

Does temporary employment affect fertility? New evidence from the Italian labour market reforms

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Long Abstract

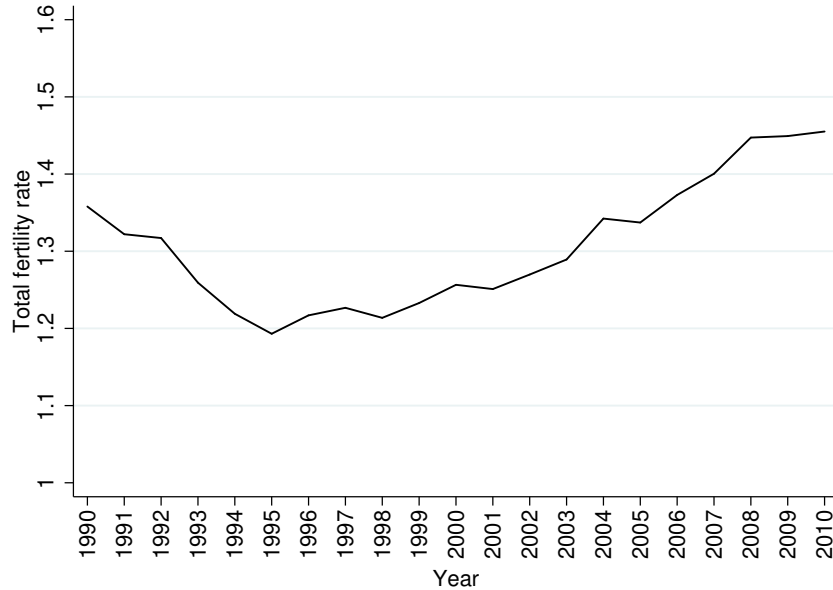
Employment is considered a career choice that is linked with a significant accumulation of human capital. Changes in employment or shifts towards unemployment involve losses of the accumulated human capital, such as the perceived riskiness of the employment represents a good proxy for the riskiness of lifetime income. The employment trends over the last decades of most European countries, which introduced more flexible labour market contracts, have raised concerns over the risk for workers to be trapped in temporary employment contracts, with lower wages, inferior bargaining power and less social protection (i.e., economic insecurity), and may also be responsible for unintended negative demographic consequences like fertility decisions.

Italy is an interesting case-study because, starting from the late 1990s, the labour market reforms increased gradually the flexibility of the labour market in the first decade of the 21st century by introducing new atypical contracts and by relaxing the restrictions on their use. This created a sharp contrast with workers who had permanent (open-end) contracts who were totally exempted from any kind of contract changes (Cappellari et al., 2012). The effective application of the labour market reform starting, from the year 2005, exposed women to a higher risk of losing their jobs and, in turn, affected fertility decision, although the magnitude of this effect was influenced by many confounding factors like completing education or buying a house, which are known to postpone and decrease fertility rate (Adsera, 2011). For some idea of the fertility rate surrounding the time of the application of the Italian labour market flexibility reform, we show the path 1995-2010 in Figure 1. We note that fertility rate growth significantly from the lowest fertility rate in the year 1995 (1.2 children on average per women, the lowest in Europe) to 1.45 children per women in 2010, although we also find evidence of a clear deviation from the path in the years 2005.

The effects of the labour market flexibility on employment and other labor market outcomes are discussed in Section 2. The findings of the previous literature showed that the increase of temporary contracts were also effective in reducing fertility decisions, with evident economic and fiscal costs for society. In this paper, we follow this line of research and focus on estimating the causal relationship of temporary job on the probability to have a child (or

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Figure 1: Total fertility rate



the first child) by exploiting the reforms concerning fixed-term contracts in 2001 and apprenticeship in 2003 (hereafter, temporary contract reforms). The law concerning the fixed-term contract allowed firms to hire workers for technical and productive reasons and in order to replace absent workers, although eliminated mandatory limits to their renewal. Apprenticeship contracts were also reshaped by the so-called Biagi reform, increasing in particular the limiting age threshold and contract duration. The application of these labour market reforms have significantly increased the number of temporary contracts in Italy. Consequently, permanent contracts were negatively affected by the flexibility of the labour market, while a slight positive impact on unemployment rate was recorded (d’Agostino et al., 2018).

