

Economic Convergence in the Mediterranean Basin at the Dawn of the 21st Century

This paper presents data on economic growth of eighteen countries of the Mediterranean Basin in the beginning of the 21st Century. The aim of the paper is to address two questions. First, how have the individual Mediterranean countries performed in the current century so far? Second, has the Mediterranean Region converged and, if yes, how has this been affected by the Union of the Mediterranean European Union's project of 2008 and the Great Recession? Convergence is measured by the coefficient of variation of per capita Gross Domestic Product (GDP) in current international dollars adjusted for Purchasing Power Parities (PPP). The indicator of per capita GDP shows that the Mediterranean countries - without any exception - experienced a rise in per capita income; few of them had symptoms of episodic economic growth. On average, countries with lower per capita income outperformed countries with higher per capita GDP. The result was an economic convergence of the Mediterranean Basin countries albeit below the threshold of 2% per annum.

Keywords: *Mediterranean, Coefficient of Variation, GDP, Convergence, Union of the Mediterranean.*

Introduction: Absolute and Relative Economic Performance

The issue of convergence has a long history; as long as the history of the Mediterranean Basin itself. Since the Hesiodic years, poor countries and poor individuals wanted to become rich; at least as rich as their neighbors. Apart from the strategic importance of building a strong and affluent economy, the human aspect of economic growth and development should not be underestimated. Absolute poverty cannot be shared; only higher income – higher than the subsistence level of income - can be shared. The production of more goods and services is necessary, although not sufficient, to improve the livelihoods of poor people. The important issue (which is the sufficient condition) of how the additional income and wealth should be distributed is, however, not discussed in this paper. Instead, the focus is on the creation of more income and wealth in the beginning of the 21st century. In particular, this paper looks at the economic performance (a) of each one of the eighteen Mediterranean countries and (b) of the region as a whole.

An indicator of economic performance is the PPP adjusted per capita GDP in current international dollars. I measure economic performance by comparing the level of per capita GDP of 1999 with the most recent data available of 2017. How have the individual economies of the Mediterranean Region grown? Were they better in 2017 or worse off in comparison to 1999? This may be called the absolute

1 performance. Countries are doing better off if they were able to produce, per
 2 capita, more goods and services. It is only then that they have the economic
 3 potential to improve the conditions of the least fortunate of their citizens through
 4 direct and indirect re-distribution policies without reducing the wellbeing of the
 5 more fortunate.

6 In addition to absolute economic performance, there is a relative economic
 7 performance which this study also aims to address. Not only an individual country
 8 wants its income to increase but she wants to outperform its neighbors; particularly
 9 if the country lags behind. This raises the second question: have the poor countries
 10 of the Mediterranean Basin been able to narrow the gap with the rich countries of
 11 the region? Was there a convergence or a divergence of the economies of the
 12 Mediterranean Region? Answers to these two questions are attempted in the next
 13 three sections of this paper. Another section, before the conclusions, examines the
 14 impact of the Union of the Mediterranean Initiative and of Great Recession; both
 15 started in 2008.

16 On the other hand, this study does not discuss the methodological issues of
 17 using the PPP adjusted GDP as an indicator of measuring convergence.
 18 Convergence does not apply only to GDP; it may include other indicators such as
 19 political institutions, technology, culture, education and health. These types of
 20 convergences are not discussed in this paper.

21 The theoretical aspects of economic convergence are not discussed here
 22 either; for a recent survey of the convergence literature see Johnson &
 23 Papageorgiou in a forthcoming paper in the *Journal of Economic Literature*
 24 (available online in August 2018); and also the early work on the issue by Sala-i-
 25 Martin (1996), Friedman (1992), Barro & Sala-i-Martin (1992) and Dowrick &
 26 Quiggin (1997).

27 Instead, this study here concentrates on the growth rates of the individual
 28 Mediterranean Countries from 1999 to 2017 as well as differences across
 29 countries. It contributes to the empirical economic convergence literature.

