# Sandwich generation and female occupation in an ageing society: the case of Italy

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#### **Abstract**

This paper deals with the possible conflict between family support and increased economic activity of the Sandwich Generation of women (having both children and parents to take care for) in Italy and Sweden. The empirical comparison of two countries in this paper based on SHARE data enriches the existing literature. The choice of focusing on Italy is due to its extremely low female participation in the labour market in a context of fast ageing process. The comparison with Sweden is relevant as Mediterranean and Scandinavian countries belong to the two opposite European models of welfare systems, gender roles and intergenerational family ties' intensity. The results suggest that in Italy the possibility of being economically active for a middle-aged woman is, above all, strongly (positively) related to her educational attainment. Moreover, female employment outside home seems to be negatively affected by the "work of having a family". A woman's active participation in the labour market changes her life and also family and kinship ties, due to its competition with the traditional female roles in family care. Our paper increases the knowledge on the process affecting the possibility for a woman to work in Italy and in Sweden, and highlights the gender-specific peculiarities in the Mediterranean country.

## Introduction

Reduced fertility rates and increased longevity have been working as driving forces for the ageing process in modern societies. On the one side, low fertility means that, in the next decades, middle-aged people will have fewer siblings with whom to share the duty of taking care of older parents. On the other side, life expectancy increase means that more of these middle-aged people are likely to have older parents still alive.

The middle-aged generation with older parents alive demanding for care and support has also faced other socio-demographic changes, such as a postponement of childbearing. This means that people in this group are also likely to still have young children in need of help and to be looked after. Since this combination of dependants as defined by "sandwich generation" is in fact very unusual, it is reasonable to extend the concept to the more common situation of mid-life adults having one or more surviving parents and adult but still partly dependent children or even already young grandchildren (Grundy & Henretta, 2006).

Such generation, pressed between the demand of the young members of the family unit and that of the family of origin, has been defined as *Sandwich Generation* (Miller, 1981). The focus has often been on the women who are part of this group. They tend to live longer than men and, especially in the Mediterranean countries, they are used to carry the burden of being caregivers. Traditionally, women had the roles of kin keepers and of taking care of the family and its members. Nowadays, they are also more and more likely to belong to highly educated cohorts, with increasing professional ambitions of a career. The emphasis on female employment is therefore crucial, particularly in countries like Italy, where the lowest female participation rates in the labour market are registered. This topic definitely gains importance as it is considered that higher female employment rates can reduce the risk of poverty of families with children, other than having a protective role against the union instability risks.

The ratio of older inactive persons per worker is rising in all developed countries: it has been estimated that, without changes in work and retirement patterns, such ratio might overtake 70% in 2050 in the OECD area (almost one older inactive person per every worker in several European countries). In terms of employment and social policies, it has been strongly pointed out (OECD, 2006) that in ageing societies it is increasingly necessary to mobilise all the available labour reserves in order to sustain economic growth. The currently inactive older people can be one of the most significant sources of additional labour supply.

Furthermore, the particularly high rate of economically inactive women in the middle-aged group is often explained by their early-leaving of the labour market to cope with family duties. Indeed, in various western countries traditional gender roles continue to strongly influence labour market participation. Female employment rate turns out to be especially low in countries where the ageing process is more intense and the welfare system heavily relies on family networks rather than on public services. In Italy, for example, 43% of women give the "fault" of their not-working status to family responsibilities (OECD, 2006; Micheli & Rosina, 2006). According to the OECD data (OECD, 2006; Micheli & Rosina, 2006), this is the reason to be out of the labour market only for less than 10% of the women in the Scandinavian countries.

Following previous studies based on the concept of sandwich generation, this paper deals with the possible conflict between family support and increased economic activity of women. A cross-country analysis based on data from a single survey enriches the existing literature on the topic of female participation into the labour market: we compare the Italian case to Sweden, by using logistic models on the data from the *Survey of Health, Aging and Retirement in Europe* (SHARE).

# **Background**

Changes in partnership behaviour, fertility behaviour, ageing process and economic participation, have increased the concern about the role of women in the context of family support and the possibility of increasing their participation in the labour market to reduce the burden of the inactive population on the labour force. Changing preferences and changing policies, together with changing family roles have several implications on individual's life. These differ according to the generations involved, gender of the individuals, and of course on the base of their type of kin and socioeconomic status. Since men and women differences are rooted in culture and social norms, but they also reflect economic incentives (OECD, 2004), it is probably women, in their roles of mothers and daughters, to mainly face the consequences of these changes. Family ties indeed weigh in a gender-unbalanced way. The Sandwich generation in particular will mainly suffer from the consequences of the socio-demographic changes and the transformations in intergenerational relationships. As a matter of fact, calls to

aid elderly parents or young adult children come for this group of people at an "inopportune" time (Henretta *et al.*, 2001).

