Fertility and values in Italy and Spain: a look at regional differences within the European context

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Abstract

Using data from the Eurostat Database and European Value Surveys we assess if recent fertility trends in Europe are associated with a change in values. A special emphasis is given to Spain and Italy that, together with the other Southern European countries, are often seen as a homogeneous group sharing the same 'traditional' values and demographic behaviours –as opposed to Scandinavian countries which are seen as progressive. We show that Italy and Spain are not that similar in terms of values. We also show that similarities at the country level with respect to TFR hide considerable variation at the regional level. We argue that an analysis at the regional level, as carried out here, is crucial to better understand changes in fertility levels. Our analyses provide evidence that recent fertility trends are associated with value dynamics, namely that the highest increases in TFR happened in regions where both individualism with respect to relationships and individual autonomy grew at the same time that individualism with respect to children diminished. We also provide empirical evidence in support of McDonald's theory that both gender equity at the institutional level and within the family are necessary for fertility to rise.

Word count: 8,272

X.1 Introduction

The second half of the XX century has witnessed a weakening of institutions like marriage and the family, reflected in a sharp decrease in marriage and fertility as well as an increase in cohabitation and divorce all over Western Europe. These phenomena are seen as part of a broader demographic change that came to be known as the Second Demographic Transition (SDT). A core idea in SDT theory is that these demographic changes are associated with a shift in values. This shift in values occurred in the different European countries at different points in time and might help explain why we observe high heterogeneity in demographic behaviours across countries.

The "North-South" divide that for long characterized Western Europe (Reher, 1998) still persists today in some demographic behaviours. This divide is attributable to ingrained institutional, economic and cultural differences. The institutional differences are evident in Esping-Andersen's welfare regime typology (Esping-Andersen, 1999). The differences in the welfare regimes go hand-in-hand with differences in the strength of the family institution. The Southern countries are intrinsically familistic whereas the north and centre of Europe are characterized by weak family ties (Reher, 1998; Dalla Zuanna 2001). This partly reflects on how different societies are organized with regards to who provides family care. Generally speaking the Southern and Eastern countries show the lowest levels of de-familialization (highest coverage of public provision), and Denmark the highest (Saraceno 2010).

Therefore it is not entirely surprising that some features of the SDT originated in the north and have spread only slowly across the rest of Europe. In terms of living arrangements for example, Liefbroer and Fokkema (2008) document that the percentage of women (aged 20 to 34) in non-marital unions remained very low in both Italy and Spain until the turn of the century, and only from then on did it start to rise substantially (particularly in Spain). A similar picture emerges when looking at out-of-wedlock fertility. From the end of the 1990s to 2009 both Portugal and Spain show a marked increase in extra-marital fertility (the proportion of births out-of-wedlock reached 36.2% and 31.7% in Portugal and Spain, respectively –OECD 2011) -even if in what concerns cohabitation and out-of-wedlock fertility Portugal is quite different from the other southern European countries, showing figures comparable to those of other Western European countries as far back as in the 1970s (Lesthaghe and Surkyn 2006). In Italy the growth in out-of-wedlock fertility has been more gradual and in 2007 stands at 17.7% (OECD 2011). In Greece, extra-marital fertility remains at a

much lower level (5.9% in 2009). In what concerns marriage and fertility postponement, not only did southern Europe catch up fast with the rest of Western Europe, but the intensity with which this happened was remarkable (Lesthaghe and Surkyn 2006).

In this chapter we focus on one demographic behaviour, fertility, and explore some possible explanations for its recent evolution. In particular, we investigate whether cultural changes help in explaining the recent reversal in TFR observed throughout Europe. Before that, we describe the country-level values changes that took place in the first decade of the XXI century (Section X.4). Given the heterogeneity of fertility levels within the European countries, national level trends can be misleading (Vaupel and Yashin 2001). Therefore, in this chapter we also look at what happens at the regional level (Section X.5). Since most of the empirical studies on fertility are conducted at the country level, this is an important contribution to the literature. A more detailed description is then provided for Italy and Spain in Section X.6. In Section X.7 we explore the extent to which these values changes are associated with the observed fertility trends at the beginning of the new millennium by means of panel regressions with country or regional fixed effects. Finally, Section X.8 concludes.

X.2 Background and hypotheses

SDT theory has been used to explain the sharp fertility decline that occurred in the last decades of the XX century (van de Kaa 1987, Lesthaghe and Surkyn 2006), one of the main arguments being that fertility postponement led to persistent sub-replacement fertility levels. Both Spain and Italy saw their fertility drop well beyond the replacement level in the 1990s (Figure X.1), making them the leaders of the "lowest-low" fertility phenomenon (Kohler et al. 2002). Although the link between the SDT and the timing of fertility is fairly undisputed -postponement has indeed been proclaimed as the hallmark of the SDT- there is much less consensus over the link between SDT and very low fertility levels (Aassve et al. 2011). On the one hand, recuperation effects may cancel out postponement effects (Sobotka 2004); on the other hand, a trend reversal has been observed in the last decade(s) in many European countries -the German-speaking countries being the exception (Goldstein et al. 2009). In 2004 both Italy and Spain surpassed the 1.3 threshold (for Greece that happened in 2003) and their fertility levels have been steadily going up. The recent evolution of TFR in Europe seems to be associated with the high development levels achieved

throughout the European continent. Myrskylä et al. (2009) show that, for the great majority of countries, there is a reversal in the relationship between Human Development Index (HDI) and TFR as countries achieve very high HDI levels. Luci and Thévenon (2010) find a U-shaped relationship between GDP per capita (female employment) and fertility. Coleman suggests that high development goes in tandem with further ideological change: "People in those [more developed] societies, unlike those in the more 'familist' south, have developed values that make it easier to make compromises in the balance of child care and work" (Coleman 2007: 10); and Myrskylä et al. (2011) show that gender equality is a necessary condition for the reversal in the relationship between fertility and high-development. This is also consistent with the idea that some countries are heading towards a new equilibrium thanks to the gradual breaking free from constraints to fertility imposed by female labour force participation. Esping-Andersen et al. (2010) expect fertility to be lowest in the transition from a traditional to an egalitarian family model but once completed and a new equilibrium is achieved, higher fertility levels are expected. McDonald's (2000) theory of gender equity posits that both equity at the institutional level (i.e. formal education and the labour market) and within the family are necessary for fertility to rise. McDonald argues that, in a context where only the former prevails, fertility is likely to remain low. Based on the evidence and theories above we hypothesize that

Hypothesis 1: The egalitarian family model, characterized by high gender equity *both* at the institutional level and within the household, is associated with higher fertility *levels*.

Hypothesis 2: In an advanced stage of the transition to this new equilibrium fertility tends to *increase*.

The changes in demographic behaviours at the origin of the STD developed into new family forms that with time became more established and widespread. Also the context in which having children is considered acceptable changed. The growth of out-of-wedlock fertility clearly indicates that marriage is no longer seen as the only suitable type of union for childbearing. Therefore, some of the values that pushed the SDT in its initial phase -including the decline in fertility- might now be associated with a fertility rebound. SDT theory posits that the change in demographic behaviours that has been occurring since the mid 1960s is associated with a transition to an

"individualistic family model" (Van de Kaa 2004). As such, individual autonomy and self-actualization are two of the values typically associated with the SDT. Individual autonomy refers to the capacity to follow one's values and not to live according to external forces; it refers to the ability of an individual to govern himself, independently of his role in social structures and political institutions. Consequently, it is reasonable to assume that further advances in individual autonomy might be associated with fertility increases. Unmarried individuals, who some decades ago would perhaps not consider having children as that would not be in accordance with the social norms, may now feel more free to do so; by the same token, the increasing use of new reproduction technologies and the relaxation of social age deadlines might also contribute to a fertility increase (Billari et al. 2011). In fact, Myrskylä et al. (2011) found that the reversal of the fertility-development link is mainly due to the increasing fertility at older reproductive ages.

Given that we are considering the recent trends in fertility, and that the high development levels now observed are likely to be accompanied by the strengthening of individual autonomy, we hypothesize that

Hypothesis 3: Individual autonomy is positively associated with fertility.