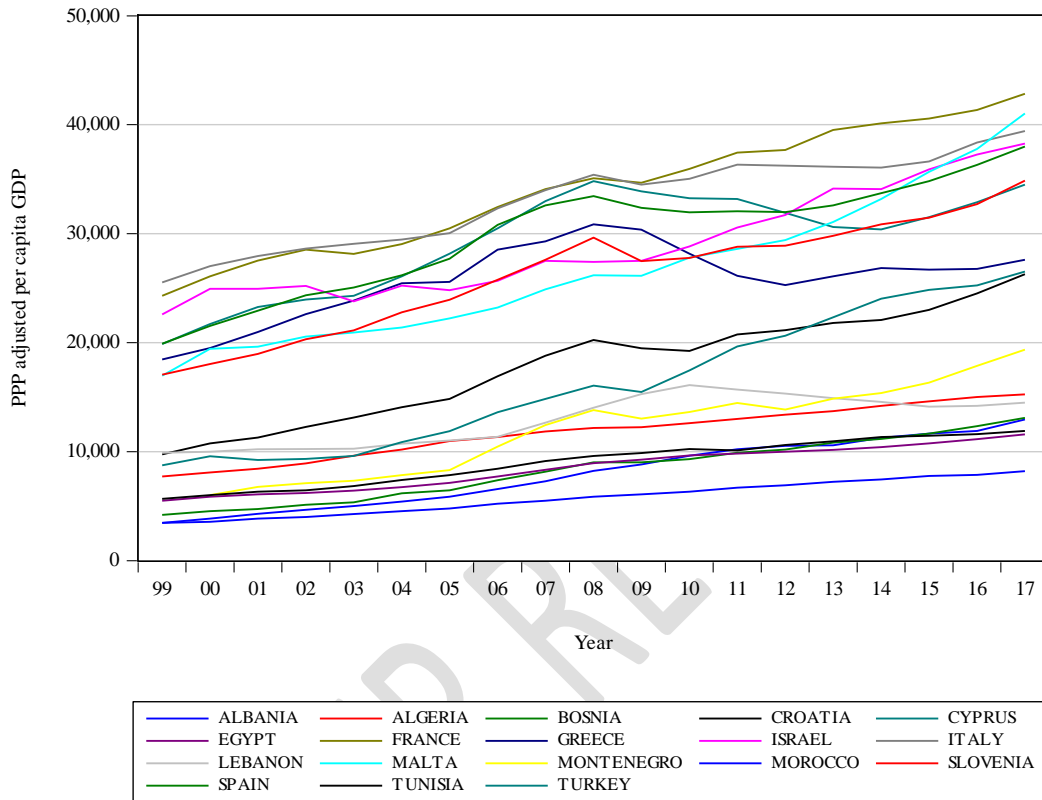
32 **Per Capita GDP from 1999 to 2017**

34 Figure 1 and Tables 1-3 depict the economic performance of the individual
 35 Mediterranean Countries in the beginning of the 21st Century. The selection of the
 36 period is determined by the availability of data. A number of important
 37 conclusions emerge from these data. The most important of all is the increase of
 38 the level of PPP adjusted per capita GDP of all countries of the Mediterranean
 39 Basin. No country was left behind. For all countries, the 2017 per capita GDP is
 40 higher than its 1999 level. Despite the Great Recession of 2007, the per capita
 41 GDP difference between the 2017 value and the 1999 is positive for all
 42 Mediterranean Countries (see Table 1).

43 The second observation refers to the uniformity of this increase. For some
 44 countries (10 out of 18), the increase was outstanding. In a period of 20 years, they

1 were able to more than double their PPP adjusted per capita GDP. These countries
 2 were: Albania, Bosnia, Croatia, Egypt, Malta, Montenegro, Morocco, Slovenia,
 3 Tunisia and Turkey.
 4

5 **Figure 1. Per Capita GDP, 1999-2017**



6
 7 Source: World Bank Indicators (Retrieved 30 January 2019). Data were not available for Syria and
 8 Palestinian Authority; therefore these countries were excluded from the analysis. The starting year
 9 of Montenegro is 2000.
 10

11 **Table 1. Per Capita GDP in PPP Current International Dollars**

| Country | 1999 | 2017 | DIF | Country | 1999 | 2017 | DIF |
|---------|-------|-------|-------|------------|-------|-------|-------|
| Albania | 3472 | 12943 | 9471 | Italy | 25532 | 39427 | 13895 |
| Algeria | 7726 | 15260 | 7534 | Lebanon | 9884 | 14482 | 4598 |
| Bosnia | 4206 | 13108 | 8902 | Malta | 16962 | 41034 | 24072 |
| Croatia | 9749 | 26288 | 16539 | Montenegro | 6003 | 19352 | 13349 |
| Cyprus | 19881 | 34503 | 14622 | Morocco | 3451 | 8217 | 4766 |
| Egypt | 5484 | 11584 | 6100 | Slovenia | 17067 | 34868 | 17801 |
| France | 24307 | 42850 | 18543 | Spain | 19907 | 37998 | 18091 |
| Greece | 18465 | 27602 | 9137 | Tunisia | 5661 | 11911 | 6250 |
| Israel | 22600 | 38262 | 15662 | Turkey | 8757 | 26519 | 17762 |

