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The parental home as labour market insurance for young Greeks during the crisis

Rebekka Christopoulou, Maria Pantalidou

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The parental home as labour market insurance for young Greeks during the crisis*

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ABSTRACT

Labour market conditions in Greece have severely deteriorated during the crisis, affecting youths the most. Using the Greek crisis as a case-study, this paper examines the role of the family as a social safety net for its young members. Specifically, we test the relationship between youth labour outcomes and parental coresidence, whether this relationship has become stronger during the crisis, and the degree to which the relationship is causal. Our results confirm that the parental home is a refuge both for jobless youth and for those in poorly paid, insecure jobs, and this role has intensified during the crisis. We find no reverse causality between co-residence and employment status for young men, and significant reverse causality for women. This finding implies that all youths live in the parental home when they are in need themselves, but it is young women not men who live with parents when parents are in need or for cultural reasons.

Keywords:
Living arrangements, parental coresidence, youth employment, great recession, Greece

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1. Introduction

The Great Recession has drawn much attention on the safety nets available to vulnerable population groups, especially young people. Considerable concern has emerged about whether struggling youths could turn to their families for housing but also on whether this would delay their transition to adulthood. Naturally, the concern has focused on countries affected most strongly by the crisis but large and diverge changes in coresidence rates were also observed elsewhere. Among the OECD countries, for example, the share of 15-29 year-olds living with their parents increased the most in France by an impressive 12.5 percentage points, while other countries like Slovenia and the UK recorded a decline (OECD, 2016). These mixed experiences stem from the complex and often counteracting determinants of youth living arrangements, which include various economic factors but also non-economic factors like culture. Our paper exploits the unique experience of Greece to quantify the relative contribution of these factors with a particular focus on labour market decline.

But why is the case of Greece particularly interesting? The Greek crisis brought a deterioration in labour market conditions unprecedented in the advanced world during peacetime, even surpassing the corresponding deterioration in the US during the Great Depression in both depth and duration. As expected, the crisis hit young people the hardest. As a share of total labour force participation, unemployment in Greece exceeded 27% in 2013, but for the young population in particular (ages 15-24) the rate reached 60%. While both rates have fallen since, the fall has been inconsequential (current rates are at 20.5% and 40%, respectively). This staggering differential across age-groups developed despite an impressive acceleration in youth emigration, and even those young Greeks who managed to remain and work in the country did not escape the ordeal. Young workers were already in precarious or low-paid jobs before the crisis but became increasingly so, especially after a wave of labour market reforms that took place in 2012, including a 32% cut in the youth sub-minimum wage (as compared to the 22% cut for those older than 25) and a radical decentralisation of wage bargaining. At the same time, public safety nets have been scarce. On the one hand, unemployment insurance, which is only available to those with some work experience, has been tightened further, fully offsetting the marginal improvements in unemployment assistance and other benefits; on the other hand, charities and NGOs help mostly those in extreme poverty (see Matsaganis, 2015, for a compact review of the evidence). Thus, the fall back mechanisms available to vulnerable youth are offered mostly by the Greek family which, as elsewhere in Southern Europe, has traditionally protected its young members even beyond adulthood (Iacovou 2002 provides cross-country evidence on living arrangements; Saraceno 1994 and 2016, Calzata and Brooks 2013, and others debate over the nature and limits of South European 'familism').

This combination of extreme and prolonged recession in a country with a tradition of strong family ties provides a testing ground for how economic forces and culture interact to render the family a private safety net for its young members. Here, we exploit this testing ground to investigate (i) whether familial co-residence in Greece shows a response to youth employment outcomes; (ii) whether this response has changed over the crisis; and (iii) to what extent this

response causally derives from an increased dependence of young adults on their parents induced by the crisis, as opposed to factors unrelated with the crisis or an increased dependence of parents on youth, given that parents have also faced economic hardship.

Our exercise lies on the foundations of the household formation theory by McElroy and Horney (1981) and subsequent extensions (McElroy 1985, Rozenweig and Wolpin 1993, Ermisch and DiSalvo 1997, Ermisch 1999, Giannelli and Monfardini 2003, Kaplan 2012), which treat living arrangements as the result of bargaining between parents and children. Typically, in these models, the utility function of young adults, who may choose consumption, market work, human capital investments and independence, enters the utility function of parents and influences their optimal choice. The underlying assumption is either that parents have altruistic motives, i.e. they decide whether to coreside or not based on what they perceive to be best for their children, or because they have selfish motives, i.e. they aim to receive something in exchange (e.g. companionship, care at old-age etc.). In either case, the models describe the joint determination of economic outcomes and living arrangements, and derive conditions under which young people will opt to leave the parental home or move back to the parental home after a period of living autonomously. Our paper adds to the empirical literature that tests these theoretical predictions.

Empirical studies centered in urban and real estate economics, economic demography, or labour economics have focused on different determinants of living arrangements, but they are closely interconnected and mostly confirm or complement each other. All else equal, these studies have shown that living arrangements respond to cultural norms (Giuliano 2007) and a number of economic factors, including house and rental prices (Börsch-Supan 1986, Haurin et al. 1993, Ermisch and DiSalvo 1997, Ermisch 1999); labour outcomes and income of parents and adult children (Becker et al. 2005, Manacorda and Moretti 2006, Chiuri and Del Boca 2010, Engelhardt et al. 2016); and broader market conditions and economic recessions (Card and Lemiux 2000, Lee and Painter 2013, Bitler and Hoynes 2015, Matsudaira 2016, Wiemers 2017). It is noteworthy however that there is yet no consensus on whether the economic effect is meaningfully large (compare, for example, the recent evidence from US data by Bitler and Hoynes (2015) and Matsudaira (2016)) or in the expected direction (see Ahn and Sanchez-Marcos (2017) for evidence of procyclical coresidence in Spain).

While most studies identify the reduced-form impact of the determinants of interest, a few have adopted a more structural approach allowing work outcomes, living arrangements, and investments in human capital to be jointly determined (McElroy 1985, Martínez-Granado & Ruiz-Castillo 2002, Gianelli and Monfardini 2003). Structural models sustain close links to theory and have the potential for elucidating the full range of factors behind the reduced-form results. However, structural estimation requires finding and exploiting manifestly exogenous changes in a range of independent variables, a task which can be nearly impossible. Thus, structural studies often settle for partly exogenous instruments, strict exclusion restrictions, and other unrealistic methodological assumptions. Here we take the middle route.

Specifically, we conduct our analysis in two stages. In the first stage, we use pool cross-sections of the Greek Labour Force Survey to estimate the `naive' effect of youth employment outcomes on the probability of living with one's parents, and whether this effect changes after the beginning of the crisis. In the second stage, we address the joint determination of children's decisions to work and coreside with parents. To achieve this, we instrument the employment status of adult children with the growth rate of real GDP at the regional level and an indicator of health insurance ownership at the individual level. In combination with controls for state and year fixed-effects and for various outcomes and characteristics of the parents' generation, these instruments clean out the influence of non-economic forces and of any parental economic hardship from our coefficient of interest.

