

The Emergence of Women as Main Earners in Europe

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Abstract

This paper conducts a cross-sectional empirical research aimed at documenting the emergence of a new family model characterized by women who earn the largest share of the household income. We show that in Europe, couples with women as the main earner have started to represent a non-negligible share of the population. We provide a descriptive analysis of the social-demographic characteristics of couples in which women are the main earner in comparison to couples in which men are the main earner and equal-earner couples. We undertake a comparative approach using micro-level surveys for 21 European countries from the European Social Survey.

Keywords

European Social Survey, Family Change, Female Breadwinners, Gender Roles.

Introduction

For long, men have received a better education than women and used to be the sole or main person responsible for raising the income necessary to sustain the household. In Western societies, the predominant family model was characterized by a specialization of gender roles with men working and women staying at home. Many societal aspects were implicitly built on the notion that the male-breadwinner model (Becker 1981) was at place, and welfare systems were structured around the gendered division of work and care tasks (Crompton 1999; Lewis 2001). The male-breadwinner model has been challenged as women entered higher education and employment, and started to earn income and hence became economically independent from their partners, giving rise to more egalitarian societies (Esping-Andersen 2009). In addition, individuals' ideational and value change have led to a decline in the centrality of the family and new family forms have emerged, such as lone motherhood and non-marital cohabitation, which have further eroded the normative role of men as main breadwinner (Van de Kaa 1987; Lewis 2001). Over time, dual-earner families have become widespread (Blossfeld et al. 2001; Oppenheimer 1994).

Today, in a growing number of married couples in the US, wives are more likely to have achieved higher education than their husbands (Schwartz and Mare, 2005) and represent the sole or main household income provider (Wang et al. 2013). Studies found that women earn more than their partners in one in four couples in the US (Wang et al. 2013), and one in five in Australia (Drago et al. 2005). The share of couples where the woman is the sole earner, which includes the stay-at-home fathers, and that can be referred to as "female breadwinner" couples, is also on the rise. Hence, couples in which women contribute the largest share of the household income now represent a non-negligible part of the population. Because of its novel distribution of economic power within the partners, this new model profoundly transforms the traditional organization of the family. Research on women who out-earn their partners is rare given the recent nature of the phenomenon, and it is limited to the US and Australia. To the best of our knowledge, there is only one study for Europe, i.e. Bloemen et al. (2013) for France. Further, most existing studies were conducted on data collected two decades ago or more (Atkinson et al. 1984; Brennan et al. 2001; Rogers et al. 2001; Winkler et al. 2005), and hence disregard the social change concerning women and their role observed during the most recent decades.

This paper aims at filling a gap in the literature by investigating the emergence of women who out-earn their partners in Europe, using up-to-date micro data from the European Social Survey, describing families in the 2000s. We aim at identifying the key socio-demographic characteristics of men and women in couples where women are the main earner in comparison to couples where men are the main earner and equal-earner couples.

With its relevant internal differences in welfare regimes, cultural traits and demographic outcomes, Europe is a laboratory for studying cross-country heterogeneity. Public policies regarding the family and employment, in European countries, have responded to the societal change very differently (Lewis 2001). Many governments have promoted family-friendly policies such as availability of kindergarten, part-time work, and parental leave to ease the combination of work and family-related tasks, these policies being targeted to the dual-earner family. But not all institutions supported women's empowerment and provided adequate policies to these new types of families. In contrast to the gender-egalitarian societies that we find in the Nordic countries, that facilitate outsourcing of family activities such as childcare and care for the elderly (Esping-Andersen et al. 2012), in settings characterized by low gender equality in the private sphere (McDonald 2013), such as countries in the South of Europe, all the burden of domestic tasks and care giving is still mainly associated with women. In this paper we are able to compare women as main earners across Southern Europe, Eastern Europe, Anglo-Saxon, Continental and Nordic countries.

During the post-2008 economic crisis, many countries in Europe have witnessed declining real earnings and increased unemployment rates (Aassve et al. 2013) in particular for men because men are mainly employed in the economic sectors which were most hardly hit by the crisis (Cho et al. 2012). Hence, one might argue that households have become dependent upon women's labour income because of economic necessity, and that women as main earners started to emerge in Europe only recently and temporarily. Our data allows comparing two points in time covering the period before and after the 2008 economic crisis. This means that we are able to investigate if the relevance of the economic role for women within the family has become more widespread during the economic crisis or it was detectable already in 2004, i.e. well before the recession had begun.

Background

In all industrialized countries today, women are more and more represented in the labour market. As of 2012, employment rate for women of working age in the European Union was equal to 58.5%, against 69.6% for men, indicating that, though men are still more likely to be employed than women, the gender gap in the labour market has reduced considerably over time (Source: Labour Force Survey, Eurostat). Studies show that the gender gap in earnings persists in that men are more likely to earn higher incomes than women, regardless of the level of education achieved (OECD 2013; Vincent-Lancrin 2008), but it is nonetheless shrinking. Particularly interesting is the increasing number of women in the educational system. In 2005 there were 1.3 female graduates for each male graduate (Vincent-Lancrin 2008) on average across OECD countries. The most recent data for 2011 show that the proportion of students who entered tertiary education and graduated with at least a first degree was 10% higher for women (71.9%) than it was for men (61.8%) (OECD 2013).

