Figure 9.5 Shares of young people (aged 19–34 years; observed in their transition after acquiring a qualification) by occupational typology and country over the 4 years observed.
Source: Authors' calculations based on EU-SILC longitudinal data (2005–2012).

of reaching a skilled position, either well paid or not. In line with the literature, our data confirm a competitive advantage of tertiary graduates compared to upper secondary school-leavers. This is shown at aggregate level in Figure 9.6, but it is true for all countries considered: The secondary educated are more frequently found in the "failure" transitions compared to graduates; they are also less likely than graduates to be in "success" transitions.

Turning to analyzing the early development of occupational conditions after completion of education (separately by education level achieved), we explore the effect of entry occupational conditions on the job held 3 years later (using the typology devised in Figure 9.2). We estimated multinomial logit models with EU-SILC longitudinal data separately for the secondary and tertiary educated, adopting controls for age, sex, and country.

For every initial condition, the results in Figures 9.7 and 9.8 show the difference in probabilities for every final occupational status compared to being students. In other words, positive (above the central horizontal line) or negative (below the line) estimates illustrate how more(/less) likely it is for a young person to be found in the referred occupational condition (titles of graphs) rather than in education after 3 years, given the initial condition (*x* axis of each graph). Figure 9.7 shows a high stability over time for all statuses. For those who accomplished a secondary level of education, being in a "failure" state is associated with a higher probability of remaining so after 3 years (Figure 9.7, "Failure" graph, point above the line). A high degree of stability is also true for all other
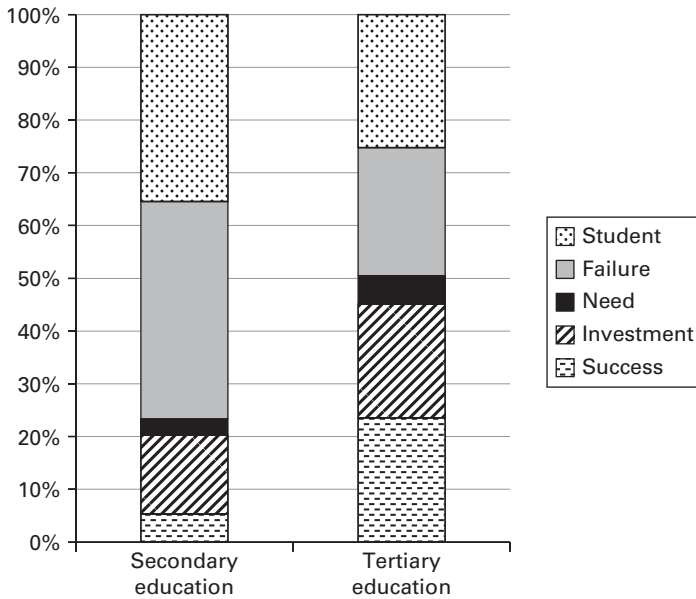
Figure 9.6 Shares of young people (aged 19–34 years; 3 years after acquiring a qualification) by typology and educational qualification.
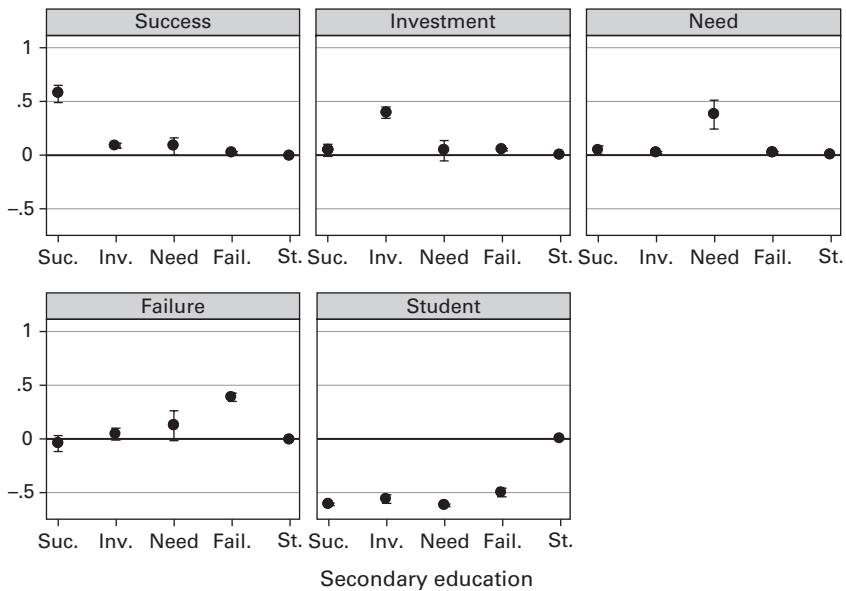*Source*: Authors' calculations based on EU-SILC longitudinal data (2005–2012).

Figure 9.7 Difference in predicted probabilities for every occupational status compared to being students (young people aged 19–34 years; 3 years after concluding secondary education).
Source: Authors' calculations based on EU-SILC longitudinal data (2005–2012).
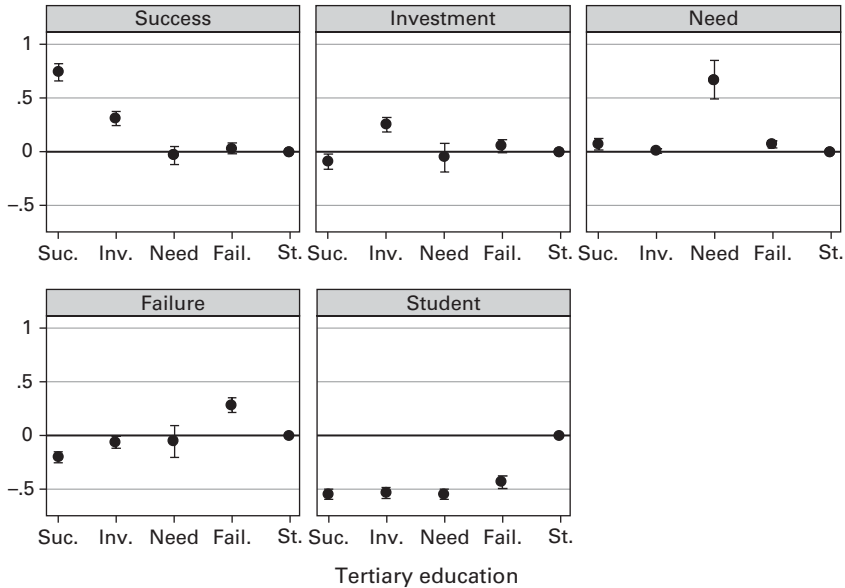
Figure 9.8 Difference in predicted probabilities for every occupational status compared to being students (young people aged 19–34 years; 3 years after concluding tertiary education).
Source: Authors' calculations based on EU-SILC longitudinal data (2005–2012).

statuses: need, investment, and success. However, as can be seen in the graph at the top left of Figure 9.7, those who were initially in an "investment" state also have somewhat higher chances of being found in a "success" state later (Figure 9.7, "Success" graph, second point above the line). This effect is small but statistically significant. The results are very similar for the tertiary educated (Figure 9.8), except for an even stronger effect of "investment" on the likelihood of "success"; that is, those who began in a skilled job that was initially poorly paid ("investment" status) have a much higher likelihood of later success.

The relevance of entering the labor market with a good job is found in all national contexts, with no statistically significant difference across countries. Therefore, even if we cannot conclude that the strength of the relationship is necessarily the same—due to the small sample sizes—our results suggest that the strategy of securing a good entry is valid everywhere.

In summary, we found a high persistence in statuses over the initial years of young people's employment careers, which highlights the relevance of the characteristics of the entry job. We also found that accepting a job that matches the jobseeker's level of education, even if poorly paid at the beginning but with increasing returns over time, qualifies "investment" choices as a possible real strategic move in the labor market that is associated with a higher likelihood of "success." Finding a good job to start with makes a major difference, especially for third-level graduates.

9.5. WHAT DIFFERENCE DO FAMILIES MAKE WITH REGARD TO HOW LONG ONE CAN WAIT?

The probability of being in one of the four outcome states of the proposed typology (success, investment, need, or failure; see Figure 9.2) varies according to the duration experienced in unemployment, the continuity of employment, and the conditions of entry into the labor market. To understand how this varies according to young people's social class of origin, we used the cross-sectional EU-SILC 2011 data, which contain a special ad hoc module on intergenerational transmission of disadvantages. In this module, it is possible to obtain information on the education level achieved by young people's parents and also for those who have already left the family of origin.[6] The subsample for our analysis comprises all young people aged 19–34 years who had obtained a secondary or tertiary educational qualification less than 5 years previously, for a total of 11,824 young people. We estimated the probability of being found in one of the four states illustrated in the typology described in Section 9.3 (see Figure 9.2). We tested for the social class of origin as defined on the basis of the higher education level between young people's mothers and fathers (criteria of dominance; Erikson and Goldthorpe 1992). Social class of origin, as based on education, is classified in three categories: high (tertiary), middle (upper secondary), and low (primary and lower secondary).

Multinomial logit models are controlled for sex, age, living independently or with parents, and country. For ease of interpretation, we again present the main results in the form of average predicted probabilities (marginal effects). Specifically, we illustrate the differences in probability for each category with respect to living with one's own parents and coming from a lower class (Figure 9.9, "IN Low class").

Results from Figure 9.9 clearly show a statistically significant effect of social class of origin on young people's occupational conditions within 5 years of obtaining an educational qualification. Among those who have left the parental household, we see that belonging to a high or middle social class increases the probability of being in a "success" status (Figure 9.9, first two lines of top left graph). All else being equal, success is more likely for the more advantaged strata of young people (a result in line with McKnight (2015) for the United Kingdom). We also show that among those who reside with their parents, youth from the high class have a lower probability of being in an "investment" condition (i.e., skilled job but low paid) compared to their peers from the low and the middle class (Figure 9.9, top right graph). These results point to a better capacity of wealthier families to have their children proceed more frequently and rapidly into skilled and well-paid occupations (be it through counseling, guidance, referrals, soft skills, or social networks), whereas lengthy co-residence with one's parents and resorting to initially low-paid occupations might be the most
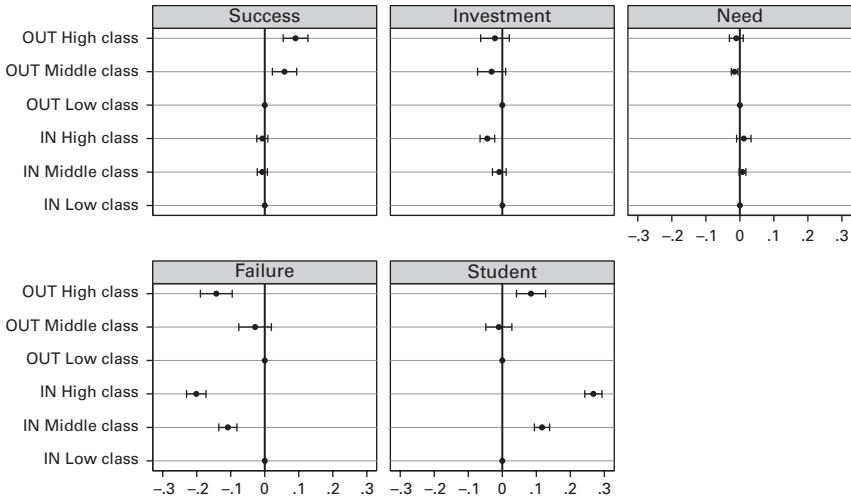
Figure 9.9 Differences in the predicted probability of being in each employment condition by social class of origin for young people (aged 19–34 years and who obtained a high school diploma or a third-level degree within the previous 5 years).
Source: Authors' calculations based on EU-SILC cross-sectional data (2011).

effective strategy for children from other backgrounds for finding employment that is consistent with their qualifications.

Longer co-residence could be an effective way for young people from the middle class to be able to obtain/accept skilled jobs, albeit (at least initially) poorly paid, but with interesting prospects of future opportunities. We also show that the probability of being found in a "failure" condition is lower for young people from the higher class, regardless of their residential independence from their parents, whereas it is lower for children from the middle class only when they still live in the parental home (Figure 9.9, "Failure" graph). Finally, a similar effect of social class of origin and co-residence with one's parents is also found around the decision to continue education (Berloffa et al. 2015; Berloffa, Matteazzi, and Villa, this volume). It is young people from the high class, and those from the middle class living with their parents, who have a higher probability of remaining enrolled in the education system and making further educational investments (Figure 9.9, bottom graph). The role of the family of origin is relevant in all countries. In this last analysis, we tested again for the interaction effect with the country of residence of the young people, and it did not prove to be statistically significant. We believe that all these findings highlight the persistence of a clear class divide for young people, regardless of the country context. The pursuit of "higher profile" career paths, here skilled jobs, is made easier for youth from the higher social class, whereas for children from other social backgrounds, the routes to success are strewn with obstacles. Staying longer in the parental home seems the most viable option for securing better employment

prospects for children from the middle class, whereas prospects are not as promising for children from the lower class.

9.6. CONCLUSIONS

In this chapter, we have shown that although both an early start and continuous employment are associated with more favorable outcomes (especially for the highly educated), these effects are relatively small and do not support the idea that any job is necessarily always better than joblessness, at least for a brief initial period. We have also shown, given a high degree of status stability over time, that the starting employment is highly predictive of subsequent outcomes. This explains why a well-matched start in terms of skills level, even if it entails a trade-off in accepting a lower salary or taking longer to find the right job, often seems to be a more successful strategy for securing better outcomes in the long term, especially for third-level graduates; similar results for Germany were found by Voßemer and Schuck (2016). Overall, careful career planning might include the risk of some initial turbulence, or a slightly longer period of unemployment, caused by giving up on unskilled job offers, but it can also enable the chance to find a better job fit.

Exploring the effects of initial occupations on later outcomes of qualified young people, we have also demonstrated that being poorly paid initially but in skilled occupations (an "investment" strategy) can represent an opportunity for young people that can result in a more successful positioning in the labor market. In contrast, unskilled occupations for qualified young people ("need" and "failure" strategies) can become an employment trap that is difficult to reverse in the long term; Reichelt (2015) presented similar findings for Germany. For qualified young people, it appears easier to pursue wage increases with tenure than it is to move from an unskilled to a skilled occupational position.

Finally, higher education still provides a significant stepping stone to a professional job and a successful position in the labor market. However, the capacity of young people to pursue tertiary education is still strongly stratified by family social class background and family/household work intensity (Berloffa, Matteazzi, and Villa, this volume).

Our analyses find support for a strong influence of the family social background on the strategies pursued and the occupational conditions (in terms of pay and skill levels) achieved by young individuals within 5 years of completing their education. These findings suggest a strong familial influence on young peoples' (un)successful employment outcomes. They point to mechanisms related to higher class families' greater success in informing (through advice and guidance), supporting (possibly through social networks, building aspirations, and more effective guidance through the education and employment systems), and possibly providing backup (through economic support

and/or longer co-residence) for young peoples' employment strategies. We have shown that the more effective strategies—those more likely to lead to better outcomes—often entail initial losses such as higher risks (longer or more likely unemployment) or investments (lower pay). These findings are in line with analyses on the risk of education and skill mismatch (McGuinness, Bergin, and Whelan, this volume), search methods for first employment, and the impact of unemployment duration on a successful job search (Flek et al., this volume).

Concerning country differences, we found different baseline shares of young people in each occupational status across countries, reflecting differences in the national institutional and economic contexts. However, we found no statistically significant evidence of different mechanisms linking duration in unemployment, continuity of employment, entry jobs, or social class of the family of origin to the degree of success in employment 3–5 years after acquiring an educational qualification in the five selected cases from the youth transition regimes typology. Our understanding is that mechanisms linking class influences to young people's employment outcomes, net of country-specific baseline levels, overtake specificities of youth transition regimes. We found young adults from the high social class to be in a more favorable position than those from the low class. We suppose that this advantage could be further exacerbated by the persistence of the recent economic downturn, which has led young people to increasingly struggle to make their way into stable employment in all countries analyzed (see Grotti et al., this volume). However, we did not focus on the effects of the Great Recession; thus, how the crisis affects the degree of success in employment for young people remains to be to be explored. Younger people and later entrants tend to be more affected than adults by recessions and stagnation and also to be more exposed to the differing capacities of their families to shield and support them. This is not only because the unemployment rate of young people rises more than that of adults during a recession but also because young people caught by the crisis are more vulnerable to its effects. They are likely to suffer the economic downturn for longer (being unemployed or in underemployment) and to have its effects spill over into their subsequent career steps (reduced contributions, weaker career opportunities, and higher unemployment risks). Young people will have to endure the consequences of their current fragility for a lengthier period also because they are at a formative stage in their lives. We limit our analysis to the initial 3–5 years for reasons of data availability, but further analyses should explore longer term consequences (Mooi-Reci and Wooden 2017). The quality of employment is also important (Van Lancker 2012). We considered wages and skills levels, but contractual security and long-term perspectives are also extremely important for young people's transitions to adulthood (Blossfeld et al. 2005). The growing incidence of temporary contracts is an issue of concern, particularly in those countries more strongly affected by the crisis in Europe. Although temporary jobs may facilitate the entry of young people into work, they might

lead to a precarious career rather than to permanent employment (Scherer 2005; Brzinsky-Fay 2007; O'Higgins 2010; Gebel and Giesecke 2016).

Our results suggest that as inequalities widen, parents' ability to invest in their children's success not only remains salient but also becomes even more important in determining life chances and sustaining inequalities. Given the strong influence that households' characteristics and families of origin exert in the strategies pursued by young people in accessing and establishing employment careers, further rises in unequal access to employment and income for households would jeopardize lower class young peoples' life chances and opportunities. Alternatively, they would unevenly strain families who have to compensate for retrenched welfare and increasingly fragile markets, with the higher pressure placed on more fragile families. Because the outcomes of employment careers seem so strongly influenced by what happens in the early period of establishment in the labor market, a comprehensive investment strategy in young people's transitions to employment should become a priority.

NOTES

1   Our sample selection might include some university dropouts but cannot include high school dropouts, given that we define success as "matching" between (at least) secondary level of education and a skilled job; thus, we are studying entrance into skilled employment (i.e., requiring at least a secondary-level qualification).
2   Had it been possible, we would also have chosen 5 years for the first two sets of analyses, but EU-SILC data do not allow this. Narrowing the observation window for the analyses of family influences to only approximately 3 years—when a longer time span was available—would have unnecessarily reduced the sample size.
3   Country- and yearly based figures computed on annual wages of full-time employed.
4   Employment continuity in this case does not necessarily imply continuity in the same job; rather, we modeled it as an absence of periods of unemployment.
5   In other words, we cannot exclude that the effect of the duration in unemployment is stronger in one country than in another, but the direction of the relationship is definitely similar and relevant. This also applies when we examine the descriptive statistics.
6   Building an indicator of the social class of origin on the basis of available EU-SILC data is subject to two limitations. The first concerns the framing of the question: The ad hoc module asks about parents' education level when the respondent was aged 14 years, whereas for those who live with their parents the measure is taken at the time of interview. The second, more serious limitation is that information about the parents of those who live independently is only requested of people aged between 25 and 59 years. This means that we

are lacking information on those who had already left the parental home at the time of interview but are not yet 25 years old. In our sample, this group amounts to approximately 17%.

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10

THE WORKLESSNESS LEGACY

DO WORKING MOTHERS MAKE A DIFFERENCE?

Gabriella Berloffa, Eleonora Matteazzi, and Paola Villa

10.1. INTRODUCTION

The analysis of intergenerational inequality and social mobility has attracted increasing attention in the past few decades. Several contributions have analyzed the influence of family background on educational and occupational attainments, highlighting either an intergenerational income inequality (Corak 2006; d'Addio 2007; Bjorklund and Jäntti 2009; Blanden 2013) or an intergenerational correlation of jobs and occupations between fathers and sons (Solon 1992; Black and Devereux 2011). A number of studies have focused on the intergenerational transmission of worklessness (see Section 10.2 for details). However, almost all of these contributions focus on a single country and on the influence of the occupational condition of either the father or the mother on their children's labor market outcomes. This chapter analyzes the intergenerational transmission of worklessness in a cross-country comparative perspective, investigating whether this transmission varies according to the gender of parents and the gender of their children and also across European country groups.

The contribution made by this chapter is threefold. First, this is the first comparative study at the European level on the influence of parents' employment status during their children's adolescence on the risk of worklessness among young people (aged 24–35 years). In fact, national-specific socioeconomic structures and labor market institutions are likely to affect the various channels of the intergenerational transmission of worklessness: economic, genetic, cultural/

familial, and social. As we argue in Section 10.2, the intergenerational correlation of worklessness should be higher in countries characterized by prolonged permanence of youth in the family of origin, low levels of borrowing among young people, social norms based on traditional gender roles within families, less developed and less efficient public employment and youth support services, low participation in active labor market policies (ALMPs), and less liberal labor markets. Thus, this chapter enhances the understanding of how labor market institutions and welfare systems affect labor market outcomes in a comparative perspective (Scruggs and Allan 2006; Gallie 2007; Halleröd, Ekbrand, and Bengtsson 2015).

Second, we consider the employment condition of both parents. When controlling for the employment status of a single parent, the estimated effect might also capture the spouse's effect due to assortative mating in marriage. Controlling for the employment condition of both parents limits this type of problem. Furthermore, it allows us to study the extent to which a young person's probability of being workless varies according to the family employment structure. For instance, we can compare the outcomes for children who grew up in a dual-earner family, in a male-breadwinner family, or with a lone working mother.

Third, we consider the effect of the mother-in-law's employment condition. Indeed, there may be a positive correlation between the participation in employment of women and that of their mother-in-laws via their husbands'/sons' attitudes toward domestic work and female labor market participation (Del Boca, Locatelli, and Pasqua 2000; Fernández, Fogli, and Olivetti 2004; Kawaguchi and Miyazaki 2009; Farré and Vella 2013).

Our empirical findings show that having had a working mother during adolescence considerably reduces the likelihood of being workless for both sons and daughters in all country groups except the Nordic countries. In contrast, the effects of fathers' and mother-in-laws' working condition are less widespread across countries.

The chapter is structured as follows: Section 10.2 reviews the relevant literature, Section 10.3 presents the data and the estimation methodology, Section 10.4 discusses the main empirical findings, and Section 10.5 concludes the chapter.