In addition to a clean identification strategy, our paper contributes new pertinent evidence. First, we confirm that Greek households provided a social safety net to its young members before the crisis and this role has become significantly more important during the crisis. Our most conservative estimates suggest that having a job lowers the probability of living with one's parents by 9.5-12.5 percentage points. This is a sizable effect considering that it reflects only those economic influences on coresidence that work through the labour market and is net of influences through other economic channels; e.g., through educational participation or marriage rates that also fluctuate with economic activity. What is more impressive is that our estimate doubles if one isolates the post-crisis period. While evidence of counter-cyclical changes in coresidence is abundant, such an increase in cyclicality during a crisis is a unique finding and particularly noteworthy given that coresidence in Greece has been historically so high that there has been little scope for further increase.

Another important result is that the Greek family home provides refuge not only for youth with no jobs but also for those with precarious jobs. We find that job quality is as important in determining youth living arrangements as is employment status, with job insecurity playing a leading role. Finally, our findings reveal a gendered pattern in the causal determinants of living arrangements. For young men, we find no reverse causality between coresidence and employment outcomes, which implies that while youth labour market conditions influence young men's living arrangements, parents' finances or culture do not. In contrast, we find significant reverse causality for women, suggesting that parents' finances and culture may play a role. We further explore this result to find that, compared to their male counterparts, young women with older mothers and divorced or widowed fathers are more likely to live with them even though they can afford to live independently. This result is consistent with the cultural stereotype that daughters are expected to be the carers of parents at old age or in need.

The paper proceeds as follows: section 2 gives details on the data and presents descriptive statistics; section 3 explains the econometric approach; section 4 reports the results; and section 5 provides concluding remarks.

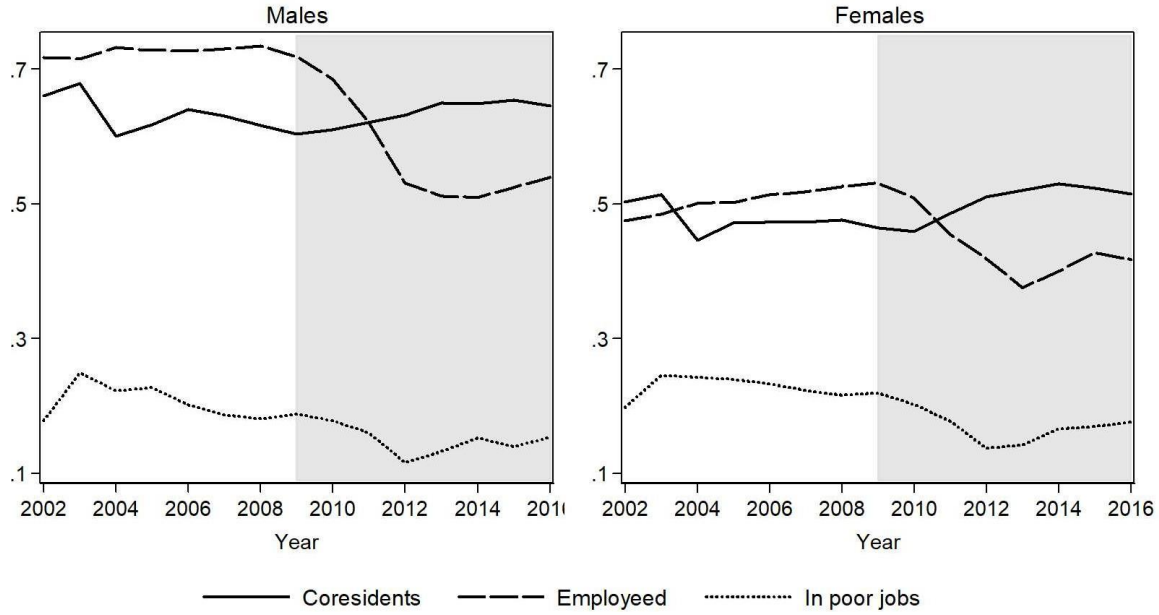
2. Data and descriptive statistics

2.1. Individual-level data

The main database with which we conduct our analysis comprises the spring waves of the Greek Labour Force Survey (LFS) for the period 2002-2016. The LFS is a quarterly household survey, representative of the entire population, and covering detailed information on a wealth of demographic characteristics and labour market outcomes, including household composition and employment status. Each wave contains approximately 30,000 working-age individuals, of which around one-third are between 18 and 35 years of age - the youth population on which we focus. With these data it is straightforward to generate the main variables of interest. We use the mother ID, father ID, and spouse ID variables to identify those youths who coreside with their parents or parents-in-law, and we use reports of employment status to identify those youths who have a job. One drawback of the LFS is that if parents do not share the same household with young adults we do not observe them in the data. We partly address this issue by calculating and controlling in our regressions for region-level means of various economic and demographic characteristics of the parents' generation, which we assume that it comprises individuals ages 40-60. Unavoidably, the relevance of these controls diminishes with the frequency of youth migration across regions.

The period we examine is particularly interesting because it includes the crisis years as well as several earlier years and is, thus, characterized by acute changes in economic conditions. From 2002, when Greeks first started to transact with euros, and up to 2007, the Greek economy was galloping at an average annual rate of 4.1%. A number of events that took place in that period, including the hosting of the 2004 Olympic games in Athens, uplifted economic activity and the public sentiment. All this came to a halt when the great recession spread in Europe in 2008, with Greek GDP contracting by 0.3% that year. Gradually it became obvious that the country was consuming more than it produced. By 2009 the crisis spiralled out of control as the government lost its ability to borrow privately and could no longer sustain its dept. To stay afloat, Greece agreed to adopt severe austerity and painful reforms in exchange for three bailout loans from the International Monetary Fund and its European partners totalling a staggering 323 billion euros, and a 50% haircut on public debt owned by banks.

Figure 1: Share (%) of population aged 18-35 in intergenerational coresidence, work, and precarious work by gender



Over 2009-2015 the deterioration in economic conditions was so fierce that the Greek GDP contracted by an average annual rate of 4.2% (the highest drop was 9.1% in 2011)[2]. Naturally, this economic roller coaster caused tremendous variation in labour market outcomes, especially for young people for whom labour demand is more responsive to macroeconomic developments compared to labour demand for prime-age adults (Ryan 2001, Christopoulou and Ryan 2009, Christopoulou 2008, 2013)[3].

As we show in Figure 1, the LFS data clearly reflect this variation. Over 2002-2008, the share of youths who work (dashed line) is more or less stable at 70% for men and 50% for women and starts sinking abruptly in 2009, as the crisis begins. By 2013, youth employment has lost 28% of its pre-crisis value for both genders and increases marginally thereafter. Notably, the share of coresident youths (solid line) follows the reverse pattern over time. Before the crisis around 60% of young men and 47% of young women live with their parents[4] - rates that are very high by international standards[5]. After 2009 these shares show an upward trend, albeit of a reasonably modest magnitude relative to the corresponding changes in employment. In

[2] The GDP growth rates are from the World Development Indicators database compiled by the World Bank. All loan agreements and memoranda of understanding signed by the Greek government and its lenders are available at http://crisisobs.gr/en/repository/?ct=98&st=103.

[4] This gender differential reflects the fact that, relative to men, women get married and leave the parental home at younger ages.