Self-actualization is related to the quest for the full realization of one's potential after basic needs are satisfied. Whether having children or a long-term relationship are nowadays considered basic or high-order needs is an open question. These might be life priorities or goals among many that individuals might pursue for their own self-fulfilment. The increasing individualism that has been observed in recent decades suggests that these goals are being perceived less as basic needs and more as high-order needs. However, the 'effect' of individualism on fertility depends on the specific domain considered. As alluded to before, individualism in terms of relationships may actually be associated with higher fertility. We will test this hypothesis:

Hypothesis 4: Individualism in terms of relationships is positively associated with fertility.

On the other hand, given that childrearing might clash with other life objectives, a more individualistic stand towards children might lead individuals to forgo childbearing:

Hypothesis 5: Individualism with respect to children is negatively associated with fertility.

However, the 'effect' of individualism with respect to children on fertility is not clear-cut. Individualism with respect to children may also be a strategy to make parenthood more compatible with other life goals. In other words, it does not necessarily reflect a negative attitude towards having children. Conversely, individuals who have a less individualistic approach to parenthood might foresee high childbearing costs and shy away from parenthood. Therefore, we consider an alternative hypothesis:

Hypothesis 5a: Individualism with respect to children is positively associated with fertility.

X.3 Data

X.3.1 Datasets

We use data from two sources: the European Value Surveys (EVS) and the Eurostat Database. From the Eurostat Database[1], which covers the principal aspects of the economic and social life of the European Union, we use data on Total Fertility Rate at the NUTS-1 and country level[2]. The European Values Surveys[3] are an important source of information on values orientations of Europeans as well as their change over time. The EVS are repeated cross-section surveys carried out in many European countries since 1981.

At the moment there are 4 waves available: 1981, 1990, 1999 and 2008. Attitudes and values measurements cover a broad variety of domains: marriage and family, gender equality, religion, civil morality and ethics, political preferences, trust in institutions, tolerance of minorities, individual autonomy, to mention but a few. The EVS provides information about the region of residence of the respondents. However, as the regional classification used by EVS is not consistent across waves and countries, EVS regions had to be aggregated and recoded to match the NUTS-1 classification.[4] In this way it is then possible to match EVS data with data on TFR from Eurostat.

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[1] Data are freely available from the Eurostat website: http://epp.eurostat.ec.europa.eu.

[2] The Nomenclature of Territorial Units for Statistics (NUTS) was established by Eurostat to provide a single uniform breakdown of territorial units for the production of regional statistics for the European Union.

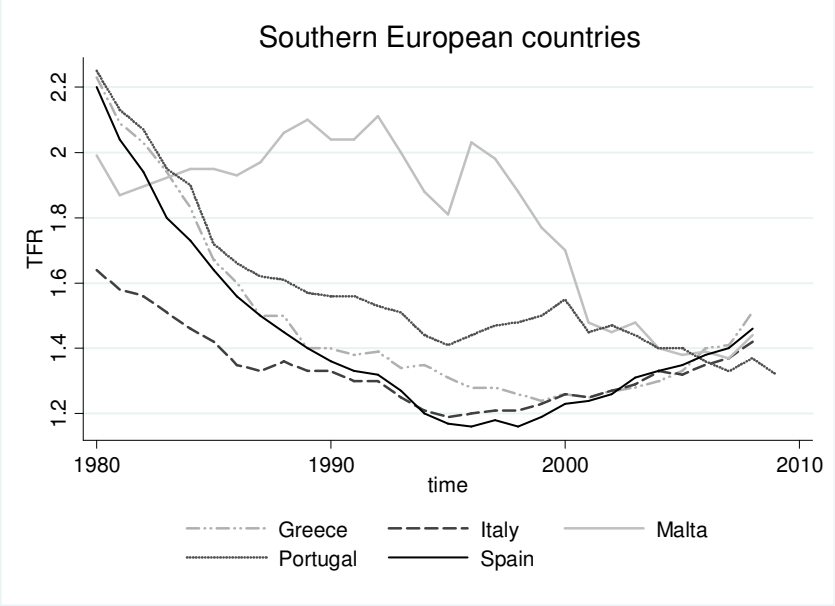
[3] Data are freely available from the EVS website: http://www.europeanvaluesstudy.eu.

[4] We thank Léa Pessin for providing us with her code.

X.3.2 Sample

As mentioned before, we are interested in exploring both fertility and values changes at the regional level. Even though it would be interesting, at least from a descriptive point of view, to look at the long-term change in values (i.e., from 1990 to 2008) some of the variables we are interested in are only available for 1999 and 2008. Having said that, we consider a decade to be a long-enough period to observe value changes, and this is precisely the decade we are interested in as it was when the reversal in TFR was observed for many European countries, namely the Southern European ones (Figure X.1).

Figure X.1 – Trends in TFR in Southern Europe (1980-2008)



Our sample is composed of 84 NUTS-1 regions clustered in 24 European countries: 5 social democratic and liberal countries (Denmark, Finland, Sweden, Iceland and the UK), 4 Eastern European countries (Estonia, Lithuania, Latvia and Bulgaria), 5 Central European countries (Hungary, the Czech Republic, Poland, Slovakia and Slovenia), 5 Western European counties (Belgium, France, Germany, Luxembourg and the Netherlands) and 5 Southern European countries (Portugal, Spain, Italy, Greece and Malta). Some countries were excluded for not having some of the main variables of interest (Austria, Ireland and Romania) and others for not having the 1999 EVS wave (Cyprus, Switzerland and Norway).

The overall sample size is 31,716 in 1999 and 35,728 in 2008. The average country sample size is about 1,400 individuals in each of the two EVS waves. On the other hand, within each region, on average about 400 individuals are interviewed. Choosing the NUTS-1 as the level of the analyses allows for bigger regional sample sizes but this comes at a cost. For some countries (e.g., Denmark and Portugal) there is a single NUTS-1 region. Consequently, within-country heterogeneity cannot be studied for these countries. Fortunately, that is not the case for Italy and Spain which have 5 and 7 NUTS-1 regions, respectively (and average sample sizes are about 300 and 350, respectively).

X.3.3 Variables

Lesthaeghe and Neidert (2006) use a narrower definition of individual autonomy than the one provided in our background section. Their definition refers to the free choice in all domains concerning life and death choices (abortion, euthanasia, suicide). Inspired in this definition we look at the answers about how justifiable those choices are as well as prostitution. The scale goes from 1 (never justifiable) to 10 (always justifiable). Given that the 4 items are highly correlated (the pair-wise correlations are all above 0.6), factor analysis was used. A one-factor solution was obtained, where each of the four items had very high and similar factor loadings i.e., their contribution to the factor is essentially the same[5]. The reliability of the resulting summary index as measured by the Cronbach's Alpha, is 0.66. The factor was named 'Individual autonomy', and this is the variable used in the analysis.

Individualism in terms of relationships is measured by the level of agreement with the statement "a marriage or a long-term stable relationship is necessary to be happy" (1: Agree strongly to 5: Disagree strongly). As regards to Individualism with respect to children, we look at a question related to parental norms (Rossi and Rossi 1990) where respondents are asked to choose between the answers: "Parents' duty is to do their best for their children even at the expense of their own well-being" or "Parents have a life of their own and should not be asked to sacrifice their own well-being for the sake of their children". Based on this question, we built a variable that assumes values 0 and 1,

[5] The very high eigenvalue of the first factor (2.98) and the low eigenvalues of the other factors (the second eigenvalue is equal to 0.38) clearly justifies a one factor solution. The factor loadings are 0.84, 0.85, 0.88, 0.87, while uniqueness is always smaller than 0.25.

respectively[6]. The answer to this question reflects the way individuals face parenthood. It is reasonable to assume that individuals who choose the first option consider having children as an important source of self-fulfilment and, consequently attribute a high value to the family. Conversely, individuals who choose the second option are more individualistic.

The respondent's attitude towards gender equity in the labour market is assessed by the question "Do you agree or disagree with the statement: 'When jobs are scarce men should have more right to a job than women'?". The variable we use is binary and assumes value one if the respondent disagrees[7]. As for gender equity within the household, we use a question that reflects the individual's attitude towards gender roles: "Do you think it is very important, rather important or not very important for a successful marriage to share household chores?". We recoded this variable going from 'not very important' (1) to 'very important' (3) so that, consistently with the other indicators, higher values indicate more "modern" attitudes.