The literature studying female participation into the labour market has been based on either economic or sociological theories. The former are mainly the Human Capital theory (Becker, 1964) and the New Home Economics (Becker, 1981; 1991). The latter extends the Human Capital Theory by looking also at the partner's resources as a determinant of the specialisation between domestic versus market work within the couple. Usually, the economic theory assumes that women gain utility from income, leisure time, and children. However, it has to be taken into account that all three have time-costs, leisure and children cost also money, and income needs paid work to be obtained (Vlasbom & Schippers, 2004). Moreover, it has been shown that a unique utility function (à la Becker (1981)) is not enough to describe a family (Rosina & Saraceno, 2008). From the 1970s, the labour market sociology has developed an analysis of the demand side rather than the offer one. The output of welfare state analyses and female career trajectory studies is that "women's careers are the result of complex and often painful decisions and negotiations between individual preferences, cultural orientations, and the set of opportunities and constraints that change over time" (Bernardi, 2001, p.125). The "household production theory" by Becker (1965) can still frame the idea of this study: multiple responsibilities due to care-need of children and parents increase the woman's household productivity; while in case of receiving help, her household productivity decreases. In both the cases, there is a change in the optimal allocation of time.

Only recently, a focus on the husband's resources is found to be necessary to correctly estimate the influence of women's individual resources on their likelihood of participating into the formal labour market. The results obtained until now show that, in Italy, the husband's resources might have an ambivalent role (Rosina & Saraceno, 2008). On one side, higher educated husbands are much more prone toward gender parity and can also afford to buy services which substitute family work traditionally done by women. This would lead to a positive impact of husband's resources on female labour participation. On the other side, human capital theories and Becker's idea of specialisation within the couple lead to an opposite expectation. Rosina & Saraceno (2008), going further the paradox reached by Bernardi (2001)<sup>1</sup>, found that when women have the same level of education of the husband,

<sup>&</sup>lt;sup>1</sup> Bernardi shows how couples in Italy, similarly to other countries, are characterized by a high homogamy in terms of human capital (meant as educational degree). Given the gender gap decrease in education, this means that younger cohorts show similar levels of human capital investments for men and women, arriving to negotiate home/market labour roles with the same starting resources.

they are not provided with incentives to keep on working; while a woman married to a highly educated men has a lower probability of staying in the labour market the lower her educational attainment is.

Other than with the partner, women of the sandwich generation are linked to the family in multiple ways. On the one hand, there is the family they have built, with a husband and children who demand care and support from the woman in an amount depending on what it has been defined as gender culture and gender arrangement (Pfau-Effinger, 1998; 2004). On the other hand, there is the family of origin, which can itself have two opposite effects on female participation in the labour market: older parents requiring support might reduce the likelihood of working for the adult-daughter; still, healthy older parents might provide help and therefore increase the likelihood of women's participation in the labour market.

However, most of the studies on female labour supply have focused on the "young-side", meaning that they look at the women's entrance into the labour market and at their interruption because of childbearing (see, for example, the analyses about the relationship between fertility and female active participation in the labour market: Sundström and Stafford, 1992; the OECD report, 2004; as well as Vlasbom & Schippers, 2004). By focusing on the sandwich generation, the "old-side" has also to be taken into account (as, for example, Henretta *et al.*, 2001 or Rosina & Saraceno, 2008).

In all the OECD countries, changing preferences and changing restrictions led to a substantial increase of women's activity rate in the last 40 years, which narrowed cross-country differences. Yet, they still remain large between countries and within each, especially at middle-ages (see Figure 1).

Figure 1 [HERE]. Employment rate for the age group 55-64, in 2005.