12 Source: World Bank Indicators (Retrieved 30 January 2019).
 13
 14

1 The third observation is related to the previous one. Country rankings, in
 2 terms of per capita GDP, have changed from 1999 to 2017. Table 2 shows the
 3 group of countries by income size in 1999 and in 2017. The first to notice is that,
 4 in 1999, no Mediterranean country had a per capita GDP greater than 25,000
 5 dollars and, in 2017, no country had a per capita GDP less than 5,000 dollars.
 6 Some countries have moved up the ladder of per capita GDP quite fast: Albania,
 7 Croatia and Turkey; for others the increase was meager.

8 The differences in ranking from 1999 to 2017 imply different annual rates of
 9 growth of per capita GDP (see Table 3). All annual growth rates are higher than
 10 2% but countries, such as Malta, Croatia, Turkey, Montenegro, Bosnia and
 11 Albania, had an annual growth rate in excess of 5%. This has affected the country
 12 ranking.

13
 14 **Table 2. Country Classification by Per Capita GDP**

| Income Bracket | 2017 | 1999 |
|----------------|--|---|
| <5000 | - | Bosnia, Albania, Morocco |
| 5001- 10000 | Morocco | Lebanon, Croatia, Turkey, Algeria, Montenegro, Tunisia, Egypt |
| 10000-15000 | Algeria, Lebanon, Bosnia, Albania, Tunisia, Egypt | - |
| 15001-20000 | Montenegro, Algeria | Spain, Cyprus, Greece, Slovenia, Malta |
| 20001-25000 | - | Italy, France, Israel |
| 25001-30000 | Greece, Turkey, Croatia | - |
| 30001-35000 | Slovenia, Cyprus | - |
| 35001-40000 | Italy, Israel, Spain | - |
| >40000 | France, Malta | - |

15
 16 **Table 3. Growth Rate Country Ranking**

| | | | |
|----------|-------|------------|-------|
| Lebanon | 2.10% | Egypt | 4.34% |
| Greece | 2.38% | Tunisia | 4.37% |
| Italy | 2.47% | Morocco | 4.77% |
| Israel | 3.01% | Malta | 5.18% |
| France | 3.27% | Croatia | 5.40% |
| Cyprus | 3.30% | Turkey | 5.95% |
| Spain | 3.76% | Montenegro | 6.59% |
| Algeria | 3.84% | Bosnia | 6.82% |
| Slovenia | 4.24% | Albania | 8.02% |

17
 18
 19 In conclusion, all countries of the Mediterranean Basin did exceptionally well
 20 at the dawn of the 21st century. All of them had an average annual economic
 21 growth of more than 2%. The average annual growth rate of all countries was

1 4.43% but the deviation was relatively large. For example, Albania has been
 2 growing at a rate twice as high as the average of all countries in the region and
 3 four times higher than the slowest growing economy of Lebanon. Lebanon was
 4 three times richer than Albania in 1999 but these initial conditions were not the
 5 same for all countries in the region.

6 Countries which were relatively richer in 1999 were able to grow at a higher
 7 than average rate in the beginning of the 21st century. For example, Malta had a
 8 per capita GDP of 16,962 dollars in 1999. Its annual growth rate from 1999 to
 9 2017 was 5.18%; one of the highest of the group. As a result, Malta's 2017 per
 10 capita GDP more than doubled and reached 41,034 dollars; an increase of 24,072
 11 dollars relative to the 1999 level. This accounted to a 142% increase for the entire
 12 period under investigation here.

13 From the above study of comparing the economic performance of individual
 14 Mediterranean countries from 1999 to 2017 is not clear whether the relatively poor
 15 countries – those with a per capita GDP below average – were able to catch up
 16 with the richer countries of the Mediterranean basin. The issue of whether
 17 economic convergence did take place is examined in the following section.

18 19 20 **Economic Convergence in the Mediterranean Region**

21
22 Since the 1980s, economic convergence has dominated the discussion of
 23 economic growth and economic development. Barro and Sala-i-Martin (1992, p.
 24 224) suggested that economic convergence occurs when "... the per capita growth
 25 rate tends to be inversely related to the starting level of output or income per
 26 person. In particular, if economies are similar in respect to preferences and
 27 technology, then poor economies grow faster than rich ones. Thus there is a force
 28 that promotes convergence in levels of per capita product and income".