All the analyses presented here are at macro level, either at regional or country level. Therefore, individual responses are aggregated into regional and country means. Descriptive statistics on the values and TFR (both in 1999 and 2008) and their changes calculated on the pooled group of countries are presented in Table X.1. A more detailed description follows in the next section.

X.4 A look at values and their change across Europe at the beginning of the new Millennium

X.4.1 Individual Autonomy

When looking at the country-level means of the Individual autonomy factor scores, we find that the Nordic and some Western European countries (Netherlands, France and Luxembourg) lead the ranking in both 1999 and 2008 whereas the Eastern and Southern European countries, and some Central European countries, occupy the bottom places (Figure X.2). The highest mean is observed in Sweden (1.82 and 2.05 in 1999 and 2008, respectively) and the lowest in Malta (-2.70 and -2.28 in 1999 and 2008, respectively).

[6] The EVS questionnaire also allowed the answer "neither". These answers have been recoded as missing values.

[7] Again, the "neither" answers were recoded as missing values.

Table X.1 – Descriptive statistics on values and TFR and their changes (pooled samples)

Year 1999									
Variable	Mean	Std. Dev.	Min	Max	CV	Q1	Q2	Q3	ICC
Individual autonomy	-0.06	0.95	-2.70	1.99	---	-0.69	-0.03	0.45	0.83
Individualism (relationships)	2.47	0.53	1.54	3.76	0.22	2.08	2.40	2.87	0.81
Individualism (children)	0.21	0.13	0.03	0.90	0.62	0.13	0.18	0.26	0.37
Attitude towards GE (LM)	0.77	0.12	0.28	1.00	0.16	0.71	0.78	0.86	0.26
Attitude towards GE (HH)	2.20	0.20	1.65	2.66	0.09	2.09	2.19	2.34	0.59
TFR	1.46	0.22	1.13	1.99	0.15	1.27	1.37	1.68	0.91
Year 2008									
Variable	Mean	Std. Dev.	Min	Max	CV	Q1	Q2	Q3	ICC
Individual autonomy	0.06	1.05	-2.28	2.21	---	-0.83	0.19	0.88	0.82
Individualism (relationships)	2.50	0.49	1.48	3.54	0.19	2.22	2.39	2.88	0.87
Individualism (children)	0.19	0.12	0.04	0.90	0.63	0.12	0.17	0.22	0.24
Attitude towards GE (LM)	0.83	0.09	0.56	1.00	0.10	0.78	0.83	0.89	0.55
Attitude towards GE (HH)	2.29	0.17	1.83	2.62	0.08	2.17	2.31	2.38	0.31
TFR	1.62	0.26	1.32	2.15	0.16	1.39	1.48	1.91	0.91
Changes 2008-1999									
Variable	Mean	Std. Dev.	Min	Max	CV	Q1	Q2	Q3	ICC
Individual autonomy	0.11	0.64	-1.66	1.90	---	-0.22	0.07	0.44	0.01
Individualism (relationships)	0.03	0.28	-0.80	1.06	9.43	-0.15	0.02	0.20	0.29
Individualism (children)	-0.02	0.10	-0.34	0.18	5.05	-0.06	-0.17	0.03	0.09
Attitude towards GE (LM)	0.06	0.11	-0.20	0.56	1.77	0.01	0.05	0.11	0.14
Attitude towards GE (HH)	0.08	0.16	-0.32	0.59	1.92	-0.01	0.01	0.16	0.16
TFR	0.16	0.14	-0.33	0.41	0.87	0.02	0.20	0.27	0.96

Note: CV = coefficient of variation; Q1-Q3 are the three quartiles; ICC = Intra-Class Correlation coefficient, which measures the share of country-level variance over the total variance (country plus regional variance).

It is interesting to note that Spain is the only Southern European country which has a positive mean (although close to zero) both in 1999 and 2008, and that Germany and the UK have scores similar to those of some Central European countries. However, the second highest *regional* mean of the individual autonomy score (in 1999) was observed in a German region (Hamburg: 1.99) and the highest was not observed in a Swedish region but in a Dutch one –we will explore regional variation more in-depth in the next section.

Figure X.2 – Country means of the individual autonomy factor scores in 2008 and 1999

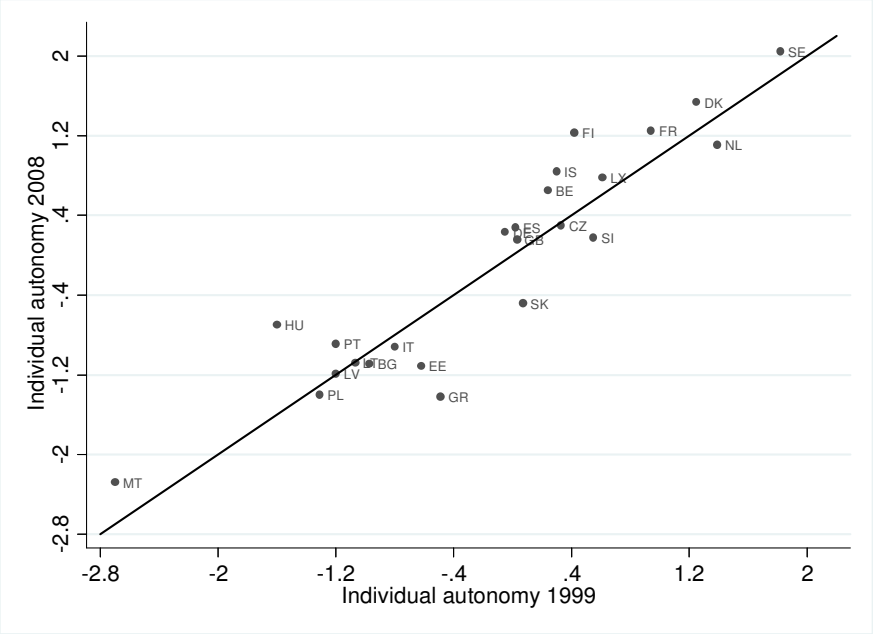


Figure X.2 also shows how the country level means changed between 1999 and 2008. Countries above the 45° line experienced an increase whereas those below the line experienced a decrease. This figure reveals diverging trends: most of the countries which had positive means in the individual autonomy score in 1999 saw the mean increase even further (the Netherlands and Slovenia are notable exceptions) while most of the countries with a negative mean in 1999 saw their mean decrease. Whereas Hungary, Malta and Portugal are exceptions to this latter group, Greece was the country where the mean suffered the biggest fall. In Spain individual autonomy keeps growing and therefore Spain is distancing itself from the other Southern European countries where this value is concerned. Overall, the ranking of countries with respect to the individual autonomy index has not changed much (Spearman correlation coefficient[8] = 0.88).

X.4.2 Individualism

The social democratic and liberal countries, but also and specially the Netherlands (where this variable's mean was highest: 3.63 and 3.76 in 1999 and 2008, respectively),

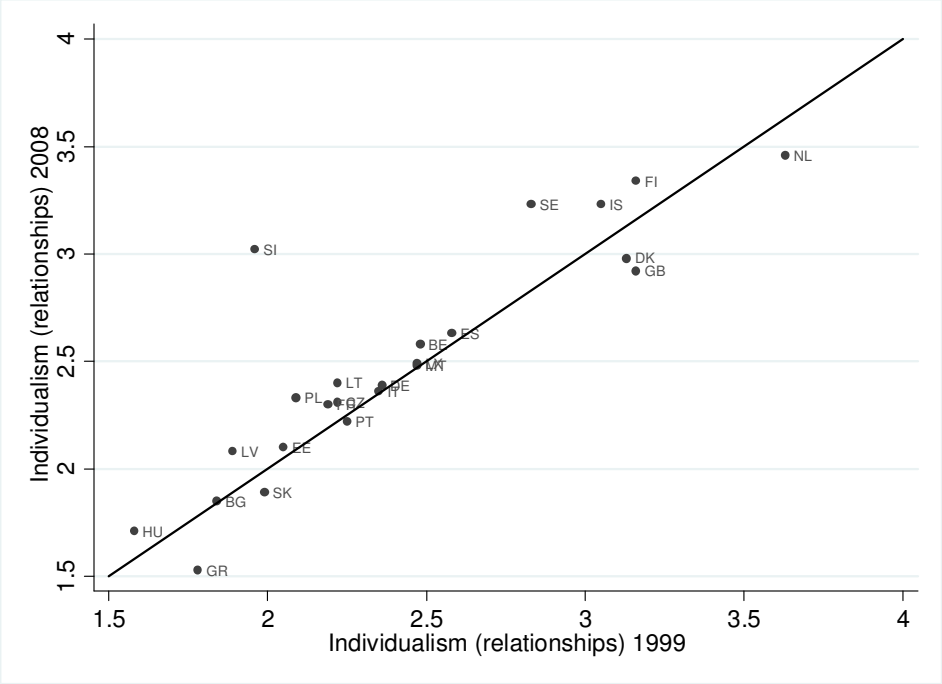
[8] The Spearman (rank) correlation coefficient is defined as the Pearson correlation coefficient between the ranked variables, i.e. raw scores converted to ranks. The more similar the rankings of the units as given by the two variables are, the closer to +1 the Spearman correlation coefficient is.