The concern about population ageing and the pressure it will put on labour supply raised the interest of sociologists, economists, political scientists and demographers on female active labour participation and on cross-country comparisons. Between-country differences are partly explained by the service sector offer country (Saraceno, 1997), both because it is often a large labour market for women and because it provides individual and social services which otherwise would be shouldered by families (and women in particular). The comparative frame shows that countries with a low overall women's employment rate, such as Italy, have a smaller service sector, higher percentages of women working full-time and higher rates of unemployment, with a substantial number of women active in the informal sector. All these

characteristics are translated into greater difficulties for the employed women to balance the demands for a family and a job. At the opposite there are the Scandinavian countries, with a women's activity rate touching 80%, a large service sector and a Welfare State based on different assumptions, compared to the Mediterranean one, regarding the division of labour within the family and between family and government. A deeper look into the Italian and Swedish peculiarities will lead us to better understand the process under study.

## The case-study: Italy

The interest in the Italian case is due to the fast ageing process of this country (Fig. 2), in a context of low female participation in the labour market compared to the other European countries (as seen before in Figure 1).

Figure 2 [HERE]. Percentage of the population aged 65 and over.

The EUROFAMCARE (Quattrini *et al.*, 2006) study enhances the need to focus on Italy by showing that there the large majority of people assisting the elderly are women, whose average age is around 53. This not only reflects in a different participation into the labour market by gender (although the female employment grew from 42.4% to 50.7% in the decade 1994-2005 (OECD, 2005; 2006)); but it also maintains the female labour participation marginal and characterised by wide discontinuities (shown by the levels of part-time job, for example) compared to the relative figures for men. It follows that women are more likely to quit their job to face family needs, with short-term implications on income loss and a long-run effect on pension perspectives (Baldassarre, 1995). All these aspects combine to bring about a sight of limitations for women to the possibility of juggling with a professional career and family care in Italy.

From the point of view of the ratio between inactive population and labour force, Italy is one of the countries with less optimistic perspectives over the next decades. Although Italian women increasingly offer their labour outside the domestic walls (OECD, 2000), the gap in the support of mothers' employment and the low incidence of part-time jobs maintain a diverging career between men and women and, for these latter, deep territorial and life-course specific differences (Bernardi, 2001).

Moreover, either as a cause or as a consequence of the low supply of public services for children and older people, Italians tend to maintain strong ties with the original family throughout the whole life, even after creating a new family with a partner and children (Sgritta, 1988; Tomassini *et al.*, 2003; Dalla Zuanna & Micheli, 2004).

Education and labour market systems have evolved over the last half century in Italy as well as in the rest of Europe, yet gender equity in the family and in public provisions for the family is still far from being reached in the Mediterranean country. Since neither the principle of subsidiarity nor the male breadwinner model are supported by generous financial transfers (Saraceno & Keck, 2008), the cultural lag in gender equity between the "individual centred" and the "family centred" worlds increasingly pushes women far from motherhood (McDonald, 2000) or makes them struggling with the multiple roles of having a family and a career. As Saraceno explains, the Italian familist welfare regime is based on the family as a unit of income and resources, to which everyone's contribution differ by gender. The assumptions of family solidarity and of a primary responsibility of women, as wives and mothers, in the provision of care (Saraceno, 1994), are often enforced through the lack of adequate measures of support (e.g. for elderly or child care, for young unemployed, working mothers and so forth). In this country, familialism by default is most prevalent (Saraceno & Keck, 2008).

## The comparison-country: Sweden

The comparison of Italy to Sweden is of particular relevance as Mediterranean and Scandinavian countries belong to the two opposite European models of welfare systems, gender roles and intergenerational family ties' intensity.

The percentages of older people on the whole population are predicted to be quite similar in Italy and Sweden in 2050 (1 over 2.8 persons will be aged over 65 in the former country and 1 over 3.3 in the latter). Still, Sweden has an activity rate of older people quite high combined with a moderated expected variation in the old-age dependency ratio; while Italy shows a low activity rate of people aged 50-64 combined with a really wide expected variation of the old-age dependency ratio (Micheli & Rosina, 2006).

In Sweden, the welfare of the parties involved is safeguarded by legislative policies. Sweden has generous and egalitarian policies for parental leave (in 1974 Sweden has been the first country to give both mothers and fathers the right to paid leave from work at childbirth), as well as a large supply of part-time jobs with full social benefits, subsidised day care, flexible working hours, and economic support to families with children. All this, other than the tax structure, allows for a high rate of female labour force participation even during the

childbearing years. Indeed, together with the highest female labour force participation, Sweden shows one of the highest fertility rate in Europe and a not uncommon higher parity also for educated women. Permanent childlessness or the one-child family are not widespread in Sweden (Hoem & Hoem, 1988; Bernhardt & Goldscheider, 2002).