This trend observed at the macro level is also visible at the individual level, when looking at the composition of couples in terms of their educational background. In 2000, wives were more likely to have achieved higher education than their husbands in the US (Schwartz and Mare, 2005).

Scholars in different fields have investigated the causes and consequences of the social change brought about by the increased economic power of women. The sociological literature has studied women's empowerment and gender roles (Crompton 1999; Esping-Andersen 2012; Mencarini et al. 2012; Oppenheimer 1994). Family demographers have investigated the interrelations between the social and the demographic change, with particular attention to low fertility (Balbo et al. 2013; Kohler et al. 2002). Economists have studied the role of family-friendly policies and institutions (Adsera 2004; Del Boca 2002), and psychologists the psychological implications brought about by the increased economic power of women (Coughlin et al. 2012; Meisenbach 2010).

However, the causes and consequences brought about by the emergence of women as main earners have been so far rarely investigated and definitely not in a comparative framework. The psychological literature has devoted attention to this new reality investigating, via qualitative studies, the psychological consequences for men (Coughlin et al. 2012), and gendered identities of women (Meisenbach 2010). Results have shown that the psychological consequences for men are mediated by their gender ideology in that men who have a conservative masculine ideology tend to suffer from depression symptoms and have a generally low wellbeing when they are out-earned by their partner, while no significant effects were found for men with gender-equal attitudes (Coughlin et al. 2012). The wellbeing of women who out-earn their partner is instead less frequently investigated (Meisenbach 2010). The few empirical studies based on representative survey data acknowledging the rise of women as primary earners have mainly looked at the consequences for marital quality and risk

of divorce (Brennan et al. 2001; Rogers et al. 2001). Female breadwinners were found to be more exposed to the risk of spousal violence (Macmillan et al. 1999; Atkinson et al. 2005). Masculine ideology has been shown to be a mediating factor for both relationship quality (Coughlin et al. 2012) and risk of violence against women (Atkinson et al. 2005). Finally, existing literature on division of household tasks among cohabiters suggests that women who out-earn their partners do more housework, because doing housework for high-earning women is a way to do gender deviance neutralization (Lui 2013; Schneider 2011).

Research on Europe is lacking on this topic, while it could be informative to compare different institutional and cultural settings which might buffer the above-mentioned effect (Esping-Andersen 2009).

Data and Methods

The empirical approach in this paper is based on descriptive analyses using the European Social Survey (ESS, <http://www.europeansocialsurvey.org/>), a repeated cross-sectional survey providing information on different European countries. The ESS is a biennial social survey aimed at measuring values and behaviours of Europeans and at understanding how and why such patterns change over time. We focus on 18 countries and two time periods, 2004 and 2010. The ESS proves to be useful since two of its rounds contain rotating modules devoted to the study of family, work and wellbeing plus self-reported socio-demographic information on partners. Particularly relevant for this paper is a survey question which allows identifying the main earner on the basis of the most common definition, i.e. the person who earns the majority of the household income. The question reads as follows: “Around how large a proportion of the household income do you provide yourself?” and possible answers are in a scale from 1 “None” to 7 “All”. Using this question in combination with the living arrangements of the respondent, it is possible to identify couples of married or cohabiting partners where the woman is the sole or the primary earner (including, but not restricted to, female-breadwinner families), where the man is the sole or the primary earner (including, but not restricted to, male-breadwinner families), and where the man and the woman provide about the same share of the total household income (equal-earner families).

We perform generalized ordinal logistic regressions to identify the main socio-demographic characteristics associated with each of the three family models (the man as main earner, equal-earners, and the woman as main earner). We consider the dependent variable to be ordered with respect to the increasing economic role/power of women within the family, as measured by the proportion of household income that she provides (less than half, about half, and more than half). We assume that the economic role of women is low in families where the man is the main earner (i.e. the woman provides less than half of the total household income), intermediate in egalitarian families (i.e. the woman provides about half of the total household income), and high in families where the woman is the main earner (i.e. the woman provides more than half of the total household income). We consider four main sets of explanatory variables:

- 1) Individual-specific characteristics of the woman, including her age (linear and quadratic term), educational attainment (low –ref.–, medium, high), and occupation (routine/manual –ref.–, intermediate, higher managerial/professional).
- 2) Individual-specific characteristics of the woman in relation to the characteristics of her partner i.e. the difference between men’s and women’s socio-demographic characteristics. We consider whether the woman is younger –ref.–, older or of the same age as her partner, whether she is less –ref.–, more

or equally educated, and whether she has a lower –ref.–, higher or equally prestigious occupation than her partner.

3) Household-specific characteristics, including the household income, measured in country-specific deciles, the number of children living in the household, whether there is a child aged below 3 years old, and whether the partners are in a marital or in a non-marital union.

