First union formation in Italy:
The role of micro- and macro-level economic conditions

Silvia Meggiolaro*, Fausta Ongaro*, Elena Pirani**

meg@stat.unipd.it, ongaro@stat.unipd.it, elena.pirani@unifi.it

Department of Statistical Sciences, University of Padua, Italy

**Department of Statistics, Computer Science, Applications 'G. Parenti', University of Florence, Italy*

Abstract

In this paper, we use data from the 'Families and Social Subjects' survey conducted by the Italian National Institute of Statistics (ISTAT) in 2016 to study the impact of micro- and macro-level economic conditions on first co-residential union formation. We aim to determine if and to what extent the probability of forming the first union is entirely explained by individual labour market positions (e.g. being unemployed or having non-standard employment), or whether adverse macro-economic conditions – which arguably increase the personal perception of uncertainty – also play a role. We differentiate by union type – marriage and cohabitation – known to be characterised by different levels of union commitment, as well as address potential gender differences by conducting separate analyses on men and women. Our results suggest that while both micro- and macro-level economic factors matter in the union formation process, their effect varies by gender and union type. Individual economic vulnerability has a greater impact on marriage than on cohabitation. Meanwhile, contextual economic uncertainty plays a relevant role in the transition to cohabitation (for both men and women) and, to a lesser extent, in the transition to marriage (for women).

Acknowledgments

First union formation in Italy:
The role of micro- and macro-level economic conditions

1. Introduction

The formation of a first co-residential union is a crucial step in the transition to adulthood for young people around the world, and a large body of theoretical and empirical work explores this topic. Numerous studies address the role of economic conditions in this process, where having work and (good) economic prospects are considered a prerequisite for starting an independent family (see, for example, Bukodi, 2012; Jalovaara, 2012; Vignoli, Tocchioni and Salvini, 2016; Schneider, Harknett, and Stimpson, 2019). This aspect is even more relevant today, in a world characterised by labour market complexity (due, for instance, to the increase of precariousness and unemployment and a decline in secure job positions), economic stagnation (whether not recession) and financial turbulence.

However, the association between an individual's poor economic conditions and the postponement of co-residential union formation has been found to vary by country and gender. Basically, in male-breadwinner societies, the male partner's economic situation tends to be more influential (Raz-Yurovich, 2010) whereas in dual-breadwinner settings women's economic vulnerability also matters (Kreyenfeld, Andersson, Pailhè, 2012). The role of economic conditions in the union formation process may also differ depending on the type of co-residential union. Cohabitation has been found to be less sensitive to economic vulnerability than marriage and, being characterized by less long-term commitment, more favoured in the case of poor economic prospects (Kalmijn, 2011; Vignoli et al., 2016).

While individuals' economic conditions are indubitably a fundamental factor in facilitating or obstructing the union formation process, the macro-level context in which they are embedded may also play a role. According to the principle *of time and place* in the framework of the life-course studies (Elder, 1994), the same historical event may differ in substance and meaning across geographical areas. Accordingly, the study of individuals' outcomes and behaviours must necessarily account for contextual influences

that operate along time and spatial dimensions. Kohler and colleagues (2002), for example, argue that macro-level economic instability leads to micro-level uncertainty, which delays union formation (and childbearing) in favour of prolonged residence in the parental home. This additional time can be used to achieve higher education levels while awaiting greater job stability (see, e.g., Aassve, Billari, and Piccarreta, 2007; Kreyenfeld et al. 2012). Young people are particularly vulnerable during times of economic turbulence, which triggers a state of uncertainty and undermines long-term planning (see, e.g., Vignoli et al. 2016). The relatively few empirical studies that assess the impact of both individual and aggregate-level economic aspects on the union formation process confirm these effects (De Lange et al., 2014), especially for men (Vergauwen, Neels, and Wood, 2016). Yet, the potentially differing effect of macro-economic uncertainty on marriage and cohabitation has received little attention.

With this study, we fill an existing gap in the literature, examining if and to what extent the probability of forming a first co-residential union is explained by individual economic vulnerability (e.g. unemployment or non-standard employment), as opposed to an autonomous effect of adverse macro-economic conditions, which may increase individuals' perception of uncertainty. Importantly, we differentiate by union type – marriage and cohabitation – characterized by different levels of union commitment.

We focus on Italy, a country offering an intriguing case study for a number of reasons. Demographically, a 'revolution' in recent years has reshaped the family. With a several-decade delay with respect to continental and Northern European countries, family life courses have begun to relax in rigidity. Alternative strategies – delayed marriage, cohabitation, union dissolution, and out-of-wedlock childbearing – have become increasingly popular and widespread (Pirani and Vignoli, 2016; Pirani, Guetto, and Rinesi, 2021). Meanwhile, from a socio-economic perspective, the role of women has notably shifted, reflected in increases in educational attainment and greater labour market participation. Though, societal arrangements and welfare provisions have not correspondingly evolved (e.g. flexibility of working conditions). There, a marked process of work precarisation has furthermore occurred. Together with the recent economic downturns, it has strongly deteriorated labour market positions, especially for young adults (OECD, 2012; Lin et al. 2013; Pirani and Salvini, 2015).

In this rapidly changing context, evidence of the relationship between union formation and economic conditions is scarce, and relevant contributions are based on information that is now outdated (Kalmijin, 2011; Bernardi et al., 2005; Vignoli et al., 2016). Here, we employ the most recent available data, relying on the 'Families and Social Subjects' survey conducted by the Italian National Institute of Statistics (ISTAT) in 2016. Given that men and women differ in terms of patterns of entry into co-residential unions (Vignoli et al., 2016; Wiik, 2009; Bolano and Vignoli, 2021), we furthermore conduct our empirical analyses separately by gender. Similarly, in light of persistent differences between marriage and cohabitation in the Italian context (see, e.g., Pirani and Vignoli, 2016), we also account for union type.

The paper is organised as follows. In Section 2, we provide a background description and present our hypotheses in the light of the Italian context. In Section 3, we describe the data and analytical strategy, followed, in Section 4, by a discussion of our results. In the final section, we offer concluding reflections on our findings.

2. Background

2.1 Micro-level economic vulnerability and union formation

Though the decision to start a co-residential union is primarily an emotional one (Oppenheimer, 1988), it also involves investment in terms of time, money and psychological resources. A source of income is a prerequisite for starting a co-residential union (Kalmijn, 2011) and having a job is the most common means to this end. Financial security should, however, be considered prospectively; the mere existence of a current income may not be sufficient. That which matters might be a certain sense of security about future economic prospects, making non-standard jobs or temporary employment inadequate preconditions for starting a co-residential union. In the presence of economic instability, the postponement of a co-residential union could be a strategy to avoid risk, as postulated by the *uncertainty hypothesis* (Oppenheimer, 1988). With these considerations in mind, scholars (e.g., Kalmijn, 2011; Vignoli et al., 2016; Schneider et al., 2019) have highlighted the importance of accounting for aspects other than being employed or not in defining individuals' economic vulnerability.

In contrast, according to the *uncertainty reduction* theory (Friedman, Hechter and Kanazawa, 1994), entering a union may represent a strategy to reduce biographical uncertainty and a response to negative employment prospects, particularly so for women. Especially in societies where men are largely responsible for family income – male breadwinner societies – men's economic situation might be more important than that of women for union formation (Raz-Yurovich, 2010). In this view, unemployed men or those in unstable employment are considered less attractive as partners, and this may reduce their likelihood of forming a co-residential union, while women with poor employment prospects may choose to form a union as a strategy to reduce uncertainty. On the other side, women who are no longer dependent on men's economic conditions may be less prone to form a union and, at the same time, those with more prosperous economic prospects may be less attractive for co-residential union formation (Becker's [1991] *women's economic independence* hypothesis).

These frameworks are especially applicable in societies characterized by a high degree of specialization in sex roles (Ongaro, 2001; Bernardi et al., 2005). The argument is that the importance of a woman's economic condition for union formation depends on the degree of gender equality in society (Thomson and Bernhardt, 2010). In contexts shifting from a male-breadwinner to a dual-breadwinner model, a stable employment situation for both the man and the woman becomes a prerequisite for family formation (Kreyenfeld et al., 2012). Likewise, the economic vulnerability of women, besides that of men, represents an important factor in postponing co-residential unions. Empirical studies respectively using US, Dutch and Korean data show that the differences between the roles of male and female economic situations have attenuated in recent cohorts (Schneider and Reich, 2014; Vergauwen et al., 2016; Kim, 2017; Schneider et al., 2019).