are the countries showing higher levels of disagreement with the idea that having a stable relationship is a requirement to be happy (see Figure X.3). What is perhaps more surprising is the position of Spain which is ranked immediately below the group of the social democratic countries (with mean values equal to 2.58 and 2.63 in 1999 and 2008, respectively) and therefore above all Western European countries (with the exception of the Netherlands).

In 1999 the Eastern and Central European countries were concentrated in the bottom part of the country ranking of individualism in terms of relationships whereas the Southern European countries (with the exception of Greece) were only slightly below the overall mean or even above it (Spain). Unlike in many of the former -where one decade later this particular aspect of individualism became more widespread (especially in Slovenia)- the picture remained essentially unaltered in the Southern European countries, except in Greece which in 2008 shows the lowest mean (1.53). Also with respect to this index, the overall ranking of countries did not change much from 1999 to 2008 (spearman correlation coefficient = 0.86).

If the previous results were somehow expected, the ones concerning individualism with respect to children were unforeseen. First of all, this index changed considerably during the first decade of 2000s (as indicated by the large distances between the dots and the 45° line in Figure X.4). As the extent of these changes also varied from country to country, many countries saw their position in the ranking change (spearman correlation coefficient = 0.63). Second, in most countries the percentage of people replying that “Parents have a life of their own and should not be asked to sacrifice their own well-being for the sake of their children” went down instead of going up -all the Nordic and Southern European countries became less individualistic with respect to children; and in some cases the changes were fairly large -in Sweden it was -0.12. On the other side of the 45° line we find Latvia which, having experienced a steady increase in this domain of individualism, took over Germany and Denmark -who occupied the second and third positions, respectively, in 1999. The first place in the ranking belongs to Lithuania in both years while the least individualistic country with respect to children is Malta. Also the other Southern European countries occupy the bottom part of the ranking -with the exception of Greece in 1999, which anyway experienced a strong decrease in the value of this index bringing it again 'closer' to the other Southern European countries.

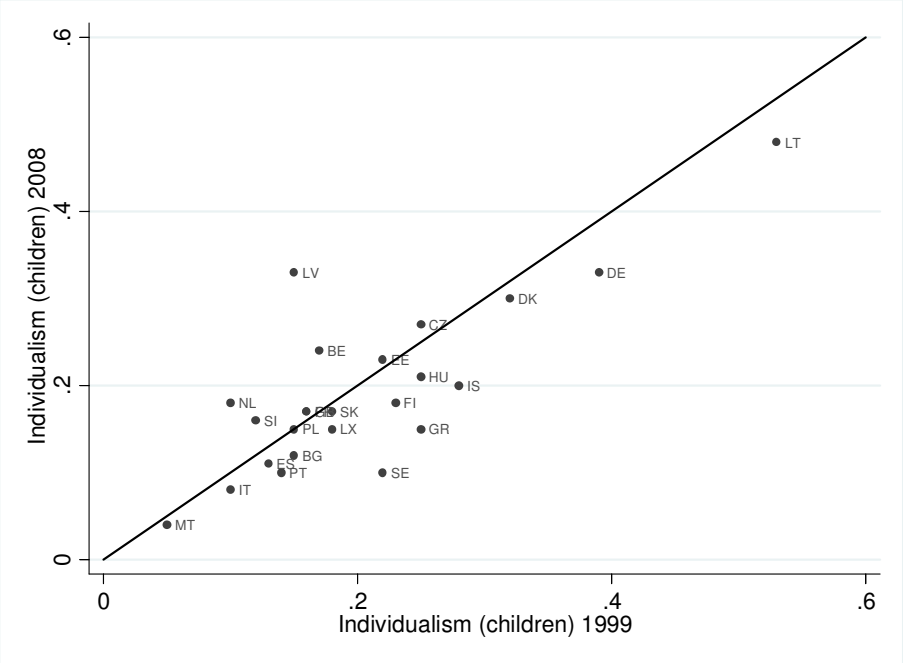
Figure X.3 – Country means of 'Individualism with respect to relationships' in 2008 and 1999



X.4.3 Attitude towards gender equity

In what concerns attitude towards gender equity in the labour market the picture shares some similarities with what was previously observed for the values of individual autonomy and individualism in terms of relationships. In the Nordic countries there is an almost unanimous favourable position towards gender equity in the labour market (for all four Nordic countries the mean is above 0.9 in both years). For many of the other countries though, the ranking changed from 1999 to 2008 (spearman correlation coefficient = 0.61). In fact, some countries (such as Luxembourg, Hungary, Poland and Bulgaria) became more favourable toward gender equity in the labour market while others (such as Greece, Slovakia and the Czech Republic) experienced a decrease in this index. Contrary to Greece, the other Southern European countries increased their mean values. Among them, Spain clearly leads the way.

Figure X.4 – Country means of 'Individualism with respect to children' in 2008 and 1999



Things look quite different when analyzing the attitude towards gender equity within the household. Even though most of the Nordic countries are placed high in the ranking, so are Malta, Poland and Hungary. Greece was also 'well' positioned in 1999 but it fell several places in 2008 (its mean decreased from 2.30 to 2.21). Portugal and Spain, which were already quite well positioned in 1999, became even more pro-gender equity within the family. Italy is at the bottom of the table together with Germany and Estonia, a situation that did not suffer changes in 2008 despite the fact that in these three countries the mean of the variable attitude towards gender equity within the household increased from 1999 to 2008 -as happened for almost all countries. However, the magnitude of these increases differs and some countries changed their relative position (spearman correlation coefficient = 0.77).

Figure X.5: Country means of 'attitude towards gender equity in the labour market' in 2008 and 1999

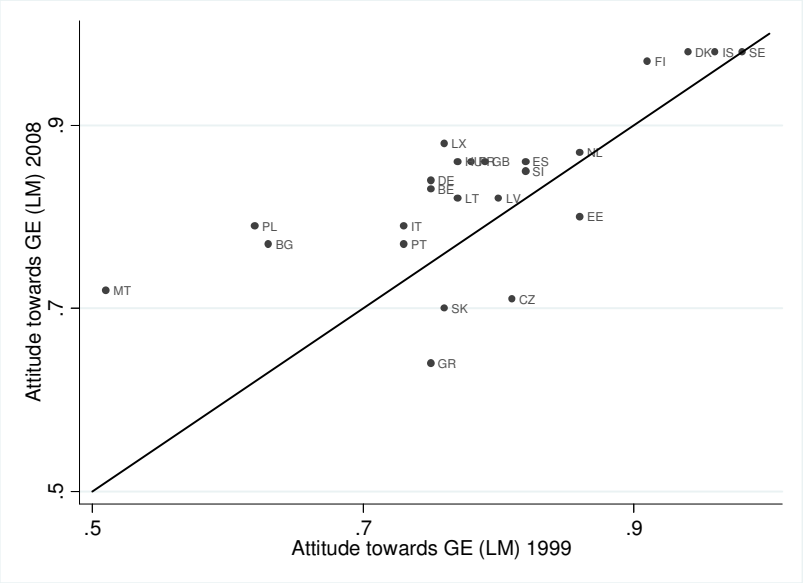
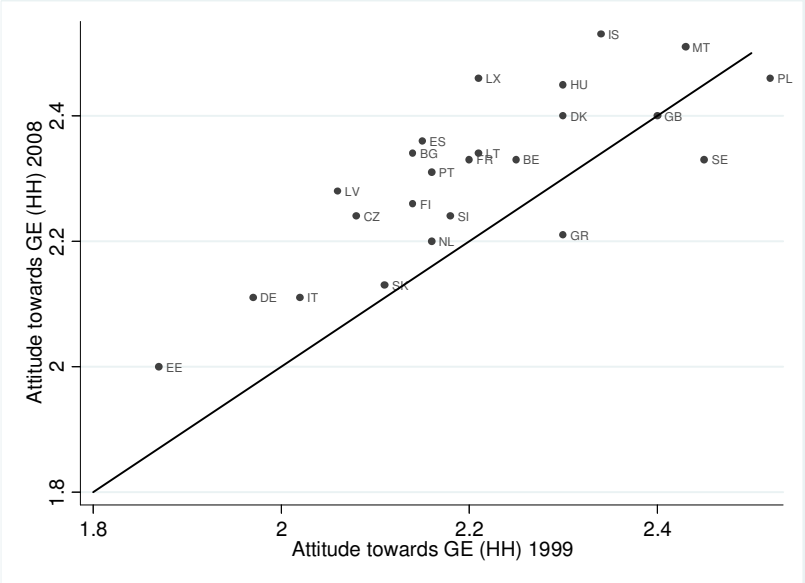


