



Dipartimento di Statistica
"Giuseppe Parenti"

Dipartimento di Statistica "G. Parenti" – Viale Morgagni 59 – 50134 Firenze – www.ds.unifi.it

W O R K I N G P A P E R 2 0 1 1 / 0 4

A home to plan the first child?
Fertility intentions and
housing conditions in Italy

D. Vignoli, F. Rinesi,
E. Mussino



Università degli Studi
di Firenze

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Daniele Vignoli

Department of Statistics “G. Parenti”, University of Florence
vignoli@ds.unifi.it

Francesca Rinesi

Italian National Institute of Statistics – ISTAT
rinesi@istat.it

Eleonora Mussino

Italian National Institute of Statistics – ISTAT
mussino@istat.it

Abstract

In Italy, the existing literature on the link between low fertility in Italy and people’s socio-economic status has been surprisingly silent about the potential role of housing. This study aims at filling this gap: Are Italians who are better off in terms of housing security more likely to plan to have a first child in the short run? Our results suggest that there is a clear positive gradient between the fertility intentions of couples and the degree to which they feel secure about their housing situation. The positive gradient remained substantial even after we controlled for the demographic and socio-economic characteristics of the couple, and after we adjusted the estimates for the presence of unobserved characteristics and the endogeneity between housing and fertility. This implies that, in Italy, the housing dimension should not be disregarded when studying fertility differentials.

Keywords: Fertility intentions, housing conditions, Italy, bioprobit model

1. Introduction

In industrialised economies, housing conditions and fertility dynamics are always inter-related. In recent years, it has been suggested that family demography studies have focused extensively on education and employment status, while giving comparatively little attention to the issue of housing (e.g., Mulder, 2006a,b; Mulder and Billari, 2010). These researchers have argued that housing conditions should, rather, be considered a pivotal factor when studying socio-economic differences in fertility behaviours.

The major aspect of housing conditions that is generally linked to family formation is home ownership. While a number of micro-level studies have found that having a first child leads to a greater likelihood of becoming a homeowner, other research has shown that the transition to parenthood is facilitated by property ownership (Mulder and Wagner, 1998, 2001). In addition to housing tenure, other dimensions of housing conditions might have a triggering effect. A majority of households may, in fact, face financial constraints of varying degrees. Factors such as housing prices, housing supply and access to home loans are of substantial significance for most households (Ström, 2010). Thus, rather than focusing on home-ownership, in this paper we examine how the degree to which couples feel secure about their housing conditions influences family formation.

We have chosen to focus on the Italian case. We believe that Italy represents an interesting and, so far, relatively unexplored area for empirical research on the relationship between fertility and housing conditions. Italy appears to be characterised by widespread home ownership, alongside low levels of affordability of and access to owner-occupied homes, especially for younger people (Billari and Dalla Zuanna, 2008). More than fertility itself, the anticipation of future events, such as the plan to have a child, may be linked to a couple's housing situation (Mulder and Hooimeijer, 1999). From this perspective, we analyse the relationship between the degree of security people feel about their housing conditions and the intention to have a first child in Italy. In particular, this study seeks to contribute to research on the effects of housing on prospective fertility by addressing the following research question: Are Italians who are better off in terms of housing security more likely to plan to have a first child in the short run? To be sure, first births may have tremendous consequences on completed fertility because of the potential room, or lack thereof, that is left for second-order (or

higher-order) births. Moreover, delaying the entry into motherhood may in some cases lead to involuntary childlessness (Ongaro, 2003).

In addition, it is imperative to recognise that the mutual effects of reproductive plans and housing status may be biased in conventional empirical analyses, because of the possible presence of non-random (latent) variables that can affect both fertility plans and the housing sphere. In order to clean our analysis of spurious associations, this research follows a methodological framework that allows us to estimate the (possible endogenous) impact of the degree of security couples feel about their housing conditions on their intentions to have a first child.

We begin our study with a discussion of the associations between housing conditions and reproductive behaviour (Section 2), and then provide a review of the Italian context (Section 3). This is followed by a description of the study's analytical strategy (Section 4), and a presentation of the results (Section 5). Finally, we summarise and discuss our main findings (Section 6).

