RECESSION, AUSTERITY AND GENDER
A COMPARISON OF EIGHT EUROPEAN LABOUR MARKETS

Hélène PERIVIER
OFCE-Sciences Po and PRESAGE

February 2016
Recession, Austerity and Gender
A Comparison of Eight European Labour Markets

Hélène Périvier, OFCE, PRESAGE
helene.perivier@ofce.sciencespo.fr

Abstract:
The GDP collapse phase of the economic crisis has less affected female employment than male employment, whereas the austerity phase was particularly harsh for women. This gendered impact of the different stages of the crisis is described in the literature as follows: “from he-cession to sh(e)austerity”. This article aims to analyse the gendered trends in labour market for eight European countries. The quarterly evolution of the participation of women and men and the employment at the sectorial level are decomposed. The “he-cession to sh(e)austerity” scenario does not apply to all the selected countries. The other channels through which austerity policies can jeopardize gender equality and women’s rights are identified by referring to a typology of these policies.

Keywords: Gender, Recession, Austerity, Segregation, Economic policies, Employment

JEL: J16, J21, J22

1 I thank Gerard Cornilleau for his insightful and helpful comments.
Introduction

The crisis that began in 2007 has deeply affected European economies and their labour markets. Employment has dropped in all countries and unemployment rates have increased dramatically; to a lesser extent in Germany, where employment has remained stable throughout the crisis, (Weinkopf, 2014). The phase of collapse in GDP has been followed by a short relative recovery, and then by a phase during which public policies aimed at fiscal consolidation have been implemented. The crisis has had a gendered impact on labour markets during these different steps. Male employment was highly hit by the recession whereas the austerity phase is supposed to have impacted female employment more toughly. These gendered effects are mainly explained by the degree of sex sectorial segregation of labour markets² combined with the sectorial dimension of recession and of fiscal consolidation policies. Men were over-represented in sectors where jobs destructions have been the most important (construction, manufacturing) and austerity policies have been targeted toward sectors in which women are over-represented (public sector, social services etc...). This process has been summarized by Karamessini and Rubery (2014) by “from he-cession to sh(e)austerity”.

The aim of this paper is to describe the driving forces of the gendered impacts of the 2008-recession and of austerity policies. The methodologies developed in the seminal book by Rubery (1988) are applied by using Eurostat data for eight European countries: Denmark, France, Germany, Greece, Italy, Spain, Sweden, and the UK. These countries differ regarding to the magnitude of the recession, to their macroeconomic situation, and to their institutional environments. The in-depth analysis of the dynamic in labour force and employment is based on quarterly data regarding to the active population and the sectorial employment (two-digit level). This provides an understanding of gender gaps in participation and employment that occurred during the different phases of the crisis at the macro level. The evolution of part-time employment is taken into account by crossing the sectorial data base on employment and the data base on average working time per sector available for both sexes at the two-digit level. However, the evolution of wages, working conditions, quality of jobs are excluded from the analysis.

The panel of countries gathers various types of welfare states regarding to the classical typology (Esping-Andersen, 1990) and different types of gender regimes (Lewis, 1992). Social democratic welfare state is represented by Sweden. Denmark is an emblematic case of the flexicurity model (Gazier, 2008). The liberal model is represented by the UK. Germany and France are often presented as corporatist models, even if France diverges from Germany in terms of gender norms. Italy and Greece are known as Mediterranean welfare states, with low participation of women in the labour market. Greece has faced one of the deepest crises in Europe, followed by an intense public debt crisis, and has had to implement the most important fiscal consolidation ever requested in Europe by the European Commission, the European Central Bank and the IMF. Spain is a specific case as female participation has skyrocketed by more than 25 points of percentage during the last two decades³. This dynamic implies that the Spanish model does not fit anymore with the classical typology of

² In this paper, “sex segregation” is understood as the horizontal employment segregation and refers to the gendered division of labour in paid employment. It is defined as under (over) representation of women in occupations (occupational segregation) or sectors (sectorial segregation) (Bettio and Verashchagina, 2009).
³ The labour force participation rate of women between 15 and 64 years old grew from 42.6% in 1992 to 67.9% in 2012 (Eurostat).
European welfare states. Despite this process, sexual division of labour within families is still marked, and public policies affecting work-life balance and promoting gender equality are still underdeveloped (Gonzáles Gago and Segales Kirzner, 2014).

The first section describes changes in labour force growth during the crisis and sheds light on the necessity to assess the interrelations between gender norms, sexual division of labour and labour supply in order to understand the impact of the crisis on the workforce. The second section analyses the different versions of the “he-cession to sh(e)austerity” scenario in the selected countries in enlightening the key role played by sex sectorial segregation of employment. In both cases, we illustrate the statement by using shift-share analyses which provide decompositions by gender respectively of the evolution of the workforce in taking into account demographic trends and of the changes in employment in taking into account sectorial sex segregation. The third section analyses the types of austerity policies implemented in the selected countries and identify the channels other than sex sectorial segregation of employment through which men and women might be differently affected by austerity and to which extent gender equality is jeopardized.

1. Labour force, gender and the crisis

*Decomposition of changes in labour force*

In the aftermath of the recession, the discourse has focused largely on men being more affected than women by unemployment and jobs destructions. Nevertheless, despite the fact that male employment is in general more sensitive to business cycles, women have been less sheltered than in the past crises (Leschke and Jepsen, 2011). For both men and women, the consequences of the crisis depend of the magnitude of the economic shock, the degrees and forms of flexibility of labour markets, and of the public policies implemented in the recession context. Indeed, to limit the impact on employment of the economic downturn, some countries have relied on internal flexibility (through the reduction of working time or short-time working schemes, as in Germany), others have mostly used the external flexibility (such as lay-offs, job destructions, etc., as in Spain), (Cochard, Cornilleau and Heyer, 2010). Stimulus packages (particularly important in the UK and Spain) have been introduced to boost economic activity in some targeted sectors (notably the car, construction and green industries). Finally, the austerity phase that followed the countercyclical policies is characterized by fiscal consolidation aiming at the reduction of public deficit and of debt accumulation through different channels, notably cuts in public spending and increase in taxation. These policies have clearly hampered the recovery and the return to economic growth; in consequences improvements in employment for both men and women have been limited (iAGS, 2013; 2014).