29 In other words, economic convergence looks at the progress made by the
 30 developing countries on closing the economic gap with the richer countries of the
 31 world or part of it, e.g., the Mediterranean Region. The policy implications of the
 32 convergence process are significant as explained below when I look at European
 33 Union's policy initiative to close the gap between the poor and rich countries of
 34 the Mediterranean region.

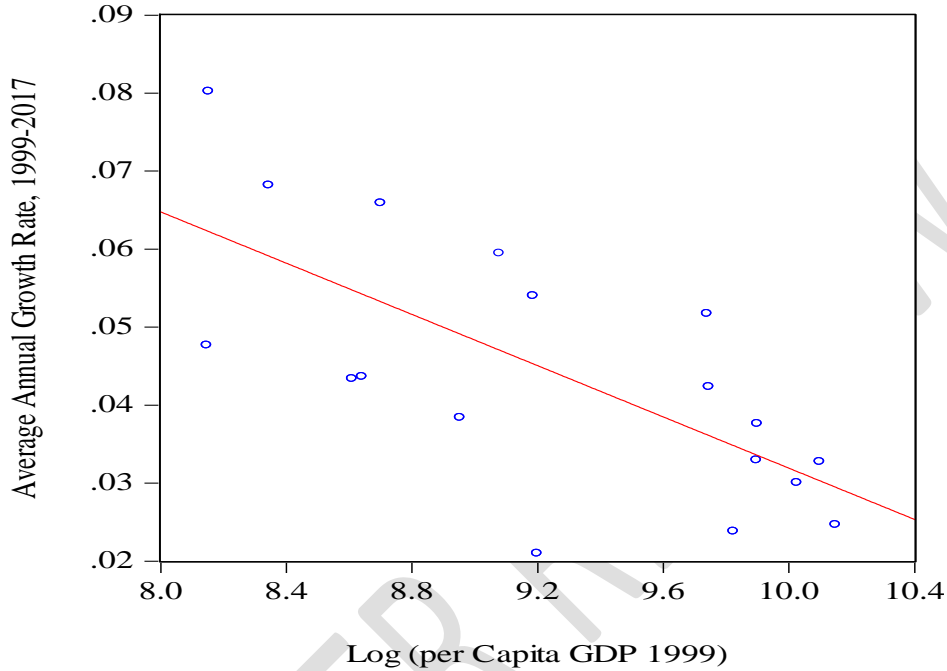
35 Economic convergence implies that countries which have a lower than
 36 average per capita income in the starting year of analysis (in this study 1999) tend
 37 to grow faster than the relatively richer countries of the group. In other words,
 38 there exists a steady state which all countries tend to converge pending their
 39 differences in preferences, technology and institutional settings. Thus, for
 40 convergence to occur there must be an inverse relation between per capita income
 41 of the initial year and its growth rate of the following years.

42 Figure 2 plots the log of per capita income in the initial period of 1999 and its
 43 growth from 1999 to 2017 for the sample of the 18 countries of the Mediterranean
 44 Basin. The regression line has a negative slope which shows that there exists an

1 inverse relation between the log of per capita income in the initial period of 1999
 2 and its growth from 1999 to 2017 for the entire group of countries. The value of
 3 the simple correlation coefficient is -0.69. Relatively poorer countries in 1999
 4 experienced higher growth of their per capita GDP from 1999 to 2017 when this is
 5 compared with the relatively richer countries of the Mediterranean Basin.

6

7 **Figure 2.** *Per Capita GDP (1999) and Growth Rate (1999-2017)*



8

9

10 The gap between the rich and poor countries of the Mediterranean Region has
 11 decreased. This is an indication of convergence. As mentioned above, an unbiased
 12 estimator of economic convergence is the coefficient of variation (Friedman,
 13 1992): the ratio of the standard deviation of income of the 18 countries of the
 14 Mediterranean Basin divided by its mean value. Figure 3 shows the log of the
 15 coefficient of variation of PPP adjusted per capita GDP. A decrease in the
 16 coefficient of variation indicates economic convergence between the poor and rich
 17 countries of the Mediterranean region. The value of the coefficient variation from
 18 close to 60% in the beginning of the period decreased to about 46% in 2014 and
 19 remained at about the same level throughout the end of the period even though it
 20 shows a small divergence.