2. The complex relationship between housing and fertility

2.1. Property and fertility: Macro and micro evidence

Overall, the analysis of housing conditions in family demography research generally focuses on home ownership. In most societies, home ownership represents one of the main sources of investment of family savings; it provides an indirect source of income (the so-called imputed rent), and it assures future and sustainable consumption (e.g., Christelis *et al.*, 2005; Dewilde and Raeymaeckers, 2008; Tanturri and Vignoli, 2010). Homeowners also have the highest degree of control over their own housing conditions (Mulder and Hooimeijer, 1999), as owning a home provides, for example, protection against the risk of eviction. Furthermore, by becoming a homeowner, a person not only has better economic prospects, but also an enhanced quality of life (Mulder and Wagner, 1998; Kurz and Blossfeld, 2004). Compared with rented dwellings, owner-occupied homes are, on average, more spacious, better located and more easily adapted to a household's needs; thus they provide better housing conditions over the long term (e.g., Ricci, 1997; Mulder and Smits, 1999). Moreover, home ownership is a status symbol, and has emotional value for many people (Saunders, 1990).

While a number of studies have focused on the relationship between the housing market and welfare systems (for an overview, see Kurz and Blossfeld, 2004), limited attention has so far been given to the link between the housing market and demographic behaviours. Some observers have, however, argued that difficulties in buying a home, especially in societies with a low share of rented housing, might help to explain the delayed transition to adulthood and the low(est-low) fertility levels seen in some countries (Krishnan and Krotki, 1993; Castiglioni and Dalla Zuanna, 1994; Pinnelli, 1995; Dalla Zuanna 2001; Mulder, 2006a,b). The idea that, at the macro level, home ownership influences fertility levels, was explored in Mulder and Billari (2010). Their crucial point is that family formation might be hampered (and thus fertility levels lowered) in countries where access to home ownership is limited.

Moving from the macro to the micro perspective, it appears that the relationship between home ownership and fertility may work via *direct* and *indirect* effects (Mulder 2006a,b). The *indirect* influence is represented by a postponement of leaving the parental home and of starting an independent life as a couple (cohabitation or marriage) due to housing constraints. The postponement of these life-course events has been suggested to lower the completed fertility of women (Kohler *et al.*, 2002).

The *direct* effect of property ownership on fertility may, therefore, be either *positive* or *negative*: it is positive when access to suitable homes leads couples to have their children earlier, and negative when couples delay childbearing until they have found proper housing (Castiglioni and Dalla Zuanna, 1994; Krishnan and Krotki, 1993; Mulder and Wagner, 2001; Pinnelli, 1995). Studies have, for example, found positive effects for the Netherlands (Feijten and Mulder, 2002), West Germany (Mulder and Wagner, 2001) and the United States (Deurloo *et al.*, 1994). On the other hand, home ownership may have a *negative* association with fertility if the cost of purchasing property competes with the cost of childbearing and childrearing. Such a situation might lower fertility among those who attach great importance to becoming a homeowner. This negative correlation was found to be significant in France (Courgeau and Lelièvre, 1992) and Britain (Murphy and Sullivan, 1985; Hakim, 2003).

2.2. More than home ownership

It is crucial to recognise that, in addition to housing tenure, other dimensions of housing conditions may have triggering effects on fertility. More than the property itself, what matters for fertility planning is the amount of money a household spends per month on a mortgage or rent (or, more precisely, the percentage of the overall household income spent on a mortgage or rent). It is therefore possible that the degree of security people feel about their housing conditions also implicitly includes their present and future household income, their family savings, and the economic or non-economic help they expect to receive from the family or from institutions in case of need. For instance, having very high mortgage payments can increase the risk of having to sell a home. By contrast, living in a house with a low rent can free up resources to meet other family needs. Moreover, the idea that property equals housing security, while rent equals housing insecurity, does not work for a specific segment of the population, such as families with a high degree of residential mobility; in those cases, living in rented housing can represent a strategic choice.