[5] According to estimates from the EU-SILK survey reported by Eurostat, over 2005-2015 the share of young men (women) aged 18-34 living with their parents in the 19 euro-zone countries was on average 54% (41%). The corresponding rate reported for Greece over the same period is more than 10 percentage points higher (i.e. 69% (52%)) (http://appsso.eurostat.ec.europa.eu/nui/show.do?dataset=ilc_lvps08&lang=en).

general, youth employment and coresidence seem to move in opposite directions but the negative association becomes particularly striking during the crisis. It is this basic correlation between the two series that motivates our research: it suggests that the decrease of job opportunities in Greece have increasingly deprived young adults of living on their own.

Yet, having a job may not necessarily make autonomous living affordable for young people. If they have the option, those in poorly-paid, insecure jobs are likely to stay in their parental home; i.e. their behaviour should resemble that of the unemployed population. Therefore, it is important to consider both employment status and job quality as drivers of youth coresidence. To do this, we identify youths who earn minimum wages or lower;6 those who work temporarily; and the part-timers. In Figure 1 we show that the share of youths who belong in this category (dotted line) decreased slightly in the first half of the crisis when the economy was losing both good and bad jobs, but started rising in the second half of the crisis as many of the jobs that survived to that point worsened in quality. In our econometric analysis we use a variable that flags these youths together with those who are jobless and treat it as an alternative indicator of individual labour market status.

To give a sense of the other variables available in the LFS, in Table 1 we provide means and frequencies for selected years.7 Specifically, we report statistics in 2005 (i.e. four years before the crisis, when Greece was under the euphoria of the Olympic games boom, and the impending recession was unforeseeable), in 2009 (the year that marked the beginning of the crisis), and in 2013 (by that year the economy had contracted by 32%, unemployment rate had rocketed, wages had been sliced, and the labour market had undergone severe deregulation). These statistics manifest clearly the deteriorating position of youths in the labour market that we discussed above, but also describe some pertinent demographic changes. First, the data suggest that the crisis may have affected women in their homemaking and childbearing decisions more than men. The percentage of young people who are married has been declining throughout the period of study, as has the percentage of young men who are parents, but the share of female parents and the share of young women who self-report as housewives shows a notable fall during the crisis. Second, the crisis does not appear to have steered a large part of the unemployed youth into school. The share of youth enrolled in education, which was trending up over 2005-2009, did not accelerate after the crisis for young women and stopped increasing altogether for young men. One can see a non-trivial increase in the average years of completed education but, considering the record-high youth unemployment rates over the period, this remains unimpressive. Third, the crisis has coincided with a small reshuffling of

[6] Prior to 2015, the LFS collected wage data in bundles which differ from year to year, cannot be fully harmonized for the period of study, and do not accurately correspond to minimum wage values. For these reason, we treat as low wage earners those young people whose wage belongs to the minimum wage bundle or lower (note that, depending on hours of work, it is possible for wages to fall below the mandated minimum). The bundles which include the minimum wages [and the actual minimum wages] by year are as follows: 301-600 [499] euros in 2002; 501-750 [520-681] euros over 2003-2008; 700-799 [740-751] euros over 2009-2011; 500-699 [586] euros over 2012-2013; 400-599 [586] in 2014. From 2015 onward actual values of wages are reported rather than wage bundles. For comparison with the previous years, we _ag as low wage earners those who earn a maximum of 599 euros (all wages are monthly).

[7] Table A1 in the Appendix provides means and frequencies of selected variables for individuals aged 40-60 the age-group we treat as the parents' generation.

young people across geographical areas. Before 2009, the share of youth living in cities was fixed at 42% for men and 44% for women, whereas the share of youths living in rural areas was marginally declining. Over 2009-2013, the former share decreased and the latter increased, both by 2 percentage points. Because these demographic changes are related to the determination of youth living arrangements, it is important that we control for them in our models.

Table 1: Weighted means and frequencies of selected variables, ages 18-35

	Males			Females		
	2005	2009	2013	2005	2009	2013
Coresident	0,62	0,60	0,65	0,47	0,47	0,52
Employed	0,73	0,72	0,51	0,50	0,53	0,38
Jobless or in poor work	0,50	0,47	0,66	0,74	0,69	0,80
In private sector job	0,63	0,61	0,43	0,41	0,42	0,30
Temporary	0,08	0,09	0,05	0,08	0,09	0,05
Part-time	0,02	0,03	0,04	0,05	0,06	0,05
Low wage earner	0,18	0,13	0,10	0,19	0,16	0,10
Has health insurance	0,93	0,92	0,83	0,92	0,93	0,86
Age	27,2	27,3	27,5	27,1	27,4	27,3
Married	0,25	0,21	0,18	0,43	0,40	0,35
Has child (ren)	0,16	0,14	0,13	0,33	0,33	0,28
Divorced/widowed	0,00	0,00	0,01	0,02	0,02	0,02
Housewife				0,16	0,15	0,10
Student	0,18	0,20	0,20	0,19	0,21	0,23
Completed education (years)	11,7	11,9	12,4	12,3	12,6	13,1
Lives in city	0,42	0,42	0,40	0,44	0,44	0,42
Lives in rural areas	0,18	0,17	0,19	0,15	0,14	0,16
Foreign born	0,09	0,13	0,10	0,08	0,12	0,10
Earns income from assets	0,02	0,01	0,01	0,01	0,01	0,01
Earns income from benefits	0,02	0,03	0,03	0,02	0,04	0,04
Disabled	0,01	0,01	0,01	0,01	0,01	0,01

Of special interest is the share of youths who own health insurance, given that health insurance status is an instrumental variable in our econometric analysis. To be exact, this variable flags those individuals who own a health insurance booklet, which is the Greek equivalent of a health insurance card. While public health insurance coverage in Greece is supposed to be universal[8], in practice some individuals are excluded depending on their work status (e.g. those who work occasionally, informally, or in the restaurant sector), while others may not utilize their right to health insurance (e.g. unemployed individuals who neglect to register with the public employment office or to renew their registration every three months). Most commonly, excluded individuals are young people who transition from school-to-work. As Table 1 shows, before the crisis more than 90% of young men and women owned a health insurance booklet but this share fell to 86% or less during the crisis.

[8] Private health insurance is allowed only as secondary insurance.

2.2 Regional Indicators

We complement the individual-level data with a number of macro-level indicators that capture region-specific economic conditions. Specifically, we draw data on GDP growth and net migration per capita from EUROSTAT, and we (imperfectly) construct two indicators of rental cost, since no such data exist for Greece at the regional level[9]. These indicators vary across the 13 administrative regions of Greece but they are not available over the entire period of interest and, therefore, they cost in terms of observations. The variables on GDP growth and migration are available over 2002-2014 and the rental cost indexes we construct cover only the period 2007-2015 (for a number of practical reasons we do not cover earlier years). The migration indicator is problematic for the additional reason that it measures immigrants of all ages, and, thus it reflects youth-specific migration patterns to the degree that these co-vary with those of older adults.

To construct the rental cost indicators we use the consumer price index for rents, which is produced at the national level by the Hellenic Statistical Authority, and the so-called objective values of land property by locality published in 2007 by the Ministry of Finance. These objective values are set by the government based on selected criteria and are then used for determining the taxable value of property when this is sold or transferred. Over 2007-2015, there have been no changes in these objective values despite widespread discontent concerning their discrepancy with the actual/commercial values, especially during the crisis. Under the premise that the regional variation in the objective values is reasonably correlated with the respective variation in the commercial values, we combine them with the time-series of rental CPI to obtain an indicator that varies both temporally and spatially. We produce a maximum rental cost index, which one can interpret as representing the rental cost in the up- scale neighbourhoods of each region, and a minimum rental cost index, which one can interpret accordingly, i.e. as representing the rental cost in the down-market neighbourhoods[10].

