Dipartimento di Statistica
"Giuseppe Parenti"

W O R K I N G P A P E R 2 0 1 1 / 0 8

Whose economic instability affects the likelihood of becoming a parent in Italy? A tale of two partners

Daniele Vignoli, Sven Drefahl, Gustavo De Santis

Università degli Studi di Firenze

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

Whose economic instability affects the likelihood of becoming a parent in Italy? A tale of two partners*

Daniele Vignoli
Department of Statistics, University of Florence
vignoli@ds.unifi.it

Sven Drefahl
Stockholm University Demography Unit
sven.drefahl@sociology.su.se

Gustavo De Santis
Department of Statistics, University of Florence
desantis@ds.unifi.it

Abstract

We examine fertility differentials in Italy taking into account income and employment (in)security of both partners in a couple. We use data from four waves of the Italian section of the EU-SILC (Statistics on Income and Living Condition), 2004-2007, accounting for its longitudinal nature. Overall, our results suggest that Italian couples are neither fully traditional nor entirely modern: the "first pillar" (i.e. a male partner with a job) is still crucial in directing fertility decisions, probably because it gives the household a feeling of (relative) economic security. Once that is granted, the second most important variable is not income: rather, it is the position of both partners in the labour market, and how secure their own job is. Indeed, when both partners have jobs of unlimited duration, fertility is highest; with alternative combinations, fertility is lowered considerably.

Keywords: First child, Income, Employment instability, Italy.

* This paper is also available as a *Stockholm Research Report in Demography*, see www.suda.su.se, and in the Working Paper Series of the *Linnaeus Center on Social Policy and Family Dynamics in Europe* (SpaDE), see http://webb.polopoly.it.su.se/pub/jsp/polopoly.jsp?d=12038

1. Introduction

In recent decades, period total fertility has decreased in almost all industrialized countries, reaching values below or well below replacement. Formerly, it seemed natural to associate this decline with the parallel increase in labour force participation of women. Since the mid-1980s, however, the European countries with the highest women's labour force participation are also those where fertility is highest. Empirical macro-level studies show that the negative association between female labour force participation and fertility has in fact changed sign (Brewster and Rindfuss 2000; Ahn and Mira 2002; Engelhardt, Kögel, and Prskawetz 2004). A meta-analysis of micro-level studies, however, does not fully corroborate this view: the relationship between female labour-force participation and fertility remains negative, although the strength of the association is stronger in the countries where the male-breadwinner model prevails (e.g. Southern Europe), and weaker in the Nordic countries (Matysiak and Vignoli 2008)[1].

Recently, the increasing competition in the labour markets and employers' rising demands for workers' (extended) flexibility have further discouraged childbearing (Mills and Blossfeld 2005). The anticipated difficulties in finding a, or returning to one's, job after birth may induce women to postpone childbearing until after they have established a relatively solid position in the labour market. Women who plan to have a child may therefore self-select themselves into employment prior to childbearing. The continued postponement of childbearing, reinforced by the increasing uncertainty in the labour market, may, in turn, affect completed fertility because of the limited time interval that is left for second or higher-order births. Moreover, delaying the entry into motherhood may in some cases lead to involuntary childlessness (Ongaro 2002).

Our study focuses on Italy, a contradictory society, where temporary contracts have become very widespread, especially among the young, who have always been (and still are) hit by high unemployment, including long-term-unemployment (Istat 2011). Institutional support for working women has traditionally been modest, part-time work is rare, working schedule

[1] For a similar finding at the macro level, see Kögel (2004; 2006).

rigid, and public childcare provision scarce, especially when the child is very young (ibid). Globalisation, indeed, has perhaps reinforced the traditional division between 'insiders' and 'outsiders' in the labour market: the former are typically male, older workers, with long-term contracts, and solid guarantees in case of unemployment; the latter are young, or women, with precarious occupations, low pay, and very limited (or altogether non-existent) safety nets for their unemployed periods (Ferrera 1985; 2000; Bettio and Villa, 1998). Overall, the conditions of the labour market, with high youth unemployment, has been argued to be one of the causes of the Italian low fertility (McDonald 2000; Salvini and Ferro 2007).

At the micro-level, however, the link from economics (income, labour income and employment conditions) to fertility are complex, and must be considered at the couple, not just at the individual, level (Oppenheimer 1976). However, only a few studies have focused on the interaction between partners, despite the fact that most parents-to-be negotiate their fertility and employment decisions at the couple level, where gender differences are created and maintained, in terms of both labour market participation and contribution to non-market activities (Singley and Hynes 2005). In countries like Italy, where women are the main care-givers and men act primarily as household providers, the economic well-being of the household depends mainly on the market performance of the man. But we know very little as to how childbearing is affected when men's position as resource providers erodes – a situation that is becoming more and more frequent in contemporary societies.

