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Family Policies and Women in the Labour Market: Evidence from Southern Europe

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Previous research has analysed the relationship between women's labour market outcomes and family policies in the general context of the European Union or among OECD countries. The current dissertation investigates the effect of a set of family policy's instruments on women's labour market participation and maternal employment in the countries of Southern Europe – Greece, Italy, Spain and Portugal – over the period 2001-2014. Based on previous literature, the main policy instruments selected in the analysis are related to family taxation, parental leave scheme and state's support to families with children. Through the implementation of a fixed-effect linear panel regression model, the analysis shows that family policies did not significantly affect labour force participation while they have a more considerable impact on maternal employment. This claims for the persistence of strong gender stereotypes in the designation of public policies, with the state mostly treating women in their role of mothers instead of workers. Additionally, the analysis argues for the existence of a positive selection among working women and mothers. This calls for the need to remove entry barriers to the labour markets for the excluded women.

Keywords: family policies, labour markets, gender, Southern Europe

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1.Introduction

Over the years, an increasing portion of the literature pointed attention towards a specific dimension of the public social welfare provision, namely, family policies. Precisely, several investigations have been developed in the order to assess the impact of family policies on women's engagements in the labour markets, with most of the cross-country analyses being focused on comparisons among OECD and European countries. By arguing for the existence of a specific welfare typology in the case of Southern Europe, the current dissertation has been developed in order to answer whether the development of a set of family policy's instruments did affect women's labour market participation and maternal employment in the countries of Greece, Italy, Spain and Portugal over the period 2001-2014. The choice of limiting the investigation over this brief time period is related to data availability. In order to implement a valuable cross-countries analysis, the family policy's indicators have been directly collected from the OECD Family Database where data are available just until 2014.

Investigating the position of women in local labour market is relevant for several reasons. First of all, the position of women in the labour market is a crucial dimension of gender equality. Indeed, an increment in female labour market participation is expected to increment the economic independence of women as well as their decision-making power both within and outside the household (EIGE, 2017). Further, an increment the labour force participation of women is a crucial step needed to enlarge the tax base and contrast the process of population ageing (Bengtsson & Scott, 2010). Finally, women's engagement in the labour market has been found to be an important determinant of a long term and sustainable economic growth (UNDP, 2019). Analysing the link between family policies and women's labour market outcomes seems particularly insightful since family policies might prove to be valuable instruments to achieve and reinforce gender equality at the national level. Finally, looking at this relationship in the specific context of Southern Europe is especially noteworthy. As a matter of fact, the literature which claims for the existence of an independent Southern European typology of the welfare state argues that the two main commonalities among these countries lie, historically, on the cruciality of the family as a provider of welfare and the low level of women's labour force participation (Ars & Glissen, 2002; Flaquer, 2001). This low level of women's engagement in the labour market has been found to be related to the perseverance of strong gender stereotypes and strong cultural attitudes which tend to look at women more in the roles of mothers

and wives instead of workers (Trifiletti, 1999). Thus, finding the existence of a link between these two dimensions would provide good food for thought to Southern European policy makers and it might help to develop a more gender inclusive policy framework and boost female participation in the labour market.

Therefore, the current dissertation will contribute to the existing literature on several dimensions. First of all, it will provide an insightful qualitative picture of the characteristics of women's labour market participation in the countries under analysis. Precisely, the investigation will be carried out by comparing the labour markets in Southern Europe with the ones of Sweden, as representative of the Scandinavian countries, and the EU-28 countries[1] averages. Furthermore, the investigation will implement an econometric analysis in order to establish the impact of a set of family policy's instruments on women's labour force participation in Southern countries. Thus, it will provide an idea of the interaction between these two dimensions in a context not extensively analysed by the literature, since most of the cross-countries analyses tend to be implemented within the more general framework of the European Union or within the family friendly environment of the Nordic countries.

The thesis will be structured as follows. In Section 2 an extensive literature review will be carried out, with the chapter being split into two parts. Precisely, at first, the literature will be reviewed in order to provide a theoretical justification for the existence of a Southern European classification as an independent welfare state typology. Further, an overview of the main family policy's instruments adopted to boost female labour force participation will be provided. On the other hand, Section 3 will offer an insightful picture of the women's position in the labour markets of Southern Europe. Section 4 will introduce the empirical analysis. Indeed, these two main subsections will be aimed at outlining the features of the data and the type of methodology adopted to implement the investigation. In Section 5, the main regression results by the side of a detailed discussion are included. Finally, the paper will turn to the conclusions.

[1] The EU-28 refers to the 28 countries members of the European Union before January 2020, the 31st when the Brexit legally took place. Therefore, the EU-28 countries are: Austria, Belgium, Bulgaria, Croatia, Republic of Cyprus, Czech Republic, Denmark, Estonia, Finland, France, Germany, Greece, Hungary, Ireland, Italy, Latvia, Lithuania, Luxembourg, Malta, Netherlands, Poland, Portugal, Romania, Slovakia, Slovenia, Spain, Sweden and United Kingdom

2.Literature Review

2.1 A theoretical Background: the Southern European classification

The main aim of the current dissertation lies in asserting the impact of family policies on women's labour market participation in Southern European countries, namely, Italy, Spain, Greece and Portugal. An extensive literature debates both the existence and uniqueness of a Southern European classification but an agreement has not yet been reached. Those who advocate for the singularity of the Southern model agree that this categorization is built upon similarities in welfare regimes, family structure and labour markets.

In the current section, I will go through the literature in order to justify the focus on this group of countries and I will explain why it is relevant and reasonable to look, specifically, at the Southern countries when talking about family policies and women labour market outcomes in relation to welfare state regimes.

2.1.1 The Welfare State Typologies

The seminal paper of Esping-Andersen (1990) "*The Three Worlds of Welfare Capitalism*" is the most debated and relevant contribution to the comparativist welfare state literature. By providing a classification of the welfare state typologies in the modern world, the paper furnished a framework within it categorizes and compares welfare systems in advanced capitalist democracies. Particularly, Esping-Andersen pinpoints three main welfare systems classifications, namely, (i) the conservative (or Continental European) (ii) the liberal (or Anglo-Saxon) and (iii) the Social-Democratic (or Scandinavian) regimes. Crucial for the classification are the interactions between social rights provision, social stratification and the state, and market and family relationships[2]. Precisely, the typologies of the welfare capitalistic societies are built upon two main indicators: (i) the degree of decommodification and (ii) the kind of social stratification. By accounting for the degree to which a person is able to sustain themselves without relying on the market, the first dimension indicates if a

[2] As it will be described better later in the paper, several criticisms are developed arguing that the family dimension does not receive the due attention in the Esping-Andersen elaboration.

certain social service is publicly provided as “a matter of right” or not. On the other hand, the social stratification dimension refers to the level of class-division within a certain society. Thus, it highlights the extent to which a certain social policy favours or discourages social division and stratification.

However, in the Esping-Andersen (1990) classification, the Southern European cluster is not recognized as a unique typology, with Italy being included between the conservative systems and Portugal, Spain and Greece not comprehended in the analysis. Further, in accordance with Katrougalos (1996), the four Southern European countries are just at an infant stage of their development as continental systems. Indeed, in Mediterranean countries as well as in Continental Europe, the influence of religion, the strong corporativist structure together with the centrality of families in the provision of welfare are (or will be) the strongest shaping factors of the welfare state’s structure.

Nevertheless, a wide stand of the literature claims for the uniqueness of the Southern Europe category and openly criticizes Esping-Andersen’s oversight. Precisely, by devoting their paper to an attentive review of the literature, Ars & Glissen (2002) argue for a “misspecification of the Mediterranean Welfare state system” in the original Esping-Andersen’s categorization. In addition, by looking at different indicators and dimensions, the literature justifies the Southern European grouping on different grounds.

Adopting the Andersenian theory as a benchmark, Off (2019) argues that in Southern Europe the provision of welfare is little if compared with conservative systems but, given the importance of the family, these countries are less individualistic than the liberal ones. Therefore, she concludes that Southern European countries are characterised by a low degree of decommodification and a moderate stratification.

On the other hand, Leibfried (1992) builds his welfare states categorization on a different ground respect the Andersenian theory. He classifies the countries according to their institutional ability to fight poverty. Within his framework, the Southern European countries are distinguishable for their neglection of the right to access to welfare and a lack of social minimum. This “residualism” in the state provision of welfare is due to the centrality of family and the importance of the Church as an institution.

Ferrara (1996) identifies several commonalities among Southern European countries in relation to their social security systems. Indeed, although these countries provide universal health care and a generous pension system, their social security systems are highly fragmented and the state intervention in the welfare provision is little. Similarly, Petmesidou (1996) argues that the distinctiveness of the Southern societies lies in their strong familism and clientelism. Indeed, as does

Ferrara (1996), he asserts that all the four countries under analysis are characterized by a high degree of fragmentation.

Moreover, the analysis of the unemployment in Southern Europe provided by Gallie & Paugam (2000) offers another interesting dimension in which these countries tend to be similar. They argue that in the Mediterranean countries, the social regulation of unemployment is also "familialist" since the protection and well-being of the unemployed is mostly under the family responsibility.

In addition, Mingione (2002) argues for the existence of a "Southern European Model of labour market structuration". Precisely, he claims that Spain, Greece, Italy and Portugal followed the same capitalistic development with the state having protected small and family enterprises and having been highly tolerant towards tax evasion and informal economic activities. He concludes that their labour market commonalities depend mostly on the strong economic role of the family and the not "fully-proletarianization" of the workers conditions.

Finally, looking at the interrelation between the two institutions of the state and the family, Flaquer (2001) argues that Southern European countries share a similar approach to family policies. As a matter of fact, in the Mediterranean countries, the main provider of welfare (i.e. childcare, elderly care, etc.) to family members is the family its-self, with the state fulfilling just a residual function. The main consequences of assigning the burden of welfare provision to the household are the strong mutual dependencies among family members and an emphasized division of tasks, with men providing income and women, family care. In Andersenian terms, Flaquer (2001) asserts that the Southern welfare systems are the results of a low level of "defamiliarization" instead of a low level of decommodification. Therefore, it is clear that the importance of the family as an institution, the attitude the state develops in the provision of the welfare, the importance of the household as well as the characteristics of the labour market are the resembling dimensions of the Mediterranean countries (Karamessini, 2012). Consequently, by neglecting the family dimension and focusing mostly on the dichotomy between state and market, the original Esping-Andersen theory (1990) is not the suitable framework to compare the Southern European commonalities (Warnecke, 2008).

In addition to the evidence just scrutinized, another specific stand of the literature has been particularly harsh in criticizing the Andersenian theory, namely, the feminist one. Indeed, as a direct consequence of overlooking at the family relevance, the seminal paper of Esping-Andersen (1990) neglects the gender dimension in his welfare systems classification. Clearly, incorporating a gender perspective in the current dissertation is crucial given the strong interrelation between the state attitude towards families and the design and implementation of family policies.

2.1.2 The Gender Perspective

Lewis (1992) is one of the first scholars who focuses on the relation between gender and welfare by claiming for the relevance of the women paid and unpaid work in relation, respectively, to the public and private sphere. Precisely, he highlights how within traditional male-bread winner systems, men control the public sphere while women are in charge of the private-family dimension. Within these kinds of societies, the welfare system furnishes low level of care services and maternity rights, discourages women's engagement in the public sphere and, consequently, women experience a low level of labour force rates.

Orloff (1193) discusses extensively why the omission of a gender dimension in the classification of welfare systems is mistaken, given that the degree of public welfare's provision does not just influences women's positions within the household and on the labour market but also frames gender relations and stereotypes. Thus, in order to incorporate a gender perspective, the author complements the two standard Andersenian indicators of welfare classification by adding two additional dimensions. The first one looks at the women's access to paid work and it contemplates how the state behaves in favouring (or discouraging) women's economic and political independence. Indeed, the mechanisms through which the state ensures and guarantees paid jobs for specific social groups are crucial dimensions of a policy regime. Thus, analysing the extent to which women can claim their access to work and job guaranties as their own rights contribute to define a specific welfare typology. On the other hand, the second additional indicator looks at the ability of a woman to sustain an autonomous household. Including this dimension is important since it gives an idea of the women's freedom in deciding to enter and stay in a marriage.

Trifiletti (1999) states that a systematic relationship between welfare state typologies and how the state treats women – as mothers, wives and/or workers – exists. Precisely, she claims that a crucial distinction between the Mediterranean and the Continental welfare classification lies in the extent of family policies development. Accordingly, Warnecke (2008) carries out an empirical analysis of how the Spanish welfare system influences women's labour force participation. According to the author, most of Mediterranean countries are characterized by both low fertility and low level of women's employment, a rigid labour market and high rates of unemployment and, as already mentioned above, the families are crucial providers of welfare. As a consequence, women face strong barriers to combine family duties with formal employment.