Figure X.6: Country means of 'attitude towards gender equity within the family' in 2008 and 1999

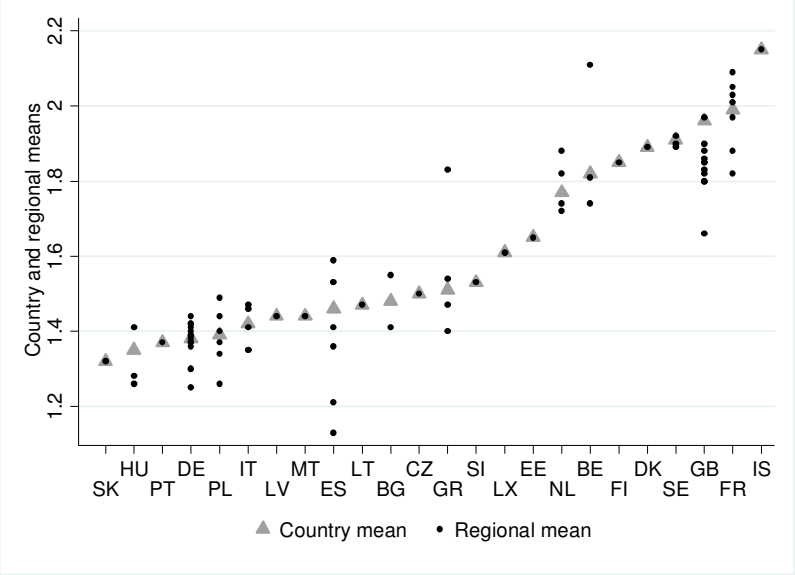


X.5 Zooming in: looking at regions

It is often acknowledged in the demographic literature that in some countries there is substantial within-country variability in TFR (e.g. Billari and Dalla Zuanna 2008). In

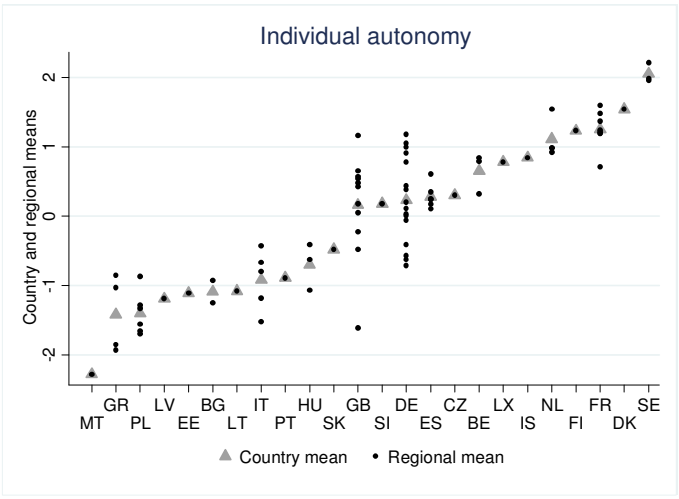
these circumstances, national level trends can be misleading (Vaupel and Yashin 2001). We can assess the relative size of country and regional level variability in TFR by looking at the values of the Intra-class Correlation Coefficients (ICC) in Table X.1. The ICC is the ratio between the country and total (country plus regional) variability; the higher the ICC is, the bigger the share of the variability explained by country differences. The high ICC values for the TFR in Table X.1 mean that, *when pooling all regions and countries*, most of the variability in TFR is due to country effects -a result that was not unexpected. However, Figure X.7 shows that for some countries there is considerable within-country variation –as can be seen by the dispersion of the regional means around the country means. That is particularly true for Spain which, together with Italy, will be the subject of a more in-depth analysis in the next section. As already noticed, in some cases (such as Malta and Portugal for example) there is only one regional mean (dot) reflecting the fact that for these countries the NUTS-1 level corresponds to the country level. The only other Southern European country for which we can assess regional heterogeneity in the TFR -Greece- also shows substantial regional-level variation. Conversely, Germany stands out for its low regional variability in TFRs.

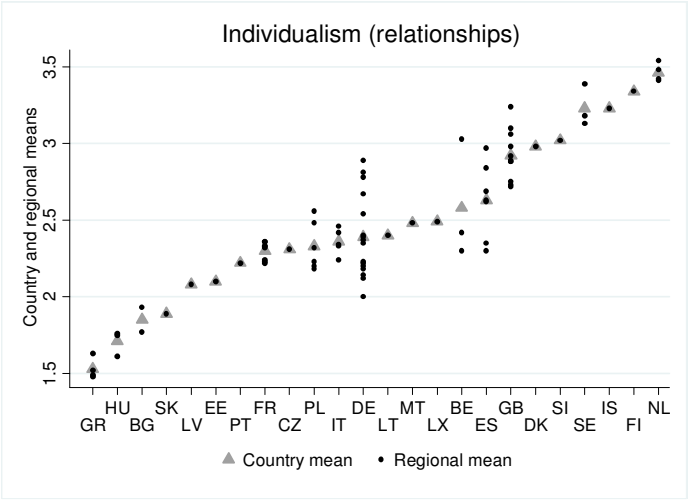
Figure X.7 – Country and regional TFR in 2008