Italy therefore constitutes an intriguing case-study. It presents a context of gender inequality in the labour market, where women's participation, although on the rise, is still relatively low and men, especially young men, are today confronted with a worsening in their economic situation due to the increasing diffusion of employment instability. In this context, our research examines first-order fertility differentials, considering not only income, but also the degree of job stability of (prospective) parents, taking into account the economic situation of *both* partners in a couple. The paper is organised as follows. We first present a literature review on the associations between economic uncertainty, couples' context, and fertility (Section 2), with a special emphasis on Italy (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 summarize and discuss the implication of our main findings (Section 6).

2. Fertility, couples, and economic uncertainty: literature review

2.1 Couples' characteristics and fertility

The new home economics (Becker 1981) relates recent transformations in the tempo and quantum of family formation in Western countries to the increasing investment of women in their own human capital and socio-economic empowerment. Women's greater independence and economic autonomy thus appear to be the key factors of the decrease in the propensity to marry and have children. However, the process is more complex than this summary suggests. In the first place, merely postponing the age when education is completed affects family formation: a process that is common to both genders (Blossfeld 1995). Besides, it may not just be "women's business", as the theory suggests: the transformations in the women's role and opportunities bear consequences, of course, but these consequences also depend on the evolution of men's opportunities and role, and on the gender relations within the couple (Rosina and Sabbadini 2003; Neyer, Lappegård, and Vignoli 2011).

Regarding the impact of the partner's characteristics, there is only modest empirical evidence. Specific combinations of the characteristics of both partners in a couple, however, may play an important role in determining reproductive choices (Corijin, Liefbroer, and De Jong Gierveld 1996; Dalla Zuanna 2001; Pinnelli and Di Giulio 2003). In this case, too, the context matters: Baizan (2005) argues that the relationship between fertility and labour market participation of both members of a couple is highly dependent on each particular labour market context and the institutions governing it (that is, the type of welfare state). For instance, the combination "working husband with housewife" has a positive effect on second-order births in the United Kingdom and in Italy, but not in Denmark, where gender equity is higher.

Where significant gender differences exist in work and family involvement (especially during the transition to parenthood), couple-level research is warranted (Singley and Hynes 2005). In their meta-analysis of micro-level studies on the relationship between female labour-force participation and fertility, for instance, Matysiak and Vignoli (2008) find that, together with indicators of women's job characteristics (working hours, type of contract, and so on), it is also useful to include information about the partner and his occupation. Omitting this dimension leads to an overestimation of the negative effect of women's employment on

fertility.

2.2 Economic uncertainty, gender, and fertility

Unemployment is considered a valid marker of instability over one's employment history (Pailhé and Solaz 2009). Its effect on fertility, however, may differ between men and women. Amongst men, unemployment reduces the risk of couple formation and therefore also parenthood (Ahn and Mira 2002). For women, the influence of (un)employment on first birth timing remains ambiguous (Hoem 2000; Kravdal 2002; for an overview see Sobotka, Skirbekk, and Philipov 2011).

An increasing number of researchers argue that obtaining a stable job is an important condition for parenthood, even more than the transition to employment itself (for an overview see Kreyenfeld 2010). But regular long-term contracts tend to become rarer, especially among young adults, and temporary contracts depress fertility (De la Rica and Iza 2005; Gonzalez and Jurado-Guerro 2006; Salvini and Ferro 2007). Overall, temporary contracts may inhibit a successful reconciliation between work and family life exacerbating the level of conflict as well as peoples' dissatisfaction and economic pressure (Scherer 2009). Furthermore, temporary employees enjoy a lower level of life satisfaction and their perceived household income situation is worse (ibid). Drew and Emerek (1998) remind us that these new working patterns tend to be gendered: the proportion of temporary workers is higher among women than among men.

Overall, unemployment, declining incomes and temporary (instead of permanent) working contracts create uncertainties that tend to inhibit family formation in contemporary Europe (Kohler and Kohler 2002; Blossfeld et al. 2005; Goldstein, Sobotka, and Jasilioniene 2009; Scherer 2009; Hondroyiannis 2010). What still remains unclear is whose employment career these uncertainties refer to (Kreyenfeld and Konietzka 2005): the man's, the woman's or both? In this vein, Kreyenfeld (2010) argues that the effect of women's employment on childbearing should be contextualized: "*whether a woman whose position in the labour market is insecure will postpone childbirth varies according to whether she is expected to be a caregiver or household provider after childbirth*". In other words, women's stable employment may constitute a stronger barrier to childbearing in settings characterized by

pronounced insider-outsider divide, and in countries that lack safety nets and family policies oriented towards supporting the successful balancing of motherhood and paid work. On the other hand, research on the potential impact of labour-market conditions on men's fertility normally starts from the (explicit or implicit) assumption that men are the main providers for a family. Oppenheimer (1988; 2003) argues that the deterioration of men's position in the labour market and the declining ability of men to serve as the family's single breadwinner are key factors for understanding the recent postponement of marriage and fertility. More so, probably, where the traditional view of the man as the main breadwinner still prevails.