Finally, also Esping-Andersen in a more recent work (2007) reconsiders the importance of including the gender dimension to classify welfare regimes. He highlights the unsuitability of the current social order and the need to acknowledge the new socio-economic role of women through the

implementation of welfare reforms. Particularly, these reforms should favour women's employment and enlarge their target to more modern family models, in addition to the traditional one.

In conclusion, including the gender perspective is crucial given the strong influence that the state attitude towards women has on their labour market outcomes and, more comprehensively, on the achievement of gender equity both inside and outside the household. In addition, it is clear that the gender perspective highlights additional commonalities within the countries under analysis and helps to advocate the existence of a Southern European model of welfare State. Finally, the gender dimension is the most crucial dimension of family policies.

2.2 Family Policies

The scope of this dissertation is aimed at exploring the relationship between family policies and women's labour market outcomes in Southern European countries. The literature aimed at exploring the relationship between family policies and women's labour supply is massive; thus, in the current section I will attempt to provide an extensive overview of this literature.

2.2.1 Micro VS Macro Approach

The empirical investigations interested in exploring this link have to choose among the adoption of a micro or macro approach. Most of the studies focused on one-country analysis tends to assess the responsiveness of women (or mother) to the introduction or change in family policies by adopting individual level data. For example, Lalive and Zweimuller (2009) adopt individual old-age social security benefits data in order to assess to what extent the extension of paid maternity leave affects the labour markets performance of Austrian mothers over the 90s. Similarly, Lefebvre et al. (2008) adopts labour market survey data in order to assess how the introduction of a new childcare policies implemented in the Canadian region of Quebec affected mothers' labour supply of children in pre-school ages.

When it comes to cross-countries analyses, the literature adopts mixed approaches to study the effect of family policies on women's labour supply decisions. For example, Cipollone et al. (2013) adopts individual level data collected from the EU-SILC surveys in order to compare the changes in the women's participation patterns across 15 European Countries. This analysis reveals the crucial roles of institutional factors and social policies in shaping women's labour supply. On the other hand, another consistent portion of the literature aimed at comparing the effectiveness of family policies across countries opts for a macroeconomic approach. Particularly relevant to the implementation of the current dissertation have been the contribution of Jaumotte (2003) and Thenevon (2011) which

look at how a set of family policies instruments impact on women's labour force participation in OECD countries. According to Jaumotte (2003), macroeconomic data are better able to estimates the aggregate impact of the policy instruments, while microdata are more suitable when it comes to assess the individual's response to the incentives set by a policy implementation.

As a consequence, given that the present paper is more interested in analysing the aggregate impact of family policies on several indicators of the degree of women's engagement in the labour market, the analysis will include three main sets of policy instruments: (i) Family Taxation; (ii) Parental Leave schemes and (iii) the structure of Childcare and Child benefits.

2.2.2 Family Taxation

When it comes to establish the link between women's decision to participate in the labour market, family taxation is a crucial aspect to take into consideration. However, designing a family-friendly taxation scheme is not an easy task due to the tension occurring among its main objectives - the progressivity of the tax system, equal treatment of household with correspondent ability to pay and marriage neutrality (LaLumia, 2017). In this sub-section, I will mainly look at the link between the objective of achieving a neutral family taxation scheme – where women and men are equally marginally taxed – and women's labour supply outcomes.

Optimal taxation theory states that individuals with different labour supply elasticities should be treated differently. Within a household, this implies that, given the higher elasticities experienced by married women, they should be taxed less heavily than their husbands (Boskin and Sheshinski, 1983). Nevertheless, Alesina et al. (2007) argues that in most of the OECD countries, married women tend to be marginally taxed more than their husbands. In addition, looking at the family taxation of the USA, LaLumia (2017) finds that the already large before-tax earnings gap between men and women become even larger in after-tax terms and that this conclusion easily applies for most of the industrialized countries.

Francesconi et al (2009) claims for the instability in the relation between income taxation and employment outcomes of different family members, since labour markets behaviours diverge according to the household' characteristics. Nevertheless, the literature agrees on that different taxation systems set distinct incentives to the participation of women in the labour market and, often, they are partially responsible for the cross-countries differences in women's labour supply behaviours (Prescott,2002; Davis & Henrekson, 2004; Colonna & Marcassa, 2015). Particularly, different tax benefit systems tend to either favour what in the jargon are defined as dual-earner or single-earner

households. Accordingly, the family taxation appears as a relevant determinant of the aggregate women's labour supply.

The first important aspect to contemplate is the tax unit adopted in the family taxation scheme, discernible in two main macro-groups: (i) a joint taxation system and (ii) an individual one. In a "family-based" taxation system wives and husbands are jointly taxed as a unique unit. According to the OECD (2016), in the context of a progressive tax system, family-based taxation tends to favour a single-earner household and, therefore, to discourage women's participation in the labour market. On the other hand, within an individual taxation system each adult earner in the household is taxed separately. To this regard, already four decades ago, Rosen (1977) and Boskin & Sheshinski (1983) argued that different marginal taxation schemes between men and women could lead to several efficiency gains. On the same line, the OECD (2016) highlights that within an individual taxation system, a dual-earner couple tends to be favoured above a single-earner household, and therefore, women participation in the labour market tends to be encouraged.

The kind of taxation system adopted in Southern Europe is not homogeneous, with Italy and Greece presenting an individual scheme, Portugal a family-based one and Spain allowing families to select the tax unit according to their preferences (OECD, 2016).

Moreover, given the complexity of the tax-benefits systems, the tax unit is certainly not the only element to look at when trying to establish its neutrality. Following the definition provided by the Social Policy Division of the OECD (2016), a tax-benefit system is "neutral" if the adults in the family receive the same incentives to work. Further, the system is neutral when changes in the distribution of paid work among family's members do not affect the amount paid to government. Indeed, an increment in the net amount paid to the government corresponds to a decrement in the disposable income of the family. Clearly, relatively less disposable income associated to the labour market participation of the second earner tends to disincentivize the participation of the woman/wife in the labour market.

2.2.3 Parental Leave

In most of the European countries, central governments adopt parental leaves and child-care policies as their main instruments to develop a more family-friendly environment and ease the reconciliation between work and family responsibilities, particularly for women.

According to Carta (2019), parental leaves can be defined as "employment-protected leaves of absence for employed parents". The leaves schemes are various. The first to be introduced is the maternity leave. It is a compulsory and protected leave whose length varies among countries. It allows

mothers around the time of childbirth to several weeks of paid leave – according to the 2000 ILO Convention, mothers are entitled to at least 14 weeks of paid and protected leaves. In addition to the length, also the rate of previous earnings' repayment during the leave period affects the decision to re-enter the labour market. Parental leave is the second kind of leave-from-work scheme available to both the parents on a voluntary basis. Although the total amount of weeks available tends to be longer in comparison to the one of maternity leave, it is paid less. Finally, some European countries have recently introduced paternity specific leave which entitled the father to a paid leave – usually on a voluntary basis. They are mainly aimed at lightening women from childcare duties and redistribute family obligations more equally among partners. Thus, although they are much shorter than the previous two schemes, they use to be fully paid.

Most of the literature claims that more generous parental leave schemes for mothers tend to be positively correlated to higher women's participation in the labour market (Jaumotte, 2003). For example, in its seminal paper, Ruhm (1998) finds evidences for nine OECD countries that paid parental leave increases women's employment. However, Boeckman et al (2014) argue that the effectiveness of the parental leave as an instrument to reconciliate women's family and work life depends crucially on the length and the repayment rate. Indeed, well-paid, protected and moderately long parental leaves are expected to help women to balance family and work responsibilities and to increase maternal employment. On the other hand, very long and low paid leaves with weak job-protection could deteriorate women's position in the labour market, decrease their employment as well as the total amount of hours they work. Furthermore, Glass and Fodor (2011) highlight another crucial aspect related to the length of the leaves reserved to mothers, namely, employers' discrimination behaviours. The authors argue that, in concomitance with longer leaves, employers tend to hire and promote less women and to reserve for them worst-paid and part-time jobs. Moreover, specifically looking at Nordic countries' family-friendly environment, Gupta et al. (2014) show that their generous parental leave schemes are responsible for several "boomerang effects" on women's labour market outcomes. Precisely, the long leaves period provided in these countries tend to delay women's return to work after childbirth and to be responsible for strong occupational segregation, with women mostly employed in the service sector and contracted through part-time arrangements. In fact, they found that, among OECD countries, the Scandinavian countries have the highest level of occupational segregation. Consequently, looking at the structure of women employment in relation with family policy indicators appears as a crucial dimension to take into account and it will be explored later on in the paper.

In Appendix A, Table A.1 compares the parental leave schemes of Southern European countries between the year 2001 and 2014. Accordingly, by 2014 the most generous parental leave scheme is

the one of Portugal. Together with Spain, it repays to mothers in maternity leave the 100% of their previous gross earnings. Furthermore, Portugal is the country which reserves to fathers the longest leave from work.

2.2.4 Childcare and Child Benefits

As already mentioned above, childcare policies are one of the main instruments adopted to develop a more family-friendly environment. Within the macro-context of childcare policies, the literature tends to distinguish between two main subgroups: (i) the provision of services (i.e. in the form of public childcare facilities) or (ii) subsides/benefits to families with children.

With regard to service provision, the literature highlights that publicly subsidized and universal childcare diminishes the cost of childcare for parents. Further, it seems that the provision of public childcare, particularly for children between the ages of 0 and 2 years, brings to higher women and mother's labour market participation (Pettit and Hook, 2009; Boeckmann et al., 2014; Del Boca et al., 2009; Joumatte, 2003). In addition, De Henau et al. (2010) argue that the childcare is the component of family policies with the strongest impact of mothers' employment outcomes. Moreover, the literature highlights the strong interconnection existing between the effect of childcare provision and, respectively, the quality of the others family policy instruments and the level of mothers' involvement in the labour market. Indeed, several empirical findings, claims that within a less family friendly environment and in a context of low women labour market participation, public childcare provision has a stronger effect on women's employment outcome (Del Boca et al., 2007, Tavora, 2012; Carta, 2019). Finally, it is worth mentioning that the literature finds contrasting evidence related to the impact that early public childcare provision might have on child development. Indeed, if the quality of the public childcare is low comparing with the others existing mode of child-caring (such as the one provided by the family) the effect on child development tends to be negative. On the other hand, a high quality formal childcare system has beneficial effects for children's development, particularly for those coming from a poorer background.

The literature also tries to establish the effects of childcare subsidies and child benefits on women labour supply. Jaumotte (2003) claims that the former tends to boost women labour supply since they make the relative price of formal care cheaper. This is particularly true in a scenario where the tax benefits disincetivizes women's participation, the provision of childcare is not affordable and credit markets are highly imperfect. On the other hand, defining the latter as lump-sum transfer for the child support, the author mistrusts the effectiveness of child benefits in increasing women labour supply. Indeed, the income effect caused by child benefits increases the household disposable income, but it

does not necessary encourage female labour market participation. However, Ferragina (2017) argues that child benefits are usually developed to achieve other objectives, such as incrementing fertility and alleviating poverty.

Table A.2 reported in Appendix A collects data regarding the public expenditure on childcare and benefits to families in the years 2001 and 2014. Accordingly, by 2014, Italy appears as the country which devotes the highest portion of its GDP to children's education and family benefits, with the latter being considerably higher than in the other Southern European countries.

3.Women in Southern European Labour Markets

3.1 Women's labour market position

One of the main reasons to gather the Southern European countries within the same category is related to the low degree of women's engagement in labour markets. Indeed, although over the years the level of women's involvement in the labour force has been growing across all the European countries, Southern countries tend to still be characterized by low rates. According to Warnecke (2016), the literature tends to adopt two main approaches to implement cross-country analyses of the women's position in labour markets. The first one consists of a more qualitative analysis of women in the labour market, by looking at aspects such as the kind of occupation or the number of hours worked. On the other hand, the second way of analysing the position of women in labour markets is by exploring its causes and determinants by means of a quantitative approach. Although the selection of factors affecting women's labour force changes among the various analyses, Cipollone et al. (2013) highlights that usually studies focus on cultural attitudes and the institutional framework as well as population's characteristics such as fertility or the level educational attainment. To this regard, family policies appear as the most valuable instruments to carry out reforms of the institutional framework and to consequently enhance women's position in the labour market.

In the present section I will adopt the first and more qualitative approach while an analysis of the determinants of the labour market outcome will be carried out later in the paper. Therefore, in this section I am attempting to provide an attentive and insightful picture of the women's position in the Southern European labour markets and to compare, when possible, the outcomes of the region with the EU-28 averages and Swedish patterns. Precisely, I included Sweden as representative of the Scandinavian countries since the literature usually refers to these as a benchmark for gender equality due to the priority given by policy makers to fight gender discrimination, their well-known family-friendly environment and the high rate of female labour market participation.

