

## THE RISK OF JOB LOSS, HOUSEHOLD FORMATION AND HOUSING DEMAND: EVIDENCE FROM DIFFERENCES IN SEVERANCE PAYMENTS

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*We examine the link between exogenous changes in the risk of job loss and the timing of different forms of the demand for housing. We exploit large differences in firing costs across contract types in the Spanish labour market due to regional incentives to firms for the promotion of open-ended contracts. Using data from the 2002-2014 waves of the Spanish Survey of Household Finances, we document that an increase of 1% in the stock of permanent contracts increases the probability of household formation by a similar magnitude (especially through rental).*

### The demand for housing and the risk of job loss

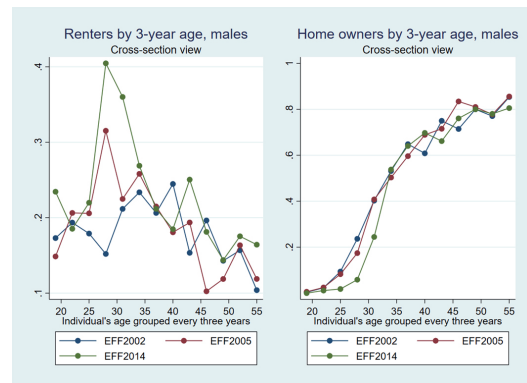
Housing decisions are important for various reasons. Housing is a prominent component of household portfolios, and its size and the way it is financed determine the propagation of macroeconomic shocks (see Cloyne et al, 2018). Secondly, housing prices comove with first-time buyers' decisions, which are in turn very sensitive to changes in income and credit conditions (Ortalo-Magné and Rady, 2006). Finally, the housing decisions of youths in a number of advanced countries have experienced changes during the last decade, with a delay in household formation among recent cohorts, see Dettling and Hsu (2018) for the US and Kaplan (2012), and Blundell et al (2017) for the UK. This study analyzes if changes in job security affect the demand for housing in Spain, taking into account that in this country, like in many others, youths stay with their parents well into their twenties and thirties.

Figure 1 shows the share of males who are renters or homeowners in Spain as a fraction of all male individuals (including those who are living with another person and who neither own nor rent). Three features arise. First, the home ownership profile is rather steep, reaching 80% by the age of 45. Second, a substantial fraction of young population is still living with their parents at age 35 (around 20%) –and it is 70% at age 25. Third, across years, the share of young homeowners (below 35) has been declining since 2002.

We study how the risk of job loss alters individuals' lifetime decisions, such as forming a new household and the way of consuming housing services, either by rental or home ownership. Exposure to job loss likely

EVOLUTION OF LIVING ARRANGEMENTS OF INDIVIDUALS AGED 20-55 IN SPAIN IN PERIOD 2002-2014

FIGURE 1



SOURCE: Spanish Survey of Household Finances, EFF2002-EFF2014. The left panel contains the fraction of males renting their own accommodation over the total number of male individuals at that age. The right panel displays the corresponding fraction of homeowners.

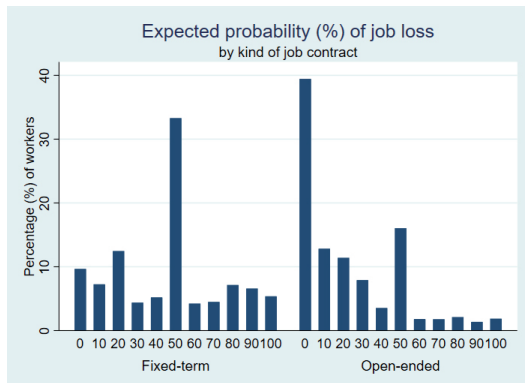
affects housing demand, as risk averse individuals may postpone the purchase of big-ticket items, like a house, or refuse to commit to a set of fixed expenses –renting.

