

ABOUT THE DETERMINANTS OF FEMALE LABOR FORCE PARTICIPATION IN SOUTHERN EUROPE

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1. Introduction

In the early 1990's Greece, Spain, Italy and Portugal had rather low rates of female participation but, simultaneously, have shared the highest rates of increase. The steady transformation of employment patterns during past three decades is the result of women's decision to enter the labor market, mainly determined by country specific demographic, socio-economic and institutional trends.

From an economic perspective, female participation in the labor market has been studied through the modeling of the labor supply (Becker, 1981; Shultz, 1990; Katz, 1997). Under this approach, women's participation depends on the opportunity cost of working, which reflects family decisions regarding time use.

During the nineties, for policy and feminist economists, the decision processes within the household constituted diverse interactions between its members that were resolved through the activation of a negotiation process. Thus, the final allocation of resources in productive activities depends on the initial bargaining power of each of its members (Kooreman & Kapteyn, 1990; Lundberg & Pollak, 1994).

Other perspectives have studied women's participation in labor market activities by introducing both demographic and social aspects (Sollova & Baca 1999; Ahn & Mira, 2002; Del Boca, Mencarini & Pasqua, 2012). Female employment is interpreted from the point of view of survival strategies inside the economic context of the family.

Despite experiencing substantial increases in recent decades, Mediterranean female activity rates are still the lowest in Europe. This paper aims to explore some of the determinants of female activity rates at an aggregated level in Greece, Spain, Italy and Portugal. The analyses include eleven variables classified in three groups (demographic, socio-economic and institutional). Panel data regressions, which capture cross-country variations, were run for the four Southern European countries over the period 1986-2011. The data used were drawn from Eurostat data warehouses available on-line. This decision, however, is not free from limitations

and makes impossible to extrapolate the obtained results to explain individual strategies.

2. Theoretical background

Female massive incorporation in economic activities besides increasing total participation rates constitutes a sign of women condition in the society and acts raising per capita income and consumption (Del Boca, Mencarini & Pasqua, 2012).

Previous studies have argued that increasing levels of participation allow women to develop a greater economic independence and tend to support women's empowerment, with a noticeable influence on family and household decisions. Thus, female labor participation is a very important aspect of women's relative economic status (Schultz, 1990; Boserup, 1970).

A wide number of determinants influence female participation in economic activities. Literature on the subject studied such determinants generally including one or more of the following types of variables: individual level, micro-variables such as demographic characteristics; institutional and economic level, macro-variables, such as countries unemployment rates or Gross Domestic Product; and a combination of both macro-micro level variables, as in multilevel analysis. Usually, single-country level studies use micro-level variables, while international comparisons are based on macro-level variables.

Literature has also focused on the productive structure of the economy and, in particular, on development and tertiarization levels. In fact, the study of Pampel & Tanaka (1986) shows the existence of a "U-shaped relationship" between female activity and economic development. An economy based on the service sector tends to increase participation of women in the labor market.

The recent increase of female activity rates in European countries has been closely linked not only to the expansion of the tertiary sector but also to the high share of part-time jobs. Comparative studies on women's employment have tried to define different regimes depending on both the flexibility and tertiarization level of European economies (Bettio & Villa, 1998; Cousins, 2000).

Other authors (Juhn & Murphy, 1997) have highlighted the existence of a relationship between female participation in the labor market and household income, in particular the husband's salary for married women.

In the twentieth century there was a higher relative investment in human capital of women compared to men, which increased female labor force (Schultz, 1993). Furthermore, women with more education tend to devote more time to the labor market activities, especially employment. In this sense, the postponement of first childbirth is related to the sharp growth in the proportion of women with a higher education, particularly among younger generations.

Diverse studies corroborate the relationship between fertility and women's participation in labor market activities. Childbearing is a time intensive domestic production activity that has usually kept women away from employment. According to Rosenzweig & Wolpin (1980) the negative relationship between these variables is particularly salient for young women and tends to revert at older ages, as in the life cycle model.

Women's labor-market choices are commonly influenced by family life courses and circumstances. Changes in marital status or in partner conditions, transform the organization of time and financial resources within the household. A divorce process implies some type of household instability that leads many women to enter into the labor market. Divorce has an economic impact on women (García Pereiro & Solsona, 2011), not all women receive an allowance from the former partner for child support. Suddenly, their quality of life diminished by the absence of the entire husband income, particularly if it was the only one perceived. Hence, the remaining alternative is to fulfill immediately the income lost through labor market entrance.