3. Italy: the background

3.1 Paid work scarcely compatible with family life

Italy has been always characterized by a low participation of women in the labour market. Currently, for instance, the labour force participation rate of women aged 25-44 stands at 67%, which is about 10 percentage points lower than the EU average. As mentioned, work and welfare conditions are favourable only for the so-called inside workers, and harsh on the others (Ferrera 1985; 2000). Take unemployment, for example: 'inside' workers have access to a scheme (the *Cassa Integrazione*) which may cover up to 90% of net earnings for several years. When they retire, inside workers get an old age pension that typically replaces about 3/4 of previous labour earnings. Provisions for 'outside' workers (young, or women, or both) are typically lower and granted for shorter periods, if at all. And there is no minimum income scheme in Italy – unless for the old (65 and over). This polarised pattern between over-protected and under-protected categories is well documented also in comparative perspective (Ferrera, 1996).

Italy has exceptionally high unemployment rates among the young: 21.6% in 2006 (Eurostat New Cronos Database, Labor Force Survey data). The disadvantaged position of women in the Italian labour market is additionally reflected in high gender unemployment gap (Adsera, 2005). These institutional, structural, and cultural lags have led to strong tensions between fertility and paid work: women who plan to be economically active are discouraged from childbearing, which they typically postpone, or forego altogether. The increasing

uncertainty and instability of employment contracts has probably made things worse: Italy is one of the countries with the highest proportion of employees on temporary contracts, exceeding 35% among those aged 15-24 years, and 15% among those aged 25-49 in 2006 (Eurostat New Cronos Database, Labor Force Survey data).

Italy has experienced a strong increase in educational attainment and labour market participation of women in the last decades, but not everything has adjusted to the ongoing societal change: rigid working hours, scarce public services, traditional family structures, and very limited male participation in domestic chores, among others, indicate that the old-fashioned notion that women should be (mainly) housewives is still alive. This state of affairs has long supported the prevalence of the male breadwinner model that maximizes, on the one hand, men's income security and, on the other, women's time availability at home. Although only very few political actions have effectively tackled the conflict between motherhood and work, the dual earner model is becoming more and more widespread, and in some regions of the North it is now competing with the sole male breadwinner model. The contrast generated by women's increasing desire to participate in paid employment and the traditional, family-oriented welfare state results in two main consequences. One is lower-than-desired fertility (McDonald 2000; 2002). The other is polarization: indeed, almost all the women who have accumulated some work experience before their first conception re-enter paid work within a year from childbirth. By contrast, women who have never worked before their first conception tend to remain out of the labour market after they become mothers (Matysiak and Vignoli 2010).

3.2 Work and family life in Italy from a gender perspective: previous findings

Little research, especially in Italy, has focused on how couples arrange their work and family life when entering parenthood. Rosina and Fraboni (2006), examining data derived from the 1998 ISTAT Multipurpose Survey "Family and Social Subjects" (FSS), find that those women who have never worked before marriage present a greater progression to the first child than those who have accumulated some work experience. Since virtually all men are employed already before the marriage, this finding suggests more traditional behaviours among couples where the gender asymmetry in the labour market prevails. Vignoli and Salvini

(2008) conducted an event-history analysis based on the 2003 FSS data that considers the couples' employment situation, in terms of labour market status and type of contract. The study illustrates elevated first birth risks among one-earner couples, where *he* is permanently employed *she* does not work, compared to the situation in which *both* partners are permanently employed. In a similar vein, Santarelli (2009), with a longitudinal analysis based on ECHP data (European Community Household Panel), studies the transition to first child (conception) for childless married couples. Again, she found that single-earner couples have their first child earlier than dual earner couples, but the type of contract does not seem to matter much, in this respect.

Mencarini (2006), using the 1998 FSS data, analyses the determinants of the propensity to have a second child in Italy, focusing on the effects generated by specific combinations of male typologies of work and female work activities. She notes that, within couples, unemployed women are more likely to have a second child, which indirectly indicates how difficult it is to reconcile family and work. Both for employed and unemployed women fertility is higher in the year following the birth of the first child in couples where men work in high occupational classes (i.e. managers, businessmen, professionals and self-employed). This may depend on an income effect generated by men's employment. These results are consistent with the micro-economic theories that stress the role of the husband's income on the transition to the second child, rather than with those hypothesizing that greater gender symmetry encourages the birth of the second child. The interruption of the work activity has an effect only when it is the woman who leaves the job (beyond the normal maternity leave) and subsequently resumes it: the chances of having a second child are particularly low in this case, especially in the Center-North of Italy (Mencarini 2006).

