

# Gender gap evolution: evidence from Europe during the Great Recession

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## Abstract

This paper examines the evolution of labor market gender gaps during the Great Recession in Europe. We have focused on participation and unemployment gender gaps, and estimated fixed effects models that incorporate social, economic and institutional features of the fifteen European Union member states from 2003 to 2013. Our results indicate that gender gaps have decreased during this time span, and particularly so during the recession years. Generally speaking, economic growth seems to foster gender inequalities while labor market institutions, such as unionization and employment protection legislation, tend to favor convergence for female and male workforce participation as well as for unemployment rates.

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## Section I: Introduction

Much has been written about the global crisis that started in 2007-2008. Arguably one of the hardest hit regions was Europe. European economies are still battling depression-era levels of unemployment and the threat of deflation. In normal times, most countries recognize that women's participation in the labor market is a factor of growth and that equal rights for men and women should exist. Progress in that direction has undoubtedly been made over the last three decades. Regulations intended to fight discrimination and programs granting women equal rights on the labor market have been adopted. But when a crisis of such a magnitude hits economies, what happens to these principles?

A number of studies have looked into how the economic and financial crisis and ensuing policies have affected gender inequalities (see Karamessini and Rubery, 2013). This period certainly constitutes a crucial field of research from a gender perspective. At least two dimensions linked to gender equality can be studied: first, the possible differentiated impact on women and men on the labor market; and, secondly, the impact of the economic and financial crisis on policies directly or indirectly affecting gender equality, including in terms of austerity measures and public spending. Macroeconomic policies are fundamental instruments to reorient the economy but they are not gender blind. They do not affect men and women in the same way or to the same extent, and their effects need to be studied on a short, medium or long term. Therefore it is a legitimate question to ask how did the crisis and programs adopted impact gender inequalities? Did they contribute to the narrowing or widening of the gender gap?

Among the most important questions are the disparities on the labor market, even though they differ according to countries, regions, and sectors. Men and women tend to have different average unemployment, labor participation, and wage rates, and to cluster in different occupations. No matter which country, the participation rate for women is typically lower than that for men, but differences vary widely. Undoubtedly, improvements in the ratio of female to male labor force participation rates have occurred in most countries in the past. Also, in many cases we have witnessed drastic reductions of male-female wage gaps in recent

decades. But despite this progress, gender differentials persist. Over time, these and other labor market differences have been narrowing but have persisted. To what extent did a crisis of this magnitude affect this process?

The literature that focuses on the impact of a crisis in the evolution of gender-based differences on the labor market is relatively small compared to the much broader literature on the general impact of crises. The analysis of the forces behind gender differences in the evolution of labor force participation rates can be viewed through the three following angles, which we will use for our study.

The first approach focuses on the behavior of women seen through the “added worker effect” or the ‘discouraged worker effect’. “Added worker effect” is broadly defined as an increase in the number of people looking for a job in response to an income shock. The increase in female labor force participation rate may reflect a distress response to the crisis (Cerrutti 2000; Sabarwal, Sinha, and Buvinic 2011), when wives enter the labor force as a response to spousal job loss, whereas the “discouraged worker effect” describes the situation of married women who may become discouraged when unemployment rate is high, pulling out of the labor force. Both effects exist and are responses to the worsening of the macroeconomic environment. The question is which one is dominant in time of crisis, since they have opposite effects on the participation of women in the labor force.

The second approach relates to firms’ behavior, again with two contradictory effects. On the one hand, management may be tempted to hire women because they provide cheaper labor than do male workers. This is called the substitution effect. On the other hand, women can be considered as a flexible labor reserve (Rubery and Tarling, 1982; Rubery, 1988), and a decrease in employment opportunities can be expected to lead to an increasing number of women being fired or in any case leaving the labor force. This is the “buffer effect”, leading in any case to fewer women being part of the labor force during a downturn.

Finally, gender segregation is the third approach through which shifts in the participation of women in the labor force can be analyzed. Men and women do not occupy the same jobs and are not present in the same sectors. Workforce job data is limited in that it does not indicate patterns of *occupational* vertical or horizontal segregation within sectors. However, trends at the level of the industrial sector make it possible to analyze whether gender segregation of men and women in different sectors influences patterns of male and female job losses (Smith and Villa, 2014). Men and women appear to be in “protected” or “buffer” jobs based on their job losses within sectors being proportionate or disproportionate to the level of sector

representation.

To measure gender inequalities in the labor market, we use different indicators.

The employment rate is one. Historically, within the framework of the EU, which includes the Eurozone of course, the number of women who are part of the workforce and employed has risen. This has been uneven from country to country, but the trend has been clear.<sup>1</sup> However, one of the most important effects of the crisis was its major impact on employment levels of both female and male workers, which cannot be limited to the initial impact of the downturn but needs to be studied on a mid to long-term period. Falling employment rates for women are not necessarily accompanied by similar rises in unemployment rates, as discouraged persons no longer count as unemployed but rather as "not in the labor force." Gendered unemployment patterns clearly vary not only by region, but also according to the structures of particular economies. Another manifestation of women being considered a voluntary flexible reserve is the fact that they have to move into part-time work as an alternative to full-time employment, or into temporary work in the face of reduced permanent employment opportunities.