3. Empirical Strategy

We start with a baseline model that correlates youth employment status with living arrangements. Specifically, we model the probability of coresiding with parents (or parents-in-law) of individual i living in region r in time period t as:

$$Pr\,(C_{irt} = 1) = \alpha_0 + \alpha_1\, Pr\,(W_{irt} = 1) + \alpha_2\, X_{irt} + \alpha_3\, Y_{rt} + D_r + D_t + u_{irt}, \qquad (1)$$

where C and W are binary variables that take value one if individual i coresides and works, respectively, and zero otherwise; X is a vector of individual characteristics, Y is a vector of characteristics of the parents' generation and other regional controls; D_r and D_t are vectors of

[9] We plot these data in Figures A1 and A2 in the Appendix.

[10] Specifically, we drew from the website of the General Secretariat of Information Systems and Administrative Support the official tables with the 2007 _objective_ property values. From these we derived the maximum and minimum _zone values_ and _land use factors_ for each administrative region and inserted them in the specified formulas to calculate the corresponding maximum and minimum _objective_ land prices. The regional variation in these prices is significantly larger for the maximum than the minimum - a difference that would be masked if we instead calculated mean prices (which would be complicated to do and would require restrictive assumptions). The product of these (maximum/minimum) prices by region with the rental CPI by year is what we call the (maximum/minimum) rental cost index.

region- and year-level fixed effects; and u is the error term. We estimate this model using a standard probit model and we interpret the resulting coefficient α_1 as a conditional correlation between individual employment status and individual coresidence status (or as the `naive' effect of youth employment on the probability of coresidence). We then test the hypothesis that this correlation changes after the beginning of the crisis by adding among the regressors the interaction term $P_r\,(W_{irt} = 1) * R$, where R is a dummy variable equal to zero in all years before 2009 (i.e. prior to the recession) and equal to one in all other years (i.e. during the recession).

Obviously, $\widehat{\alpha 1}$ provides no information about the direction of causality between the decisions of young people to work and live with their parents. Since the focus of this paper is on those youths who decide to stay at the parental home because they cannot afford to live independently, we next attempt to identify this causal effect by taking a more structural approach. There are two main causal pathways that that we wish to isolate from our results. First, youths may decide to co-reside with their parents if it is their parents, not themselves, who need financial support. It is possible that this effect of reverse causality has affected Greek families during the crisis, given the sizable cuts on wages and pensions. Second, youth employment and living arrangements may be influenced by a third unobserved variable, e.g. parental preferences, family values, and culture. Parents' preferences may be such that they encourage their children to stay at home and away from the labour market, thus creating a negative association between youth work and coresidence that is unrelated to economic factors. For example, overprotecting parents may sponsor the desired life-style of their children in order to remove their incentive to look for a job and move away from home. Similarly, parents who carry conservative values may simply forbid their children to work and move out. This practice is not uncommon in traditional Greek societies, particularly for young women who are raised to become good housewives and are not supposed to leave the parental home or work outside the household until they get married.

To net out the aforementioned effects from our results we treat (1) as the structural-form equation in a system of two seemingly unrelated probit equations. The reduced-form equation of this system models youth employment status as a function of instruments and exogenous variables, as:

$$P_r\,(W_{irt} = 1) = \beta_0 + \beta_1 Z_{irt} + \beta_2 X_{irt} + \beta_3 Y_{rt} + D_r + D_t + v_{irt}, \qquad (2)$$

where Z is the vector of instruments. This vector includes two variables that reflect purely economic influences: a dummy that denotes health insurance status, which we observe at the individual level and we assume that it drives youth employment status from the supply-side, and the growth rate of real GDP, which we measure at the regional level and we use it to capture fluctuations in aggregate demand. The identifying assumption is that the instruments are correlated to the probability of having a job, but they are orthogonal to the probability of living with parents. The former instrument satisfies this assumption in principle, as the law entitles those older than 18 to direct health insurance if they work or they are enrolled to formal education. The law also entitles youths ages 18-26 to indirect health insurance, as dependent family members, but only certain funds require the indirectly insured to coreside with parents[11],

[11] E.g. to issue a family insurance booklet, IKA requires proof that youths coreside with parents but OAEE does not. This distinction held before the unification of all insurance funds under the umbrella of EFKA and continues to hold to date.

and we can easily remove these youths from the sample to verify robustness. The validity of the latter instrument requires that the local economy does not affect coresidence status directly, i.e. via the housing prices and rents, and that youth employment outcomes depend on regional rather than national economic conditions, i.e. that young people look for work in their local labour markets. To meet these requirements, we include the rental cost and migration indicators as controls in our regressions, acknowledging that these are imperfect.

Because both instruments capture economic factors alone, they net out all non-economic influences, such as culture, from the coefficient of interest. The regional fixed effects, as well as dummies that flag whether a young person lives in a rural or metropolitan area, also work to this effect by removing biases that arise from a correlation between unobserved cultural differences across regions and economic forces. However, isolating independent variation in economic influences for older and younger adults is less straightforward. Clearly, the GDP growth rate represents overall rather than youth-specific market conditions, and children's health insurance status is likely correlated with parents' health insurance status. Therefore, the instruments may not single-handedly remove influences of parental economic hardship from the coefficient of interest. As we mentioned earlier, because the LFS does not include information on parents who do not coreside with their children, we aid identification by con- trolling for the fraction of the parental population employed and insured in each region (among other characteristics of the parents' generation in Y). This helps the instruments serve their intended purpose. Regardless, it is most likely that α_1 predominantly captures the impact of children's economic hardship on coresidence, since youth employment outcomes over respond to economic influences compared to those of prime-age adults and parents more easily smooth temporary income shocks using previous savings or borrowing[12].

Given the focus on youth work, our structural model abstracts from a number of other mechanisms through which economic conditions may affect parental coresidence. As is widely recognized in the literature, an adverse economic environment may change young people's decisions to study, relocate or migrate, marry or cohabitate with a partner, have children and others. All these decisions may in turn affect their living arrangements and, in reality, they are jointly determined. However, it would be too ambitious to model them as such in this study, given the difficulties that would arise in identification. Instead, our strategy is to condition on these variables in our regressions and treat the resulting $\hat{\alpha}1$ as a lowest bound estimate of the economic impact on coresidence; i.e. the impact that derives solely from the labour market conditions.

[12] For a less formal way to address reverse causality, we refer the reader to a closely related study where we ask the same research question and attempt to answer it at a more aggregated level of analysis (Christopoulou and Pantalidou 2018). In that study, we use the LFS data to calculate, by region and year, the share of youths who live with their parents as a proxy of mutual dependency between parents and adult children, and the share of youths who live with their parents and also receive intra-family transfers as a proxy of one-way dependency of youths on parents. We then use panel data analysis to examine the correlation of each variable with the youth unemployment rate. Comparing the two correlations allows us to assess the presence and nature of reverse causality in the youth unemployment-coresidence relationship. Notably, that approach leads to conclusions very similar to the conclusions we reach here.