10.2. LITERATURE REVIEW AND THEORETICAL BACKGROUND

A number of studies have dealt with the intergenerational correlation of worklessness.[1] There is a robust consensus on the existence of a positive correlation between the worklessness of fathers and their sons (O'Neill and Sweetman 1998; Corak, Gustafsson, and Österberg 2004; Oreopoulos, Page, and Huff Stevens 2008; Macmillan 2010, 2013; Mader et al. 2015), between fathers and all their children (Johnson and Reed 1996; Bratberg, Nilsen, and Vaage 2008; Ekhaugen

2009; Gregg, Macmillan, and Nasim 2012; Zwysen 2015), and between mothers and their daughters' labor market participation (Del Boca et al. 2000; Fortin 2005; Fernández 2007; Farré and Vella 2013). However, almost all of these studies focus on the effect of the employment condition of only the father or only the mother on their children's worklessness. Only Ekhaugen (2009) considers the unemployment status of both parents, but she does not distinguish between fathers' and mothers' unemployment experiences.[2]

Several explanations for the existence of an intergenerational transmission of labor outcomes within households have been advanced in the literature. To begin with, parents' economic resources affect their offspring's labor market outcomes through higher investments in educational achievements (Becker and Tomes 1986). However, some authors have recently emphasized the direct impact of the family of origin on offspring employment and earnings, even when controlling for education (Mocetti 2007; Raitano 2011; Franzini, Raitano, and Vona 2013). Thus, other types of effects need to be considered. First, household income and wealth may affect children's employment status and their job search process by leading to different reservation wages or by making it easier to start an independent economic activity. Second, in addition to economic resources, there are other possible channels of influence that interact with each other: (1) genetic, (2) cultural/familial, and (3) social. The genetic channel operates through the inheritance of cognitive traits and soft skills that may influence career advancements (Bowles and Gintis 2002). The cultural/familial channel works through the parental effect on offspring's preferences, values, and attitudes. Specifically, parental work experience can modify young adults' aspirations and attitudes toward education and labor market participation—that is, their evaluation of paid work and their sense of stigma, their attitudes toward relying on welfare benefits and toward gender roles, and so on (Ekhaugen 2009; Macmillan 2010; Schoon et al. 2012; Zwysen 2015). Last, the social channel works through family networks. It is well known that family members' employment status can play a role through the social network on which young individuals are able to rely when they are searching for a job (Montgomery 1991; Granovetter 1995; Rees 1996; Petersen, Saporta, and Seidel 2000; Topa 2001). In particular, several studies find that children of nonworking parents are more disadvantaged in the labor market compared with young people whose parents are working and maintain a network of social contacts (O'Neill and Sweetman 1998; Corak and Piraino 2010).[3]

These three distinct channels might work differently across European countries, depending on national-specific socioeconomic structures and institutional contexts. To the best of our knowledge, there are no studies in the literature dealing with this issue. We now present some hypotheses about the influence of various institutions on the ways in which these channels might operate (they are summarized in Table A10.1 in the Appendix).[4] Recall that we are interested in effects other than those on education.

First, the effect of household economic resources on an individual's reservation wage might be low or even null in countries in which attitudes toward independence are strong and young people leave the family of origin quite early. The economic channel should also be less important in those countries in which it is easier or "more normal" for young people to have debts—for example, housing debts or student loans. As a consequence, the intergenerational correlation of worklessness related to the economic channel should be lower in countries in which youth economic independence occurs earlier (e.g., Nordic, English-speaking, and Continental countries) and in which borrowing is more common among young people (e.g., Nordic and English-speaking countries, but also Eastern countries regarding student loans).[5]

Second, regarding the cultural channel, we expect that children's imitation of their parents' condition will be stronger in contexts in which values are shared by the majority of people. Thus, the intergenerational correlation of worklessness should be lower in countries in which social norms are in favor of female participation in the labor market (e.g., Nordic, Continental, and Eastern countries) and should be higher in countries in which women are expected to be the main family caregivers (e.g., Mediterranean countries). However, it may also be that the transmission of attitudes toward paid work within families prevails over the social norms. Parental views about the importance of paid work may have persistent effects on their children's choices (Mooi-Reci and Bakker 2015).

Third, the extent of the effect related to the social channel (i.e., family networks) is likely to be affected by labor market institutions, such as the development and efficiency of public employment services (PES), the extent of ALMP, and so forth. The intergenerational correlation of worklessness should be lower in countries in which recourse to PES for finding a job is more widespread (e.g., Continental and Eastern countries) and in which participation in ALMP is high (e.g., Nordic and Continental countries). It should also be lower in countries in which hiring is more competitive and labor markets are more liberal (e.g., English-speaking countries), whereas it should be higher in countries in which family and informal networks matter more for finding a job (e.g., Mediterranean countries).

Finally, the genetic channel should become more relevant in countries with more competitive labor markets and education systems and with higher youth unemployment rates.

Based on the preceding discussion, our hypothesis is that the extent of the intergenerational correlation of worklessness is greater in countries characterized by prolonged permanence in the parental home, low levels of borrowing among young people, social norms based on traditional gender roles and a familialistic welfare system (in which women are expected to provide care to frail family members), less efficient and/or developed PES and education and training institutions, less efficient youth support services, low participation in ALMP, and a less liberal labor market. In particular, we expect the extent of the

intergenerational correlation of worklessness to be lower in Nordic, English-speaking, and Continental countries and to be greater in Mediterranean and Eastern countries.

This chapter contributes to the existing literature on the intergenerational cor-relation of worklessness by distinguishing between the effect of mothers' and fa-thers' worklessness on their sons' and daughters' employment status (considered separately). From previous studies, we expect that having had a working mother reduces female worklessness, whereas having had a working father reduces male worklessness. However, we have no prior hypotheses about the effect of fathers' working conditions on their daughters' employment or about the effect of mothers' working conditions on their sons' employment. Indeed, whereas the effect of the economic channel should be similar for both sons and daughters, the effects related to the cultural and social channels might be more differentiated across genders.

In addition to parental gender role attitudes, husbands' attitudes can also influence female participation in paid employment. There is evidence in the literature of a link between the labor market participation of women and that of their mother-in-laws via their husbands/sons (Fernández et al. 2004; Kawaguchi and Miyazaki 2009; Farré and Vella 2013). In other words, women married to men whose mothers worked are more likely to be employed them-selves. Fernández et al. (2004) identify two possible channels: Growing up with a working mother may either shape men's preferences for a working wife or provide men with a set of household skills and attitudes toward house-work that make them better partners for working women. In this chapter, we examine whether the working condition of the mother-in-law plays a role in explaining female employment in all European countries or only in some of them.

10.3. DATA AND ESTIMATION METHODOLOGY

This study is based on European Union Statistics on Income and Living Conditions (EU-SILC) data, which encompass extensive and comparable cross-sectional and longitudinal microdata at both the household and the individual level in 26 European countries. We use the 2011 wave because it provides sub-stantial information on parental education and occupation through the ad hoc module on the intergenerational transmission of disadvantages. We select a sample of young people aged 25–34 years.[6] We then model their employment status (employed; not in employment, education, or training (NEET);[7] or in ed-ucation) as a function of individual characteristics at the time of the interview and of family educational and occupational background in the period when the individual was approximately 14 years old. In order to estimate the intergenera-tional correlation of worklessness, we consider as workless young adults who are

NEET at the time of the interview and parents who were not in paid work when their children were adolescents.

The descriptive and econometric analyses are carried out separately for five groups of countries that are representative of the great heterogeneity of European labor market institutions and welfare systems:[8] Nordic (DK, FI, NO, and SE), Continental (AT, BE, CH, DE, FR, and NL), English-speaking (IE and UK), Mediterranean (CY, EL, ES, IT, MT, and PT), and Eastern European (BG, CZ, EE, HU, HR, PL, RO, and SK). We grouped countries according to our expectations about the effects of the various intergenerational transmission channels discussed in Section 10.2. These country groups also correspond to the classification adopted by Walther (2006), who defines different regimes of youth transitions. Eastern European countries are treated as a separate group because, according to Fenger (2007), half a century of communist rule has left institutional legacies that set Eastern European countries apart from other welfare systems.

We model the individual choice with respect to employment status as a multinomial logit model. Given that fathers' and mothers' employment conditions during their children's adolescence may impact differently on the labor market outcomes of their sons and daughters, we run separate analyses for young males and females. The set of control variables includes the following:

1. *Individual characteristics*: Age, educational attainment (at most lower secondary, at most upper secondary, and tertiary education), citizenship (individuals from non-EU countries), and motherhood status (young females with at least one child)[9]
2. *Partner's educational attainment* (at most lower secondary, at most upper secondary, and tertiary education)
3. *Cohabitation with parents* at the time of the interview
4. *Presence of parents when the young person was 14 years old* (both parents present, only one parent present, or no parents present)
5. *Parents' characteristics when the young person was 14 years old*: Employment status (employed), occupation (in a high-status occupation such as manager, professional, technician, or associate professional), and education level (tertiary education)
6. *Mother-in-law's employment status* (employed) when the husband/wife was aged approximately 14 years[10]
7. *Country and quarter* of the interview dummies

Table 10.1 shows some descriptive statistics regarding our sample of analysis. Cross-country differences in individual characteristics are in line with what is expected from official statistics. Nordic and Continental countries exhibit the highest shares of employed young people: More than 80% of males and more than 70% of females are in employment. They also show the lowest shares of NEETs. By contrast, Mediterranean and Eastern European countries record the

Table 10.1 Descriptive statistics of young people by country group and gender (individuals aged 25–34 years in 2011)

	Nordic countries		English-speaking countries		Continental countries		Mediterranean counties		Eastern countries	
	Males	Females	Males	Females	Males	Females	Males	Females	Males	Females
Employment status										
Employed	0.84	0.73	0.81	0.66	0.85	0.72	0.75	0.63	0.80	0.65
NEET	0.10	0.18	0.16	0.31	0.09	0.23	0.21	0.32	0.17	0.33
In education	0.07	0.09	0.07	0.03	0.05	0.04	0.05	0.05	0.02	0.02
Education										
Low	0.12	0.07	0.09	0.09	0.10	0.10	0.33	0.25	0.14	0.25
Medium	0.51	0.37	0.39	0.40	0.52	0.47	0.40	0.37	0.62	0.37
High	0.37	0.56	0.52	0.52	0.38	0.43	0.27	0.38	0.24	0.38
Parenthood status										
Parent	0.37	0.56	0.40	0.63	0.33	0.51	0.22	0.42	0.35	0.60
Cohabiting with parents (at the time of the interview)										
Yes	0.05	0.02	0.14	0.08	0.18	0.09	0.56	0.40	0.59	0.42
Presence of parents (when the young person was approximately age 14 years)										
Two parents	0.81	0.79	0.82	0.78	0.82	0.81	0.90	0.89	0.85	0.84
One parent	0.18	0.19	0.16	0.19	0.16	0.17	0.07	0.08	0.13	0.14
No parents	0.02	0.01	0.02	0.03	0.02	0.02	0.02	0.02	0.01	0.02

Household occupational structure (when the young person was approximately age 14 years)

Two-parent households (%)

Both parents working	0.80	0.80	0.58	0.56	0.59	0.62	0.43	0.45	0.82	0.81
Only father working	0.12	0.13	0.35	0.36	0.36	0.33	0.53	0.51	0.14	0.14
Only mother working	0.04	0.05	0.02	0.02	0.02	0.02	0.01	0.01	0.02	0.02
Neither parent working	0.03	0.03	0.05	0.05	0.03	0.03	0.02	0.03	0.03	0.03
One-parent households (%)										
Lone working mother	0.71	0.70	0.43	0.42	0.64	0.70	0.58	0.55	0.77	0.77
Lone nonworking mother	0.12	0.14	0.23	0.27	0.20	0.20	0.23	0.25	0.08	0.10

Notes: Nordic countries: DK, FI, NO, and SE; Continental countries: AT, BE, CH, DE, FR, and NL; English-speaking countries: IE and UK; Mediterranean countries: CY, EL, ES, IT, MT, and PT; Eastern European countries: BG, CZ, EE, HU, HR, PL, RO, and SK.
Source: Authors' calculation based on EU-SILC 2011 cross-sectional data.

highest shares of NEETs—approximately 20% of males and more than 30% of females—whereas the English-speaking countries are somewhere in between, with high shares of employed young men and high shares of young women as NEETs.[11] The five groups of countries are quite different in terms of youth educational attainments: Nordic and English-speaking countries record the highest shares of highly educated young people, whereas Mediterranean and Eastern countries have remarkably high shares of young individuals with low education levels. Generally, females are more educated than males. Mediterranean countries stand out for the lowest share of young people with at least one child and for a very high proportion of young adults living with their parents.

Our main interest is in examining the way in which young people's employment outcomes vary according to their parents' working condition when the young people were aged approximately 14 years. First, we consider both one- and two-parent families because this is a policy-relevant distinction and also because the share of young people who grew up with only one parent is not negligible. Indeed, as shown in Table 10.1, in Nordic, English-speaking, and Continental countries, for almost one out of five individuals in our sample, only one parent was present when the individual was aged approximately 14 years. However, for this group we consider only lone mother households, distinguishing between working and nonworking mothers, because the share of lone father families is very low and generally the lone father is employed.

Second, for two-parent households, we distinguish between dual-earner (or work-rich) families (in which both parents were working), male-breadwinner families (in which only the father was working), female-breadwinner families (in which only the mother was working), and workless (or work-poor) families (in which neither parent was working).[12] Table 10.1 confirms the findings of Anxo et al. (2007) and Van Dongen (2009), showing that the dual-earner model predominates in Nordic and Eastern countries, whereas the male-breadwinner model predominates in the Mediterranean countries.

Table 10.2 reports the key descriptive statistics for our subsequent empirical analysis: It shows the shares of young people (aged 25–34 years in 2011) by employment status (employed, NEET, and in education), household employment structure during adolescence, and group of countries. As expected, the share of NEETs increases for both males and females, moving from work-rich to work-poor households (in both one- and two-parent households). Three other, not so well known stylized facts appear in Table 10.2. First, no systematic differences emerge in the shares of students (in this age group) across household employment structures. Second, within workless families, the youth employment condition is more problematic in two-parent than in one-parent families (with the sole exception of males in Nordic countries). Third, in all country groups, daughters of lone working mothers display better employment outcomes than those who grew up in a male-breadwinner family. For sons, this is not always the case: Sons of lone working mothers are better off in English-speaking countries, whereas

Table 10.2 Youth employment status by household employment structure, country group, and gender (individuals aged 25–34 years in 2011)

	Nordic countries		English-speaking countries		Continental countries		Mediterranean countries		Eastern countries	
	Males	Females	Males	Females	Males	Females	Males	Females	Males	Females
Two-parent household with both parents working										
Employed	0.85	0.77	0.88	0.72	0.88	0.77	0.76	0.68	0.83	0.68
NEET	0.08	0.14	0.09	0.25	0.09	0.18	0.19	0.26	0.14	0.29
In education	0.07	0.09	0.03	0.03	0.03	0.04	0.06	0.06	0.02	0.02
Two-parent household with only father working										
Employed	0.87	0.63	0.76	0.64	0.85	0.67	0.76	0.61	0.75	0.55
NEET	0.09	0.27	0.21	0.34	0.10	0.29	0.21	0.36	0.23	0.44
In education	0.04	0.10	0.03	0.02	0.05	0.04	0.03	0.03	0.02	0.01
Two-parent household with only mother working										
Employed	0.75	0.66	0.87	0.55	0.84	0.67	0.59	0.55	0.74	0.61
NEET	0.18	0.20	0.13	0.45	0.11	0.27	0.33	0.35	0.24	0.38
In education	0.07	0.14	0.00	0.00	0.05	0.06	0.09	0.09	0.02	0.01
Two-parent household with neither parent working										
Employed	0.77	0.61	0.57	0.42	0.68	0.59	0.58	0.52	0.66	0.45
NEET	0.18	0.31	0.40	0.50	0.23	0.37	0.38	0.43	0.32	0.51
In education	0.05	0.08	0.03	0.08	0.09	0.04	0.04	0.04	0.02	0.04

Table 10.2 Continued

	Nordic countries		English-speaking countries		Continental countries		Mediterranean countries		Eastern countries	
	Males	Females	Males	Females	Males	Females	Males	Females	Males	Females
One-parent household with working mother										
Employed	0.83	0.70	0.84	0.75	0.82	0.72	0.75	0.64	0.76	0.63
NEET	0.11	0.20	0.14	0.25	0.12	0.23	0.19	0.32	0.22	0.34
In education	0.06	0.10	0.02	0.10	0.06	0.05	0.05	0.04	0.03	0.03
One-parent household with nonworking mother										
Employed	0.72	0.57	0.66	0.54	0.80	0.64	0.70	0.57	0.65	0.56
NEET	0.16	0.36	0.31	0.43	0.17	0.33	0.28	0.40	0.33	0.44
In education	0.13	0.07	0.03	0.03	0.03	0.03	0.02	0.03	0.02	0.00

Notes: For country groups, see notes to Table 10.1. Household employment structure refers to when young people were aged approximately 14 years.
Source: Authors' calculation based on EU-SILC 2011 cross-sectional data.

no relevant differences emerge in the other country groups. In Section 10.4, we verify whether these differences remain after controlling for individual and country characteristics.

10.4. RESULTS

This section presents the estimated marginal effects of the multinomial logit models and predicted outcome probabilities.

10.4.1. Marginal effects

The estimated marginal effects of the multinomial logit models for the five country groups are shown in Tables S10.1–S10.5 (see Supplementary Material). Selected results regarding the effect of parents' working status on youth employment outcomes are reported in Table A10.2 in the Appendix. Regarding individual characteristics, age increases females' employment probability in all country groups and reduces their probability of being NEET, whereas it has only weak effects on male employment outcomes. Educational attainments have, as expected, very large and significant effects in all country groups for both men and women: The higher the education level, the higher is the employment probability and the lower is the probability of being NEET. It is worth noting that the marginal effects are greater for females than for males, suggesting that education plays a more important role for women in avoiding poor labor market outcomes and accessing employment.[13] For young women, both living in a couple and having children generally reduce the probability of being employed and increase that of being NEET. However, although the effects of motherhood are significant in all country groups, those associated with living in a couple are significant only in Mediterranean and Eastern countries.[14] For young men, living in a couple either has no effect on their employment outcomes or the effects go in the opposite direction than for women. English-speaking countries are the only exception: Here, young males living with a partner have a higher probability of being NEET. Young individuals who still live with their family of origin are less likely to be employed and more likely to be NEET in all country groups, although the magnitude of the effect is smaller for men than for women.[15]

The cultural and social capital of parents, captured by their education level and type of occupation when their children were aged approximately 14 years, does not appear to have systematic effects on the employment status of young adults.[16] The working conditions of parents during their children's adolescence, instead, seem to play a more decisive role, with noticeable differences between young women and young men across Europe. For young women, having had a working mother increases the probability of being employed and reduces that of being NEET in all country groups but the Nordic countries. In English-speaking,

Mediterranean, and Eastern countries, the father's employment condition reinforces the effect of the mother's working condition by further increasing the employment probability and reducing the probability of being NEET. For young men, having had a working father during adolescence matters only in Nordic, Mediterranean, and Eastern countries, where it increases the probability of being employed and decreases that of being NEET. These effects are reinforced in Mediterranean and Eastern countries if the individual also had a working mother. Interestingly, having had a working mother positively affects male labor market outcomes also in English-speaking and Continental countries, where the working status of the father has no significant effects.

In other words, having had a working mother during adolescence reduces the likelihood of being workless for both sons and daughters in all country groups except the Nordic countries. The effects of fathers' working conditions, by contrast, are less widespread. Fathers' employment is important for both sons and daughters in the Mediterranean and Eastern countries, only for daughters in the English-speaking countries, and only for sons in the Nordic countries.

Interestingly, we find evidence of a significant "mother-in-law effect" for women in Continental, Mediterranean, and Eastern countries. Being married to a partner whose mother was working during his adolescence is associated with a higher probability for women of being employed and a lower probability of being NEET, with larger effects in the Mediterranean countries. As expected, the effect associated with the working condition of the mother-in-law is generally not significant for men, with the exception of Eastern countries, where having a mother-in-law who was working during his spouse's adolescence increases male employment probability and decreases the probability of being NEET.

10.4.2. Predicted outcome probabilities

Considering only marginal effects does not allow us to fully capture the differences between young people with respect to their parents' working condition during adolescence. Thus, in this section, we compare, ceteris paribus, the overall effect of having lived in a specific household type—for example, in a two-parent work-rich household, in a two-parent work-poor household, or with a nonworking lone mother. To do this, we first predict the probability of being NEET for "fictitious" individuals who have all the individual characteristics equal to the sample mean of their country group, except for education level and the presence and work experience of parents.[17] Second, we test whether the probability associated with a particular household type is larger or smaller than the others, and we compute the odds of being NEET for young adults who grew up in two different household types.[18] Table 10.3 shows some selected odds ratios for young adults with a high school diploma and a university degree, who represent the majority of our sample.

Table 10.3 NEET odds ratios of young people by household employment structure, gender, and country groups (individuals aged 25–34 years in 2011)

	2P-0W 2P-2W	P(N|2P-FW) P(N|2P-2W)	P(N|2P-0W) P(N|2P-FW)	P(N|1P-0W) P(N|1P-1W)	P(N|1P-0W) P(N|2P-0W)	P(N|1P-1W) P(N|2P-FW)
Young individuals with a high school diploma (medium-educated individuals)						
Females						
Nordic countries	1.00	1.00	1.00	1.00	1.00	1.00
English-speaking countries	**1.52**	**1.21**	**1.26**	1.00	1.00	1.00
Continental countries	**1.60**	**1.33**	1.00	1.00	1.00	1.00
Mediterranean countries	**1.41**	**1.20**	**1.17**	1.00	1.00	1.00
Eastern countries	**1.59**	**1.38**	**1.16**	1.00	**0.83**	**0.82**
Males						
Nordic countries	**1.92**	1.00	**1.81**	1.00	1.00	1.00
English-speaking countries	**1.68**	**1.55**	1.00	**1.96**	1.00	1.00
Continental countries	**1.51**	**1.33**	1.00	1.00	1.00	1.00
Mediterranean countries	**2.35**	**1.17**	**2.01**	1.00	1.00	**1.38**
Eastern countries	**2.06**	**1.42**	**1.45**	**1.39**	1.00	1.00
Young individuals with a university degree (highly educated individuals)						
Females						
Nordic countries	1.00	1.00	1.00	1.00	1.00	1.00
English-speaking countries	**1.77**	**1.28**	**1.39**	1.00	1.00	1.00
Continental countries	**1.67**	**1.36**	1.00	1.00	1.00	1.00
Mediterranean countries	**1.50**	**1.23**	**1.22**	1.00	1.00	1.00
Eastern countries	**1.70**	**1.44**	**1.19**	1.00	**0.80**	**0.80**

Table 10.3 Continued

	2P-0W 2P-2W	P(N|2P-FW) P(N|2P-2W)	P(N|2P-0W) P(N|2P-FW)	P(N|1P-0W) P(N|1P-1W)	P(N|1P-0W) P(N|2P-0W)	P(N|1P-1W) P(N|2P-FW)
Males						
Nordic countries	**1.94**	1.00	**1.83**	1.00	1.00	1.00
English-speaking countries	**1.71**	**1.57**	1.00	**2.06**	1.00	1.00
Continental countries	**1.53**	**1.34**	1.00	1.00	1.00	1.00
Mediterranean countries	**2.43**	**1.18**	**2.07**	1.00	1.00	**1.40**
Eastern countries	**2.20**	**1.46**	**1.51**	**1.45**	1.00	1.00

Notes: For country groups, see notes to Table 10.1. Household employment structure refers to when young people were aged approximately 14 years. Numbers in bold are significantly different from 1 at 5% significance level.
2P-2W, two-parent households with both parents working; 2P-FW, two-parent households with only the father working; 2P-MW, two-parent households with only the mother working; 2P-0W, two-parent households with neither parent working; 1P-MW, lone mother households with working mother; 1P-0W, lone mother households with nonworking mother.
Source: Authors' calculation based on EU-SILC 2011 cross-sectional data.