It has, moreover, been documented that type of co-residential union matters, with the impact of economic uncertainty arguably differing between marriage and non-marital cohabitation. Indeed, given different normative expectations when it comes to these two ways of forming a union, employment status, employment characteristics and more generally individuals' economic conditions may be less important when it comes to unmarried cohabitation than marriage (Xie et al., 2003; Kalmijin, 2011; Bukodi, 2012; Jalovaara, 2012). Different scholars suggest that cohabitation is more compatible with individual economic vulnerability (Oppenheimer, 2003; Perelli-Harris et al., 2010; Mills

and Blossfeld, 2013; Schneider et al., 2019; Sassler and Lichter 2020), for its temporary and reversible nature, compared to the stronger normative expectations of marriage as a long-term commitment. The underlying idea is that, until individuals reach a certain level of career stability, secure enough to economically support a future family, they may prefer to postpone marriage and opt for a less formal union such as cohabitation. Various studies have, in fact, documented that individuals in more uncertain economic positions are more likely to enter cohabitation (Bukodi, 2012; Vignoli et al., 2016; Guetto, Vignoli and Bazzani, 2020).

2.2 Macro-level economic conditions and union formation

There are two ways through which macro-level economic conditions might influence union formation. First, a stagnant and poor economic and financial context implies unfavourable employment prospects: scarce job offers, high unemployment, and poor and temporary working conditions. Globalization has, for instance, entailed an increase of (young) people entering the labour market with temporary or casual contracts (Mills and Blossfeld, 2003; Blossdeld and Mills, 2005). Similarly, recent economic recessions have raised the individual likelihood of unemployment as well as job instability and insecurity. In this perspective, the relationship between macro-economic adversity and union formation – and more generally individuals' life courses – could be (at least partially) explained by individual employment situation, as a compositional effect.

Second, the economic context may directly affect decisions by strengthening or weakening individual level-economic insecurity and thus reducing or enhancing the likelihood of starting an independent life with a partner. That is, under prosperous macro-economic conditions, even unemployed or temporarily employed individuals might be optimistic about their labour market (and economic) circumstances in the near future, despite their current job insecurity. This in turn may attenuate the negative link between the current employment situation and family-formation decision, where a choice is made to start a co-residential union. Similarly, during an economic downturn, a perception of economic insecurity may be reinforced, such that individuals in unstable employment positions might be even more discouraged from making long-term commitments. In this situation, even individuals with permanent employment might feel pessimistic about future labour market prospects (e.g. fears of job loss, reduced chances of being promoted,

and wages less likely to be adjusted to inflation), and therefore also delay union formation decisions. Understanding the extent to which the macro-economic context acts as an autonomous contextual effect may help to shed light on the link between economic conditions and the union formation process.

Although a substantial body of work reveals the importance of aggregate-level economic aspects for individual family behaviours (relative to fertility patterns see, for instance, Aassve, Billari, and Spéder, 2006; Neels, Theunyinck, and Wood, 2013), less attention has been paid to whether both micro- and macro-level factors impact union formation. To our knowledge, this question has only been addressed by two country-specific studies. De Lange et al. (2014) show empirically that in the Netherlands, an unfavourable macro-economic situation delays the first co-residential union, and the negative effect of a macro-economic adversity persists when controlling for individual economic conditions. Thus, an adverse economic context increases a sense of uncertainty with regard to future employment and economic prospects, inducing a postponement of union formation, even for those with more favourable (i.e. stable) employment positions. Vergauwen et al. (2016) observe a similar dynamic for France, as well as document differences in the effect of the macro-level economic situation according to gender. Specifically, they suggest that women might be less affected by the economic context, due both to their reduced labour market prospects compared to men, and to the fact that they are more frequently employed in the service and public sectors, which are less sensitive to changes in economic conditions. No study has explicitly considered – net of micro effects – the potentially different impact of macro-economic uncertainty on marriage versus cohabitation.

2.3 The Italian context

Italy has experienced a profound economic, demographic and cultural change in recent decades, making it an interesting setting to explore if and how both macro- and micro-economic conditions impact the union formation process.

The last decades have seen the emergence of unprecedented levels of uncertainty in labour markets across the Western world, and Italy is no exception. Labour market flexibilization began in the nineties and, due to several subsequent reforms, continued for a number of years (see Fana, Guarascio, and Cirillo, 2015 for a detailed description). An explosion of different forms of flexible and temporary contracts resulted, characterized by lower wages

and little social protection (Tompson, 2009). This shift occurred in a remarkably short period – one of the fastest in Europe (OECD, 2016) – and strongly affected Italian workers (Barbieri and Scherer, 2009). From 1998 to 2015, the percentage of temporary employment to total employment almost doubled from 8 to 14%, and largely concerned the younger cohorts just entering labour the market (60%, Fana et al., 2015). While temporary work opportunities may have partly contributed to a small decrease in the youth unemployment rate at the beginning of the 2000s, generally these changes negatively impacted workers' employment biographies, decreasing the possibility of obtaining stable long-term employment and depressing career prospects (Barbieri and Scherer, 2009). The reforms of the Italian labour market occurred in a context characterised by a number of structural weaknesses, putting temporary and unemployed (young) people in a particularly vulnerable position. In addition, female labour force participation has been persistently lower than that of men and youth employment – especially in the southern regions – markedly below that of other European countries (Fana et al., 2015). That temporary contracts are not equally distributed by gender and age, being higher among women and younger people (Eurofound, 2013), further makes Italy a compelling case for study (Pirani and Salvini, 2015).

Italy was among the countries hardest hit by the recent economic downturn, or so-called Great Recession beginning in 2007, in part due to the country's labour market and institutional characteristics. Employment rates dropped and workers experienced important job losses, especially those with temporary contracts (OECD, 2012; Lin et al. 2013). The consequences were particularly severe for youth, the low and middle socio-economic classes, and foreigners (Brandolini, Gambacorta and Rosolia, 2018). For example, the unemployment rate of those aged 15-24 rose to 42% in 2014 and though it declined to 35% by 2017, it remains one of the highest in Europe, about twice that of older individuals. Moreover, the prevalence of NEETs, or young persons aged 15-24 not engaged in education, employment, or training, increased from 19% in 2007 to 26% in 2017. During the crisis, the flexibilization process resulted in a general deterioration in the conditions of the Italian labour market, marked by a notable decline in the employment rate, particularly among young people.

Italy further offers an intriguing setting given its particular demographic and cultural characteristics. Indeed, long a conservative society in terms of family dynamics, the

country has recently begun the transition to less traditional family and gender behaviours. For example, though Italians have typically viewed marriage as a fundamental step in the transition to adulthood (Ongaro, 2001; Billari and Rosina, 2004), starting in the 1990s, the centrality of marriage in family life began to waver (Pirani and Vignoli, 2022; Pirani et al., 2021). This has been reflected in declining wedding rates, from roughly 650 marriages per 1,000 women registered in 2000 to 600 in 2008, and dropping even further to 500 in 2019, with northern Italian regions leading this downward trend (and recording a level below 400 in recent years). Although marriage remains the most popular form of union formation, cohabitation (even if with a delayed start relative to other European countries, see Kiernan, 2002, and Di Giulio, Impicciatore and Sironi, 2019) has increasingly come to be viewed as a socially acceptable form of union and possible alternative to marriage. With the new millennium, this shift has become increasingly apparent. While less than 4% of couples aged 25-54 lived in non-marital cohabitation in 2000, this value quadrupled by 2016. Importantly, in recent years more than 7 out of ten Italians believe that a couple can live together without planning to get married, a rise from 5 at the beginning of the century, yet another signal of more positive attitudes towards cohabitation. This view is particularly prominent among more recent cohorts. A rise in the percentage of out-of-wedlock births, growing from 8% in 1995 to 30% in 2016, additionally confirms the growing diffusion and social acceptance of cohabitation as a form of union (Pirani et al., 2021).

Finally, Italy is no less interesting from a gender perspective. Despite a continuous social and cultural shift toward greater gender equality – for instance in education (ISTAT, 2021; World Economic Forum, 2022) – the country is still characterised by marked inequalities in both the labour market and family life (Neilson and Stanfors, 2014; Altintas and Sullivan, 2016; Dotti Sani, 2018; ISTAT, 2019). Not only is women's labour market participation relatively low compared to other European countries, but more women than men are employed in jobs characterized by higher precariousness and poorer conditions (Pirani and Salvini, 2015). This scenario, combined with more traditional gender roles within the family, could suggest the persistence of a male-breadwinner model (Anxo et al., 2011; Menniti et al., 2015), even among young adults belonging to the most recent birth cohorts.