As standard, we assume that the errors u and v have a bivariate standard normal joint distribution with correlation ρ. If ρ = 0, the causal effect of interest results from the separate estimation of equation (1) by a simple probit model. If ρ ƒ= 0 we conclude that youth work status is endogenous and the causal αˆ is produced by the joint estimation. In all cases we estimate our models separately for men and women, and we compute standard errors robust to region-level clusters.

While the bivariate probit estimation detects the existence and extent of reverse causality between youth work and coresidence status, it provides no information on its sources. To derive suggestive evidence on this we limit the sample to those youths who live with their parents, for whom parental characteristics are observable, and test how their probability of having a good job depends on these characteristics. Specifically, we estimate the following model:

$$P_r\,(W_{irt} = 1 \mid C_{irt} = 1) = \gamma_0 + \gamma_1 X_{irt} + \gamma_2 X^M_{irt} + \gamma_3 X^F_{irt} + \gamma_4 Y_{rt} + D_r + D_t + \varepsilon_{irt} \qquad (3)$$

where X^M and X^F are vectors of characteristics of the mother and father, respectively.

4. Results

We present our first set of results in Table 2. These results correspond to different specification of equation (1) estimated separately for males (columns 1-3) and females (columns 4-6). In all cases, controls include only the available individual characteristics from the LFS data and, thus, the sample covers the entire period of interest. For each gender, the first specification yields negative and statistically significant correlations between employment status and coresidence. The second specification adds indicators of poor job quality, all of which appear to have a positive correlation with coresidence, while their inclusion increases the negative coefficient on employment status. Apart from the usual suspects, i.e. temporary, part-time, and low-paying jobs, which one expects to impede youths from living independently, we also include an indicator for private jobs, even though these are not necessarily poor. We include this indicator because, compared to jobs in the Greek public sector, private jobs are traditionally outclassed in terms of wages, benefits, security, and lack of discrimination (Christopoulou and Monastiriotis 2014, 2016). Indeed, the results confirm that this difference affects youths in their decision to live autonomously. Because our indicators of job quality are endogenous and easier to handle if they are joined together, the third specification treats poor job holders and jobless youth as one category (as mentioned earlier, we define poor job holders as those who work part-time, temporarily, or earn low wages). The results validate this grouping by yielding a positive and statistically significant correlation between being jobless or having a poor job and living with parents.

In all specifications the control variables perform as expected. The individuals in our sample are less likely to live with their parents if they are older, foreign-born, highly educated or in education, if they reside in cities, or earn some non-labour income. The same goes for those who are married, divorced/widowed, have children, or for the women who self-identify as housewives. Conversely, youths who live in rural areas or those who are disabled are more likely to live with their parents. These results are substantively the same in all models we estimate, so to save space we will not report them from this point on[13].

[13] Of course, the full set of results is available upon request.

Table 2: Baseline results; Probit regression of coresidence status for 18-35 year-olds, 2002-2016

	Males			Females		
	(1)	(2)	(3)	(4)	(5)	(6)
Employed	-0.353***	-0.789***		-0.261***	-0.518***	
	(0.040)	(0.058)		(0.022)	(0.025)	
In private sector job		0.439***			0.213***	
		(0.047)			(0.029)	
Temporary		0.128***			0.124***	
		(0.045)			(0.040)	
Part-timer		0.146**			0.093***	
		(0.065)			(0.020)	
Low wage earner		0.129***			0.121***	
		(0.023)			(0.038)	
Jobless or in poor job			0.319***			0.273***
			(0.028)			(0.025)
Age	-0.076***	-0.089***	-0.098***	-0.051	-0.062*	-0.073**
	(0.015)	(0.015)	(0.014)	(0.035)	(0.034)	(0.033)
Age squared	0.000	0.001*	0.001***	-0.000	0.000	0.000
	(0.000)	(0.000)	(0.000)	(0.001)	(0.001)	(0.001)
Completed education	-0.017***	-0.011*	-0.015**	-0.023***	-0.020***	-0.022***
	(0.006)	(0.006)	(0.007)	(0.003)	(0.003)	(0.003)
City	-0.410***	-0.420***	-0.412***	-0.398***	-0.398***	-0.399***
	(0.049)	(0.048)	(0.050)	(0.039)	(0.040)	(0.040)
Rural area	0.881***	0.870***	0.881***	0.866***	0.870***	0.873***
	(0.081)	(0.079)	(0.080)	(0.092)	(0.094)	(0.094)
Foreign born	-0.985***	-1.054***	-1.050***	-0.404***	-0.434***	-0.438***
	(0.060)	(0.061)	(0.061)	(0.028)	(0.027)	(0.028)
Disabled	0.308***	0.305***	0.378***	0.551***	0.550***	0.608***
	(0.066)	(0.066)	(0.064)	(0.068)	(0.069)	(0.066)
Married/Cohabitating	-1.782***	-1.772***	-1.777***	-2.051***	-2.048***	-2.044***
	(0.025)	(0.025)	(0.026)	(0.039)	(0.040)	(0.042)
Student	-0.954***	-0.970***	-0.886***	-0.844***	-0.843***	-0.790***
	(0.236)	(0.234)	(0.240)	(0.201)	(0.199)	(0.197)
Has child (ren)	-0.365***	-0.376***	-0.362***	-0.322***	-0.327***	-0.326***
	(0.051)	(0.054)	(0.052)	(0.069)	(0.069)	(0.068)
Divorced/Widowed	-0.596***	-0.585***	-0.594***	-0.721***	-0.729***	-0.727***
	(0.064)	(0.068)	(0.067)	(0.046)	(0.048)	(0.049)
Income from assets	-0.472***	-0.486***	-0.444***	-0.533***	-0.544***	-0.517***
	(0.070)	(0.072)	(0.067)	(0.081)	(0.085)	(0.080)
Income from benefits	-0.072	-0.096	-0.016	-0.123***	-0.137***	-0.083*
	(0.064)	(0.062)	(0.051)	(0.044)	(0.043)	(0.044)
Housewife				-0.300***	-0.299***	-0.222***
				(0.036)	(0.034)	(0.029)
Constant	3.176***	3.311***	3.026***	2.736***	2.826***	2.662***
	(0.260)	(0.248)	(0.260)	(0.466)	(0.456)	(0.466)
Observations	106,113	106,113	106,113	103,428	103,428	103,428

Cluster-robust standard errors in brackets, *** p<0.01, ** p<0.05, * p<0.1. Controls: year & region dummies.

The main message from Table 2 is that all conditional correlations between work outcomes and coresidence are statistically significant and carry the expected sign. The next question to ask is whether these have changed during the crisis. In Table 3, we interact the two work-status indicators (i.e. being employed and being jobless or in poor work) with the crisis dummy. The estimated coefficient on each interaction term shows how the correlation during the crisis differs from the correlation in all other years (i.e. adding the coefficient on the work status indicator with that on the interaction term gives the correlation during the crisis). Impressively, we find that the correlation more than doubles during the crisis and this holds for both young men and women. Employed young Greeks are significantly less likely to live with their parents during the crisis than they were pre-crisis, while unemployed and poorly employed youths are significantly more likely to live with parents during the crisis than pre-crisis. This result can be easily explained assuming that none or few youths who entered the labour market during the crisis managed to find jobs (or good jobs) and, therefore, most of them remained in the parental home. However, it may also reflect that the majority of young workers who managed to sustain a job throughout the period of study (presumably those with the _best_ jobs) were already living autonomously before the crisis, while the majority of youths who lost their jobs or kept poor jobs during the crisis were already coresiding with parents before the crisis. For these youths, coresidence before the crisis was out of precaution, while during the crisis it was out of necessity. Most likely both effects took place: during the crisis the Greek family sheltered all new labour market entrants who faced virtually zero employment opportunities, and continued to shelter those who were unemployed or in marginal employment before the crisis.