The gendered evolution of the workforce during the different phases of the crisis highlights the structural character of the sexual division of labour and stresses the inequalities between men and women in labour markets and more generally in societies (Christensen, 2015). The differences across countries regarding the gendered impact of the crisis are related to the configuration of labour market, the type of welfare regime and the gender norms prevailing in each selected country. In general, the public and economic policies aimed at tackling the crisis (either stimulus or austerity) have been implemented with a gender blind manner, but they are certainly not gender neutral, because of the state of structural gender inequalities.
At the macro level, changes in labour force are driven by two major forces: a demographic effect and a participation effect. The demographic effect is due to the evolution of the whole population and to the changes in the age composition of the population. It may increase or decrease according to demographic trends as for instance the long terms effects of changes in fertility rates or migration movements (emigration or immigration); both trends can be influenced by the business cycle itself. The participation effect is related to workers’ behaviour depending on the labour markets’ conditions. These patterns are different for women and men: the interrelations between gender regimes, gender inequalities, migrations and fertility trends explain that female and male labour forces will evolve differently during the successive phases of the crisis.

In order to shed light on both demographic and participation effects in a gender perspective, the evolution of the labour force is decomposed by applying a shift-share analysis for different brackets of population age and for men and women separately, during the crisis. This analysis is conducted by using the Eurostat data bases, Labour force Surveys.

The methodology is the following:

Let:

\[ L_{qt} \] be the labour force in the quarter q of the year t

\[ P_{iqt} \] is the population of age i observed in the quarter q of the year t

The population is regrouped according to brackets of ages every 5 years, from 15 years old to 64 years old.

\[ \alpha_{iqt} \] is the participation rate of the population of age i in quarter q of year t

\[ L_{qt} = \sum_i \alpha_{iqt} P_{iqt} \]

Then:

\[ \Delta L = L_{qt} - L_{qt-1} = \sum_i \alpha_{iqt} - \alpha_{iqt-1} P_{iqt} - P_{iqt-1} + \sum_i P_{iqt} (\alpha_{iqt} - \alpha_{iqt-1}) + \sum_i (P_{iqt} - P_{iqt-1}) (\alpha_{iqt} - \alpha_{iqt-1}) \]

= demographic effect + participation effect + interaction effect

The shift-share analysis allows to distinguish between three effects:

- The participation effect gives the change in labour force participation that would have been observed if the total population had not changed compared to corresponding period of the previous year.
- The demographic effect is interpreted as the change in labour force participation that would have been observed if the participation rate had remained the same.
- The interaction effect measures the interaction between changes in participation rate and demography.

The decomposition is conducted for men and women from the first quarter 2007 (Q1 2007) to the first quarter of 2014 (Q1 2014). Demographic and participation effects are presented in percentage of the workforce of the quarter of the previous year for each country in the following graphs (Series of graphs A). The interaction effect which is considered as residual and it is not shown in the graphs.
Series of graphs A: Decomposition of the evolution of the labour force per sex

For Denmark:
- Participation Effect Men
- Demographical Effect Men
- Participation Effect Women
- Demographical Effect Women

Source: Eurostat, [Ibq_agan], 15-64 y
Percentage change compared to corresponding period of the previous year
Author’s calculation

For Germany:
- Participation Effect Men
- Demographical Effect Men
- Participation Effect Women
- Demographical Effect Women

Break in time series (2001 Q4)

Source: Eurostat, [Ibq_agan], [Ibq_agab], 15-64 y
Percentage change compared to corresponding period of the previous year
Author’s calculation
Decomposition of the evolution of the labour force, per sex

**Italy**

- Participation Effect Men
- Demographical Effect Men
- Participation Effect Women
- Demographical Effect Women

Source: Eurostat, [ltlq_eganz], 15-64 y

Percentage change compared to corresponding period of the previous year

Author's calculation

---

Decomposition of the evolution of the labor force per sex

**France**

- Participation Effect Women
- Demographical Effect Women
- Participation Effect Men
- Demographical Effect Men

Source: Eurostat, [ltlq_eganz], 15-64 y

Percentage change compared to corresponding period of the previous year

Author's calculation
Decomposition of the evolution of the labour force per sex

**Greece**

- Participation Effect Men
- Demographical Effect Men
- Participation Effect Women
- Demographical Effect Women

Break in time series (2009 Q2)

Source: Eurostat, [lfsq_agam].15-64 y
Percentage change compared to corresponding period of the previous year
Author's calculation

Decomposition of the evolution of the labour force per sex

**Spain**

- Participation Effect Men
- Demographical Effect Men
- Participation Effect Women
- Demographical Effect Women

Source: Eurostat, [lfsq_agam].15-64 y
Percentage change compared to corresponding period of the previous year
Author's calculation
Decomposition of the evolution of the labour force

**Sweden**

Source: Eurostat, [LFS agem], 15-64 y
Percentage change compared to corresponding period of the previous year
Author's calculation