In order to better describe women's position in the labour markets I will look at different indicators, the first and more standard one is the labour force participation. It accounts for the proportion of the whole population in the age group of 15-64 years old who is employed or is actively looking for a job. In Figure 1, the patterns of women's labour force participation have been plotted over the years

2000-2018. This visual representation is insightful for several reasons. It shows that the indicator follows a slight upwards pattern in all the countries under analysis. However, the labour force participation of women in Southern Europe is lower than the one in Sweden and below the EU-28 average. Moreover, evidently, Portugal stands out in comparison with the other Southern countries by exhibiting a much higher participation rate which is also above the European average all over the period under analysis. On the other hand, in 2018, Italy scored the worst with a level of women labour force participation equal to the 56% of the total female population, 16% less than Portugal and 26% than Sweden.

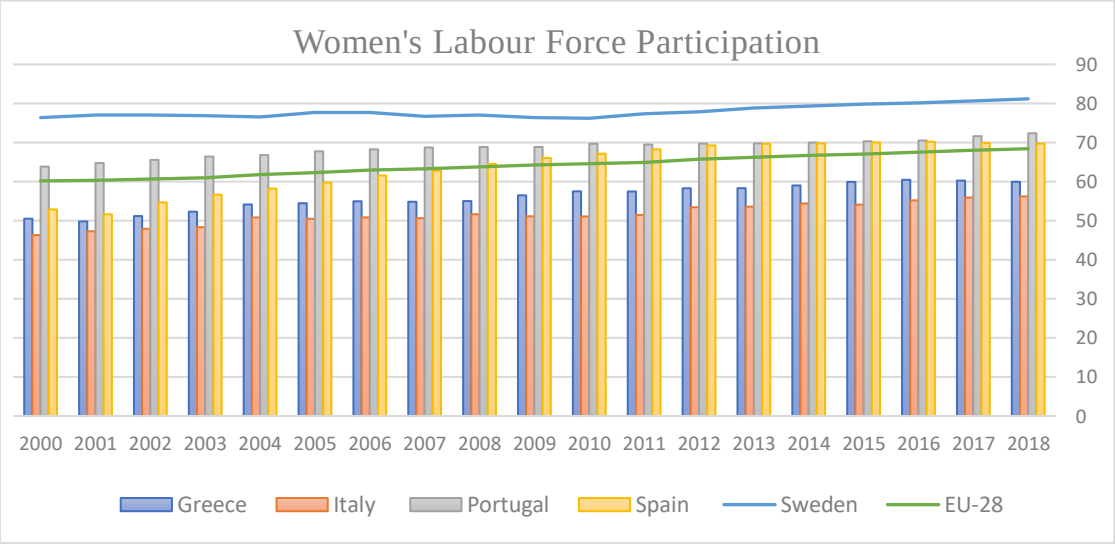

Figure 1: Women's Labour Force Participation. Data Source: OECD Statistics

Alongside the labour force participation rates, there are other insightful indicators to investigate women's position in the labour market. The literature interested in women's labour supply usually looks at the female employment rates and the total amount of hours worked by women. Figure 2 lays out the patterns of women's employment rates in the countries under analysis. Contrary to the labour force participation rate, which also takes into account people who are actually seeking a job, the employment rate includes just those who are currently employed – which is why the rates are lower. However, Figure 2 outlines a similar picture to the one of Figure 1. Indeed, among the Southern countries, Portugal is still the one exhibiting the highest rate of female employment with a pattern always above the European average. On the other hand, Greece replaces Italy in scoring the worst even though the level of employment is quite low in both the countries.

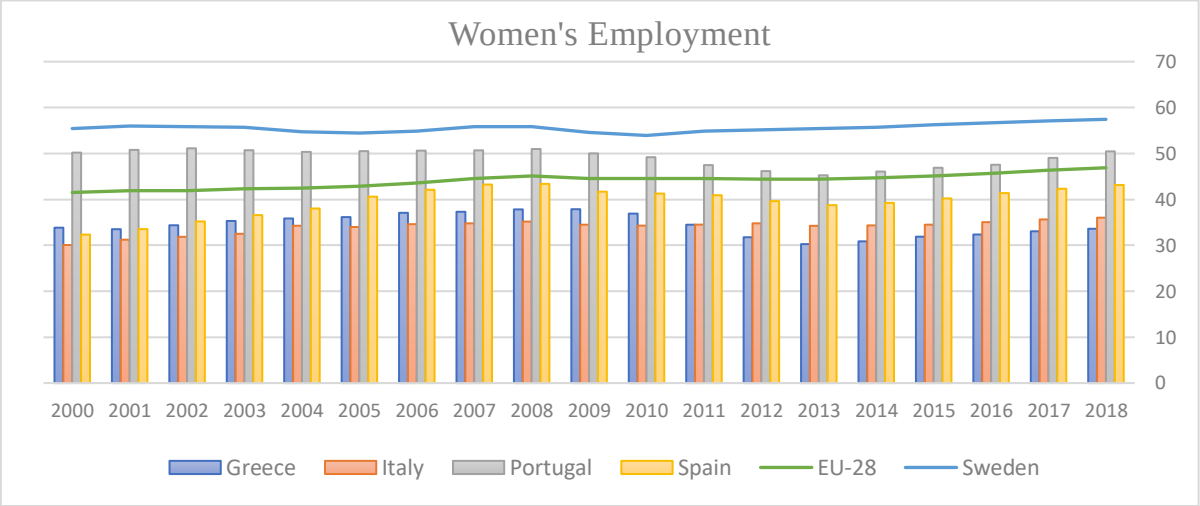

Figure 2: Women's Employment. Data Source: World Bank Dataset

When we are considering the employment indicator, an increasing trend of it can undoubtedly be interpreted as an enhancement for women's economic independence and an additional step towards gender equality. On the other hand, an upwards trend in female part-time employment indicators might arise some concerns. According to European Institute for Gender Equality (EIGE, 2012), the increment of women's participation in labour markets has been mainly driven by an increment in women employed through part-time working contracts. As a consequence, part-time employment is responsible for facilitating participation in labour markets and improving the trade-off between working life and family duties for both men and women. Nevertheless, it has been argued that part-time employment can also be detrimental to women's economic independence. As a matter of fact, part-time work arrangements entail lower salaries and social provision and tend to be associated with a higher exposure to the risk of poverty. In addition, women engaged in part-time employment are also more likely to stay trapped in lower paid jobs and to experience less career advancement (Smith, 2010). Thus, high women's part-time employment rates are not necessarily a good signal for women's empowerment both inside and outside the family context. Figure 3 describes the patterns of part-time employment among women in the countries under analysis. I believe that this graph highlights several important insights. Although establishing the condition of Swedish female workers goes beyond the scope of the current dissertation, it is important to mention that when it comes to part-time employment Scandinavian countries are not examples of best practise. Indeed, Gupta et al. (2014) claims that despite the generous family-friendly environment in Scandinavian countries, including Sweden, labour markets are among the most gender fragmented in the world. This is mostly due to three reasons: (i) women tend to be employed in lower-paid jobs: (ii) they work fewer hours than men (most of them are contracted through part-time contracts; (iii) women are largely employed in the public sector while men in the private one.

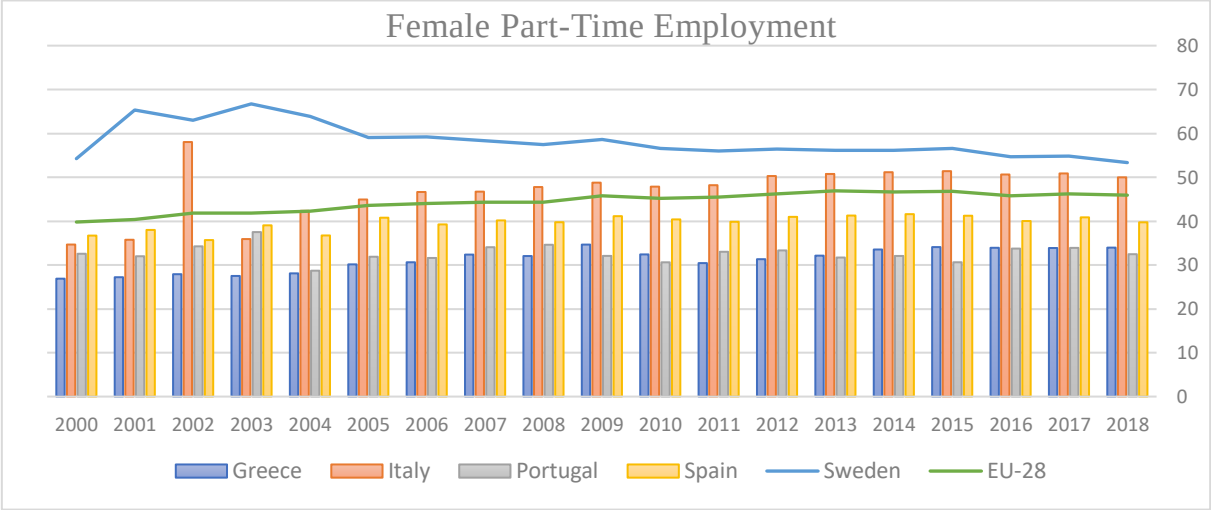

Figure 3: Women's Part-Time Employment. Data Source: World Bank

Having established that a high level of female part-time employment is not necessary a virtue, it is now possible to interpret the patterns exhibited by the Southern European countries. The share of part-time work arrangements is much lower than the European average and is almost half of the Swedish average for all the countries with the exception of Italy. Indeed, in Portugal and Greece roughly 30% of women are employed with a part-time working contract. These data are particularly positive in the Portuguese case, where a low level of women's part-time employment goes together with a high level of overall employment and can be interpreted as a good signal for the economic independence of Portuguese women. At the other extreme lies Italy. Indeed, the low level of women employment goes together with the highest share of part-time employment among the Southern countries. It means that, by 2018, within the just 50% of the total female population with a formal employment, half of them do not work full-time.

Furthermore, it is crucial to the present dissertation to consider the pattern followed by maternal employment, defined as the employment rate of women between the ages of 15-64 years old with at least one child aged 0-14. This indicator is particularly important since most of the family policies under analysis are addressed to working mothers and not just to female workers. Figure 4 displays the patterns of maternal employment over the period 2000-2014 with a distinction between full-time and part-time work arrangements. Since data for Sweden and several other European countries are not available, the figure just reports Southern European data– even though also data for Italy are missing until 2004. In line with the findings highlighted in the previous figures, the rate of mothers' involvement in the labour market is much higher in Portugal than in the others Southern European countries. However, particularly in the most recent years, the rate of maternal employment has been slightly above the 50% in the rest of the region. On the other hand, also for maternal employment Italy displays the highest rate of part-time working arrangements.

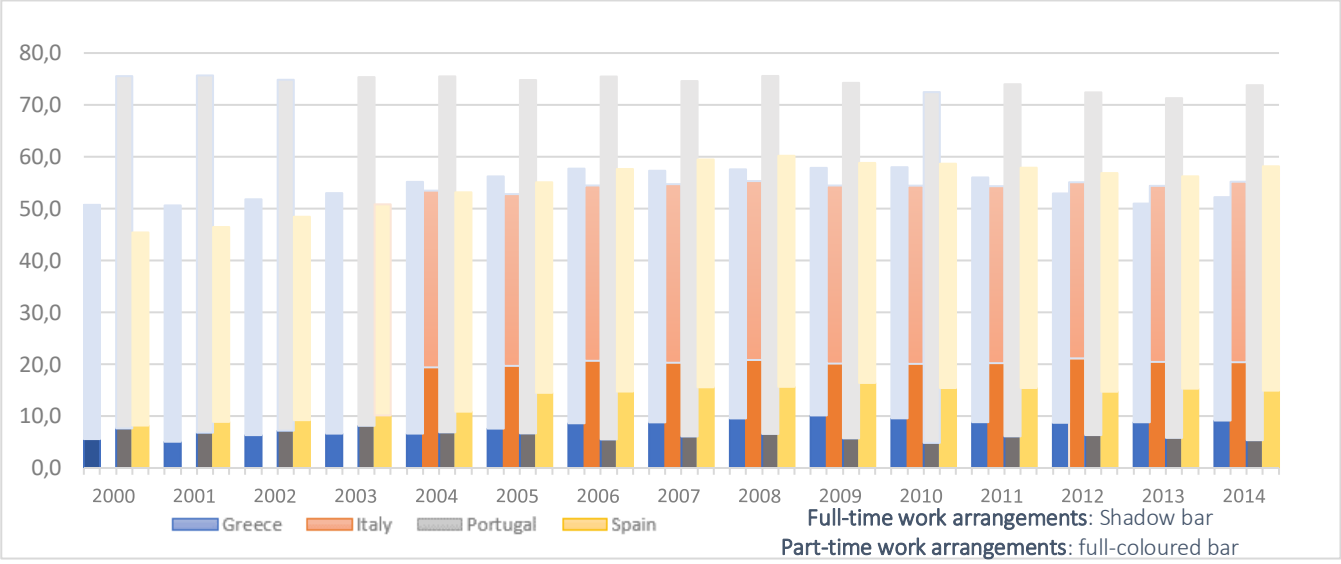

Figure 4:Maternal Employment. Data Source: OECD FAMILY DATABESE

3.2 Gender Segregation in Southern Labour Markets

The indicators listed above cannot offer a comprehensive picture of the condition of the Southern European women in their local labour markets. Although including a sub-section about gender occupational segregation will obviously not be extensive enough to complete the picture, I believe it might be an insightful complement to the analysis outlined above.