The changing demographic and societal Italian context detailed above makes understanding the impact of both micro-economic vulnerability and macro-economic uncertainty on union formation of paramount importance.

2.4 Hypotheses

In the light of the theoretical framework and particularities of the Italian context, we formulate two sets of hypotheses for the relationship between union formation and micro- and macro-level economic conditions:

HP 1. Individual economic vulnerability due to unfavourable labour market positions reduces the likelihood of union formation, both for men and for women, and both for marriage and cohabitation.

HP 2. We expect that, net of individual labour market positions, macro sources of economic uncertainty do directly matter for union formation, in the same direction as micro-level uncertainty.

Given the specificities of the Italian setting, we expect these effects to differ by sex and union type. Due, in particular, to persistent traditional gender norms, we hypothesize that:

HP 1a. The role of individual economic status is stronger for men than for women.

HP 2a. Women are less susceptible to macro-level economic uncertainty.

Furthermore, in light of differences in the perceived commitment and normative value of marriage versus non-marital cohabitation, combined with the relatively recent diffusion of cohabitation, we hypothesize that:

HP 1b. Individual economic vulnerability reduces the likelihood of marrying to a greater extent than that of cohabiting.

HP 2b. Macro-level uncertainty is especially relevant for marriage.

3. Empirical investigations

3.1 Data and methods

Investigation of the relationship between union formation and individual- and macro-level economic conditions necessitates detailed individual life history information as well as contextual level data. We rely on retrospective data from the 'Families and Social Subjects' survey conducted in Italy by the Italian National Institute of Statistics (ISTAT)

in 2016 on a representative sample of 24,753 people aged 18 and over. This survey represents the most complete, up-to-date and reliable source for Italy, encompassing a broad range of demographic, social and economic characteristics of individuals and their families, including detailed information on individuals' partnership and employment histories (e.g. type of contract of each job).

Our analytical sample comprises men and women aged 25-44 at the time of the survey (born between 1972 and 1991) followed retrospectively from 1995 to 2015. Among the 7,122 individuals in our sample – 3,503 men and 3,619 women – two-thirds had started their first co-residential union before the interview (60% for men and 72% for women). Marriage was slightly more prevalent among women (58% of female unions) than among men (50% of male unions).

To compare marriage versus non-marital cohabitation, we employ a discrete-time event history model in a competing risks approach, which in practice entails the estimation of a multinomial logistic regression model. We thus created a person-years data set in which respondents were followed year after year from the age of 16 (the start of the process)[1] until the event of interest (marriage or cohabitation) occurs. Respondents who had not entered their first union before the interview were censored at the time of the survey. We also estimated separate models for men and women.

3.2 Correlates of union formation

3.2.1 Approximating micro- and macro- economic conditions

Our focus is on economic conditions, both at the micro- and macro-levels. At the individual level, due to data availability constraints, we proxy economic vulnerability using the respondent's employment status, namely: permanently employed (the lowest level of personal economic vulnerability); self-employed (entrepreneurs and freelancers); temporarily employed (including fixed-term contracts and so-called casual workers[2]); and

---

[1] We excluded the ten cases reporting first co-residential union before 16, as either unrealistic or outliers.

[2] Those categorized as temporarily employed are quite heterogeneous, including a large variety of non-permanent workers. The temporal dimension indicates precariousness, though situations clearly differ depending on the contract duration (which can span from several months to 2-3 years). While in Italy temporary work does generally offer the same rights and social protection guarantees of permanent employment, casual work instead does not entail a dependent relationship between worker and employer, while referring to a ready supply of cheap and

not employed[3] (the highest level of personal economic vulnerability). Employment histories, including information on the type of contract of each job, are recorded retrospectively on a monthly basis, allowing us to consider this categorical variable as a time-varying covariate.

Macro-level economic uncertainty is first measured using the annual time series of the unemployment rate (ages 15-24) at the regional level, drawn from ISTAT. Unemployment rates have frequently been used as indicators of economic context in the literature on union and family formation (e.g. Sobotka, Skirbekk, and Philipov, 2011). We also tested other measures that broadly reflect the state of the labour market – e.g. activity rate, occupation rate, unemployment for different age ranges – none of which substantially vary the results. Second, we introduced the annual current consumer confidence index (CCCI, at the Italian level, due to data constraints), again provided by ISTAT. This indicator, shown to capture the effect of economic context on family behaviours better than other measures such as GDP or inflation rate (Sobotka et al., 2011; Vergauwen et al., 2016), is designed[4] to assess the optimism/pessimism of consumers, thus providing a more complete picture of the climate of the country, beyond economic and labour market conditions.

For the sake of comparability and ease of interpretation, in our model specification we introduced the two measures of macro-level economic uncertainty in a standardized version, so that they range between 0 and 1 (min-max normalization). Moreover, both these macro-level indicators were lagged by 1 year.

Figure 1 displays the trend of the two aggregate level variables for the period under consideration, at the country level. The youth unemployment rate (left axis) was around 30% in the mid-90s, followed by a slow, progressive decrease, in connection with the labour market reforms of that period. Specifically, this decline of 6-10 percentage points

---

occasional labor, for instance for a specific and time-limited task or project, not giving right to sickness absence or annual leaves. Moreover, their contracts are generally of shorter duration with respect to temporary ones (for an extended discussion, see Pirani 2017). Based on preliminary analyses that distinguished between the two subcategories but revealed no substantial variations in the results, we decided, for the sake of simplicity, to collapse them into one category.

[3] Due to data limitations, we are not able to distinguish between inactive and unemployed individuals.

[4] The current consumer confidence index (CCCI) is elaborated based on respondent assessments of the Italian general economic situation, household financial situation, family budget, opportunity of savings, opportunities of durable goods purchases.

was largely due to the introduction of more flexible and temporary forms of work contracts, which alleviated youth unemployment. However, beginning in 2007 with the start of the Great Recession, the youth unemployment rate (as well as the total unemployment rate) increased sharply year after year, surpassing 40% in 2013.

The CCCI (right axis) displays a more irregular trend. The index values progressively increase through the late 90s and into the early 2000s (from 95 to 108), followed by a drop, a small recovery, and then a new negative peak (91 in 2008) in the first decade of the new millennium. The most recent years see a rising trend in the current consumer confidence index, reaching up to 105 in 2015.

Interestingly, the two measures present different trends, likely because they capture different facets of the macro-economic context.

Figure 1 – Youth unemployment rate (left axis) and current consumer confidence index (CCCI, right axis). Years 1995-2015.

Source: ISTAT data.

3.2.2 Micro- and macro- confounding variables

As regards control variables at the micro level possibly associated with the union formation process, we accounted for both individual and family characteristics. Among the former, we considered several individual-level characteristics shown in the literature to be relevant factors (Harknett and Kuperberg, 2011; Jalovaara, 2012), all in a time-varying specification. The individual's age, categorized into 5 classes (16-20, 21-24, 25-29, 30-34 and 35 and up) represents the baseline duration, or the time passed since the

age of 16. Educational level distinguishes between lower-secondary, upper-secondary, and higher education, and is accompanied by a dichotomous covariate that defines student enrolment. We also considered whether the respondent has child(ren) and if he/she left the parental home for non-union-related reasons. For family background, we took into account parental socio-economic status and marital status. Indeed, high parental socio-economic status (SES) has been found to delay the timing of the first union, especially in the case marriage (e.g., Wiik, 2009; Mooyaart and Liefbroer, 2016; Brons, Liefbroer, and Ganzeboom, 2017; Mooyaart, 2019). Meanwhile, young adults with separated parents are more likely to enter their first union earlier – especially a cohabiting union – than those with intact families (e.g., Mazzuco and Ongaro, 2009; Perelli-Harris et al., 2017; Härkönen, Brons, Dronkers, 2021). Specifically, we used the mother's level of education (secondary or lower, and tertiary) and her occupational status (employed or not) – both measured when the respondent was 15 years old – to proxy parental socio-economic status, and included a time varying indicator of parental separation.