We identify the risk of job loss using large differences in employment protection across contract types. In Spain, there are mainly two types of job contracts: open-ended contracts and fixed-term contracts. Open-ended contracts are costly to terminate (in our sample period, the wage of 33 to 45 days per year worked). On the contrary, fixed-term contracts entail very small severance payments (8 days per year worked), and possibly zero if the firms wait for the expiration date of the job contract. Therefore, these types of job contracts entail very strong differences in the workers' perceived probability of job loss. Figure 2, drawn from the 2011 wave of the Spanish Survey of Household Finances (EFF), shows that more than 50% of workers holding an open-ended contract assign a probability of job loss over the next 12 months lower than 10%. Meanwhile, 50% of temporary workers expect a probability of 50% of job loss over the following 12 months.

Of course, employees with an open-ended and fixed-term contract vary in many important dimensions, other than exposure to job loss –something we discuss below. Our paper estimates the causal impact of exogenous changes in employment protection on housing decisions.

**SUBJECTIVE PROBABILITY OF JOB LOSS OVER THE NEXT 12 MONTHS BY KIND OF JOB CONTRACT**

FIGURE 2



SOURCE: The 2011 wave of the Survey of Household Finances (EFF). Sample formed by employees that are asked for to put on a scale from 0 to 100 the chances of losing the job, where 0 is not possible at all and 100 most certain.

**Empirical strategy for identifying the risk of job loss**

To obtain exogenous variation in the degree of employment protection, we use regional differences in employers' incentives to convert fixed-term contracts into open-ended ones. Between 1997 and 2009, several Spanish regions introduced subsidies to firms in order to encourage the conversion of fixed-term contracts. The amount of the subsidy varied with the worker's age and gender, being usually higher for women, young and old workers (under the age of 35 or over 45). Furthermore, the introduction of subsidies was staggered, so the amount differed across regions and within a region over time. The estimates suggest that the mean subsidy (around 4,000€) amounted to 16% of the firms' yearly labour cost, once one takes into account the increase of severance payments in case of dismissal after the conversion of the job contract. Around 23% of all contract conversions were subsidized in the regions implementing the subsidies, which represents around 5%-7% of all hires in Spain.

The data used in the study come from the 2002-2014 waves of the Spanish Survey of Household Finances (EFF). This is a household wealth survey conducted by the Banco de España. We focus on individuals aged between 25 and 64 to study their housing demand.

**Does the risk of job loss affect household formation and housing tenure?**

We answer two questions:

1. Do workers in regions with more generous subsidies to contract conversion have a higher

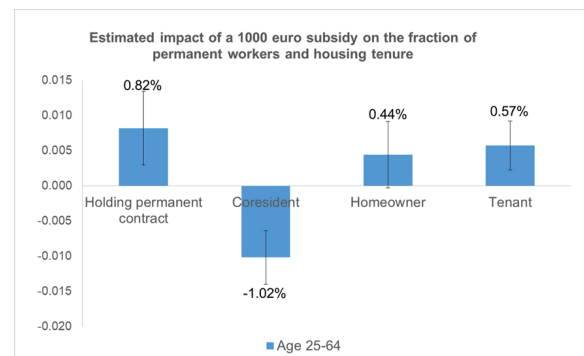
probability of holding a permanent contract three years after having been hired?

2. Do workers in regions with more generous subsidies to contract conversion differ in their decision to own or rent their dwelling (taking into account that living with other relatives is a very common outcome in Spain)?

We answer both questions by estimating models using instrumental variables (IV) and comparing workers who share similar characteristics, but who differ in the amount of subsidies (our exogenous measure of risk of job loss) their firms were eligible to benefit from for the conversion of fixed-term contracts into open-ended ones.

**ESTIMATES OF THE IMPACT OF REGIONAL SUBSIDIES FOR THE CONVERSION OF FIXED-TERM CONTRACTS INTO OPEN-ENDED ONE ON THE PROBABILITY OF HOLDING A PERMANENT CONTRACT AND HOUSING DECISIONS**

FIGURE 3



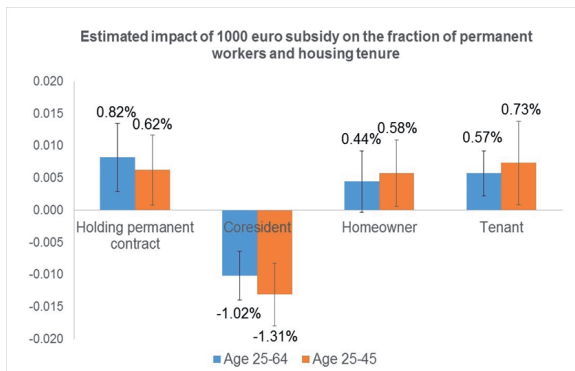
SOURCE: Own estimates using data from the 2002-2011 waves of the Spanish Survey of Household Finances.