Finally, in an economy hit by a sharp recession, especially for countries in a currency union, such as the euro area, "wage moderation" is used to regain competitiveness when the nominal exchange rate is fixed and to combat current account deficits. This is referred to as "internal devaluation." Even in good economic times, there is a difference between the earnings of men and women. Despite the fact that the European employment strategy includes reducing the gender pay gap as one of its core objectives, more than thirty years of equal pay legislation, and real progress in the situation of women in the labor market, the gender pay gap persists, with women in the EU earning on average approximately 16% less per hour than men (Eurostat, 2013). This gender pay gap captures the enduring gendered inequalities that exist on the labor market.

How do we explain the existence of such a gap? Existing literature highlights different possible reasons (Bettio and Verashchagina, 2013). One is that professions and sectors with low-level wages tend to be dominated by women (Bettio and Verashchagina, 2009). Another is that women are much more likely than men to be employed part-time (OECD 2011), this form of work being considered more suitable for women nearly everywhere. Maternal employment rates may also affect women's average salaries.

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<sup>1</sup> For example, the case of Sweden, where 77% of women are employed, can be contrasted to Greece, where only 43% are. This article is concerned with the trend.

What is the effect of the crisis on gender pay differentials? On the one hand, women are more vulnerable to recession than men due to their higher concentration in part-time and temporary work but on the other hand, male and female workers are not equally present among sectors most affected by the crisis. How does this affect the gender pay gap? Are women and men not affected in the same way? Or are they affected at different stages during the crisis?

Cutbacks in public spending on services, austerity policies, cuts in jobs in the public sector, can also be viewed through the lens of gender equality. Women are particularly affected by public service cuts, directly and indirectly, both as public service workers—they make up the majority of the labor force in the public sector—and as the principal users of such services.

The object of this paper is to study the evolution of gender gaps in 15 European Union countries before and after the outbreak of the crisis. The rest of the paper is organized as follows. Section II presents our methodology and our results. Section III discusses the main implications of these results. We find that the diversity of national models remains strong. This underscores the extent to which progress towards equality in employment is uneven.

## Section II: Empirical analysis

The database used is Eurostat. Our sample is made up of 15 European countries.<sup>2</sup> We study the period between 2003 and 2013. Our dependent variable is the participation gap, and subsequently the unemployment gap. We use GDP per capita, growth rate, level of education, fertility, unemployment rate, unionization, sectorial employment, and employment protection legislation as covariates.

We consider the different effects described above and expect them to have the following impact on the variables. These effects can happen simultaneously, and since they can have contradictory impacts, the outcome is not clearly predictable according to which effect dominates the other. However this analysis can be useful to help us better understand the mechanisms at work.

1. Added worker effect may translate by more women looking for work in case of spousal job loss, the expected effect is therefore an increase in their participation to the job

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<sup>2</sup> Austria, Belgium, Denmark, Finland, France, Germany, Greece, Ireland, Italy, Luxembourg, Netherlands, Portugal, Spain, Sweden, United-Kingdom

market, including settling for part time work. The effect can be an increase in wage gap as they would have to accept lower wages.

2. Discouraged worker effect will translate in less women looking for work, a decrease in their participation in the labor market, and an increase in the participation gap. Expected effect is an increase of the wage gap.
3. Substitution effect translates in hiring cheaper labor. The expected effects are more women participation in the labor market, including in part-time work and therefore a decrease in the participation gap. However the effect can be an increase in the wage gap.
4. Buffer effect means less hiring in times of crisis, and women are easier to fire. Expected effects are a decrease in women participation if they are fired, probably an increase in part-time work.
5. Protected sector effect, if women work in sectors less affected by the crisis at an early stage, the expected effects are a decrease in the participation gap at first. This however can change if the male dominated sectors profit of governmental subsidies.

We first consider the participation gap, defined as the difference between male and female participation rates.

Econometric modeling:

We take advantage of the panel structure of our data by assuming two ways fixed effects (Baltagi, 2013). This permits us to deal with individual heterogeneity, like constant through time institutional country specific factors, as well as with year specific shocks common to all countries.

More precisely, for country  $i$  and year  $t$ , we model our dependent variable  $Y_{it}$  as follows:

$$Y_{it} = \alpha + X_{it}\beta + c_i + f_t + \varepsilon_{it} \quad (1)$$

Where  $X_{it}$  is a  $(1 \times k)$  vector of exogenous variables,  $uc_i$  is a country specific (and time invariant) effect,  $f_t$  is a time specific effect (common to all countries), and  $\varepsilon_{it} \sim iid N(0, \sigma^2)$ ,  $i = 1, \dots, N$  et  $j = 1, \dots, T$ .

We implement the previous model as a least square dummy variable model (LSDV), that is we estimate by ordinary least squares the following equation:

$$Y_{it} = \alpha + X_{it}\beta + \sum_{i=2}^N \vartheta_i C_i + \sum_{t=2}^T \gamma_t F_t + \varepsilon_{it} \quad (2)$$

Where  $C_i$  is a dummy variable associated with country  $i$ , with associated coefficients  $\vartheta_i$ , and  $F_t$  is a dummy variable associated with year  $t$ , with associated coefficients  $\gamma_t$ .