Table 1 in the Appendix presents the distribution of exposures (person-years) and occurrences of marriage and cohabitation by socio-demographic characteristics and sex. Among other things, we observe that average age at first union is rather high, especially in the case of marriage (though lower for women than for men). Socio-demographic and parental characteristics reflect previous evidence: cohabiting unions are more diffused among highly educated youth (especially women) from families with mothers who are highly educated and who participated in the labour market. As for our individual-level key covariate, cohabitations are somewhat more common than marriages among young men with temporary work; non-working women are overrepresented among those who married (this group includes inactive women – that is, housewives). Finally, non-marital cohabitations become more frequent, especially in recent years, and a North-South gradient is evident.

We used two covariates as controls for the macro-level context: calendar time (1995-1999; 2000-2003; 2004-2007; 2008-2011; 2012-2015) and area of residence (North, Centre and South). Both provide proxies of the cultural, structural, and economic context and, in the complete model specification including all micro- and macro-level variables, should capture the residual (cultural and structural) aggregate effect on the union formation process.

4. Results

In this section, we present the results from the discrete-time competing risks models, comparing the risk of entering first marriage or first cohabitation, separately for men and women. Table 1 shows, for the model specifications described below, the results in terms of relative risk ratios (RRR) and average marginal effects (AME) of the variables, approximating the micro- and macro-economic conditions (complete results of the three model specifications are reported in Tables 2 and 3 in the Appendix). Model 1 includes the micro-level economic condition, controlling for all socio-demographic confounding variables at the individual level. This model allows us to assess the impact of micro-economic vulnerability on the propensity to marry and cohabit, without controlling for the (possible) effects of the macro-level factors. Model 2 adds calendar time and area of residence, two macro-level variables that should account for the changing (cultural, economic, and institutional) climate by time and geographical area. This model specification is intended to verify HP1; namely, if and to what extent first union formation is associated to the individual employment situation, controlling for a possible effect of the context. Finally, Model 3 adds the two key macro-level economic covariates (unemployment rate and CCCI), allowing us to verify the existence of a direct effect of macro-level adverse economic conditions on the transition to marriage and cohabitation, all else equal. In this way, we can verify HP 2.

4.1 Transition into marriage

In model specification 1, we see that, compared to those permanently employed, the unemployed and temporarily employed have a reduced risk of entering into marriage, and the effect is particularly high for those who don't have a job. While this effect is unsurprisingly strong for men, it is also found for women, contrasting with the idea of a male breadwinner society and previous findings for Italy.

These individual-level effects persist in model specification 2, which control for calendar time and area of residence. Accounting for the (cultural, institutional or economic) context, and having temporary compared to permanent employment significantly reduces the likelihood of marriage (RRR equal to 0.667 for men and 0.747 for women; AME equal respectively to -0.010 and -0.011). The negative effect is even more marked for individuals out of the labour market (RRR=0.315 and AME=-0.021 for men; RRR=0.648 and AME=-0.015 for women). These findings suggest that not only men but also women have a reduced

risk of entering into marriage if they experience economic vulnerability. Interestingly, the context, in terms of time period and area of residence, significantly affects the risk of entering into marriage for both men and women. However, this model specification does not allow us to isolate the effects of the different environmental factors, leading to model specification 3. The two macro-economic covariates included in Model 3 show that – net of individual occupational position – economic uncertainty at the contextual level matters, although its effect is only weakly significant for women, with increasing levels of consumers' confidence raising the likelihood of marrying (RRR=1.356, AME=0.010). A more favourable economic climate thus increases the likelihood of first marriage for women but not for men, an unexpected result.

4.2 Transition into cohabitation

In terms of the transition into the first cohabitation, Models 1 show that micro-level vulnerability has a negative impact, regardless of gender. Compared to permanent employment, unemployment and temporary employment decrease the risk of entering into cohabitation.

When controlling for calendar year and area of residence (Models 2), the association between temporary employment and union formation disappears. A negative effect is found only for individuals out of the labour market. Compared to the permanently employed, both men and women without a job show a decreasing propensity to enter into a first cohabitation (RRR=0.426 and AME=-0.016 for men; RRR=0.429 and AME=-0.021 for women). A moderate effect is also found for self-employed women. It would thus seem that an unstable position in the labour market is nevertheless compatible with cohabitation, perhaps due to the lower level of commitment characterizing this type of union and its more easily reversible nature compared to marriage.

In Models 3, we see that, net of individual position in the labour force, when macro-economic conditions deteriorate, individuals are less likely to enter into cohabitation. This is especially true for men, for whom unemployment rate is significantly and negatively associated with first cohabitation (RRR=0.381, AME=-0.022). For women, the effect is weaker and only slightly significant (RRR=0.578, AME=-0.015). These findings suggest that – differently from marriage – macro-level economic uncertainty may reduce the likelihood of starting a first cohabitation, for both men and women.

Table 1. Results from discrete-time competing risks models of the transition into first marriage and first cohabitation: relative risk ratios (RRR) and average marginal effects (AME). Separate models by sex.

	MEN						WOMEN					
	Mod. 1		**Mod. 2**		**Mod. 3**		**Mod. 1**		**Mod. 2**		**Mod. 3**	
MARRIAGE												
	RRR	AME *sig.*	RRR	AME *sig.*	RRR	AME *sig.*	RRR	AME *sig.*	RRR	AME *sig.*	RRR	AME *sig.*
Individual empl. (ref. permanent)												
Self-employment	1.016	0.001	0.950	-0.001	0.949	-0.001	1.023	0.002	0.975	-0.001	0.976	-0.001
Temporary empl.	0.706	-0.008 ***	0.667	-0.010 ***	0.667	-0.010 ***	0.765	-0.009 **	0.747	-0.011 **	0.747	-0.011 **
No work	0.360	-0.018 ***	0.315	-0.021 ***	0.314	-0.021 ***	0.742	-0.009 ***	0.649	-0.015 ***	0.651	-0.015 ***
Unemployment rate (15-24)					1.121	0.004					0.872	-0.004
CCCI					0.938	-0.001					1.356	0.010 *
COHABITATION												
	RRR	AME *sig.*	RRR	AME *sig.*	RRR	AME *sig.*	RRR	AME *sig.*	RRR	AME *sig.*	RRR	AME *sig.*
Individual empl. (ref. permanent)												
Self- employment	0.842	-0.005 *	0.936	-0.002	0.941	-0.002	0.726	-0.011 **	0.771	-0.008 *	0.779	-0.008 *
Temporary empl.	0.813	-0.005 **	0.896	-0.002	0.904	-0.002	0.848	-0.006 *	0.900	-0.003	0.902	-0.003
No work	0.332	-0.021 ***	0.426	-0.016 ***	0.432	-0.015 ***	0.350	-0.027 ***	0.429	-0.021 ***	0.433	-0.021 ***
Unemployment rate (15-24)					0.381	-0.022 **					0.578	-0.015 *
CCCI					0.774	-0.006					1.213	0.005

Note: *** = p < 0.001; ** = p < 0.05; * = p < 0.10

Source: Authors elaborations of FSS Italian data. Models controlled for micro- and macro- confounding variables: age classes, educational level, student status, having had children, having left parental home for non-union-related reasons, parental separation, mother's level of education and occupational status, calendar time, area of residence (see Table 1 in the Appendix for complete models results).

4.3 In summary

Confirming HP1, our findings suggest that individual level economic vulnerability, in particular being out of the labour market, considerably reduces the probability of forming a union. We also document that adverse macro-economic conditions have a direct negative effect on union formation, in addition to uncertainty channelled by individual level employment status, thus confirming HP2. As also expected, these associations vary in complex ways by gender and union type.

Indeed, the differences between men and women (HP1a and HP2a) are not straightforward, and we observe that gender shapes the effects of economic conditions depending on the type of union considered. In the case of the entry into marriage, not being employed is more detrimental for men than for women (in the direction of HP1a), although no differences appear for those temporarily employed. When it comes to cohabiting unions, women are not less influenced by individual economic vulnerability than are men. In fact, self-employment and not working reduce their entry into cohabitation more so than for males. As for macro-level economic conditions, we find no clear evidence that women are less susceptible than men (HP 2a). Indeed, whereas the association between macro-economic conditions and entry into cohabitation is weaker for women than for men, in the case of marriage the result is reversed.

When contrasting marriage and cohabitation, our results support HP1b: having a temporary job reduces the likelihood of marrying, regardless of gender, but does not make a difference in terms of the likelihood of cohabiting. However, a lack of employment for women reduces to a comparatively greater extent the probability of cohabiting than marrying. This result may be explained by the fact that this group also include housewives, who are more prone to marry than to cohabit. Finally, contrary to our expectation in HP2b, macro-level uncertainty is more relevant for entry into cohabitation than into marriage; despite the weak effect for entry into marriage for women, adverse economic conditions reduce the probability of cohabiting weakly for women and strongly for men.