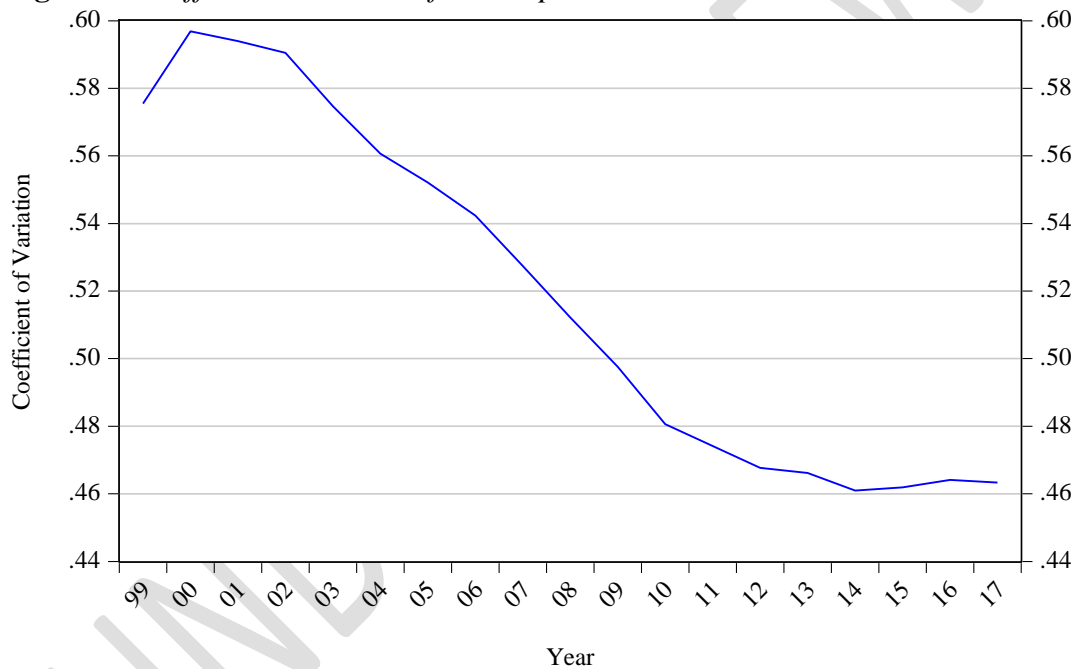
21 The plot of the coefficient of variation in Figure 3 shows that there was an
 22 economic convergence. This does not measure the speed of convergence.
 23 According to Sala-i-Martin (1996), economic convergence of per capita GDP
 24 shows great similarities across different data generation processes. Economies
 25 converge at a speed of an annual rate of close to 2%. This should take into
 26 consideration the differences in preferences, technology, and political institutions.

1 Most studies use a simple equation to measure the speed of convergence for a
 2 group of countries of the following type:

3
 4
$$\text{Growth Rate of Per Capita GDP} = \text{Constant} + \beta \log(\text{Initial Income}) + u$$

5
 6 In this paper the growth rate is the annual per capita GDP from 1999 to 2017
 7 and the initial income is the per capita GDP of 1999. The test of convergence is a
 8 test of the sign of coefficient β . If the coefficient is negative, then the group of
 9 countries under consideration has converged; if positive they have diverged.
 10 Notice that the convergence puts all countries together and nothing can be said
 11 about the individual countries. This can be done by looking at the individual
 12 growth rates something which was presented in the previous section.

13
 14 **Figure 3. Coefficient Variation of Per Capita GDP**



15
 16 Using the 1999-2017 data set of the 18 Mediterranean countries, I found a
 17 negative coefficient ($\beta = -0.016$); statistically significant ($t = -4.02$) which explains
 18 44.87% of the variability in growth rates as measured by the adjusted coefficient
 19 of determination. The equation was estimated using White heteroskedasticity-
 20 consistent standard errors & covariance.

21 From the estimated coefficient of the above equation, the speed of economic
 22 convergence (γ) can be computed using the following relation: $\gamma = -(1-e^{-\beta T})/T$. T
 23 equals 19 years and $\beta = -0.016$. The coefficient of convergence is equal to 1.16%
 24 which is less than the 2% mentioned by Sala-i-Martin.

25 We may then conclude in this that economic convergence among the countries
 26 of the Mediterranean region examined here occurred but at a speed less than the
 27 expected minimum 2% convergence rate mentioned in the literature.

