

Angelis, Vasilis; Gaki, Eleni; Dimaki, Katerina; Koufodontis, Nikolaos-Iason

## Conference Paper

# Economic Crisis And Regional Disparities

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## **Economic Crisis and Regional Disparities**

**Eleni Gaki\*, Vasilis Angelis\*, Katerina Dimaki\*\* & Nikolaos-Iason Koufodontis\***

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Quantitative Methods Laboratory  
Department of Business Administration  
University of the Aegean  
8, Michalon str.  
82100 Chios, Greece

[e.gaki@aegean.gr](mailto:e.gaki@aegean.gr), [v.angelis@aegean.gr](mailto:v.angelis@aegean.gr),

[ikouf@aegean.gr](mailto:ikouf@aegean.gr)

Department of Statistics  
Athens University  
of Economics and  
Business  
76, Patission str.  
10434 Athens, Greece

10434 Athens, Greece

[dimaki@aub.gr](mailto:dimaki@aub.gr)

### **Abstract**

Europe as we know it, the European Union of 27 countries, has evolved from the European Coal and Steel Union of a few developed countries in a comprehensive economic and political union, which now embraces and unites most of the European continent (EU 2011). Each successive transformation and enlargement of the Union has brought in new people and countries with large differences and particularities. Countries of southern Europe and later the former eastern socialist republics joined the initial core of the developed Western economies. Today, between countries of the European Union, different zones are distinguished in relation to levels of economic and social development. The existence of many different countries in a broad geographic area designates the regional problem at various

levels. The current economic crisis has affected almost all European countries but the countries of the European south and the former eastern socialist republics have suffered the most. Our objective in this paper is to quantify regional disparities as expressed by several growth indicators, such as GDP per capita, employment/unemployment rates, household savings and use them to compare the regional disparities before and after the crisis.

**Keywords:** Economic Crisis, Regional Disparities, GDP, Unemployment.

## **1. Introduction**

The economic crisis is a reality throughout Europe. However, given the large regional disparities and different growth rates, the effects of the crisis are not the same in all countries and all regions. Various factors, endogenous and exogenous, determine the real impact of the recession.

Regardless of the causes that led to recession and the structural or other causes that sustain and determine its duration, its effect is captured in a series of quantitative data and indicators. According to official statements, a significant deterioration in several key items such as income and employment is expected. Official statistics confirm many of these predictions (Eurostat 2011). Furthermore, the continued rise in interest rates of bonds of the indebted countries, complicates the recovery effort considerably, keeping the uncertainty

and risk levels high (von Hagen et al 2011, Arghyrou και Tsoukalas 2011). However, the fact that we are still in the period of recession, without knowing the exact exit time from it, implies that it is still too early to draw definitive conclusions for any indicator of the economy at any level.

The paper discusses the most recent data for selected regions of the European Union. These include mainland regions with significant growth potential and island regions which had limited growth prospects even before the crisis. The aim of the paper is to examine the extent to which the emerging changes in economic data seem to be greater in some regions than others, primarily main areas (at the NUTS-2). The analysis is applied in three levels. First, between regions within the same country, secondly, between similar regions in different countries, and thirdly, between groups of regions at European level. In this way we can determine whether the developments in a time of economic crisis are likely to lead to further intensification of regional disparities, will limit them, or will have no measurable effect.

The methodology used in the article includes the analysis and presentation of basic indicators of the regions under study, such as the GDP and employment.

## **2. European Union , a Diverse Union**

Europe as we know it, the European Union of 27 countries, has evolved from the European Coal and Steel Union of a few developed

countries in a comprehensive economic and political union, which now embraces and unites most of the European continent (EU 2011). Each successive transformation and enlargement of the Union, has brought in new people and countries with large differences and particularities. Countries of southern Europe and later the former eastern socialist republics joined the initial core of the developed Western economies. Today, between countries of the European Union, different zones are distinguished in relation to levels of economic and social development (Bartkowska και Riedl 2011). One group consists of the prosperous western and northern economies and includes countries such as Germany, Finland, the Netherlands, or Denmark. The second group includes countries in the periphery of Europe with less developed economies such as Spain, Portugal, Italy, Greece or Ireland. Finally, the third group includes countries of former Eastern economies, relatively weak, completing the transition from socialism to capitalism. In this group are countries such as Bulgaria, Poland, Romania, Latvia.