Echevarría & Larrañaga (2004) state that there is a high social tolerance of female than male unemployment perhaps because in the South still persists the idea that women's participation in the labor market is an option, as valid as been devoted exclusively to family care. However, high male unemployment rates encourage women's participation in labor activities.

Policy interventions aim also to encourage women to enter the labor market and remain economically active, among these the most important policies are those aimed to promote a gradual withdrawal from productive activities, while balancing working and family lives. Public policy interventions, such as childcare subsidies and paid parental leaves, can incentivize female activity rates. Thus, substantial policy reforms and a greater investment on the public budget in these areas could reduce most of the gap between women and men participation rates.

3. Data and Methods

While single-country level studies use micro-level variables, macro-level studies focus on time series aggregated data. Considering panel data, the determinants selected for the analyses on Female Activity Rates (FAR) vary from study to study, and usually include one or more of the following groups: demographic, economic or socio-economic and institutional (public policies) variables.

Following Jaumotte (2003) findings for OECD countries until 2001, we empirically test the effect of selected groups of variables on Female Activity Rates

in Greece, Spain, Italy and Portugal over the period (1986-2011) obtaining a balanced panel. Data was drawn from Eurostat data warehouse.

The econometric estimations allow quantifying the contributions of each group of selected variables in female activity rates in the countries under observation. Thus, to analyze temporal and cross-country patterns we run two single specifications with heteroskedasticity-consistent standard errors, one for the groups of demographic and socio-economic variables and other for the institutional variables. The first model introduces four demographic indicators as independent variables: total fertility rate, women's mean age at childbirth, crude marriage rate and crude divorce rate; and five socio-economic variables: percentage of females with upper secondary and tertiary education, percentage of females employed part-time, percentage of females employed in the service sector, male unemployment rate and annual mean of male salaries. The institutional indicators regarding public expenditure on labor market policies and family and child policies (% of GDP) were considered on the second model. As standard in most econometric analyses, all variables were transformed into natural logarithms to stabilize the variance.

The results of the Hausman tests help to decide accurately the introduction of country fixed or random effects regressions (Baum, 2006). Country fixed effects were corroborated for the groups of demographic and socio-economic variables, the inclusion of time-dummies was also tested but no time fixed effects were needed. This model eliminates the source of omitted variable bias, namely, unobservable across-country differences. Contrarily, the Hausman test was positive for random effects for institutional variables.

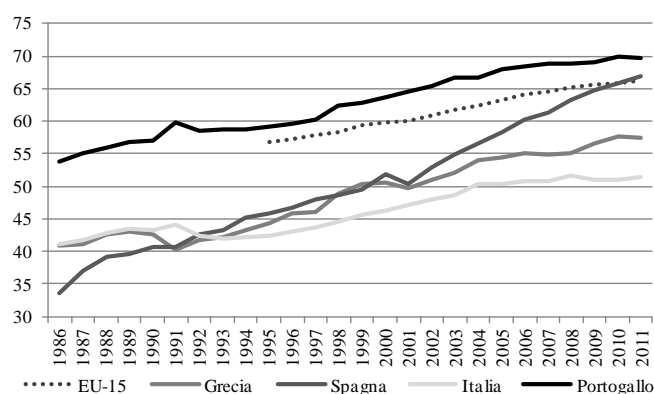
4. Results

In recent decades there has been a significant growth in female labor force participation. The average for the EU-15 countries of women activity rates has grown from 56,8% in 1995 to 66,2% in 2011. There is no doubt that most of the overall increase involved women, indeed, for the population as a whole the activity rate passed from 67,2% to 72,5% in sixteen years. Such evolution of female rates is in line with the objectives of the Lisbon Strategy aiming the increase of the overall European Union female employment rate to 60% by 2010.