Broadly, gender segregation means that women and men take up different patterns in educational choices, labour markets, political life and family duties. Gender segregation matters for several reasons. First of all, by narrowing women's educational and employment choices, segregation emphasizes gender stereotypes, belittles women's capabilities and, consequently, preserves and reinforces gender inequalities. Moreover, by establishing a well-distinguished educational and occupational path among men and women, gender segregation limits women's labour force participation. Indeed, worse earnings and career perspectives together with the view of men as primary earners discourages women from taking up a career in order to be able to dedicate time to family duties (EIGE, 2017).

Regarding occupational segregation, the literature tends to distinguish among two main paths of segregation: horizontal and vertical. The former implies that women and men work are not equally represented in the sectors or occupation in which they are employed. On the other hand, the latter occurs when women happen to be underrepresented in the top-hierarchical jobs, those positions where income, prestige and power are the highest. In order to have a closer look at the horizontal occupational segregation in Southern European, I will look at two different sets of information,

namely, women's employment by occupation and female employment in the tertiary sector. The detailed data and pictures are gathered in Appendix B. These indicators claim for the existence of a clear gender segregated labour markets in Southern European countries. As reported in Table B.1, by 2018, in all the countries under analysis the two most common occupations among employed women were as service and sales workers and professionals (which includes, particularly, teaching professionals). Moreover, as reported, in the Figures B.1 in all the countries, around the 80% of the total workers employed in the service sectors are women.

Furthermore, as an indicator of the vertical gender segregation I included the proportion of female in managerial positions. This indicator has been included among the 2030 Sustainable Development Goals in order to inform regarding the women's power in decision making processes and the economy and to compare women with men's power in those areas. It goes with the target of insuring equal opportunities for leadership and in the political, economic and public life decision-making processes.

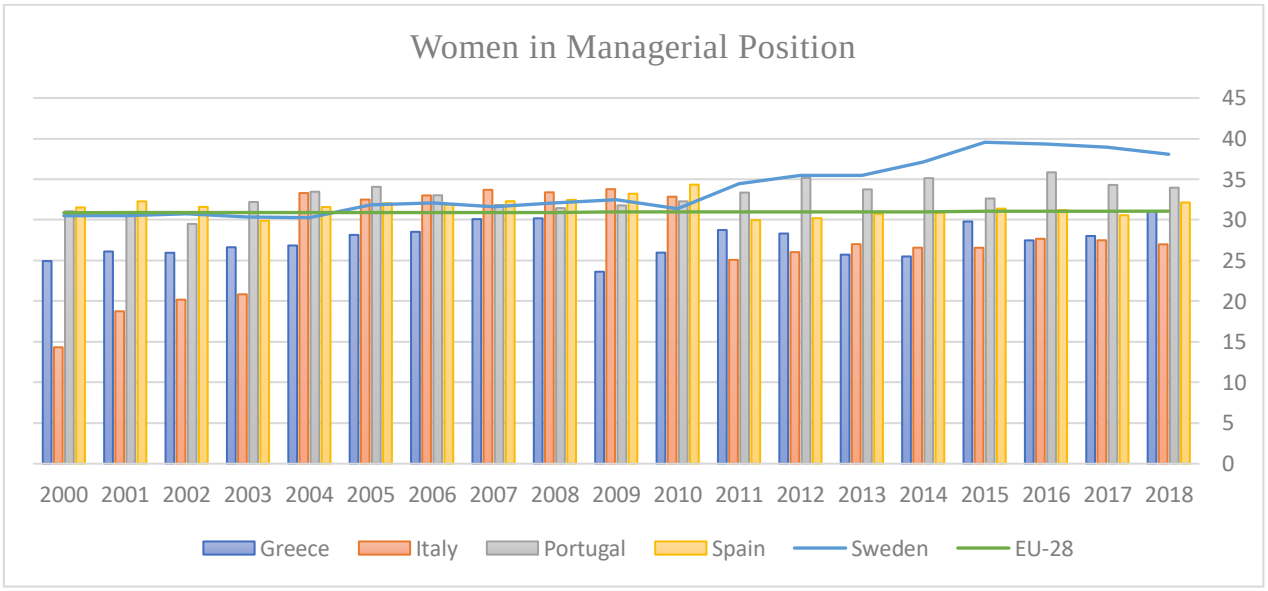

Figure 5:Proportion of Women in Managerial Position. Source: ILOSTAT Database

Figure 5 reports the trend of the female share in managerial position in the countries under analysis. First of all, it is important to notice that the EU-28 average follows a really stable trend all over the period under analysis, demonstrating that the number of women with leadership responsibilities has not grown over the last 20 years. In addition, also the Swedish share has exceeded the European average just since 2010. To the regards of the Southern European countries, it is possible to observe the absence of a common trend. Portugal is still the country scoring the best by experiencing an increasing trend during the earlier past and being close to the Swedish value by 2018. Also Spain is scoring relatively well, even though the trend has been stable and it did not experience any considerable improvement over the years. Although with a much higher variability, Greece underwent an enhancement and reached the European average by 2018. On the other hand, starting

from an initial low involvement of women in the decision-making processes, Italy went through a considerable enhancement until 2010 when the share of women in managerial position was higher than the European average and the one of Sweden. Nevertheless, since then it has started following a decreasing trend and, by 2018, Italy was the country scoring the worst among the Southern European countries.

Summing up the evidence presented in this section, it seems that the labour market position of Portuguese women is better than for that of the other Southern European women with a much higher participation level in all the indicators collected, less part-time work-arrangements and higher share of women in managerial positions. This high involvement of Portuguese's women might question the legitimacy of including Portugal within the same classification of Italy, Spain and Greece. To this regard, the study of Tavora & Rubery (2013) provides an interesting perspective which explains the peculiar pattern of female employment while defending the validity of including Portugal within the Southern typology. Precisely, the authors attribute the high female employment to a concatenation of historical events and economic needs. Indeed, during the 60s and 70s, the colonial wars and the massive emigration Portugal went through provoked several labour shortages. Thus, an active participation of women in the labour market was required in order to sustain the economy. However, the authors argue that Portugal, similarly to the other Southern countries, is still characterized by the centrality of the family in the provision of social welfare, strong gender role attitudes and a weak state support to working mothers.

This section has described the evolution of women's engagement in labour markets of Southern European countries. Starting from the next section, a quantitative approach will be developed in order to explore the determinants of these patterns and, precisely, to assess whether a set of family policy indicators impact significantly women's labour market position.

4.Data and Methodology

Following the contributions of Jaumotte (2003) and Thenevon (2011), this empirical investigation adopts a macroeconomic approach in order to establish the relationship among family policies and women's engagement in labour markets. Precisely, the analysis investigates this link over the period 2001-2014 for the four countries of Greece, Italy, Spain and Portugal, namely, the Southern European countries.

In the qualitative analysis presented in Section 3, the patterns of the indicators of women's labour market position in Southern Europe were compared with the EU-28 averages and the Swedish trends. This comparison was implemented in order to furnish a more precise and insightful idea of the magnitude of the Southern countries' indicators presented in the various figures. On the other hand, the empirical investigation does not include the EU-28 averages or Sweden as benchmarks. Indeed, this section is aimed at exploring the impact of family policies on women in the labour market of Southern Europe and including other countries with different characteristics would alter the results without providing any relevant information to answer the research question.

The decision of focusing just on the period 2001-2014 is related to data availability. Indeed, the crucial indicators of family policies have been directly collected from the OECD Family Database where comparable data for the four Southern European countries are available. Consequently, I obtained a dataset consisting in a strongly balanced panel data with one-year observation for each one of the Southern European countries between 2001 and 2014 for a total of 56 observations.

Hypothetically, by collecting data directly from national statistical databases, it would have been possible to reconstruct the same indicators for the policy variables available in the Family Database and extend the analysis until more recent years. Although I have initially attempted to do so, I realized that several comparability problems were arising.[3] Therefore, since the OECD Family Database has been developed with the precise intention of comparing the situation of families and children among OECD countries, I preferred to conduct an analysis over a shorter period but with more reliable data.

[3] Particularly difficult was to find the comparable data needed to compute the participation tax rate. In order to be built, this variable requires several combined information regarding households' disposable income, gross earnings levels and characteristics – such as the number of children in the household and their ages. Unfortunately, I was not able to find enough information to build the participation tax rates in the same way as the OECD did.

4.1 Data

4.1.1 The Dependent Variables

The two main dependent variables included in the analysis are the female labour force participation and maternal employment rates. The labour force participation rates account for the proportion of the whole women population in the labour market, being either employed or seeking a job. On the other hand, the rate of maternal employment accounts for the proportion of the mothers with at least one child aged between 0-14 years old with an employment. The data have been collected, respectively, from the database of International Labour Organization and the OECD Family database. The trends of the variables have been already extensively described in Section 3.

The labour force participation rate is preferred to the rate of women's employment due to his higher suitability to an analysis aimed at measuring the effect of policy instruments - such as the family policies ones. As matter of fact, in addition to being the most standard indicator adopted by the literature, it is plausible to expect that the implementation of specific policies does not affect just the number of women employed but also their decision to join and be part of the labour market (and therefore looking for a job).

Moreover, the specific focus on maternal employment is due to the fact that most of the family policies under analysis are addressed specifically to mothers and not just to women. Nevertheless, since observations until 2004 are not available for Italy, the regression will be restricted to a smaller sample (from 56 to 53 observations).

In order to verify if the main results respond to the choice of the dependent variable, in Section 5.3, the same model will be regressed over other indictors of the labour market position of women, namely, the rate of women's employment, the female part-time employment and the total share of women in managerial positions.

Table 1 reports the descriptive statistics of the variables included in the analysis. First of all, they highlight the limited number of observations available. This information is important since the results of the analysis will have to be interpreted with caution as finding statistical significance and causal relationships could be an issue. The implications related to the smallness of the sample will be discuss further in the "Limitations" section.

The descriptive statistics in Table 1 do not highlight any noticeable features in the data. Indeed, the small mean for the indicator accounting for the proportion of women in managerial position is not surprising since, as already discuss in Section 3, women tend to be excluded from decision-making

positions. Moreover, the standard deviations are quite similar across indicators with the widest variance being found for the maternal employment variable.

DEPENDENT VARIABLES	N	Mean	SD	Min	Max
Female Labour Force Participation	56	46.18	6.59	35.32	56.01
Female share in managerial position	56	29.71	4.06	14.32	35.85
Part-time	56	37.62	7.19	26.88	58.03
Female Employment	56	39.32	6.56	30.07	51.13
Maternal Employment	53	60.36	9.54	45.42	76.21

Table 1: Descriptive Statistics of Dependent Variables

4.1.2 Family Policies Indicators

In the literature review section, three important dimensions of family policies have been highlighted, namely, family taxation, parental leave schemes and childcare. With regard to these three dimensions, here the indicators chosen to assess the impact of family policies on women's labour force participation and maternal employment.

As a proxy for the neutrality of the tax scheme, the empirical analysis looks at the **participation tax rate.** It accounts for the extent to which taxes and benefits reduce the financial gain of moving into work for a potential second earner (most likely the women) within a household. More precisely, it is defined as the proportion of potential gross earnings that would be "taxed away" in the form of direct taxation, reduced out-of-work and income tested benefits in the case the potential second earner would enter the labour force. Thus, being higher marginal rates related to a loss of neutrality in the tax systems, they would be expected to decrease the opportunity cost of staying home and therefore to discourage women's participation in the labour markets.

The participation tax is calculated for an individual which, by entering employment, would make gross earnings equal to the 67% of the AW[4]'s average earnings. In addition, this individual is married and lives in a couple household with young children.