The existence of many different countries in a broad geographic area designates the regional problem at three levels. The first level concerns the groups of countries mentioned above. At a second level variations exist within countries. Finally, at a third level, in the unified Europe, differences are between regions across national borders. Thus, at NUTS 2 level, island and less favored regions, belonging to countries with different levels of development, face common problems and difficulties. Many studies argue that while disparities between member countries are decreasing gradually the

disparities within countries are increasing. As a result, the overall gap between the central, rich and developed regions on one hand and the less developed regions on the other hand are expanding (Heidenreich και Wunder 2008).

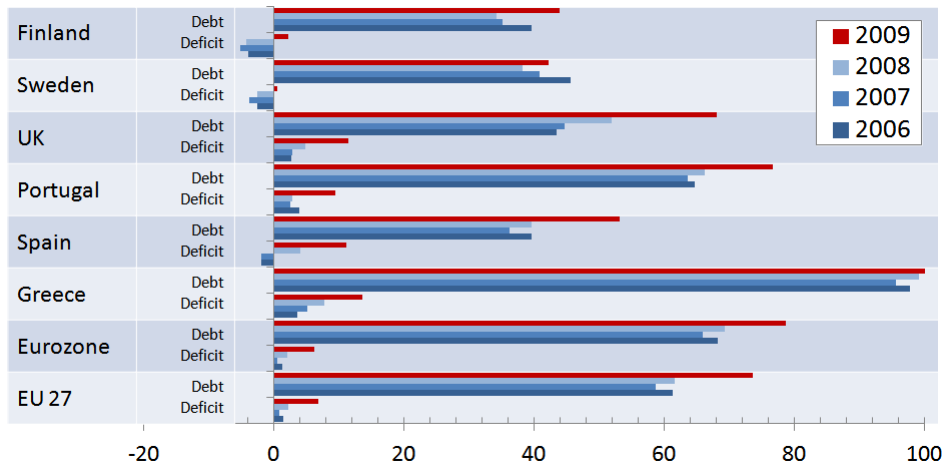
The European Union, in its main strategies aiming to promote integration and cohesion, has recognized the need to reduce regional disparities as one of its key priorities. Towards this, it has developed many activities and programs targeted at those areas which have lower than average levels of development. The allocation of aid is based on three areas: convergence, regional competitiveness and employment and cooperation. In the current budget period 2007-2013, over one third of the total EU budget is provided through the Structural Funds. The funds are allocated to regions according to specific criteria, such as the ratio of per capita income in the European average (Wostner και Slander 2009, EU 2011b). Of course, the results of these programs have often been questioned (Puga 2002). Therefore, the analysis of available data requires special care as the analysis of numbers and the interpretation of the causes and effects is often an exploratory description of multidimensional phenomena.

### **3. Economic crisis, development and regions**

In mid-2006 in the U.S. one of the biggest economic downturns in decades peaked. The collapse of the mortgage market led swiftly the crisis outside America. Initially, the powerful industrialized countries and their banking system were among those mostly affected. Many

countries in the European Union felt, at this stage, relatively safe and unaffected. However, in early 2008 the, crisis known as “european sovereign debt crisis” appears and not only affects the weakest regional economies that reach a step before bankruptcy but it also destabilizes the entire monetary system of the Eurozone (Featherstone 2011).