Empirical strategy:

We run six models estimations, taking into account different types of determinants for each of our five endogenous variables. In a first step, we only introduce as covariates in the estimation GDP level and growth rate, along with time (year) dummies (Model 1). In a second step, we also take into account country fixed effects (Model 2). We then add women labor patterns specific variables such as fertility rate and the share of women having superior education level (Model 3). We next turn to adding labor market characteristics such as global, women and male unemployment rates (Model 4) and institutional features through unionization rate and employment protection legislation (Model 5). Finally, we control for sector shares in the economy with employment shares in services and industry sectors (Model 6). Descriptive statistics are presented in table 1.

Specification tests:

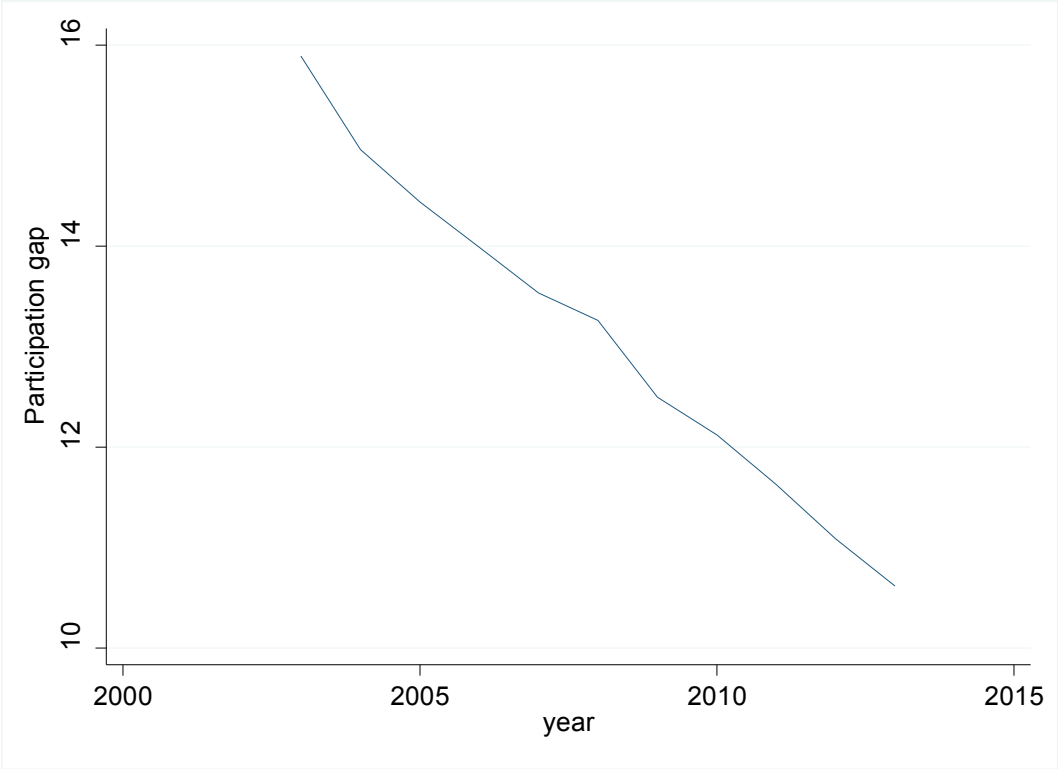
Hausman test of fixed versus random effects confirms that the fixed effect specification is the preferred one. Besides, Chow tests indicate that the model with two-ways fixed effects is the preferred specification, compared with no individual effects or one-way effects. Results are available upon demand

### Section III: Results

Descriptive statistics show that overall the participation gap has continuously declined over the decade under study in EU15. This evolution is rooted both in the increasing labor market participation of women, as well as in a negative shock on male participation rate in 2008 and 2009 (Figure 1).

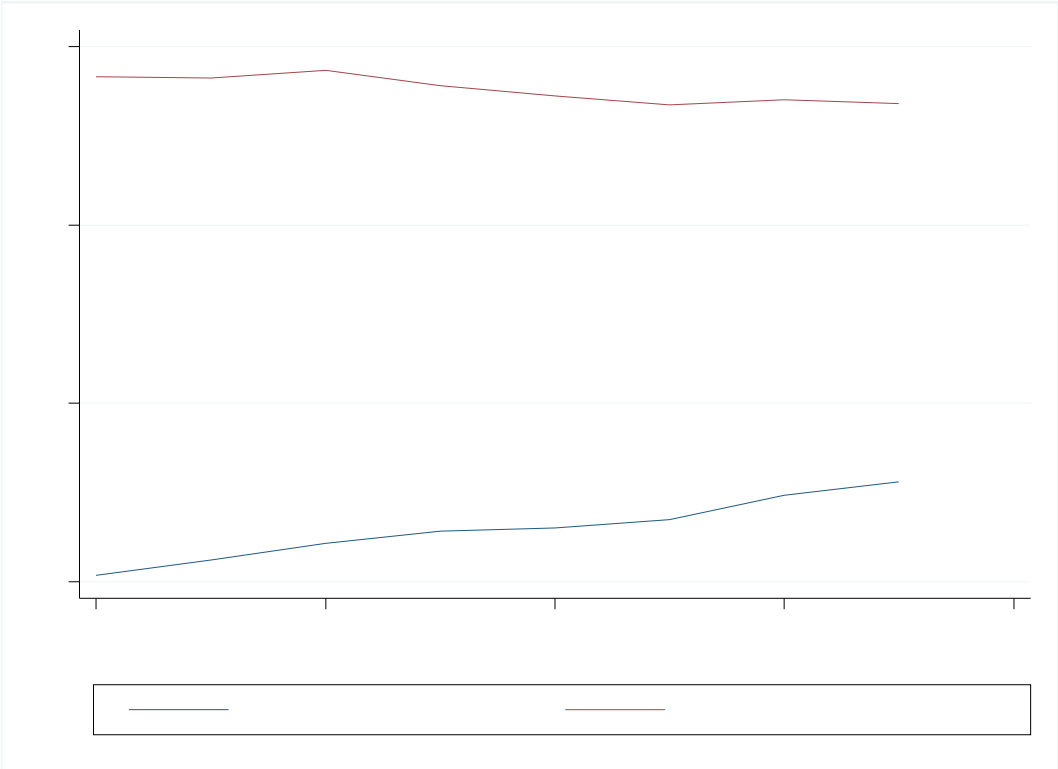
**Figure 1:** Participation gap, UE15, 2003-2013