In the OECD statistics, the participation rate is calculated on the potential second earner not just at the 67% of the average earnings but also at the 50% or 100%. The decision to consider the tax at the

[4] The AW acronym stands for Average Worker. According to the OECD Factbook (2010), tax wedges are calculated referring to the average worker. The average worker is "somebody who earns the average income of full-time workers of the country concerned in sectors C-K of the International Standard Industrial Classification (ISIC rev. 3). The average worker is single, meaning that he or she does not receive any tax relief in respect of a spouse, unmarried partner or child".
The ISIC rev.3 C-K sectors are: Mining and quarrying; Manufacturing; Electricity, gas and water supply; Construction; Wholesale and retail trade; repair of motor vehicles, motorcycles and personal and household goods; Hotels and restaurants; Transport, storage and communications; Financial intermediation; Real estate, renting and business activities

67% of the AW relies on the expectation that both the earners would be full-time workers and that the second earner would not earn as much as the first one. These assumptions seem to fit good to the Southern Countries for two main reasons: (i) the existence of gender wage gap with men earning more than women – as argued by Olivetti and Petrongolo (2008); (ii) in Greece, Spain and Portugal most of the women have a full-time employment – as outlined in Figure 3.

Figure 6 displays the trend of this indicator across the Southern European countries. All over the period under analysis, Italy was the country with the highest rate. Although the rate changes a lot over the years, Greece appears as the country with the smallest participation rate.

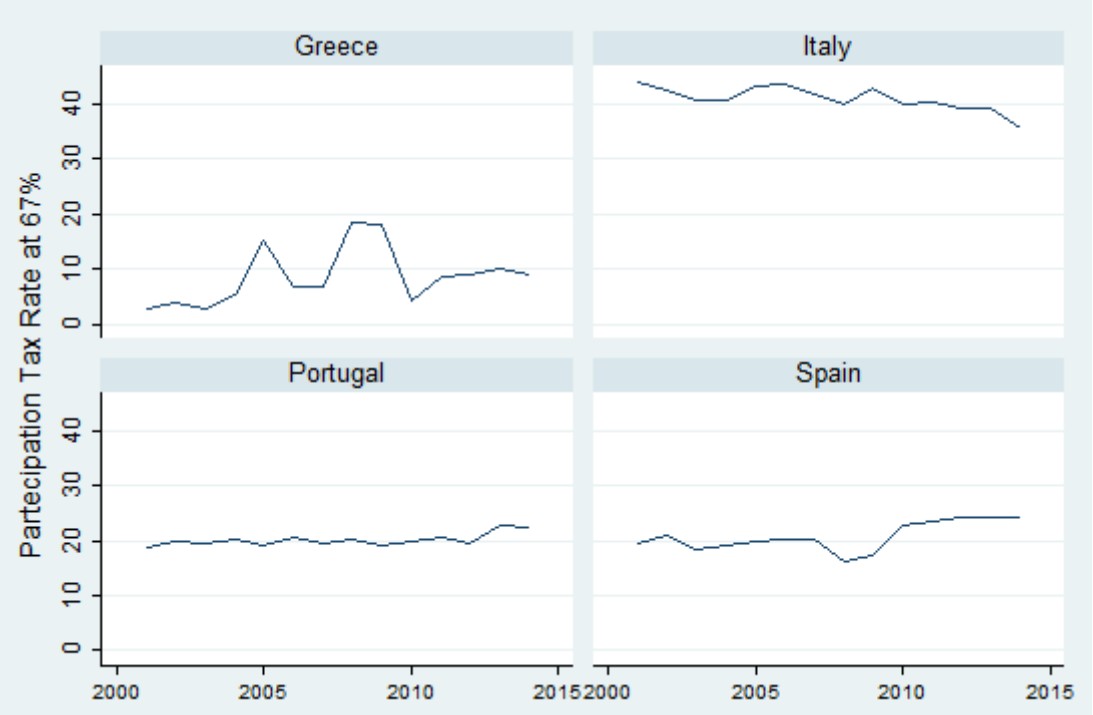

Figure 6:Trend of Participation Tax in Southern Europe

Furthermore, according to the descriptive statistics reported in Table 3, the participation tax rate results in being the indicator with the biggest variance among the other family policies indicators included in the analysis.

Furthermore, as indicators for the **parental leave scheme**, the empirical investigation includes two variables: (i) the length of paid leave reserved to mothers and (ii) the length of paid leave reserved to fathers. These two variables account for the parents' entitlement to be in a paid leave from work for reasons related to the childcare. They are measured in total number of weeks.

In Table 2 are reported detailed information regarding the leave entitlement of mothers and fathers over the period 2001-2014. Precisely, the table collect the maximum number of paid leave in number of weeks reserved to mothers and fathers, separately. According to the table, it is clear that with the exception of Portugal, Southern European fathers are not entitled to large leave periods.

	Spain		*Greece*		*Italy*		*Portugal*	
	Mothers	Fathers	Mothers	Fathers	Mothers	Fathers	Mothers	Fathers
2000	16	0,4	17	0,4	47,7	0	17,1	4
2001	16	0,4	17	0,4	47,7	0	17,1	4
2002	16	0,4	17	0,4	47,7	0	17,1	4
2003	16	0,4	17	0,4	47,7	0	17,1	4
2004	16	0,4	17	0,4	47,7	0	17,1	4
2005	16	0,4	17	0,4	47,7	0	17,1	4
2006	16	0,4	17	0,4	47,7	0	17,1	4
2007	16	2,1	17	0,4	47,7	0	17,1	4
2008	16	2,1	43	0,4	47,7	0	17,1	4
2009	16	2,1	43	0,4	47,7	0	30,1	21,3
2010	16	2,1	43	0,4	47,7	0	30,1	21,3
2011	16	2,1	43	0,4	47,7	0	30,1	21,3
2012	16	2,1	43	0,4	47,7	0	30,1	21,3
2013	16	2,1	43	0,4	47,7	0,2	30,1	21,3
2014	16	2,1	43	0,4	47,7	0,2	30,1	21,3

Table 2: Length of paid leaved reserved to mothers and fathers in number of weeks

Additionally, as confirmed also by the descriptive statistics table, the parental leave reserved to mothers has got a wide variance with a minimum of paid weeks of 16 (Spain) and a maximum of 47.70 (Italy).

Finally, as proxy for child benefits reserved to families, I have included the public **expenditure on child-related cash transfers to families** as a percentage of the GDP. Precisely, this variable accounts for the expenditure on child benefits, income support payments during period of parental leave and income support for single parents to those families with at least one child.

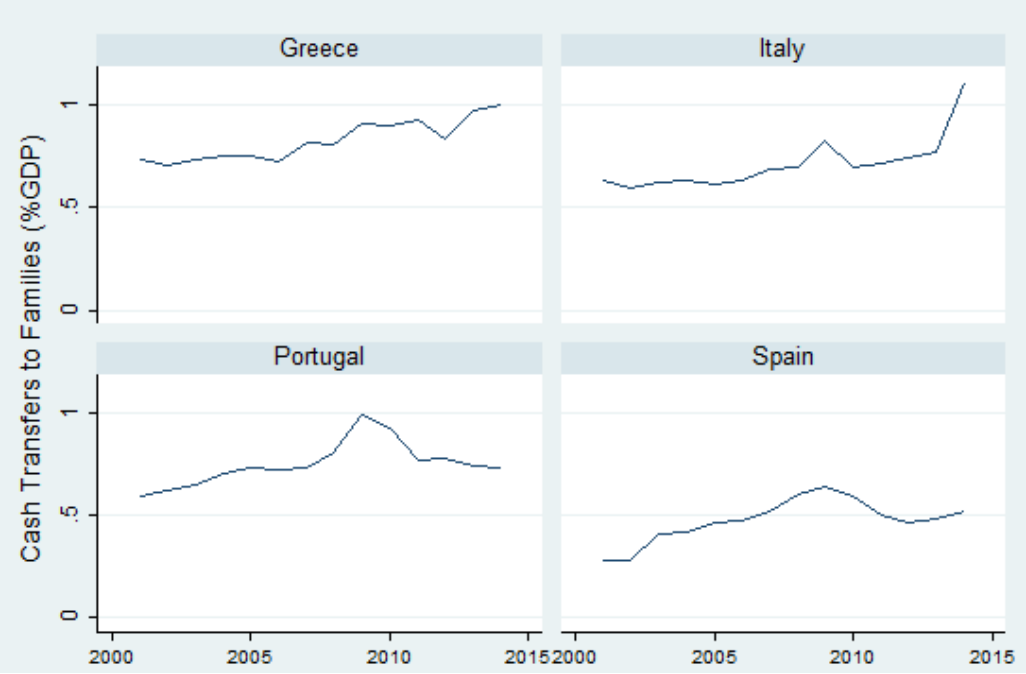

Figure 7:Trend of the Expenditure on Cash Transfers in Southern Europe

Figure 7 reports the evolution of the expenditure on cash transfers in each country over the period under analysis. Although the 1.29% maximum is observed in Italy, the variation both across time and countries is little – with a standard deviation of just 0.19.

FAMILY INDICATORS	N	Mean	SD	Min	Max
Participation Tax Rate at 67%	56	22.58	12.12	2.74	44.00
Paid mothers leave	56	29.42	13.93	16	47.70
Paid fathers leave	56	3.52	6.72	0	21.30
Cash transfers (%GDP)	50	0.70	0.19	0.28	1.29

Table 3:Descriptive Statistics of Family policies indicators

4.2 Methodology

4.2.1 The Model

In order to test the effect of family policies of women's labour market participation in Southern European countries, the study applies a macro-level panel data regression analysis which includes countries dummies in order to control for fixed effects. The model indicated below has been built by combining and adapting previous research and theories which connect women's labour market outcomes with family policies, to the specificities of the Southern European countries. Precisely, the specification outlined below has been built by mostly following the contributions of Jaumotte (2003) and Thenevon (2011) who both analyse the relationship between family policies and women's labour market outcomes in OECD countries.

The baseline estimation is the following:

$$ln(FLabourmarketposition)_{it} = \beta 0 + \beta 1\,(Family\ Policies)_{it} + \beta 2(Demographic\ Characteristics)_{it} + \beta 3(Socio-Economic\ Indicators)_{it} + \beta 4(Institutional\ Characteristics)_{it} + Countries\ Dummies + \varepsilon_{it}$$

As already stated above, the dependent variables are a set of indicators of the women's position in the labour market of the Southern European countries. Precisely, the two main indicators included in the main regression analysis are, respectively, the natural logarithm of the labour force participation of women and the natural logarithm of the maternal employment rate. Furthermore, in order to test the sensitivity of the results to the kind of indicators of the female position in the labour market, in

Section 5.3 the dependent variables will be substituted with the part-time employment rate, the share of women in managerial position and the female employment rate.

The family policies indicators are clearly the key independent variables included in the analysis. As already mentioned above, they include the tax on women participation rate, two indicators as proxies for the parental leave schemes - the length of paid maternity leave and the length of paid paternity leave – and total expenditure on cash transfers to families (which is a proxy for child benefits).

By the side of the family policies indicators, the regression includes a set of demographic, socio-economic and institutional variables which according to the literature are responsible determinants of women's labour supply. They will be explained in detail in the next sub-section.

Moreover, after having performed a test to check for the presence of heteroskedasticity which performed positive, I have estimated the model with robust clustered standard errors. This kind of estimation allows to avoid serial correlation and autocorrelation among variables as well heteroskedasticity.

4.2.2 Controls

Establishing the effect of family policies on women's labour force participation has been complemented by adding control variables in order to account for a set of demographic and socio-economic characteristics.

Following Calamo et al. (2015), the demographic variables[5] included in the specification are:

(i) the total fertility rate (TFR). It accounts for the average number of children born from a woman over her lifetime. Although historically a decrement in the fertility rate has been correlated with the female engagement in the labour market, this relationship seems to have lost power over the decades and, since the 90s, a positive relationship between women's labour force participation and fertility rates arose (D'Addio-Dervaux and Mira d'Ercole, 2005).

(ii) The Crude Marriage Rate (CMR) and the Crude Divorce Rate (CDR). They are respectively defined as the total number of marriages/ divorces per 1000 people during a given year.

On the other hand, the **socio-economic variables** included in the specification are:

[5] Data for the demographic variables have been collected directly from the OECD Family Database

(iii) the percentage of women with an upper secondary education. Data for this variable have been collected from the Eurostat Database. This indicator is not just as proxy for the education level. Indeed, it is included also because women who study longer are likely more willing to enter the labour force;

(iv) Women employed in the service sector. The literature and several empirical studies highlight the link between economic growth and women labour force participation. Particularly, most of countries at an advanced stage of development experience higher participation of women in the labour force due to their high employment in the tertiary sector.

(v) Women and Men Unemployment rate as an indicator of the overall macroeconomic stability of the countries under analysis.

The variables of the female and male unemployment as well as the rate of female employment in the service sector have been lagged of one year in order to prevent the risk of endogeneity with the dependent variables, indicators of the women's position in the labour market.

Finally, looking at the analysis of Genre et al (2005) aimed at analysing the labour market position of European women with respect to men, I have included two institutional indicators:

(vi) the trade union density

(vii) the degree of the employment protection legislation.