4.4 Control covariates

The outcomes for the individual control variables are, generally, unsurprising and align with the literature (i.e. the estimates derived from the complete model specification [Model 3], see Table 1 in the Appendix).

Compared to those aged 25-29, younger individuals have a lower risk of entering a first union, relative to both marriage and cohabitation (together with women aged 35 and older who have the lowest risk of cohabiting). In addition, student status reduces union formation probability (except for cohabitation among men). As for schooling, people with upper-secondary education levels have a lower risk of

entering a union than those with higher or lower levels of education, with the exception of women with high levels of education, who have a lower risk of cohabiting relative to those with low education levels. As expected, parenthood increases the risk of entering a union (both marriage and cohabitation), regardless of gender.

Several other covariates at the micro-level show differentiated effects across the two types of union. For one, having left the parental home for reasons other than union formation decreases the risk of entering into marriage for women (but not for men) and increases the risk of entering into cohabitation. This is an interesting result, which has not often been considered in the literature. Meanwhile, in terms of family background, women with separated parents are less likely to marry and more likely to enter cohabitation. Men with higher educated parents are less likely to marry, and men and women whose parents have upper-secondary education levels have a higher risk of entering into cohabitation.

Finally, with regard to the control variables at the macro-level, time period and area of residence do play a role, though their effect weakens somewhat after including the macro-level economic variables. Young people living in the South of Italy have a higher risk of entering into marriage and a lower risk of entering into cohabitation than those in the Northern or Central regions. Similarly, the effect of calendar time remains significantly negative for marriage in the more recent years (for both men and women), while that for cohabitation (only for women) shows a clear negative trend before 2000 compared to the subsequent periods. These findings indicate a residual impact of the context (time and place) where individuals live on the union formation process, which depends on (presumably cultural) differences associated to the time periods and geographical areas considered by the study (see Section 2.3).

5. Discussion and conclusion

This study examines if and to what extent the probability of forming a first co-residential union is entirely explained by individual economic vulnerability, or whether an autonomous effect of macro-economic conditions – which may increase individual perceptions of uncertainty – also play a role. In investigating this question, we differentiate by union type (marriage and cohabitation) and gender. We focus on Italy, a particularly interesting setting given the many demographic, socio-economic and cultural changes the country has experienced in the last few decades. Since previous research on this topic in Italy is based on now outdated information, using more recent data allow to better examine the relationship between economic factors and union formation in a changing context.

We find that while both micro- and macro-level economic factors matter in the union formation process, their effects crucially depend on gender and union type. To the best of our knowledge, we

are among the first to investigate the extent to which both micro- and macro-economic circumstances account for these distinctions, and thus show their relevance. This evidence is particularly important for a country like Italy, where gender equality remains far from achieved and differences between marriage and cohabitation persist.

We document that individual economic vulnerability has a greater impact on marriage than on cohabitation, though the same is not proven for macro-level economic conditions. For entry into marriage, individual's employment status is more relevant than macro-economic conditions (contrary to De Lange et al., 2014, who find that individual employment insecurity does not contribute to postponing marriage in the Netherlands), and the latter have a weak effect only for women. In contrast, for entry into cohabitation, macro-economic conditions do also have an impact (both for men and women). One possible explanation is that – at least for a country like Italy – the decision to take the important step to marry is mainly driven by private and personal motivations, thus when the personal economic situation is favourable, this choice (especially for men) is less influenced by the external economic context.

Another novel result relative to previous literature (and contrary to our expectations) is that women are not, in fact, less influenced by micro- and macro-economic vulnerability and uncertainty than men, as one might presume based on the male-breadwinner family model. This finding contrasts with the work of Vergauwen and colleagues (2016) who document that, in France, macro-level conditions are linked to union formation only for men. Also contrary to our evidence, these scholars observe that inactive women are the most likely to form a partnership, suggesting that the male-breadwinner model has not disappeared. We argue that although Italy still presents an evident degree of traditionalism in gender roles and family behaviours, these are changing among the younger generations. The steady increase in (female) education levels and progressive diffusion of more egalitarian gender roles have likely contributed to eroding the importance of the male-breadwinner model. In such a context, the current employment situation and future prospects of the female partner have also started to emerge as key factors in the union formation process.

Several implications of our findings are worth considering. A delayed achievement of economic autonomy may hinder the transition to adulthood for the younger Italian generation. Having (secure) employment is a prerequisite for forming a union for both partners, not just for the man, and the two effects together could imply a further postponement of union formation. Should this step happen relatively late, it may compromise not only union formation but also subsequent, related life course events. The increasing diffusion of cohabiting unions, which we find to be less susceptible to individual economic uncertainty than marriages, should not, however, be considered a strategy to overcome the adverse effect of economic uncertainty. Indeed, more so than marriages, cohabitations

are influenced by macro-level economic conditions. In this context, policies might focus on ways to facilitate the achievement of young adult economic autonomy.

Despite the strengths of the papers, some limitations have to be mentioned. Without specific information on individuals' (time-varying) economic and financial situation or more detailed data on their employment conditions, we necessarily had to approximate economic status using type of contract. Information on income might shed greater light on gender gaps, given the well-known differences between men and women in terms of working conditions and wages. We furthermore take an individual perspective, not having information on partner's economic status. Future research employing more detailed data might investigate these aspects.

Appendix

Table 1. Exposures (person-years) and occurrences of marriage and cohabitation, by socio-demographic characteristics and sex: absolute and percentage values.