Decomposition of the evolution of the labour force per sex

**UK**

Source: Eurostat, [LFS agem], 15-64 y
Percentage change compared to corresponding period of the previous year
Author's calculation
In France, Italy, Denmark, demographic changes have played little role in the evolution of the labour force that is mainly explained by changes in behaviours regarding to the participation in the labour market. In the UK and in Sweden, the demographic effect has been positive, meaning that the dynamism of the population has reinforced the workforce. In Germany, the demographic effect has been slightly negative at the beginning of the period. This might be related to the low fertility rate that Germany has experienced for many decades; this long run trend is a factor that might affect the labor force. In Spain, up to the end of 2009, the demographic effect was positive for both men and women. This effect boosted the workforce. This trend is explained by the immigration flow of workers to Spain during 2000s: between 2000 and 2007, immigration population in Spain rose from 4% to 11% of the population. This inflow was mostly composed of Europeans, Latin americans and Africans\(^4\). Since, 2010, the demographic effect became negative for both sexes, but this negative demographic trend is more important for men under 35 years old. This is due to an emigration of male workers, mainly male immigrants that came to Spain during the economic boom and then subsequently have left Spain. Indeed as the Spanish economic outlook worsened, the unemployment rate of non Spanish workers has increased dramatically up to 40%. The outflows have reached “the highest level of the Spanish history” (Izquierdo, Jimeno and Lacuesta, 2015). These trends have been lower for women, and men were more likely to migrate regardless to their nationality. In Greece, we observe also a negative demographical effect since the end of 2009, probably for similar reasons: unemployed workers might have progressively left Greece.

**Participation effect and labour supply of men and women**

The evolutions of the workforce due to the participation effect differ among men and women (Series of graphs A). The neoclassical paradigm provides a theoretical framework to analyze these gender differences in terms of labour supply. Two different effects are distinguished: the discouraged-worker effect and the added-worker effect. These effects might be enhanced during a recession depending on how labour supply is influenced by the labour market conditions, and how individual decisions of labour supply are influenced by the situation of the other members of the household and/or the job market conditions.

The discouraged-worker effect (DWE) arises when job seekers have little prospect of finding suitable position, then they are discouraged to look for a job and consequently withdraw from the labour market, or are excluded from statistics which are strictly founded on job seeking activity of unemployed persons. This effect leads to a contraction of the workforce as measured from international statistical standards. The sex segregation of employment (either in terms of occupation or in terms of sectors) and the potential dualization of the labour market imply that men and women face different situations as far as the job market is concerned in terms of level of unemployment and type of job they can have access to. Therefore, the sectorial dimension of the recession strengthens the potential DWE for men during the recession. Clearly in Spain, in Greece (and to a lesser extend in the UK, Denmark and Italy), a negative participation effect is observed for men (Series of graphs A). This is consistent with the fact that most job destructions have concerned male workers. In the UK,

---

\(^4\) This immigration flow has had no impact on native employment level, but has induced a reallocation of occupations for the native workers from manual-content occupations to more interactive occupations (De la Rica and Polonyankina, 2014).
the positive demographic effect has partially compensated this negative participation effect for men whereas in Greece, the negative demographic effect has reinforced the negative participation effect observed for men, so that the male labor force has decreased: this falling of male participation in the labour market has mitigated the rise in male unemployment rate (Karamessini and Koutentakis, 2014). In Italy, the DWE seems to have been from the same range for both men and women during the year 2009, the increase in unemployment during this period for both sexes explains this trend. But after 2010, the participation effect for women has increased indicating the emergence of a potential opposite effect due to intra familial decisions.

The added-worker effect (AWE) relies on the hypothesis of “sharing risk” within couples: if primary earner loses their job, one potential response for the secondary earner is to seek additional job to compensate the loss of income. This effect induces an increase in the labour force, but potentially an increase in unemployment if the demand side is not dynamic enough. It can appear at the extensive margin if it implies a transition from inactivity to participation in the labour market, or at the intensive margin if the reaction implies an increase in working time (from part-time to full-time employment). The gendered dimension of the AWE is obvious as it relies on sexual division of labour within couples and on the fact that women might still be considered as the secondary earner in some countries. This alteration of couples’ arrangements might be transitory or it might have long terms implication on the division of work and family tasks. The general results in literature on AWE is unclear: previous studies find significant but small responses of women’s labour supply to their spouse’s unemployment (Mincer, 1962; Lundberg, 1987) and while others finds no evidence at all (Heckman, MacCurdy, 1980). But a severe recession especially harsh for male employment, as it the case for the 2008 recession, might reinforce the AWE.

The type of gender regimes, and consequently the level of female participation in the labour market before the crisis is key feature regarding to this issue. As suggested by Smith and Villa (2013), the impact of business cycles in a gender perspective must be analysed in the light of long term trends, such as gender regimes, family models and institutional environments, all of which have changed over time. Since the European Employment Strategy launched in 1997, female labour force participation has risen, so that women can no longer be considered as the secondary earner in most countries at least in terms of participation in the labour market. Despite the fact that women are still more affected by part-time employment than men (Sweden, France, Germany, the UK, and Denmark). In these countries, the AWE is expected to be small or at the intensive margin. The high level of social protection implies a social compensation of unemployment and limit the potential AWE. Further more, in the UK, the mean-tested feature of unemployment insurance is expected to create a disencentive effect for married women to entering the labour market consequently to unemployment of their partner (Bredtmann, Otten and Rulf, 2015); but the magnitude of the recession has limited this specific effect as people became particularly cautious regarding to their job positions (Longhi and Bryan, 2013; 2015). Besides, Gush, Scott and Laurie (2015) have shown by using a qualitative approach that the additional spousal labour is only one alternative among others invoked in cases of serious financial hardship. The results of the shift-share decomposition provide no sign of strong positive participation effect for women in these countries.