4) Country and year. We use a dummy for the year taking value 1 for 2010 and 0 for 2004, which we interpret as a measure of the economic crisis. We include country dummies in the regression model, also in interaction with the year dummy.

The final sample is constituted of about 22,000 women aged between 20 and 54, who are currently co-residing with a male spouse or partner. We further restrict our attention to couples where at least one of the two partners is in paid work and where none of the partners is retired, in education, disabled or in military service. We use population and design weight.

Instead of estimating separated models for each country and with the aim of having results which are statistically robust, we group countries on the basis of their welfare regimes, using a classification that takes into account gender equality, the presence of family-friendly policies and attitudes/cultures which support work-family reconciliation. To this aim, we use the classification provided by Eurofound (2010) which, for the countries available in our study, highlights the following five groups:

Southern European countries (Spain and Greece). In the South of Europe, the public care system is very minimal and financial assistance for families nearly existing. The labour market is very inaccessible and the perception of the women's role in the society is still very traditional. Unfortunately it was not possible to rescue the Portuguese data on income in a comparable fashion with other countries. Hence this caused its exclusion, for the moment, from our analyses.

Anglo-Saxon countries (Great Britain and Ireland). In these countries the reconciliation of work and family life is not very well-developed and women receive limited support both in terms of leave provisions and, in general, of provision of public care arrangements. In this sense these countries are similar to Southern European countries. *German-speaking countries* (Germany and Switzerland). Such as in the Anglo-Saxon country the support granted to working parents and care providers is low. Moreover, there is only little social acceptance of working mothers. Note that in the original report of Eurofound (2010) Switzerland was not considered for the classification of regimes. However we decided to include it in this group because of many common features with the German regime.

Continental countries (Belgium, France, and Netherlands). As highlighted in the Eurofound (2010) report, "Belgium and France stand out in this group for their family-friendly policies that are strongly oriented towards encouraging and supporting mothers' employment. In terms of public care facilities, they score almost as high as the Nordic countries".

Central and Eastern European countries (Czech Republic, Hungary, Slovenia, Slovakia, and Poland). Although characterized by a generous welfare system during the socialist period, the present conditions of these country regimes are very detrimental for the participation of women into the labour market and extremely lacking in terms of reconciliation policies. They have the "worst public care provision in Europe" (Eurofound 2010). Women are expected to take care of younger children but at the same time they are encouraged to work to increase the very low household income. Female migration is quite diffused and also the phenomenon of remittances of migrant women working abroad.

Nordic countries (Denmark, Finland, Norway, and Sweden). These countries have the best performance in terms of reconciliation of work and family. In addition they offer policies aimed at

increasing gender equality, public care services, and policies in favour of the re-employment of mothers after child birth. As with all classifications of countries, the one that we use here is not without limitations. However, for the purposes of this paper, this classification is a better solution with respect to other popular classifications of countries into welfare regimes (see e.g. Esping-Andersen 1990; Ferrera 1996) which do not explicitly focus on gender issues and on the role of the women in the labour market and in society.

Results

Table 1 shows the percentage of respondents classified as belonging to families with the man as main earner, the equal-earners, and the woman as main earner. ESS data allow comparing the distribution of the three family models in two different points, 2004 and 2010, i.e. before and after the 2008 economic crisis. In 2010 the majority of couples in Europe are such that men earn more than their partners (63%), suggesting that men still hold the main economic power within the family in Europe. About one fourth of the couples (24%) are such that both partners earn about half of the total household income, and as many as 13% are couples where women out-earn their partners. The latter category shows important heterogeneity across Europe, though in all countries it is at least equal to 7%. In Slovenia 21% of the couples are such that women are the main earner in 2010, followed by Denmark (17%) and the Anglo-Saxon countries (Great Britain 17% and Ireland 15%), Norway (15%), Southern European countries (Greece 15% and Spain 14%), and Sweden (14%). Women as main earner are less widespread with exception of Slovenia, in Eastern European countries (Slovakia 7%, Czech Republic 9%, Poland 11% and Hungary 12%), German-speaking countries (Germany 9% and Switzerland 11%), but also in France and Finland (11%).

Between 2004 and 2010, the percentage of couples with men as main earners declined in many European countries. The highest declines are found in Southern European countries, where unemployment rates have increased disproportionately with respect to other countries during the economic crisis. In Greece, the percentage of couples with men as main earners registered a -14 percentage points reduction (from 79% in 2004 to 64% in 2010). In Spain, the reduction was equal to -8 percentage points (from 66% to 58%). Continental and Anglo-Saxon countries, Switzerland, Norway and Sweden also registered similar reductions. Most countries in Eastern Europe and Denmark registered instead an increase in the percentage of couples with men as main earners. The remaining countries (Germany, Slovenia, Slovakia, Finland) registered only marginal variations in the percentage distribution of couples in the three family models.