	MEN						WOMEN					
	Exposures		marriage		cohabitation		Exposures		marriage		cohabitation	
	abs. val.	%	abs. val	%	abs. val	%	abs. val	%	abs. val	%	abs. val	%
	39,256	*100.0*	995	*100.0*	1,005	*100.0*	32,878	*100.0*	1,343	*100.0*	1,004	*100.0*
Individual's age												
16/20	10,840	*27.6*	22	*2.2*	97	*9.7*	10,652	*32.4*	118	*8.8*	142	*14.1*
21/24	11,185	*28.5*	144	*14.5*	216	*21.5*	9,936	*30.2*	361	*26.9*	272	*27.1*
25/29	10,352	*26.4*	443	*44.5*	414	*41.2*	7,752	*23.6*	604	*45.0*	385	*38.3*
30/34	4,650	*11.8*	304	*30.6*	210	*20.9*	3,028	*9.2*	210	*15.6*	165	*16.4*
35+	2,229	*5.7*	82	*8.2*	68	*6.8*	1,510	*4.6*	50	*3.7*	40	*4.0*
Employment												
permanent	12,888	*32.8*	535	*53.8*	527	*52.4*	8,270	*25.2*	496	*36.9*	464	*46.2*
self	4,471	*11.4*	198	*19.9*	155	*15.4*	1,579	*4.8*	98	*7.3*	71	*7.1*
temporary	5,235	*13.3*	120	*12.1*	165	*16.4*	4,256	*12.9*	170	*12.7*	197	*19.6*
no work	16,523	*42.1*	140	*14.1*	149	*14.8*	18,652	*56.7*	574	*42.7*	270	*26.9*
n.a.	139	*0.4*	2	*0.2*	9	*0.9*	121	*0.4*	5	*0.4*	2	*0.2*
Parental separation												
No	36,010	*91.7*	933	*93.8*	893	*88.9*	29,912	*91.0*	1,269	*94.5*	843	*84.0*
Yes	2,298	*5.9*	35	*3.5*	91	*9.1*	2,006	*6.1*	47	*3.5*	130	*12.9*
n.a.	948	*2.4*	27	*2.7*	21	*2.1*	960	*2.9*	27	*2.0*	31	*3.1*
Mother's education												
Primary	11,953	*30.4*	445	*44.7*	273	*27.2*	9,158	*27.9*	532	*39.6*	235	*23.4*
Secondary	23,919	*60.9*	486	*48.8*	657	*65.4*	20,592	*62.6*	711	*52.9*	667	*66.4*
Tertiary	2,625	*6.7*	33	*3.3*	63	*6.3*	2,568	*7.8*	77	*5.7*	78	*7.8*
n.a.	759	*1.9*	31	*3.1*	12	*1.2*	560	*1.7*	23	*1.7*	24	*2.4*
Mother's employment												
No	21,767	*55.4*	619	*62.2*	484	*48.2*	16,449	*50.0*	766	*57.0*	411	*40.9*
Yes	16,847	*42.9*	357	*35.9*	515	*51.2*	15,937	*48.5*	557	*41.5*	579	*57.7*
n.a.	642	*1.6*	19	*1.9*	6	*0.6*	492	*1.5*	20	*1.5*	14	*1.4*
Individual's education												
Lower-sec.	17,108	*43.6*	485	*48.7*	414	*41.2*	9,655	*29.4*	455	*33.9*	291	*29.0*
Upper-secondary	18,924	*48.2*	392	*39.4*	442	*44.0*	18,703	*56.9*	606	*45.1*	471	*46.9*
Tertiary	3,224	*8.2*	118	*11.9*	149	*14.8*	4,520	*13.7*	282	*21.0*	242	*24.1*
Student status												
No	37,162	*94.7*	982	*98.7*	984	*97.9*	30,855	*93.8*	1,319	*98.2*	978	*97.4*
Yes	1,771	*4.5*	6	*0.6*	18	*1.8*	1,885	*5.7*	11	*0.8*	23	*2.3*
n.a.	323	*0.8*	7	*0.7*	3	*0.3*	138	*0.4*	13	*1.0*	3	*0.3*
Have children												
No	38,626	*98.4*	859	*86.3*	905	*90.0*	31,935	*97.1*	1,186	*88.3*	915	*91.1*
Yes	537	*1.4*	134	*13.5*	100	*10.0*	872	*2.7*	156	*11.6*	87	*8.7*
n.a.	93	*0.2*	2	*0.2*	0	*0.0*	71	*0.2*	1	*0.1*	2	*0.2*
Left home for non-union related reasons												
No	30,339	*77.3*	708	*71.2*	517	*51.4*	25,772	*78.4*	1,140	*84.9*	558	*55.6*
Yes	8,917	*22.7*	287	*28.8*	488	*48.6*	7,106	*21.6*	203	*15.1*	446	*44.4*
Calendar time												
1995-1999	7,469	*19.0*	99	*9.9*	103	*10.2*	6,937	*21.1*	244	*18.2*	123	*12.3*
2000-2003	8,567	*21.8*	223	*22.4*	190	*18.9*	7,521	*22.9*	340	*25.3*	181	*18.0*
2004-2007	9,063	*23.1*	259	*26.0*	242	*24.1*	7,667	*23.3*	299	*22.3*	253	*25.2*
2008-2011	7,940	*20.2*	222	*22.3*	277	*27.6*	6,209	*18.9*	301	*22.4*	266	*26.5*
2012-2015	6,217	*15.8*	192	*19.3*	193	*19.2*	4,544	*13.8*	159	*11.8*	181	*18.0*
Area of residence												
North	15,533	*39.6*	323	*32.5*	622	*61.9*	13,297	*40.4*	449	*33.4*	613	*61.1*
Centre	6,792	*17.3*	153	*15.4*	195	*19.4*	5,397	*16.4*	225	*16.8*	170	*16.9*
South	16,931	*43.1*	519	*52.2*	188	*18.7*	14,184	*43.1*	669	*49.8*	221	*22.0*

Table 2. Results from discrete-time competing risks models of the transition into first marriage and first cohabitation: relative risk ratios (RRR), men

	MARRIAGE						COHABITATION					
	Mod. 1		Mod. 2		Mod. 3		Mod. 1		Mod. 2		Mod. 3	
	RRR	*P>z*	RRR	*P>z*	RRR	*P>z*	RRR	*P>z*	RRR	*P>z*	RRR	*P>z*
Individual's age (ref. 25-29)												
16/20	0.075	*0.000*	0.072	*0.000*	*0.072*	*0.000*	0.397	*0.000*	0.374	*0.000*	*0.367*	*0.000*
21/24	0.353	*0.000*	0.347	*0.000*	*0.347*	*0.000*	0.582	*0.000*	0.577	*0.000*	*0.571*	*0.000*
30/34	1.355	*0.000*	1.479	*0.000*	*1.479*	*0.000*	0.948	*0.551*	0.937	*0.482*	*0.946*	*0.544*
35+	0.701	*0.005*	0.899	*0.442*	*0.898*	*0.436*	0.614	*0.000*	0.620	*0.001*	*0.643*	*0.003*
Employment (ref. Permanent)												
self	1.016	*0.857*	0.950	*0.557*	*0.949*	*0.553*	0.842	*0.069*	0.936	*0.488*	*0.941*	*0.527*
temporary	0.706	*0.001*	0.667	*0.000*	*0.667*	*0.000*	0.813	*0.027*	0.896	*0.243*	*0.904*	*0.284*
no work	0.360	*0.000*	0.315	*0.000*	*0.314*	*0.000*	0.332	*0.000*	0.426	*0.000*	*0.432*	*0.000*
Parental separation (Ref. No)												
Yes	0.731	*0.079*	0.805	*0.229*	*0.802*	*0.222*	1.417	*0.003*	1.288	*0.032*	*1.317*	*0.020*
Mother's education (ref. Primary)												
secondary	0.716	*0.000*	0.761	*0.000*	*0.762*	*0.000*	1.297	*0.001*	1.244	*0.007*	*1.241*	*0.007*
tertiary	0.589	*0.007*	0.645	*0.027*	*0.645*	*0.027*	1.078	*0.631*	1.022	*0.890*	*1.026*	*0.870*
Mother's employment (ref. No)												
Yes	0.972	*0.697*	1.046	*0.538*	*1.048*	*0.519*	1.361	*0.000*	1.252	*0.001*	*1.243*	*0.002*
Individual's education (ref. lower-sec.)												
Upper-secondary	0.797	*0.002*	0.782	*0.001*	*0.780*	*0.001*	0.828	*0.011*	0.857	*0.038*	*0.863*	*0.048*
Tertiary	0.834	*0.115*	0.829	*0.108*	*0.828*	*0.105*	0.896	*0.317*	0.903	*0.355*	*0.902*	*0.349*
Student status (ref. No)												
Yes	0.359	*0.014*	0.384	*0.021*	*0.383*	*0.021*	0.664	*0.095*	0.668	*0.103*	*0.682*	*0.121*
Have children (ref. No)												
Yes	8.051	*0.000*	8.267	*0.000*	*8.246*	*0.000*	6.696	*0.000*	6.749	*0.000*	*6.848*	*0.000*
Left home for non-union related reasons (ref. No)												
Yes	0.950	*0.496*	0.992	*0.912*	*0.991*	*0.907*	2.522	*0.000*	2.438	*0.000*	*2.425*	*0.000*
Calendar time (ref. 2004-2007)												
1995-1999			1.035	*0.792*	*1.047*	*0.772*			0.758	*0.027*	*0.942*	*0.688*
2000-2003			1.181	*0.092*	*1.224*	*0.194*			0.904	*0.319*	*1.072*	*0.653*
2008-2011			0.825	*0.047*	*0.839*	*0.105*			1.141	*0.154*	*1.243*	*0.036*
2012-2015			0.717	*0.002*	*0.696*	*0.004*			0.833	*0.085*	*1.042*	*0.749*
Area of residence (ref. North)												
Centre			1.117	*0.276*	*1.104*	*0.353*			0.735	*0.000*	*0.812*	*0.022*
South			1.706	*0.000*	*1.625*	*0.001*			0.347	*0.000*	*0.516*	*0.000*
Unemployment rate (15-24)					*1.121*	*0.685*					*0.381*	*0.002*
CCCI					*0.938*	*0.739*					*0.774*	*0.169*
Constant	0.072	*0.000*	0.055	*0.000*	*0.055*	*0.000*	0.028	*0.000*	0.042	*0.000*	*0.049*	*0.000*

Table 3. Results from discrete-time competing risks models of the transition into first marriage and first cohabitation: relative risk ratios (RRR), women