Table 3: Testing for a crisis effect; Probit regression of coresidence status for 18-35 year-olds, 2002-2016

	Males		Females	
	(1)	(2)	(3)	(4)
Employed	-0.195***		-0.168***	
	(0.044)		(0.028)	
Crisis * Employed	-0.289***		-0.195***	
	(0.026)		(0.024)	
Jobless or in poor job		0.200***		0.188***
		(0.030)		(0.032)
Crisis * Jobless or in poor job		0.269***		0.194***
		(0.025)		(0.025)
Observations	106,113	106,113	103,428	103,428

Cluster-robust standard errors in brackets, *** p<0.01, ** p<0.05, * p<0.1.
Controls: as in Table 2

To our knowledge, this finding that the relationship between work and coresidence becomes strikingly stronger during the crisis has not be found in other countries. The example of the US experience makes for a good comparison. As Bitler and Hoynes (2015) show, the responsiveness of living arrangements to the unemployment rate in the US was not significantly higher in the Great Recession compared to all other years since 1980. Of course, this contrast in the results between the two countries is not surprising considering their differences in the severity of the recession, the availability of alternative safety nets, and their cultural norms.

The following step in our analysis is to test whether the results are biased due to important omitted variables. It is conceivable that the baseline regressions overestimate the effect of work status on coresidence to compensate for missing controls for relevant parental characteristics, migration patterns or the cost of living independently. In the regressions we report in Table 4 we add proxies of these missing factors; i.e., we include mean characteristics of the parent's generation, net migration per capita, and our minimum and maximum rental cost indicators, all of which vary by region and year. The inclusion of these controls - mostly the rental cost indicators – significantly reduces our original sample. Our data now cover the period 2007- 2014 and, thus, the crisis period dominates. In all cases the correlations of interest are highly robust, whereas only a handful of the added variables are statistically significant. Specifically, young men are influenced by some of the parental characteristics while young women are influenced by the rental cost. In regions where a higher share of parents is educated, receives pension, or income from assets young males are less likely to live in the parental home. In regions where the up-market neighborhoods have higher rental costs young women are more likely to live in the parental home[14].

Table 4: Testing robustness to additional controls; Probit regression of coresidence status for 18-35 year-olds, 2007-2014

	Males		Females	
	(1)	(2)	(3)	(4)
Employed	-0.398***		-0.291***	
	(0.043)		(0.024)	
Jobless or in poor job	0.347***		0.318***	
	(0.032)		(0.021)	
Characteristics of parents' generation				
Age	0.044	0.041	-0.089	-0.084
	(0.067)	(0.065)	(0.063)	(0.064)
Completed education	-0.089**	-0.079*	-0.089	-0.080
	(0.040)	(0.042)	(0.059)	(0.059)
Married/Cohabitating	-0.625	-0.741	0.207	0.195
	(1.121)	(1.165)	(1.363)	(1.374)
Divorced/Widowed	-1.532	-1.801	-0.605	-0.639
	(2.793)	(2.798)	(2.334)	(2.279)
Pensioners	-2.734*	-2.296*	-0.631	-0.368
	(1.402)	(1.387)	(2.720)	(2.770)
Employed	-0.149	-0.398	-0.909	-0.952
	(1.207)	(1.196)	(0.719)	(0.691)
Health insurance	-0.718	-0.768	-0.370	-0.247
	(0.956)	(0.949)	(1.232)	(1.209)

[14] Table A2 in the Appendix provides two additional robustness checks: (i) columns 1-2 and 5-6 report estimates of the baseline specification with mean parental characteristics by region as additional controls and no other macro-level indicators (i.e. sample size remains maximum); and (ii) columns 3-4 and 7-8 report estimates of the baseline specification after removing all potentially endogenous controls (i.e. years of education, educational participation and all indicators on area of residence and family status). As one should expect, the correlations of interest change significantly in the latter estimations, especially for females for whom marital status is a very important driver of parental coresidence. Several other robustness test are available in Pantalidou (2016).

Income from assets	-3.038***	-3.189***	-1.072	-1.240*
	(0.908)	(0.891)	(0.706)	(0.733)
Disabled	3.499	3.291	-1.794	-1.532
	(2.790)	(2.781)	(1.828)	(1.817)
Net migration per capita	-0.917	-0.927	0.252	0.308
	(0.910)	(0.932)	(0.617)	(0.613)
Minimum rental cost index	1.400	1.566	0.044	0.061
	(1.335)	(1.325)	(0.747)	(0.757)
Maximum rental cost index	0.057	0.051	0.266***	0.272***
	(0.113)	(0.113)	(0.093)	(0.092)
Observations	53,344	53,344	51,100	51,100

Cluster-robust standard errors in brackets, *** p<0.01, ** p<0.05, * p<0.1.
Controls: as in baseline specification

Table 5: Estimating the causal effect of work status on coresidence; Bivariate probit regressions for 18-35 year-olds, 2007-2014

	Males		Females	
	(1)	(2)	(3)	(4)
Second-stage: Coresidence status				
Employed	-0.524***		-0.562***	
	(0.176)		(0.116)	
Jobless or in poor job		0.618***		0.831***
		(0.239)		(0.114)
First-stage: Work status				
GDP growth rate	0.792*	-0.145	-0.221	0.604
	(0.437)	(0.499)	(0.412)	(0.364)
Health insurance	1.363***	-1.217***	1.217***	-1.178***
	(0.027)	(0.021)	(0.056)	(0.076)
Observations	53,344	53,344	51,100	51,100
Wald test of exogeneity	0.407	1.103	4.953**	17.04***
	[0.523]	[0.294]	[0.026]	[0.000]
X2-test of joint sign. of instruments	2531***	3296***	505.5***	255***
	[0.000]	[0.000]	[0.000]	[0.000]

Despite the smaller sample, we next explore causality using this conservative specification to maintain maximum precision. We present the bivariate probit estimates of equations (1) and (2) in Table 5. Looking first at the reduced form equations, it is apparent that the regional GDP growth rate does not perform well as an instrument (it is only significant at the 10% level in the first specification estimated for males) and understandably so. It is not realistic to expect that the regional economy is the relevant labour market in the decision-making for young Greeks since many migrate for work both internally and abroad. Although we try to control for migration patterns, the indicator at hand is evidently deficient as it does not significantly explain coresidence status (see again Table 4). Regardless, identification is achieved through the health insurance indicator, which is highly significant and carries the expected sign in all cases. Taken together, the two instruments are also statistically significant.

Because the bivariate probit estimations provide no further diagnostics for instrument performance we successfully validate our results in two ways. First, we carry out a 2SLS estimation and pass the complete set of available diagnostics (see Table A3 in the Appendix). Second, we repeat the bivariate estimation after excluding from the sample those youths that are potentially insured as dependents (i.e. those that are younger than 27 and out of work), for whom health insurance may not be orthogonal to coresidence status (see Table A4 in the Appendix). The results are robust in both cases.