Source: Eurostat, authors' calculations.



**Figure 2:** Female and male participation rate, UE15, 2003-2013

Source: Eurostat, authors' calculations.





Participation gap estimation (Table 2):

When we only take into account yearly fixed effects along with GDP per capita level and growth rates (Model 1), we observe a declining trend in the participation gap, which is significant from 2009 onwards, and is most pronounced in the recession years (2009, 2012, 2013).

Adding country fixed effects (Model 2) makes it possible to highlight a positive effect of economic growth on the participation gap, while the declining trend is now significant for all years, and stronger from 2010 on. This pattern stays unchanged through all subsequent models. The growth rate effect is a priori ambiguous and reflects sector leading growth characteristics and potential corresponding labor shortages. For example, if growth is service sector oriented, one might expect a higher labor market participation of women; on the contrary, if growth is strong in male dominated sectors, one might observe an increase in the participation gap, due to higher male participation in the workforce. Moreover, the added worker effect results in a lesser female participation when the economic conjuncture is positive.

We can split the sample into three groups of countries: one group comprises the UK (which is our base category), Belgium, Germany, Luxemburg, and the Netherlands; the second group, in which we find Austria, Denmark, Finland, France, Portugal and Sweden, has a lower participation gap than the former; meanwhile, in the third group of countries (Greece, Ireland, Italy, Spain) the participation gap is higher. Of course, these country differences reflect cultural, institutional, social and economic discrepancies between countries, some of which the subsequent models try to disentangle.

The inclusion of fertility rates and the percentage of women with degrees in higher education does not substantially modify the previous results (Model 3). Fertility rates prove to have a strongly positive and significant effect on the participation gap, illustrating trade-offs that women are confronted with between childcare and the labor market. This might also reveal more intense male labor market participation when the number of children increases. Moreover, when a larger number of women have degrees in higher education, there is a decrease in the participation gap: all else being equal, higher education leads to greater earnings prospects and to more women becoming part of the labor market. While this “education effect” is persistent through all models, the “fertility effect” is not robust to the introduction of labor market institutional and economic features.

Indeed, when the overall and female unemployment rates are added to the model (Model 4), we see that the participation gap is positively correlated to the former and negatively correlated to the latter. We interpret this as evidence that the “fertility effect” is actually driven by a female “discouraged worker effect”. Moreover, the per capita GDP level, which was not significant, turns out to have a negative effect on the participation gap. We interpret this result as the effect of more gender proactive policies in the more economically advanced countries.

Turning to institutional features (Model 5), it appears that unionization is associated with a smaller participation gap, as is temporary contract protection legislation, while permanent contract protection legislation has no significant effect on the gender participation gap.

Finally, sector employment shares, whether in industry or the service sector, both exert a negative effect on the participation gap (Model 6).

### Unemployment gap (Table 3)

We concentrate our comments on the full model (Model 6).

GDP per capita exerts no significant effect on the unemployment gap, once time and country fixed effects are taken into account, along with other explicatory variables. Moreover, the growth rate has a positive and significant effect on the unemployment gap. One possible explanation, supported by figure 4, is that the unemployment rate for men increases more than the unemployment rate of women during bad times, thus reducing the unemployment rate gap. Actually, we can see for a short period (2009 and 2010) that the unemployment rate for men was higher than that for women. Conversely, good times are more beneficial to men than to women in terms of the reduction of unemployment. This result echoes the effect increased economic growth has had on the participation gap.

Taking into account male and female part-time employment rates (Model 4), we see that the unemployment gap is negatively related to both. Interestingly, the male part-time rate is more predictive of a narrower unemployment rate gap than the female part-time rate.

Turning to institutional features (Model 5), it appears that unionization is associated with a smaller unemployment gap, as well as is permanent contract protection legislation, while provisional contract protection legislation has no significant effect on the gender unemployment gap.

Finally, sector employment shares, whether in industry or the services, both exert a negative effect on the unemployment gap (Model 6).

Figure 3: Unemployment gap, EU 15, 2003-2013

Source: Eurostat, authors' calculations.