Southern countries where the participation of women is still low might have experienced stronger AWE during this recession. The results of the shift-share decomposition indicate a positive participation effect in Greece, Spain and Italy. In Spain, this must be interpreted along with the long
term trend female participation, which has destabilized the male breadwinner model. During the crisis, the sign of household compensating strategies appeared among low educated women, it can be interpreted as a AWE effect (Abbaddo, Rodríguez-Modroño and Gálvez-Muñoz, 2013; Gonzáles Cago and Segales Kirzner, 2014). In Italy, female participation rates are structurally low, but regional differences have to be taken into account as the evolution of the gender regime has not been homogeneous in the country: in the Northern provinces the female employment rate is above the European average whereas in the southern provinces it is far below (Verashchagina and Capparucci, 2014). The increase in female participation effect observed in the decomposition is mainly due to a dramatic increase of employment in the sector of “household care activities as employers”, which has almost doubled during the period (from 360,000 jobs in Q1 2008 to 723,000 in Q1 2013, of which around 90% are female workers). This increase can be, at least partially, explained by the progressive implementation of the laws voted in 2008 on the regularisation of illegal workers, specifically in the care sector\(^5\) which has benefited mainly women. This evolution does not correspond to an effective growth neither in employment nor in female participation, but it results from the inclusion of illegal jobs in statistics through their regularisation. Nevertheless, part of the increase in female participation during the crisis is due to the AWE according to the literature (Bredtmann, Otten and Rulf, 2015, Verashchagina and Capparucci, 2014). In Greece, the graph also indicates a similar trend: inactive women joined the labour market, which can be interpreted as supply side response, AWE. In both countries, this increase in female participation has boosted female unemployment rate because of the strong deterioration of the labour market (Karamessini and Koutentakis, 2014; Bredtmann, Otten and Rulf, 2015; Verashchagina and Capparucci, 2014; Giannakopoulos, 2015).

For countries where an AWE is observed, the question of its persistence is crucial. If the labour supply of married women is permanently modified by the so-called “he-cession”, then one can expect to observe a transition from the male breadwinner model to a less unequal model. But the quantitative approach through AWE integrates gender as an “ad hoc” variable. Labour supply of both men and women are embedded in the economic and social regime: the fact that married women might increase their participation in the labour market when their partner lost their job, does not guarantee that conversely her partner is going to increase his participation to the domestic and family work. The “substitutability” between female and male labour regarding to paid work is no necessary compensated by substitutability in unpaid work. In Italy for instance, the increase in female participation rate has not been associated with a transformation in men’s role, but the sustainability of this trend has been assured by an inflow of migrant women performing domestic and care work, which enabled educated women to work (Verashchagina and Capparucci, 2014). Similarly, during the decade preceding the recession, the dramatic increase in Spanish women’s employment has not been associated with a growing participation of men in childcare and housework (Gonzáles Cago and Segales Kirzner, 2014). As suggested by Rubery (2014), the path dependency has to be taken into account as changes in family organization and social norms related to gender division of labour are not readily reversible.

---

\(^5\) Collaboratore famigliare e badanti : Workers who care for elderly and invalid persons, cleaners (http://www.parlamento.it/parlam/leggi/decreti/08185d.htm; http://www.parlamento.it/parlam/leggi/09102l.htm).
2. Sectorial analysis of employment trends

*Segregated labour markets and sectorial crisis*

The differences in positioning of men and women in the job structure (either at the sectorial level or the occupational level) and the pattern of gender segregation (in terms of degree of segregation and/or nature of the segregation) provides insights into why recession and austerity may have different effect on female and male employment (Rubery, 2014). Sex segregation of labour markets combined with sectorial recession and sectorial oriented austerity policies is the main explanation to the gendered impact of the crisis, summed up by the “he-cession to sh(e)austerity” scenario. This section investigates to what extent sex sectorial segregation explains the gendered dimension of the crisis.

Two types of segregation might explain the gendered impact of the crisis on employment. The sex sectorial segregation implies that women are over-represented in specific sectors of the economy (education, social services, etc.) and under-represented in others (manufacturing, construction, etc.). If the recession has a sectorial dimension, then its effects on female and male employment will differ. Sex occupational segregation implies that women are over-represented in specific occupations (child-minders, cleaners, etc.) and under-represented in others (electricians, enginemen, etc.).

Both types of sex segregation are a common feature of European labour markets. Women represent around 80% of the workers in the “health and social services” sector, compared to only 10% or less in the “construction” sector. The commodification or externalization through public services (according to countries) of part of family tasks has boosted female participation in the labour market, but it has also induced an increase in sex sectorial segregation as workers in the “care” sector are mainly women. For instance, growth in employment of women in Spain, during the decade preceding the recession, occurred in already feminized sectors and the index of dissimilarity has increased along with the increase in female employment (Gonzáles Cago and Segales Kirzner, 2014). In the selected countries, among the female-dominated occupations, one finds “shop sales persons and demonstrators” or “domestic and related helpers, cleaners and launderers” or “other office clerks”. In contrast, among the male-dominated occupations, one finds “motor vehicle drivers”, or “building frame and related workers”, “machinery mechanics and fitters” (Bettio and Verashchagina, 2009).

As the recession had a clear sectorial dimension, sex sectorial segregation might have acted as a protection for women during this phase of the crisis. Sectors where women are over-represented – like “education” and “human health and social services” – have been spared by the collapse in economic activity, whereas sectors where men are over-represented, like “construction” and “manufacturing” have been deeply affected by the crisis. Besides, sectors like “construction” are more likely to hire temporary jobs, which constitute a strong and quick means to adjust employment to the business cycle. Between Q1 2008 and Q1 2010 in Spain, “manufacturing” and “construction”, sectors in which women represent respectively less than one third or around one third of the workers, suffered the destruction of 709,000 and 1 million jobs (respectively). Whereas, in “education” and “human health and social work activities”, sectors in which women represent respectively 60% and 82% of the workers, 54,000 and 133,000 jobs have been created during the same period.
In France and Italy, specific policies aiming at restructuring the civil service have led to a decrease in employment in public sector. In Sweden, the “human health and social work” sectors also lost many jobs during the same period. Conversely, in the UK, the public sector continued to grow during the recession, adding 324,000 jobs in “education” and 248,000 jobs in “human health and social work activities” (see also Rubery and Rafferty, 2014).