Inspection of Table 10.3 shows that, ceteris paribus, the probability of being NEET is substantially higher for young people who grew up in two-parent work-poor households as opposed to work-rich families. Females with a high school diploma and whose parents were workless during their adolescence have an approximately 40%–60% higher probability of being NEET than those whose parents were working (except in the Nordic countries). For medium-educated males, the difference is much larger: It ranges from 50% to more than 100% (and is very large even in the Nordic countries). These percentages are even larger for highly educated young people.

The odds between work-poor and male-breadwinner families, and between the latter and dual-earner households, reveal the significant and widespread effect of the mother's working condition and the less generalized (but relevant where it occurs) effect of fathers' employment. Young people who grew up in male-breadwinner families have, independently of their gender, a 20%–60% higher probability of being NEET than those who grew up in dual-earner households in all country groups except the Nordic countries. In other words, having had a working mother reduces the NEET probability by 15%–38% for both males and females, whatever their education level.

Fathers' employment has more differentiated effects both by gender and across countries. In English-speaking, Mediterranean, and Eastern countries, females who grew up in work-poor households have a 15%–40% higher probability of being workless compared to those who grew up in male-breadwinner families. In other words, having had a working father reduces females' NEET probability by 13%–29% in these countries, whereas it has no significant effects in Nordic and Continental countries. For males, fathers' worklessness during their adolescence has very large effects in Nordic and Mediterranean countries, moderate effects in Eastern countries, and no effects in English-speaking and Continental countries. In the Nordic and Mediterranean countries, males' probability of being NEET is 80%–100% higher if they grew up in a work-poor household, compared to those who grew up in a male-breadwinner family, whatever the education level. In Eastern countries, medium-educated (highly educated) males coming from work-poor households have a 45% (51%) higher likelihood of being NEET compared to young men who grew up in male-breadwinner families.

Among children of lone mothers, in all country groups, no significant differences emerge in females' risk of being NEET according to the lone mother's working condition. Sons of workless lone mothers, by contrast, have a much higher risk of being workless than sons of working lone mothers in English-speaking and Eastern countries (approximately 100% and 40%, respectively).

Finally, we can compare the situation of children who grew up in one- and two-parent households. Two comparisons deserve attention: (1) between work-poor families with one and two parents and (2) between lone working mothers and male-breadwinner families. Ceteris paribus, children who grew up in work-poor families have the same probability of being NEET, independently of whether

both parents or only one parent was present. The only exception regards young women in Eastern countries, for whom the presence of only the mother actually reduces their probability of being workless. Interestingly, children who grew up with a lone working mother are not disadvantaged compared to those who grew up in a male-breadwinner two-parent household, except for young men in Mediterranean countries. In Eastern countries, daughters whose lone mother was working are even less likely to be workless compared to those who grew up in male-breadwinner families. These results suggest that the relative advantage of children of lone working mothers (compared to young people coming from male-breadwinner families) that emerged from the descriptive analysis is generally explained by different individual characteristics. Indeed, when controlling for individual attributes, no significant differences in the NEET risk are found between young people who grew up in these two household types, with very few exceptions.

In summary, some unexpected qualitative results emerge from our analysis. First, male worklessness is affected only by mothers' employment in English-speaking and Continental countries and only by fathers' employment in Nordic countries. Both parents play a role in Eastern and Mediterranean countries. They have similar effects in Eastern countries, whereas fathers' employment is much more relevant in Mediterranean countries. Second, young females' worklessness depends on the working condition of both parents in English-speaking, Mediterranean, and Eastern countries, whereas only mothers' employment seems to matter in Continental countries. Third, the presence of only one parent does not lead to a systematic disadvantage. In particular, no differences emerge in children's worklessness risk between one- and two-parent work-poor households or between lone working mothers and male-breadwinner families (with very few exceptions).

In order to compare the magnitude of these effects, we consider the percentage increase in the NEET risk associated with the worklessness status of parents (ceteris paribus). We use this percentage increase as our measure of the extent of the intergenerational transmission of worklessness in the various countries. In Section 10.2, we expected to find a larger intergenerational correlation of worklessness in Mediterranean and Eastern countries and a smaller correlation in Nordic, English-speaking, and Continental countries. Our empirical results are partly in line with these expectations, and partly they contradict them.

As expected, the intergenerational transmission of worklessness is small, actually null, in Nordic countries, but only for daughters. Surprisingly, the transmission of worklessness from fathers to sons is particularly large in this country group (males' NEET risk increases by 80% if the father was workless during their adolescence compared to the case in which he was working). As expected, the intergenerational transmission of worklessness is larger in Mediterranean countries, but only for sons, and only with respect to fathers' employment. For

daughters, the effect of mothers' worklessness (and of both parents) is actually lower in Mediterranean countries than in other country groups.

Considering the two types of relationship that received more attention in the literature (that between mothers and daughters and that between fathers and sons), our results show that, unexpectedly, the transmission of worklessness between mothers and daughters is similar in all country groups (except the Nordic countries), although it is slightly larger in Eastern and Continental countries. The transmission between fathers and sons, by contrast, is more differentiated: It is higher in Mediterranean and Nordic countries and null in English-speaking and Continental countries.

Given that in our analysis we control for variables that possibly capture the influence of intergenerational transmission channels (i.e., parental employment status, education level, and type of occupation), unexpected findings may be the result of the effect of unobserved cultural factors or attitudes (i.e., unobservable family traits for which we cannot control) that are transmitted within the family and that induce individuals to adopt a labor market behavior that deviates from social norms. Or, their behavior may result from the role of informal social networks. In other words, social networks, which are supposed to play a role mainly in Mediterranean countries, matter in helping people find a job also in the other country groups.

Finally, our analysis reveals some important innovative evidence of the effects of these relationships, which has not to date been acknowledged in the literature on intergenerational transmission of inequalities and access to employment. Interestingly, the transmission of worklessness between mothers and sons is present in all country groups (except the Nordic countries); it is highest in English-speaking countries and lowest in Mediterranean countries. The transmission of worklessness between fathers and daughters is less widespread: null in Continental and Nordic countries, highest in English-speaking countries, and somewhat lower in Mediterranean and Eastern countries.

10.5. CONCLUSIONS

This chapter has examined how the intergenerational transmission of worklessness varies across different groups of European countries—characterized by distinct labor market institutions and welfare systems—and according to the gender of parents and the gender of their children. To this end, we have used a sample of young males and females aged 25–34 years from the EU-SILC cross-sectional data (2011), as well as information about the working conditions of their parents when the young people were aged approximately 14 years (from the ad hoc module on the intergenerational transmission of disadvantages).

Our empirical analysis has revealed that, ceteris paribus, having had a workless mother during adolescence increases the likelihood of being workless at

approximately 30 years of age for both sons and daughters in all country groups but the Nordic countries. The magnitude of the effect is quite similar across all country groups: The NEET risk for both males and females increases by approximately 20%–35% if the mother was workless, with somewhat larger effects in Eastern countries (by 40%) and between mothers and sons in English-speaking countries (by 55%).

Conversely, the effects of fathers' working conditions are less widespread. Fathers' employment is important for both sons and daughters in Mediterranean and Eastern countries, only for daughters in English-speaking countries, and only for sons in Nordic countries. The magnitude of the effect is also more differentiated: Males' NEET risk increases by 80%–100% if their father was workless in Mediterranean and Nordic countries and only by 48% if he was workless in Eastern countries. The transmission between fathers and daughters is much smaller: Approximately 15%–20% in Mediterranean and Eastern countries and 30% in English-speaking countries.

Unexpectedly, the percentage increase in the NEET risk associated with fathers' worklessness (ceteris paribus) is very large in Nordic countries and quite similar to that in Mediterranean countries. Again unexpectedly, the effect of mothers' worklessness is quite similar in all country groups (except in Nordic countries) and actually lower in Mediterranean countries. These results suggest that the consequences of different labor market institutions, family models, and welfare systems for the intergenerational transmission of worklessness are not very clear-cut. In particular, more research is needed to understand the link between fathers' and sons' employment experiences in Nordic and Mediterranean countries.

Another interesting result of our analysis is that the presence of only one parent does not lead to a systematic disadvantage. In particular, no differences emerge in the probability of being workless for young people growing up in one- and two-parent work-poor households or between those who grew up with lone working mothers or in male-breadwinner families (with very few exceptions). These results suggest that a key challenge for policymakers is that policies should not be limited to enhancing the employment probability of disadvantaged youth; rather, they should consider in parallel the difficulties faced by parents of teenagers. In fact, the adolescents who grew up in the years of the Great Recession with workless parents, particularly workless mothers, might suffer in the future when they start their working life. Perhaps the strongest policy implication that can be drawn from our analysis is that policymakers should pay attention to mothers' employment not only when their children are in their early years of life but also during the children's adolescence. Helping mothers to remain in or re-enter the labor market might have important consequences for their children's future employment prospects. Last, our results also suggest a need for policy initiatives aimed at fostering equality of opportunities by reducing the effects of parental background characteristics on individuals' own life chances.

NOTES

1 For the purpose of this research, people are defined as "workless" if they are unemployed or inactive. We do not distinguish between these latter two states because of the difficulties involved in differentiating between them. In particular, discouraged worker effects or entitlement rules for welfare benefits may bias the responses of individuals. Moreover, discouraged workers (i.e., available to work but not searching for a job), usually classified as inactive, are more similar in terms of behavior to the unemployed than to other inactive individuals (Centeno and Fernandes 2004).

2 Some of these studies are interested in determining whether there is a causal link between fathers' and children's worklessness. Empirical findings for Norway (Ekhaugen 2009), Sweden (Corak, Gustafsson, and Österberg 2004), the United Kingdom (Johnson and Reed 1996; O'Neill and Sweetman 1998; Macmillan 2010), and Germany (Mader et al. 2015) indicate a positive intergenerational correlation of unemployment but not a clear causal effect. Differently, Corak, Gustafsson, and Österberg (2004) and Oreopoulos et al. (2008) find evidence of a causal intergenerational effect in Canada.

3 Reliance on friends and relatives when searching for a job has increased over time. The effectiveness of networks depends on the characteristics of the jobseeker, his or her social ties, and the labor market institutions. For instance, unemployed women are less likely than unemployed men to rely on informal networks, and more educated jobseekers are more likely to count on friends and relatives when searching for a job (Ioannides and Datcher Loury 2004).

4 These hypotheses have been formulated on the basis of the review of the literature on the various channels through which parents' employment status during young people's adolescence might affect their children's employment outcomes when adults. See Berloffa, Matteazzi, and Villa (2017) for a review of the literature highlighting the channels through which the intergenerational transmission of worklessness might operate.

5 According to Eurostat statistics, the mean age of leaving the parental home is 21 years in Nordic countries, 24.5 years in English-speaking and Continental countries, and approximately 29 years in Mediterranean and Eastern countries. According to statistics from the Organization for Economic Co-operation and Development (OECD), the household debt is approximately 203% of net disposable income in Nordic countries, 180% in English-speaking countries, 135% in Continental countries, 118% in Mediterranean countries, and 65% in Eastern countries. Approximately 89% of British students enrolled in tertiary education have a student loan, compared to 70% in Norway; 43% in Sweden; 30% in Denmark, Finland, and the Netherlands; and slightly less than 20% in Hungary and Estonia.

6   We cannot include individuals younger than age 25 years because all the variables concerning family characteristics in the period when the individual was approximately 14 years old can be collected only for individuals aged between 25 and 60 years at the time of the interview.

7   Individual employment status is defined on the basis of the self-reported economic status at the time of the interview.

8   We cannot perform single-country analyses because of limited sample size at the country level. However, in order to account for cross-country heterogeneity within country groups, we control for country-fixed effects in our econometric models.

9   We do not control for fatherhood status because of the very low percentage of young fathers in education or NEET.

10 This information is not available for Nordic countries because only the respondent reports parental background information.

11 The share of NEETs is higher in Finland than in the other Nordic countries, and it is similar to what is observed in English-speaking countries. Within the Continental group, the Netherlands stands out for the lowest share of NEETs, which is close to that of the Nordic countries.

12 In the literature, two main methods are adopted to classify households according to the employment status of household members. The first distinguishes between workless and non-workless households (as in our approach); the second classifies households according to a work-intensity indicator (Cantillon and Vandenbroucke 2014). We cannot use this indicator because retrospective information on hours and months worked is not available in our data set.

13 For young women, we find an additional positive effect on the probability of still being in education in Mediterranean and Eastern countries, probably linked to the longer duration of tertiary education in these countries. This effect is observed also for young men in all country groups, except for the English-speaking countries.

14 In Continental, Mediterranean, and Eastern countries, motherhood also reduces the probability of being in education.

15 Generally, young people still living with their parents are also more likely to be in education.

16 When the results are significant, they generally increase the probability that the young person will still be in education (see also Filandri, Nazio, and O'Reilly, this volume).

17 For these variables, we set the relevant dummies equal to either 1 or 0 according to the type of family that we want to consider. To compute the probabilities, we use the estimated coefficients of the multinomial logit models, independently of their significance level.

18 We perform a series of one-sided tests because the direction of the difference between two probabilities is relevant for the analysis. For those pairs

of household types whose probabilities were not statistically different, we report an odds ratio equal to 1.

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APPENDIX

Table A10.1 Hypotheses about the intergenerational correlation (IC) of worklessness in different country groups by various channels of influence and related institutions

	Economic channel		Cultural channel	Social channel			
	Leaving the parental home (average age on leaving the parental home)[a]	Levels of borrowing (housing debts and student loans)[b]	Social norms—female activity rate[c]	PES (% of jobseekers using PES)[d]	Activation support (ALMP participants per 100 persons wanting to work)[e]	Genetic channel	Expected IC of worklessness
Nordic countries	Low IC (early economic independence)	Low IC (high levels of borrowing)	Low IC (high female activity rate)	High IC (low %) Exception: SE (quite high %)	Low IC (high %)	Low IC	Low IC
English-speaking countries	Medium IC (quite early economic independence)	Low IC (high levels of borrowing)	Medium-low IC (quite high female activity rate) Exception: IE (moderate activity rate)	High IC (low %)	n.a.	High IC	Medium IC
Continental countries	Medium IC (quite early economic independence)	Medium IC (medium levels of borrowing) Exception: low IC in NL (high levels of borrowing)	Medium-low IC (quite high female activity rate) Exceptions: BE and LU (quite low activity rate)	Medium IC (quite high %) Exception: NL (low %)	Low IC (high %)	Medium IC	Medium-Low IC
Mediterranean countries	High IC (late economic independence)	Medium IC (medium levels of borrowing)	High IC (low female activity rate) Exception: PT (quite high activity rate)	High IC (low %) Exceptions: EL and MT (moderate %)	Medium IC (moderate %) Exception: ES (high %)	High IC	High IC

Table A10.1 Continued

	Economic channel		Cultural channel	Social channel			
	Leaving the parental home (average age on leaving the parental home)[a]	Levels of borrowing (housing debts and student loans)[b]	Social norms— female activity rate[c]	PES (% of jobseekers using PES)[d]	Activation support (ALMP participants per 100 persons wanting to work)[e]	Genetic channel	Expected IC of worklessness
Eastern European countries	High IC (late economic independence)	High IC (low levels of borrowing) Exceptions: HU and EE (quite high use of student loans)	Medium-high IC (medium female activity rate) Exceptions: HU and RO (low activity rate)	Low IC (high %) Exceptions: RO, EE, and BG (moderate to low %)	High IC (low %)	High IC	Medium-High IC

Notes: Country groups: Nordic (DK, FI, NO, and SE); Continental (AT, BE, CH, DE, FR, and NL); English-speaking (IE and UK); Mediterranean (CY, EL, ES, IT, MT, and PT); and Eastern European (BG, CZ, EE, HU, HR, PL, RO, and SK). See Section 10.3 for more details.
[a]Eurostat's estimated average age of young people leaving the parental household by sex (2011).
[b]OECD's data on household debt as a percentage of net disposable income (2014) and on public loans to students in tertiary type A education (2011).
[c]Eurostat's activity rate for women aged 15–64 years (2011).
[d]Public employment services (European Commission, Directorate-General for Employment, Social Affairs and Inclusion).
[e]Eurostat's database on labor market policies.
ALMPs, active labor market policies; n.a. = not available; PES, public employment services.

Table A10.2 Predicted outcome probabilities (Pr) and marginal effects (M) for selected variables from the estimation of multinomial logit models

Country group	Estimate (E)	Females						Males					
		Employed		NEET		In education		Employed		NEET		In education	
		E	St. Err.	E	St. Err.	E	St. Err.	E	St. Err.	E	St. Err.	E	St. Err.
Nordic	Pr	0.798 ***	0.013	0.139 ***	0.011	0.063 ***	0.008	0.907 ***	0.009	0.066***	0.007	0.028***	0.005
	M: Working father	0.023	0.042	0.006	0.035	−0.029	0.025	0.059**	0.023	−0.040**	0.020	−0.019*	0.011
	M: Working mother	0.027	0.033	-0.036	0.026	0.009	0.020	−0.003	0.022	−0.004	0.018	0.006	0.012
	M: Working lone mother	0.022	0.070	−0.031	0.051	0.009	0.046	0.049	0.041	−0.009	0.035	−0.040**	0.020
	M: Working mother-in-law	—		—		—		—		—		—	
English-speaking	Pr	0.710 ***	0.015	0.160 ***	0.015	0.022 ***	0.004	0.886***	0.012	0.110 ***	0.012	0.005***	0.002
	M: Working father	0.090*	0.052	−0.086*	0.052	−0.003	0.007	0.010	0.032	−0.009	0.032	0.000	0.004
	M: Working mother	0.061 *	0.035	−0.059*	0.035	−0.002	0.006	0.047 *	0.027	−0.048*	0.027	0.001	0.003
	M: Working lone mother	0.024	0.073	−0.014	0.072	−0.010	0.011	0.041	0.053	−0.036	0.052	−0.005	0.006
	M: Working mother-in-law	0.039	0.036	−0.033	0.036	−0.006	0.007	0.045	0.030	−0.036	0.030	−0.008*	0.005

(*continued*)

Table A10.2 Continued

Country group	Estimate (E)	Females Employed E	St. Err.	NEET E	St. Err.	In education E	St. Err.	Males Employed E	St. Err.	NEET E	St. Err.	In education E	St. Err.
Continental	Pr	0.759 ***	0.006	0.187 ***	0.006	0.018 ***	0.002	0.921 ***	0.005	0.063***	0.004	0.016***	0.002
	M: Working father	0.031	0.029	−0.037	0.028	0.006	0.008	0.011	0.016	−0.008	0.015	−0.003	0.006
	M: Working mother	0.059***	0.013	−0.055***	0.013	−0.004	0.003	0.024***	0.008	−0.018**	0.008	−0.005*	0.003
	M: Working lone mother	−0.033	0.033	0.026	0.032	0.007	0.009	−0.028	0.018	0.015	0.017	0.013*	0.007
	M: Working mother-in-law	0.032**	0.013	−0.034***	0.013	0.002	0.004	0.007	0.011	−0.008	0.011	0.001	0.004
Mediterranean	Pr	0.682***	0.006	0.306***	0.006	0.012 ***	0.002	0.808***	0.006	0.184 ***	0.006	0.009***	0.002
	M: Working father	0.069**	0.030	−0.060**	0.030	−0.010 ***	0.004	0.144 ***	0.025	−0.140***	0.024	−0.004	0.003
	M: Working mother	0.056***	0.014	−0.056***	0.014	0.000	0.002	0.031 ***	0.012	−0.028**	0.012	−0.003*	0.002
	M: Working lone mother	0.008	0.045	−0.010	0.045	0.002	0.006	0.023	0.041	−0.022	0.041	−0.001	0.004
	M: Working mother-in-law	0.099***	0.018	−0.089***	0.017	−0.011 *	0.006	0.000	0.022	0.000	0.021	0.000	0.008

Eastern													
	Pr	0.691 ***	0.005	0.307 ***	0.005	0.002 ***	0.000	0.859 ***	0.004	0.139 ***	0.004	0.002***	0.000
	M: Working father	0.053 *	0.027	−0.055 **	0.027	0.002	0.002	0.057 ***	0.017	−0.057***	0.017	−0.001	0.001
	M: Working mother	0.104 ***	0.015	−0.104 ***	0.015	0.000	0.001	0.050***	0.010	−0.049***	0.010	0.000	0.000
	M: Working lone mother	−0.056	0.038	0.053	0.038	0.003 *	0.001	0.002	0.024	−0.003	0.024	0.001	0.001
	M: Working mother-in-law	0.033 **	0.015	−0.033 **	0.015	0.000	0.001	0.036 ***	0.012	−0.035***	0.012	−0.001	0.001

Notes: Dummies for country, quarter of interview, and missing information about parents' working status and education level are introduced. –, not controlled for. Marginal effects are computed at the sample mean of the variables.

Source: EU-SILC 2011 data for young people aged 25–34 years; see text for details.

*p < .10.