However, instrumenting the employment status is not always necessary. For men, the Wald-test rejects the hypothesis that the error terms between the two equations are correlated and, thus, the work-status variables can be treated as exogenous. It follows that, for men, the correlations we reported previously from the probit regressions can be interpreted as causal. In contrast, for women, the Wald-test provides evidence of reverse causality. Thus, for them, the causal effects of the work status indicators on coresidence are indicated by the coefficients in the structural equations of the bivariate probit. These coefficients have the same sign as the ones from the probit estimation but are significantly larger, implying that there is some unobserved factor that weakens the causal effect of work status on coresidence.

Table 6: Marginal effects; Average predicted probabilities of coresidence status from regressions with full controls, 2007-2014

	Males		Females	
	(1)	(2)	(3)	(4)
Probit regressions (Table 4)				
Assuming no youths are employed	0.684***		0.520***	
	(0.007)		(0.003)	
Assuming all youths are employed	0.589***		0.457***	
	(0.004)		(0.003)	
Assuming no youths are jobless or in poor jobs		0.580***		0.440***
		(0.004)		(0.003)
Assuming all youths are jobless or in poor jobs		0.665***		0.510***
		(0.004)		(0.002)
Bivariate probit regressions (Table 5)				
Assuming no youths are employed	0.700***		0.546***	
	(0.021)		(0.010)	
Assuming all youths are employed	0.575***		0.422***	
	0.575***		(0.017)	
Assuming no youths are jobless or in poor jobs		0.539***		0.349***
		(0.039)		(0.023)
Assuming all youths are jobless or in poor jobs		0.692***		0.540***
		(0.022)		(0.006)
Observations	53,344	53,344	51,100	51,100

To give a sense of the magnitudes involved, in Table 6 we report the marginal effects that correspond to the coefficients from the probit and bivariate probit models. Recall that the

causal effects are produced by the probit regression for young men and the bivariate probit for young women. The effects are sizable in all cases, especially considering that they are only part of the effect of economic forces on coresidence (i.e. the part that works through the labour market alone). We find that having a job reduces the probability of living with parents by 9.5 percentage points for men and 12.5 percentage points for women. Conversely, being jobless or having a bad job increases the probability of living with parents by 8.5 percentage points for men and 19.1 percentage points for women.

A note on the striking gender differences in our results is in order here. Our intuition is that these are connected to traditional cultural norms about gender-roles according to which young women are under stricter parental supervision and enjoy less freedom of choice than young men, but they are also more expected to care for dependent parents. To start with, the causal effect of joblessness or poor work is more than double for women relative to men. We can only speculate that this gap that young women are (raised to be) more risk averse than men, or they do not have alternative routes to living autonomously, e.g. they cannot rely on monetary transfers from parents in order to move away from home. Secondly, the causality in the work-coresidence relationship runs one-way for men, whereas for women it runs both ways. We interpret this finding as a first indication that both sons and daughters live in the parental home when they do not work and thus need support from their parents, but daughters also live in the parental home when they do work and their parents need support from them.

We provide further evidence on the sources of reverse causality for women in Table 7. First, we limit the sample to those youths who live in the parental home, we then regress the probability of having a good job (i.e. a full-time, permanent job that pays above the minimum wage) on the work-status and other characteristics of both parents, and, finally, we test whether the results differ between genders. We find that young men and women are less likely to have a good job if their parents are jobless or have bad jobs, and more likely to have a good job if their parents have retired as pensioners.

In fact, mother's work status influences daughters and sons equally, whereas father's work status exerts a significantly higher influence on sons than on daughters. We attribute these results to unobservable characteristics shared between youths and parents, e.g. family mentality about work, 'inherited' professional ambitions, and access to common professional networks, all of which can be gender-specific. Although this finding does not illuminate causality differences in the work-coresidence relationship between genders, controlling for parental work-status in the regressions helps to expose an explanation. Comparing youths who coreside with parents of the same work status, we find that young men are significantly less likely than women to have a good job if they live with older mothers. Conversely, young women are significantly more likely than men to have a good job if they live with divorced or widowed fathers[15]. Both of these results support the

[15] Other gender differences in the results (not shown in Table 7) are that young women are more likely to have a good job if they live with foreign mothers and educated fathers, whereas young men are more likely to have a good job if they live

hypothesis that, unlike men, young women may choose to coreside with aging or lonely parents even though they can afford to live independently. This interpretation is consistent with evidence from other studies that parents rely on daughters for care more than they do on sons (see Mellor (2001) and Klimaviciute et al. (2017) and studies cited therein) and falls well within the paradigm of South European familism (Saraceno 1994).

5. Conclusion

Our paper contributes new evidence to a growing and inconclusive literature on youth living arrangements. We show that the causal relationship between work and coresidence for young Greeks is negative, statistically and economically significant, and has become stronger during the crisis. We also show that, although all youth coreside with parents when they cannot make their own living, young women in particular may also coreside in response to parental needs. This evidence is of special interest as it provides an insight into how a society with historically high rates of parental coresidence, driven very much by culture, responds to economic strain of a magnitude and duration as that of the recent Greek crisis. It appears that cultural norms that influence living arrangements are not static but rather respond dynamically to economic forces to shelter vulnerable youths and vulnerable parents. Yet, the gendered pattern in cultural norms persists, since women keep their traditional role as primary carers for parents in need.

Our results have important implications for the social cohesion of the Greek population. One the one hand, the Greek family stepped in to shelter young adults at a time when all other safety nets failed. The period for which we find that the role of the parental home as a refuge for vulnerable youths intensified coincides with the period when recession-driven suicide rates and depression climaxed (Drydakis 2015, Economou et al. 2016). Had it not been for the Greek family, both the material well-being of the young generation and their psychological and emotional health would have been further jeopardized. On the other hand, the generation of young Greeks who exited adolescence during the great recession had no option but to remain dependent on parents for a longer period. For these youths, the transition-to-adulthood was protracted, as was all the uncertainty that comes with it, and this will likely cause delays in other milestones of their adult identity, like marriage, children, and home ownership. This highlights the urgency for placing this generation of youths in the labour market, but also for setting up public safety nets that will shield future generations from similar adversities. Policy action on both fronts is much needed to expedite the decline of youth unemployment as the economy slowly recovers (e.g. by offering incentives to employers to hire new labour market entrants); to improve the quality of jobs available to young people (e.g. by increasing the standards for a typical and precarious employment); and to avoid new waves of late nest- leavers (the introduction of minimum income nationwide in 2017 was a step in this direction.

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with mothers who receive some income from other household members (including their husbands). All other variables show statistically insignificant differences between genders.

References

Ahn, Namkee and Virginia Sanchez-Marcos (2017) *"Emancipation under the great recession in Spain"* Review of Economics of the Household, 15(2): 477-495.

Becker, Sascha O. et al. (2010) *"Youth Emancipation and Perceived Job Insecurity of Parents and Children"* Journal of Population Economics, 23(3): 1047-1071.

Bitler, Marianne and Hilary Hoynes (2015) *"Living Arrangements, Doubling Up, and the Great Recession: Was this Time Different?"* American Economic Review, 105(5): 166-170.