A study on the relation between social status and high fertility in Italy, again based on FSS 1998 data, highlights the role of the father's occupation and educational level (Rizzi 2006a). This may be explained in two ways: the feeling of economic security may make it more likely for couples to achieve their (high) fertility projects; or, conversely, the flexibility in the management of time, allowed by self-employment, facilitates a greater paternal participation in family life and child care. The second hypothesis, however, is not confirmed in another study by the same author on fatherhood in large families in Italy (Rizzi 2006b): blue-

and white-collar workers have lower probabilities to have a large family, but they spend more time with their children than other categories do (entrepreneurs, self-employed and managers). It would then seem that in Italy money matters more than time flexibility on reproductive behaviours.

And this is precisely what we would like to investigate in this paper: how relevant are labour market conditions on fertility decisions? Does money (that is, labour income) matter more or less than job security? Do men and women behave similarly and, if not, what are their main differences in this respect? In practice, however, because of data limitation, these questions will have to be more strictly defined. Fertility, in particular, only refers to "probability of having a first birth in the observed period". This and the other variables are defined in the next section.

4. Analytical strategy

For our analysis we use four waves of the Italian survey of the EU-SILC (Community Statistics on Income and Living Condition), 2004-2007. This survey collects detailed longitudinal information on social and economic characteristics of households and their current members. The EU-SILC program is the statistical data reference source for comparative statistics on income for the European Union and is conducted in each member state. The Italian EU-SILC, launched in 2004, follows the rotational design proposed by Eurostat (European Commission 2010). Each year a new sample is drawn, and it is followed for 4 years. Each sample is representative of the whole Italian population. In our data set we include individuals who were first interviewed in 2004, 2005, 2006, and re-interviewed in subsequent years. Thus, our final sample includes individuals who were followed over 2, 3, or 4 consecutive years. To account for this complex sampling scheme and to correct for non-response we use the longitudinal weights that were provided by the Italian National Institute of Statistics for all analyses.

In order to investigate the relation between the couple's labour market participation and their reproductive outcome, we consider all women aged 16-49 years, who are living together with a partner, who did or did not first become mothers between 2004 and 2007, and for whom

we have information on the previous year. In total we include 832 women aged 16 to 49 and 204 first births. The overall probability of giving birth to the first child in any one of the four years is about 24.5%. The drawback due to small-scale sample is counterbalanced by the unusual possibility of monitoring the economic situation (employment status and earnings) of both partners at the same time. With logistic regression, we estimate the probability of having a first child in a given year according to the women's (and partners') characteristics in the preceding year. For our analyses we use a set of twelve independent variables (see Appendix). All the independent variables have been lagged by one year: they reflect the situation at the beginning of the period of observation, when the first birth can take place. All variables also include missing categories.

The age of the woman is coded into five categories: up to 24, 25-29, 30-34, 35-39, and 40+. The household composition is reflected by an indicator measuring whether the respondent is married to, or simply living together with, a partner. The respondent's and the partner's education are grouped into three categories, consistent with the International Standard Classification of Education (ISCED). The lowest category corresponds to lower secondary school, primary school, or lower education. In the intermediate level we find people who received upper secondary education or post-secondary, but non-tertiary, education. Individuals with tertiary education are assigned to the highest category. The region of residence is broken down into three categories: Northern, Central, and Southern Italy (including the Islands).

The respondent's and the partner's economic conditions are described through six variables. These conditions all refer to the income reference period, which spans the time between January 1st and December 31st previous to fieldwork. The indicator used for individual income combines various types of income sources, such as employee cash income, non-cash income (e.g. company car and associated costs, free or subsidised meals), and benefits. The main activity status indicates whether an individual worked most of the time during the reference period. Those who did not work are divided between those who are unemployed and those who are not active or still in education. Information on the type of contract is coded into three categories: work contract of unlimited duration, work contract of limited duration, and all others. Individuals who are self-employed are categorized as having a work contract of unlimited duration. All the economic variables are available separately for the

respondent and the partner/spouse.

5. Results

Table 1 displays the results of our logistic regression model. In Model 1 (M1) we investigate the direction of the income effect of the respondent and her husband or partner, controlling for the respondent's age, household composition, and region of residence. The results show a strong positive effect of the partner's income: the higher the income, the higher the Odds Ratio (OR) to have a first child in the next year. The OR for men with high income as compared to men with low income is 2.56, and the difference is highly statistically significant. As for the women's income, the effect is less clear, and not statistically significant. A U-shaped relation seems to emerge, though: women with medium income tend to have a lower fertility than other, with high or low income. Overall these outcomes corroborate the traditional micro-economic interpretation that emphasizes the male partner's breadwinner role in the Italian setting.

The age of the respondent acts as expected: the risk of having a first child is highest in the reference group (25-29), and lower before and after that. The results for the variable 'household composition' confirm the common finding that fertility is (much) higher for married than for cohabiting women. We also find that the risk of having a first birth remains higher in the southern part of Italy when controlling for income, household composition, and age.