In general, during the recession, male-dominated sectors have been more affected than the female ones, and the opposite trend should arise in consequence of the austerity policies. These policies are sectorial oriented, aiming at reducing the public sector and public spending in general. The “sh(e)austerity”, which is the mirror effect of the “he-cession”, is then supposed to emerge. The central role of sex sectorial segregation has to be analysed. Indeed, the variation of employment by gender and by industry does not allow identifying the “pure” effect of job segregation as the main driver of the gendered impact of the crisis. During 2008 and 2014, the share of women in each sector might have changed; this can hid specific gendered effects of employment changes during the crisis: for instance, in sectors where women are under-represented, job destructions might have been concentrated on female occupations, and the share of women in these sectors might have fallen as a consequence. Female workers might have been less protected by the sex sectorial segregation than they apparently seem to have been.

The shift-share analysis of the variation of employment by sector and by sex provides a measure of the role played by sex segregation in the evolution of women’s employment. This methodology consists in calculating a counterfactual of the evolution of female employment: what would have been this trend if the share of women in each sector had been stable during the whole period. In order to take into account changes in working time during the period under review, the average weekly working time by sector is used to adjust the measurement of employment. In the evolution of female employment, two different effects are distinguished. One is due to the change in employment within each sector, and the other is due to the evolution in the share of women in each sector. The variation of employment as follows:

Let:

\[ F_{iqt} \] be female employment in the quarter q of the year t,
\[ F_{iqt} = J_{iqt} * H_{iqt} \]

where \( J_{iqt} \) is the number of jobs occupied by women in sector i in the quarter q of the year t, and \( H_{iqt} \) is the number of hours worked weekly by women in sector i in the quarter q of the year t

\[ E_{iqt} \] is the total employment in sector i in quarter q of year t,
\[ E_{iqt} = J_{iqt} * H_{iqt} \]

---

6 In France, the education sector has lost 44,000 in consequence of a reduction non-teaching workers in education resulting from specific policies aimed at containing the number of civil servants. In Italy the education sector has also lost 129,000 jobs, due to specific measures aimed at reforming the educational system and cuts public education spending, the “Riforma Gelmini” (2008-2009), Law 81/2009; Law 169/2008.

7 37,000 jobs and this represents around 2% of job destruction in all NACE activities.
where \( J_{iqt} \) is the number of jobs in sector \( i \) in the quarter \( q \) of the year \( t \), and \( H_{iqt} \) is the number of hours worked weekly in sector \( i \) in the quarter \( q \) of the year \( t \).

\( \alpha_{iqt} \) is the share of women in sector \( i \) in quarter \( q \) of year \( t \) taking into account of the average working time by sector.

\[
F_{qt} = \sum_i \alpha_{iqt} E_{iqt}
\]

Then:

\[
\Delta F = F_{qt} - F_{qt-1} = \sum_i \alpha_{iqt-1} (E_{iqt} - E_{iqt-1}) + \sum_i E_{iqt-1} (\alpha_{iqt} - \alpha_{iqt-1}) + \sum_i (E_{iqt} - E_{iqt-1}) (\alpha_{iqt} - \alpha_{iqt-1})
\]

Employment effect + Share effect + Interaction effect

The effects are presented in percentage of female employment in \( t - 1 \) : \( F_{qt-1} \).

The sectorial analysis was constrained by the data available, as there is a break in the statistical series between Q4 2007 and Q1 2008. The shift-share analysis is conducted from Q1 2008 to Q1 2014, allowing to distinguish between three effects:

- The employment effect indicates what would have been the female employment trend if the share of women in each industry had remained the same regarding to the corresponding period of the previous year.
- The share effect indicates how the variation of the share of women in each industry has evolved during the period.
- The interaction effect measures the interaction between changes in employment per sector and the share of women.

A share effect close to zero can be interpreted as the fact that sex sectorial segregation explains much of the gendered impact of the crisis on employment. When it differs from zero – negatively or positively – two major interpretations are possible. Firstly, the NACE 2 digit database might be not precise enough to measure the impact of segregation. Sex segregation can be stronger at the level of subsectors than at the sector level. Then a negative share effect might be interpreted as the fact that the sub-sectors dominated by women have been more hit than the sub-sectors dominated by men. Secondly, a negative share effect can be interpreted as decreased in the share of women either because women have been more laid off than men for similar jobs in the same sector, or because job creations have benefited disproportionally to men. In addition to sex sectorial segregation, sex occupational segregation can also play a role in the gendered impact of the crisis:

---

8 The quarterly sectorial data given by Eurostat are not seasonally adjusted, so the percentage change compared to the corresponding period of the previous year is used here.
9 For instance, subsectors in the sector “Public administration and defense; compulsory social security” might be highly segregated regarding to gender.
10 We have conducted the same decomposition methodology regarding to the sex occupational segregation, but because of many breaks in the time series for countries under review the interpretation is not robust.
the positions dominated by women might have been more concerned by job destructions than the positions dominated by men, in consequences the share of women decreased$^{11}$.

The decomposition allows to evaluate the impact of the different steps of the crisis not only in absolute terms (numbers of jobs that have been destroyed for each sex), but also in relative terms, meaning how many jobs have been lost regarding to the evolution of the share of women within sectors.