Figure 3 shows that subsidies explain both the stock of workers with an open-ended contract three years after the beginning of the job spell as well as the decision of household formation and housing tenure. A subsidy of 1,000€ increased the fraction of workers holding an open-ended contract in 0.8% and diminished the probability of living with parents (coresidence) after that period by 1%. The increase of 1% in the probability of individuals living emancipated from their parents is due to a rise of 0.6% and 0.4%, respectively, in the probabilities of renting their own accommodation and owning their main residence.

Figure 4 displays the estimated impact of job security (holding an open-ended contract) on the decisions of household formation (coresidence) and housing tenure, by taking into account the confounding factors also affecting housing decisions due to reasons not related with the risk of job loss (IV estimates in orange-colour bars) or by ignoring them (OLS, blue-colour

**ESTIMATES OF THE IMPACT OF EMPLOYMENT PROTECTION ON HOUSEHOLD FORMATION AND DECISIONS OF LIVING ARRANGEMENTS**

FIGURE 4

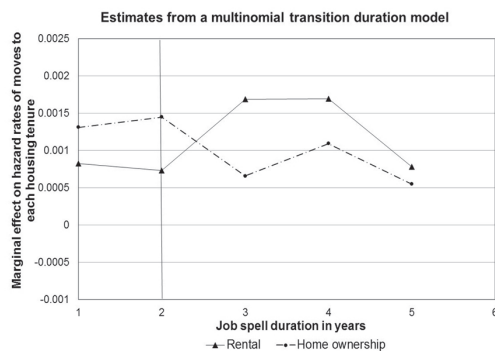


SOURCE: Own estimates using data from the 2002-2011 waves of the Spanish Survey of Household Finances.

bars). The naïve OLS estimates that compare housing decisions of employees with open-ended contracts to those with fixed-term ones, ignoring confounding factors, indicate that increased exposure to job loss mildly increase the propensity to own a house, while it diminishes the probability of renting. Several factors may account for the difference, like thriving local labor markets (in tighter labor markets it is easier to find an open-ended contract and accumulate funds for a downpayment) or differences in previous labor market histories (workers with fixed term contracts are more likely to have experienced past unemployment spells and thus are less likely to have saved for a downpayment). However, once we take into account the presence of confounding factors (IV estimates), we find that decreases in the risk of job loss by holding an open-ended contract increase the probability of living emancipated from parents, not only by owning their accommodation, but also by renting it.

**DYNAMIC RESPONSE OF HOME OWNERSHIP AND RENTAL TO AN EXOGENOUS INCREASE IN JOB SECURITY ALONG THE YEARS OF INDIVIDUALS' JOB TENURE**

FIGURE 5



SOURCE: Own estimates using data from the 2002-2011 waves of the Spanish Survey of Household Finances.

Figure 5 studies the dynamic response of housing tenure along the employees' job spell. The decision of renting seems to lag between one or two years the date in which most conversions of job contracts happen (conversions mostly occur in the first two years of job tenure). Meanwhile, home ownership seems to display a flat pattern along the job spell.

What model can explain why a fall in the risk of job loss increases more the probability of renting than the one of owning? A first finding documented in the paper is that individuals whose housing decisions respond to subsidies by leaving their parental home have accumulated few savings for a downpayment. Moreover, we do not find that obtaining an open-ended contract lifts borrowing constraints, even by taking into account the housing tenure chosen by emancipated individuals (rental or home ownership). Thus, we discard that the observed delay in renting is associated with rejected mortgage applications. However, one potential factor explaining the response of renting is the wish to get married or cohabit with a partner. One explanation of those results is that youths react to a higher risk of job loss by postponing housing consumption (renting), as predicted by a model with precautionary savings.

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