In sum, we argue that, more than the housing tenure itself, the degree of security people feel about their housing conditions represents a crucial source of fertility differentials. In our empirical investigation, we therefore test the impact of the perceived level of control over housing conditions on women's short-term fertility intentions.

2.3. Causality and endogeneity issues

A crucial question regarding the association between housing and reproductive behaviour is being debated in the literature: Does the arrival of children (or the related fertility plans) induce changes in housing conditions, or do the housing conditions themselves influence (expected) fertility? In answering this question, we share Ström's (2010: 510) view that "*a causal link running from housing to childbearing seems more likely than the opposite in a setting with scarce access to appropriate housing to reasonable costs*". The argument that, in Italy, the causal link likely runs from housing to (prospective) childbearing is elaborated in Section (3). Moreover, since we are examining the influence of people's perceptions regarding housing conditions on

fertility intentions, a direct impact of fertility plans on self-rated home security is hard to imagine.

To conclude this look at the association between housing and fertility, we should point out that the “real” impact of housing condition on fertility development may be influenced by the strong interconnection between the two spheres, and thus by the (possible) existence of common antecedents that lead to a spurious association. Generally speaking, unmeasured characteristics, such as structural factors (i.e., local housing market rigidities or a high degree of uncertainty in the financial or labour markets) and socio-cultural factors (such as attitudes towards housing and fertility), may affect both the intention to have a child, and feelings about housing security. Mulder (2007) has called for new research investigating the influence of (unmeasured) family norms and attitudes towards family and residential choice. The postulated joint determination of housing conditions and fertility may also in fact result from the existence of norms and values (or preferences) concerning the attachment to housing and to family formation. Being more family-centred, for example, may lead people to choose to have children, irrespective of an adverse housing market. We explicitly address this issue in the empirical investigation.

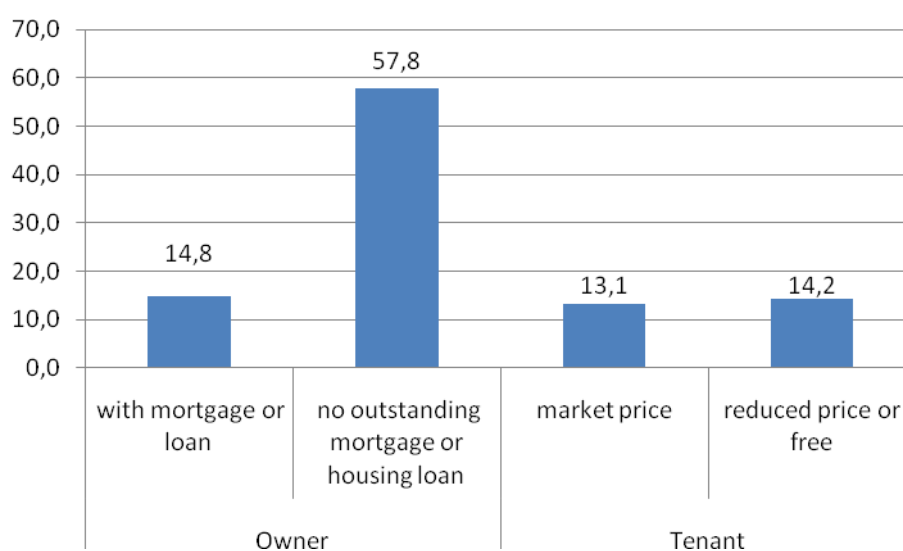
3. The Italian case

The proportion of families who own their own homes varies markedly across European countries, ranging from 57.7% in Austria to 96.5% in Romania (Eurostat, 2010). In 2008, 73.6% of the European population (EU-27) owned their own homes, and of this group, 26.6% were paying a mortgage (ibidem). In Italy, a high percentage of the population live in their own homes (72.6%), while low percentages of people pay rent at market prices (13.1%) or at reduced (or no) prices (14.2%). It should be noted that outright owners represent 57.8% of the total population, while acceding owners are only 14.8% of the total population (Figure 1).