1

2

3 Episodic Growth Spells in the Mediterranean Basin

4

5 Episodic growth is defined as periods of sharp declines in the growth rates
6 after a period of accelerated growth. For some countries, this may end up into
7 economic disasters. The methodology to identify episodic growth spells has been
8 suggested by Hausmann, Pritchett and Rodrik (2005). Periods of high growth are
9 considered those with an average annual economic growth of more than 3.5% over
10 a relatively short period of time, e.g., seven years. Episodic growth is defined as a
11 sharp decline in the rate of growth – an average annual rate of less than 2% -
12 which follows an episode of high growth (more than 3.5%). The comparison is
13 usually done over seven year period and for countries which belong to middle
14 income; around 10,000 per capita GDP in 2005 dollars.

15 The same analysis can be applied to countries of the Mediterranean Region.
16 The seven year annual average growth of per capita GDP is reported in Table 4 for
17 countries which meet the criterion of episodic growth. In total five countries
18 (Cyprus, Greece, Italy, Lebanon and Spain) were identified as having episodic
19 economic growth spells from 1999 to 2017. Strictly applying not all countries
20 satisfy to the letter all the above criteria of episodic growth. However, they do
21 have the characteristic of slow economic growth, less than 2%, after a period of
22 high economic growth more than 3.5%. The periods however do not extend to
23 equal seven year periods.

24 Prior to 2012, the Cypriot annual seven year growth rates were higher than
25 3.61%. According to the above definition of episodic growth, these seven year
26 periods can be characterized as high growth rates episodes. The following years
27 were seven year periods with an annual growth rate of less than 2%. From 2011 to
28 2017 the annual average growth rate of per capita GDP dropped to 0.59% which
29 determines an episodic growth spell.

30 Greece's episodic growth was even worse. Up and included the year 2009,
31 the seven year annual Greek growth rate of per capita GDP was above 4% for the
32 previous seven year periods. In 2010 (2004-2010), the seven year annual growth
33 rate dropped to 2.55%; still above the threshold rate of 2%. In 2011 the rate
34 dropped to 0.58% followed by negative seven-year averages annual rates of
35 growth. From 2011 to 2017 Greece's annual growth rate of per capita GDP was
36 0.23% which can be considered as an economic disaster. This seven year period
37 contrasts with the previous seven year period (2003-2009) of an annual growth
38 rate of 4.37%.

39

1 **Table 4.** *Countries with Episodic Growth Spells*

| Year | Cyprus | Greece | Italy | Spain | Lebanon |
|------|--------|--------|-------|-------|---------|
| 2005 | 5.87% | 5.16% | 2.72% | 5.54% | 1.54% |
| 2006 | 6.33% | 6.45% | 3.46% | 6.47% | 2.02% |
| 2007 | 6.19% | 6.02% | 3.35% | 6.13% | 3.50% |
| 2008 | 5.96% | 5.72% | 3.45% | 5.58% | 4.71% |
| 2009 | 5.15% | 4.37% | 2.74% | 4.23% | 5.97% |
| 2010 | 4.69% | 2.55% | 2.74% | 3.63% | 6.72% |
| 2011 | 3.61% | 0.58% | 3.09% | 3.04% | 5.68% |
| 2012 | 1.91% | 0.04% | 2.76% | 2.18% | 4.96% |
| 2013 | 0.16% | -1.15% | 1.63% | 0.84% | 4.13% |
| 2014 | -1.12% | -1.13% | 0.88% | 0.51% | 2.17% |
| 2015 | -1.38% | -1.97% | 0.51% | 0.59% | 0.21% |
| 2016 | -0.38% | -1.70% | 1.55% | 1.66% | -1.02% |
| 2017 | 0.59% | -0.23% | 1.72% | 2.52% | -1.50% |

2 Note: The reported growth rate is a seven year average rate. For example, the 2005
3 rate is the average growth rate from 1999 to 2005; the 2006 rate is the average
4 annual rate from 2000 to 2006 and so on.

5
6 Italy's episodic growth spells are not so clear. In the beginning of the 21st
7 Century Italy's annual seven year growth rates were close to 3.5% which is at the
8 border of being considered as an accelerating rate of growth defined in the
9 literature as above 3.5%. Of course, one should note that this literature applies to
10 middle income countries and not to countries, such as Italy, with much higher per
11 capita GDP. However, it is of interest to see that the Great Recession hit hard Italy
12 as well. In 2017, its seven year annual growth rate was 1.72% less than the upper
13 bound rate of 2%.

14 Spain had a pattern similar to Greece and Cyprus but the decreases in the
15 growth rates were smaller and by 2017 the seven-year growth rate was 2.52%
16 which is above the episodic growth criterion of less than 2%. Spain, though, had a
17 growth rate very similar to Greece up to 2011 but the impact of Great Recession
18 was not as harsh as in Greece.