Figure 1.  
 Budget Deficit and Debt in EU  
 (Over the period of last 4 years: 2006-2009 )

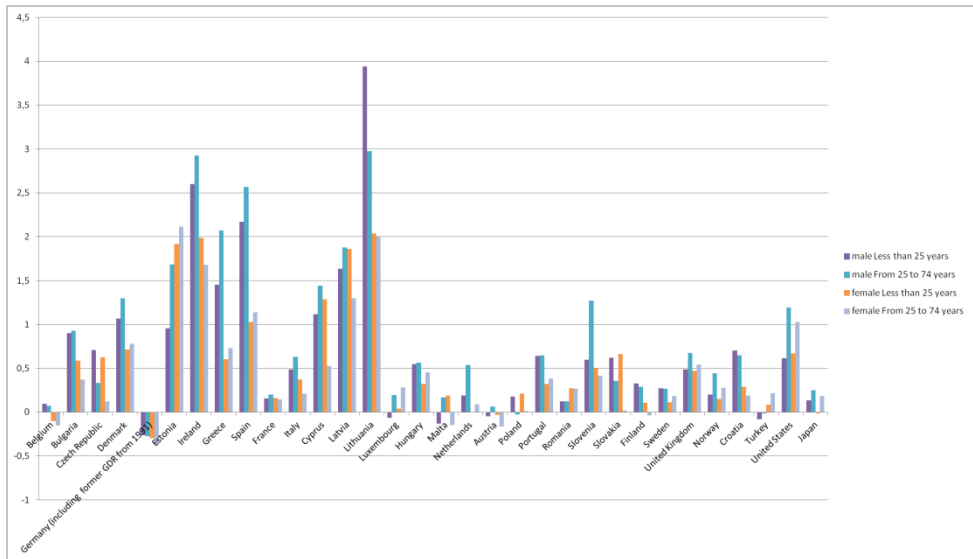


Source: Tilastokeskus 2011, SCB 2011, ONS 2011, PS 2011, INE 2011, HSA 2011, Eurostat 2011

The immediate impact of the economic crisis is the significant decline in employment and the rapid increase in unemployment. Figure 2 shows the percentage change in unemployment for selected countries

in Europe, USA and Japan, by gender and age between 2007 and 2011.

Figure 2.  
Unemployment Rates , 2007-2011



Source: Eurostat 2011

According to Figure 2, one can observe significant differences in unemployment changes, both by gender and by age group. In particular, apart from Germany which has a reduction in unemployment rates by sex and age group, all the other countries have significant differences. For the elder age group (25 to 74 years), unemployment rate for women rose less than that for men, except Estonia, Luxembourg, Poland, Romania. It is noteworthy that in Belgium, Finland, Malta and Austria, the unemployment rate for women decreased, while that of men increased. As for the younger



age group (under 25 years) in most countries unemployment rates for men increased relative to those of women. Of course there are variations here in certain countries.

In an effort to rescue the unified European market and the Euro, the EE implements, in cooperation with the International Monetary Fund, a rescue plan for indebted economies which are meanwhile unable to refinance debt from the markets. Through this process, Europe is divided into two camps: those countries which resort to the newly founded support mechanism for assistance and countries that lend the necessary funds for the support mechanism. Theoretically, this operation is accomplished by establishing a European Financial Stability Fund to which all countries of the Monetary Union participate (EFSF 2011).

The deterioration of the main economic figures fundamentals of the countries that resort to the mechanism, leads to painful measures. These measures include significant cuts in an effort to reduce costs and curb foreign debt. These actions in turn lead to even greater decline, which is reflected in most available statistics. On the other hand, in the case of countries that are the lenders, substantial funds are channeled to a large and risky endeavor, bearing cost to their political and economic stability and thereby influencing their development. Therefore, this paper focuses on the differences identified in financial data of European regions at NUTS 2 level, as a result of the debt crisis beginning in 2009. The regions selected for which statistical data are available are presented in Table 1.