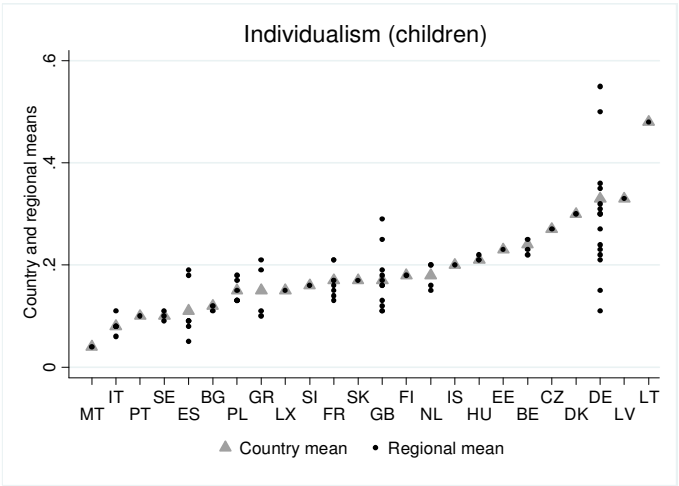


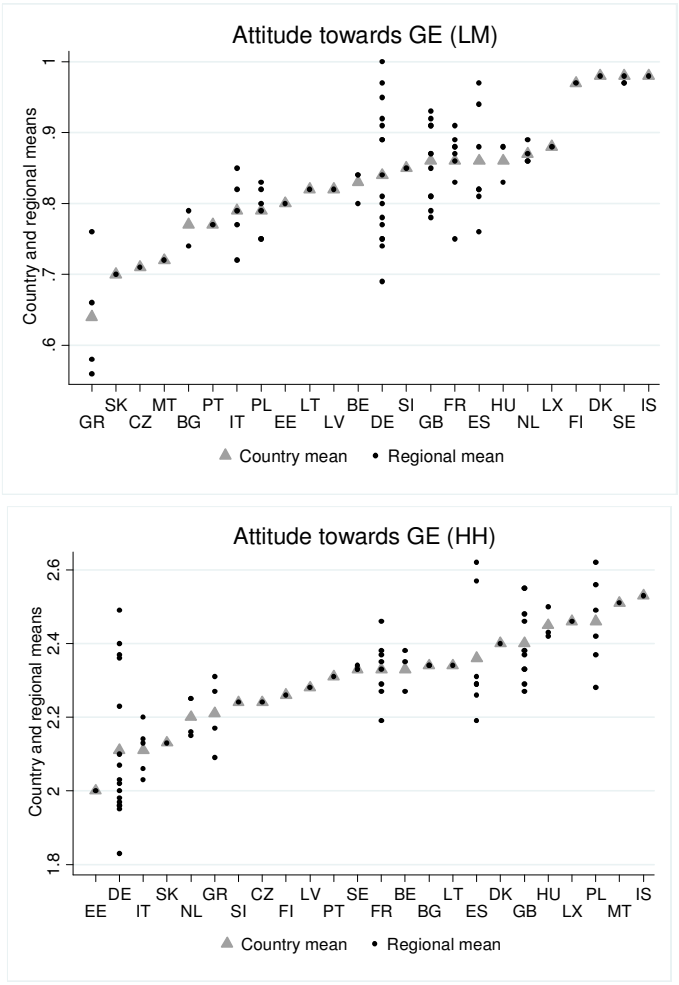
Note: countries are ranked by TFR in ascending order.

Figure X.8 – Country and regional means of values indexes in 2008









Note: Countries are ranked by country means in ascending order for each value index.

Figure X.8 shows that values also exhibit large regional variability in some countries. In terms of individual autonomy, one can see that even though the German country mean is substantially higher than the Italian one, some Italian regions score higher in Individual autonomy than some German regions. A similar situation is observed for Italy and Greece i.e., even though the Italian country mean is higher than the Greek one, some Italian regions score lower than some Greek regions. The graph on 'Individualism with respect to children' reveals that the German mean, one of the highest, hides substantive within-country variation. Once more, some German regions score as low as Italian, Spanish and Greek regions. France, on the other hand, is more homogeneous. Attitude towards gender equity, in its two dimensions, is the value where more regional heterogeneity is observed. Some German and Spanish regions, are as pro-gender equity in the labour market as the Nordic countries. Spain counts two

regions where attitude towards gender equity within the household is among the highest values observed. Portugal and some Greek regions (but none of the Italian regions) are as pro-gender equity within the household as some French or UK regions. The differences in variability across the variables we are interested in, as well as how it changed from 1999 to 2008, provide further interesting insights. Table X.1 reveals interesting information on several accounts. First, 'Individualism with respect to children' was the only value whose overall regional mean decreased in 2008 as compared to 1999 (the relative change being about -10%), suggesting that there was some sort of 'revival' of family values. Second, the variability of this variable is remarkable. In both years, its coefficient of variation (CV) is greater than 0.6. What is more, most of this variation is observed at the regional level rather than at the country level and differences between regions grew larger in 2008 when compared to differences between countries -the ICC is low and decreased in 2008. Attitude towards gender equity within the household is the only other variable for which a reduction of the ICC is observed from 1999 to 2008. The share of variation explained by country differences shrunk considerably –it almost halved (from 0.6 in 1999 to 0.31 in 2008). The very low ICC of the changes in these values indicates that most of the variation in values from 1999 to 2008 happened at a regional level rather than being a countrywide phenomenon. Low ICCs for the changes are also found for the other values but not for TFR for which most of the variability of the changes is at the country level. Third, average values of attitude towards gender equality in the labour market became more homogeneous in 2008 -the CV dropped from 0.16 to 0.10. Moreover, the weight of country effects for this variable increased. Fourth, in both years most part of the variation in Individual autonomy and in 'Individualism with respect to relationships' is due to differences at the country level rather than to within-country regional differences.

X.6 Zooming in further on Italy and Spain

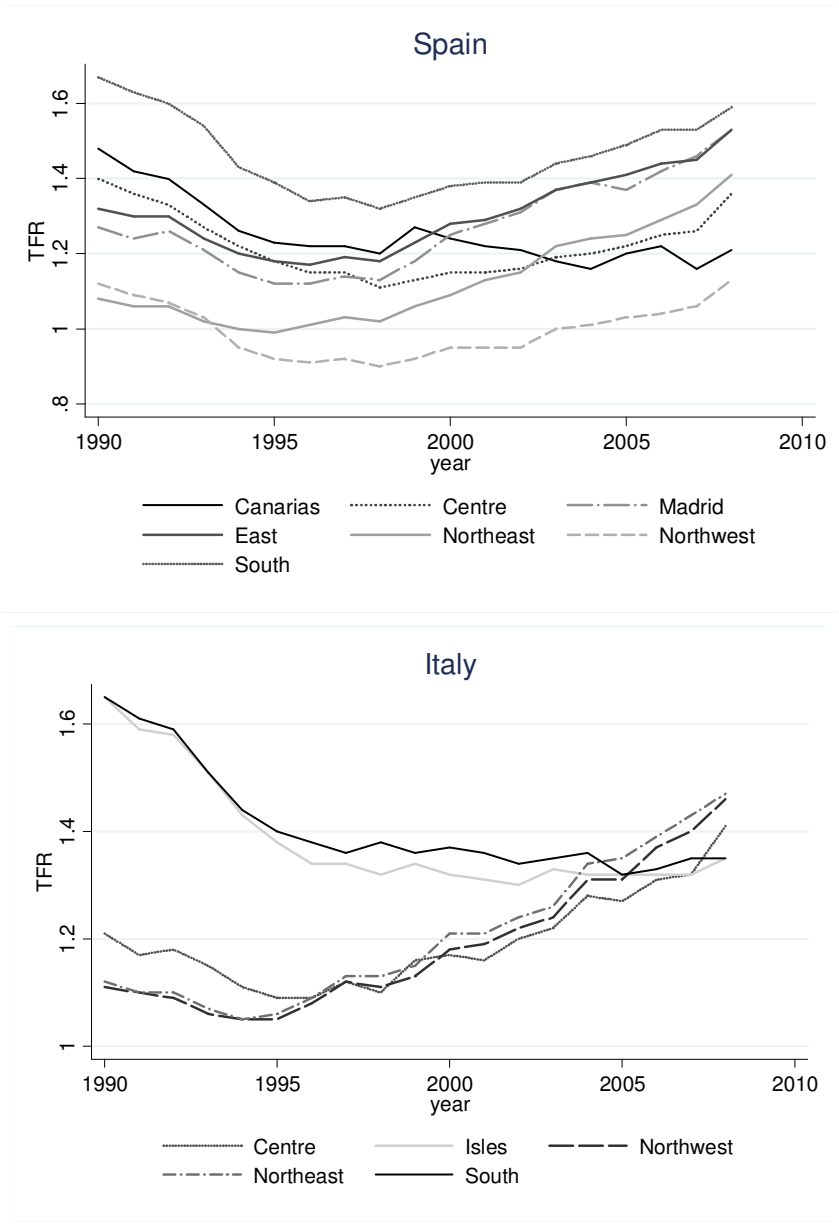
As we saw in Figure X.1, the Italian and Spanish TFRs show very similar values and trends from 2000 onwards: in both countries there was a steady increase in the country level TFRs, from 1.23 and 1.42 to 1.19 and 1.46, respectively. However, when one goes beyond the national level, important differences emerge. Let us first go one decade back, to 1990, and compare the regional TFRs in Italy and Spain then. As is clear from Figure X.9, the country means were hiding very distinct scenarios in the

two countries. Whereas in Spain the regional TFRs were spread out around the country mean -some regions further from it and others closer- in Italy there was a striking divide between the South and Islands, where the regional TFR was well above the lowest-low level, and the rest of the country. This gap was substantially reduced by the turn of the Millennium. In the 1990s there was both an increase in the TFRs of the lowest-low Italian regions (from 1995) and a decrease in the TFRs observed in the South and Islands (especially in the first half of the decade). Whereas in Italy the overall dispersion in TFRs at the regional level fell considerably, that did not happen in Spain where during the 1990s all regions experienced a decline in TFRs (with the exception of 'Noreste'). From 2000 onwards, all Spanish regions (except the Canary Islands) as well as the Centre and North of Italy saw their TFRs go up. What is most remarkable in the Spanish case is that even in the South, where TFR was around 1.4 and higher than in any other Spanish region, TFR increased continuously from 2000 to 2008. Only in the Southern Italian regions and in the Islands did the TFRs stall.