The Swedish welfare state mixing individual independence and collective social solidarity results in a comprehensive public policy which stimulates both fertility and women's gainful employment (Sundström & Stafford, 1992). According to the ideology behind it, all adult family members are expected to be involved into the labour market over the life course. The state carries the main economic responsibilities when individuals are not able to provide for themselves. Although an ideal of independence is firmly rooted in the Swedish welfare state (Sainsbury, 1996), families remain important for mobilisation of resources (Finch & Mason, 1993). In terms of gender regime, Swedish social rights are gender-neutral, with both women and men treated as individual citizens. Women are breadwinners and regarded as independent, nevertheless a pay gender-gap persists and women are working fewer hours than men in paid work (Saraceno, 2008).

# **Research Question and Hypotheses**

Recent studies have highlighted that the combination of family responsibilities seems to favour the help towards the youngest rather than the older generations (Sabbadini, 2003). Still, both young and old people are referring to the middle generation to get help and support. The sandwich generation of adult parents has a sort of mediating role. Women, as both mothers (and sometimes already grandmothers) and daughters, nourish this solidarity net.

Vlasbom and Schippers (2004) suggest that both changing preferences (being a mother is not anymore the unique goal of a woman's life) and changing policies (i.e. child-care) have contributed to raise female participation into the formal labour market. However, we think that these reasons might not be enough for the middle-age generation, which is entrapped between two extreme generations in need of care. There might be further restrictions to eliminate or at least loosen up. To understand this, we look for the aspects of the family life of a woman which are mainly associated with her probability of working. In particular, the goal of our analysis is to understand whether women with multiple roles in the family are also able

to be part of the labour force and which of their characteristics and roles mostly affect (positively or negatively) active participation.

Given the premises about cross-country differences, our study juxtaposes Italy to Sweden. An analysis of two (geographically and in welfare state terms) opposite countries from Europe allows to evaluate the different importance of some crucial factors on the process under study. In this way, we highlight country-specific peculiarities without necessarily have recurs to the traditional North-Centre-South pooling of countries.

Recent works identified in women's individual human capital the most important factor differentiating Italian women both in the likelihood of entering the labour market and of remaining in it throughout the family formation years (Rosina & Saraceno, 2008). Provided this result, we expect to find a particularly large impact of educational attainments on the likelihood of participating to the labour market in Italy. Moreover, the partner's resources are then taken into account, trying to establish the direction of their ambiguous effect. To better understand what's hidden by the woman's education effect in the two countries, we exclude it from the second step of analysis.

Furthermore, within the Mediterranean country, we compare women and men to prove that it is actually the female part of the Sandwich generation to carry most of burden. In agreement to the theoretical background discussed above, we also expect family roles to be a heavier workload for Italian women rather than for the Swedes and, in the cross-gender comparison within Italy, for women rather than men.

#### Data and methods

The data analysed in this paper are from the first wave of SHARE (*Survey of Health*, *Ageing and Retirement in Europe*). It is a multidisciplinary and cross-national data base of micro data on health, socioeconomic status and social and family networks of Europeans (Boersch-Supan *et al.*, 2005). The first wave of SHARE is from 2004. Here, its second release is used (2007).

Compared with earlier sources, SHARE has the considerable advantage in that it permits investigation of the role of cross-national variation of public policies, cultures and histories in countries that represent the various European regions. In terms of the analysis of the sandwich generation, in particular, SHARE data make it feasible as the interviewed is asked questions concerning the relationship to both adult-children and still alive older parents.

SHARE investigates over people aged at least 50 years old or whose partner satisfies such a requirement. For the empirical analysis of this paper comparing Italian women to their Swedish counterparts, we consider the group of women below the age of 60. When focusing on Italy and on the gender differences within the country, we take into account also men, whose age is below 65. The sub-samples are of 467 and 545 women, in Sweden and Italy respectively, and 534 Italian men.

The first step consists on analysing the sub-samples of women, in Italy and in Sweden. The second step deals with a comparison between women and men in Italy. The models of analysis are binary logistic regressions, where the dependent variable scores 1 whether the individual is participating into the labour market (as either an employee or a self-employee).