	MARRIAGE						COHABITATION					
	Mod. 1		Mod. 2		Mod. 3		Mod. 1		Mod. 2		Mod. 3	
	RRR	P>z	RRR	P>z	RRR	P>z	RRR	P>z	RRR	P>z	RRR	P>z
Individual's age (ref. 25-29)												
16/20	0.153	0.000	0.143	0.000	0.144	0.000	0.468	0.000	0.474	0.000	0.473	0.000
21/24	0.497	0.000	0.476	0.000	0.480	0.000	0.706	0.000	0.715	0.000	0.714	0.000
30/34	0.827	0.027	0.894	0.204	0.897	0.218	0.855	0.113	0.810	0.037	0.810	0.037
35+	0.348	0.000	0.446	0.000	0.447	0.000	0.338	0.000	0.310	0.000	0.314	0.000
Employment (ref. Permanent)												
self	1.023	0.846	0.975	0.825	0.976	0.838	0.726	0.015	0.771	0.050	0.779	0.061
temporary	0.765	0.004	0.747	0.002	0.747	0.002	0.848	0.064	0.900	0.243	0.902	0.254
no work	0.742	0.000	0.649	0.000	0.651	0.000	0.350	0.000	0.429	0.000	0.433	0.000
Parental separation (Ref. No)												
Yes	0.568	0.000	0.595	0.001	0.594	0.001	1.736	0.000	1.652	0.000	1.662	0.000
Mother's education (ref. Primary)												
secondary	0.803	0.001	0.873	0.039	0.872	0.037	1.297	0.002	1.178	0.052	1.177	0.053
tertiary	0.830	0.169	0.876	0.335	0.875	0.328	1.208	0.196	1.115	0.460	1.120	0.440
Mother's employment (ref. No)												
Yes	0.865	0.016	0.913	0.135	0.911	0.126	1.309	0.000	1.221	0.004	1.212	0.006
Individual's education (ref. lower-sec.)												
Upper-secondary	0.732	0.000	0.721	0.000	0.719	0.000	0.708	0.000	0.715	0.000	0.712	0.000
Tertiary	1.024	0.795	1.058	0.539	1.057	0.544	0.822	0.061	0.819	0.056	0.817	0.053
Student status (ref. No)												
Yes	0.214	0.000	0.246	0.000	0.245	0.000	0.483	0.001	0.487	0.001	0.488	0.001
Have children (ref. No)												
Yes	4.635	0.000	4.953	0.000	4.955	0.000	2.654	0.000	2.422	0.000	2.415	0.000
Left home for non-union related reasons (ref. No)												
Yes	0.455	0.000	0.479	0.000	0.478	0.000	2.126	0.000	2.029	0.000	2.015	0.000
Calendar time (ref. 2004-2007)												
1995-1999			1.315	0.004	1.185	0.155			0.697	0.002	0.692	0.009
2000-2003			1.260	0.006	1.045	0.739			0.793	0.022	0.708	0.025
2008-2011			1.117	0.199	1.034	0.728			1.180	0.073	1.139	0.211
2012-2015			0.662	0.000	0.691	0.002			0.930	0.496	1.072	0.587
Area of residence (ref. North)												
Centre			1.272	0.005	1.294	0.004			0.822	0.030	0.875	0.166
South			1.543	0.000	1.631	0.000			0.493	0.000	0.614	0.001
Unemployment rate (15-24)					0.872	0.563					0.578	0.058
CCCI					1.356	0.065					1.213	0.300
Constant	0.150	0.000	0.107	0.000	0.100	0.000	0.045	0.000	0.065	0.000	0.066	0.000

References

Aassve, A., Billari, F. C., & Spéder, Z. (2006). Societal transition, policy changes and family formation: evidence from Hungary. *European Journal of Population*, 22(2), 127-152. https://doi.org/10.1007/s10680-005-7434-2

Aassve, A., Billari, F. C., & Piccarreta, R. (2007). Strings of adulthood: A sequence analysis of young British women's work-family trajectories. *European Journal of Population*, 23(3), 369-388. https://doi.org/10.1007/s10680-007-9134-6

Altintas, E., & Sullivan, O. (2016). Fifty years of change updated: Cross-national gender convergence in housework. *Demographic Research*, 35, 455-470. https://doi.org/10.4054/DemRes.2016.35.16

Anxo, D., Mencarini, L., Pailhé, A., Solaz, A., Tanturri, M. L., & Flood, L. (2011). Gender differences in time use over the life course in France, Italy, Sweden, and the US. *Feminist Economics*, 17(3), 159-195. https://doi.org/10.1080/13545701.2011.582822

Barbieri, P., & Scherer, S. (2009). Labour market flexibilisation and its consequences in Italy. *European Sociological Review*, 25(6), 677–692. https://doi.org/10.1093/esr/jcp009

Becker, G.S. (1991). *A treatise on the family*. Cambridge, Mass.: Harvard University Press.

Bernardi, F., Nazio, T., Blossfeld, H. P., Klijzing, E., Mills, M., & Kurz, K. (2005). Globalization and the transition to adulthood in Italy. In H. P. Blossfeld, E. Klijzing, M. Mills, & K. Kurz (Eds.), *Globalization, uncertainty and youth in society: The losers in a globalizing world* (pp. 359-385). London, UK: Routledge.

Billari, F. C., & Rosina, A. (2004). Italian" latest-late" transition to adulthood: an exploration of its consequences on fertility. *Genus*, 71-87. https://www.jstor.org/stable/29788793

Blossfeld, H. P., & Mills, M. (2005). Globalization, uncertainty and the early life course. A theoretical framework. In H. P. Blossfeld, E. Klijzing, M. Mills, & K. Kurz (Eds.), *Globalization, uncertainty and youth in society: The losers in a globalizing world* (pp. 1–23). London, UK: Routledge.

Brandolini, A., Gambacorta, R., & Rosolia, A. (2018). Inequality amid income stagnation: Italy over the last quarter of a century. Bank of Italy Occasional Paper, (442).

Brons, M. D. A., Liefbroer, A. C., Ganzeboom, H. B. G. (2017). Parental socio-economic status and first union formation: Can European variation be explained by the Second Demographic Transition Theory? *European Sociological Review*, 33(6), 809-822. https://doi.org/10.1093/esr/jcx078

Bolano, D., & Vignoli, D. (2021). Union formation under conditions of uncertainty. *Demographic Research*, 45, 141-186. https://doi.org/10.4054/DemRes.2021.45.5

Bukodi, E. (2012). The relationship between work history and partnership formation in cohorts of British men born in 1958 and 1970. *Population Studies*, 66(2), 123–145. https://doi.org/10.1080/00324728.2012.656853

De Lange, M., Wolbers, M. H. J., Gesthuizen, M., & Ultee, W. C. (2014). The impact of macro- and micro-economic uncertainty on family formation in The Netherlands. *European Journal of Population*, 30(2), 161-185. https://doi.org/10.1007/s10680-013-9306-5

Di Giulio, P., Impicciatore, R., & Sironi M. (2019). The changing pattern of cohabitation: A sequence analysis approach. *Demographic Research*, 40, 1211-1248. https://doi.org/10.4054/DemRes.2019.40.42

Dotti Sani, G. M. (2018). *Time use in domestic settings throughout the life course*. The Italian case. Springer Berlin Heidelberg.

Ekert-Jaffé, O., & Solaz A. (2001). Unemployment, marriage, and cohabitation in France. *The Journal of Socio-Economics*, 30(1), 75-98. https://doi.org/10.1016/S1053-5357(01)00088-9

Elder, G. H. (1994). Time, human agency, and social change: Perspectives on the life course. Social psychology quarterly, 57(1), 4-15. https://doi.org/10.2307/2786971

Eurofound (2013). Women, Men and Working Conditions in Europe. Publications Office of the European Union, Luxembourg.

Fana, M., Guarascio, D., & Cirillo, V. (2015). Labour market reforms in Italy: Evaluating the efects of the Jobs Act, LEM Working Paper Series, No. 2015/31, Scuola Superiore Sant'Anna, Laboratory of Economics and Management (LEM), Pisa.

Friedman, D., Hechter, M., & Kanazawa, S. (1994). A theory of the value of children. *Demography*, 31(3), 375–401. https://doi.org/10.2307/2061749

Guetto, R., Vignoli, D., & Bazzani, G. (2020). Marriage and cohabitation under uncertainty: the role of narratives of the future during the COVID-19 pandemic. *European Societies*, 23, 674-688. https://doi.org/10.1080/14616696.2020.1833359

Harknett, K., & Kuperberg, A. (2011). Education, labor markets and the retreat from marriage. *Social Forces*, 90(1), 41-63. https://doi.org/10.1093/sf/90.1.41

Härkönen, J., Brons, M. D. A., & Dronkers, J. (2021). Family forerunners? Parental separation and partnership formation in 16 countries. *Journal of Marriage and Family*, 83, 119-136. https://doi.org/10.1111/jomf.12682

ISTAT (2019). *I tempi della vita quotidiana – lavoro, conciliazione, parità di genere e benessere soggettivo*. Roma, Italy.