These two variables are included as proxies of the flexibility of the labour markets in the Southern countries and they are expected to negatively affect women's labour force participation. Indeed, since women are subjected to higher level of inactivity then men, a stringent employment protection together with a stronger influence of trade union should limit the employers' propensity to frequently hire or fire workers. Consequently, the probability of those outside the labour market (mostly women) to enter decreases.

4.2.3 Main correlations

Table 4 summarizes the main pairwise correlations among the indicators of women's labour force positions and the family policy variables.

The correlation among the participation tax rate and all the dependents is negative with the exception of the part-time employment. Since the participation tax rate accounts for the disincentive faced by a potential second earner (the woman) to enter or re-enter the labour market, a higher tax is negatively correlated with the decision of supplying labour. Nevertheless, it might be that working part-time is

positively correlated to this tax. Indeed, the decision of working part-time might be done with the intention to avoid the loss of financial benefits available for the household below a certain income level.

The indicator of the length of paid parental leave reserved to mothers have been found to be negatively correlated to all the dependent variables with the exception of part-time employment. Indeed, instead of increasing the participation of women in the labour markets, long leaves schemes might discourage women to enter, renter or stay on the labour market, if not by accepting a more flexible working time arrangement. The specular correlations have been found in the case of the length of paid parental leave reserved to fathers. Indeed, fathers specific leave appear to be positively associated with women's engagement in the labour market.

When it comes the indicator of the expenditure on cash transfers provided to families with children, the correlations vary in intensity and significance even though none of them is significant in the data.

	Female Labour Force Participation	*Female Employment Rate*	*Part-Time Employment*	*Share of Women in Managerial Position*	*Maternal Employment*
Participation Tax rate at 67%	-0.380* 0.004	-0.203 0.1314	0.808* 0.000	0.029 0.827	-0.2067 0.123
Paid mothers leave	-0.594* 0.000	-0.525* 0.000	0.461* 0.000	-0.332* 0.005	-0.3934* 0.002
Paid fathers leave	0.616* 0.000	0.609* 0.000	-0.315* 0.009	0.432* 0.002	0.531* 0.000
Expenditure Cash Transfer to Families	-0.062 0.64	-0.066 0.62	-0.0907 0.4906	-0.2185 0.0936	0.1968 0.1578

Table 4: Correlation between dependent and Main Indicators included in the analysis

4.2.4 Country Fixed Effects

The model outlined above has been estimated by including countries dummies in order to control for country fixed effects. In addition to the fact that most the literature which carries out cross-country comparisons adopts a fixed effects estimation methodology, I will explain in the current sub-section why I decided to do so.

It is true that the main argument of grouping together the Southern European countries lies on the fact that they share common institutional features, a similar approach to family as provider of welfare as well as labour markets' similarities. However, as outlined in Section 3 and confirmed by the graphs reported in Appendix C, the trend of the depend variables are heterogenous with different variances and trend across countries. As a matter of fact, it is more than plausible to expect that some of these observed differences might be attributable to time-invariant components which differ across countries. For example, it is possible that many (observable and unobservable) factors, such as the

legislation or the policy makers preferences for gender equality did not change over this short period of time of 13 years. Since these features might influence the level of women's labour force participation as well as the maternal employment in the Southern European countries, a fixed effects estimation is preferable in order to avoid to obtain biased coefficients.

This theoretical reasoning is confirmed by the results of the Hausman tests reported in Appendix D. The Hausman test compares the efficiency between a random and a fixed effect regression estimation. Precisely, under the null hypothesis, both the estimations are consistent while the Random Effects is more efficient then the Fixed Effects. Since the results of the chi-squared are for both the estimations below the level of 0.05, the Fixed effects estimation is preferred to a Random Effects Estimation.

4.3 Limitations

The model I have developed might incur in some noticeable limitations.

The first and most important one is related to the sample size. Indeed, analysing a sample consisting of 56 observations might be responsible of weakening the explanatory power of the model and undermining the estimations' accuracy. Indeed, it might be plausible to expect that the significance as well as the magnitude of the estimated coefficients could be incremented if the size of the sample would grow by, for example, extending the analysis to the years previous to 2001.

Additionally, the relationship between women's position in the labour markets and family policy might suffer of some degree of endogeneity. Indeed, it might be the case the family policies were developed in order to ensure the protection of a consistent portion of female population, the one already in the labour market.

These two main major concerns have the main consequence of undermining the ability of the model to claim for the existence of a causal relationship among the main policy indicators and the ones of female involvement in the labour market. As a consequence, caution will need to be adopted when it comes to the results' interpretation where, instead of claiming for causality, it would be more correct to argue for significant correlations.

5.Empirical Findings

5.1 Results

Table 5 collects the estimated results relative to women's labour force participation and the maternal employment rate. Precisely, the analysis has been implemented by distinguishing among a "reduced form" model where just the policies variables are included and a complete specification with all the controls.

Before interpreting the results, it is important to mention that, with regards to the female labour force participation variable, most of the explanatory variables resulted in having either a very small or an insignificant effect. On the other hand, the independent variables' effects increase in significance and magnitude when it comes to maternal employment. In accordance with the results' significance, more attention will be pointed towards the interpretation of the maternal employment results instead of the ones of women's labour force participation.

5.1.1 Labour Force Participation

With the exception of the child benefits indicator, in column 1 and 2, the empirical analysis neglects the existence of a statistically significant relationship among the family policy variables and the labour force participation of women in the Southern European countries. Indeed, although the coefficients for the father's paid leave are significant at 10% in both the specifications, the size of their impact is almost equal to zero. Similarly, in both the model's specifications, the coefficients for the paid parental leave reserved to mothers as well as the participation tax rate are not just insignificant but also small. On the other hand, in column 1, the variable accounting for cash transfers to families has been found to have a significant and positive effect on the women's participation rate. However, by adding controls this effect is slightly reduced and it loses its statistical significance.

Therefore, according to Table 5, over the period 2001-2014, family policies does not seem to have significantly shaped the trend of labour force participation in the Southern European countries. On the other hand, most of the control variables included in the analysis appear as significant determinants of the labour force participation even though, often, their effects are small.

	Labour Force Participation		Maternal Employment	
	(1)	(2)	(3)	(4)
Participation Tax Rate	0.006	0.003	0.081***	0.026
	(0.006)	(0.004)	(0.023)	(0.023)
Paid mother's leave	-0.002	0.000	-0.031	-0.026***
	(0.003)	(0.002)	(0.019)	(0.010)
Paid father's leave	-0.001*	-0.001*	-0.009**	-0.005
	(0.001)	(0.001)	(0.004)	(0.006)
Exp on cash transfers	0.367*	0.111	3.188	1.187*
	(0.200)	(0.126)	(2.282)	(0.687)
Fertility Rate		-0.128*		4.167***
		(0.073)		(0.903)
Marriage Rate		0.054**		0.334
		(0.023)		(0.221)
Divorce Rate		0.061***		0.373***
		(0.014)		(0.095)
Wom with upper secondary educ		0.022***		0.267***
		(0.004)		(0.035)
Female Unemployment		0.000		0.020
		(0.001)		(0.014)
Male Unemployment		-0.003		-0.037**
		(0.002)		(0.016)
Women in services		0.002***		0.000
		(0.000)		(0.006)
Union Density		0.013***		-0.094**
		(0.001)		(0.044)
Employment Protection		0.025		0.731*
		(0.041)		(0.396)
Observations	56	56	53	53
Number of Country	4	4	4	4
Country Fixed Effects	YES	YES	YES	YES
R-square	0.93	0.97	0.57	0.91

Table 5: Econometric Estimation of the determinants of Labour Force Participation and Maternal Employment

With regard to the demographic variables, the fertility rate appears as a negative and significant determinant of women's participation in labour markets. Indeed, an increment of 1% the Total Fertility Rate brings to a decrement equal to 0.11% in the participation of women. Moreover, although the coefficients or the Crude Marriage Rate and the Divorce rate have a small size, they are significantly positively correlated with women's participation. Incrementing by 1% the number of

marriages/divorces per 1000 people, increment, respectively, by 0.05% and the 0.06% female participation.

Further, even though small, a significant and positive effect has been found between the share of women with an upper secondary education and labour force participation. Particularly, an increment of 1% in the proportion of women with an upper secondary education is associated with a 0.02% increment in participation. On the other hand, either the female or the male employment rates have been found to have no effect on women's participation. Similarly, although significant, the share of women's in the service sector has almost no effect on women's labour supply. Finally, also the effects of the institutional variables included as proxies for the market flexibility have almost no effect on labour force participation of women.

Despite the fact that most of the variables included in the model do not seem to have a significant explanatory power on female labour force, the R-squared is above the 0.95% in both the specifications. This feature is attributable to the inclusion of the country fixed effects in the regression analysis.

5.1.2 Maternal Employment

In column 3, it is shown a positive and significant relationship among the participation tax rate and maternal employment, where a 1% increment in the participation tax rate is associated to an increment in the maternal employment of 0,08%. However, when controls are included the coefficient turns insignificant. Being the participation tax an indicator of the disincentives faced by the second earner of the family when he joins the labour market, this positive association might appear surprising. Nevertheless, the reason behind this relationship might be related to the existence of a selection among the women or, more precisely, mothers in the labour market. This aspect will be discussed more in detail in Section 5.2.

The length of the paid parental leave reserved to mothers is negatively related to maternal employment – the coefficient is negative but insignificant in column 3 while it turns significant although small when controls are included. In column 4, by increasing of one week the length of the paid leave to mothers, maternal employment is reduced by about the 0.03%. Since the beginning, it has been argued that the effect of maternity leave on women's labour supply is not straightforward. In this case, the negative sign can be explained in relation with the low level of maternal employment observed in Italy, Greece and Spain where the percentage of employed mothers stays below 60%. Indeed, it might be the case that an extension of the maternity leave incentivizes the substitution of the work between mothers and fathers, rather than boosting maternal employment. In addition, the

low magnitude of the coefficient might be related to the fact that in Portugal this substitution effect might not take place. As a matter of fact, the higher level of Portuguese maternal employment – it brushes against the 80% during the all period under analysis – might reduce the size of the paid leave reserved to mothers' coefficient.

On the other hand, the length of specific leave reserved to fathers has no effect on the rate of maternal employment. This might be attributed to the fact that, as reported in Table 2 of Section 4.1.2, during most of the period under analysis, less than one fully paid week of leave is available to fathers.

The public expenditure on cash transfers has been found to have a strong positive effect on maternal employment, even though it turns significant just in column 4. Particularly, an increment of one unit in expenditure on cash transfers to families with children is expected to increment maternal employment by 3.18-1.18%. As mentioned in Section 2.2.3, the literature argues for the controversial effect of child benefits on women's labour supply since the increment in the household income due to the cash transfer is not necessarily translated into an increment in female participation or maternal employment. Indeed, entering the labour force for mothers could also reduce same of the household financial benefits, particularly when the transfers are conditional to the family disposable income (as in the case of Italy and Spain). However, similarly to what observed in the case of the participation rate, this positive effect might be related to the existence of a positive selection of women in the labour force.

The results presented in column 3 and 4 show that the coefficients of the policy indicators alternatively acquire (loss) significance according to the model specification. Precisely, the coefficients of the participation tax and the paid leave reserved to fathers are significant in the "reduced-form" model but they turn insignificant when controls are added because of omitted variable bias. Namely, the policy indicators' coefficients of column 3 incorporate part of the effect on the dependent variable attributable to control variables because of the existence of a correlation between the regressors[6]. On the opposite, the coefficients of the paid leave reserved to mothers and the cash transfer variables turn significant when the control variables are included. It might be that these policy variables were initially characterized by a high variation uncorrelated with maternal employment which was took away when the controls were included.

Further, the share of women with an upper secondary education has been found to be positive and significant on maternal employment: a 1% increase in this share is associated with about a 0.27% increment in maternal employment. As a matter of fact, the upper secondary education has not been included just as a proxy for the education level but also because, by providing information regarding

[6] For a closer examination of the correlations among the regressors look at Appendix E.

the number of women that obtain a relatively medium-high level of education, it can be interpreted as informative of the willingness to be part of the labour market. In the next section, the positiveness of this coefficient will be interpreted as the main proof of the existence of a positive selection bias among women and mothers active in the labour markets.

According to the results reported in column 4, the demographic indicators have a stronger effect on maternal employment than on labour force participation. Precisely, an increment of 1% in the total fertility rate is translated into a 4.2% increment in maternal employment. Moreover, although the marriage rate has not been found to be significant, the divorce rate has got a significant and positive effect on maternal employment. Namely, by increasing of 1% the number of divorces per 1000 people, the rate of maternal employment is expected to increase of about the 0,37%. An extend stand of the literature found that, after divorce, women face a substantial income loss which is usually higher than those of men. As a consequence, women tend to increase their dependence on social welfare (Duncan & Hoffman, 1995; Smock, 1994) and/or increase they labour supply by either entering the labour force or working longer hours (Lombardo, 1999; Green & Quester, 1982). Additionally, Uunk (2004) points out that most of these effects are stronger when the woman is also a mother. Therefore, in line with the literature findings, the results reported in Table 5 indicate that after an overall increment in the number of divorces, mothers tend to increase their labour supply.