The independent variables included as covariates of the regressions are the following: age (as a continuous variable), the living arrangement (*living or not with a partner or spouse*), and the educational level (with three categories: *low, medium* and *high level of education*). SHARE asks whether the mother and/or the father are still alive, where do they live and their health condition (*very good, good, fair, poor*, and *very poor* are the options that the child can select<sup>2</sup>). With these information combined together, we constructed a variable of four categories: *not having parents alive, having at least one parent living close and ill, having at least one parent living close and healthy* (with the other either deceased or not living close, independently from the health status), and *living far from the alive parents*. The presence of children is classified according to their age, their employment status, and whether they live with the parent: *not having children below the age of 25 living in the same household*<sup>3</sup>, *having at least one child below 25 years old living in the same household and employed, having at least one child below 25 years old living in the same household and unemployed.* Having grandchildren counts *I* in the binary variable about being a grandparent, only if at least one grandchild is below the age of 14.

Rather than showing the fully interacted model, the differences between the coefficients in the model about Italy and the one about Sweden, are tested by using the Wald-type test. The same strategy is followed to compare the results on the sub-sample of women and that of men in Italy. This test is run after the Seemingly Unrelated Estimation to capture and test the differences (and similarities) between all the coefficients of the separate regressions. The Seemingly Unrelated Estimation "combines a series of parameter-estimates and associated (co)variance matrices into a single parameter vector and simultaneous covariance matrix of

<sup>&</sup>lt;sup>2</sup> The first three represent for us a healthy status, while the latter two identify a ill status of the parent

<sup>&</sup>lt;sup>3</sup> In this category fall "not having children", "having children, but not below the age of 25" and "having children below the age of 25 who are not living in the same household of the parent".

the sandwich/robust type" (Weesie, 1999: 37). The interpretation of these results is similar to that of a fully-interacted model.

# **Analysis**

## Descriptive findings

The descriptive results of our analysis already confirm lower levels of female formal economic activity in Italy in comparison to Sweden for each variable taken into account. Although the labour participation of Italian women with high educational degree is almost the same as the one of Swede women (84% in Italy vs. 88% in Sweden), the participation rates of women with low education achievement is about one third (Table 1 shows the respective percentages of 21 and 67).

Table 1 [HERE]. Percentage of women working, by different categories.

In Sweden, it seems that having low education and living with an employed child are the two factors mostly reducing the likelihood of working for a middle-aged woman. Still, more than 60% of the women falling in these categories are employed.

In Italy, except for middle-highly educated women, the percentage of those working never exceeds 47%, which refers to women living without a partner. Dramatically low values are registered for women with a parent living close and being ill, those with low education, grandmothers and those living in the South or Island of Italy.

# A comparison between Italy and Sweden

A first step in the statistical analysis of the probability of working compares women from Italy to their Swede counterparts. The results from logistic models are shown in Table 2 and Figure 3.

In both the countries, there is a clear positive effect of education on the likelihood that the woman is part of the labour market. Still, the levels are more than double in the model about

Italy rather than in that for Sweden. Both "middle" and "high education" variables result to have highly different impact in the two countries, as it is suggested by the statistically significant Wald Test. Table 3 shows the level of significance of the Wald-type tests. For each model, we test whether the coefficients on the regression for Italy and that for Sweden are jointly equal to 0; moreover, a test is also performed for each condition separately.

Given that education appears to capture most of the effects, for both the countries, it is additionally shown the model without including the variable related to the educational attainments of the woman. Interestingly, in Italy, the presence of at least one grandchild below the age of 14 has a strongly negative effect on the probability of being employed. This effect does not exist in the models on Sweden.

Table 2 [HERE]. A comparison between Italy and Sweden: beta coefficients from the logistic models.

Two effects, although not statistically significant, are worth to be mentioned and highlighted. First, having a partner in Italy is negatively associated with the likelihood of working; while such an association is positive in Sweden. Although this effect is only slightly significant when excluding education, it is possible to argue that living in a couple in Italy does not act positively on the possibility of being employed for women. Second, the presence of an old parent, living close (within a 25-Km radius) and being ill has a negative effect in the Mediterranean country, but not in the Northern one.

The Wald test confirms a statistically significant difference of the effects of living with a partner and of having at least one grandchild below the age of 14 between the two countries analysed. Although by testing the coefficients individually only a few differences are significant, by testing them altogether it is suggested a statistically significant difference between Italy and Sweden in terms of female participation into the labour market for mid-life women.

Table 3 [HERE]. Wald test results (level of statistical significance): a comparison of the coefficients of each regression of Table 2 between the models for Italy and those for Sweden.