Börsch-Supan, Alex (1986) *"Household Formation, Housing Prices, and Public Policy Impacts"* Journal of Public Economics, 30: 145 164.

Calzata, Ines and Brooks, Clem (2013) "The Myth of Mediterranean Familism European Societies" 15(4): 514-534.

Card, David and Lemieux, Thomas (2000) *"Adapting to Circumstances: The Evolution of Work, School, and Living Arrangements among North American Youth"* In:

Blanchflower, D., and R. Freeman, (2000): Youth Employment and Joblessness in Advanced Countries, Chicago: University of Chicago Press, 171-214.

Chiuri, Maria Concetta & Del Boca, Daniela. (2010) "*Home-leaving decisions of daughters and sons*" Review of Economics of the Household, 8(3): 393-408.

Christopoulou, Rebekka (2008) *"The youth labour market problem in cross-country perspective"* In: G. DeFreitas, Young Workers in the Global Economy: Job Challenges in North America, Europe and Japan. Cheltenham, UK: Edward Elgar, 21-58.

Christopoulou, Rebekka (2013) *"Why have Labour Market Outcomes of Youth in Advanced Economies Deteriorated?"* The B.E. Journal of Economic Analysis and Policy. 13(1): 203-238.

Christopoulou, Rebekka and Maria Pantalidou (2018) *"Too poor to leave the nest? The Greek family as a safety net for young adults before and during the crisis"* In: Horen Voskeritsian Horen, Kapotas Panos, and Niforou Christina, The Greek Labour Market in Crisis: Challenges and Prospects, Routledge, forthcoming.

Christopoulou, Rebekka and Paul Ryan (2009) *"Youth Outcomes in the Labour Markets of Advanced Economies: Decline, Deterioration, and Causes"* In: Schoon Ingrid and Silbereisen Rainer K., Transitions from School to Work: Globalization, Individualization, and Patterns of Diversity, London: Cambridge University Press, 67-94.

Christopoulou, Rebekka and Vassilis Monastiriotis (2014) *"The Greek public sector wage premium before the crisis: size, selection and relative valuation of characteristics"* British Journal of Industrial Relations, 52(3): 579-602.

Christopoulou, Rebekka and Vassilis Monastiriotis (2016) *"Public-private wage duality during the Greek crisis"* Oxford Economic Papers, 68(1): 174-196.

Drydakis, Nick (2015) *"The effect of unemployment on self-reported health and mental health in Greece from 2008 to 2013: A longitudinal study before and during the financial crisis."* Social Science & Medicine, 128: 43-51.

Economou, Marina et al. (2016) *"Suicidal ideation and suicide attempts in Greece during the economic crisis: an update."* World Psychiatry, 15(1): 83-84.

Engelhardt, G. V., Eriksen, M. D. and Greenhalgh-Stanley, N. (2016) *"The Impact of Employment on Parental Coresidence"* Real Estate Economics. doi:10.1111/1540-6229.12152

Ermisch, John F. (1999) *"Prices, Parents, and Young People's Household Formation"* Journal of Urban Economics, 45(1): 47-71.

Ermisch, John, and Pamela Di Salvo (1997) "The Economic Determinants of Young People's Household Formation" Economica, 64(256): 627-644.

Giannelli Gianna Claudia and Chiara Monfardini (2003) *"Joint decisions on household membership and human capital accumulation of youths. The role of expected earnings and local markets"* Journal of Population Economics, 16(2): 265-285

Giuliano, Paola, (2007) *"Living Arrangements in Western Europe: Does Cultural Origin Matter?"* Journal of the European Economic Association, 5(5): 927-952.

Haurin, D., P. Hendershott and D. Kim. (1993) *"The Impact of Real Rents and Wages on Household Formation."* Review of Economics and Statistics 75: 284 293.

Iacovou, Maria (2002) *"Regional differences in the transition to adulthood."* Annals of the American Academy of Political and Social Science. 580: 40-69.

Kaplan, G.W. (2012) *"Moving back home: insurance against labour market risk."* Journal of Political Economy, 120(3): 446-512.

Klimaviciute, Justina et. al. (2017) *"Caring for dependent parents: Altruism, exchange or family norm?"* Journal of Population Economics. doi:10.1007/s00148-017-0635-2

Lee, Kwan and Gary Painter (2013) *"What happens to household formation in a recession?"* Journal of Urban Economics, 76: 93-109.

Manacorda, Marco and Errico Moretti (2006) *"Why do most Italian Youths Live with their Parents? Intergenerational Transfers and Household Structure."* Journal of the European Economic Association, 4: 800-829.

Martinez-Granado, Maite and Javier Ruiz-Castillo (2002) *"The Decisions of Spanish Youth: A ` Cross-Section Study."* Journal of Population Economics, 15: 305-330.

Matsaganis, Manos (2015) *"Youth unemployment and the Great Recession in Greece."* In: Dolado, Juan J., No Country for Young People? Youth Labour Market Problems in Europe, London: Centre for Economic Policy Research, 77-87.

Matsudaira, Jordan (2016) *"Economic conditions and the living arrangements of young adults: 1960 to 2011."* Journal of Population Economics, 29(1): 167-195.

McElroy, Marjorie B. (1985) *"The Joint Determination of Household Membership and Market Work: The Case of Young Men."* Journal of Labour Economics, 3(3): 293-316.

McElroy, Marjorie B., and Horney Mary Jean (1981) *"Nash-bargained Household Decisions: Towards a Generalization of the Theory of Demand."* International Economic Review, 22: 333-49.

Mellor, Jennifer (2001) *"Long-term care and nursing home coverage: are adult children substitutes for insurance policies?"* Journal of Health Economics, 20(4): 527-547.

OECD (2016) *"Society at a Glance 2016: OECD Social Indicators"* OECD Publishing, Paris. http://dx.doi.org/10.1787/9789264261488-en.

Pantalidou, Maria (2016) *"Η οικογένεια ως δίχτυ προστασίας για την οικονομική ανασφάλεια των νέων στην Ελλάδα της κρίσης"* Unpublished Master's Thesis,

Postgraduate Programme in Economic Sciences, University of Macedonia, Thessaloniki, (In Greek).

Rosenzweig, Mark and Kenneth Wolpin (1993) *"Intergenerational Support and the Life Cycle Incomes of Young Men and their Parents: Human Capital Investments, Coresidence, and Intergenerational Financial Transfers."* Journal of Labour Economics, 11: 84-112.

Saraceno, Chiara (1994) *"The ambivalent familism of the Italian welfare state Social Politics"* 1(1): 60-82.

Saraceno, Chiara (2016) *"Varieties of familialism: Comparing four southern European and East Asian welfare regimes"* Journal of European Social Policy, 26(4): 314-326.

Wiemers. E. Emily (2017) *"The Celtic Tiger and home leaving among Irish young adults"* Review of Economics of the Household, 15: 199-222.

Appendix

Table A 1: Weighted means and frequencies of selected variables, ages 40-60

	2005	2009	2013
Age	49.58	49.37	49.47
Completed education	10.41	10.95	11.63
Married/Cohabitating	0.84	0.82	0.79
Divorced/Widowed	0.09	0.08	0.09
Pensioners	0.05	0.05	0.06
Employed	0.66	0.69	0.59
Health insurance	0.97	0.97	0.93
Income from assets	0.06	0.04	0.06
Disabled	0.03	0.02	0.02

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