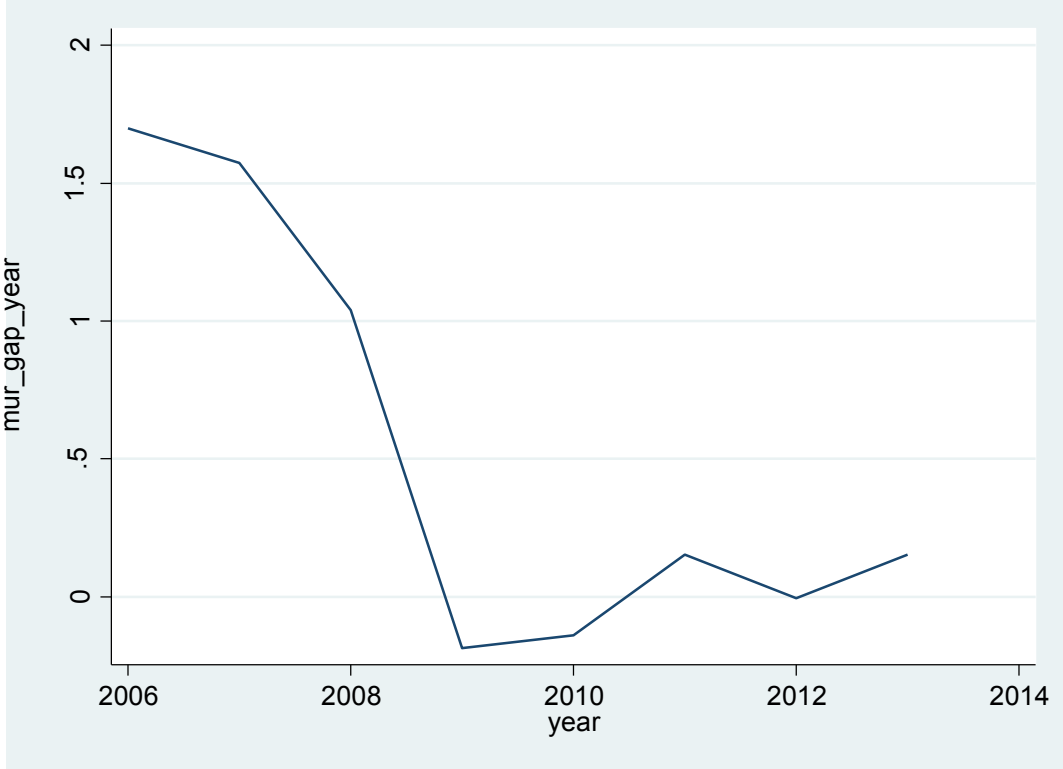
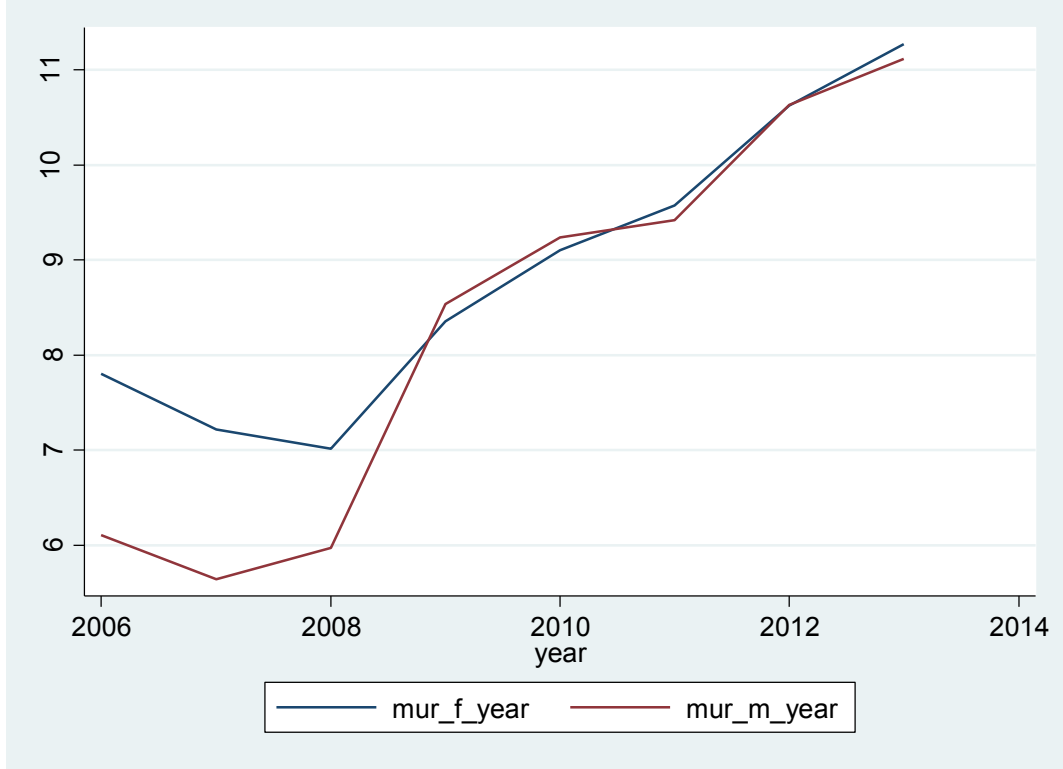


Figure 4: Unemployment rate, by gender

Source: Eurostat, authors' calculations



## Conclusion:

The situation of women in the labor market has largely improved in the 15 European countries in recent decades: participation and unemployment gender gaps have narrowed. We raise the question of how the crisis, which broke out in 2007-08, has affected this process and whether it has changed this trend.

