the landscape is substantially different. The gap between the extremes has even increased. The essential change however is that now the Mediterranean is neatly split into two separate camps. No country that started with an income below 65% of the average has gone over this threshold, while the countries above have rapidly converged towards the most developed countries. As a result, the two groups have become internally more homogeneous and externally more heterogeneous with each other. Polarization (bi-polarization) has risen dramatically over the period.

Is this a matter of concern? Yes, and this is because higher polarization goes hand in hand with higher potential conflict. In Esteban and Ray (1999) we provide rigorous arguments demonstrating that the measure of polarization presented in this paper is an appropriate indicator for the intensity of potential conflict.

This extreme bi-polarization is even more worrisome in a region with a very high risk of open conflict.

Just a few decades ago, Spain, Southern Italy and Greece were not that different from the most backward Mediterranean countries like Morocco or Egypt. Now the distances have grown so much so as to make the gap look insurmountable. Israel, which was twice as rich as Jordan in 1963, is now four times richer. With no stimulating target at their reach, we might be heading to a period of high political instability in the countries of the region. It is obvious that the South and South-Eastern Mediterranean countries desperately need support to foster growth and prosperity giving new horizons worth the effort. In my understanding, the very first priority for the EU should be to provide the assistance necessary for a “success story”. Perhaps countries with a fair chance of breaking through like Turkey –and, secondarily, Tunisia– should receive full, immediate support from the EU.

Footnotes

(1) We use real GDP from the Penn World Tables (PWT60). Because of data availability we have been able to include the following countries only: Algeria, Egypt, France, Greece, Israel, Italy, Jordan, Morocco, Spain, Syria, Tunisia and Turkey.

(2) The Gini index is a measure of inequality of a distribution and takes values between zero (perfect equality) and unity (maximum inequality). It measures the expected value of the income distance between a pair of individuals taken at random.

(3) From Esteban (1994).

(4) The link between polarization and conflict is formally studied in Esteban and Ray (1999).

(5) For the derivation of the bounds on α , see Esteban and Ray (1994).

(6) See Duclos, Esteban and Ray (2001) for an extension of the measure of polarization to continuous distributions.

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Joan Esteban

Joan Esteban graduated in Economics at Universitat Autònoma de Barcelona (UAB) and earned his Ph.D. in Economics at Oxford University (1988) and UAB (1973).

He is currently Research Professor and Director of the *Instituto de Análisis Económico* of the *Consejo Superior de Investigaciones Científicas* (CSIC) and associate professor at Universitat Pompeu Fabra.

His main areas of research are: monetary theory, OLG models, income inequality and polarization and the modeling of conflict and group formation.

He has published in the *American Political Science Review*, *Econometrica*, *Economics of Governance*, *Economics Letters*, *European Economic Review*, *International Economic Review*, *Journal of Economic Behaviour and Organization*, *Journal of Economic Theory*, *Regional Science and Urban Economics* and *Social Choice and Welfare*. He has published the book *The Social Viability of Fiat Money* (Springer Verlag, 1991).

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Ramon Trias Fargas, 25-27 - 08005 Barcelona
Tel: 93 542 24 98 - Fax: 93 542 18 60
E-mail: crei@grup.upf.es
<http://www.econ.upf.es/crei>

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