As shown in Figure 1, a common trend undergone by all Greece, Italy, Spain and Portugal is the continuous raise on Female Activity Rates. Although the effective grown experimented during the observation period varies considerably among these countries. In 1986 the lowest rate belonged to Spain (33,7%), Italy (41,0%) and Greece (41,1%) shared the second place, and Portugal registered the highest one (53,7%). By 2011 the ranking changed due to the remarkable improvement of the Spanish situation: Portugal remained on the first place, Spain

passed from the last to the second and Greece went ahead surpassing Italy. In this sense, it is stressed the strong variability observed in women's activity rates within the South. While the activity rates for females aged 15-64 in 2011 were 69,8% in Portugal and 67,0% in Spain, both rates above the European average, Italy (51,5%) and Greece (57,5%) were still far from converging with such value.

Figure 1 – Female Activity Rate (FAR). EU15, Greece, Spain, Italy and Portugal. Years 1986-2011.



Source: Eurostat.

The increase in the 15-64 year-olds activity rate over the 1986-2011 period is mostly due to the increased participation of women in the labor market. Indeed, the growth is concentrated amongst women in different age groups: women aged 25 to 39 and women aged 50 to 59. The greatest improvements have been experienced in Spain with rates that had grown noticeably almost in all age groups (young females aged 15-19 are the exception) but specifically for women between 30 and 54 years old, which showed activity rates at least 42 percentage points higher in 2011 than in 1986. In this sense, the recent increase in women's activity is thus a result of changes in the participation patterns of European women in childbearing ages (Maruani, 1995).

The lowest rates for the youngest females are found in Greece and Italy, but the sharper decrease of female activity rates in the period under consideration is observed in Italy with two declines that were superior to twenty one percentage points for the 15-19 and 20-24 years old groups. Also Italy holds the smallest advances regarding women's participation on labor market activities showing the slightest increases for both average population and age groups. Table 1 shows the results of the two FAR specifications on the sets of demographic, socio-economic and institutional variables considered. The fixed effect model for the demographic and socio-economic sets (1) shows significant estimates for two of the four

variables considered: the Total Fertility Rate and the Crude Divorce Rate with positive effects on female participation rates. The socio-economic group indicates a positive and significant relationship between FAR and both male unemployment rates and the proportion of females on part-time employment, high female educational levels were not significant.

Table 1 – Results from panel analyses. Female Activity Rate as dependent variable.

	(1)	(2)
Total Fertility Rate	.291***	
	(.114)	
Crude Marriage Rate	-.025	
	(.066)	
Demographic		
Crude Divorce Rate	.096***	
	(.026)	
Mean Age 1st Child	-.494	
	(.544)	
% Women US and University	.007	
	(.052)	
% Women Employed PT	.108***	
	(.042)	
Socio-economic		
% Women Employed SS	.009	
	(.034)	
Male Salaries	-.007	
	(.004)	
Male Unemployment Rate	.066***	
	(.016)	
Institutional		
Expenditure LMP		.785
		(.068)
Expenditure FCP		5.43***
		(.575)
_Cons	5.18	7.03

(1): FE without time effects; (2): RE no OLS.

The random effect estimate (2) of the institutional set of variables is only positive and significant for the public expenditure on family-child policies. Therefore, it is possible to state that redirect some of the public expenditure towards family friendly policies would help to increase an active participation generating a self-reinforcing effect on employment and economic growth.

Concluding remarks

This paper describes the main features of women's labor force participation in four Southern European countries (Greece, Spain, Italy and Portugal) and analyses

the interactions of a number of demographic, socio-economic and institutional factors with female activity rates over the period 1986-2011.

The potential determinants of female participation in the labor market studied in this paper include measures of public expenditure on labor market and family policies and other socio-economic indicators such as male unemployment rates and the amount of female part-time jobs. It also introduced the role played by other potential demographic determinants, such as total fertility and divorce rates, remarking the strong interaction between the demographic context and the socio-economic performance for female labor market.

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SUMMARY

About the determinants of female labor force participation in Southern Europe

Female Activity rates in Southern Europe (Greece, Spain, Italy and Portugal) have systematically been quite low if compared to EU standards. Nevertheless, in the last twenty five years the general trend in the region has been characterized by a considerable and continuous increase, even if cross-country comparisons highlight quite some heterogeneity. The main purpose of this paper is to analyze the macro-determinants of female labor force participation in the 1986-2011 period. Panel regressions measure the association of demographic, socio-economic and institutional determinants with female activity rates. Results show total fertility rate, crude divorce rate, male unemployment rate, proportion of females on part-time employment and public expenditure on family-child policies as the main determinants that have encouraged female participation rates.

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