As was mentioned above, a pivotal factor behind the preference for property ownership is that homeowners are not at risk of eviction. This factor has both practical and psychological implications, and may be more or less relevant depending on whether the potential owner is, for example, interested in maintaining ties with relatives and neighbours, in living close to work, or in using other services that may be provided in

the area (Poggio, 2008). The latter motivations seem particularly relevant in Italy, given the strong family ties that characterise its familistic welfare system (Kurz and Blossfeld, 2004; Dalla Zuanna, 2001). Most first-time home buyers in Italy get help from their families, usually in the form of financial gifts (Castles and Ferrara, 1996), inheritance of financial or in-kind resources, or guarantees provided by the parents for a home loan (Guiso and Jappelli, 2002; Bernardi and Poggio, 2004). Generally, homes, which are often seen as a consumption good, represent the most significant form of investment made by families in Italy (Baldini, 2010).

Figure 1. Distribution of population by tenure status (%)



Source: Eurostat – Eu-Silc (2008)

While most micro-level studies on the transition to home ownership have found a positive association between family formation and suitable housing conditions; at a macro level, very high rates of home ownership are often combined with very low fertility (e.g., Mulder and Billari, 2010). These (apparently contradictory) micro and macro trends seem to apply particularly to Italy, where the propensity to be a homeowner before forming a family is especially strong, and the rental market is hardly seen as an alternative. Mulder (2006a) has suggested that the perceived necessity of being a homeowner before forming a family is likely to be linked to prevailing norms in Italian society (Castiglioni and Dalla Zuanna, 1994; Pinnelli, 1995; Dalla Zuanna, 2001). The prevalence of these attitudes may lead to a postponement of parenthood,

and, in turn, to a contraction of the overall fertility level. Additionally, couples might be required to invest a high share of their economic resources into home ownership, which necessarily competes with the costs of having children.

In sum, the Italian housing situation has been essentially driven by *non-policies* (Bernardi and Poggio, 2004): i.e., the failure of the government to regulate the rental market and the insufficiency of the social housing sector, together with a credit market that does not offer feasible solutions for financing owner-occupied homes, have resulted in the creation of a very difficult Italian housing regime. At the same time, however, owning a good home, even if it is often difficult to afford, tends to be perceived as a prerequisite to family formation (Barbagli *et al.*, 2004; Mencarini and Tanturri, 2006; Livi Bacci, 2008; Mencarini, 2009). As a consequence, although we know that housing and fertility are closely interrelated processes, we believe that in Italy the causal link likely runs from housing to (prospective) childbearing, and not vice versa. In the following sections, we will assess how feelings of security about housing conditions influence the intention to have a first child in Italy.

4. Empirical approach

We use data stemming from the household multipurpose survey Family and Social Subjects (FSS), which is the Italian variant of the Generations and Gender Survey. This retrospective survey was conducted by the Italian National Institute of Statistics (Istat) in November 2003 on a sample of about 24,000 households and 50,000 individuals. The advantage of this survey is that data was collected on all household members. In addition to collecting the standard demographic and socio-economic information about the women and their partners, this dataset also contains several questions designed to measure housing conditions.

Childless women's fertility intentions (“*Do you intend to have a child in the next three years?*”) is the dependent variable of interest to us. Our sample consists of cohabiting couples in which the women are aged 20-45. We excluded women who do not have a partner from our analysis because their childbearing intentions may not reflect a realizable plan, impeding a meaningful association between fertility and housing. The degree of security felt by respondents about their housing conditions

(“How much control do you feel you have over your housing conditions for the next three years?”) is our main explanatory variable.

The influence of housing conditions on fertility intentions may be however biased because of the possible presence of non-observed variables that have an impact on both of those spheres. A possible modelling strategy for overcoming this problem is to employ a joint model of fertility intentions and the degree of security about housing conditions. In such models, an error term is included in each equation, and the possible correlation between the error terms allows us to account for the existence of common antecedents. Furthermore, the impact of the degree of housing security is entered as a covariate in the estimation of fertility intentions, making it possible to estimate its net impact.