In Model 2 (M2) we additionally include the highest level of education achieved by the women and her spouse or partner. Partners of higher education are more likely to have a first child in the observed period, but effect is stronger for women. Although not statistically significant, these finding confirms a recent trend observed in Italy, by which couples with greater cultural and economic resources do not have a lower propensity to have children (Dalla Zuanna and Tanturri 2007; Rosina and Testa 2007). Since income and education are correlated with each other, controlling for education absorbs some of the income effects that we had observed in the previous model; however, for men, a higher income is still significantly

correlated with a higher OR to have a first child.

In Model 3 (M3) we add information on economic stability, represented by the labour market situation of both partners. The chance of having a child in the next year is higher for non-active women than for their employed counterparts, although not significantly. The pattern tends to be the opposite for men, however, the difference is again not significant as the number of non-employed men is very small (see again Table A1, Appendix). Holding a permanent rather than a temporary job contract does increase the chances of having a first child, for both partners. In other words, a work contract of limited duration is significantly associated with a much lower fertility risk, especially when it is the man who has an unstable contract. Interestingly, adjusting for the labour market situation of both couple members further reduces the income effect for men, which, however, remains statistically significant.

In the next interaction model between gender and duration of work contract (M4, Table 2) we investigate the gendered effect of the employment situation of both partners more in detail. The results suggest that fertility is lowest when the man has a contract of limited duration and the women a permanent contract. For these couples the OR to have a first child is only about one sixth as compared to couples where both partners have a permanent job, and the difference is statistically significant. A significantly lower fertility risk can also be found for the couples in the opposite situation (woman with temporary contract and the man with permanent contract). Note that when the woman is temporarily employed and the male partner is permanently employed the likelihood of having a child is higher than when *she* is stable and *he* is instable in the labour market. Male unemployment reduces fertility (not significantly, though), but female unemployment does not. Overall, again, these findings tend to suggest the crucial role on fertility played by the economic standing of the man in Italy and they suggest that fertility may decline further, if the male position as breadwinner erodes.

Table 1: Odds Ratios for Having a First Child in Italy. 2004-2007.

	Model 1		Model 2		Model 3	
	OR	SE	OR	SE	OR	SE
Age of Women (Ref = 25-29)						
up to 24	0.88	0.38	0.90	0.39	0.97	0.44
30-34	0.79	0.18	0.76	0.18	0.74	0.18
35-39	0.33 ***	0.10	0.32 ***	0.10	0.32 ***	0.10
40 and older	0.15 ***	0.08	0.15 ***	0.08	0.14 ***	0.08
Household Compositon (Ref = Married)						
Partnership	0.28 ***	0.08	0.29 ***	0.08	0.31 ***	0.09
Region (Ref = North)						
Center	0.93	0.22	0.93	0.22	0.92	0.23
South + Islands	1.75 **	0.48	1.74 **	0.47	1.95 **	0.56
Income Tercile Women (Ref = Low)						
Medium	0.89	0.23	0.89	0.23	1.15	0.36
High	1.34	0.34	1.27	0.34	1.64	0.55
Income Tercile Men (Ref = Low)						
Medium	1.92 **	0.50	1.83 **	0.49	1.61 *	0.46
High	2.56 ***	0.73	2.34 ***	0.67	2.07 **	0.61
Education Women (Ref = Low)						
Medium			1.21	0.34	1.27	0.33
High			1.31	0.44	1.38	0.47
Education Men (Ref = Low)						
Medium			0.95	0.21	0.86	0.21
High			1.29	0.43	1.15	0.39
Activity Status Women (Ref = Working)						
Unemployed					1.06	0.46
Not active					1.66	0.54
Activity Status Men (Ref = Working)						
Unemployed					0.50	0.32
Not active					0.54	0.32
Duration Contract Women (Ref = Permanent)						
Temporary					0.50 *	0.21
Duration Contract Men (Ref = Permanent)						
Temporary					0.44 *	0.22

Notes: *p<.1, **p<.05, ***p<.01; Models also include missing categories.

Table 2: Combination between Gender and Duration of Contract.

Model 4	Women		
Men	Permanent Contract	Temporary Contract	Unemployed
Permanent Contract	1	0.38**	1.07
Temporary Contract	0.16**	-	0.32
Unemployed	0.44	-	0.65

Notes: **p<.05; Additionally controlled for Age at interview, Household composition, region, income women, income men, education women, education men, and activity status; Values are missing when the number of observations is too small (below 15)

6. Conclusions

According to the Stiglitz Commission (2009, p. 198), "*Economic insecurity may be defined as uncertainty about the material conditions that may prevail in the future. This insecurity may generate stress and anxiety in the people concerned*". And, arguably, it may make them forego childbearing. In our study we examine the effect of economic insecurity – in terms of level of income and type of contracts within the couple – on first-child fertility differentials in contemporary Italy. Our results, albeit limited by the relatively small number of cases in our sample, indicate that individuals make their procreative choices keeping in mind their economic situation and perspectives. And they do so in a gendered way: men and women in a couple tend to react differently to the same external stimulus.