Descriptive statistics show that the economic power of women within the family increased during the economic crisis. In Anglo-Saxon countries, between 2004 and 2010 we observe a reduction in both the percentage of couples with men as main earners and of equal earner couples accompanied by an increase in the percentage of women as main earners (+6 and +7 percentage points, respectively). In Southern Europe, instead, the decline in couples with men as main earners goes hand in hand with an increase in both the percentage of equal earners (+4) and women as main earners (+5 in Spain and +10 in Greece). During the economic crisis, women as main earners become more widespread also in Switzerland, Norway and the Netherlands. In other countries, instead, we observe an increase in equal-earner couples between 2004 and 2010. This is the case of France, Belgium, Sweden and Slovakia.

This means that worsened economic circumstances pushed women who were out of the labour force into the labour market, or increased the importance of working women's economic contribution in the sustainment of their households. Greece, the European country most affected by

the economic crises, passed from holding the lowest proportion of main-earner women in 2004 (5%), to surpass the European average and reach 15% in 2010. We cannot however find a common pattern across the 18 countries analysed. For example, between 2004 and 2010, the proportion of male-breadwinner families increased substantially in Poland (+7 percentage points), Hungary (+5) and Denmark (+4), while in some countries we observe small variations between the two years.

Table 1: Percentage of respondents in men as main earner, equal-earner, and women as main earner models, 2004 and 2010 and percentage change

	2004				2010				Change 2004-2010 (percentage points)		
	Men as main earner	Equal Earner	Women as main earner	<i>N.</i>	Men as main earner	Equal Earner	Women as main earner	<i>N.</i>	Men as main earner	Equal earner	Women as main earner
Southern Europe:	68.7	23.1	8.2	707	59.3	26.8	13.9	802	-9.5	3.7	5.7
Spain	65.6	25.2	9.2	274	57.8	28.5	13.7	312	-7.8	3.3	4.5
Greece	78.7	16.3	5.1	433	64.0	21.3	14.7	490	-14.6	5.0	9.6
Anglo-Saxon Countries:	74.0	18.1	7.9	660	68.5	16.7	14.9	683	-5.6	-1.5	7.0
Great Britain	70.5	18.1	11.4	265	66.1	16.6	17.3	336	-4.5	-1.4	5.9
Ireland	74.0	18.1	7.9	395	68.5	16.7	14.9	347	-5.6	-1.5	7.0
German-speaking Countries:	72.9	18.0	9.2	812	72.3	18.2	9.5	670	-0.6	0.2	0.4
Germany	72.4	18.1	9.5	462	72.4	18.2	9.3	430	0.0	0.2	-0.2
Switzerland	77.4	17.1	5.4	350	70.8	17.9	11.3	240	-6.6	0.8	5.8
Continental Europe:	63.7	21.4	14.9	928	56.4	31.8	11.8	861	-7.3	10.4	-3.1
France	60.8	22.5	16.7	325	51.7	36.9	11.4	253	-9.1	14.4	-5.3
Belgium	59.3	27.8	13.0	270	53.4	34.0	12.6	294	-5.9	6.2	-0.4
Netherlands	76.4	14.6	9.0	333	73.4	14.2	12.4	314	-3.0	-0.4	3.4
East. Europe:	62.7	25.6	11.7	1,333	67.5	22.0	10.5	1,294	4.8	-3.6	-1.3
Czech Republic	73.6	19.5	7.0	427	74.2	17.2	8.6	334	0.7	-2.3	1.6
Slovakia	67.1	21.8	11.1	225	66.4	26.2	7.4	297	-0.7	4.4	-3.7
Hungary	58.9	24.4	16.6	209	63.9	24.0	12.1	230	5.0	-0.4	-4.5
Poland	61.0	27.4	11.6	287	68.1	21.3	10.6	242	7.1	-6.0	-1.1
Slovenia	38.4	41.6	20.0	185	37.2	41.9	20.9	191	-1.2	0.3	0.9
Nordic Countries:	54.0	33.2	12.8	1,159	51.6	34.5	14.0	950	-2.4	1.2	1.2
Sweden	52.1	33.8	14.2	311	47.1	39.5	13.5	223	-5.0	5.7	-0.7
Norway	56.9	33.6	9.5	283	51.7	33.7	14.7	236	-5.2	0.1	5.1
Finland	59.1	30.0	10.9	320	57.8	31.0	11.2	258	-1.3	1.0	0.3
Denmark	49.8	35.1	15.1	245	53.7	29.6	16.7	233	3.9	-5.5	1.6
Total	66.9	21.7	11.4	5,599	63.3	24.2	12.5	5,260	-3.6	2.6	1.1

Tables 2 to 7 show preliminary results from generalized ordered logistic models estimated for each regime separately.

Southern European countries (Table 2). Among individual-specific characteristics of the woman, only her occupation results significantly associated with the type of family model. In particular, women in highly prestigious occupations are more likely to contribute the same or the main share of the household income. Women who have an equally prestigious occupation as their partners are more likely to earn an equal share of the household income if compared to women whose occupation is less prestigious than their partners', but they are not more likely to be the main earner. Women whose occupation is more prestigious than their partners' are not significantly more likely to earn a largest share than the household income if compared to women whose occupation is less prestigious.