Mathematically speaking, the bivariate-ordered probit model consists of a two-equation system concerning the latent short-term fertility intentions (F^*), and the latent feeling of security about the housing conditions (H^*) to the individual characteristics of the individual i :

$$H_i^* = x'_{1i}\beta_1 + \varepsilon_{1i} \quad (1)$$

$$F_i^* = \gamma H_i + x'_{2i}\beta_2 + \varepsilon_{2i} \quad (2)$$

where x_1 and x_2 are vectors of the selected independent variables, β_1 and β_2 are vectors of unknown parameters, γ is an unknown scalar, ε_1 and ε_2 are the error terms. The explanatory variables in the model satisfy the conditions of *exogeneity* such that $E(x_{1i}\varepsilon_{1i}) = 0$ and $E(x_{2i}\varepsilon_{2i}) = 0$. The latter assumption, which is fairly standard, implies an independence of the unknown error terms and the observed covariates.

The observed ordered categorical variables for the women’s fertility intentions (F) and feelings of security about the housing situation (H) are related to the corresponding latent variables as follows:

$$F_i = \begin{cases} 1 - \text{Definitely not} & \text{if } F_i^* \leq \mu_1 \\ 2 - \text{Probably not} & \text{if } \mu_1 < F_i^* \leq \mu_2 \\ 3 - \text{Probably yes} & \text{if } \mu_2 < F_i^* \leq \mu_3 \\ 4 - \text{Definitely yes} & \text{if } \mu_3 < F_i^* \leq \mu_4 \end{cases} \quad H_i = \begin{cases} 1 - \text{Not at all} & \text{if } H_i^* \leq \delta_1 \\ 2 - \text{Not much} & \text{if } \delta_1 < H_i^* \leq \delta_2 \\ 3 - \text{Sufficiently} & \text{if } \delta_2 < H_i^* \leq \delta_3 \\ 4 - \text{A lot} & \text{if } \delta_3 < H_i^* \leq \delta_4 \end{cases}$$

Assuming that ε_1 and ε_2 are normally distributed with 0 mean and unit variance, the system is estimated by a full-information maximum algorithm. The estimation

procedure is operationalised using functions developed by Sajaia (2008), which we rely upon in this analysis. The correlation between the error terms (ρ) exemplifies the dependence between (1) and (2). The likelihood ratio test can therefore be performed to assess the independence of equations under the null hypothesis $\rho = 0$. If the null hypothesis is rejected, γ represents the net impact of the degree of security felt by couples about their housing conditions on their intentions to have a first child.

The system (1)-(2) is identified, albeit weakly, by non-linearity, but we introduce an instrumental variable in the equation (1) to improve the identification properties of the model (Sajaia, 2008): the number of rooms per home, while directly affecting the degree of security felt by respondents about their housing conditions, has no direct effect on the intentions to have a first child in the short run.

The selection of the model is attained by adding other important variables that are expected to characterise the housing condition. The housing tenure is of course considered in the analysis, since its importance in explaining fertility differentials has already been discussed in this paper. Additionally, it is known that stately buildings are generally situated in attractive, safe and child-friendly neighbourhoods, partly because of the selective residential moves of families with (prospective) young children (e.g., Kulu and Vikat 2009). We therefore also considered the home typology in the analysis. In addition, we controlled our estimates for several demographic and contextual control variables (age, living arrangement, number of siblings, macro-area of residence, municipality size) and for the couples' socio-economic situations (women's and partners' education, women's and partners' employment status, women's perceptions of household economic security). We also considered two additional, possibly confounding factors that have recently emerged in the literature: the degree of religiosity (Vignoli and Regniér-Loilier, 2009) and the proximity of the home to the mother or the mother-in-law (Raymo *et al.*, 2010). The composition of the sample selected (N=842) is shown in the appendix (Table 1A).

5. Results

The aim of our study is to highlight the impact of perceptions of security about housing conditions on the short-term fertility plans of childless partnered women. From a

methodological point of view, we consider feelings of security about housing conditions as an endogenous variable. We did so by estimating a bivariate ordered probit model: the first equation concerns women's reproductive plans in the short run, and the second is related to feelings of security about housing conditions (Table 1).