**p < .05.

***p < .01.

SUPPLEMENTARY MATERIAL

Table S10.1 Predicted outcome probability (Pr) and marginal effects (Mfx) in Nordic countries by gender

	Females						Males					
	Employed		NEET		In education		Employed		NEET		In education	
	Pr	St. Err.	Pr	St. Err.	Pr	St. Err.	Pr	St. Err.	Pr	St. Err.	Pr	St. Err.
Predicted outcome probability	0.798 ***	0.013	0.139 ***	0.011	0.063 ***	0.008	0.907 ***	0.009	0.066 ***	0.007	0.028 ***	0.005
	Mfx	**St. Err.**	**Mfx**	**St. Err.**	**Mfx**	**St. Err.**	**Mfx**	**St. Err.**	**Mfx**	**St. Err.**	**Mfx**	**St. Err.**
Individual characteristics at the time of the interview												
Age	0.027 ***	0.004	−0.011 ***	0.003	−0.016 ***	0.002	0.009 ***	0.003	0.000	0.002	−0.010 ***	0.001
Own education: medium	0.158 ***	0.041	−0.147 ***	0.035	−0.012	0.023	0.060 ***	0.021	−0.088 ***	0.015	0.028 **	0.014
Own education: high	0.217 ***	0.043	−0.180 ***	0.036	−0.037	0.024	0.072 ***	0.022	−0.106 ***	0.016	0.034 **	0.015
Partner's education: medium	0.059	0.041	−0.055 *	0.033	−0.005	0.026	0.021	0.036	−0.050 **	0.023	0.029	0.028
Partner's education: high	0.036	0.042	−0.034	0.034	−0.002	0.027	0.021	0.037	−0.048 **	0.024	0.028	0.029
Citizenship	−0.298 ***	0.067	0.189 ***	0.054	0.109 ***	0.030	−0.052	0.051	0.081 **	0.040	−0.029	0.028
Living with parents	−0.167 ***	0.057	0.162 ***	0.047	0.005	0.032	−0.017	0.024	0.039 **	0.020	−0.022	0.014
Living in couple	−0.024	0.044	0.056	0.037	−0.033	0.026	0.075 **	0.035	−0.026	0.021	−0.049 *	0.028
Motherhood	−0.129 ***	0.024	0.140 ***	0.021	−0.010	0.013	—	—			—	

Presence of parents when the young person was aged 14 years

Lone parent family	−0.005	0.069	0.039	0.049	-0.034	0.046	−0.035	0.037	−0.003	0.030	0.039*	0.021
Parentless	0.050	0.066	−0.023	0.050	−0.027	0.043	0.028	0.037	−0.004	0.031	−0.023	0.019
Family background information												
Working father	0.023	0.042	0.006	0.035	−0.029	0.025	0.059**	0.023	−0.040 **	0.020	−0.019*	0.011
Working mother	0.027	0.033	−0.036	0.026	0.009	0.020	−0.003	0.022	−0.004	0.018	0.006	0.012
Working lone mother	0.022	0.070	−0.031	0.051	0.009	0.046	0.049	0.041	−0.009	0.035	−0.040**	0.020
Working mother-in-law	—		—		—		—		—		—	
Father's occupation	−0.036	0.032	0.038	0.028	−0.002	0.017	0.006	0.021	−0.022	0.019	0.016 *	0.008
Mother's occupation	0.058*	0.031	−0.053 *	0.027	−0.005	0.015	−0.019	0.021	0.012	0.019	0.008	0.009
Father's education	−0.016	0.029	0.001	0.026	0.015	0.016	−0.005	0.019	0.006	0.018	−0.001	0.008
Mother's education	−0.071 ***	0.027	0.038	0.024	0.033 **	0.014	−0.003	0.019	−0.010	0.017	0.013	0.008
Observations	1,119		281		140		1,282		146		102	

Notes: Dummies for country, quarter of interview, and missing information about parents' working status and education level are introduced. –, not controlled for. Marginal effects are computed at the sample mean of the variables.

*$p < .10$.

**$p < .05$.

***$p < .01$.

Table S10.2 Predicted outcome probability (Pr) and marginal effects (Mfx) in English-speaking countries by gender

| | Females | | | | | | Males | | | | | |
| | Employed | | NEET | | In education | | Employed | | NEET | | In education | |
	Pr	St. Err.	Pr	St. Err.	Pr	St. Err.	Pr	St. Err.	Pr	St. Err.	Pr	St. Err.
Predicted outcome probability	0.710 ***	0.015	0.160 ***	0.015	0.022 ***	0.004	0.886 ***	0.012	0.110 ***	0.012	0.005 ***	0.002
	Mfx	St. Err.	Mfx	St. Err.	Mfx	St. Err.	Mfx	St. Err.	Mfx	St. Err.	Mfx	St. Err.
Individual characteristics at the time of the interview												
Age	0.016 ***	0.006	−0.013 **	0.006	−0.003 **	0.001	0.001	0.004	0.000	0.004	−0.001 *	0.001
Own education: medium	0.187 ***	0.055	−0.189 ***	0.053	0.002	0.008	0.120 ***	0.035	−0.123 ***	0.034	0.003	0.006
Own education: high	0.386 **	0.058	−0.384 ***	0.056	−0.001	0.009	0.156 ***	0.034	−0.157 ***	0.033	0.001	0.005
Partner's education: medium	0.104 **	0.052	−0.080	0.051	−0.024 ***	0.009	0.110 *	0.065	−0.160 ***	0.058	0.051 *	0.030
Partner's education: high	0.065	0.054	−0.050	0.053	−0.015	0.010	0.188 ***	0.067	−0.241 ***	0.060	0.053 *	0.029
Citizenship	−0.206 ***	0.065	0.186 ***	0.064	0.020 **	0.009	−0.110 **	0.055	0.097 *	0.054	0.014 **	0.007
Living with parents	−0.049	0.064	0.056	0.063	−0.007	0.007	−0.049 *	0.029	0.048 *	0.029	0.001	0.002
Living in couple	−0.035	0.053	0.039	0.052	−0.004	0.008	−0.083	0.065	0.144 **	0.057	−0.061 *	0.032
Motherhood	−0.320 ***	0.037	0.314 ***	0.037	0.006	0.005	—		—		—	

Presence of parents when the young person was aged 14 years

Lone parent family	0.003	0.054	−0.006	0.053	0.003	0.008	−0.086 **	0.040	0.083 **	0.039	0.002	0.005
Parentless	0.565	0.404	−0.411	0.389	−0.155 ***	0.052	−0.240 **	0.101	0.299 ***	0.095	−0.058 *	0.032
Family background information												
Working father	0.090 *	0.052	−0.086 *	0.052	−0.003	0.007	0.010	0.032	−0.009	0.032	0.000	0.004
Working mother	0.061 *	0.035	−0.059 *	0.035	−0.002	0.006	0.047 *	0.027	−0.048 *	0.027	0.001	0.003
Working lone mother	0.024	0.073	−0.014	0.072	−0.010	0.011	0.041	0.053	−0.036	0.052	−0.005	0.006
Working mother-in-law	0.039	0.036	−0.033	0.036	−0.006	0.007	0.045	0.030	−0.036	0.030	−0.008 *	0.005
Father's occupation	−0.017	0.035	0.013	0.034	0.004	0.006	0.075 ***	0.029	−0.076 ***	0.028	0.001	0.002
Mother's occupation	0.008	0.045	−0.015	0.045	0.007	0.007	−0.001	0.033	−0.002	0.032	0.002	0.003
Father's education	−0.025	0.045	0.022	0.045	0.003	0.008	−0.035	0.033	0.037	0.032	−0.003	0.003
Mother's education	−0.017	0.049	0.028	0.049	−0.011	0.009	−0.069 **	0.030	0.064 **	0.029	0.005	0.003
Observations	849		406		37		740		149		30	

Notes: Dummies for country, quarter of interview, and missing information about parents' working status and education level are introduced. –, not controlled for. Marginal effects are computed at the sample mean of the variables.

*$p < .10$.

**$p < .05$.

***$p < .01$.

Table S10.3 Predicted outcome probability (Pr) and marginal effects (Mfx) in Continental countries by gender

	Females						Males					
	Employed		NEET		In education		Employed		NEET		In education	
	Pr	St. Err.	Pr	St. Err.	Pr	St. Err.	Pr	St. Err.	Pr	St. Err.	Pr	St. Err.
Predicted outcome probability	0.759 ***	0.006	0.187 ***	0.006	0.018 ***	0.002	0.921 ***	0.005	0.063 ***	0.004	0.016 ***	0.002
	Mfx	St. Err.	Mfx	St. Err.	Mfx	St. Err.	Mfx	St. Err.	Mfx	St. Err.	Mfx	St. Err.
Individual characteristics at the time of the interview												
Age	0.011 ***	0.002	−0.006***	0.002	−0.005***	0.001	0.004***	0.001	0.001	0.001	−0.005***	0.001
Own education: medium	0.119 ***	0.020	−0.136 ***	0.019	0.017 **	0.008	0.035***	0.011	−0.060***	0.009	0.026***	0.007
Own education: high	0.192 ***	0.022	−0.203***	0.021	0.011	0.008	0.061***	0.013	−0.081***	0.010	0.020***	0.008
Partner's education: medium	0.063 ***	0.022	−0.057***	0.020	−0.007	0.008	0.037**	0.017	−0.048***	0.013	0.011	0.012
Partner's education: high	0.020	0.023	−0.027	0.022	0.007	0.008	0.043**	0.018	−0.060***	0.015	0.017	0.011
Citizenship	−0.189 ***	0.026	0.170 ***	0.025	0.020***	0.006	−0.076***	0.014	0.048***	0.013	0.028***	0.006
Living with parents	−0.063 ***	0.024	0.054**	0.024	0.010 ***	0.004	−0.031 ***	0.009	0.025***	0.008	0.007***	0.003
Living in couple	−0.036	0.025	0.052**	0.024	−0.016 *	0.008	0.055***	0.016	−0.023*	0.013	−0.032***	0.011
Motherhood	−0.254 ***	0.014	0.263***	0.013	−0.009**	0.004	—		—		—	

Presence of parents when the young person was aged 14 years

Lone parent family	0.023	0.029	−0.022	0.028	−0.002	0.008	0.006	0.016	0.005	0.014	−0.011 *	0.007
Parentless	−0.096 *	0.050	0.084*	0.048	0.012	0.013	−0.024	0.031	0.006	0.028	0.018 *	0.010
Family background information												
Working father	0.031	0.029	−0.037	0.028	0.006	0.008	0.011	0.016	−0.008	0.015	−0.003	0.006
Working mother	0.059 ***	0.013	−0.055***	0.013	−0.004	0.003	0.024***	0.008	−0.018 **	0.008	−0.005*	0.003
Working lone mother	−0.033	0.033	0.026	0.032	0.007	0.009	−0.028	0.018	0.015	0.017	0.013 *	0.007
Working mother-in-law	0.032 **	0.013	−0.034***	0.013	0.002	0.004	0.007	0.011	−0.008	0.011	0.001	0.004
Father's occupation	0.003	0.014	−0.007	0.014	0.004	0.003	0.001	0.009	−0.007	0.008	0.006**	0.003
Mother's occupation	−0.002	0.018	−0.001	0.018	0.003	0.003	−0.006	0.010	0.005	0.010	0.002	0.003
Father's education	−0.021	0.017	0.012	0.017	0.009***	0.004	−0.010	0.010	0.002	0.010	0.008**	0.003
Mother's education	0.017	0.020	−0.022	0.020	0.005	0.003	−0.004	0.011	−0.004	0.010	0.008***	0.003
Observations	4,111		1,327		248		4,333		480		257	

Notes: Dummies for country, quarter of interview, and missing information about parents' working status and education level are introduced. –, not controlled for. Marginal effects are computed at the sample mean of the variables.

*$p < .10$.

**$p < .05$.

***$p < .01$.

Table S10.4 Predicted outcome probability (Pr) and marginal effects (Mfx) in Mediterranean countries by gender

	Females						Males					
	Employed		NEET		In education		Employed		NEET		In education	
	Pr	St. Err.	Pr	St. Err.	Pr	St. Err.	Pr	St. Err.	Pr	St. Err.	Pr	St. Err.
Predicted outcome probability	0.682 ***	0.006	0.306***	0.006	0.012 ***	0.002	0.808 ***	0.006	0.184 ***	0.006	0.009***	0.002
	Mfx	St. Err.	Mfx	St. Err.	Mfx	St. Err.	Mfx	St. Err.	Mfx	St. Err.	Mfx	St. Err.
Individual characteristics at the time of the interview												
Age	0.014 ***	0.002	−0.011 ***	0.002	−0.003***	0.001	0.010 ***	0.002	−0.007***	0.002	−0.003***	0.001
Own education: medium	0.088 ***	0.016	−0.106 ***	0.016	0.018 ***	0.004	0.076 ***	0.012	−0.089***	0.012	0.014 ***	0.003
Own education: high	0.181 ***	0.018	−0.190 ***	0.017	0.009***	0.003	0.104 ***	0.015	−0.116 ***	0.014	0.012 ***	0.003
Partner's education: medium	0.049 ***	0.019	−0.053***	0.018	0.004	0.006	0.074 ***	0.023	−0.074***	0.022	−0.001	0.010
Partner's education: high	0.062 ***	0.024	−0.071 ***	0.024	0.009	0.007	0.149 ***	0.030	−0.147 ***	0.029	−0.001	0.010
Citizenship	−0.095 ***	0.022	0.104 ***	0.022	−0.009*	0.005	−0.044 **	0.023	0.061***	0.022	−0.017 *	0.009
Living with parents	−0.141 ***	0.018	0.128 ***	0.018	0.013 ***	0.004	−0.097	0.014	0.088***	0.014	0.009***	0.003
Living in couple	−0.110 ***	0.022	0.119 ***	0.022	−0.009*	0.005	0.034	0.021	−0.018	0.020	−0.016 *	0.009
Motherhood	−0.175 ***	0.016	0.187 ***	0.016	−0.012 ***	0.003						
Presence of parents when the young person was aged 14 years												
Lone parent family	−0.012	0.038	0.021	0.037	−0.009	0.006	0.028	0.032	−0.029	0.032	0.001	0.003
Parentless	0.047	0.048	−0.053	0.047	0.006	0.006	0.098 ***	0.037	−0.095***	0.037	−0.003	0.005

Family background information

Working father	0.069 **	0.030	−0.060**	0.030	−0.010 ***	0.004	0.144 ***	0.025	−0.140 ***	0.024	−0.004	0.003
Working mother	0.056 ***	0.014	−0.056***	0.014	0.000	0.002	0.031 ***	0.012	−0.028**	0.012	−0.003*	0.002
Working lone mother	0.008	0.045	−0.010	0.045	0.002	0.006	0.023	0.041	−0.022	0.041	−0.001	0.004
Working mother-in-law	0.099 ***	0.018	−0.089***	0.017	−0.011 *	0.006	0.000	0.022	0.000	0.021	0.000	0.008
Father's occupation	0.022	0.018	−0.028	0.018	0.006***	0.002	−0.029 **	0.014	0.026**	0.013	0.003*	0.002
Mother's occupation	−0.009	0.026	0.002	0.026	0.008***	0.003	−0.009	0.020	0.003	0.020	0.006**	0.002
Father's education	−0.034	0.028	0.028	0.028	0.006**	0.003	−0.028	0.020	0.020	0.020	0.008***	0.002
Mother's education	−0.039	0.031	0.041	0.031	−0.001	0.003	0.000	0.024	−0.001	0.024	0.001	0.002
Observations	4,396		2,214		321		4,991		1,382		302	

Notes: Dummies for country, quarter of interview, and missing information about parents' working status and education level are introduced. Marginal effects are computed at the sample mean of the variables.
*p < .10.
**p < .05.
***p < .01.

Table S10.5 Predicted outcome probability (Pr) and marginal effects (Mfx) in Eastern countries by gender

	Females						Males					
	Employed		NEET		In education		Employed		NEET		In education	
	Pr	St. Err.	Pr	St. Err.	Pr	St. Err.	Pr	St. Err.	Pr	St. Err.	Pr	St. Err.
Predicted outcome probability	0.691***	0.005	0.307 ***	0.005	0.002***	0.000	0.859***	0.004	0.139 ***	0.004	0.002 ***	0.000
	Mfx	St. Err.	Mfx	St. Err.	Mfx	St. Err.	Mfx	St. Err.	Mfx	St. Err.	Mfx	St. Err.
Individual characteristics at the time of the interview												
Age	0.019 ***	0.002	−0.018 ***	0.002	−0.001***	0.000	0.002	0.001	−0.001	0.001	−0.001 ***	0.000
Own education: medium	0.219***	0.018	−0.222 ***	0.018	0.003***	0.001	0.125 ***	0.009	−0.127 ***	0.009	0.002 ***	0.001
Own education: high	0.310 ***	0.020	−0.313 ***	0.020	0.002*	0.001	0.198 ***	0.013	−0.200***	0.013	0.002 **	0.001
Partner's education: medium	0.008	0.021	−0.037 *	0.020	0.029***	0.005	0.053***	0.015	−0.070***	0.015	0.017 ***	0.004
Partner's education: high	0.002	0.025	−0.033	0.025	0.030***	0.005	0.098***	0.020	−0.118 ***	0.019	0.020 ***	0.004
Citizenship	−0.076*	0.045	0.078 *	0.045	−0.002	0.002	−0.063***	0.021	0.062***	0.021	0.001	0.001
Living with parents	−0.056***	0.012	0.055 ***	0.012	0.001**	0.000	−0.039***	0.010	0.038***	0.009	0.001 ***	0.000
Living in couple	−0.053**	0.025	0.084 ***	0.025	−0.031 ***	0.005	0.026*	0.015	−0.005	0.015	−0.020 ***	0.005
Motherhood	−0.265***	0.014	0.267 ***	0.014	−0.001**	0.000						

Presence of parents when the young person was aged 14 years

Lone parent family	0.073**	0.034	−0.070**	0.034	−0.004***	0.001	−0.027	0.023	0.027	0.023	0.000	0.001
Parentless	0.002	0.035	−0.007	0.035	0.004***	0.002	0.054**	0.022	−0.054**	0.022	0.000	0.001

Family background information

Working father	0.053*	0.027	−0.055**	0.027	0.002	0.002	0.057***	0.017	−0.057***	0.017	−0.001	0.001
Working mother	0.104***	0.015	−0.104***	0.015	0.000	0.001	0.050***	0.010	−0.049***	0.010	0.000	0.000
Working lone mother	−0.056	0.038	0.053	0.038	0.003*	0.001	0.002	0.024	−0.003	0.024	0.001	0.001
Working mother-in-law	0.033**	0.015	−0.033**	0.015	0.000	0.001	0.036***	0.012	−0.035***	0.012	−0.001	0.001
Father's occupation	−0.008	0.017	0.007	0.017	0.001	0.001	0.012	0.012	−0.013	0.012	0.001***	0.000
Mother's occupation	0.005	0.015	−0.006	0.015	0.000	0.000	0.009	0.011	−0.009	0.011	0.001*	0.000
Father's education	−0.008	0.021	0.007	0.021	0.001	0.001	0.010	0.015	−0.011	0.015	0.000	0.000
Mother's education	0.005	0.021	−0.006	0.021	0.001*	0.000	−0.026*	0.014	0.025*	0.014	0.001*	0.000
Observations	6,406		3,239		226		7,939		1,710		231	

Notes: Dummies for country, quarter of interview, and missing information about parents' working status and education level are introduced. Marginal effects are computed at the sample mean of the variables.
*$p < .10$.
**$p < .05$.
***$p < .01$.

11

STUCK IN THE PARENTAL NEST?

THE EFFECT OF THE ECONOMIC CRISIS ON YOUNG EUROPEANS' LIVING ARRANGEMENTS

Fernanda Mazzotta and Lavinia Parisi

11.1. INTRODUCTION

The Great Recession has had a profound impact on the process of young people's transitions into adulthood. In particular, youth unemployment has increased disproportionately during the economic crisis, often leading young people to remain living with their parents. In fact, a number of studies have found that the share of young people living with their parents increased in many European countries in the early years of the crisis (Aassve, Cottini, and Vitali 2013). This chapter aims to expand on previous studies by providing a comparative analysis of home-leaving and home-returning by young people in 14 European countries during the period 2005–2013, which covers the years prior to, during, and after the recession of 2008–2009.[1] Drawing on the European Union Statistics on Income and Living Conditions (EU-SILC), the chapter analyzes, first, the probability of youth (aged 18–34 years) leaving home and, second, the probability of youth (aged 20–36 years) returning home (i.e., "boomeranging").

Exploiting the nature of EU-SILC's longitudinal data, we consider the two phenomena—leaving home and returning home—in a dynamic way; in other words, the same individual is observed in two consecutive years by living arrangement (i.e., living in the parental home or independently in the first year and living independently or returning to the parental home in the subsequent

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year). Living arrangements are strongly linked to employment and partnership.[2] For this reason, we simultaneously model these three outcomes: living independently, finding employment, and being in a partnership (either married or cohabiting with the partner). Our main hypothesis regarding the effects of the Great Recession is that it reduces the probability of leaving home and increases the probability of returning home.

Three main research questions are investigated in this chapter: Is there a negative (positive) effect of the Great Recession on leaving (returning) home? Does the effect persist after considering the two main drivers of leaving and returning home (i.e., employment and partnership)? Are there significant differences across country groups?

The chapter is organized as follows. Section 11.2 provides a literature review, and Section 11.3 discusses the data used and the research design. In Section 11.4, we present descriptive statistics with regard to the effect of the crisis on leaving and returning home. We present our econometric model in Section 11.5 and discuss the empirical results in Section 11.6.

11.2. LITERATURE REVIEW

The literature analyzing the decision of young adults to live with their parents (or, conversely, to leave the parental home) identifies four different sets of determinants: (1) age-related events (in particular, employment and partnership), (2) institutional and cultural factors (labor market regulations, welfare provisions, and social norms), (3) macrostructural factors (i.e., labor market characteristics, economic cycles, and housing market conditions), and (4) rational choice/exchange perspectives and preferences of children and parents.

The first group of determinants deals with young adults' involvement in age-related events such as completing school, getting a job, starting a career, forming a family, or bearing children. Any of these events can lead to a decision to leave the parental home (Berngruber 2015). Among these events, partnership and employment are found to play a crucial role. Indeed, partnership is the most widely reported factor behind young adults' decisions to leave home: Adult children in partnerships are more likely to leave the parental home than are their unpartnered peers (O'Higgins 2006; Hank 2007; Lei and South 2016). Getting a job is widely reported as another crucial event. For instance, Jacob and Kleinert (2008) find that, in Germany, nonemployment delays household formation and that the longer young adults have been unemployed, the less likely they are to leave home. Ayllón (2015) finds that employment and leaving home are two closely linked phenomena in Southern Europe but that the same is not true in Nordic countries. Mazzotta and Parisi (2015a) provide evidence that employed young people in Italy are more likely to leave the family of origin than are jobless youth, after controlling for parental background.