Among household-specific characteristics that we consider, the number of children in the household is the only variable that shows a statistically significant association with the economic power of women within the family. This association is estimated to be negative, meaning the higher the number of children in the household, the less likely it is that women have contributed an equal or the largest share of their household income.

For this group of countries we find a statistically significant increase in the economic power of women in 2010 as opposed to 2004. In other words, women in Southern Europe are more likely to be equal or main earners during the economic crisis with respect to the pre-crisis period, other things being equal. Finally, no significant differences emerged comparing Greece and Spain, the two countries in the group, neither it appeared a differentiated effect of the economic crisis in the two countries.

Anglo-Saxon countries (Table 3). We find a positive association between the woman's occupation and her economic power within the family. In other words, women in intermediate and in professional/managerial occupations are more likely to contribute an equal or the largest share of their household income. Women who attained the same or a higher level of education or who are in higher prestigious occupations with respect to their partners are also more likely to contribute a largest share of their household income, while we do not find any statistical difference with women whose occupation is equally prestigious with respect to that of their partners'.

The number of children in the household is negatively associated with the likelihood of contributing about half or more of the household income.

German-speaking countries (Table 4). An increase in the age of the woman is associated with an increased economic power of women within the family and this effect is non-linear. Women with an intermediate or higher managerial/professional occupations are more likely to contribute an equal or the largest share of their household income. Women who are more educated or who are in equally or more prestigious occupations with respect to their partners are more likely to contribute an equal or the largest share of the household income.

The number of children in the household is negatively associated with the likelihood of contributing equally to the household income, or of being the main earner, and this result is consistent with the characteristics of the welfare regime described before. Finally, cohabiting women are more likely to contribute a higher share of their household income with respect to married women.

Continental countries (Table 5). Women with intermediate or high managerial/professional occupations are more likely to contribute a higher share of their household income with respect to women in routine/manual occupations, while the opposite is found for women with high education.

When we consider the educational difference between the partners, we find results similar to other countries, i.e. women who achieved the same or a higher education are more likely to be found in the equal earners or in the woman as main earner categories. Similarly to what we found for Southern European countries, women who have an equally prestigious occupation as their partners are more likely to earn an equal share of the household income if compared to women whose occupation is less prestigious than their partners', but they are not more likely to be the main earner.

As expected, the presence of children in the household is negatively associated with the economic role of women within the family.

Countries in this group appear to be homogeneous, with the exception of the Netherlands which shows a lower probability of observing the equal-earners family type with respect to Belgium. Also, in the second wave, a specific effect seems to stand out for the France, which demonstrates a lower probability of observing the woman as main earner category.

Eastern European countries (Table 6). The woman's age is positively associated with the likelihood of contributing a higher share of the household income. Women who are in an intermediate or higher managerial/professional occupation increase their likelihood of contributing an equal or the largest share of the household income. The same holds for women who are in an equally or more prestigious occupation with respect to their partners'. The presence of children in the household decreases the likelihood of being in a family type in which women are equal or main contributors to family income. In particular, the presence of children under age 3, is negatively and significantly associated with the economic role of women within the household. Cohabiting women tend to earn a higher share of the household income with respect to married women. Of all countries in this group, Slovenia is the one where equal earner and main earner women are more widespread, and no change in the distribution of women into the three family models seems to have occurred between 2004 and 2010. For Poland and Hungary, instead, the economic role of women within the family in 2010 is lower if compared to 2004.

Nordic countries (Table 7). Again, we find a positive association between the woman's occupation and her economic power within the family. Also, women who attained the same or a higher level of education or who are in more prestigious occupations with respect to their partners are more likely to be the main earner or, at least, an equal contributor to the household income. Women with an equally prestigious occupation than their partner are more likely to contribute an equal share of the household income with respect to women in routine/manual occupations, but they are not more likely to be main earners.

The presence of young children (less than 3 years old) is associated with a lower contribution of women to the household income. Women in a non-marital cohabitation are more likely to contribute a higher share of their household income if compared to married women. These associations are less evident in Finland than in the reference country, i.e. Denmark. Instead, we find no significant differences between Denmark and the other Nordic countries.

Conclusion and Discussion

This paper provided the first comprehensive study on the emergence of women as main earners in Europe. We identified key characteristics, common to all countries in Europe, associated with families where women are the main earners, or at least where they contribute an equal share of the household income. The first characteristic is her occupation. Women in intermediate and, in particular, in higher managerial/professional occupations tend to contribute a high share of the total household income. The second characteristic is the presence of children in the household. The higher the number of