As we saw in the previous section, at the country level Spain and Italy are not all that similar in terms of values, especially in Individual autonomy and attitude towards gender equity -Spain is clearly ahead. Figure X.10 highlights that also at the regional level there is considerable variability in terms of both values levels and trends -especially in Italy.

As for individual autonomy, the difference between Italy and Spain became even more accentuated between 1999 and 2008. With the exception of Madrid, all Spanish regions experienced an increase in this score while all the Italian regions experienced a decrease. If in 1999 the Spanish 'Centro' was lagging behind the North and Centre of Italy, that was no longer true in 2008. By then all Spanish regions were above the European mean (horizontal dashed line) whereas all the Italian regions remained well below the European mean -two of them (South and Islands) are below the first quartile (-0.83, see Table X.1). It is also interesting to note the clear regional pattern in the Italian case: the more to the North one goes, the higher the Individual autonomy average score. A somewhat similar picture is found for Individualism with respect to relationships. Only in this case do some Italian regions show very modest signs of increasing individualism and do some Spanish regions (Canarias and South) become increasingly more similar to the Italian regions than to the rest of Spain. Again, all the Italian regions are below the European mean, while the majority of Spanish regions are above it.

Figure X.9 – Trends in TFR in the Spanish and Italian regions (1990-2008)



As noticed before, between 1999 and 2008 there was an overall decrease in Individualism with respect to children. However, in Spain there were noticeable exceptions to this trend: the Centre and Northeast. These two regions are also the only

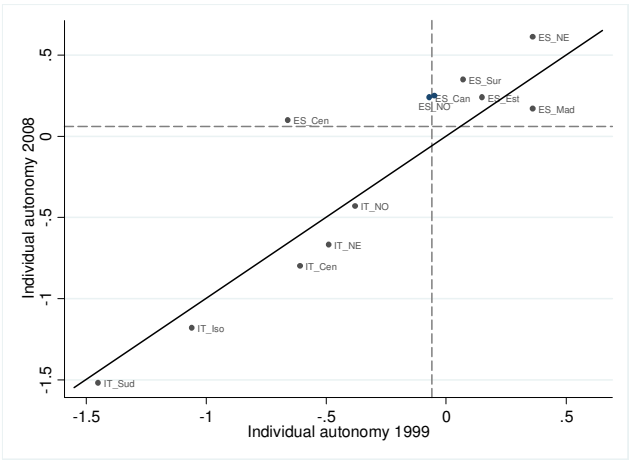
ones in line with the European mean; all the other Spanish regions as well as all Italian regions are significantly below it.

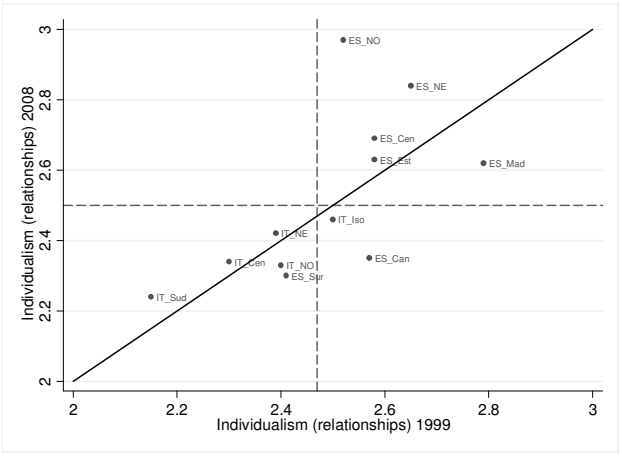
The East of Spain was the only region (among all Spanish and Italian regions) which did not become more pro-gender equity in the labour market. This region together with the Spanish Northwest, were the only two regions that were above the European mean in 1999 but below it in 2008. In Italy, the Northeast is above the European mean (in both years). The South of Spain and Italy and the Italian Islands are lagging quite behind.

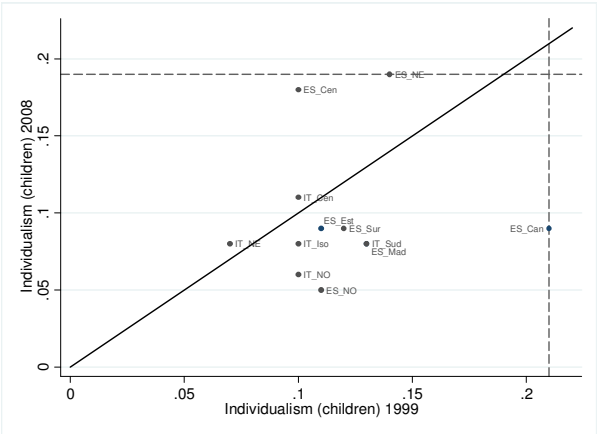
Although all Italian and Spanish regions became more favourable to gender equity within the household[9] the extent to which this happened was markedly different for Italy and Spain. Unlike in the Italian regions, where the changes were small, several Spanish regions (Madrid, the Canary Islands, the South and Northwest) experienced large positive changes. So much so that, by 2008, all the Spanish regions (except the Centre) exhibit a more positive attitude towards gender equity within the household than any of the Italian counterparts, and some are even positioned well above the European mean. That is the case of Madrid, which experienced a very large increase in 'attitude towards gender equity within the household' (about 10%).

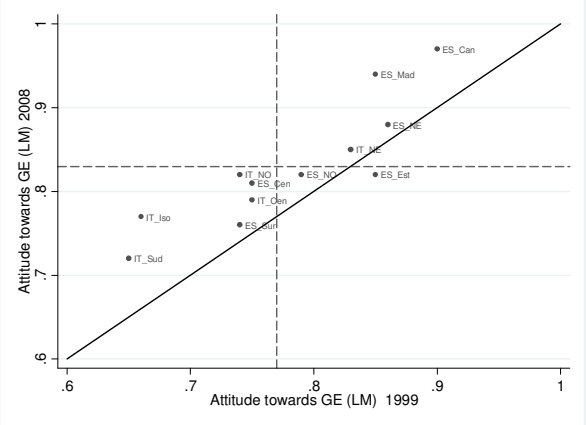
[9] Although in the Spanish Northeast the change was negative, it was close to zero (-0.02).

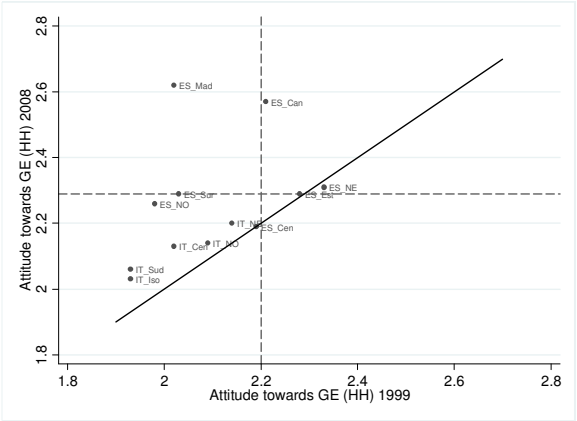
Figure X.10 – Values in the Spanish and Italian regions in 1999 and 2008











Note: the vertical and horizontal dashed lines represent the means in 1999 and 2008, respectively, calculated on the whole sample of European regions.

X.7 Assessing the association between Values and TFR

So far we have described separately the heterogeneity in the levels and dynamics of values, and TFR across the European countries and regions. In this section we assess the association between values and fertility. Table X.2 presents the estimates from different regression models: Models 1 to 5 are cross-section regressions where the values variables are used as independent variables one at a time; in Model 6 we include all values together as covariates; finally, in Models 7 and 8 the two waves are combined using panel regressions to assess the association between values and TFR changes.