The second group of determinants concerns institutional and cultural factors such as labor market regulations, welfare provisions (unemployment benefits and social assistance), and social norms (Billari 2004; Chiuri and Del Boca 2010; Settersten and Ray 2010). Labor market regulations (e.g., employment protection legislation or active labor market policies) and the generosity of the welfare state (i.e., social assistance and unemployment benefits)—both of which differ across countries—affect both the economic independence of young people and access to affordable accommodation. It has been shown that leaving the parental home is closely linked to the probability of young people receiving social assistance in the Nordic countries (Ayllón 2015). Social norms and culture differ significantly by country (as discussed later in this section) and by gender, albeit with some similarities across countries (related to gender roles in paid and unpaid work), which explains some differences between women and men in the decision to leave home. Women have a lower threshold for economic independence and are more likely to start a family during unemployment than are men (Ermisch 1999).

The third group of determinants concerns macrostructural factors, such as labor market characteristics (youth/prime-age unemployment rate and labor market segmentation), the economic cycle (i.e., economic growth and downturn), and housing conditions. In particular, the prices and the scarcity of rented housing are acknowledged in the literature as reasons that explain young people delaying leaving the parental home (Aassve et al. 2002; Iacovou 2002; Gökşen et al. 2016). Martins and Villanueva (2006) show that differences in mortgage markets across Europe can explain up to 20% of the cross-country variance in establishment of new households. Given that comparable data on housing market conditions are not available for a large number of EU countries or over time (2005–2013), we limit the focus of our empirical analysis to the other two key determinants of leaving and returning home, namely employment and partnership.

Finally, the fourth set of determinants considered in the literature concerns rational choice/exchange perspectives and preferences. Children are assumed to compare the costs and benefits of living with their parents with alternative living arrangements and to then choose the arrangement that offers the most highly valued net benefits. This could depend on the intra-household transfer of time and money, the personal income of young adult children, family income, or the health of parents (Ermisch 1999; Manacorda and Moretti 2006; Mazzotta and Parisi 2015b). Medgyesi and Nagy (this volume) study the extent to which young adults living with their parents contribute to household expenses. They find that the majority of young adults benefit from intra-household sharing of resources within the family. However, a small group of young adults living at home (mainly in Eastern European countries) tend to support their parents: Their contribution to the household budget is higher than that of their parents.

Differences across countries in the share of young people living at home are explained in the literature mainly on the basis of both institutional/cultural factors and macrostructural determinants. Jones (1995) and Reher (1998) identify Southern and Eastern European cultural roots as reasons for late home-leaving and also for the strong synchronization between leaving and first marriage. Others emphasize the poor economic conditions (related to labor market conditions) for young adults in Southern countries (Saraceno 2015). Esping-Andersen (1999) focuses on the peculiarities of the Southern European welfare system, which is characterized by a lack of support for young unemployed people and by the crucial role played by the family in helping them. Reher argues that Northern countries, characterized by early home-leaving, have "weak" family ties and a sense of "social," rather than familial, solidarity with elderly or frail members of society. In Nordic and Continental countries, parents with high incomes help their children leave home, whereas in Southern and some Eastern European countries, parents seem to use their high incomes to delay the departure of children (Iacovou 2010). The decision to co-reside could also depend on parents' economic needs (Medgyesi and Nagy, this volume).

Studies on young people returning home are scarce and mainly focus on returning migrants (see Le Mare, Promphaking, and Rigg 2015; Masso et al., this volume).[3]

The four groups of determinants outlined previously for the analysis of young people's reasons for leaving the parental home can also apply to their reasons for returning home. For instance, young people are more likely to return to the parental home at the end of formal education. Stone, Berrington, and Falkingham (2014) indicate the awarding of a final degree as a key turning point for students deciding to return home.[4] Several other studies highlight the importance of a change in economic activity status (i.e., becoming unemployed) in fostering a potential return to the parental home. Separation and divorce increase the likelihood of returning to live with one's parents (DaVanzo and Goldscheider 1990; Mitchell, Wister, and Gee 2000); however, the association between partnership dissolution and returning home is moderated by gender and parenthood (Stone et al. 2014). Overall, men are more likely than women to return to the parental home following the dissolution of marriage or cohabitation (Ongaro, Mazzuco, and Meggiolaro 2009). Studies have also found that returning home is related to institutional factors, such as welfare provisions (Berrington, Stone, and Falkingham 2013) and cultural norms (Boyd and Pryor 1989). Returns to the parental home at the end of formal education are likely to increase as a result of rising levels of student debt and a weaker graduate jobs market (Andrew 2010; Clapham et al. 2012); economic status and employment conditions can also increase the likelihood of returning home (Goldscheider and Goldscheider 1999). Finally, with regard to the economic crisis, together with later home-leaving, studies have found evidence of a "boomerang" phenomenon in France, Spain, and the United Kingdom, with increasing numbers of young people returning

to their parents' home after having lived independently (Plantenga, Remery, and Samek Lodovici 2013).

11.3. RESEARCH DESIGN

In order to examine the phenomena of both leaving and returning home in 14 EU countries (AT, BE, CY, CZ, EE, ES, FR, IT, LT, LU, LV, PL, PT, and SI),[5] we used EU-SILC longitudinal data. We considered eight panels covering the period from 2005 to 2013.[6] For each panel, we considered periods of 2 years each (e.g., for the panel from 2005 to 2008, there are three 2-year periods: 2005–2006, 2006–2007, and 2007–2008), and for each 2-year period we considered the change (or not) in living arrangements between the two points in time (i.e., the beginning, time t, and the end, time $t + 1$). Thus, the first dependent variable is the observed transition of *l*eaving the parental home (L). L describes whether young people who were living in the family of origin at time t are still living with their parents at $t + 1$ or have left.[7] The second dependent variable is the observed transition of *r*eturning to the parental home (R). R describes whether young Europeans who were living on their own at time t are still living without their parents at $t + 1$ or have returned to live with at least one of them.[8]

We constructed two samples—one for those leaving and one for those returning. The leaving-home sample consists of young people aged 18–34 years the first time they are observed. The returning-home sample consists of young people aged 20–36 years the first time they are observed. We excluded students from both samples so as to make the results comparable across countries.[9] In order to improve the interpretation of the results, we grouped countries in four classes: Continental, Southern, Eastern, and Baltic countries. Both the descriptive and the econometric analyses are carried out separately for the four groups of countries. The small sample size at the single-country level (above all for the sample of returning home) makes it necessary to group countries.

Given the great heterogeneity of European labor market institutions and welfare systems, to group countries we follow the classification developed by the European Commission (2006, 2007). Using a principal component analysis, the European Commission groups 18 European countries according to three dimensions of labor market/flexicurity systems: income/employment security, numerical external flexibility/employability, and tax distortions.

The Continental group of countries (AT, BE, FR, and LU) is characterized by (1) intermediate to high security, (2) intermediate to low flexibility, and (3) intermediate to high taxation. In this group, social benefits are targeted at individuals who belong to specific categories, such as a specific type of family or a specific type of worker. In the Southern group of countries (CY, ES, IT, and PT), welfare coverage tends to be "residual" and largely left to the family. It tends to be characterized by (1) relatively low security, (2) low flexibility, and (3) no clear

pattern on taxation. The Eastern group (CZ, PL, and SI) is characterized by (1) insecurity, (2) intermediate to high flexibility, and (3) intermediate to high taxation. Finally, we distinguish the Baltic group of countries (EE, LT, and LV) from the Eastern European group because the Baltic countries are more similar to the Continental countries with regard to family formation (Eurofound 2014) and implemented flexibility/protection patterns (Anca 2012).

11.4. DESCRIPTIVE STATISTICS

In this section, we provide descriptive statistics on key variables, focusing on the role of the economic crisis across the four groups of countries. Table 11.1 shows the share of young people (aged 18–34 years) leaving home during the period under consideration (2005–2013). The lowest percentage of youth leaving the parental home is found in the Eastern, Baltic, and Southern European countries (on average, 3.0%, 4.5%, and 5.9%, respectively, over the entire period). The highest percentage is found in the Continental countries (13.6%, on average, over the entire period). Except for the Eastern countries, where the exit rate is very low for all the years considered, descriptive statistics show that the other three groups of countries register a decrease in the share of young people leaving home between 2005 and 2013.[10] However, whereas for the Continental countries we detect two decreases—one just after the onset of the crisis (2009–2010), from

Table 11.1 Observed rate of home-leaving at time $t + 1$ for young people (aged 18–34 years) living with their parents at time t (students are excluded) by group of countries, 2005–2013 (%)

Year	Continental	Southern	Eastern	Baltic	Total
2005–2006	15.5	6.3	3.3	6.9	9.4
2006–2007	15.6	5.8	3.3	5.5	8.8
2007–2008	12.8	7.0	3.1	3.7	8.3
2008–2009	15.3	6.2	3.3	3.4	9.1
2009–2010	10.8	5.0	2.7	4.9	6.7
2010–2011	14.3	7.3	2.7	4.5	9.2
2011–2012	12.5	4.8	3.4	3.4	7.4
2012–2013	9.8	4.1	2.2	3.9	5.5
Total	13.6	5.9	3.0	4.5	8.2
Sample size	2,890	4,492	1,640	1,021	10,043

Notes: Percentages are calculated each year as the number of young people who have left home at time $t + 1$ divided by the total number of young people (excluding students) living in the parental home at time t. Continental countries: Austria, Belgium, France, and Luxembourg; Southern countries: Cyprus, Italy, Portugal, and Spain; Eastern countries: Czech Republic, Poland, and Slovenia; Baltic countries: Estonia, Latvia, and Lithuania.

Table 11.2 Observed rate of home-returning at time $t + 1$ for young people (aged 20–36 years) living away from parents at time t (students are excluded) by group of countries, 2005–2013 (%)

Year	Continental	Southern	Eastern	Baltic	Total
2005–2006	0.5	0.9	1.1	0.6	0.6
2006–2007	0.6	0.7	0.4	0.6	0.6
2007–2008	0.6	1.0	0.5	0.6	0.7
2008–2009	0.4	1.1	0.4	1.4	0.6
2009–2010	1.2	1.2	0.5	1.4	1.1
2010–2011	0.5	1.0	0.7	1.0	0.6
2011–2012	0.8	1.4	0.4	0.4	0.9
2012–2013	0.3	1.1	0.3	0.4	0.5
Total	0.6	1.0	0.5	0.8	0.7
Sample size	543	803	378	262	1,986

Notes: Percentages are calculated each year as the number of young people who returned home at time $t + 1$ divided by the total number of young people (excluding students) living independently at time t. Continental countries: Austria, Belgium, France, and Luxembourg; Southern countries: Cyprus, Italy, Portugal, and Spain; Eastern countries: Czech Republic, Poland, and Slovenia; Baltic countries: Estonia, Latvia, and Lithuania.

15.3% to 10.8%, and another (in 2011) from 14.3% to 12.5%—the effect in the Southern countries is postponed to 2011 (with a decline from 7.3% to 4.8%).

With regard to returning to the parental home (Table 11.2), all four groups of countries show very low rates (less than 1% on average). However, we do find differences during the economic crisis. Whereas in Continental countries we observe an increase from 0.4% to 1.2% at the beginning of the recession (2008–2009), in Southern countries the increase does not occur until 2011–2012. Overall, the rate of home-returning decreases for all groups of countries in 2012–2013 (see Table 11.2).[11]

When studying the effect of the economic crisis on leaving and returning home, we should consider, separately, the probability of finding a job and the decision to form a family. Figure 11.1a presents the percentage of employed among young people who are still living with their parents at time $t + 1$, compared to those who have left home at time $t + 1$. Figure 11.1b presents the percentage of individuals in partnerships among young people who are still living with their parents at time $t + 1$, compared to those who have left home to live independently.

Young people who have left home are more likely to be employed than those who are still living with their parents (83% vs. 70%, on average),[12] and this difference is higher for Continental countries, suggesting that young people decide to leave the parental home once they have found a job (see Figure 11.1a). The same pattern is found for partnerships:[13] Young people who have left home are more likely to be in a partnership than those who are still living with their parents. On average, 55% of those leaving home are in a partnership at $t + 1$ (for Eastern
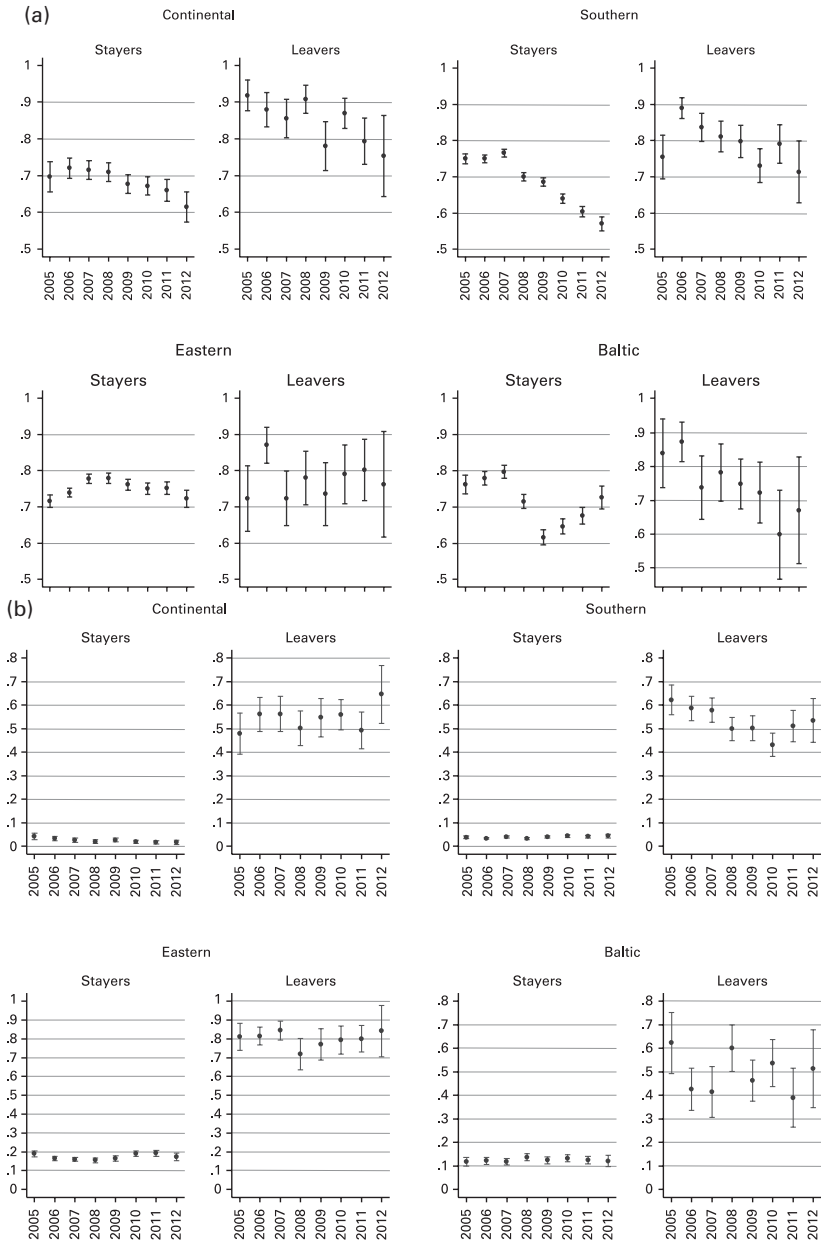
Figure 11.1 (a) Share of young people employed at time $t + 1$ by group of countries, distinguishing between those who stayed at home (stayers) and those who left home (leavers) in the period under consideration (confidence interval at 95% level). (b) Share of young people in a partnership at time $t + 1$ by group of countries, distinguishing between those who stayed at home (stayers) and those who left home (leavers) in the period under consideration (confidence interval at 95% level).

countries, the percentage is particularly high at approximately 70%), compared to approximately 4% for those who stayed at home (17% and 12%, respectively, for the Eastern and Baltic countries; see Figure 11.1b). The Baltic and Eastern European countries have particularly high shares of people in a partnership and living with their parents. In general, for all groups of countries, partnership seems to be more important than employment in explaining home-leaving (there are statistically significant differences in the percentages of partnership among leavers and stayers).

As a result of the depth and duration of the economic crisis, young people are less likely to be in employment in Continental, Southern, and Baltic countries (see Figure 11.1a).[14] Whereas the differences are statistically significant for those who remained in the parental home, there are no statistically significant differences for those who left. Our results are in line with those found by the European Commission (2014, 32, Table 15) and are consistent with the hypothesis that during the economic crisis, young people have a greater need to find a job as a precondition for leaving home. Finally, we do not find statistically significant differences for the share of young people in a partnership across time periods among stayers, whereas the changes found for leavers do not follow a precise trend (see Figure 11.1b). In summary, young people who leave home are likely to be working or in a partnership, especially in the Southern countries.

In Continental countries, being employed is the main factor associated with leaving the parental home, given that in these countries young people also leave when they are single.[15] Thus, we find different cultural patterns (in accordance with the literature), with (single) young people in Continental countries becoming independent (much earlier), whereas in Southern and Eastern countries they mainly leave home in order to start a family (and/or a relationship). Moreover, in Continental countries, employment status is more important than partnership status in explaining the decision to leave home, whereas the opposite is true for the other country groups. This finding does not change as a result of the economic crisis; in fact, in Southern countries, the crisis has worsened the employment conditions of young individuals who remain in the parental home.

Figures 11.2a and 11.2b show the patterns for employment and partnership, distinguishing between those who had not returned home (labeled as alone or living independently) and those who had returned home at time $t + 1$. Figure 11.2a shows that even though individuals who return home are on average more likely not to be employed than those who continue to live independently,[16] we find the most important differences across time periods. There is a very low proportion of not employed at the beginning of the period in the sample of youth living independently, with no differences in the Southern and Baltic countries between not employed as a share of those who returned home and not employed as a share of those who did not return home. For the Southern countries, we observe an increase in the share of people who are not employed
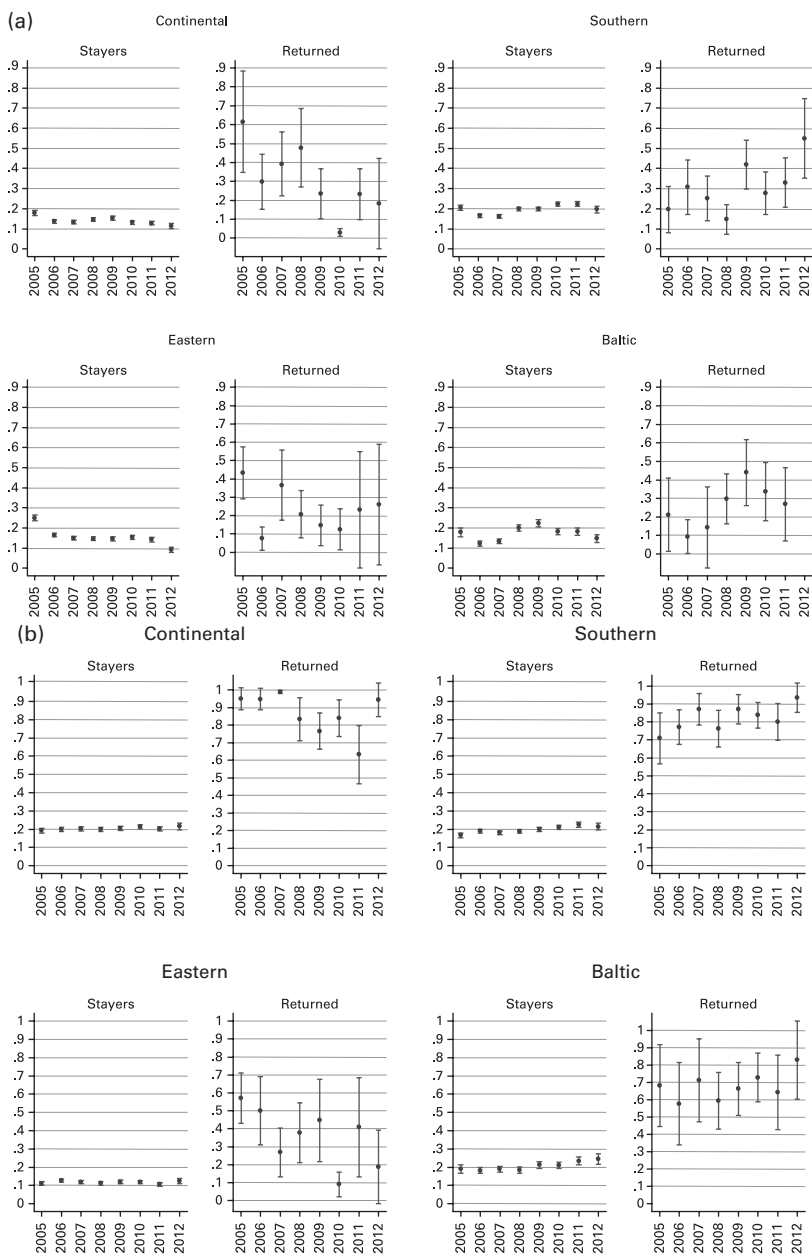
Figure 11.2 (a) Share of young people not employed at time $t + 1$ by group of countries, distinguishing between those who lived independently (stayers) and those who returned home (returned) in the period under consideration (confidence interval at 95% level). (b) Share of young people not in a partnership at time $t + 1$ by group of countries, distinguishing between those who lived independently (stayers) and those who returned home (returned) in the period under consideration (confidence interval at 95% level).

across all the periods, with sharper differences among those who return home (see Figure 11.2a). Moreover, there is a large proportion of people not employed in the very last period for all the countries, above all for those who return home in the Eastern, Baltic, and Southern countries (approximately 26% for Eastern and Baltic countries and approximately 60% for Southern countries). For Continental countries, the percentages of not employed among the young people living independently (defined as stayers in Figure 11.2a) are very low and stable across all periods observed, whereas the shares of not employed among those who return home (defined as returned in Figure 11.2a) show a decrease in 2010 (stable across the years for stayers, decreasing in 2010 for returners).

The effect of partnership dissolution is statistically significant for almost all countries (Eastern Europe being the exception): Young people without a partner return home more often than do young people with a partner, and the proportion is quite high (approximately 90% in some countries). This pattern is less strong for Eastern countries, where (in line with Iacovou 2010) young people are often found living with a partner in the same house as their parents. In short, partnership status does not appear to influence the decision to return home.

The difference in the percentage of not employed young people among those who return home and those who do not return home is lower than the difference in the percentage of returners and non-returners who are not in a partnership. With regard to leaving home, it seems that partnership is more important than not having a job in predicting the probability of returning home. Across subperiods, there are neither clear nor significant patterns in the Continental or Baltic countries, whereas in the Southern countries the percentage of partnership breakups increases among those who return home, and the opposite is true in Eastern countries (these effects are statistically significant).