19 Lebanon is the only country of the episodic growth group which does not
20 belong to Europe and of course to the eurozone. Its erratic economic growth shows
21 three periods. In the beginning of the 21st Century the annual seven-year growth
22 rate was less than 2%. Then a period of seven years followed with a relatively high
23 average seven year growth rates. This is the period of Lebanon's accelerating
24 growth rate. The last three seven year periods from 2015 to 2017, the average
25 growth rate was not only below 2% but in 2016 and 2017 was negative.

26

1

2 **The Union for the Mediterranean Initiative and the Great Depression**

3

4 In 2008 the European Union and 15 countries of the Southern and Eastern
5 Mediterranean launched the Union for the Mediterranean which is an
6 intergovernmental Euro-Mediterranean organization. The 15 non-EU countries of
7 the Mediterranean region are: Albania, Algeria, Bosnia and Herzegovina, Egypt,
8 Israel, Jordan, Lebanon, Mauritania, Monaco, Montenegro, Morocco, State of
9 Palestine, Syria, Tunisia and Turkey. In this study we used the geographical
10 definition of Mediterranean countries, i.e., countries with an offshore in the
11 Mediterranean Sea for which data were available as explained above.

12 One of the objectives of this Euro-Mediterranean Initiative is to promote
13 economic integration between the EU and non-EU member states by taking
14 various initiatives which includes institutional building to promote peace and
15 security, technology transfer, promotion of education and most importantly
16 economic integration through trade and joint projects particularly in the area of
17 energy. The end result of all these would have been an economic convergence of
18 the countries of the Mediterranean Region which is examined in this section.

19 Our data set permits a descriptive test whether the Union for the
20 Mediterranean Initiative promoted economic convergence. The data set are split
21 into two decades (periods): from 1998 to 2007 and from 2008 to 2017 which
22 correspond to 10 years before and after the Union for the Mediterranean Initiative.

23 It should be noted that these two decades also are identified as ten year
24 periods of prior and after the Great Recession of 2007-2008. For the South
25 European countries, which were members of the eurozone, the Great Recession hit
26 them very hard undermining the existence of the euro itself. These countries were
27 primarily Greece, Cyprus, Italy and Spain. Thus, the Union for the Mediterranean
28 effect on the economic convergence should be interpreted very carefully.

29 Table 5 gives the comparative descriptive statistics of the two periods. In the
30 first period of 1998-2007, per capita GDP was growing at an annual rate of 5.95%.
31 In 2008-2017, this rate dropped to 3.1%. A t-test of means difference cannot reject
32 the null of no difference. In the first period the minimum growth rate was 2.6% but
33 it turned negative in the second decade. The standard deviation of growth is
34 similar in both periods. An F-test shows that there is no statistical difference in the
35 standard deviation of the two periods. In other words, the average growth was the
36 difference and not the dispersion of growth.

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38 **Table 5.** *Descriptive Statistics of Growth, 1998-2007 and 2008-2017*

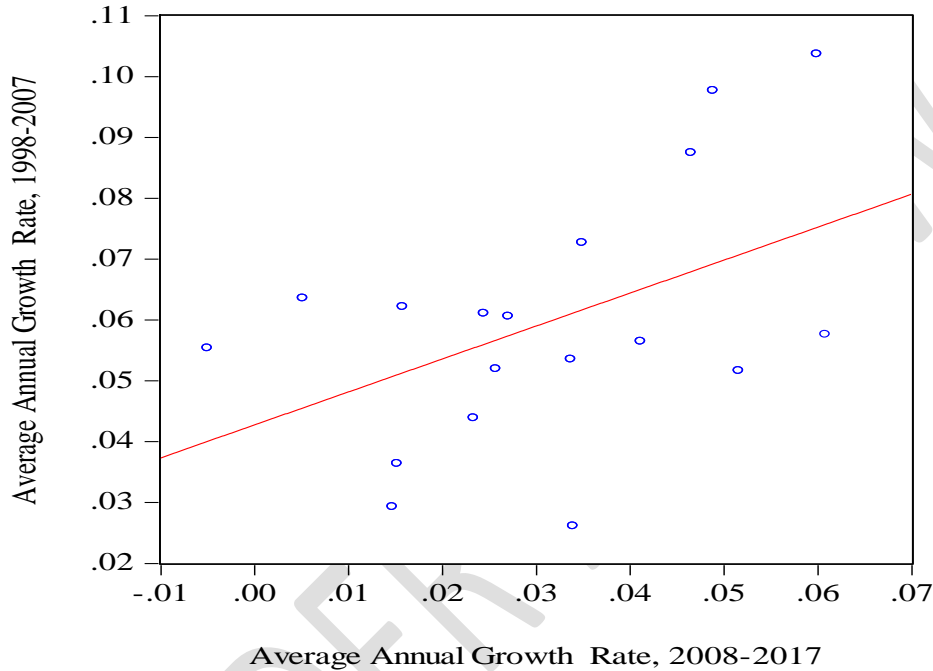
| Statistic | 1998-2007 | 2008-2017 |
|--------------------|------------------|------------------|
| Mean | 0.059537 | 0.030960 |
| Minimum | 0.026139 | -0.005033 |
| Maximum | 0.103727 | 0.060797 |
| Standard Deviation | 0.020839 | 0.018311 |