Whether we include a classification of the partner's education, it results a large effect for Italy, where the educational attainment of the partner depresses the possibility that the woman would work in middle-age. The coefficients are reported in Table 4, together with the

significance level of the Wald Test, whose outcome for *partner with low education* is significant at 5% level. The test on the variable *partner with middle-high education* is significant at 10% level.

Table 4 [HERE]. Beta coefficients for the variable which combines the presence of a partner and his educational attainment in Italy and in Sweden. Wald Test results (level of statistical significance) for Model 1.

## A comparison between women and men in Italy

A further step deals with a comparison between women and men in Italy, by looking also at the geographical area where they live. Table 5 reports the results of the multivariate analysis.

Table 5 [HERE]. A comparison between women and men in Italy: beta coefficients from the logistic models.

It is confirmed the impact of family roles on women: the burden of family care is larger for women than for men in Italy and it negatively affects the probability of having a job in the middle-age. Moreover, although the level of education impacts on the likelihood of working in the same direction for men and women, the latter show a larger effect, confirmed by the significant Wald Test result (Table 6).

The geographical control allows us to see an opposite impact for men rather than for women: residing in the South of Italy or in the Islands rather than in the Northern part of the country strongly reduces the likelihood for a woman to participate into the labour market.

Table 6 [HERE]. Wald test results (level of statistical significance): a comparison of the coefficients of the regressions of Table 5 between the model for women and the one for men in Italy.

## **Conclusion**

In ageing societies, the position of the so-called Sandwich generation is gaining more and more attention. Women traditionally had the role of family caregivers, first to their young children and, later, to the older parents. Socio-demographic changes that have been taking place since the second part of the twentieth century created this middle-generation which has to deal at the same time with young children and older parents, both in need of care and assistance. Moreover, in European countries it is becoming necessary to mobilize the available labour reserves in order to sustain economic growth. This in fact means to increase the employment rate of middle-aged women, those which are already busy with a husband, young children and older (maybe ill) parents to take care of.

In this work, we compare Italian and Swedish women below the age of 60. The SHARE data allow a cross-country comparison based on one dataset. Logistic regressions are run separately for Italy and Sweden and, consequently, Wald tests are performed to compare the country-specific models.

The picture that comes out from the first step of analysis, the comparison between women in Italy and in Sweden, is coherent with the often mentioned larger difficulties of the Mediterranean middle-aged women in having or keeping a job when they also have to deal with their family roles of wives, still daughters (of not anymore healthy parents), parents and sometimes already grandparents (of young children who need care). The possibility of working and having a professional career outside the house without being overwhelmed by family commitments, is a prerogative of women with high human capital. This is especially true in Italy rather than in Sweden.

In the next step, we analyse the Italian case more in details, by comparing women to men. The results confirm the greater burden of having a family for women rather than men. The possibility of working is strongly linked to the educational investments, especially for female family members. In terms of geographical divide, our analysis suggests an opposite gender-specific impact of living in Southern Italy, confirming higher gender disparities in the labour market in the South rather than in the Northern part of the country.

This study allows a cross-country analysis based on one dataset, rather than presenting a one-country case study or using different data sources as previous researches. From the analyses, it is possible to confirm the results already established by the literature; moreover, we are able to disentangle the effect of each of the multiple roles of the woman on the probability she has to work. Other than controlling for the usual demographic and socio-

economic characteristics of both the woman and her partner, we can measure the effect of living with the partner, being a mother of a young child living at home, still having older parents alive and having young grandchildren. Our study makes also a further step compared to the so far research: when looking at the older parents, we are able to control for their geographical distance from their sandwich daughter and for their health status. As far as we knew before this work, the presence of older parents might have had a double effect on the daughter's likelihood of working. We thought that this could have depended on their proximity to her and on their health conditions as these two aspects are the determinants of the probability that older parents require or offer help. Our results confirm that in Italy the probability of working for a woman is severely decreased when she still has at least one parent, if this is living close and being ill.

We think that the results here obtained are important in terms of social policy planning and subsequent analyses (maybe using the SHARE data in a longitudinal way) might further provide details on the exit from the labour market of middle-aged women before the usual retirement age.