Table 1. Regions and Levels of Analysis

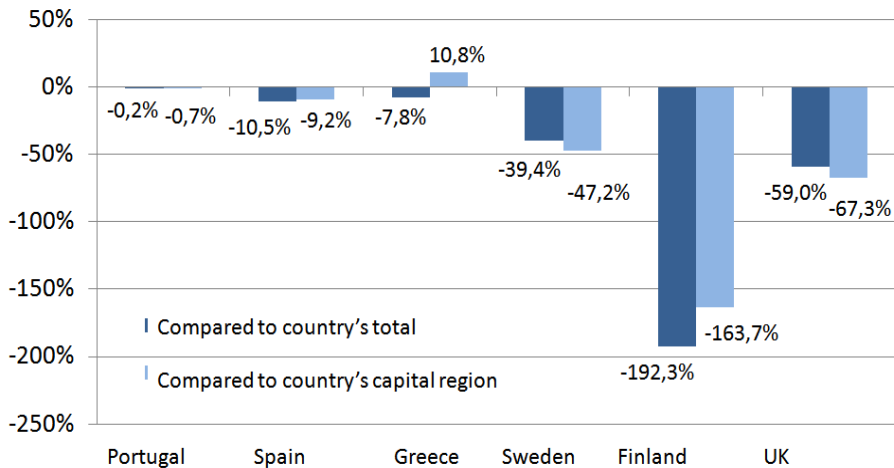
<b>Country</b>	<b>Capital</b>	<b>Island Regions</b>
Portugal	Lisbon	Azores, Madeira
Spain	Madrid	Valearides , Canarias
Greece	Athens	North Aegean, South Aegean, Ionian Islands
Finland	Helsinki	Aland
Sweden	Stockholm	Gotland
Gr. Britain	London	Orkney, Shetland

Analysis is performed at three levels and it includes data such as employment (unemployment) and GDP. At a first level, the development of the indicators for every region is examined. At a second level, this development is compared to the country's overall development. Finally, at a third level, the development of those indicators for island and less favored regions and central regions is examined in a transnational context.

Examining the first index, employment, we use two sub-indices, unemployment and the number of economically active people, i.e. the workforce. Comparing the data between 2008 and 2009, we notice that in every case the change in unemployment rates is higher for island regions. (Figure 4). The only exceptions are the regions of Aegean and Ionian Sea in Greece where unemployment grew less than in the capital region of Attica – although it grew more than the

national rate. In all regions the trend is negative and unemployment has grown steeply. The unemployment rates in 2009 are in some cases lower and in other cases higher in the island regions. (Figure 5) We don't observe any particular trend, however at a country level the comparison is in all cases simultaneously either positive or negative in relation to the corresponding value in the capital or nationwide. This could be attributed to the fact that most indices in central regions are usually close to the national ones, since a great percentage of activities is concentrated in the capital regions.

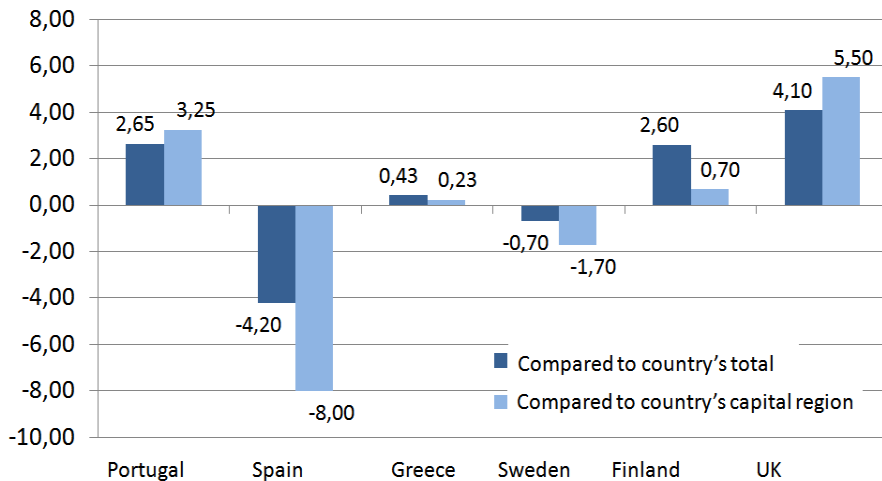
Figure 4.  
Relative Change in Unemployment  
Island Regions between 2008 and 2009



Source: PS 2011, INE 2011, HSA 2011, SCB 2011, Tilastokeskus 2011, ONS 2011, Eurostat 2011

In Figure 4 the relative change refers to the difference between the change in unemployment from 2008 to 2009. Negative numbers show negative results, when comparing islands to other regions. For example, the value -10,5% means that unemployment grew by 10,5% more in the island regions of the country.