Higher income of both couple members is related with an increase in the likelihood of having the first child. The impact of the man's income is much stronger and remains important even after adjusting for activity status and duration of the work contract. This result confirms that, even recently, the economic well-being of the household, which still depends chiefly on the economic situation of the man, is crucial on the decision to have the first child.

With regard to the changing role of genders, in a context of increasing labor market insecurity, Italy finds itself in a mixed situation. The "first pillar" (i.e. a male partner with a well-paid job) is still crucial in determining fertility decisions, probably because it gives the household a feeling of (relative) economic security. The income of the female partner is less important; rather, it is her role in the labor market that emerges as relevant: when both partners have jobs of unlimited duration, fertility is higher; alternative combinations, when at least one

of the partners has job of limited duration, are associated with progressively lower first-order fertility.

In sum, although there is still a great deal that we do not know about the role that economic uncertainty plays on contemporary fertility and family dynamics, we infer that the degree economic security (here measured in terms of level of income and type of contract) is a crucial predictor of the onset of the fertility process. The very low level of fertility in Italy has been imputed to a number of factors, including the southern European welfare regime (Reher 1998; Esping-Andersen 1999), to “familism” (Dalla Zuanna 2001), low levels of state support for child care (Pinnelli 1995), difficulties faced by women in balancing work and family life (Salvini 2004), etc. Another element that is worth considering is the increasing economic uncertainty of Italian couples. A previous study on Italy, spanning between 1994 and 2001, showed no significant correlation between the duration of the contract and risk of a first child conception (Santarelli 2009). At that time, employment uncertainty was still relatively rare, among Italian couples. Now that it is much more widespread, especially among the young, and our findings cast a shadow of doubt on future fertility trends in Italy. Besides, our research covers the period 2004 to 2007, but the economic crisis peaked later, and even if the worst may now be behind our shoulders (which remains to be seen), economic recovery is still very weak. In short, our results may suggest that the prospects for a fertility recover remain critical.

Overall, Italy continues to be characterised by a "male-breadwinner/mother-carer" model together with a pronounced insider-outsider divide, strong barriers to labour market entry and, therefore, high unemployment, especially among the young. The mix *all’italiana* of labour market rigidity, generous (but not universal) social protection and strong ‘familism’ renders this configuration highly inadequate to respond to the social and economic restructuring that a globalising economy demands. Insisting on the dualistic insider-outsider scheme, and on rigid regular jobs, may only accelerate the diffusion of jobs with limited duration. This may have a number of unfavourable consequences: the persistence of late and low fertility is likely to be one of these.

Acknowledgements: We thank Gunnar Andersson and Gerda Neyer for helpful comments on an earlier version of the paper. We are also grateful to Davide di Laurea (*Italian National Institute of Statistics – ISTAT*) for his advice on the weighting procedure and Eleonora Mussino for her help with EU-SILC data.

References

Adserà, A. (2005). Vanishing children: From high unemployment to low fertility in developed countries. *American Economic Review* 95(2): 189-193.

Ahn, N. and Mira P. (2002). A note on the changing relationship between fertility and female employment rates in developed countries. *Journal of Population Economics* 15: 667-682.

Baizan, P. (2005). Couples' career and fertility. An event history analysis of the ECHP samples of Denmark, Italy, Spain and United Kingdom. Paper presented at the XXV International Population Conference, Tours (France), 18-23 July 2005.

Becker, G. (1981*). A treatise on the family*. Cambridge, Usa, Harvard University Press.

Bettio, F. and Villa, P. (1998). A Mediterranean perspective on the breakdown of the relationship between participation and fertility. *Cambridge Journal of Economics,* 22: 137-171.

Blossfeld, H. P. (1995, ed.), *The New Role of Women. Family Formation in Modern Societies*, Westview Press, Boulder.

Blossfeld, H-P., Klizing, E., Mills, M., and Kurz, K. (2005, eds.). *Globalization, Uncertainty and Youth in Society*. London and New York: Routledge, pp. 349-374.

Brewster, K.L. and Rindfuss, R.R. (2000). Fertility and women's employment in industrialized nations. *Annual Review of Sociology* 26: 271-96.

Corijin, M., Liefbroer, A.C., and Gierveld, J.D. (1996). It takes two to tango, doesn't it? The influence of couple characteristics on the timing of the birth of the first child. *Journal of Marriage and the Family* 58: 117-126.

Courgeau, D., Leliévre, E. (1992). Interrelations between first home-ownership, constitution of the family, and professional occupation in France. In: *Demographic applications of*

event history analysis, Trussell, J., Hankinson, R., Tilton, J. (eds.); Clarendon Press: Oxford.

Dalla Zuanna, G. (2001). The banquet of Aeolus: a familistic interpretation of Italy's lowest low fertility. *Demographic Research* 4(5): 133-162.