When we examine the participation gap, our results show a significant declining trend from 2009 on. It seems that the added worker effect results in a lower female participation in better economic times.

The per capita GDP level has a negative effect on the participation gap, probably resulting from more gender proactive policies in the more economically advanced countries. Unionization is also associated with a smaller participation gap as well as is temporary contract protection legislation.

Overall, gender gaps have declined during the crisis, at least as far as participation and unemployment are concerned. Our results show that gender inequalities decreased in the most recent recession, while labor market institutions tend to protect women in the labor force. When it comes to the unemployment gap, growth rates have significant positive effects—the gap widens. Good times are more beneficial to men than to women in terms of unemployment reduction. Again unionization is also associated with a smaller gap.

These results are preliminary to a larger study that involves other explained variables such as part-time work and wage gaps. We hope to be able in the near future to draw a more complete picture on how a crisis of such magnitude affects the gender gap evolution.

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Appendix of tables:

Table 1: Sample descriptive statistics (means of dependent variables, 2003-2013)

	Participation			Unemployment			Employment		
	Women Participation rate	Men participation rate	Participation Gap	Women Unemployment rate	Men Unemployment Rate	Unemployment Gap	Women Employment rate	Men Employment Rate	Employment Gap
EU 15	65.72	78.82	<b>13.10</b>	8.70	7.85	<b>0.85</b>	60.26	72.66	<b>12.40</b>
Austria	67.38	79.52	<b>12.14</b>	4.75	4.37	<b>0.37</b>	63.96	75.57	<b>11.62</b>
Belgium	60.26	73.12	<b>12.87</b>	8.43	7.53	<b>0.9</b>	55.17	67.61	<b>12.44</b>
Denmark	76.18	83.10	<b>6.93</b>	5.81	5.56	<b>0.26</b>	71.72	78.4	<b>6.68</b>
Finland	73.06	77.01	<b>3.94</b>	7.76	8.15	<b>-0.39</b>	67.35	70.56	<b>3.22</b>
France	65.54	75.10	<b>9.56</b>	9.36	8.56	<b>0.8</b>	59.4	68.88	<b>9.48</b>
Germany	64.48	78.00	<b>13.53</b>	7.84	8.22	<b>-0.38</b>	63.9	74.66	<b>10.76</b>
Greece	55.80	77.96	<b>22.16</b>	17.79	10.33	<b>7.46</b>	45.69	69.86	<b>24.16</b>
Ireland	61.69	79.19	<b>17.50</b>	6.94	10.38	<b>-3.45</b>	57.26	70.76	<b>13.50</b>
Italy	51.62	74.55	<b>22.93</b>	10.06	7.12	<b>2.95</b>	46.03	68.65	<b>22.62</b>
Luxembourg	59.07	75.63	<b>16.56</b>	5.53	3.96	<b>1.87</b>	55.59	72.62	<b>17.02</b>
Netherlands	70.84	83.97	<b>12.83</b>	4.74	4.43	<b>0.31</b>	68.61	80.61	<b>12.00</b>
Portugal	68.58	78.40	<b>9.82</b>	10.86	10.71	<b>0.15</b>	60.86	70.87	<b>10.01</b>
Spain	63.99	81.85	<b>17.87</b>	17.22	14.13	<b>3.09</b>	52.02	69.24	<b>17.22</b>
Sweden	77.20	82.03	<b>4.83</b>	7.36	7.49	<b>-0.13</b>	71.11	75.22	<b>4.11</b>
UK	70.17	83.14	<b>12.97</b>	5.74	6.85	<b>-1.11</b>	65.29	76.36	<b>11.07</b>

*Source:* Eurostat, EU 15, 2003-2013, and authors’ calculations.