**Series of graphs B:** Sectorial decomposition of the evolution of female employment and evolution of male employment taking into account for the working time

---

11 The database on occupational status is available in Eurostat database, but a lot of breaks in series prevent from applying the shift-share methodology.
Sectorial decomposition of the evolution of female employment and male employment taking into account for the working time

Germany

Source: Eurostat, [lfsq_ag新春], [lfsq_ewhun2], 15 and more
Percentage change compared to corresponding period of the previous year
Author’s calculation

France

Source: Eurostat, [lfsq_ag新春], [lfsq_ewhun2], 15 and more
Percentage change compared to corresponding period of the previous year
Author’s calculation
Decomposition of the evolution of female employment, and evolution of male employment taking into account for the working time

**UK**

![Graph showing the decomposition of the evolution of female employment, and evolution of male employment for the UK.](image)

Source: Eurostat, [lfsq_ugac], [lfsq_cubgac], 15y and more
Percentage change compared to corresponding period of the previous year
Author's calculation

Sectorial decomposition of the evolution of female employment and evolution of male employment, taking into account for the working time

**Greece**

![Graph showing the sectorial decomposition of the evolution of female employment, and evolution of male employment for Greece.](image)

Source: Eurostat, [lfsq_ugan2], [lfsq_cuban2], 15y and more
Author's calculation
Percentage change compared to corresponding period of the previous year
Sectorial decomposition of the evolution of female employment, and evolution of male employment taking into account the working time

**Sweden**

![Graph showing employment trends in Sweden](image)

Source: Eurostat, [lfsq_egen2], [lfsq_ewhun2], 15 y and more
Percentage change compared to corresponding period of the previous year
Author's calculation

---

Sectorial decomposition of female employment, and evolution of male employment taking into account the working time

**Spain**

![Graph showing employment trends in Spain](image)

Source: Eurostat, [lfsq_egen], [lfsq_ewhun2], 15y and more
Percentage change compared to corresponding period of the previous year
Author’s calculation
Decomposition of the evolution of female employment, and evolution of male employment taking into account for the working time

**Italy**

Source: Eurostat, [lfsq_ag], [lfsq_ewhean], 15y and more

Percentage change compared to corresponding period of the previous year

Author's calculation
“He-cession and sh(e)austerity”? Mixed patterns across countries

Spain is a typical case of the “he-cession to sh(e)austerity” scenario. Sex sectorial segregation explains the gendered trends of employment throughout the period under review (see also Peña-Boquete, 2014). The share effect has been close to zero during the recession phase, meaning that the share of women has remained stable. Spanish women have been less affected than men by the crisis in terms of job destructions, even when the average working time per sector is taken into account. This is mainly explained by the fact they are over-represented in sectors less hit by the recession. Women did experience employment losses during this phase but the speed of the decrease of employment has been lower than for men. Male employment collapsed by 24% between Q1 2008 and Q1 2013, whereas female employment decreased by 10%. The collapse in male employment represents a destruction of 2,870,000 jobs. Half of this drop occurred in “construction”, and one quarter in “manufacturing”. But the relative resistance in female employment has gone hand-in-hand with an increase in precariousness, low income and bad jobs for women, in a context of low income and economic pressure (Gonzáles Cago and Segales Kirzner, 2014). Since the end of 2012, a negative share effect appears, meaning that the evolution of female employment has been less favourable than it should have been if their share within sectors had remained stable. Since 2014, the graph indicates that the slight recovery of male employment is more important than the female one. Spain experiences the sh(e)austerity part of the typical scenario.

The Greek case is more complex and could be more properly characterized as a “Race to the bottom-sh(e)austerity” scenario. During the recession, employment has collapsed for both sexes. In absolute term, the breakdown was deeper for men than women during the recession. Job losses have also been concentrated in “manufacturing” for men and women (27% of male job destructions, and 20% for female job losses). But men have faced a specific decrease of employment in “construction” (with a 37% fall in jobs). The gender gap is mainly explained by sex sectorial segregation. The adoption of the Economic Adjustment Programme 2010-2014, in May 2010, has marked the beginning of successive austerity plans (Karamessini, 2014). Starting the first quarter of 2011, the pace of decrease in female employment had been higher than it should have been if the share of women within sectors had remained stable. Therefore, in relative terms, female employment has been more affected by the austerity measures than male employment.

The situations in the UK and Denmark sketch a slight but clear “sh(e)-cession”. In both countries, from Q1 2009 to Q3 2011, the share effect was negative: women should have benefited of a more favourable evolution of employment than they actually did. In Denmark, female employment should have decreased more slowly than it did. In the UK, women should have experienced a positive trend in employment, but according to the evolution in their share within sectors, female employment actually decreased. In both countries, between Q1 2009 to Q1 2011, women experienced more job losses than they should have according to sex composition in the following sectors: “manufacturing”, “construction”, “wholesale and retail trade, repair of motor vehicles and motorcycles”. In both countries, the “wholesale and retail trade”, as well as the “repair of motor vehicles and the motor” sectors have suffered cuts of 226,000 jobs, 75% of these job losses falling on women. The creation of jobs in “education” has less benefited to women than it should have, whereas in Denmark 80% of jobs creation in “education” have concerned women (instead of 60% if their share in “education” had

12 Between Q1 2008 and Q1 2013, male employment decreased by 22%, whereas female employment fell by 17%.
remained stable). In absolute terms, women were less affected by the recession than men regarding to employment trends, but in relative terms they were more hit by the economic shock. Starting from Q3 2011, the share effect has had little or no impact in the UK, whereas in Denmark this effect has been positive but small.

In Italy, Sweden, France and Germany, the scenario is not clear and changes in employment are less pronounced. Sweden is an interesting case. During the year 2010, the share effect is negative, female employment has then been more affected than it should have been. Indeed, the measures taken by the Swedish government at the end of 2008 and during the first half of 2009 included an extensive investment and maintenance plan in the country’s road and rail networks (Anxo, 2011). Therefore, the Swedish stimulus packages have benefited more to men than to women. At the municipality and county levels, which are responsible for social services, education and health, public employment declined due to severe budget cuts, despite the additional allocations by Sweden’s national government to local authorities (Anxo, 2011; Nyberg, 2014). Conversely since Q1 2011, the share effect became positive. Women have benefited relatively more from the fact that Sweden has not implemented austerity policies. Indeed Sweden is the only the selected countries which did not choose the path toward austerity measures, as between 2010 and 2013 the fiscal impulse is positive (see graph C).

This analysis helps to balance the role of sex sectorial segregation in the gendered impact of the recession and partly of the austerity policies. As far as austerity is concerned, the methodology used does not capture the whole impact that these policies might have on gender equality. Firstly, it does not integrate the effect of austerity on wage, quality of employment and working conditions. Secondly, the timing of the transmission on employment might be longer than studied period. Lastly, part of these policies have affected gender equality, and female employment, through indirect channels. The third section explores this last point.