Dalla Zuanna, G. and Tanturri, M.L. (2007). *Veneti che cambiano 1971-2021. La popolazione sotto la lente di quattro censimenti*. Verona: Edizioni CIERRE.

De la Rica, S. and Iza, A. (2005). Career planning in Spain: do fixed-term contracts delay marriage and parenthood? *Review of Economics of the Household* 3:49–73.

Drew, E., Emerek R., and Mahon E. (1998, eds.). *Women, Work and the Family in Europe*. London, Routledge.

Engelhardt, H., Kögel, T., and Prskawetz A. (2004). Fertility and women's employment reconsidered: A macro-level time-series analysis for developed countries, 1960-2000. *Population Studies* 58: 109-120.

European Commission (2010), http://epp.eurostatec.europa.eu

Eurostat New Cronos Database, http://www. ec.europa.eu/eurostat.

Esping-Andersen, G. (1999). *Social foundations of postindustrial economies*. Oxford: Oxford University Press.

Ferrera, M. (1985). *Il Welfare state in Italia. Sviluppo e crisi in prospettiva comparata*, Bologna: Il Mulino.

Ferrera, M. (1996). The Southern model of welfare in Social Europe, *Journal of European Social Policy* 6(1): 17-37.

Ferrera, M. (2000). Reconstructing the welfare state in Southern Europe, in S. Kuhnle (ed.), *Survival of the Welfare State*, London, Routledge, 2000, pp. 166-181.

Goldstein, J.R., Sobotka, T., and Jasilioniene, A. (2009). *The end of "lowest-low" fertility? Population and Development Review* 35(4): 663-699.

Gonzalez, M. J. and Jurado-Guerro, T. (2006). Remaining childless in affluent economies: a comparison of France, West Germany, Italy and Spain, 1994–2001. *European Journal of Population* 22: 317–352.

Hoem, B. (2000). Entry into motherhood in Sweden: The influence of economic factors on the rise and fall in fertility, 1986-1997. *Demographic Research* 2.

Hondroyiannis, G. (2010). Fertility Determinants and Economic Uncertainty: An Assessment

Using European Panel Data. *Journal of Family and Economic Issues* 31(1): 33-50.

Istat (2011). http://noi-italia.istat.it

Kögel, T. 2004. Did the association between fertility and female employment within OECD countries really change its sign? *Journal of Population Economic* 17:45-65.

Kögel, T. 2006. An explanation of the positive correlation between fertility and female employment across western European countries. Paper presented at the European Population conference, Liverpool, the UK, June 2006.

Kohler, H. P. and Kohler, I. (2002). Fertility decline in Russia in the early and mid 1990s: the role of economic uncertainty and labour market crisis. *European Journal of Population* 18: 233–262.

Kravdal, Ø. (2002). The impact of individual and aggregate unemployment and fertility in Norway. *Demographic Research* 6: 262-294.

Kreyenfeld, M. (2010). Uncertainties in Female Employment Careers and the Postponement of Parenthood in Germany. *European Sociological Review* 26: 351-366.

Kreyenfeld, M. and Konietzka, D. (2005). Economic Uncertainty and Fertility - Evidence from German Panel Data. Paper presented at the XXV International Population Conference, Tours (France), 18-23 July 2005.

Matysiak, A. and Vignoli, D. (2008). Fertility and women's employment. A meta-analysis. *European Journal of Population* 24: 363-384.

Matysiak, A. and Vignoli, D. (2010). Employment around first birth in two adverse institutional settings: Evidence from Italy and Poland. *Journal of Family Research* 3/2010: 331-346.

McDonald, P. (2000). Gender equity, social institutions and the future of fertility. *Journal of Population Research* 17(1): 1-16.

McDonald, P. (2002). Sustaining fertility through public policy: the range of options. *Population* 57(3): 417-446.

Mencarini, L. (2006). Il secondo figlio. In: Rosina, A. and Sabbadini LL. (eds.), *Diventare padri in Italia. Fecondità e figli secondo un approccio di genere*, Istat, Roma.

Mills, M. and Blossfeld, H.-P. (2005). Globalization, Uncertainty and the Early Life Course: A Theoretical Framework. In Blossfeld, H-P., Klizing, E., Mills, M. and Kurz, K. (Eds.),

Globalization, Uncertainty and Youth in Society (pp. 1-24). London and New York: Routledge.

Neyer, G., Lappegård, T., and Vignoli, D. (2011). Gender Equality and Fertility: Which Equality Matters?, Stockholm University Linnaeus Center on Social Policy and Family Dynamics in Europe, SpaDE, WP 2011/07 & Department of Statistics, University of Florence, WP 2011/07.

Ongaro, F. (2002). Low fertility in Italy between explanatory factors and social and economic implications: consequences for the research, proceedings XLI Riunione Scientifica della SIS, 5-7 June, Sessioni plenarie e specializzate, Padua, CLEUP.