In the case of the macroeconomic stability indicators, female unemployment appears insignificant while the male unemployment rate is significant even though it has a modest effect on maternal employment.

Finally, although negative and significant, the size of the effect of union density as a proxy for the flexibility of the labour market is small. On the other hand, the Employment Protection Legislation has a positive significant and sizable effect on the maternal employment. The literature argues that rigid labour markets tend to create strong disincentives for women to enter the labour market since their employment opportunities are decreased (OECD, 2004; Heckman & Pages, 2000). Nevertheless, since the maternal employment accounts just for the proportion of mothers that are already employed, a more rigid labour market framework in Southern Europe tends to ensure mothers' workplace.

5.2 Discussion

The regression analysis shows that the family policy indicators do not affect women's labour force participation in the countries under analysis while they result in having a more significant impact on maternal employment. This suggests that in Southern countries policies tend to still be implemented

in order to favour women in their role of mothers instead of as workers and that strong gender stereotypes persist when it comes to the designation of public policies. In relation with the welfare literature reviewed at the beginning of the dissertation, this finding is in line with the argument of Trifiletti (1999), according to which a strong systematic relationship between the welfare state typologies and the way in which policy makers treat women exists. Thus, this evidence advocates for the need of including a gender perspective when it comes to the classification of Southern countries within an independent welfare typology.

Furthermore, the regression results highlight two additional noticeable features which merit to be discuss more in detail, namely, the existence of positive women employment selection and the positive relationship among maternal employment and fertility rate.

In order to explain the sign and the magnitude of some coefficients, I argued for the existence of a positive selection bias among women/mothers in Southern European labour markets. Positive selection entails that women and mothers in the labour market are characterized by a set of observable (i.e. education, human capital) and unobservable characteristics which made them more qualified than those outside the labour force. In a seminal paper of 2008, Olivetti & Petrongolo argue that this process of positive selection is particularly sharp in Southern European countries. Precisely, they attribute employment selection to the existence of strong and well-defined gender roles within the household, social attitudes towards women employment which might bias the decision of the employer to hire a woman (and/or a mother) and specific characteristics of the labour market. Consequently, the positive association found among the participation rate and the cash transfers variables with labour force participation and maternal employment might be interpreted in the light of the positive selection. As a matter of fact, it might be the case that higher participation tax do not discourage the employment of mothers and the participation of women since those who are in the labour markets are more qualified, i.e. they are more educated, more willing to work, come from a more fortunate environment etc. In the regression analysis, the hypothesis of the positive selection is backed up by the positive and significant coefficient of the variable accounting for the share of women with an upper secondary education.

Furthermore, it is important to explain the positive and sizable effect obtained for the total fertility rate on maternal employment. Traditionally, the literature suggests that, due to the effort in conciliating work and family responsibilities, fertility and women's engagement in the labour markets tend to be negative related (Stycos & Weller, 1967). Several recent individual-level studies found support to this hypothesis by encountering a negative effect of childbearing on labour supply of

mothers in advanced economies[7]. However, several cross countries analyses found that the correlation between fertility and labour force participation of women has turned positive since mid-80s (Bernhardt 1993, Pinnelli 1995). Particularly, Rindfuss & Brewster (2004) argue that, nowadays, the positive relationship between fertility and maternal employment is attributable to the fact that working mothers are such when they can easily balance working life and family duties. Easing this conciliation might be made by a more family friendly environment and/or when the working mother is privately provided by childcare services. Since the level of family welfare provided by the central government in Southern Europe is not high, it is plausible to expect that mothers who are employed have access to higher quality occupations were the employer respond more to the needs of the mothers. In the data, this statement found support in the positive coefficient found for the degree of employment protection in the case of maternal employment. Further, this observed positive relationship between maternal employment and fertility rate could be an additional proof for the positive selection of mothers in the labour market. In fact, mothers who access to more protected occupation, likely, are also more qualified than those outside the labour market.

5.3 Sensitivity Checks

In this sub-section, the sensitivity of the results obtained in the Section 5.1 will be checked by regressing the same model on different indicators of women's labour market outcomes. Appendix F collects the results of three additional regressions, where the dependent variables are, respectively, female employment, part-time employment and the share of women in managerial positions.

According to the regression results, the family policy's indicators – even though they are small – tend to significantly impact female employment. The participation rate as well as the length of fathers' leave has a positive and significant effect. The positivity of the former could be attributed, again, to the existence of positive selection among female employment. Nevertheless, the share of women with an upper secondary education does not significantly affect employment. In addition, the fact that the length of fathers' leaves affects positively female employment is in line with the previous literature findings. Indeed, the paternity leave should redistribute childcare duties within the spouses and mitigate the burden of family responsibilities on women. On the other hand, similarly with the results obtained in the case of the labour force participation rate, the majority of the variables included in the model have been found to be either insignificant or to have a little effect on part-time employment and the share of women in managerial position.

[7] See Angrist & Evans (1998) and Bronars &Grogger (1994) for USA or Cristia (2008) for Denmark. See Aaronson et al. (2018) for cross-countries comparison in an historical perspective (over the last two centuries).

Contrary to what expected by looking at the correlation table in Section 4.2.2, the sensitivity checks do not highlight any differences between the effect of family policy indicators on labour force participation (or female employment) and part-time employment.

In line with the findings regarding maternal employment, the fertility rate has been found to be a positive determinant of female employment, part-time employment and the share of women in managerial position. These results confirm that over the 2000s, the relationship between labour market outcomes of women and fertility rate is positive.

6.Conclusion

The present dissertation carried out an empirical investigation of the relationship between a set of family policy's instruments and two main indicators of women's labour market outcomes in Southern European countries, over the period 2001-2014. Based on previous literature, the main policy instruments selected in the analysis are related to family taxation, parental leave scheme and the state's support to families with children. The effect of these policy instruments has been tested on two main indicators of women's labour market position, namely, female labour force participation and maternal employment.

The empirical investigation has been implemented through a fixed-effect linear panel regression model. Macro-level data between the period 2001-2014 have been adopted with a correspondent one-year observation for each country. The decision to focus on this period of time was related to data availability. Indeed, in order to implement a consistent cross-country comparison data have been collected from the OECD Family database where data are available just until 2014.

The main results of this empirical analysis show that family policies did not considerably and significantly affect labour force participation. On the other hand, the regression results show a more significant impact on maternal employment. Accordingly, family policies in Southern Europe seem not effective on the whole female-worker population while they have a more considerable impact on the employment outcomes of mothers. This finding supports the idea that, in Southern Europe, the designation of public policies is still considerably affected by strong gender stereotypes which mostly look at women in their role of mothers instead of workers.

Furthermore, it has been argued that the unexpected correlations among several indicators and women's labour market outcomes – particularly, the positive relationship with the participation tax rate – can be explained in light of the existence of a positive selection among the women (particularly mothers) in the labour market of Southern European countries. Indeed, the positive and significant coefficient obtained for the proxy of the share of women with a medium-high level of education, combined with previous findings of the literature, make plausible to expect that women in the labour market of Southern Europe are more qualified than those who stay outside. This finding is also supported by the positive relationship obtained between fertility rate and maternal employment.

Overall, the results suggest that policy makers in Southern European countries should commit to overcome the traditional view of women as mothers in the designation of public policies and ease the entry to the labour market for those women who are excluded. This will require a resolute fight against gender discrimination and stereotypes.

Further research regarding the relationship between family policies and women's labour market outcomes are desirable. Particularly, it might be insightful to implement an analysis aimed at exploring the same dynamics as the present dissertation by adopting individual level data. Indeed, it would provide additional information about how family policies affect women according to their individual characteristics.

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Appendix

Appendix A: Family Policies in Southern Europe

Table A.1: Generosity of The Parental Leave

	Length of Maternal in weeks		Length of Paid Maternity and parental leave available to mothers in weeks		Maternity leave payment rates ,2014 *			Length of Paid Paternity and parental leave reserved for father in weeks	
	2001	2014	2001	2014	50% of average earnings	67% of average earnings	100% of average earnings	2001	2014
Spain	16	16	16	16	100,0	100,0	100,0	0,4	2,1
Greece	17	43	17	43	78,3	53,9	39,3	0,4	0,4
Italy	21,7	21,7	47,7	47,7	80,0	80,0	80,0	0,0	0,2
Portugal	17,1	6,4*	17,1	30,1	100,0	100,0	100,0	4,0	21,3

DATA SOURCE: OECD Family Database
*Proportion of gross earnings replaced by maternity benefits across paid maternity leave, by level of earnings
** By 2014, in Portugal the length of specific maternal leave become shorter since it accounts just for the one used around the time of childbirth. Nevertheless, the total amount of paid weeks available to mothers are higher since it also includes weeks available to take care of the young child.

TABLE A.2: Expenditure on Childcare and Family Benefits

	Public Expenditure in Children Education (%GDP)		Expenditure on family benefits (% GDP)	
	2001	2014	2001	2014
Spain	0,39	0,51	0,89	1,40
Greece	-	-	-	1,10
Italy	0,51	0,56	-	2,32
Portugal	0,30	0,41	-	1,44

DATA SOURCE: OECD Family Database

Appendix B: Horizontal Gender Segregation in Employment

Table B.1: Employment per Occupation, ILO international classification

COUNTRIES	OCCUPATIONS	2000	2014	2018
GREECE	Managers	2,24	2,56	1,88
	Professionals	18,07	23,23	23,90
	Technicians and associate professionals	7,59	9,75	9,24
	Clerical support workers	15,52	13,68	15,51
	Service and sales workers	22,01	25,15	26,84
	Craft and related trades workers	5,09	2,12	1,82
	Plant and machine operators, and assemblers	1,53	1,48	1,30
	Elementary occupations and skilled agricultural, forestry and fishery workers	27,96	22,03	19,52
ITALY	Managers	2,13	2,39	2,38
	Professionals	17,49	18,30	19,42
	Technicians and associate professionals	15,80	16,31	16,38
	Clerical support workers	19,60	18,51	18,11
	Service and sales workers	23,15	24,58	24,70
	Craft and related trades workers	4,12	3,05	3,13
	Plant and machine operators, and assemblers	3,53	2,97	27,33
	Elementary occupations and skilled agricultural, forestry and fishery workers	14,18	13,89	13,15
PORTUGAL	Managers	5,18	5,25	3,87
	Professionals	12,89	20,68	23,19
	Technicians and associate professionals	6,70	9,86	10,62
	Clerical support workers	11,83	10,44	10,22
	Service and sales workers	18,30	21,62	24,94
	Craft and related trades workers	8,34	4,08	4,06
	Plant and machine operators, and assemblers	6,21	5,86	5,84
	Elementary occupations and skilled agricultural, forestry and fishery workers	30,54	22,21	17,27
SPAIN	Managers	3,58	3,04	2,91
	Professionals	17,72	21,13	21,86
	Technicians and associate professionals	6,93	9,67	9,81
	Clerical support workers	17,38	14,77	15,39
	Service and sales workers	25,84	29,14	28,47
	Craft and related trades workers	3,38	1,90	1,90
	Plant and machine operators, and assemblers	3,70	2,01	2,20
	Elementary occupations and skilled agricultural, forestry and fishery workers	21,47	18,35	17,46

Data are collected from the Ilostat, “Employment by occupation and sex”. Data presented by occupation is based on the International Standard Classification of Occupation (ISCO).