11.5. ECONOMETRIC ANALYSIS: METHODOLOGY

The aim of the econometric analysis is to disentangle the effect of the economic crisis on the probability of leaving (returning) home after controlling for employment and the partnership status of young people.[17] The method used to estimate the two probabilities is a trivariate probit model. This is a simulation method for maximum likelihood estimation of a multivariate probit regression model. The model controls for unobservable factors that influence the probability of leaving (returning) home, of being employed (not employed), and of being in a couple (not in a couple). It is necessary to consider the mutual correlation between the three outcomes in order to avoid biased results.[18] Moreover, this is a type of first-order Markov approach. It takes into account pairs of observations in two consecutive years, namely t and $t + 1$ for each individual. In year t, the young person lives with his or her parents (or independently), and in year $t + 1$ he or she has

left (returned) home. This strategy improves the existing models in the literature by controlling for feedback effects; unobserved heterogeneity; nonrandom selection of the sample; and unobserved cross-process correlations between living arrangement, employment, and partnership.

The model for leaving home considers three dependent variables: the probability of leaving home (L_{t+1}), the probability of being employed (E_{t+1}), and the probability of having a partner (P_{t+1}). The model can be identified by functional form, but we also include the following variables (in only one equation at a time): the household crowding index at time t in equation L_{t+1}, the employment status at time t in equation E_{t+1}, and whether or not the person is living not just with one but with both parents at time t in equation P_{t+1}. To examine the effect of employment and partnership on the probability of leaving home, we also include, in equation L_{t+1}, the probability of being employed and of being in a relationship at time $t+1$. Other control variables (i.e., gender—male or not; age and age squared; education—two dummies for secondary education and tertiary education, with compulsory education as the reference category; and general health status—good health or not) have been chosen in accordance with the literature. We further include in equation L_{t+1} parents' income at time t (expressed as the logarithm of the sum of the income of both parents) and personal income of the young person at time t (expressed as the logarithm of his or her personal income).

The model for returning home simultaneously estimates the probability of returning home (R_{t+1}), the probability of not being in partnership (UP_{t+1}), and the probability of not being employed (NE_{t+1}). We include the following variables to identify the model: the crowding index and whether the person has children at time $t+1$ in equation R_{t+1}, whether the person has children and whether the person is not employed at $t+1$ in equation UP_{t+1}, and whether the person is not employed at time t in equation $NE_{t+1.}$ We also include, in R_{t+1}, the probability of not being employed at $t+1$ and the probability of not being in a relationship at $t+1$. Other control variables (i.e., gender, age and age squared, education, general health status, and personal income at time $t+1$) are included as described for the home-leaving model.

The three outcomes (for the models for both leaving and returning home) can be correlated independently. The correlations relate to unobservable traits such as ability, intelligence, personality traits, ambition, quality of the relationship with parents, family background, and so forth. We estimate the correlation among the three error terms as follows: whether positive, unobservable individual factors determining the outcome of primary interest (i.e., leaving or returning) are also positively associated with the other two outcomes (being employed and having a partner for leaving, and not being employed and not being in a partnership for returning).

We claim that only by acknowledging correlation effects between the three processes can we properly deal with endogeneity problems that may arise when

studying life transitions that possibly take place in a sequential manner and/or simultaneously (Siegers, de Jong-Gierveld, and van Imhoff 1991; Mulder and Wagner 1993; Billari, Philipov, and Baizán 2001).

Together with the estimated coefficients (provided in Tables 11.3 and 11.4), we also calculate predicted probabilities (Figures 11.3 and 11.4) and their confidence intervals so as to analyze whether there is evidence of a time trend or not across groups of countries.

Table 11.3 Trivariate probit model for probability of leaving home by group of countries

Probability of leaving home	Continental	Southern	Eastern	Baltic
Log parents' income at t	−0.027**	−0.017***	0.008	−0.028***
Log personal income at t	0.065***	0.027***	0.046***	0.040***
2005–2006	0.170**	0.109**	0.061	0.111
2006–2007	0.150**	0.055	0.09	0.030
2007–2008	0.019	0.116***	0.057	−0.151**
2008–2009	0.220***	0.122***	0.119*	−0.249***
2010–2011	0.152**	0.245***	−0.059	−0.063
2011–2012	0.142*	0.000	0.081	−0.186**
2012–2013	−0.100	−0.085	−0.111	−0.131
Male	−0.080*	−0.036	−0.094**	−0.174***
Age	0.093	0.117***	−0.027	0.208***
Age squared	−0.003**	−0.002***	0.000	−0.004***
Tertiary education	0.789***	0.175***	−0.05	−0.077
Secondary education	0.394***	0.059**	−0.119**	−0.002
Good health at t	0.120*	0.089**	−0.041	−0.179***
House crowded at t	0.217***	0.231***	0.031	0.095*
In a partnership at $t + 1$	2.169***	1.644***	1.458***	0.975***
Employed at $t + 1$	0.215***	0.199***	−0.062	0.000
Country dummies	Yes	Yes	Yes	Yes
Constant	−4.015***	−4.413***	−1.525**	−4.178***
No. of observations	27,386	75,774	44,544	21,445
Log likelihood	−2.74E + 08	−2.51E + 08	−1.30E + 08	−1.40E + 07

Notes: Continental countries: Austria, Belgium, France, and Luxembourg; Southern countries: Cyprus, Italy, Portugal, and Spain; Eastern countries: Czech Republic, Poland, and Slovenia; Baltic countries: Estonia, Latvia, and Lithuania. The likelihood ratio test for the hypothesis $\rho_{21} = \rho_{31} = \rho_{32} = 0$ is statistically different from zero at the 1% level. Estimates do not consider students. Estimates are clustered at the individual level.
*$p < .10$.
**$p < .05$.
***$p < .01$.

Table 11.4 Trivariate probit model for probability of returning home by group of countries

Probability of returning home	Continental	Southern	Eastern	Baltic
Log personal income at $t + 1$	0.013	0.000	0.008	−0.008
2005–2006	−0.408***	−0.012	0.256***	−0.241**
2006–2007	−0.335***	−0.145*	−0.059	−0.235**
2007–2008	−0.372***	0.006	0.001	−0.244*
2008–2009	−0.485***	0.005	−0.05	0.082
2010–2011	−0.437***	−0.081	0.166	−0.097
2011–2012	−0.138	0.058	−0.068	−0.371***
2012–2013	−0.594***	−0.027	−0.151	−0.396***
Male	0.078	0.055	−0.041	0.218***
Age	−0.177**	−0.247***	−0.151**	−0.162*
Age squared	0.002	0.003***	0.003**	0.003
Tertiary education	−0.482***	−0.119**	−0.530***	−0.300***
Secondary education	−0.165**	−0.05	−0.272***	−0.002
Is a parent	−0.196**	−0.351***	−0.167**	−0.173**
Good health at t	−0.049	−0.072	−0.047	0.111
House crowded at t	−0.092***	−0.237***	−0.155***	−0.119**
Not in a partnership at $t + 1$	1.021***	1.138***	0.506***	0.796***
Not employed at $t + 1$	0.238***	0.222***	0.105	0.189**
Country dummies	Yes	Yes	Yes	Yes
Constant	0.835	2.869***	0.585	0.738
No. of observations	97,157	74,607	63,122	28,931
Log likelihood	−7.91E + 08	−2.92E + 08	−1.14E + 08	−2.17E + 07

Notes: See notes to Table 11.3.

11.6. RESULTS AND DISCUSSION

This section presents and discusses estimates for both models regarding the probability of leaving and returning home. The models are estimated separately for the four groups of countries. We present estimates that include country dummies (within each country group—not reported) and year dummies. Table 11.3 shows estimates for the probability of leaving home.[19] To disentangle the effect of the economic crisis, we include year dummies, excluding the period 2009–2010, and we calculate predicted probabilities for each year plotted in Figure 11.3.

The correlation between the error terms (ρ) is significantly different from zero.[20] Thus, the three equations are strongly related: The same unobservable factors positively affect the probability of leaving, of being employed, and of
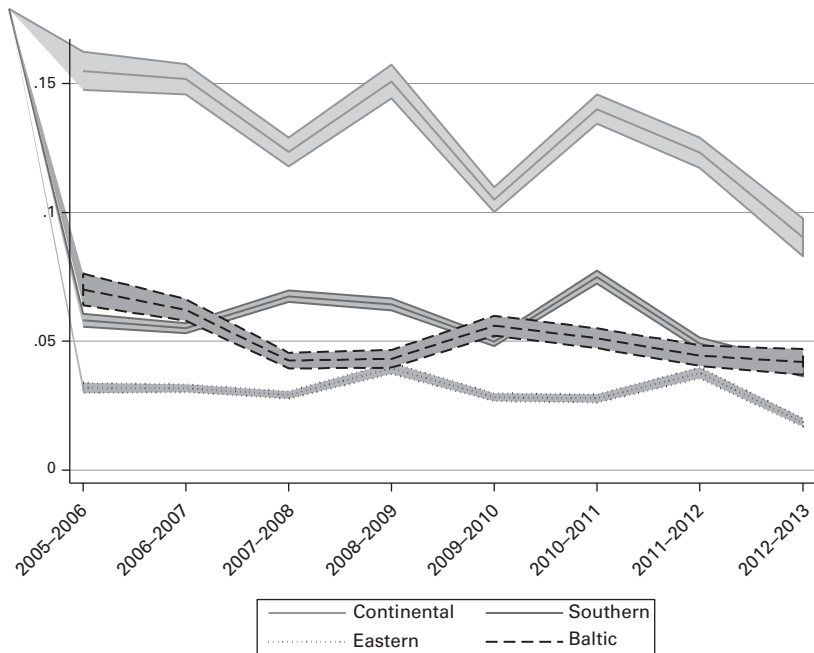
Figure 11.3 Marginal predicted probabilities of leaving home by group of countries and across time periods with 95% confidence interval bands.

being in a relationship. This indicates that a trivariate probit technique is appropriate in this context.

Looking at the coefficients of the time dummies, we can see that young people are more likely to leave home before and after 2009–2010; in other words, there is a crisis effect, given that the probability of leaving is lower just after the onset of the Great Recession compared to the other periods (i.e., the coefficients of all time dummies are positive compared to 2009–2010; see Table 11.3). And the effect also holds after including employment and partnership. Figure 11.3 plots the marginal predicted probabilities of leaving home. The results confirm the descriptive statistics, showing that in Southern, Baltic, and Eastern European countries, the probability of leaving home is lower compared to that in Continental countries (approximately 3%–6% and 12%–15%, respectively). There are no striking differences over time with the exception of the Continental countries, where we observe a decrease in the probability of leaving (in particular, there are two declines: one in 2009–2010 and another in 2012–2013).

Thus, the probability of leaving home in Southern and Eastern European countries (the lowest in comparative terms) turns out to be rather stable in the period considered (2005–2013), whereas a decrease is recorded in Continental countries. The crisis has therefore reduced the probability of leaving home in those countries that were both less affected by the economic downturn and

where young people were used to living independently at a relatively young age. In the Southern and Eastern countries, by contrast, where young people were hit hardest by the economic crisis, we do not observe the sharp decrease in the probability of home-leaving one might have expected (Aassve et al. 2013). This may be due to the fact that these countries already recorded the highest percentage of young adults living in the parental home at the beginning of the observed period (i.e., before the Great Recession). This implies that the economic crisis hit a large share of those young individuals (aged 18–34 years) who were already somehow "protected" by their family of origin (i.e., living with their parents). Therefore, the change observed in the probability of youth leaving home during the Great Recession is smaller in these two groups of countries (Southern and Eastern) than in the others. Moreover, in these countries, cultural factors (which tend to be relatively stable over time) may play a stronger role than economic conditions (which fluctuate with the economic cycle) in explaining living arrangements.

As already seen in the descriptive statistics (see Section 11.4), leaving home is strongly connected to partnership, and indeed it seems to be more closely linked to partnership than to employment: In all groups of countries considered, the coefficient of partnership is positive and strongly significant compared to that of employment, which is smaller and not significant in the Eastern and Baltic countries. Partnership thus has a strong effect on leaving home: The more young people enter a partnership (including marriage), the more likely they are to leave home. Employment is a good predictor of leaving home in Continental and Southern countries: Being employed positively affects the probability of leaving. However, employment has an indirect effect through partnership in those countries (Baltic and Eastern) where we do not find a direct effect.

With regard to demographic variables, the results are in line with the literature. Women have a lower income threshold for independence: They leave the parental home more often than men in all countries except the Southern countries. The difference observed between men and women may be due to the fact that the impact of unemployment differs by gender: Women may be more inclined to start a family, whereas men try to find a more stable job first (Plantenga et al. 2013); also, women enter partnerships at a lower age (Eurostat 2009).

High parental income (in Southern, Continental, and Baltic countries) is associated with a lower probability of leaving home. Higher personal education and good health unambiguously increase the probability of leaving home in Continental and Southern countries. A downward correlation exists between age and leaving, such that the most likely to leave are individuals aged approximately 29 and 26 years, respectively, for the Baltic and Southern countries.

Table 11.4 presents estimates for a trivariate probit model for the probability of returning home, and Figure 11.4 plots the marginal predicted probabilities across time periods. Looking at the dummies that explain the difference between time periods, we find that there is a time effect only in the Continental and Baltic countries, where the probability of returning home is always lower compared
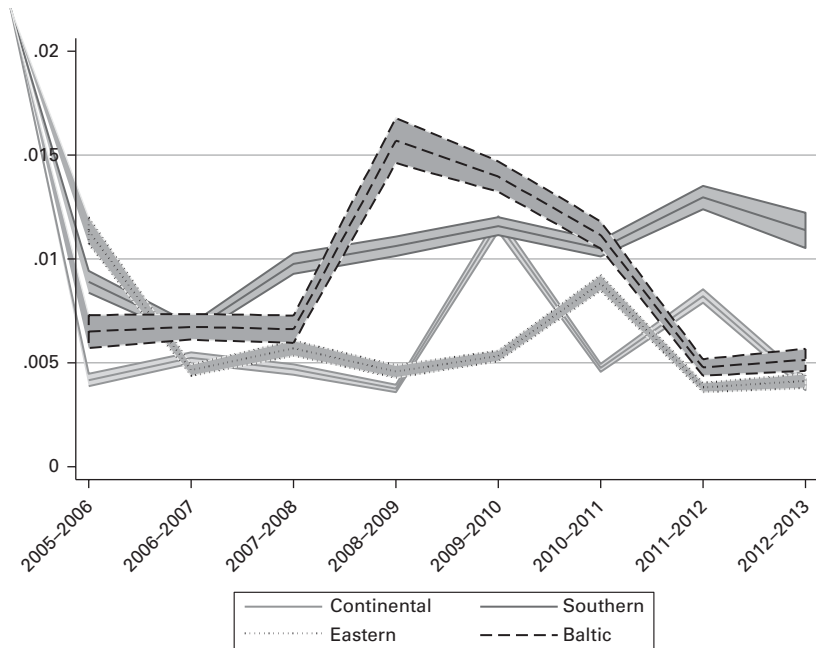
Figure 11.4 Predicted probabilities of returning home by group of countries and across time periods with 95% confidence interval bands.

to 2009. In contrast with Stone, Berrington, and Falkingham's results (2012), the period is still statistically significant when we include what they call turning points (e.g., separation or unemployment). This result implies that the economic crisis has a direct effect on returning home, given that it produces uncertainty about the future. However, when we plot the predicted marginal probability of returning home (see Figure 11.4), we observe that, also in Southern countries, the probability of returning home constantly increases for all the periods considered. This increase—observed already in 2007 (before the crisis) in the Southern countries—may be due to structural or cultural factors, but it has been exacerbated by the Great Recession.

Continental and Eastern countries have the lowest percentage of individuals returning home, with a jump just after the onset of the crisis (2009–2010), whereas in Eastern countries the effect does not appear until 2011 (but the difference is not significant). In Baltic countries, we record an increase that lasts longer—from 2008–2009 until 2010–2011. The predicted probability of returning to the parental home for countries in these three groups becomes stable at approximately 0.5%. This low rate (especially in the Continental countries) has been related to relatively generous welfare-state benefits and to cultural factors, given that both young people and their parents greatly value independence compared to their Southern counterparts (Iacovou 2010). For the Eastern and Baltic countries, this

result may depend on emigration—that is, on the necessity for young people to leave their country of origin.

Thus, the result that merits highlighting is that Southern European countries show an increase in boomeranging throughout the entire period considered (beginning in 2005), which may indicate a long-term as opposed to a cyclical trend. This finding differs from that for the Continental countries, where the increase starts just after the onset of the crisis (2009–2010), whereas in the Baltic countries we record an increase that lasts longer—from 2008–2009 until 2010–2011.

Again, we confirm the hypothesis already observed for leaving: Just as partnership had a strong effect on leaving home, being single has a very strong effect on returning home. In fact, union dissolution is a key determinant of returning home. Similarly, not being employed increases the probability of returning home in the Continental, Southern, and Baltic countries (the result also holds if we exclude inactives).

With regard to the other control variables, the most important result is that being alone increases the likelihood of returning to the parental home. In fact, young parents (both mothers and fathers) are less likely to return to the parental home than are individuals without children, just as individuals living in crowded families (usually with more than one child or other relatives) are less likely to return to living with their parents. Higher education decreases the probability of returning home, whereas health does not have any effect. Men are more likely to return home only in the Baltic countries.

11.7. CONCLUSIONS

This chapter has examined the influence of the Great Recession on the probability of leaving or returning to the parental home in Europe. The transition into adulthood in the form of leaving the parental home to establish an autonomous household is highly variable across European countries. Our findings reveal that Southern, Baltic, and Eastern European countries have lower leaving rates compared to Continental countries and that the crisis has not exacerbated this difference. In the former groups of countries, leaving the family of origin is not as highly valued as in Continental countries. Also, before the Great Recession, a high share of young adults were living in the family of origin in Southern, Baltic, and Eastern European countries. Thus, in these countries, cultural factors (which tend to be relatively stable over time) may play a stronger role than economic conditions in decisions to leave home. So when youth unemployment started to increase dramatically, many young adults in these countries were still living at home. In short, these youth were caught by the crisis and by its effects, but they were already under the protection of the family of origin.

What is striking are the changes observed in Continental countries. We observe a decrease in the probability of leaving home during the crisis (in

particular, the percentage of home-leavers rises and falls between 2009 and 2011). Continental countries are still characterized by higher levels of home-leaving compared to the other groups of countries, but the deterioration in labor market conditions for young people (i.e., difficult school-to-work transitions, youth unemployment, and economic hardship) increased the uncertainty of youth integration into secure employment, thus lowering the probability of leaving home in 2009.

All country groups experience an increase in the percentage of people returning home, with the exception of the Eastern countries. There are also noticeable differences across countries regarding timing: Southern European countries register an increase throughout the entire period; Continental countries show an increase in the very first period, after the onset of the crisis; and in the Baltic countries, the effect occurs earlier (in 2008–2009) and lasts longer. However, for the latter group of countries, the returning rate stabilizes at its lowest percentage toward the end of the period considered. Previous studies analyzing home-leaving have shown that in Southern European countries, late home-leaving contributes to a lower probability of returning (Iacovou and Parisi 2009). We find instead that returning home has increased in Southern countries and that this trend has been exacerbated by the Great Recession. In these countries, young people are less likely to be entitled to welfare benefits/assistance compared to their Continental counterparts; moreover, living with parents is more socially acceptable in Southern countries so that they are more likely to return home during a long-term economic downturn.

The results regarding the effect of the Great Recession also hold after controlling for partnership and employment. Partnership has a strong effect on the probability of both leaving and returning home. Young people in a partnership are more likely to leave, just as young people not (or no longer) in a partnership are more likely to return home. Employment is a good predictor of leaving home in Continental and Southern countries, but it has an indirect effect through partnership on leaving home in the Baltic and Eastern European countries. Similarly, losing one's job increases the probability of returning home in Continental, Southern, and Baltic countries (the result also holds if we exclude inactives).

Our findings support the hypothesis that parental monetary resources play a crucial role in adulthood transitions. More than in previous recessions, the family plays a protective role, allowing their adult children to stay longer at home—that is, allowing young adults to overcome the economic difficulties faced during the Great Recession. This is noticeable especially in those countries (i.e., Continental countries, in our study) where economic independence is highly valued (both by parents and by children) and school-to-work transitions tend to be smoother. In these countries, it is relatively uncommon for older youth to live with their parents; therefore, staying at home longer might imply a higher psychological cost for both parents and adult children. Conversely, in those countries where cultural norms render it socially acceptable for older youth to live with their

parents, the psychological costs of postponing home-leaving because of the difficulties faced by young people in the labor market might be lower.

NOTES

1 Four Continental countries (AT, BE, FR, and LU), four Southern countries (CY, ES, IT, and PT), three Eastern countries (CZ, PL, and SI), and three Baltic countries (EE, LT, and LV).

2 Individuals in a partnership are defined here as people who are either married or cohabiting.

3 See, for instance, for Europe: Iacovou and Parisi (2009); and for the United States: DaVanzo and Goldscheider (1990), Goldscheider and Goldscheider (1999), Kaplan (2009), Dettling and Hsu (2014), and Lei and South (2016). For specific European countries, see Konietzka and Huinink (2003); Konietzka (2010); Stone, Berrington, and Falkingham (2012, 2014); and Berngruber (2015).

4 The "turning point" is a key concept in life course theory, referring to an event, an experience, or a change in circumstances that significantly alters the individual's subsequent life course trajectory (Stone et al. 2012).

5 We selected 14 countries because of data restrictions. We excluded countries that are not included in all the waves from 2005 to 2013 (BG, CH, HR, IE, MT, RO, and TR). Greece had to be excluded because of missing information for some key variables. The Nordic countries (DK, FI, IS, NO, and SE) were excluded because of their sampling design strategy, which is not suitable for our dynamic approach. Another four countries (HU, NL, SK, and UK) were excluded because they do not collect net personal income for all the waves, and this is one of the key variables in the empirical analysis.

6 For each panel, the same individuals were tracked for a maximum of 4 years.

7 The nature of the data does not permit a distinction between those who have left home for the first time and those who had previously left, subsequently returned, and then left a second time.

8 Because of the relatively short observation period, we do not know when exactly the young people in this sample left the parental home; we only know that they left home some time previously and have now returned.

9 Students may bias the results because their attitude toward living arrangements is different across countries. In some countries, it is common for students to leave home and then return after getting a degree. In other countries, young people stay at home to complete their tertiary education, which increases the share of individuals living in the parental home only for education purposes. We are not interested here in leaving and/or returning for educational reasons.