First, it is worth noting that the exogeneity assumption for the effect of feelings of security about housing conditions on fertility intentions is rejected (see the likelihood ratio test of the independence of the two equations). The use of bivariate probit models appears to be highly appropriate, since not considering the correlation between the error terms would lead to an incorrect estimation of the parameters. The error terms of the two equations are negatively correlated ($\rho = -0.496$). This suggests that there are unobserved factors that make people feel secure about their housing conditions, while at the same time discouraging them from planning to have a first child. It may be that some women who are very career-oriented, mobile and flexible are more likely to have control over their housing conditions, and are, at the same time, also less likely to plan to have a child. This interpretation applies particularly to the Italian situation, in which women who opt for motherhood are likely to have a high degree of family orientation or low career ambitions, given the unfriendly institutional setting for balancing work and family life (Matysiak and Vignoli, 2010).

The empirical evidence suggests that, after unobserved factors possibly influencing both phenomena are controlled for, feelings of security about housing conditions play a significant role in determining women's fertility intentions in the next three years (γ): i.e., the greater the feeling of security a woman has, the higher the probability is that she will be planning to have her first child within this time frame. Interestingly, the same cannot be said about housing tenure, as that does not seem to affect reproductive plans in the short run. We found that home owners do not differ significantly from tenants: the cost of obtaining a property, especially with a mortgage, may lead to liquidity constraints; a situation that, like renting, seems to compete with the desire to have a child.

The results also reveal a statistically significant association between fertility plans and standard demographic variables, such as age and marital status. Age seems to be strongly negatively related to the probability of planning to have a first child in the short run. Similarly, cohabiting women are less likely to have positive fertility

intentions than married ones. Religiosity seems to play a role as well, as women who never attend church are more likely to plan to remain childless in the short run than women who attend worship services at least occasionally. The region where the respondent lives does appear to matter, as women who live in the South of Italy were more likely than women in other regions to say they intend to have a first child in the short run. At the same time, no significant differences in reproductive plans were found based on the size of the municipality where the couple lives. Then, several variables have been fed in the model into order to take into account the couples' socio-economic status: the partners' educational levels, the partners' working conditions and the feelings of security about the family's economic situation. Other things being equal, they do not seem to affect women's short-term reproductive plans in a significant way¹.

We have highlighted a strong *net* influence of housing conditions on the intention to have a first child. But who are the respondents who feel more secure about their homes? Through the bivariate ordered probit model, an equation concerning feelings of security about housing conditions was estimated. We found that the geographical area of residence, the housing tenure, the degree of economic security and the number of rooms all have a significant impact on the dependent one. Broken down by geographic area, the findings revealed that the degree of security about housing conditions is lower for people living in the South than for couples living in the North of the country. People who own the house in which they live are more likely to feel secure about their housing conditions than couples with different housing tenures. Finally, feeling secure about housing conditions seems to be positively associated with both economic security and the number of rooms in the house.

¹It should be noted that, in a usual probit regression (without adjusting for unobserved characteristics), the partner's employment status was significant, while other covariates (i.e., partnership status, area of residence, union duration and religiosity) displayed a stronger magnitude. These results are not reported, but are available by request from the authors.

Table 1 (to be continued) – Bivariate ordered probit model for women’s fertility intentions in the short run, and feelings of security about housing conditions in the short run.