Figure 5.  
Difference in Unemployment Rate  
Island Regions, 2009

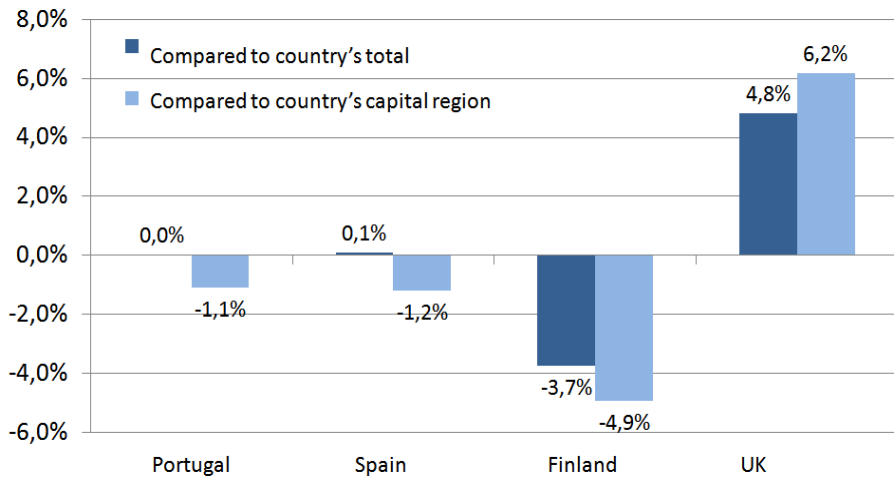


Source: PS 2011, INE 2011, HSA 2011, SCB 2011, Tilastokeskus 2011, ONS 2011, Eurostat 2011

Figure 5 measures the absolute difference between the unemployment rate. For example, the value +2,65 means that unemployment is by

2,65 percents (%) less in island regions. Again, negative values mean negative performance for islands when compared to other regions.

Figure 6.  
Relative Change in Employment  
Island Regions, 2009

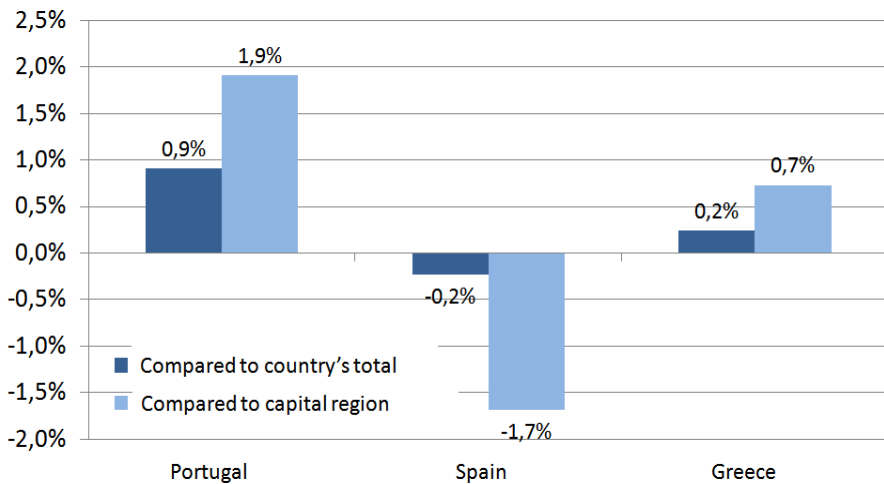


Source: PS 2011, INE 2011, Tilastokeskus 2011, ONS 2011, Eurostat 2011

When examining the employment, we can notice that it seems to decline more in island regions, however there is inadequate data for any conclusions. (Figure 6). In Figure 6, the relative change refers to the difference of the percentage of change of employment between 2008 and 2009. Negative value means worse results for island regions. For example, the value -1,1% means that employment decreased by 1,1% more in the island regions.