10 The differences between the two percentages at the beginning and at the end of the period (2005–2006 and 2012–2013) are statistically significant at the

1% level—except for the Eastern countries, for which the statistical significance is at the 5% level.

11 Between 2011 and 2012, the decrease is significant at the 1% level for both Continental and Southern countries, and for the entire sample.

12 The mean differences are statistically significant in almost all the periods for the Continental and the Southern countries. There are significant differences only in some years in the Eastern and in the Baltic countries.

13 The differences are all statistically significant at the 1% level.

14 In the Eastern countries, the differences are not statistically significant for either leavers or stayers across the period observed.

15 See Mazzotta and Parisi (2016) for descriptive statistics on different destinations after leaving.

16 The differences are statistically significant at the 1% level.

17 As argued in Section 11.2, it is not possible to control for housing conditions given that data on housing markets are not easily available for a large number of EU countries or over time.

18 The maximum likelihood estimates of the implied trinomial probit model differ sharply from those obtained when either being employed or household membership is taken as exogenous (McElroy 1985).

19 Estimates for the probability of being employed and being in a partnership are available from the authors on request.

20 Accordingly, the overall likelihood ratio test of $\rho_{21} = \rho_{31} = \rho_{32} = 0$ is always not accepted with Prob $> \chi^2 = 0.0000$.

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12

INCOME SHARING AND SPENDING DECISIONS OF YOUNG PEOPLE LIVING WITH THEIR PARENTS

Márton Medgyesi and Ildikó Nagy

12.1. INTRODUCTION

Co-residence rates have increased in many countries during the economic down-turn (Aassve, Cottini, and Vitali 2013) as the crisis has induced young adults to postpone leaving the parental home or, in some cases, even to return there (see Mazzotta and Parisi, this volume). In order to evaluate the consequences of rising co-residence with parents for the income situation and material well-being of young adults, one needs to understand how incomes are shared in such households. This chapter provides quantitative evidence on how young adults in co-residence with their parents participate in household finances—an issue that is rarely studied in the literature.[1]

Studies analyzing poverty—including those on youth poverty—are based on the usual assumption that income is shared equally among members of the same household. This literature thus typically neglects the issue of income sharing within households and assumes the nonexistence of intra-household inequality. The literature on household money management most often studies couples, whereas evidence—especially of a quantitative nature—is scarce regarding other household types, including households in which parents live together with adult children. Research in demography and related disciplines (family sociology and population economics) studies the timing and determinants of the transition to independent living, whereas literature on household money management in co-residential living is scarce.

This chapter examines the extent to which young adults living with their parents contribute to household expenses and also the extent to which they are able to decide autonomously about their expenses on personal consumption and leisure activities. The analysis is based on data covering 17 European countries from the European Union Statistics on Income and Living Conditions (EU-SILC 2010 special module) on intra-household sharing of resources. The chapter also explores the implications of taking into account intra-household sharing of resources for the assessment of the income situation of the young. In particular, we investigate the roles of absolute household income, household members' economic needs, and relative income in shaping the observed patterns, also describing cross-country differences.

The study finds that income sharing in the household tends to attenuate income differences between household members and tends to help household members with low resources. The study also finds that there are inequalities in young adults' experience of co-residence with parents: young adults in low-income households tend to contribute more to the household finances and to enjoy less independence in their consumption and leisure decisions. Our results also show that although the majority of young adults benefit from intra-household sharing of resources, there is a smaller group of young adults who tend to support their parents in the sense that their contribution to the household budget is higher. The most significant cross-country differences can be seen between the Eastern European and the other European countries, with young adults in Eastern Europe making higher contributions to the household budget and having less independence in consumption decisions.

The following section presents the related literature and formulates hypotheses about the determinants behind the contributions of young adults to household budgets and about the financial independence of young adults living in the parental home. In Section 12.3, we present the data and the methods used in the analysis. Section 12.4 presents our results concerning the determinants of young adults' contributions to household budgets and their ability to decide about personal spending. In Section 12.5, we attempt to evaluate the effect of taking into account survey results regarding intra-household sharing of income in the estimation of the income situation of young adults. Section 12.6 concludes the chapter.

12.2. LITERATURE REVIEW AND HYPOTHESES

In many advanced societies, the transition from adolescence to independent adulthood has become a slower and more variable process. This prolonged life phase between adolescence and adulthood often goes together with longer periods of co-residence between young adults and their parents.

Co-residential living arrangements can be the result of different life course trajectories, however. These include both adult children who have never left the parental home and those who have returned home after finishing education, after divorcing, or during spells of unemployment ("boomerang kids"). Finally, there are also cases in which a parent moves in with an adult child (Dykstra et al. 2013). Co-residence can be particularly important in times of crisis, when staying with or moving back to one's parents' home can be an element of the "safety net" provided by the family (Mazzotta and Parisi, this volume). Studies such as those by Aassve, Iacovou, and Mencarini (2006) and Aassve et al. (2007) show that co-residence can protect the young from falling into poverty.[2]

The benefits of co-residence for the young adult are the support, security, and company that living at home provides, as well as the financial advantages of such an arrangement. Co-residence with parents may imply some financial benefits for the young as they save on paying for rent and utilities, can enjoy better housing standards than they could otherwise afford, and the household can also benefit from economies of scale. On the other hand, co-residence with parents inevitably entails lower levels of autonomy compared to independent living (White 2002; Sassler, Ciambrone, and Benway 2008). The young adult has to accept the rules of the parental house and has to accept some parental oversight over work/education, free time, social activities, and also money spending. In many cases, the parents ask their young adult children to pay for room and board and/or to do housework.

The monetary contributions that young adults make when living in the parental home are rarely studied in the literature. For instance, the literature on income distribution and poverty generally assumes that income (or economic well-being) is shared equally among members of the same household and that an individual cannot be poor when living in a household that has adequate income. Although several studies suggest that significant inequalities might exist within the same family (e.g., Haddad and Kanbur 1990), the assumption of equal sharing is adopted by most of the studies, including those on poverty among young adults (e.g., Aassve et al. 2006, 2013; Ward et al. 2012).

Most of the research on the living arrangements of young adults concerns the timing and determinants of the transition to independent living, whereas literature on financial arrangements in co-residential living and how such households manage finances is scarce. Several studies assume that an intensive monetary exchange is taking place between parents and their adult children when they live in the same household—without explicitly analyzing such an exchange (White 1994).[3] Financial arrangements in multigenerational households are not at the focus of the literature on intra-household inequality, nor is money management, because this literature tends to analyze couple households (Yodanis and Lauer 2007; Nagy, Medgyesi, and Lelkes 2012).

A central concept of the literature on intra-household inequality is "pooling of incomes." Full pooling of incomes means that all incomes of all household members are pooled and all members have full access to the pooled income. Partial pooling means that household members contribute only a share of their own income to the household budget and keep the rest (Ponthieux 2013). Here, we are interested in financial arrangements between young adults and their parents living in the same household. Specifically, we study the extent to which young adults pool their incomes with other household members or keep their incomes separate. We describe the determinants of young adults' contributions to the household budget and assess their effects on the measurement of intra-household inequality. In the following, we formulate hypotheses regarding the determinants of young adults' contributions to household budgets when they are co-residing with their parents.

12.2.1. Household Income and Young Adults' Contributions

The overall level of monetary resources in the household is said to shape households' money management strategies (Yodanis and Lauer 2007). For poor households, making ends meet (paying utility bills and having money at the end of the month) requires the careful management of the totality of household incomes. Under a certain level of household income, there is no "discretionary" income that household members can keep for themselves. Thus, we expect that in low-income households, the young adult members will keep a lower share of their income separate and will contribute more to the common budget. In parallel, we expect that young adults in poorer households will have less control over spending decisions (*hypothesis H1*).

12.2.2. Household Members' Lack of Resources and Young Adults' Contributions

Both economic theories of altruistic transfers (Cox 1987) and sociological theories about contingent transfers (Swartz et al. 2011) imply that household members will be inclined, when they can, to help other members in need of monetary support. Thus, we expect that young adults will increase their contributions to the household budget when their parents have insufficient economic resources—for instance, when the parent is single, when parents have no work, or when parents live with health limitations. On the other hand, young adults' contributions to the household budget should be lower when they find themselves in difficult life circumstances and with insufficient resources. Such difficulties might arise from an unfavorable labor market situation (e.g., in the case of students or unemployed young people) or might also be associated with certain stages of the life course—for instance, young adults

with dependent children may be more in need of support (Schenk, Dykstra, and Maas 2010) (*hypothesis H2*).

12.2.3. Relative Income and Young Adults' Contributions

The relative income of household members is assumed to influence intra-household income allocation. According to altruistic theories of intra-household transfers, a skewed distribution of income in the household would increase the incentive of the higher earning household member to pool resources and help household members with lower incomes (Cox 1987; Bennett 2013). When a young adult's income is significantly lower than that of his or her parents, this implies a lower contribution to the household budget by the young adult and higher contributions from the parents. When the income distribution of the household is more equilibrated, contributions to the household budget should be more equilibrated as well; thus, higher relative income of young adults should go together with higher contributions to the household budget (*hypothesis H3*).

12.2.4. Cross-Country Differences in Young Adults' Contributions

Cross-country differences in household financial arrangements between young adults and their parents might be expected for several reasons. First, differing patterns of nest leaving and co-residence lead to differences in the composition of the young adult population living with their parents. As the literature documents (Mulder 2009), young adults tend to leave the parental nest later in the Southern than in the Northern European countries, where young adults tend to leave the parental home early (in their early twenties).[4] Western Europe occupies an intermediate position between these two country groups, whereas co-residence rates are relatively high in Eastern European countries (Dykstra et al. 2013). The composition of the young population still living at home is thus likely to be very different across countries, which could be partly responsible for cross-country differences in contributions to the household budget.

Cross-country differences in income sharing in households might also be linked to differences in family norms. For instance, Reher (1998) describes the Southern European countries as "strong family countries," where kin relations and family solidarity are of prime importance. By contrast, in Western and Northern European countries, more individualistic conceptions of the family prevail, and the norm prescribes that young adults should attain economic independence and leave the parental home at an early age. In more individualistic countries, young adults are expected to be independent in their decisions

regarding leisure and consumption and could also be more likely to contribute to the household budget (*hypothesis H4*).

12.3. DATA AND METHODOLOGICAL ISSUES

This study uses data for 17 European countries from the EU-SILC 2010 ad hoc module on intra-household sharing of resources in the EU. This module contains household-level and individual-level questions about management of household finances, covering aspects of income pooling and decision-making about expenses and savings. Two questions are particularly relevant for our research topic because they provide substantial information on two dependent variables.

The first dependent variable in our analysis measures the degree to which respondents contribute to the household budget. The survey question PA010 asks respondents, "What is the share of income kept separate from the household budget?" According to the survey description, income that is kept separate from the "common household pot" is viewed by the respondent to be his or hers and can be used as he or she wishes (Eurostat 2010). By "common household budget," the survey means expenses and savings not primarily concerning one person only in the household. The following responses were coded on a 5-point scale: (1) all my personal income, (2) more than half, (3) about half, (4) less than half, (5) none, and (6) no personal income.

The second dependent variable measures the extent to which other household members (in this case, parents) have control over the spending decisions of young adults. The relevant question (PA090) asks about the "ability to decide about expenses for personal consumption, leisure activities, hobbies." The response categories are the following: (1) yes, always, almost always; (2) yes, sometimes; and (3) never or almost never. Here, we reverse the coding of this item and use the recoded version as a second dependent variable in our analysis. One way parents can gain control over the spending decisions of young adults is to ask for monetary contributions to the household budget. Thus, young adults who contribute a high share of their income to the household budget will have less opportunity to decide about spending on personal consumption.

We restricted our analysis to 17 EU countries representing different geographical areas in Europe.[5] The analysis includes 3 countries from Western Europe (Belgium and Luxembourg together with Germany in the case of the first dependent variable and together with Ireland in the case of the second dependent variable), 6 countries from Southern Europe (Cyprus, Greece, Italy, Malta, Portugal, and Spain), 3 countries from Central–Eastern Europe (Czech Republic, Hungary, and Slovakia), 3 Baltic states (Estonia, Latvia, and Lithuania), and 2 countries from Southeastern Europe (Bulgaria and Romania). Our analysis studies young adults in the 18- to 34-year-old age group and their households in all these countries.

In the following, we present the measurement of the key explanatory variables that are used in the multivariate analysis to investigate the hypotheses described previously.

Absolute income of the household is measured using total equivalent household income. In order to focus on within-country differences in income, we divided equivalent household income by the median of the given country and used the logarithm of income divided by the country median as an explanatory variable.

Lack of personal resources concerns household members who find themselves in difficult life circumstances with insufficient personal resources for various reasons. Here, we consider three types of such situations: labor market difficulties (e.g., unemployment), difficulties related to family structure (e.g., having dependent children or being single), and difficulties arising from poor health conditions. In the case of young adults, these are captured by measures of labor market status (five categories: working full-time, working part-time, unemployed, student, and other nonworking) and of whether they have children in the household (dummy variable).[6] In the case of parents, difficulties are captured by measures of parental labor market status (three categories of parental work intensity:[7] 0–0.5, 0.5–0.99, and 1), health status (dummy variable showing whether either of the parents is seriously limited in daily activities because of health problems), and parental family status (three categories: single mother, single father, or both parents—or one parent with a partner—live in the household).

Relative income is measured by the personal income of the young adults relative to the average income of their parents. When calculating relative income, all income types that are recorded at an individual level in the EU-SILC data set (income from employment, self-employment, unemployment benefits, old-age and survivors' benefits, sickness and disability benefits, and education-related allowances) were included. Relative income was then transformed into a five-category variable: The first category is composed of young adults with incomes below 30% of average parental income; in the second group, young adults have 31%–50% of average parental income; in the third, young adults have 50%–80% of parental income; the fourth category consists of cases in which young adults have income roughly equal to that of average parental income (between 80% and 120%); and the fifth category is made up of cases in which young adults have higher incomes than those of their parents (above 120%).

12.4. DETERMINANTS OF FINANCIAL ARRANGEMENTS

In this section, we first provide some descriptive statistics about young adults who are living in the parental household in 17 EU countries. We then show differences in our two dependent variables before proceeding with the description of the

results of the multivariate analysis. Finally, we analyze cross-country differences in household financial arrangements.

12.4.1. Young Adults Living in the Parental Home in Europe

The share of young adults living at their parents' home varies significantly across the countries covered by the study. Among those in the 18- to 24-year-old age group, the great majority of young adults (more than 75%) are still living in the parental home in all countries. The highest percentage of co-resident young adults in this age group can be found in Slovakia (96%), whereas the lowest is found in Germany (78%). One can find more important differences between the country groups regarding co-residence with parents in the 25- to 34-year-old age group. In this group, the percentage of those living with their parents is lowest in Germany and Belgium (13%–17%), whereas the highest percentages are found in Slovakia, Bulgaria, Malta, and Greece, where more than half of those in this age group are living in the parental home.

Differences in the share of co-resident youth lead to differences in the composition of the population of young adults living with parents. Because this population is typically older in the case of the Southern and Southeastern European countries, it is not surprising that a relatively high percentage of them have a job, whereas the percentage of students is lower compared to Western European countries. The percentage of working youth is highest among those residing in the parental home in Malta (61%), Portugal (53%), and Greece (48%).

Differences in the age and labor market status of co-resident young adults lead to differences between countries in terms of their relative income situation. The relative income situation of the young adult is described by comparing his or her personal income with the average income of parents, as described in the methodological section (see Figure 12.1). Whereas the majority of youth aged 18–24 years have a lower income compared to their parents in every country, in the case of the 25- to 34-year-old age group, this is only true for 5 out of 17 countries. The share of young adults who have similar or higher income compared to their parents is lowest in Germany, whereas it is highest in Malta. There is considerable variation among Western European and Southern European countries. Belgium and Luxembourg, unlike Germany, have a relatively high percentage of young adults with similar or higher income compared to their parents, whereas—except for Malta—the other Southern European countries do not exhibit high percentages in this regard.

12.4.2. Descriptive Analysis

Our first dependent variable describes the proportion of youth personal income that is contributed to the household budget and not kept separately. Figure 12.2 shows the percentage of those contributing at least half of their income to the
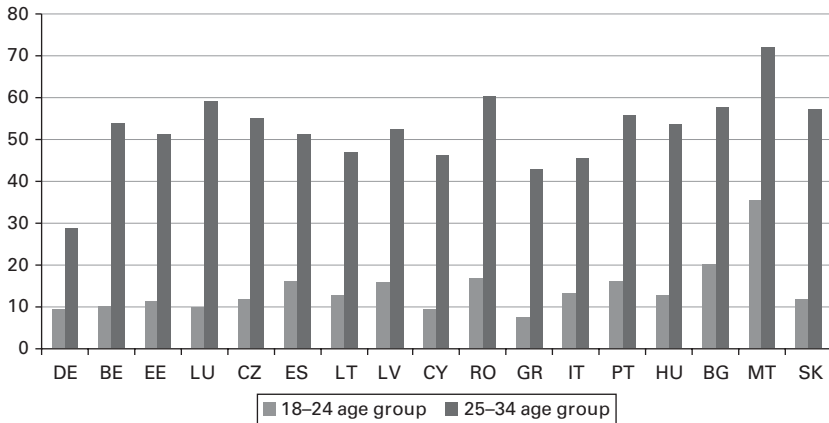
Figure 12.1 Percentage of young adults with income higher than 80% of average parental income in 17 EU countries, 2010.
Source: Authors' calculations based on the EU-SILC 2010 ad hoc module on intra-household sharing of resources.

household budget in the countries included in the analysis (the whole distribution is shown in Table A12.1 in the Appendix). In all countries, only a minority of young adults contribute at least half of their incomes. The percentage of young adults contributing at least half of their income is highest in Romania (44%), Bulgaria (37%), Hungary (34%), and Latvia (30%). The lowest figures are found in the Western European countries (5%–10%), whereas the Southern European
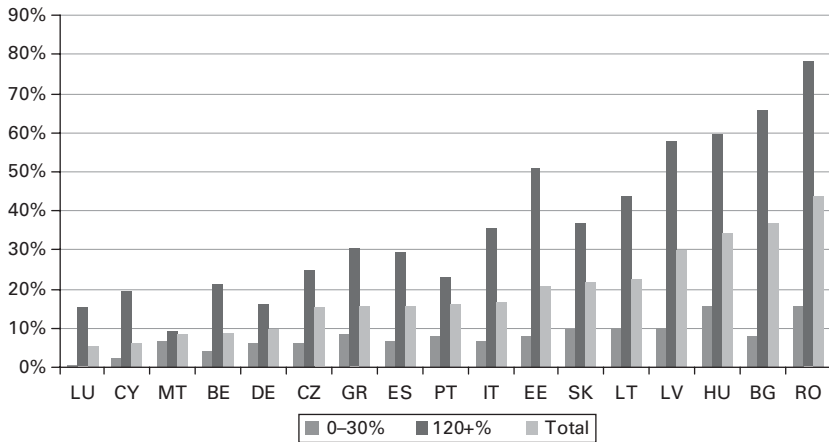

Figure 12.2 Percentage of young adults (aged 18–34 years) contributing at least half of income to household budget by relative income in 17 EU countries, 2010.
Source: Authors' calculations based on the EU-SILC 2010 ad hoc module on intra-household sharing of resources.
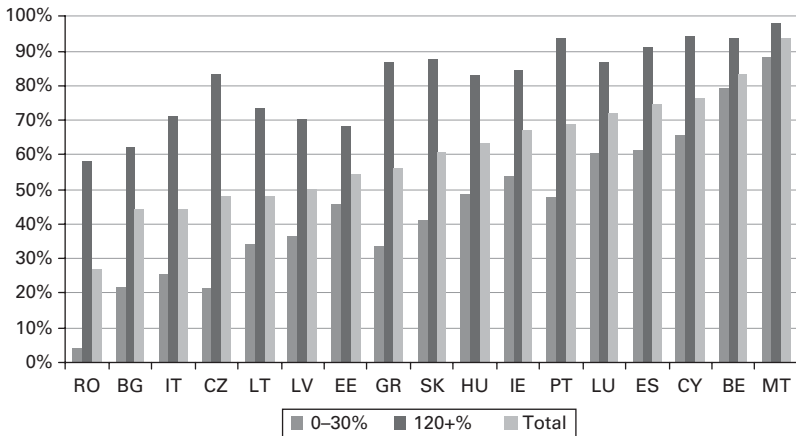
Figure 12.3 Percentage of young adults (aged 18–34 years) always able to decide about personal spending by relative income in 17 EU countries, 2010.
Source: Authors' calculations based on the EU-SILC 2010 ad hoc module on intra-household sharing of resources.

countries are in between (approximately 16% or 17%), with the exception of Cyprus and Malta, where the percentage is lower.

The second dependent variable shows whether young adults are able to decide about spending on their personal consumption, hobbies, and so forth. Figure 12.3 shows the percentage of those who are always able to decide about this issue (the whole distribution is shown in Table A12.2 in the Appendix). The highest percentage is found in Malta, where 94% of young adults are always able to decide about spending on personal consumption, and the second highest percentage is detected in Belgium (84%). In Cyprus, Spain, and Luxembourg, this is true for 72%–76% of young adults, whereas in Portugal, Hungary, Slovakia, and Ireland, the percentage of those who are always able to decide is somewhat lower (61%–69%). The lowest figure is found in Romania, where only 27% of young adults responded that they are always able to decide about their personal expenses. The second lowest figure is found in both Bulgaria and Italy, where 44% of young adults who live with their parents are always able to decide about spending on personal consumption. In this case, there is thus more heterogeneity within country groups, especially in the case of the Southern and Central–Eastern European countries.

Figures 12.2 and 12.3 also show the association between our dependent variables and the income of young adults relative to their parents. In every case, there is a clear correlation between relative income and contribution to household expenses. Young adults who have higher income relative to their parents are more likely to contribute more than half of their income to the household budget compared to young adults who have low income relative to their parents. At the same time, it is also true that young adults with high income relative to

their parents are more likely to be able to decide about spending on personal consumption. The descriptive evidence thus supports our hypothesis regarding the role of relative income. In the following multivariate analysis, we investigate our hypotheses while taking into account cross-country differences in the composition of our sample.

12.4.3. Multivariate Analysis

To study our hypotheses about the determinants of young adults' financial contributions to the household, and their ability to decide about personal expenses, ordinal probit regressions were run on pooled models with country dummies included.