Table 2: Participation gap, LSDV estimation

	Model 1	Model 2	Model 3	Model 4	Model 5	Model 6
<i>Per capita</i> GDP	0.013 (0.009)	-0.002 (0.028)	0.027 (0.023)	-0.076** (0.020)	-0.077** (0.021)	-0.056* (0.023)
Growth rate	-0.408 (0.303)	0.252** (0.062)	0.215** (0.056)	0.090** (0.033)	0.129** (0.035)	0.118** (0.037)
Year 2004	-0.416 (2.589)	-1.250+ (0.663)	-1.124* (0.543)	-0.801* (0.346)	-0.902* (0.356)	-0.735* (0.351)
Year 2005	-1.219 (2.542)	-1.589** (0.597)	-1.270* (0.492)	-1.166** (0.322)	-1.323** (0.327)	-1.075** (0.342)
Year 2006	-1.141 (2.585)	-2.377** (0.577)	-2.267** (0.486)	-1.792** (0.322)	-2.099** (0.327)	-1.662** (0.387)
Year 2007	-1.700 (2.582)	-2.755** (0.567)	-2.670** (0.477)	-2.337** (0.340)	-2.700** (0.360)	-2.165** (0.437)
Year 2008	-3.284 (2.367)	-2.220** (0.533)	-2.404** (0.466)	-2.105** (0.367)	-2.620** (0.393)	-2.159** (0.476)
Year 2009	-5.993* (2.677)	-1.775** (0.648)	-1.776** (0.588)	-1.364** (0.452)	-1.783** (0.459)	-1.548** (0.528)
Year 2010	-3.750+ (2.249)	-3.771** (0.577)	-3.557** (0.516)	-2.051** (0.446)	-2.751** (0.493)	-2.395** (0.549)
Year 2011	-4.577* (2.181)	-4.060** (0.629)	-3.321** (0.557)	-2.210** (0.473)	-2.919** (0.516)	-2.527** (0.592)
Year 2012	-5.967** (2.201)	-4.063** (0.661)	-3.090** (0.608)	-2.084** (0.501)	-2.744** (0.546)	-2.470** (0.613)
Year 2013	-6.093** (2.203)	-4.743** (0.680)	-3.199** (0.602)	-2.355** (0.478)	-3.267** (0.494)	-2.951** (0.558)
Austria		-0.812+ (0.422)	2.209* (0.943)	-0.025 (0.744)	1.944 (1.257)	-1.525 (1.789)
Belgium		-0.056 (0.309)	-0.617+ (0.371)	-0.787* (0.316)	4.512* (1.905)	5.174** (1.839)
Denmark		-5.782** (0.431)	-5.922** (0.342)	-5.995** (0.248)	-0.617 (2.229)	-1.623 (2.286)
Finland		-8.953** (0.508)	-7.825** (0.547)	-7.974** (0.412)	-2.958 (2.207)	-5.694* (2.629)
France		-3.322** (0.350)	-5.118** (0.409)	-5.056** (0.375)	-3.877** (1.331)	-3.681* (1.424)
Germany		0.664 (0.488)	5.024** (1.203)	2.527** (0.874)	3.763* (1.581)	3.159 (2.000)
Greece		9.690** (0.790)	12.332** (1.532)	5.601** (1.156)	9.585** (1.966)	3.152 (2.883)
Ireland		4.561** (0.760)	2.547** (0.807)	6.930** (0.695)	7.585** (0.781)	3.345+ (1.879)
Italy		10.375** (0.382)	10.842** (1.384)	6.690** (1.022)	11.007** (1.964)	9.995** (2.126)
Luxembourg		3.633 (4.000)	0.048 (3.036)	11.845** (2.600)	16.136** (3.223)	14.614** (3.363)
Netherlands		-0.055 (0.644)	-0.647 (0.566)	-0.044 (0.508)	1.046 (1.061)	-0.215 (1.283)
Portugal		-2.807** (1.006)	-4.485+ (2.305)	-9.556** (1.718)	-5.822* (2.616)	-13.306** (3.571)
Spain		4.972** (0.960)	5.808** (1.516)	4.061** (1.139)	6.857** (1.803)	6.472** (2.081)
Sweden		-8.235** (0.656)	-7.843** (0.467)	-6.788** (0.443)	-1.214 (2.374)	-2.021 (2.389)
Fertility rate			7.682** (2.144)	2.033 (1.754)	2.293 (1.995)	1.725 (1.958)
Women share in sup. educ			-0.172** (0.037)	-0.143** (0.026)	-0.122** (0.030)	-0.106** (0.032)

Unemp. rate				0.163**	0.140**	0.162**
				(0.021)	(0.029)	(0.033)
Female unemp. rate				0.165*	0.001	-0.186
				(0.077)	(0.106)	(0.133)
Male unemp. rate				-0.556**	-0.425**	-0.273*
				(0.056)	(0.077)	(0.132)
Unionization					-0.095+	-0.095+
					(0.048)	(0.049)
Epl (permanent contracts)					-1.105	-0.878
					(0.691)	(0.683)
Epl (temporary contracts)					-0.478+	-0.888**
					(0.253)	(0.308)
Industry share of empl.						-0.883*
						(0.348)
Service share of empl.						-0.882**
						(0.307)
Constant	15.075**	15.422**	9.863	31.551**	34.955**	118.874**
	(2.246)	(3.333)	(6.426)	(5.577)	(6.056)	(29.105)
F statistic	1.67	311.55	429.66	625.61	604.89	573.04
Adjusted R-squared	0.02	0.95	0.96	0.99	0.99	0.99
Number of obs.	165	165	165	165	153	153

Note: Robust standard errors in parentheses; Significance levels: +  $p < 0.1$ ; \*  $p < 0.05$ ; \*\*  $p < 0.01$