Short-term fertility intentions	Coef.	<i>p</i>-value
<i>Age class (ref. 30-34)</i>		
<25	0.114	0.580
25-29	0.193	0.278
35-39	-0.249	0.148
≥40	-1.260	0.001
<i>Partnership status (ref. Married)</i>		
Cohabiting	-0.266	0.036
<i>Area of residence (ref. North)</i>		
Centre	-0.041	0.792
South	0.604	0.000
<i>Municipality size (Ref. Metropolitan area/Big municipality)</i>		
Medium/Small municipality	-0.046	0.597
<i>Housing tenure (ref. Tenancy/Other)</i>		
Owner occupancy	-0.152	0.464
<i>Women's educational level (ref. High)</i>		
Medium-Low	-0.112	0.471
<i>Women's working conditions (ref. Employed)</i>		
Not employed	-0.067	0.585
<i>Partner's educational level (ref. High)</i>		
Medium-Low	0.051	0.736
<i>Partner's working conditions (ref. Employed)</i>		
Not employed	-0.194	0.483
<i>Feelings of security about economic conditions (ref. High-Medium)</i>		
Low	0.372	0.229
<i>Lower distance from parents'/parents' in law house (ref. <1 km)</i>		
> 1 km	-0.002	0.976
<i>Siblings (ref. No)</i>		
Yes	-0.158	0.192
<i>Degree of church attendance (ref. Some)</i>		
Any	-0.361	0.007
<i>Cutpoints*</i>		
Cut21	-2.789	
Cut22	-2.193	
Cut23	-1.155	
Feelings of security about housing conditions		
<i>Age class (ref. 30-34)</i>		
<25	0.138	0.452
25-29	0.170	0.142
35-39	-0.109	0.379
≥40	-0.124	0.317

Table 1 (continued) – Bivariate ordered probit model for women’s fertility intentions in the short run, and feelings of security about housing conditions in the short run.

Feelings of security about housing conditions	Coef.	p-value
<i>Area of residence (ref. North)</i>		
Centre	0.259	0.019
South	-0.292	0.008
<i>Municipality size (Ref. Metropolitan area/Big municipality)</i>		
Medium/Small municipality	0.011	0.897
<i>Housing tenure (ref. Tenancy/Other)</i>		
Owner occupancy	0.435	0.000
<i>Women's educational level (ref. High)</i>		
Medium-Low	-0.143	0.217
<i>Women's working conditions (ref. Employed)</i>		
Not employed	-0.088	0.402
<i>Partner's educational level (ref. High)</i>		
Medium-Low	0.155	0.242
<i>Partner's working conditions (ref. Employed)</i>		
Not employed	-0.276	0.126
<i>Feelings of security about economic conditions (ref. High-Medium)</i>		
Low	-0.732	0.000
<i>Home typology (ref. Higher quality)</i>		
Standard	0.001	0.991
Poor	-0.215	0.278
<i>Number of rooms</i>		
	0.058	0.027
<i>Siblings (ref. No)</i>		
Yes	0.120	0.319
<i>Cutpoints*</i>		
Cut11	-1.299	
Cut12	0.690	
<i>Perceived control over housing conditions</i>		
ρ	-0.496	0.001
Likelihood Ratio test of independence of equations: Chi(2)=7.29		Prob>Chi2=0.0120

*Unknown partition boundaries that define the ranges of estimation of the dependant variable

Source: Istat FSS-GGS (2003) – own elaboration. N=842

6. Concluding discussion

Although some observers have recognised the importance of having a home as a prerequisite for family formation in Italy, the existing literature on the link between low fertility in Italy and people’s socio-economic status has been surprisingly silent about the potential role of housing. In contrast to previous studies, we examined the impact of feelings of security about housing conditions on Italian women’s (first-child, short-

term) fertility intentions. We tackle this difficult topic by proposing a methodological approach that allows us to take into account the fact that unobserved characteristics are likely to influence both the housing and the fertility spheres. Through a simultaneous bivariate ordered probit regression, we estimated the *net* impact of the degree of feeling secure about the housing situation on first child fertility intentions in the short run.

Our results suggest that there is a clear positive gradient between the fertility intentions of couples and the degree to which they feel secure about their housing situation. Specifically, our results show that having access to suitable, secure housing leads couples to be more likely to want to have a first child. The positive gradient remained substantial even after we controlled for the demographic and socio-economic characteristics of the couple, and after we adjusted the estimates for the presence of unobserved characteristics and the endogeneity between housing and fertility. Interestingly, feelings of security about the housing situation continued to be significant even when feelings about the economic situation were controlled for. This implies that, in Italy, the housing dimension should not be disregarded when studying fertility differentials, because it is more than a strictly economic dimension.