When comparing the second index, GDP, we don't observe any clear trend, since the available data is insufficient. However, in the 3 "weak" economies of Southern Europe, the difference in the change between islands and central regions is generally low and in all cases under 2%. When comparing island regions to the whole country, the difference is even less, below 1%. This could be an indication that in the beginning of the crisis island economies have not suffered significantly more than continental regions. (Figure 7).

Figure 7.  
Relative Change in GDP  
Island Regions between 2008 and 2009



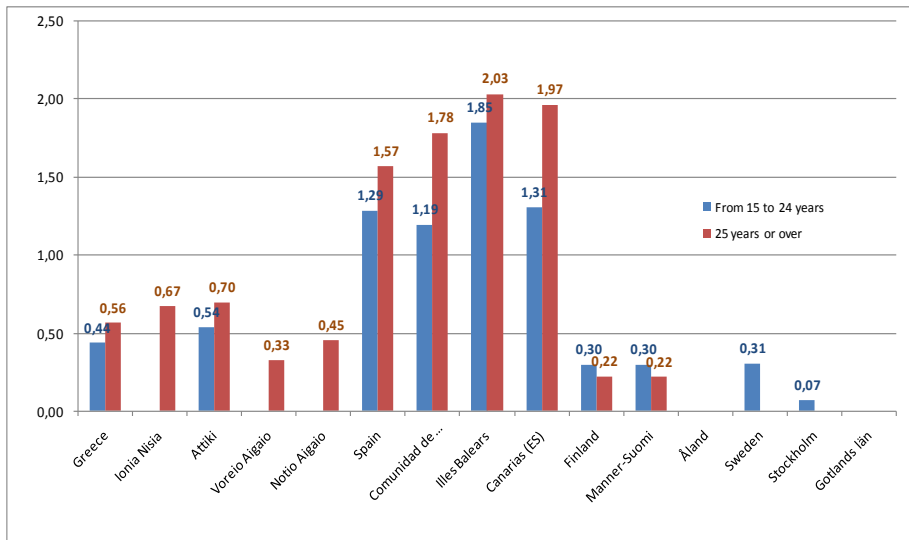
Source: PS 2011, INE 2011, ELSTAT 2011, Eurostat 2011

In Figure 7, the relative change refers to the difference of the change in GDP between 2008 and 2009. For example the value +0,9% means that GDP declined by 0,9% less in island regions.

Finally, Figures 8, 9 and 10 show the change of unemployment rates by gender and age.

Figure 8.

Relative Change of Unemployment Rates , 2007-2010, by age



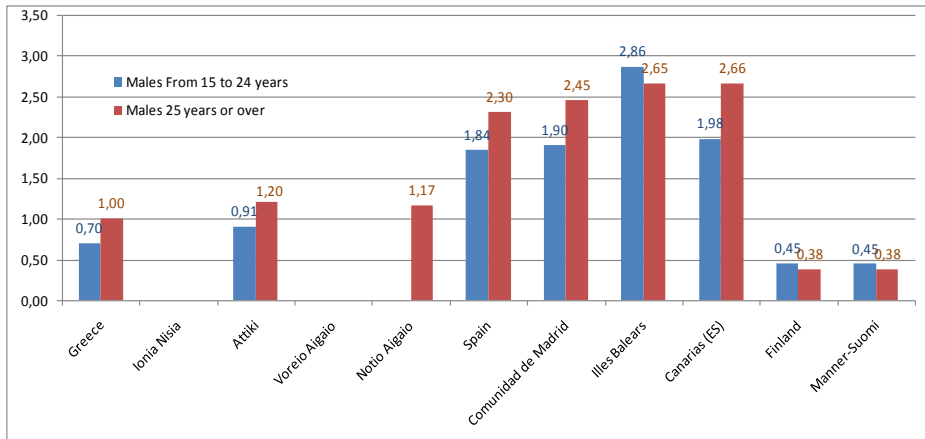
Source: Eurostat 2012

As we can see in Figure 8, unemployment in both genders has increased in every region under study and this applies for every group age. In addition, for elder age groups (25 years and over) the unemployment rates have increased more in most regions, with the

exception of Finland and its regions, where we see the opposite situation.