ISTAT (2021). *Livelli di istruzione e partecipazione alla formazione. Anno 2020*. Statistiche Report, Istat.

Jalovaara, M., (2012). Socio-economic resources and first-union formation in Finland, cohorts born 1969-1981. *Population Studies*, 66(1), 69-85. https://doi.org/10.1080/00324728.2011.641720

Kalmijn, M. (2011). The Influence of men's income and employment on marriage and cohabitation: Testing Oppenheimer's theory in Europe. *European Journal of Population*, 27(3), 269–293. https://doi.org/10.1007/s10680-011-9238-x

Kiernan, K. (2002). The state of European unions: an analysis of partnership formation and dissolution. In M. Macura, & G. Beets (Eds.), *Dynamics of fertility and partnership in Europe. Insights and lessons from comparative research* (Vol. 1, pp. 57–76). Geneva: United Nations.

Kim, K. (2017). The changing role of employment status in marriage formation among young Korean adults. *Demographic Research*, 36, 145-172. https://doi.org/10.4054/DemRes.2017.36.5

Kohler, H. P., Billari, F. C., & Ortega, J. A. (2002). The emergence of lowest-low fertility in Europe during the 1990s. *Population and development review*, 28(4), 641-680. https://doi.org/10.1111/j.1728-4457.2002.00641.x

Kreyenfeld, M., Andersson, G., & Pailhè, A. (2012). Economic uncertainty and family dynamics in Europe. *Demographic Research*, 27, 835–852. https://doi.org/10.4054/DemRes.2012.27.28

Lin, C. Y., Edvinsson, L., Chen, J., Beding T. (2013). *National intellectual capital and the financial crisis in Greece, Italy, Portugal, and Spain*. Springer Briefs in Economics, Springer, Heidelberg.

Mazzuco, S., & Ongaro, F. (2009). Parental separation and family formation in early adulthood: Evidence from Italy. *Advances in Life Course Research*, 14(3), 119-130. https://doi.org/10.1016/j.alcr.2009.06.002

Menniti, A., Demurtas, P., Arima, S., & De Rose, A. (2015). Housework and childcare in Italy: a persistent case of gender inequality. *Genus*, 71(1), 79-108. https://www.jstor.org/stable/genus.71.1.79

Mills, M., & Blossfeld, P. (2003). Globalization, uncertainty and changes in early life courses. *Economics-Zeitschrift für Erziehungswissenschaft*, 6, 188-218. https://doi.org/10.1007/S11618-003-0023-4

Mills, M., & Blossfeld, H.P. (2013). The second demographic transition meets globalisation: a comprehensive theory to understand changes in family formation in an era of rising uncertainty. In A. Evans, & J. Baxter, (Eds.). *Negotiating the life course. Stability and change in life pathways* (9-33) New York: Springer.

Mooyaart, J. E., & Liefbroer, A. C. (2016). The influence of parental education on timing and type of union formation: changes over the life course and over time in the Netherlands. *Demography*, 53, 885-919. https://doi.org/10.1007/s13524-016-0473-y

Mooyaart, J. E. (2019). *Linkages between family background, family formation and disadvantage in young adulthood*. Rijksuniversiteit Groningen

Neels, K., Theunynck, Z., & Wood, J. (2013). Economic recession and first births in Europe: Recession-induced postponement and recuperation of fertility in 14 European countries between 1970 and 2005. *International Journal of Public Health*, 58(1), 43-55. https://doi.org/10.1007/s00038-012-0390-9

Neilson, J., & Stanfors, M. (2014). It's about time! Gender, parenthood, and household divisions of labor under different welfare regimes. *Journal of Family Issues*, 35(8), 1066-1088. https://doi.org/10.1177/0192513X14522240

OECD (2012). *OECD Employment Outlook 2012*, Report OECD.

OECD (2016). Temporary employment (indicator) [electronic resource]. Paris: OECD. https://data.oecd.org/emp/temporary-employment.htm#indicator-chart.

Ongaro, F. (2001). Leaving home in Italy. In M. Corijn, & E. Klijzing, (Eds.) *Transition to adulthood in Europe* (pp. 173-208). Dordrecht: Kluwer Academic Publishers.

Oppenheimer, V. K. (1988). A theory of marriage timing. *American Journal of Sociology*, 94, 563–591. http://www.jstor.org/stable/2780254.

Oppenheimer, V.K. (2003). Cohabiting and marriage during young men's career-development process. *Demography*, 40(1), 127–149. https://doi.org/10.2307/3180815

Perelli-Harris, B., Berrington, A., Sánchez Gassen, N., Galezewska, P., & Holland, J. A. (2017). The rise in divorce and cohabitation: Is there a link? *Population and Development Review*, 43(2), 303–329. https://doi.org/10.1111/padr.12063

Pirani, E., & Salvini, S. (2015). Is temporary employment damaging to health? A longitudinal study on Italian workers. *Social Science & Medicine*, 124, 121-131. https://doi.org/10.1016/j.socscimed.2014.11.033

Pirani, E., & Vignoli, D. (2016). Changes in the satisfaction of cohabitors relative to spouses over time. *Journal of Marriage and Family*, 78, 598-609. https://doi.org/10.1111/jomf.12287

Pirani, E. (2017). On the relationship between atypical work (s) and mental health: New insights from the Italian case. *Social Indicators Research*, 130(1), 233-252. https://doi.org/10.1007/s11205-015-1173-5

Pirani E., and Vignoli, D. (2022). Childbearing Across Partnerships in Italy: Prevalence, Demographic Correlates, Social Gradient. Population Studies, pp. 1-25, DOI: 10.1080/00324728.2022.2149845

Pirani, E., Guetto, R., Rinesi, F. (2021). Le famiglie. In F. C. Billari, & C. Tomassini (Eds.) *Rapporto sulla popolazione. L'Italia e le sfide della demografia* (pp. 55-82). Il Mulino: Bologna.

Raz-Yurovich, L. (2010). Men's and women's economic activity and first marriage: Jews in Israel, 1987-1995. *Demographic Research*, 22, 933-964. https://doi.org/10.4054/DemRes.2010.22.29

Sassler, S., & Lichter, D. T. (2020). Cohabitation and marriage: complexity and diversity in union-formation patterns. *Journal of Marriage and Family*, 82, 35–61. https://doi.org/10.1111/jomf.12617

Schneider, D., Harknett, K., & Stimpson M. (2019). Job quality and educational gradient in entry into marriage and cohabitation. *Demography*, 56 (2), 451-476. https://doi.org/10.1007/s13524-018-0749-5

Schneider, D., & Reich, A. (2014). Marrying ain't hard when you got a union card? Labor union membership and first marriage. *Social Problems*, 61, 625–643. https://doi.org/10.1525/sp.2014.12316

Sobotka, T., Skirbekk, V., & Philipov, D. (2011). Economic recession and fertility in the developed world. *Population and Development Review*, 37(2), 267-306. https://doi.org/10.1111/j.1728-4457.2011.00411.x.

Thomson, E., & Bernhardt, E. (2010). Education, values, and cohabitation in Sweden. *Marriage & Family Review*, 46(1), 1-21. https://doi.org/10.1080/01494921003648431

Tompson, W. (2009). Italy: the Treu (1997) and biagi (2003) reforms, in the political economy of reform lessons from pensions, product markets and labour markets in ten OECD countries. OECD General Econ. Future Stud. 7, 227-248.

Vergauwen, J., Neels, K., & Wood, J. (2016). Educational differentials in the impact of micro- and macro-level economic conditions on union formation in France (1993-2008). *Population*, 71 (4), 593-618. https://doi.org/10.3917/pope.1604.0593

Vignoli, D., Tocchioni, V., & Salvini, S. (2016). Uncertain lives: Insights into the role of job precariousness in union formation in Italy. *Demographic Research*, 35, 253-282. https://doi.org/10.4054/DemRes.2016.35.10

Wiik, K. A. (2009). You'd better wait. Socio-economic background and timing of first marriage versus first cohabitation. *European Sociological Review*, 25, 139–153. https://doi.org/10.1093/esr/jcn045

World Economic Forum (2022). Global Gender Gap Report. Available at https://www.weforum.org/reports/global-gender-gap-report-2022/

Xie, Y., Raymo, J. M., Goyette, K., & Thornton, A. (2003). Economic potential and entry into marriage and cohabitation. *Demography*, 40(2), 351-367. https://doi.org/10.2307/3180805