We infer that the degree of security people feel about their housing conditions is a potent predictor of their first child fertility intentions (even more than housing tenure itself), because it may be an indicator of other economic concerns, including about the present and future household income, as well as the level of family savings. Moreover, the current worldwide economic crisis could affect people's feelings of security about their housing situation, irrespective of their housing tenure. The proportion of households who are experiencing difficulties paying their mortgages and their monthly rents is increasing. Additionally, in Italy, it is not just the lower-income segments of the population who are suffering because of the fragile housing market, as an increasing proportion of people who are not poor (based on some standard poverty thresholds) are having difficulties covering their housing expenses as well (Baldini, 2010). Within this framework, the general globalisation process has, on the one hand, led to an expansion of choices and opportunities to have a professional career, opening up new options for satisfying the higher-order needs. On the other hand, however, globalisation has resulted in greater competition in the markets, and, consequently, in higher levels of employment instability and income insecurity (e.g., Mills and Blossfeld, 2005). For

young adults who are first entering the housing market, this state of affairs not only makes it more difficult for them to rent a suitable home; it also makes it harder for them to get a mortgage.

Generally, the low(est-low) fertility in Italy is attributable to a number of factors, including the Southern European welfare regime (Reher, 1998; Esping-Andersen, 1999), which is characterised by “familism” (Dalla Zuanna, 2001); low levels of state support for child care (Pinnelli, 1995); and difficulties faced by women in balancing work and family life (Matysiak and Vignoli, 2010). Within this context, difficult housing conditions could further discourage the transition to parenthood, casting a shadow on future fertility trends. The findings of our analysis suggest that policies that make it easier to access suitable houses could also have a beneficial influence on fertility. Policies could be directed towards encouraging greater access to mortgages, through, for example, mortgage guarantees aimed at young people holding atypical contracts, or towards the development of affordable rental housing (Baldini, 2010).

In sum, although there is still a great deal we do not know about the relationship between family formation and housing conditions, the present analysis has brought us a step closer to understanding this relationship in Italy. An avenue for future research, building on the current analysis, will be to approach the problem dynamically. This implies the need for longitudinal information on union and family formation, on housing histories and, if possible, also on migration histories. This will enable us to link the longitudinal individual data with the time series of contextual indicators on the housing market. Future data collection programmes should seek to facilitate this approach.

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APPENDIX

Table A1 (to be continued) – Descriptive statistics

Variables	%
<i>Fertility intentions</i>	
Definitely not	13.02
Probably not	12.48
Probably yes	35.90
Definitely yes	38.61
<i>Age class</i>	
<25	6.90
25-29	26.36
30-34	27.38
35-39	18.85
≥40	20.51
<i>Partnership status</i>	
Married	85.47
Cohabiting	14.53
<i>Area of residence</i>	
North	58.21
Centre	19.98
South	21.81
<i>Municipality size</i>	
Metropolitan area/Big municipality	46.19
Medium/Small municipality	53.81
<i>Housing tenure</i>	
Tenancy/Other	37.26
Owner occupancy	62.74
<i>Women's educational level</i>	
High	19.82
Medium –low	80.18
<i>Partner's educational level</i>	
High	14.14
Medium –low	85.86
<i>Women's employment status</i>	
Employed	73.39
Not employed	26.61
<i>Partner's employment status</i>	
Employed	93.76
Not employed	6.24
<i>Feelings of security about economic conditions</i>	
A lot / Sufficiently	77.08
Not much / Not at all	22.92

Table A1 (continued) – Descriptive statistics

Variables	%
<i>Feelings of security about housing conditions</i>	
Not much/Not at all	9.54
Sufficiently	57.15
A lot	33.31
<i>Home typology</i>	
Higher quality	23.18
Standard	66.71
Poor	10.11
<i>Degree of church attendance</i>	
Some	83.96
Any	16.04
<i>Siblings</i>	
Yes	86.02
No	13.96
<i>Lower distance from parents'/parents' in law house (ref. <1 km)</i>	
< 1 km	70.72
> 1 km	29.28
<i>Total</i>	100.00

Source: Istat FSS-GGS (2003) – own elaboration.

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E. Mussino