Oppenheimer, V. K. (1976). The Easterlin hypothesis: Another aspect of the echo to consider. *Population and Development Review* 2(3/4): 433-475.

Oppenheimer, V. K. (1988). A theory of marriage timing. *American Journal of Sociology* 94: 563–591.

Oppenheimer, V.K. (2003). Cohabiting and marriage during young men's career development. *Demography* 40: 127-149.

Pailhé, A. and Solaz, A. (2008). Time with Children: Do Fathers and Mothers Replace Each Other when One Parent is Unemployed? *European Journal of Population* (2): 211-236.

Pinnelli, A. (1995). Women's condition, low fertility, and emerging union patterns in Europe. In Mason, K.O., Jensen, A.M. (eds.), *Gender and family change in industrialized countries*, Clarendon Press: Oxford.

Pinnelli, A. and Di Giulio P. (2003). Genere e determinanti della fecondità nei Paesi sviluppati. In: Pinnelli, A., Racioppi, F. and Rettaroli R. (eds.), *Genere e Demografia*, Il Mulino, Bologna.

Reher, D.S. (1998). Family ties in Western Europe: persistent contrasts. *Population and Development Review* 24:2: 203-234.

Rizzi, E. (2006a). Tre figli o più. In: Rosina, A., Sabbadini, L.L. (eds.), *Diventare padri in Italia. Fecondità e figli secondo un approccio di genere*, Istat, Roma.

Rizzi, E. (2006b). La paternita' nelle famiglie numerose. In: Rosina, A., Sabbadini, L.L. (eds.), *Diventare padri in Italia. Fecondità e figli secondo un approccio di genere*, Istat, Roma.

Rosina, A., and Fraboni R. (2006). Il primo figlio. In: Rosina, A., Sabbadini, L.L. (eds.), *Diventare padri in Italia. Fecondità e figli secondo un approccio di genere*, Istat, Roma.

Rosina A., and Sabbadini L.L. (2006). Introduzione. In: Rosina, A., Sabbadini, L.L. (eds.), *Diventare padri in Italia. Fecondità e figli secondo un approccio di genere*, Istat, Roma.

Rosina, A. and Testa, M.R. (2009). Couples' First Child Intentions and Disagreement: An Analysis of the Italian Case. *European Journal of Population* 25:487–502.

Santarelli, E. (2009). Economic insecurity and entry into parenthood in Italy. Paper presented at the Workshop "Economic Uncertainty and Family Dynamics", July 3-4 2009, Berlin, Germany.

Salvini, S. (2004). Low italian fertility: the Bonaccia of Antilles? *Genus* LX (1): 19-38.

Salvini, S. and Ferro, I. (2007). Young workers and flexibility of the labour market: what family strategies?, Department of Statistics, University of Florence, WP 2007/13: http://www.ds.unifi.it/ricerca/pubblicazioni/working_papers/2007/wp2007_13.pdf

Scherer, S. (2009). The Social Consequences of Insecure Jobs. *Social Indicators Research* 98: 527-547.

Singley, S.G. and Hynes, K. (2005). Transition to parenthood. Work-Family Policies, Gender, and the Couple Context. *Gender and Society* 19 (3): 376-397.

Sobotka, T., Skirbekk, V., and Philipov, D. (2011). Economic Recession and Fertility in the Developed World. *Population and Development Review* 37(2) : 267–306.

Stiglitz, J.E., Sen A., and Fitoussi, J.-P. (2009). Report by the Commission on the Measurement of Economic Performance and Social Progress, http://www.stiglitz-sen-fitoussi.fr

Vignoli, D. and Salvini, S. (2008). Employment and fertility careers in Italy: the gender-specific effect within couples. Paper presented at the Annual Conference of the Population Association of America, April 17-19 2008, New Orleans, US.

Appendix

Table A1: Distribution of Observations by Categories of each Variable

		Distribution %
Age of Women	up to 24	7.32
	25-29	26.17
	30-34	33.10
	35-39	22.04
	40 and older	11.37
Household Compositon	Partnership	22.04
	Married	77.96
Region of Residence	North	57.63
	Center	23.13
	South + Islands	19.24
Income Tercile Women	Low	33.02
	Medium	33.33
	High	33.64
Income Partner/Spouse	Low	31.78
	Medium	35.75
	High	32.48
Education Women	Low	26.56
	Medium	52.02
	High	21.42
Education Partner/Spouse	Low	34.35
	Medium	51.48
	High	14.02
	Unknown	0.16
Activity Status Women	Working	71.73
	Unemployed	9.89
	Not active	18.38
Activity Status Men	Working	92.76
	Unemployed	2.88
	Not active	4.36
Duration Contract Women	Permanent	60.75
	Temporary	10.05
	Unknown / Missing	29.21
Duration Contract Men	Permanent	85.98
	Temporary	5.76
	Unknown / Missing	8.26

Note: Totals may not always sum up to 100 due to rounding