children, the less likely it is that a woman has a (full-time) job, and less likely it is that she contributes a high share of household income. This result holds for all groups of countries, with the exception of the Nordic ones, where we find that the presence of a child aged less than 3 years old is more important for determining the proportion of household income provided by the woman. This suggests that the lower economic power of women with young children in the Nordic countries may be a transitory situation due to a voluntary choice of women to stay out of the labour market, or to opt for a part-time job, in presence of very young children. The presence of young children shows a negative association with the economic role of women also in Eastern European countries, where it sums up to the effect found for number of children in the household. Other characteristics which are common to most groups of countries are the occupational and the educational difference with respect to the partner. Women in equally and, in particular, in more prestigious occupations than their partners' are more likely to contribute a larger share of household income in the Nordic, Eastern European and German-speaking countries. In Anglo-Saxon countries, instead, having an equally prestigious occupation with respect to the partner is not statistically different from having a lower prestigious occupation in terms of the share of income provided. In Continental and Southern European countries, women with a more prestigious occupation than their partners do not contribute more household income when compared to women who have a lower prestigious occupation. Similarly, in Nordic and Anglo-Saxon countries, Women who attained the same level of education of their partners' have a higher economic role within the family with respect to women who attained a lower level of education, and the association becomes stronger when women attained a higher level of education than their partners'. The latter association is also found for German-speaking countries, whereas the educational difference turns out to be insignificant in Southern and Eastern European countries. We conclude that labour markets in Southern Europe might limit the economic empowerment of women due to the existence of gender pay gaps.

Other characteristics associated with families where women are the primary earner are specific to selected groups of countries. In particular, we find that cohabiting women contribute a higher share of their household income with respect to married women in the Nordic, Eastern European and German-speaking countries. Possibly, women who are not married to their cohabiting partner are more likely to be economically independent from their partner, and hence more likely to provide an equal or larger share of the household income. But it might also be that couples who are in a non-marital cohabitation are more modern and hence are more prone to accept that women earn the largest share of the household income.

The woman's age shows a positive association with the likelihood of being an equal earner or a main earner in German-speaking and Eastern European countries, while no significant association is found in the other groups. This means that older women are more likely to contribute an equal or the largest share of their household income, with respect to younger women.

Finally, we documented a significant increase in equal earner as well as in women as main earners in Southern Europe in the years of the economic crisis. However, as of 2010, the effects of the economic crisis may not be entirely revealed. For example, we know that unemployment rates, in particular for men, continued to increase after 2010 and hence we may expect an increasing number of families in Southern Europe, as well as elsewhere in Europe, have seen a further importance of the economic role of women in the latest years. On the other hand, we do not find any statistically significant association with household income. This lack of significance indicates that women's economic contribution relative to men's is independent of the level of the household income. In other words, we do not find evidence of the hypothesis that women are more likely to contribute household income when they are constrained to do so by a low total household income, nor that women in

families with a relatively high household income tend to be out of the labour force, or to contribute only a little share of the total household income.

Results presented in this paper constitute a first step in a broader program of research that will examine the causes and consequences of the increased economic power of women within the family. In particular, future research will focus to understand the consequences of the emergence of women as main earners for women, men and their families.

Table 2: Estimated coefficients from generalized ordered logistic regression, Southern European Countries

	Equal earners, Woman as main earner vs. Man as main earner		Woman as main vs. Equal earners, Man as main earner	
	Coef.	s.e.	Coef.	s.e.
Individual-specific characteristics of the woman:				
Age	0.014	0.132	0.014	0.132
Age ²	0.000	0.002	0.000	0.002
Education (Ref. Low):				
Medium	0.065	0.293	0.065	0.293
High	0.222	0.311	0.222	0.311
Occupation (Ref. Routine/Manual):				
Intermediate	0.432	0.257	1.062 **	0.366
Higher Managerial/Professional	0.858 **	0.298	0.858 **	0.298
Individual-specific characteristics of the woman in relation to the partner's characteristics:				
Age difference (Ref. Woman younger):				
Same age	0.579	0.344	0.579	0.344
Woman older	-0.125	0.269	-0.125	0.269
Educational difference (Ref. Woman less educated):				
Equal education	0.436	0.296	0.436	0.296
Woman more educated	0.673	0.351	0.673	0.351
Occupational difference (Ref. Woman in less prestigious occupation)				
Equally prestigious occupation	0.728 **	0.281	-0.098	0.429
Woman in more prestigious occupation	0.399	0.265	0.399	0.265
Household-specific characteristics:				
N. children in household	-0.247 *	0.106	-0.247 *	0.106
Presence of child under age 3 (vs. not)	0.229	0.297	0.229	0.297
Cohabiting (vs. Married)	0.287	0.295	0.287	0.295
Household Income (deciles)	0.053	0.041	0.053	0.041
Country and year:				
2010 vs. 2004	0.622 **	0.235	0.622 **	0.235
Spain	0.176	0.258	0.176	0.258
Spain*2010	-0.414	0.335	-0.414	0.335

p-value: *** <0.01; ** <0.05; * <0.1.