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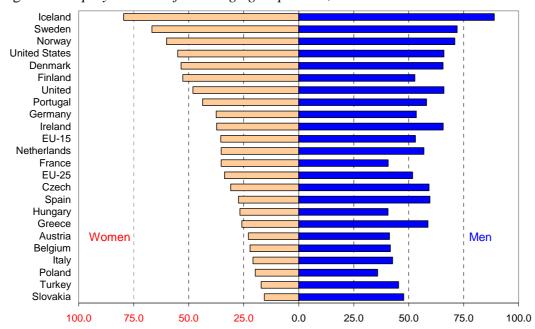
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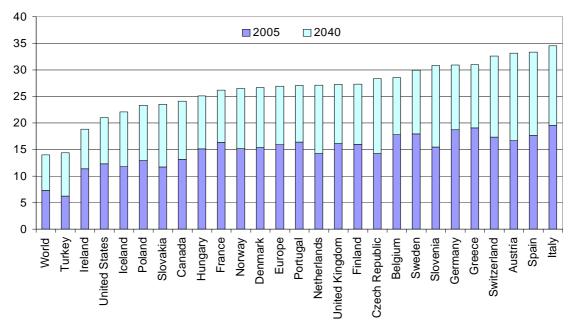
# **Tables and Figures**

Figure 1. Employment rate for the age group 55-64, in 2005.



Source: Eurostat (Labour Force Survey).

Figure 2. Percentage of the population aged 65 and over.



Source: Database UNECE.

Table 1. Percentage of women working, by different categories.

	SWEDEN	ITALY
living without partner	76.14	47.06
living with partner	78.56	33.49
no parents alive	75.81	31.58
at least 1 parent close and ill	83.64	30.36
at least 1 parent close and healthy	82.08	38.39
parents far away	76.92	44.23
low education	67.40	21.14
middle	79.79	55.75
high education	87.50	83.78
no children <25 living with her	78.29	30.26
at least 1 child <25 living with her and employed	60.00	39.58
at least 1 child <25 living with her and unemployed	80.00	40.54
no grandchildren <14	78.89	42.58
at least 1 grandchild <14	77.34	18.47
North-West	/	42.53
North-East	/	41.58
Centre	/	40.65
South	/	23.48
Islands	/	12.20

Table 2. A comparison between Italy and Sweden: beta coefficients from the logistic models.

Variable	Model 1	(including l attainment)	Model 2 (excluding  Educational attainment)		
	SWEDEN	ITALY	SWEDEN	ITALY	
age	-0.066	-0.140***	-0.074*	-0.111***	
(no partner)					
partner	0.246	-0.571	0.190	-0.647	
(no parents)					
at least 1 parent close and ill	0.296	-0.447	0.359	-0.347	
at least 1 parent close and healthy	0.297	-0.292	0.235	0.010	
parents far away	-0.122	-0.101	-0.005	0.199	
(low education)					
middle education	0.565*	1.443***	/	/	
high education	1.240***	3.031***	/	/	
(no children <25 living with her)					
at least 1 child <25 living with her and employed	-0.878	0.243	-1.119*	0.036	
at least 1 child <25 living with her and unemployed	-0.272	-0.342	-0.202	-0.001	
(no grandchildren <14)					
at least 1 grandchild <14	0.100	-0.505	-0.052	-1.014***	
_cons	4.147*	7.162***	5.203*	6.265***	
N	545	467	545	467	

*Notes*: +P < 0.10; \*P < 0.05; \*\*P < 0.01; \*\*\*P < 0.001. Barred cell = variable (row) not in the model (column).

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Figure 3. A comparison between Italy and Sweden: beta coefficients from the logistic models.

Table 3. Wald test results (level of statistical significance): a comparison of the coefficients of each regression of Table 2 between the models for Italy and those for Sweden.

Variable	Wald Test			
	Model 1 (including Educational attainment)	Model 2 (excluding Educational attainment)		
age				
Partner (no partner)	+	+		
at least 1 parent close and ill (no parents)				
at least 1 parent close and healthy				
parents far away				
middle education (low education)	*	/		
high education	**	/		
at least 1 child <25 living with her and employed (no children <25 living with her)	+	+		
at least 1 child <25 living with her and unemployed				
at least 1 grandchild <14 (no grandchildren <14)	+	**		
All	***	**		

Notes: +P < 0.10; \*P < 0.05; \*\*P < 0.01; \*\*\*P < 0.001. Barred cell = variable (row) not in the model (column). Empty cell = Wald test not statistically significant.