Table 3: Unemployment gap, LSDV estimation

	Model 1	Model 2	Model 3	Model 4	Model 5	Model 6
<i>Per capita</i> GDP	-0.006	0.050*	0.045*	0.017	-0.001	0.002
	(0.006)	(0.021)	(0.021)	(0.017)	(0.019)	(0.016)
Growth rate	-0.171	0.105*	0.101*	0.117**	0.153**	0.093**
	(0.196)	(0.049)	(0.050)	(0.041)	(0.042)	(0.030)
Year 2004	0.383	-0.011	0.120	0.517	0.042	0.459+
	(1.203)	(0.443)	(0.438)	(0.378)	(0.387)	(0.238)
Year 2005	0.139	0.006	0.193	0.757*	0.096	0.679**
	(1.099)	(0.384)	(0.384)	(0.338)	(0.346)	(0.242)
Year 2006	0.419	-0.138	0.129	0.886*	-0.035	0.968**
	(1.155)	(0.400)	(0.413)	(0.358)	(0.387)	(0.279)
Year 2007	0.240	-0.201	0.095	0.910*	-0.124	1.106**
	(1.109)	(0.391)	(0.402)	(0.365)	(0.405)	(0.294)
Year 2008	-0.848	-0.363	0.046	1.048**	-0.213	1.102**
	(0.914)	(0.366)	(0.379)	(0.382)	(0.420)	(0.313)
Year 2009	-2.903*	-1.022*	-0.594	0.731	-0.306	0.823*
	(1.361)	(0.445)	(0.467)	(0.524)	(0.512)	(0.379)
Year 2010	-1.757	-1.659**	-1.125*	0.302	-1.159*	0.743+
	(1.083)	(0.410)	(0.484)	(0.501)	(0.525)	(0.393)
Year 2011	-1.603	-1.284**	-0.779+	0.829+	-0.733	0.970*
	(0.985)	(0.417)	(0.442)	(0.496)	(0.496)	(0.387)
Year 2012	-2.129*	-1.181**	-0.651	1.153*	-0.487	0.979*
	(0.973)	(0.404)	(0.455)	(0.563)	(0.573)	(0.469)
Year 2013	-1.834*	-1.064**	-0.545	1.353*	0.018	1.223*
	(0.915)	(0.373)	(0.442)	(0.609)	(0.605)	(0.485)
Austria		0.938*	0.146	-1.057	1.646	-5.459**
		(0.370)	(0.856)	(0.914)	(1.261)	(1.279)
Belgium		1.861**	1.494**	0.611	11.092**	7.070**
		(0.325)	(0.433)	(0.445)	(1.623)	(1.404)
Denmark		1.031**	0.924*	1.056	15.993**	5.239*
		(0.383)	(0.433)	(0.655)	(2.384)	(2.095)

Finland	0.717*	0.968*	-2.879*	11.459**	-2.755
	(0.305)	(0.385)	(1.169)	(2.361)	(2.417)
France	2.318**	2.262**	-1.021	-4.582*	0.198
	(0.330)	(0.426)	(0.829)	(2.122)	(1.166)
Germany	0.652*	-0.062	-0.569	-0.598	-4.300**
	(0.324)	(0.919)	(0.968)	(1.842)	(1.267)
Greece	10.219**	8.591**	0.465	3.582	-4.467+
	(0.677)	(1.224)	(2.159)	(2.614)	(2.435)
Ireland	-3.400**	-3.092**	-4.221**	-1.271	-8.580**
	(0.830)	(0.864)	(0.778)	(0.769)	(1.131)
Italy	4.757**	2.794*	-1.895	5.376**	-1.819
	(0.366)	(1.176)	(1.507)	(1.924)	(1.710)
Luxembourg	-4.039	-4.216	-3.670	3.356	3.703+
	(2.874)	(2.945)	(2.259)	(2.762)	(2.086)
Netherlands	0.476	0.113	9.507**	10.583**	5.602**
	(0.515)	(0.610)	(2.023)	(1.946)	(1.532)
Portugal	3.272**	0.083	-7.576**	-0.801	-14.413**
	(0.821)	(1.828)	(2.529)	(3.100)	(3.180)
Spain	5.065**	2.900*	-2.868+	-1.586	-4.240**
	(0.671)	(1.275)	(1.669)	(2.317)	(1.458)
Sweden	0.389	0.754+	1.127*	16.211**	4.832*
	(0.435)	(0.444)	(0.482)	(2.519)	(2.123)
Fertility rate		-2.022	-2.692+	-1.772	-4.862**
		(1.764)	(1.595)	(1.770)	(1.276)
Women share in sup. educ	-0.054	-0.070*	0.020	0.036	
		(0.033)	(0.031)	(0.035)	(0.027)
Female part time rate			-0.146**	-0.066	-0.115**
			(0.053)	(0.047)	(0.038)
Male part time rate			-0.314*	-0.516**	0.007
			(0.127)	(0.100)	(0.088)
Unionization				-0.293**	-0.129**
				(0.058)	(0.042)
Epl (permanent contracts)				-2.264**	-1.702**
				(0.705)	(0.593)
Epl (temporary contracts)				0.151	-0.645**
				(0.354)	(0.235)
Industry share of empl.					-0.482*
					(0.229)
Service share of empl.					-1.008**
					(0.216)
Constant	2.602*	-6.452**	1.391	15.344**	20.675**
	(1.162)	(2.407)	(4.859)	(5.542)	(5.744)
F statistic	2.22	53.69	55.77	56.34	61.02
Adjusted R-squared	0.05	0.88	0.88	0.90	0.93
Number of obs.	165	165	165	164	152

Note: Robust standard errors in parentheses; Significance levels: +  $p < 0.1$ ; \*  $p < 0.05$ ; \*\*  $p < 0.01$