3. Austerity policies and gender equality

**Overview of different austerity policies**

The sh(e)-austerity has been analysed through the direct effect of austerity policies on female employment due to sex sectorial segregation: cuts in public spending lead to a contraction of employment in sector where women are over-represented. There are all kinds of channels through which austerity policies can affect gender equality and/or women’s situation. These policies can affect female employment indirectly (cut in public services or social reforms might reinforce the difficulties to achieve work-life balance or degrade the working conditions) or their effects might be delayed and then are not yet clearly visible in the data. This section analyses the different forms of austerity policies in order to shed light on their potential or effective impact on gender equality.

The fiscal consolidation programs are part of a macroeconomic agenda which provides restricted room for manoeuvre, and it can generate a regressive framework for gender equality. The economic downturn has widened output gaps and increased public deficits and public debts. This was the consequences of both automatic stabilisers, as the recession decreased tax revenues and pushed up social and public expenditures, and of the fiscal policies implemented in 2008 and 2009, in order to
dampen the economic consequences of the crisis. The short term priority was to limit the rise of unemployment and boosting economic growth. The implementation of expansionary fiscal policies at first managed to contain the economic consequences of the financial crisis\textsuperscript{13}. But fearing a surge in interest rates and constrained by the Stability and Growth Pact, member states and the European Commission make a priority the long-term issue of the sustainability of public debt before the recovery (iAGS, 2013). The major concern in most European countries has become fiscal consolidation. Therefore and in spite of a fragile economic situation, most countries started to tighten fiscal policies in 2010 or in 2011 (iAGS, 2013, 2014). The consolidation programs are gathered under the umbrella term “austerity policies”. Austerity policies can be defined as discretionary measures aiming for fiscal consolidation and that affect the structure of the Welfare State in terms of social security, public administration, public sector, public services, taxation system, labour market institutions... These policies can be compared across countries regarding to their magnitude and their nature.

The magnitude of austerity policies have been larger for countries which have received external assistance by the international institutions (IMF, World Bank and ECB) or/and countries which have been facing a public debt financing crisis in the market (Spain, and Greece). The graph C indicates that, with the exception of Sweden, all countries under review have implemented austerity policies, measured by a negative fiscal impulse.

Graph C:

The nature of austerity policies can be analysed according to their distribution between expenditure cuts and tax rises. For most countries, the composition of the packages favours expenditure cuts rather than tax rises (Theodoropoulou and Watt, 2011). The UK is a specific case as the British government has scheduled tax reductions which will be offset by very severe spending cuts. One of

\textsuperscript{13} Among the selected countries, the UK and Sweden, as non-member States of the Eurozone, may also have benefited from a depreciation of their real effective exchange rates.
these reforms\textsuperscript{14} implies a tax rebate for married couples (IFS, 2015)\textsuperscript{15}. This is clearly a step backwards regarding to individual taxation, which has been implemented in the 1990’s. Even if the impact on female participation is expected to be small, this reform promotes the male breadwinner model and does not support the gender-equal family model. Finally, among the expenditure cuts, different types of policies are observed in the selected countries. Besides the revenue versus expenditure sides of austerity, on can add the so-called structural reforms, which imply a deregulation of labour markets.

Austerity policies, as were the stimulus packages, are not gender neutral. Depending on the level of sexual division of labour, the degree of sex segregation of labour markets, and the size of gender inequalities in the society, their consequences on the economic and social situation of individuals will differ for women and men. As seen previously, the recession might have long terms impact on the gender regime, by changing the economic conditions of the sexual division of labour within families, through the AWE. But in the same time, the persistence of the AWE, which weakens the male breadwinner model, especially in countries where it is still important (as it is the case in Italy, Greece and Spain) depends on the policies implemented in order to support female employment. Austerity policies might put an end to the dynamic generated by the AWE. They also design the conditions under which women participate in the labour market.

\textit{Gender equality and women’s rights}

The aim of this section is not to draw an exhaustive map of austerity policies in the selected countries, but to analyse their direct/indirect and long term effects on gender equality and on women’s situation. The various types of policies are classified into five categories: Increase in taxation; reduction of public services; deregulation of labour market institutions; reduction of social protection; cuts in policies directly targeted toward gender equality (see the diagram). The analyse focuses on the expenditure cuts and the deregulation of labour markets aspects of austerity policies and highlights the different channels through which gender equality and women’s situation have been or will be affected in the future. The typology above is illustrated through specific examples\textsuperscript{16}.

\textsuperscript{14} The annual cost for British public finances is expected to be around half a billion of £ for 2015-2016 and 780 million for 2018-2019.

\textsuperscript{15} More than 4 million of married couple will gain of this change. But at the individual level, the overall winners are men (84% of the receivers of the transfer).

\textsuperscript{16} Part of this survey has been realized by using the EC database LABREF, which detail for each member states the diversity of policies linked to the labour market, implemented each year.
The first channel is the employment losses and refers to the “sh(e) austerity” scenario analysed in the previous section: as the sectors in front line of austerity are dominated by female workers, cuts in public spending should mechanically lead to job destructions for women and then rise in female unemployment. In the long term, the persistence of a high level of unemployment might induce a decrease in female participation through the DWE.

The second channel is toward work-life balance, which is affected by the combined effect of cuts in public services and deregulations of labour market:

- Cuts in public and social sectors, with job reductions and freezes in wages in public sector are common feature of austerity policies (Theodoropoulou and Watt, 2011; Leschke and Jepsen, 2011; Smith, 2009; Karamessini, 2014). The social and public sectors play a central role with respect to this issue (in terms childcare, social services, elderly care, etc.). The degrees of defamilialization and of decommodification of welfare states have been affected. As women are the main users of these services, because of the sexual division of labour within families, they struggle to participate in the labour market, or they are affected in their daily life through tougher constraints in work-life balance. This could reinforce the potential DWE.