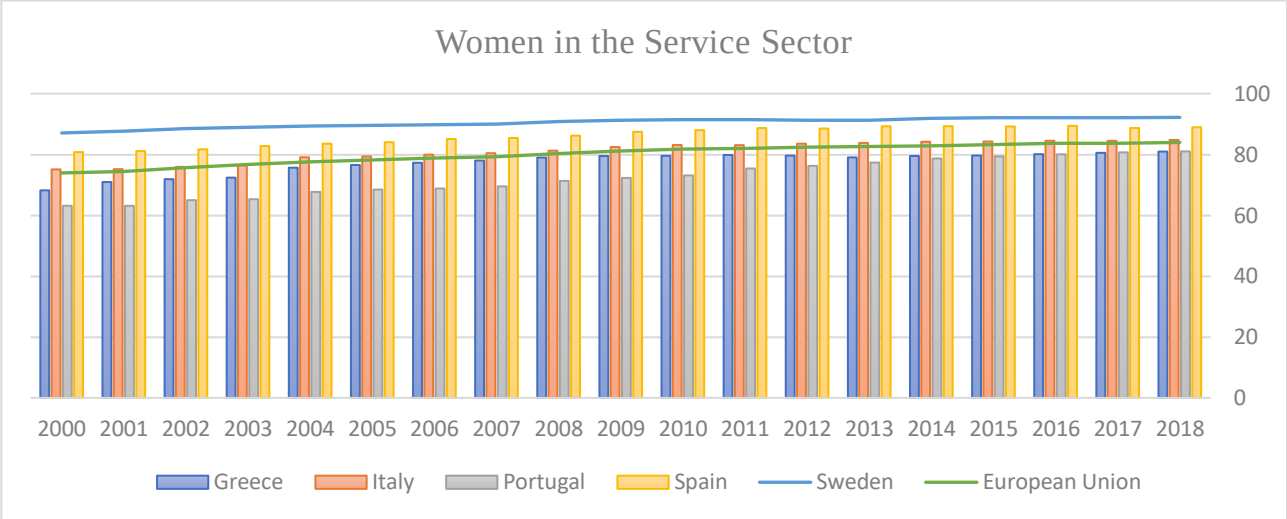
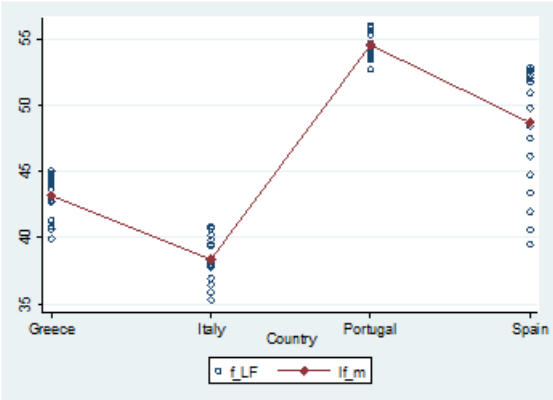


Figure B.1: Female Employment in the Service Sectors. SOURCE: Ilostat

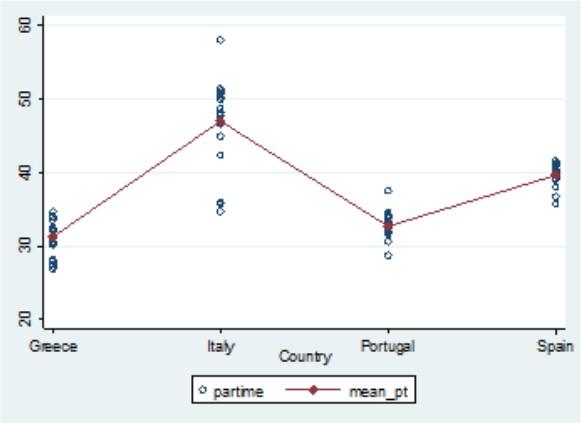
Appendix C: Exploring the Heterogeneity across countries

Heterogeneity across countries **Heterogeneity over time**

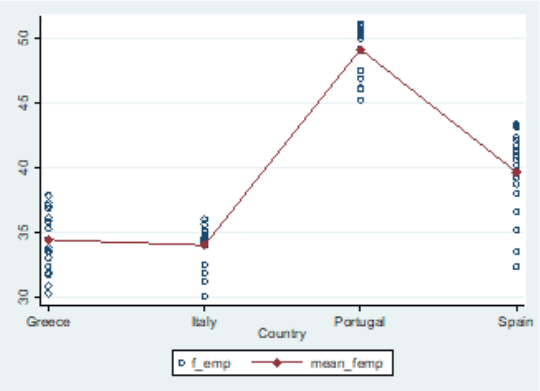
Labour Force Participation

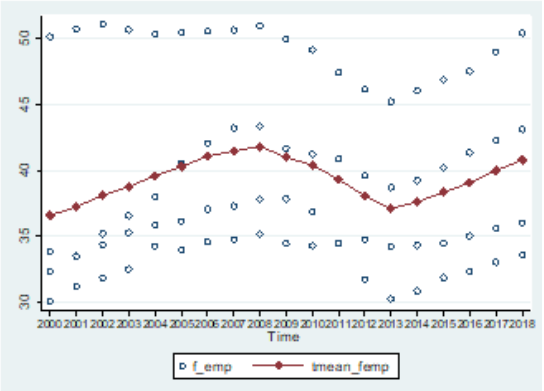


Part-Time Work Arrangement

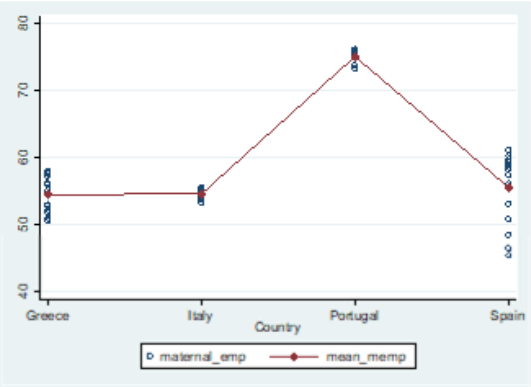


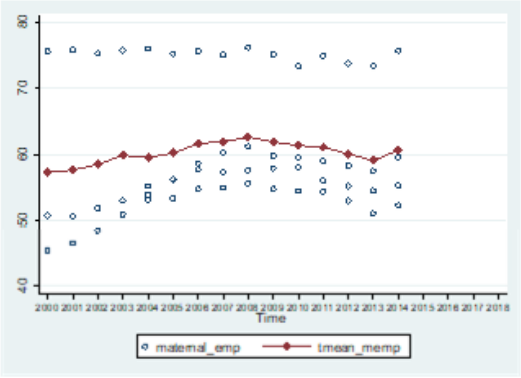
Female Employment



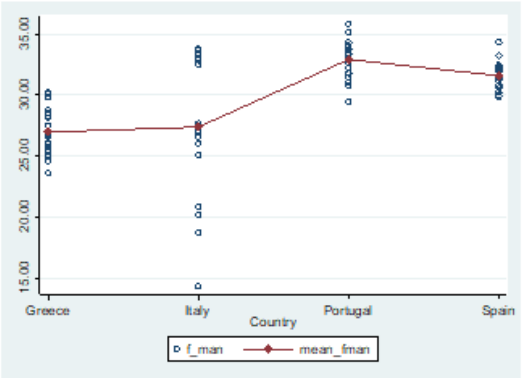


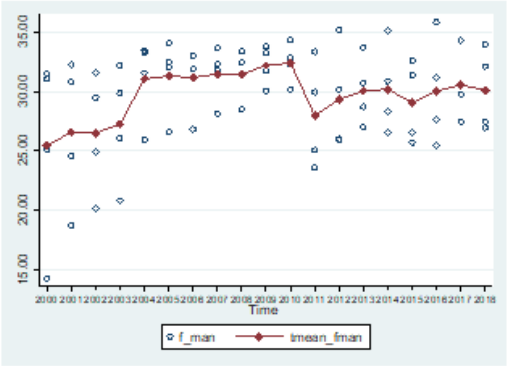
Maternal Employment





Female Share in Managerial Position





Appendix D: Results of Hausman Test

Equation 1: Women's labour force participation as dependent variable

	Coefficients (b) FE	(B) RE	(b-B) Difference	sqrt(diag(V_b-V_B)) S.E.
ptax67	.0033695	.0006188	.0027507	.
paid_mater~e	.0007265	-.0021591	.0028856	.
Lengthofpa~l	-.0008003	-.0012205	.0004202	.
exp_cashtr~f	.1144835	.2133309	-.0988474	.
services	.1198993	.1529925	-.0330932	.
TFR	-.1365651	-.0234652	-.1130999	.
CMR	.0458555	.0055456	.0403099	.0142309
CDR	.0536781	.0589845	-.0053064	.
f_educ_sec~t	.0197135	.0035984	.0161151	.0045218
lag_funemp	-.0000884	-.0008633	.000775	.
lag_munemp	-.0021747	.0043506	-.0065253	.
lag_fem_serv	.0016328	.000482	.0011508	.
uniondensity	.0108049	-.0152054	.0260103	.0043693
emp_prot	.0271144	.1530641	-.1259498	.0373038

b = consistent under Ho and Ha; obtained from xtreg
B = inconsistent under Ha, efficient under Ho; obtained from xtreg

Test: Ho: difference in coefficients not systematic

chi2(14) = (b-B)'[(V_b-V_B)^(-1)](b-B)
= 31.54
Prob>chi2 = 0.0047
(V_b-V_B is not positive definite)

Equation 2: Maternal Employment

	Coefficients (b) FE	(B) RE	(b-B) Difference	sqrt(diag(V_b-V_B)) S.E.
ptax67	.1098019	.1928904	-.0830885	.
paid_mater~e	-.1108869	-.1440084	.0331215	.
Lengthofpa~l	-.0102531	.1715086	-.1817617	.
exp_cashtr~f	4.241739	9.745589	-5.50385	.
services	2.485186	.0310272	2.454159	.
TFR	22.2749	14.35155	7.92335	.
CMR	1.203672	-.3024917	1.506163	.3647831
CDR	2.325373	3.82973	-1.504357	.
f_educ_sec~t	1.078078	.2507256	.827352	.1964199
lag_funemp	.1024306	.3062481	-.2038176	.
lag_munemp	-.2259057	-.0959675	-.1299382	.
lag_fem_serv	.0007739	-.0872005	.0879745	.
uniondensity	-.1735517	-.5682266	.3946748	.1246253
emp_prot	.7259622	14.19326	-13.4673	.

b = consistent under Ho and Ha; obtained from xtreg
B = inconsistent under Ha, efficient under Ho; obtained from xtreg

Test: Ho: difference in coefficients not systematic

chi2(14) = (b-B)'[(V_b-V_B)^(-1)](b-B)
= 71.07
Prob>chi2 = 0.0000

Appendix E: Correlation Matrix

Matrix of correlations

Variables	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	(13)
(1) Participation Tax rate at 67%	1.000												
(2) Paid mothers leave	-0.116	1.000											
(3) Paid fathers leave	-0.101	-0.540	1.000										
(4) Exp. Cash Transfer to Fam	-0.159	0.385	0.243	1.000									
(5) Fertility Rate	-0.006	0.330	-0.195	0.300	1.000								
(6) Fem upper secondary Educ.	0.107	0.611	-0.461	0.448	0.035	1.000							
(7) Male Unemployment	-0.157	0.165	0.143	0.071	-0.323	0.000	1.000						
(8) Women in services	0.243	0.107	-0.256	-0.285	-0.141	0.247	0.526	1.000					
(9) Female Unemployment	-0.378	0.355	-0.082	0.060	-0.422	0.229	0.891	0.490	1.000				
(10) Union Density	0.662	0.257	-0.334	0.351	0.136	0.655	-0.316	-0.062	-0.322	1.000			
(11) Employment Protection	0.122	-0.337	0.442	0.232	0.324	-0.496	-0.437	-0.788	-0.660	0.103	1.000		
(12) Marriage Rate	-0.358	0.424	-0.286	0.355	0.283	0.339	-0.401	-0.677	-0.155	0.227	0.239	1.000	
(13) Divorce Rate	-0.306	-0.443	0.562	-0.069	0.142	-0.778	0.229	-0.135	-0.022	-0.695	0.382	-0.296	1.000

Appendix F: Sensitivity Checks

VARIABLES	(1) Female Employment	(2) Part-time Employment	(3) Share in Managerial Positions
Participation Tax Rate	0.002**	0.001	-0.001
	(0.001)	(0.002)	(0.001)
Paid mother's leave	-0.004***	0.000	0.000
	(0.001)	(0.001)	(0.002)
Paid father's leave	0.002*	-0.005***	-0.001
	(0.001)	(0.000)	(0.002)
Exp on cash transfers	0.076	0.066	-0.116
	(0.055)	(0.056)	(0.107)
Fertility Rate	0.618***	0.411***	0.698*
	(0.129)	(0.122)	(0.372)
Marriage Rate	-0.007	0.02	0.077
	(0.010)	(0.021)	(0.083)
Divorce Rate	0.039***	-0.0118	-0.076*
	(0.014)	(0.017)	(0.046)
Women with upper secondary educ	0.005	0.011**	0.039
	(0.005)	(0.005)	(0.035)
Female Unemployment	0.002**	-0.005	-0.010
	(0.001)	(0.003)	(0.008)
Male Unemployment	-0.004*	0.007***	-0.001
	(0.002)	(0.002)	(0.005)
Women in services	-0.001	0.002	0.003
	(0.001)	(0.001)	(0.003)
Union Density	-0.007**	-0.005	-0.006
	(0.003)	(0.003)	(0.017)
Employment Protection	0.051	-0.056	-0.332
	(0.050)	(0.062)	(0.386)
Observations	56	56	56
Number of Countries	4	4	4
Country Fixed Effects	YES	YES	YES