Table 3: Estimated coefficients from generalized ordered logistic regression, Anglo-Saxon Countries

	Equal earners, Woman as main earner vs. Man as main earner		Woman as main vs. Equal earners, Man as main earner	
	Coef.	s.e.	Coef.	s.e.
Individual-specific characteristics of the woman:				
Age	-0.014	0.127	-0.014	0.127
Age ²	0.000	0.002	0.000	0.002
Education (Ref. Low):				
Medium	0.020	0.297	0.020	0.297
High	0.157	0.335	0.157	0.335
Occupation (Ref. Routine/Manual):				
Intermediate	0.934	*** 0.276	0.934	*** 0.276
Higher Managerial/Professional	1.618	*** 0.315	1.618	*** 0.315
Individual-specific characteristics of the woman in relation to the partner's characteristics:				
Age difference (Ref. Woman younger):				
Same age	-0.499	0.369	-0.499	0.369
Woman older	0.125	0.268	0.125	0.268
Educational difference (Ref. Woman less educated):				
Equal education	0.610	* 0.282	0.610	* 0.282
Woman more educated	0.960	** 0.339	0.960	** 0.339
Occupational difference (Ref. Woman in less prestigious occupation)				
Equally prestigious occupation	0.662	0.343	0.662	0.343
Woman in more prestigious occupation	0.515	* 0.254	0.515	* 0.254
Household-specific characteristics:				
N. children in household	-0.413	*** 0.122	-0.251	* 0.123
Presence of child under age 3 (vs. not)	0.028	0.304	0.028	0.304
Cohabiting (vs. Married)	0.502	0.292	0.502	0.292
Household Income (deciles)	-0.035	0.057	-0.035	0.057
Country and year:				
2010 vs. 2004	0.130	0.223	0.130	0.223
Ireland	-0.127	0.250	-0.127	0.250
Ireland*2010	0.106	0.327	0.106	0.327

p-value: *** <0.01; ** <0.05; * <0.1.

Table 4: Estimated coefficients from generalized ordered logistic regression, German-speaking Countries

	Equal earners, Woman as main earner vs. Man as main earner			Woman as main vs. Equal earners, Man as main earner		
	Coef.		s.e.	Coef.		s.e.
Individual-specific characteristics of the woman:						
Age	0.351	***	0.102	0.351	***	0.102
Age ²	-0.004	**	0.001	-0.004	**	0.001
Education (Ref. Low):						
Medium	-0.045		0.454	-0.045		0.454
High	0.365		0.500	0.365		0.500
Occupation (Ref. Routine/Manual):						
Intermediate	0.637	**	0.224	0.637	**	0.224
Higher Managerial/Professional	0.673	*	0.316	0.673	*	0.316
Individual-specific characteristics of the woman in relation to the partner's characteristics:						
Age difference (Ref. Woman younger):						
Same age	0.124		0.295	0.124		0.295
Woman older	-0.204		0.250	-0.204		0.250
Educational difference (Ref. Woman less educated):						
Equal education	0.460		0.262	0.460		0.262
Woman more educated	0.723	*	0.362	0.723	*	0.362
Occupational difference (Ref. Woman in less prestigious occupation)						
Equally prestigious occupation	0.565	*	0.269	0.565	*	0.269
Woman in more prestigious occupation	0.737	**	0.237	0.737	**	0.237
Household-specific characteristics:						
N. children in household	-0.662	***	0.113	-0.452	***	0.126
Presence of child under age 3 (vs. not)	-0.693		0.386	-0.693		0.386
Cohabiting (vs. Married)	1.488	***	0.268	0.727	*	0.305
Household Income (deciles)	-0.030		0.042	-0.030		0.042
Country and year:						
2010 vs. 2004	0.004		0.197	0.004		0.197
Switzerland	-0.191		0.226	-0.191		0.226
Switzerland*2010	0.293		0.328	0.293		0.328

p-value: *** <0.01; ** <0.05; * <0.1.

Table 5: Estimated coefficients from generalized ordered logistic regression, Continental Countries

	Equal earners, Woman as main earner vs. Man as main earner		Woman as main vs. Equal earners, Man as main earner	
	Coef.	s.e.	Coef.	s.e.
Individual-specific characteristics of the woman:				
Age	0.089	0.090	0.115	0.091
Age ²	-0.001	0.001	-0.001	0.001
Education (Ref. Low):				
Medium	-0.180	0.245	-0.180	0.245
High	-0.941 **	0.315	-0.941 **	0.315
Occupation (Ref. Routine/Manual):				
Intermediate	0.769 ***	0.201	0.769 ***	0.201
Higher Managerial/Professional	1.063 ***	0.263	1.063 ***	0.263
Individual-specific characteristics of the woman in relation to the partner's characteristics:				
Age difference (Ref. Woman younger):				
Same age	-0.019	0.227	-0.019	0.227
Woman older	0.221	0.188	0.221	0.188
Educational difference (Ref. Woman less educated):				
Equal education	0.640 **	0.233	0.640 **	0.233
Woman more educated	1.680 ***	0.282	1.680 ***	0.282
Occupational difference (Ref. Woman in less prestigious occupation)				
Equally prestigious occupation	0.577 **	0.213	0.108	0.279
Woman in more prestigious occupation	0.342	0.204	0.342	0.204
Household-specific characteristics:				
N. children in household	-0.434 ***	0.084	-0.214 *	0.099
Presence of child under age 3 (vs. not)	0.104	0.197	0.104	0.197
Cohabiting (vs. Married)	0.340	0.213	0.340	0.213
Household Income (deciles)	0.060	0.033	0.060	0.033
Country and year:				
2010 vs. 2004	0.090	0.207	0.090	0.207
France	-0.243	0.265	0.360	0.300
France*2010	0.365	0.331	-0.852 *	0.377
Netherlands	-1.213 ***	0.230	-0.516	0.267
Netherlands*2010	0.137	0.299	0.137	0.299

p-value: *** <0.01; ** <0.05; * <0.1.