- Austerity policies also aimed at increasing the degree of flexibility of labour market, through deregulations. In Greece (2012) regulations limiting commercial shop opening hours have been abolished. In the same vein, in Spain (2012 and 2013), modifications of the working
conditions have been decided. In particular, firms are allowed to make substantial changes to individual or collective contracts and the possibility for firms to choose irregular distribution of working hours throughout the year has been expanded\textsuperscript{17}. The increase in flexibility regarding the organization of working time can affect more specifically women. Firstly because they are over-represented in the sectors were these measures are potentially the most sensitive to these changes in labour regulations (retail and services\textsuperscript{18}). Secondly the de-structuration of working time implies more difficulties regarding to work-life balance, then increase the complexities of the synchronization of social times of women.

The third channel goes through the alteration of social citizenship (i.e. acquisition of social rights):

- The retrenchment of the Corporatist/Bismarkian pillar of welfare states, through a contraction of social rights, can affect more deeply women than men, because of gender gap in careers and wages. Therefore, the withdrawal of specific compensations of these inequalities, within a general context of degradation of work-life balance, will worsen conditions for the most disadvantaged women. In this respect, pensions’ reforms will be particularly harsh for women. In Greece, the reform has considerably strengthened the link between contributions and benefits\textsuperscript{19}. A statutory retirement age at 65 years has been established for both men and women. The retirement age limit differentials between men and women retirees have been abolished. In Italy, the reform of pension system also implies an increase in retirement age for both sexes. Beside this direct effect, as women will have to work longer before being retired, the possibility for younger women with children to rely on Grand-mothers will be limited, in countries where the intra-family support is still dominant and the cost of childcare still high, this will limit mothers’ participation in the labour market (Verashchagina and Capparucci, 2014).

- The reduction in family support can also affect gender equality by reinforcing the weight of sexual division of labour on women’s life. In the UK (2011), childcare subsidies have been reduced and the Birth grant has been suppressed. In Germany (2015), a new homecare allowance has been implemented, and consists in a Child-rearing benefit for parents not using public childcare. In France (2015), the universal family allowances (“les allocations familiales”) have been reformed and are now mean-tested. The French reform of the parental leave\textsuperscript{20} (2014) was presented as a way to promote gender equality, by imposing a sharing rule of the leave. It aims to dedicate one year (on three) of the leave to the “other parent” (that is to say to the father). In the same time, the level of the lump sum allowance has been reduced (to one third of the minimum wage). This new scheme remains financially unattractive for fathers. The likely high non-take-up rate of fathers will reduce the public finance cost of the whole parental leave. Not only the reform does not create any credible

\textsuperscript{17} LABREF data base, European Commission.
\textsuperscript{18} Two in three retail employees are women in average in EU.
\textsuperscript{19} The reform consists of a contributory pension on top of a non-contributory pension. The years of work that are required for a full pension have increased to 40
\textsuperscript{20} The « Complément Libre Choix d’Activité » (CLCA) has been replaced by the PreparaE, « Prestation partagée d’éducation de l’Enfant » in 2014 (Décret n° 2014-1708 du 30 décembre 2014 relatif à la prestation partagée d’éducation de l’enfant).
incentive for men to be more involved in family work, but also it worsens the situation of mothers of young children because of the reduction of the length of the parental leave dedicate to them, and this will hardly be compensated by an increase in childcare. In Spain (2013), the implementation of the extension of paternity leave has been delayed. All these policies do not promote equal share within families, and will induce increasing difficulties for women with children to participate in the labour market in good conditions.

Last but not least, gender equality and women’s rights are directly jeopardized by reduction in the support to equality bodies. In Spain (2010), the Equality Ministry (implemented in 2008) was suppressed and some of the monitoring bodies for gender equality have been closed. In the UK (2011 and 2012), cuts in the budget of the Equal Human Rights Commission (EHRC) have been decided (see Karamessini and Rubery, 2014). These measures decrease the possibility to monitor gender equality.

The combination of these policies induces an “uncontrolled” modification of welfare states and gender regimes through a decrease in the degree of defamilialization and in the degree of decommodification of welfare states. The balance between retrenchment and recalibration of welfare states in the aftermath of the crisis is still unclear and varies across countries, but the coverage is weaker at least in Southern countries where the austerity policies have been stronger (León, Pavolini and Guillén, 2015). The focalization on the fiscal consolidation target prevents from shaping structural changes in the long run, and it jeopardizes the consistency of public policies. Public policies during the crisis have relegated gender equality to the background or even consigned it to oblivion (Smith and Villa, 2014). As a result, austerity policies can be described as institutionalized misrecognition in the theoretical frame of Fraser’s principles of justice (Pauli, 2014).

Conclusions

This paper adds a new perspective in the increasing literature in social sciences analysing the gender impact of business cycles. The “from he-cession to sh(e)-austerity” scenario relying on sex sectorial segregation explanation provides a useful analytical grid to analyse the current crisis, but it needs to be nuanced: as far as changes in employment are concerned, some countries experienced both he-cession and she-cession and in others no clear sh(e)-austerity is observed so far. Beside the direct potential impact of austerity policies on female employment, indirect and/or long term effects will worsen gender inequalities. These consequences should be explored more deeply, and further researches are needed in this respect. In countries were the male breadwinner has been destabilized by the recession, the austerity policies compromise the potential long terms effect of the recession on sexual division labour: cuts in publics spending and social services have hampered mothers’ participation in the labour market and male unemployment seems to have no significant effect on the share on unpaid work within families. Deregulation of labour market and suppression in some countries of bodies in charge to implement and to monitor gender equality policies darken the prospects regarding to women’s rights and their living conditions. The general framework of austerity prevents from (re)inventing a new model social and economic model which would rely on effective gender equality.
References