Section 3 presents the empirical strategy adopted in our analysis. Under the assumption that the Italian labour market reform of flexibility at margin changes the individual preferences and opportunities of employment, our strategy exploits the exogenous source of variation in the apprenticeship and fixed-term contracts to estimate the reaction in terms of fertility, unobserved confounders being netted out. For model identification, we take advantage of the fact that the apprenticeship reform resulting from the new legislation was gradually implemented, because specific regulations were issued by each Italian region. Given the slowness of implementation, starting from the 2005, in the absence of regional regulations, collective agreements at the sectoral level could specify the training content of the contracts. Similarly, the adoption of the new fixed-term contracts was conditional upon gradual renewal of collective agreements. The descriptive subsection motivates our paper empirically. In particular, we use the AD-SILC database which merges the dataset “IT-SILC (2005)” provided by the Italian Institute of Statistics (IIS) with the administrative archives of the Italian Institute of Social Security (IISS), a representative sample of work histories of about 56,000 workers for Italy, to show the effect of the reform introduced in the labour market reform on fertility outcomes (i.e. the key variables of our model).

In Section 4, we estimate the empirical predictions of our model on the probability to have a child and the first child using a propensity score matching estimator preliminary to a difference-in-difference (DiD) approach, to eliminate the bias due to the differences in observable characteristics between women (or households) in the new regimes of labour market contracts and women in the control groups. We also adopt the same empirical framework for evaluating the specific reforms of apprenticeship and fixed-term contracts on fertility outcomes. Note that while estimates carried out on the specific sample include the same set of covariates, the treated group obtained from the apprenticeship sample includes younger women. Thus, the age increase of the reform along with other complementary norms, may suggest that women postpone or avoid childbearing more frequently.

We first show that the new labour market regime explains the reduction on the probability to have a child by about 1.4 percentage points, a point estimate lower than the effect to have the first child (-0.038 , $s.e.=0.013$). The estimated parameters were enough different using the fixed-term sample, while they appear similar for apprenticeship, with a point estimate that reduces by around 3-4 percentage points the probability to have the first child. These findings are confirmed even when we estimate the fertility decisions using the temporary contracts extended to the couple, in which employed women and men affected by the labour market reforms (Vuri et al. 2013). Irrespective whether using fixed term and apprenticeship contracts, the probability to deliver a new born was found to decline by about 5.5 percentage points and, if it concerns the first child, the reduction is by about 4 percentage points. Our empirical results also indicate that fixed term contract accounts for large decrease in obtaining a child, while the apprenticeship contracts involving the couple is responsible for the decrease of more than 7 percentage points, stating that economic uncertainty suggests a postponement delivering the first child.

Comparing our results by the labour market position of the partner of women, we also examine the hypothesis that women being involved in temporary contracts lead to a heterogeneous impact on childbearing. We estimate that when the partner is unemployed, the childbearing reduction is larger than the benchmark specification. This result is emphasized when the partner has a temporary job. The magnitude of the point estimate is large and similar to that in which also the partner was affected by the apprenticeship labour market reform. This result may be consistent with the associated fall in opportunity costs of the partner in which a temporary unemployment spells a good time for childbearing. On the other hand, a temporary job does not reduce the risk of future unemployment, a drop in human capital accumulation and lower future wages, and this effect is particularly severe when the exit happens early in career. Finally, estimates carried out by partner with a permanent job suggest that women were not affected by the reforms extending the use of temporary contracts. Thus, the positive income effect of the partner offset the negative impact of the opportunity cost for childbearing.

Section 5 concludes.

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