39

1 Figure 4 is the scatter diagram of per capita GDP growth between the two
 2 decades of 1998-2007 and 200-2017. There is a wide dispersion of growth rates
 3 around the 45-degree line. The growth rates of the first decade cannot be used as a
 4 predictor of the growth rates of the second decade. Overall there is a positive
 5 relation. Countries with high rates in the first decade continue to have relatively
 6 higher rates of growth in the second decade. The correlation coefficient of the two
 7 decades is 0.4758.

8

9 **Figure 4.** *Per Capita GDP Growth Correlations between Two Decades*



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13 **Conclusions**

14

15 At the dawn of the 21st century, each of the economies of the states of the
 16 Mediterranean witnessed paths of economic growth which overall resulted to
 17 economic convergence. Relatively lagged behind economies were, on average,
 18 increased at a higher rate than countries with higher initial per capita GDP. At the
 19 end of the period the gap between the poor and rich countries was narrowed.

20

21 Economic convergence did occur but the rate was below 2%. The European
 22 Union’s initiative to promote economic growth in the relatively less developed
 23 countries of the Mediterranean Basin seems to have had positive even though very
 24 small economic effects. These policies must be reconsidered based on a country by
 country case; this should be the subject of another research project.

1 Economic growth of the less developed countries of a region is the most
 2 important tool to promote political and social stability. The question then is how
 3 sustainable economic growth can be achieved in each one of the Mediterranean
 4 countries? The unfortunate circumstances of the Great Recession which started in
 5 2007 in United States hit very hard the eurozone countries of the Mediterranean
 6 Basin. After 2008, the eurozone has put all its efforts to save the euro and keep
 7 Greece into the eurozone as well as Cyprus, Ireland, Italy and Portugal. These
 8 countries faced political instabilities; new political formations questioned for the
 9 first time seriously the existence of the eurozone and the European Union raising
 10 the issue of exiting both these long standing economic political and economic
 11 institutions. On the other hand, the non-European countries of the Mediterranean
 12 Basin faced even more dramatic problems such as political unrest and economic
 13 bottlenecks. Of course, the thorny issue is the continuous war in Syria and its
 14 impact in creating terrorist groups which have expanded their actions to mainland
 15 Europe.

16 In concluding, one must emphasize that economic convergence may be a
 17 necessary but not a sufficient condition to bring peace and social stability. These
 18 issues go beyond the simple convergence analysis but one should keep in mind
 19 that economic progress in the Mediterranean Basin is not possible under
 20 conditions of war, political and social unrest. Unfortunately, wars have long
 21 impacts and the European Union's initiatives as well as other countries' initiatives
 22 have not resulted to a sustainable solution.

23
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25 **References**

- 26
 27 Barro RJ, Sala-i-Martin XX. (1992). Convergence, *Journal of Political Economy*,
 28 100(2): 223-251.
 29 Dowrick S, Quiggin J. (1997) True Measures of GDP and Convergence, *The*
 30 *American Economic Review*, 87(1): 41-64.
 31 Friedman F (1992) Do Old Fallacies Ever Die? *Journal of Economic Literature*,
 32 30 (4): 2129-2132.
 33 Johnson P, Papageorgiou C (forthcoming). What Remains of Cross-Country
 34 Convergence? *Journal of Economic literature* (forthcoming), Available online
 35 <https://www.aeaweb.org/articles?id=10.1257/jel.20181207&&from=f>
 36 Hausmann, R. Pritchett L., Rodrik D. (2005) Growth Accelerations, *Journal of*
 37 *Economic Growth*, 10 (4): 303-329.
 38 Sala-i-Martin, X.X. (1996) The Classical Approach to Convergence Analysis, *The*
 39 *Economic Journal*, 106(437): 1019-1036.

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