From the first set of estimates (Models 1-5), we can see that in both years individualism with respect to relationships and individual autonomy are positively associated with TFR levels. The sign and significance of the associations remain for individual autonomy even after having included the other values (Model 6), while for

individualism with respect to relationships this is true only in 1999. There is a positive association also when one looks at the changes (Models 7 and 8): the more regions became pro-individualism and pro-individual autonomy the more TFR increased. This evidence confirms hypotheses H3 and H4.

The coefficients of the variables individualism with respect to children are always negative, but the association is significant only in Model 8. This would be consistent with the idea that the more individualistic people are in this dimension, the fewer children they tend to have (Hypothesis 5). However, as we saw in Section X.4.2, in the considered decade many regions experienced not an increase but a decrease in individualism with respect to children. Therefore, we interpret the negative association between fertility and individualism with respect to children as reflecting a positive 'effect' of a revival of family values on TFR.

As discussed in Section X.2, we expect a positive effect of attitude towards gender equity only when its two dimensions (in the labour market and within the family) are high. In Table X.2 we can see that attitude towards gender equity within the family is positively associated with TFR (both in levels and changes). As for gender equity in the labour market its association with TFR is positive (Model 3) but once we control for attitude towards gender equity within the family (and the other values), the association turns negative. This pattern is consistent with the idea that increasing levels of female participation in the labour market lead to lower TFR if gender equity within the family remains unchanged. The panel regressions show a similar pattern of associations in terms of changes.

To further explore the interaction between the two dimensions of gender equity values and TFR we conducted additional analyses (Table X.3). First, we dichotomised both variables on attitude towards gender equity. The transformed variables take value 1 if in a given year the level of attitude towards gender equity was higher than the European median level in that year (this is labelled as “High”), and 0 otherwise (“Low”). Then we tested the association between TFR and the several combinations of the levels of attitude towards gender equity in the two dimensions: low levels in both dimensions (“Both Low”), a high level in at least one of the two dimensions (“At least one Low” –the reference category in the first two models of Table X.3), high levels in both dimensions (“Both High”). We can see that, in 1999, the regions with highest TFR were those with either a Low or High level of attitude towards gender equity in both dimensions, while those with a high level in one dimension but not in the other

(the majority had a high level in Labour Market but not within family) were characterized by significantly lower fertility rates. In 1999 the difference between the two "extreme" groups is not statistically significant (the test is not shown in the table). In 2008, regions with high levels in both dimensions are those with highest TFRs. Whereas the difference between this and the other two groups is statistically significant, regions with low levels on both dimensions have TFR levels that are not statistically different from the "intermediate" group.

Finally, in Model (3) of Table X.3 we only selected regions that in 1999 were not very pro-gender equity in at least one of the two dimensions and then we tested the association between TFR change and becoming (or not) pro-gender equity both in the labour market and the household.

The results indicate that the regions that moved to the group of "Both High" had a significantly higher increase in TFR when compared to those that did not make that last step of the transition.

X.8 Concluding remarks

Many European countries have recently experienced an increase in fertility rates. Explanations based on the positive effects of achieving high levels of development (HDI, GDP, female employment) have been provided in recent demographic literature. In this chapter, we explored the role of value changes. Another contribution is the introduction of a regional dimension into this debate. Besides the considerable differences in values observed across the European countries, we show that in some countries there is also substantial regional variability. The levels and dynamics of TFR are quite heterogeneous too.

Usually seen as very similar countries, Italy and Spain show important differences. First, very similar TFR levels and trends at the country levels mask considerable within-country variability. In Italy, the regional dispersion in TFR fell considerably as a consequence of opposite trends in Southern regions and in the Islands with respect to the rest of the country: while in the former TFRs stall, in the latter TFRs increased steadily. Spain, instead, saw their TFRs go up in all regions (except the Canary Islands), from 2000 onwards, but the levels remain heterogeneous. In terms of values Spain and Italy are not all that similar either, especially regarding individual autonomy and attitude towards gender equity. Spain is clearly ahead.

Table X.2 – Cross-section and panel models of TFR regressed on values

Independent Variables	Models							
	Cross-section 1999						Panel	
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
Individualism (relationships)	0.19***					0.13*	0.09*	0.10*
	(0.05)					(0.05)	(0.04)	(0.04)
Individualism (children)		-0.32				-0.19	-0.22	-0.29*
		(0.20)				(0.19)	(0.14)	(0.14)
Attitude towards GE (LM)			0.17			-0.53*	-0.34	-0.12
			(0.22)			(0.23)	(0.19)	(0.17)
Attitude towards GE (HH)				0.36**		0.32*	0.42***	0.33***
				(0.13)		(0.12)	(0.10)	(0.09)
Individual autonomy					0.09**	0.10**	0.12***	0.08***
					(0.03)	(0.03)	(0.02)	(0.02)
Constant	0.98***	1.52***	1.32***	0.65*	1.45***	0.89**	0.66**	0.70**
	(0.11)	(0.05)	(0.17)	(0.28)	(0.02)	(0.33)	(0.24)	(0.24)
Observations	84	84	84	84	84	84	168	168
	Cross-section 2008							
	(1)	(2)	(3)	(4)	(5)	(6)		
Individualism (relationships)	0.22***					0.09		
	(0.05)					(0.06)		
Individualism (children)		-0.39				-0.21		
		(0.23)				(0.21)		
Attitude towards GE (LM)			0.87**			-0.46		
			(0.32)			(0.38)		
Attitude towards GE (HH)				0.41*		0.43**		
				(0.16)		(0.15)		
Individual autonomy					0.13***	0.14***		
					(0.02)	(0.03)		
Constant	1.04***	1.67***	0.87**	0.66	1.59***	0.82*		
	(0.14)	(0.05)	(0.27)	(0.37)	(0.02)	(0.37)		
Observations	84	84	84	84	84	84		

Note: Models (1) to (6) are regional-level cross-section regressions with country fixed effects. Models (1) to (5) only include one regressor at a time, while Model (6) includes all regressors simultaneously. Models (7) and (8) are panel regressions with country and region-level fixed effects, respectively.

Table X.3 – TFR and the two dimensions of gender equity

Levels of gender equity	Year 1999		Year 2008		Change	
	(1)		(2)		(3)	
Both Low	0.15	**	-0.02			
	(0.06)		(0.07)			
Both High	0.16	**	0.19	***		
	(0.06)		(0.06)			
Both High in 2008 only					0.08	**
					(0.02)	
Constant	1.37	***	1.54	***	0.12	***
	(0.04)		(0.04)		(0.03)	
Observations	84		84		52	

Our analyses provide evidence that recent fertility trends are associated with value dynamics, namely that the highest increases in TFR happened in regions where both individualism with respect to relationships and individual autonomy grew, at the same time that individualism with respect to children diminished. We interpret the negative association between fertility and individualism with respect to children as reflecting a positive 'effect' of a revival of family values. As for attitude towards gender equity, we provide empirical evidence in support of McDonald's theory that both equity at the institutional level and within the family are necessary for fertility to rise. It is worth mentioning that both individualism with respect to children and attitude towards gender equity within the family (the stronger determinants of TFR in the panel regressions) show great regional variability and that differences between regions grew larger from 1999 to 2008.

The dynamics we observe for the Italian and Spanish regions confirm the overall associations. For example, the regions where individual autonomy is highest are also the regions that experienced the highest increases in TFR (e.g., North vs. South of Italy). In Spain, the Madrid Community is an emblematic case. It experienced such a substantive TFR increase that in 2008 Madrid's TFR is one of the highest in Southern Europe; at the same time this community -which was already quite pro-gender equity in the labour market in 1999- became even more favourable towards gender equity both in the labour market and within the family. A similar pattern is found for the North of Italy, where a sizable increase in TFR also occurred. On the contrary, and despite having become more pro-gender equity within the labour market, the South of

Italy still shows a rather conservative stand where gender equity within the family is concerned. We argue that this may help to explain the stall in TFR in that region.

This chapter highlighted the importance of considering values changes and a regional dimension when analyzing recent fertility trends. There was, however, a trade-off in adopting a regional approach: analyzing regional TFRs precluded the use of tempo-adjusted TFRs. Consequently, we are not able to disentangle tempo and quantum effects. Goldstein et al.'s (2009) findings suggest that in some countries the increase in fertility is mainly explained by the slowdown in postponement, particularly in Spain. On the contrary, in Northern Europe the quantum effect seems to dominate.

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