Table 6: Estimated coefficients from generalized ordered logistic regression, Eastern European Countries

	Equal earners, Woman as main earner vs. Man as main earner			Woman as main vs. Equal earners, Man as main earner		
	Coef.		s.e.	Coef.		s.e.
Individual-specific characteristics of the woman:						
Age	0.263	**	0.096	0.263	**	0.096
Age ²	-0.003	*	0.001	-0.003	*	0.001
Education (Ref. Low):						
Medium	0.150		0.318	0.150		0.318
High	0.304		0.406	0.304		0.406
Occupation (Ref. Routine/Manual):						
Intermediate	0.476	*	0.203	0.476	*	0.203
Higher Managerial/Professional	0.841	**	0.267	0.841	**	0.267
Individual-specific characteristics of the woman in relation to the partner's characteristics:						
Age difference (Ref. Woman younger):						
Same age	-0.113		0.237	-0.113		0.237
Woman older	0.135		0.202	0.135		0.202
Educational difference (Ref. Woman less educated):						
Equal education	0.143		0.251	0.143		0.251
Woman more educated	0.389		0.335	0.389		0.335
Occupational difference (Ref. Woman in less prestigious occupation)						
Equally prestigious occupation	0.602	**	0.214	0.602	**	0.214
Woman in more prestigious occupation	0.474	*	0.198	0.474	*	0.198
Household-specific characteristics:						
N. children in household	-0.220	*	0.090	-0.220	*	0.090
Presence of child under age 3 (vs. not)	-0.766	**	0.294	-0.766	**	0.294
Cohabiting (vs. Married)	0.853	***	0.254	0.853	***	0.254
Household Income (deciles)	-0.020		0.035	-0.020		0.035
Country and year:						
2010 vs. 2004	0.217		0.262	0.217		0.262
Poland	-0.537	*	0.247	-0.537	*	0.247
Poland*2010	-0.899	**	0.349	-0.899	**	0.349
Hungary	-0.437		0.366	-0.437		0.366
Hungary*2010	-0.905	*	0.432	-0.905	*	0.432
Czech Republic	-1.529	***	0.258	-1.529	***	0.258
Czech Republic*2010	-0.125		0.343	-0.125		0.343
Slovakia	-1.071	***	0.280	-1.071	***	0.280
Slovakia*2010	-0.293		0.389	-0.293		0.389

p-value: *** <0.01; ** <0.05; * <0.1.

Table 7: Estimated coefficients from generalized ordered logistic regression, Nordic Countries

	Equal earners, Woman as main earner vs. Man as main earner		Woman as main vs. Equal earners, Man as main earner	
	Coef.	s.e.	Coef.	s.e.
Individual-specific characteristics of the woman:				
Age	0.021	0.059	0.021	0.059
Age ²	0.000	0.001	0.000	0.001
Education (Ref. Low):				
Medium	-0.081	0.205	-0.081	0.205
High	0.046	0.234	0.046	0.234
Occupation (Ref. Routine/Manual):				
Intermediate	0.324 *	0.131	0.324 *	0.131
Higher Managerial/Professional	0.681 ***	0.167	1.076 ***	0.195
Individual-specific characteristics of the woman in relation to the partner's characteristics:				
Age difference (Ref. Woman younger):				
Same age	0.177	0.149	0.177	0.149
Woman older	0.226	0.130	0.226	0.130
Educational difference (Ref. Woman less educated):				
Equal education	0.495 **	0.176	0.495 **	0.176
Woman more educated	0.823 ***	0.210	0.823 ***	0.210
Occupational difference (Ref. Woman in less prestigious occupation)				
Equally prestigious occupation	0.705 ***	0.148	0.325	0.204
Woman in more prestigious occupation	0.685 ***	0.127	0.685 ***	0.127
Household-specific characteristics:				
N. Children in household	-0.054	0.050	-0.054	0.050
Presence of child under age 3 (vs. not)	-0.697 ***	0.155	-0.244	0.241
Cohabiting (vs. Married)	0.263 *	0.124	0.263 *	0.124
Household Income (deciles)	-0.049	0.028	-0.049	0.028
Country and year:				
2010 vs. 2004	-0.126	0.201	-0.126	0.201
Sweden	0.330	0.240	0.330	0.240
Sweden*2010	-0.204	0.309	-0.204	0.309
Finland	-0.417 *	0.184	-0.417 *	0.184
Finland*2010	-0.042	0.282	-0.042	0.282
Norway	-0.355	0.185	-0.355	0.185
Norway*2010	0.347	0.272	0.347	0.272

p-value: *** <0.01; ** <0.05; * <0.1.

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