Table 4. Beta coefficients for the interaction variable between the presence of a partner and his educational attainment in Italy and in Sweden. Wald Test results (level of statistical significance) for Model 1.

		Model 1 (including Educational attainment)		Model 2 (excluding Educational attainment)		Model 1 (including Educational attainment)	
Employed vs not	SWEDEN		ITALY		Wald Test		
(no partner)							
partner with low education	0.424	0.146	-0.603	-1.001	+	*	
partner with middle- high education	0.304	0.421	-0.677	-0.140	+		

*Notes*: +P < 0.10; \*P < 0.05; \*\*P < 0.01; \*\*\*P < 0.001.

Figure 4. Beta coefficients for the interaction variable between the presence of a partner and his educational attainment in Italy and in Sweden.

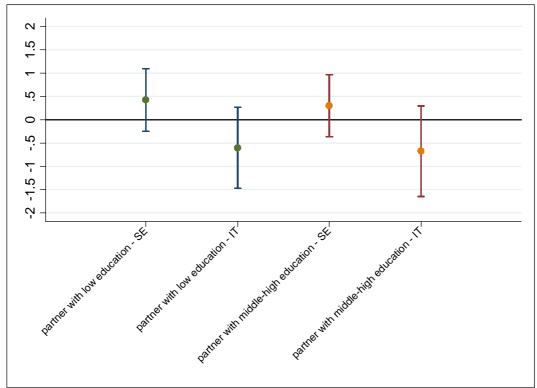


Table 5. A comparison between women and men in Italy: beta coefficients from the logistic models.

models.	ı				1				
	WOMEN				MEN				
Employed vs not	Coef.	Std. Err.	[95% Cor	nf. Interval]	Coef.	Std. Err.	[95% Cor	nf. Interval]	
age	-0.162***	0.035	-0.230	-0.093	-0.244***	0.032	-0.306	-0.182	
(no partner)									
partner	-0.829+	0.445	-1.702	0.043	-0.038	0.422	-0.864	0.788	
(no parents)									
at least 1									
parent close and ill	-0.405	0.382	-1.153	0.343	0.243	0.397	-0.536	1.022	
at least 1 parent close and healthy	-0.188	0.293	-0.762	0.385	0.121	0.262	-0.393	0.635	
parents far away	-0.232	0.377	-0.971	0.507	0.203	0.362	-0.506	0.912	
(low education)									
middle education	1.401***	0.268	0.876	1.926	0.750**	0.244	0.273	1.228	
high education	3.120***	0.515	2.110	4.129	2.053***	0.432	1.206	2.900	
(no children <25 living with her)									
at least 1 child <25 living with her and employed	0.157	0.388	-0.604	0.918	0.550	0.386	-0.206	1.307	
at least 1 child <25 living with her and unemployed	-0.261	0.288	-0.825	0.303	0.036	0.259	-0.473	0.544	
(no grandchildren <14)									
at least 1 grandchild <14	-0.370	0.277	-0.913	0.173	-0.059	0.246	-0.540	0.422	
(North-West)									
North-East	0.274	0.342	-0.397	0.945	-0.324	0.319	-0.949	0.300	
Centre	0.019	0.332	-0.632	0.670	0.139	0.301	-0.452	0.729	
South	-0.911*	0.372	-1.640	-0.182	0.333	0.310	-0.273	0.940	
Islands	-1.492**	0.572	-2.614	-0.371	1.202**	0.406	0.406	1.998	
_cons	8.710***	2.025	4.741	12.678	13.291***	1.840	9.685	16.897	
4									

*Notes*: +P < 0.10; \*P < 0.05; \*\*P < 0.01; \*\*\*P < 0.001.

Table 6. Wald test results (level of statistical significance): a comparison of the coefficients of the regressions of Table 5 between the model for women and the one for men in Italy.

Employed vs not	Wald Test
ngo.	1
age  Postman (no monthon)	+
Partner (no partner)	
at least 1 parent close and ill (no parents)	
at least 1 parent close and healthy	
parents far away	
middle education (low education)	+
high education	
at least 1 child <25 living with her and employed (no children <25 living with her)	
at least 1 child <25 living with her and unemployed	
at least 1 grandchild <14 (no grandchildren <14)	
North-East (North-West)	
Centre	
South	*
Islands	***
All	***

Notes: +P < 0.10; \*P < 0.05; \*\*P < 0.01; \*\*\*P < 0.001. Empty cell = Wald test not statistically significant.