Figure 9.

Relative Change of Male Unemployment Rates , 2007-2010, by age



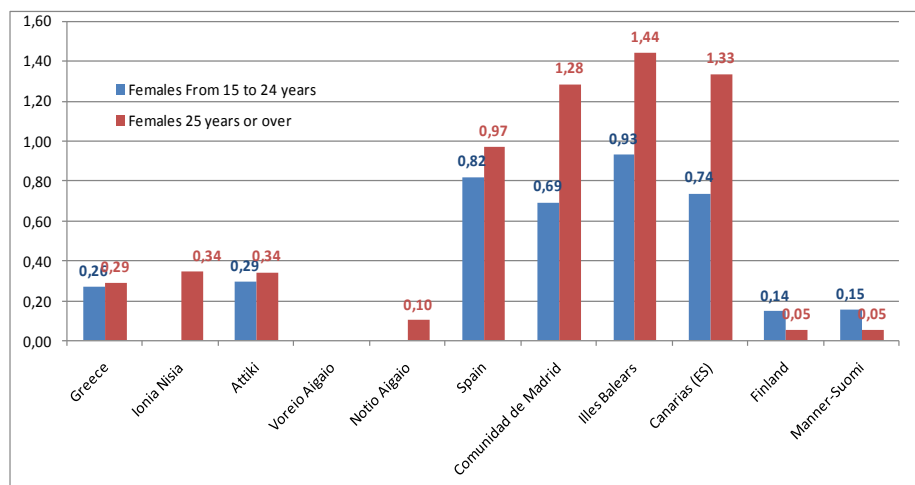
Source: Eurostat 2012

Figure 9, shows the change of unemployment rates for males. As we can see, unemployment has increased in every region under study and this applies for every group age. In addition, for elder age groups (25 years and over) the unemployment rates have increased more in most regions, with the exception of Finland and its regions and Volearides, where we see the opposite situation.



Figure 10.

Relative Change of Female Unemployment Rates , 2007-2010, by age



Source: Eurostat 2012

Finally, Figure 10, shows the change of unemployment rates for females. As we can see, unemployment has increased in every region under study and this applies for every group age. In addition, for elder age groups (25 years and over) the unemployment rates have increased more in most regions, again with the exception of Finland and its regions, where we see the opposite situation.

### First conclusions

The data reviewed provide evidence that recession affects more intensively island regions of developed countries of northern Europe than the corresponding regions of the relatively poor and

economically weaker countries of the South. However, this is not an indication of rapid fracturing of social cohesion in these countries, as far as absolute figures show that the fundamentals of the economy remain at comparable levels. In most cases it seems that the mainland regions are more resistant to the effects of the recession than the rest, something that seems to apply to all groups of countries. For this reason, even if the deterioration of economic indicators in island regions is more profound than in the mainland, the slowdown is typically much larger than the central metropolitan areas. This trend widens the gap between center and periphery and the islands are even marginally the less privileged in all comparisons between regions. However, the relative resilience of the islands in the Mediterranean countries, should be considered in the light of the essential activities that develop, focusing on tourism which is likely to be an important balancing factor that helps the local economies to avoid a rapid and dramatic deterioration leading to a possible collapse. Another interesting point is that, unemployment rates have increased for both gender and age groups, but particularly for male over 25 years those rates have increased even more comparing to those of younger males and females of both age groups.

Finally, the limited availability of data and the fact that the remission period has not expired yet should also be considered. In this context, this study represents a preliminary approach in order to record the first useful conclusions from the effects of the recession at the regional level. The research will continue to review all key financial indicators while statistics will gradually become available. Furthermore, the

analysis will be extended to examine data from across the enlarged Europe, in order to draw more general and more specific comments and suggestions that can be used in decision-making.

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