In addition to the main explanatory variables described previously (measuring need for support, absolute income, and relative income position), the models control for variables that have been identified by the literature as affecting income sharing in households. The first group of controls are basic sociodemographic variables: gender (Ward and Spitze 1996), age, and education. According to Bonke and Uldall-Poulsen (2007), income pooling will be more frequent when there is a need for partners to coordinate their economic behavior. A case of coordination that is relevant to our research topic is that of common goods in the household (e.g., shared rental of an apartment and shared car). In our analysis, we control for tenure status of the dwelling where the household is living (three categories: owner occupied/rented for free, rented at reduced rate, and rented at market price). To quantify crowding in the household, we also include a measure of the number of rooms per household member. Other controls included in the analysis are parental migrant status and parental contributions to the household budget. Migrant origin was defined as those born in a country different from the country of residence, and we also measure the share of parental income contributed to the household budget by parents. It can be expected that, ceteris paribus, the contribution of the young adult will be higher in households in which there is a norm of income pooling, where parents pool a large share of their incomes.

Regarding our first dependent variable—which measures the monetary contributions of young adults to the household budget as a percentage of their income—the estimated coefficients for all explanatory variables are shown in Table A12.3 in the Appendix. To assess the magnitude of the effects, Table 12.1 provides average marginal effects of the most important explanatory variables on the probability that a young adult will contribute all personal income to the household budget (this is the highest category of the dependent variable). In Model 1, the sample has been restricted to young adults with positive income because respondents with zero income cannot contribute to the household budget. As a robustness analysis, we also run the same model on the sample of those aged 25–34 years (Model 2) because this is the age group for which the issue of

Table 12.1 Dependent variable: Proportion of co-resident young adults' (aged 18–34 years) personal income contributed to common household budget, average marginal effects on the probability of "contributing all personal income" for selected explanatory variables, 2010

	Model 1: Those with positive income	Model 2: Those aged 25–34 years	Model 3: All those aged 18–34 years
Log household income	−0.0212***	−0.0170***	−0.0090***
Young adult's relative income			
0%–30%	0	0	0
30%–50%	0.0306***	0.0554***	0.0424***
50%–80%	0.0392***	0.0622***	0.0482***
80%–120%	0.0432***	0.0687***	0.0506***
120+%	0.0411***	0.0684***	0.0485***
Young adult's labor market status			
Works full-time	0	0	0
Works part-time	−0.0060	0.0041	0.0011
Unemployed	−0.0604***	−0.0690***	−0.0590***
Student	−0.0782***	−0.0762***	−0.0731***
No work, other	−0.0041	−0.0170	−0.0264***
Partner in household	0.0774***	0.0793***	0.0519***
Child in household	0.0413***	0.0449***	0.0389***
Number of parents in household			
Only mother	0	0	0
Only father	−0.0073	−0.0158	−0.0089
Two parents	−0.0528***	−0.0475***	−0.0388***
Parental work intensity			
0–0.5	0	0	0
0.5–0.99	−0.0042	−0.0002	−0.0032
1	−0.0082*	−0.0035	−0.0053*
Parental health limitations	0.0000	−0.0044	0.0030

Note: Pooled models include all controls and country dummies (see Table A12.3 in the Appendix).
*$p < .10$.
**$p < .05$.
***$p < .01$.
Source: Authors' calculations based on the EU-SILC 2010 ad-hoc module on intra-household sharing of resources in 17 EU countries.

monetary contributions is more relevant. We also present results on the entire sample of those aged 18–34 years living in the parental home (Model 3).

The results confirm the role of absolute household income, which has a statistically negative effect: The higher the household income, the lower is the

probability of young adults contributing significantly to the household budget. Hypothesis H1 about the role of absolute income is thus confirmed. The variables related to the lack of economic resources of young adults and their parents show mixed results. The results regarding the employment status of young adults are in line with our hypothesis H2. As Table 12.1 shows, students are 8 points less likely and unemployed youth are 6 points less likely to contribute all income compared to working young adults. Those neither in employment nor in education also have a lower probability of contributing to household expenses, but this is visible only in Model 3, which includes all members of the 18- to 34-year-old age group living in the parental home. Contrary to our expectations, having a child in the household actually increases the probability that the young adult will contribute all income to the household budget (by 4 points). This might be a result of more intensive reciprocity between parents and young adults with dependent children, where parents help with grandchild care and young adults increase monetary contributions to the household budget.

Also in line with hypothesis H2, young adults contribute a higher fraction of their income when the parent is single. The probability that the young adult contributes all personal income to the household budget is 5 points lower when both parents live in the household (or one parent with a spouse/partner). Contributions to household income are also less likely if parents work full-time during the whole year (work intensity equals 1). Contrary to our hypothesis, parental health problems are not associated with a higher probability of household budget contributions by young adults.

The relative income position of parents and the young is important in determining the contribution of young adults to the household budget. The higher the income of young adults compared to that of their parents, the higher the contributions they are likely to make to the household budget. Young adults whose incomes are between 31% and 50% of the average income of their parents are 3 points more likely to contribute all income to the household budget compared to young adults whose incomes amount to 30% or less of their parents' average income. Young adults whose incomes exceed 50% of average parental income are 4 points more likely to contribute all their income.

Most control variables exhibit the expected sign (see Table A12.3 in the Appendix, Model 1). Higher contributions to the household budget become more likely with age. Somewhat surprisingly, education level (ceteris paribus) has a negative effect: Those with tertiary education are less likely to make a higher contribution to the household budget. This might be a result of shorter labor market experience on the part of those with tertiary education. Young adults in migrant households make higher contributions to the household budget. The contribution to the household budget is larger if parents contribute more from their own incomes to the budget. The contribution is also higher if the apartment/house is rented compared to owner-occupied housing. Parental age, overcrowding

(number of rooms per household member), and the number of young adults in the household have no significant effect.

We checked the robustness of our results concerning the determinants of young adults' financial contributions to households by estimating the pooled model for the sample of all young adults aged 25–34 years (Model 2 in Table 12.1). The reason for selecting this age group is that the issue of contribution to household expenses might be more meaningfully studied among those aged between 25 and 34 years because many of those aged between 18 and 24 years are still obtaining their education. Finally, we also estimated the model for all those aged between 18 and 34 years (Model 3 in Table 12.1). As can be seen from Table 12.1, the results obtained with different subsamples show similar signs and significance to the original estimates. In some cases, the magnitude of the effects seems to be different: for instance, total household income or the effect of having no partner in the household has a stronger effect on contribution to the household budget in the case of the subsamples.

Regarding our second dependent variable—which measures the freedom of young adults to decide about their personal expenses—detailed results are shown in Table A12.4 in the Appendix, and the average marginal effects for the most important explanatory variables can be found in Table 12.2. The first model includes only total household income, relative income, and country dummies on the right-hand side. In the second model, we add other explanatory variables that relate to young adults, whereas the third model also adds parental characteristics. Ability to decide about expenses on personal consumption is also related to the absolute income of the household: Young adults living in more affluent households are more likely to be able to decide about spending on personal consumption. This result thus confirms hypothesis H1, similarly to the case of our first dependent variable. The pattern among variables related to the lack of personal resources is also similar. Part-time workers, the unemployed, students, and other inactive young adults are less likely to be able to decide about expenses on personal consumption compared to those who are working full-time. The effect of not working reduces the probability that the young adult is always able to decide about personal expenses by approximately 22–28 points. Having children decreases the probability that young adults can always decide about expenses on personal consumption, but the effect is not statistically significant. The variables measuring parental needs are expected to have a negative effect. This is confirmed in the case of parental family status: When a young adult is living together with a single mother, the probability of being able to decide about expenses is lower. On the other hand, parents having health limitations does not have a statistically significant effect. Relative income is also related to the ability to decide about personal consumption. In households in which the income of the young adult is roughly equal to or higher than the average income of parents, the young adult is 7 or 8 points more likely to be able to decide about expenses on personal

Table 12.2 Dependent variable: Ability of co-resident young adults (aged 18–34 years) to decide about expenses for personal consumption, average marginal effects on the probability of "always able to decide" for selected explanatory variables, 2010

	Model 1	Model 2	Model 3
Log household income	0.1417***	0.0762***	0.0630***
Relative income			
0%–30%	0	0	0
30%–50%	0.0896***	0.0207	0.0279*
50%–80%	0.1388***	0.0368**	0.0520***
80%–120%	0.1780***	0.0556***	0.0669***
120+%	0.2020***	0.0641***	0.0795***
Labor market status			
Works full-time		0	0
Works part-time		−0.0523**	−0.0539**
Unemployed		−0.2280***	−0.2205***
Student		−0.2348***	−0.2293***
No work, other		−0.2934***	−0.2823***
Partner in household		−0.0732***	−0.0841***
Child in household		−0.0126	−0.0051
Number of parents in household			
Only mother			0
Only father			0.0382
Two parents			0.0267**
Parental work intensity			
0–0.5			0
0.5–0.99			0.0276*
1			0.0063
Parental health limitations			0.0098

Note: Pooled models include country dummies and control variables (see Table A12.4 in the Appendix).
*$p < .10$.
**$p < .05$.
***$p < .01$.
Source: Authors' calculations based on the EU-SILC 2010 ad hoc module on intra-household sharing of resources in 17 EU countries.

consumption compared to young adults who have less than 30% of parental income. These results confirm hypothesis H3.

The results regarding the control variables are shown in Table A12.4 in the Appendix. There is no statistically significant effect of gender or age. Influence over decisions regarding personal consumption increases with educational

attainment. Young adults living in more spacious housing are more likely to have influence over such decisions. Finally, the number of young adults in the household increases the likelihood that young adults can decide about expenses on personal consumption.

12.4.4. Differences Between Countries

We study differences between countries by examining estimates for country dummies in the pooled models. The country intercepts show the difference in the dependent variable that exists between the given country and the country of reference (Belgium) after controlling for a wide set of explanatory variables. Figure 12.4 shows the estimates of these country effects for the two dependent variables. According to the estimates, the probability that young adults contribute to the household budget is highest in Romania, Bulgaria, and Hungary. Other Eastern European countries and the Baltic states follow in the country ranking. The likelihood of contributions is, ceteris paribus, lowest in Luxembourg, Malta, and Cyprus. Germany and Belgium follow in the lower part of the country ranking, but Portugal, Spain, and Greece are also relatively close to these countries. It is clear from the figure that in the case of our two dependent variables, the country effects are negatively correlated: countries where young adults are less likely to contribute to the household budget are those where they are more likely to be able to decide about personal expenses. The main difference between the two
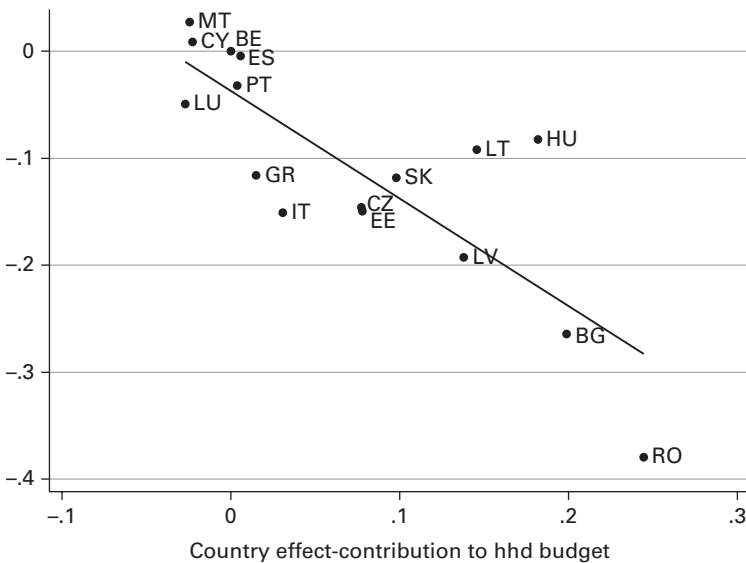

Figure 12.4 Differences between countries after controlling for covariates.
Source: Authors' calculations based on the EU-SILC 2010 ad hoc module on intra-household sharing of resources.

cases is that Greece and Italy are closer to the Eastern European countries in the case of the dependent variable on independence in consumption.

Overall, our results do not seem to show the expected pattern regarding cross-country differences, although information about more countries would be needed to properly test our fourth hypothesis. Our expectation was that more individualistic values in Western European countries would result in higher contributions to the household budget. In contrast to this, Belgium, Luxembourg, and Germany do not actually seem to be very different from the Southern European countries with regard to contributions to the household budget. The more important division seems to be between the Eastern European countries and the rest, with young adults being less independent and contributing more to household finances in Eastern Europe. This latter group seems to be heterogeneous, however, because Bulgaria and Romania show higher levels of contributions and lower levels of independence in consumption compared to other countries.

12.5. IMPACT OF TAKING ACCOUNT OF INTRA-HOUSEHOLD RESOURCE SHARING ON THE RELATIVE INCOMES OF THE YOUNG

As the last step in our analysis, we evaluate the consequences of taking into account intra-household sharing of resources on the income situation of young adults living together with their parents. Our method follows that of Ponthieux (2014), who constructs a measure of modified equivalized income, taking into account the intra-household sharing of income in households. In the usual calculation of household equivalized income, all incomes of all household members are added up and divided by the number of consumption units in the household. However, the modified equivalent income studied here takes into account the fact that household members pool only a part of their incomes. Pooled income (or "public" income) in a household is composed of the personal incomes of household members that are contributed to the household budget plus other household-level income types (e.g., income from capital or income from certain social transfers). The total income of a household member is the sum of an individual's personal income kept separate from the household budget plus his or her part of the public income of the household.[8] To divide the personal incomes of household members into income contributed to the household budget and income kept separate for personal purposes, one can make use of responses to the survey question discussed in Section 12.3 about the share of income kept separate from the household budget. To make a numeric illustration possible, one needs to make assumptions about the precise share of income corresponding to each of the response categories. Here, we assume that keeping less than half of

income separate from the budget means keeping 25% of income for one's own use, whereas keeping more than half means keeping 75% of personal income separate from the household budget.

As discussed previously, the standard measure of equivalized income used in inequality and poverty measurement assumes full pooling of incomes of household members and thus assumes equality among household members. The modified measure of equivalized income allows household members to keep a certain part of their income separate from the household budget (partial pooling). Moving from the standard measure to the modified measure is "beneficial" to young adults if their modified equivalized income is higher than standard equivalized income. Whether moving to the modified measure is beneficial, neutral, or detrimental to young adults depends on the relative incomes of young adults and parents and on their relative contribution levels. The proportion of such cases in the sample studies is shown in Table 12.3.

Table 12.3 shows the distribution of young adults in these groups. In all countries, the majority of young adults would benefit from moving from the standard

Table 12.3 The effect of taking into account intra-household sharing on the incomes of young adults (aged 18–34 years) in 17 EU countries (%)

Country	Modified income lower than original equivalized income	Modified and original equivalized income equal	Modified income higher than equivalized income	Total
BE	15.9	7.5	76.7	100
BG	19.7	12.4	67.9	100
CZ	24.3	6.3	69.4	100
DE	18.3	12.9	68.7	100
EE	22.8	6.4	70.8	100
EL	24.8	6.3	68.9	100
ES	11.3	9.8	79.0	100
HU	15.1	17.0	67.9	100
IT	16.9	5.5	77.6	100
LT	15.5	10.3	74.2	100
LU	12.8	4.5	82.7	100
LV	27.7	6.7	65.5	100
MT	33.2	4.1	62.7	100
PT	18.1	9.5	72.5	100
RO	28.6	9.2	62.3	100
SK	30.2	5.9	63.9	100

Note: By equal is meant between ±2% of the original equivalized income.
Source: Authors' calculations based on the EU-SILC 2010 ad hoc module on intra-household sharing of resources.

equivalized income to the modified version. This is mainly due to the fact that parents typically contribute a higher share of their income to the household budget compared to young adults. The highest percentage of young adults who would end up with lower incomes under the modified version can be found in Malta (33%), Slovakia (30%), and Romania (29%), whereas the lowest figures were found for Spain (11%) and Luxembourg (13%).

The standard assumption of inequality and poverty studies about intra-household equality thus means that we underestimate the incomes of the majority of young adults living with their parents. In reality, their income situation is likely to be more favorable than shown by the conventional statistics. There is, however, a smaller group of this young adult population for which the conventional estimates overestimate true incomes. This group is in a minority, but it is far from negligible; indeed, in some countries, it is close to one-third of the young adult population still living in the parental home.

12.6. CONCLUSIONS

This study uses the 2010 EU-SILC special module on intra-household sharing of resources to shed light on practices of income sharing in households in which young adults live together with their parents. The chapter is novel in two respects. First, it provides new quantitative comparative evidence on how young adults in co-residence with their parents participate in household finances and also on their financial independence. Monetary exchanges in such households are rarely studied either in research on family processes or in the literature on intra-household allocation. In particular, we studied the main determinants—the role of absolute household income, the status of individual economic need by household members (parents and adult children), and the relative income of young adults—of the contributions of young adults to the household budget and their freedom to decide about personal spending. The study also tries to quantify the effect of taking into account intra-household income sharing on the measurement of the income situation of young adults.

Our findings on the determinants of contributions to household budgets and on the ability to decide about personal expenses broadly confirm our hypotheses about the effects of household income, relative income of household members, and household members' material needs. We found that income sharing in households tends to benefit household members in need and with low relative income. The young pay lower contributions when they are in need (e.g., unemployed or students), but they pay higher contributions if the parents are in need of support. Contributions to the household budget increase with the relative income of young adults, albeit sometimes non-monotonically. Overall, this pattern is consistent with the view that income sharing in the household tends to attenuate income differences between household members.

Although income sharing moderates differences within households, we found inequality between low- and high-income households in the extent to which young adults can benefit from intra-household transfers. In households with high absolute incomes, young adults contribute less to the household budget and are more free to decide about their personal expenses, whereas in low-income households, young adults contribute more to the household budget and have less independence in consumption decisions. Our hypothesis on cross-country differences was only partially confirmed. Young adults living in the parental home in Western European countries are the most independent in deciding about personal expenses, and they contribute less to the household budget. Moreover, Western European countries are not very different from some of the Southern European countries. The most important difference is between the Eastern European countries and the rest, with young adults being less independent and contributing more to household finances in Eastern Europe.

Our results show that the majority of young adults benefit from intra-household sharing of monetary resources compared to the conventional assumption of intra-household equality. This happens because parents typically have higher incomes than their young adult children and share a larger fraction of their incomes with other household members. There is, however, a smaller group of young adults (between 11% and 33%) who support their parents economically in the sense that their contribution to the household budget is higher. Overall, our results suggest that young adults have differing motivations for and experiences with co-residence with parents. Some young adults stay at home longer in order to enjoy better economic well-being, some stay at home longer as a strategy to overcome the difficulties faced in the labor market or on the housing market or both, whereas others stay at home longer in order to support their family of origin.

The 2010 special module of the EU-SILC on intra-household sharing of resources is a valuable data set for studying intra-household allocation, which is seldom covered by large comparative surveys. There are, however, certain drawbacks of the survey that impose constraints on the current study. One constraint is that we are unable to differentiate between different cases of co-residence, such as young adults returning to the parental home and young adults who have never left home. Another limitation is that the question about income sharing does not explicitly ask what percentage of their income respondents keep separate or put into the household budget, so assumptions are required when this information is used in calculations.

NOTES

1   Earlier versions of the chapter were presented at the International Sociological Association RC28 spring meeting in Budapest (May 8–10, 2014); at the STYLE

2 In the case of the United States, Kahn, Goldscheider, and García-Manglano (2013) affirm that young adults have become the more financially dependent generation in multigenerational households. This evidence also suggests that co-residence with parents might protect the young from falling into poverty.

3 Although financial arrangements between parents and co-resident young adults are not at the forefront of research on co-residence or intra-household arrangements, there are some studies that cover this area, such as Aquilino and Supple (1991), Ward and Spitze (1996), White (2002), and Sassler et al. (2008).

4 Several reasons have been put forward for this difference. Some explanations highlight the difficulties that young adults face on the labor market and the housing market in Southern European countries (Buchmann and Kriesi 2011). Others focus on preferences and norms. According to Manacorda and Moretti (2006), parental preference for co-residence with young adult children can be strong, and parents can bribe children to stay in the parental home. Giuliano (2007) also shows the effect of cultural norms on the home-leaving behavior of young adults. She demonstrates that value changes (e.g., the sexual revolution in the 1970s) have different effects on the living arrangements of second-generation immigrants in the United States, depending on the cultural norms prevailing in their countries of origin.

5 The so-called register countries (Denmark, Finland, the Netherlands, Slovenia, and Sweden) had to be omitted because only one respondent was selected per household to answer the personal questionnaire. Other countries were not included because of substantive modifications to the expected question wording (Austria, France, and Ireland in the case of the first explanatory variable) or differences in response categories (France and Ireland) that make comparison with other countries difficult. Three other countries were not included because of a high percentage of missing values in the case of the population aged 18–34 years (Austria, Poland, and the United Kingdom). In the case of the second explanatory variable, Germany had to be excluded, but we were able to use the data for Ireland.

6 Health status for young adults is not included in the analysis because this is relevant for only a small subsample and these people tend to be outside the labor market. This makes it difficult to arrive at a reliable estimate of poor health in the case of the young.

7 The work intensity of a household is the ratio of the number of months that all working-age household members (aged 16–64 years) have worked during

the income reference year to the total number of months the same household members theoretically could have worked during the same period.

8   The part of public income assigned to one household member equals P/N_{eq}, where P is the amount of public income of the household, and N_{eq} measures the number of consumption units in the household.

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APPENDIX

Table A12.1 Proportion of personal income contributed by co-resident young adults (aged 18-34 years) to common household budget in 17 EU countries, 2010

Country	All income separate	Less than half in common pot	About half in common pot	More than half in common pot	All income in common pot	No income	Total	*n*
BE	31.3	6.8	0.9	3.2	4.7	53.1	100.0	1,311
BG	7.8	12.2	8.6	13.7	14.6	43.1	100.0	2,538
CY	39.4	4.9	1.7	2.4	2.0	49.5	100.0	1,784
CZ	17.8	22.6	6.4	4.1	4.7	44.2	100.0	2,875
DE	47.3	12.8	2.2	3.2	4.3	30.3	100.0	2,146
EE	19.7	9.1	8.2	6.9	5.7	50.5	100.0	1,477
EL	30.9	11.8	5.6	6.5	3.5	41.8	100.0	2,295
ES	35.4	7.2	3.7	3.8	8.4	41.6	100.0	4,572
HU	11.8	10.8	6.9	11.6	15.6	43.3	100.0	3,595
IT	23.2	6.9	3.9	7.6	5.1	53.3	100.0	5,727
LT	9.7	14.3	5.4	6.7	10.7	53.1	100.0	1,792
LU	36.2	7.3	2.1	0.7	2.7	51.1	100.0	1,498
LV	11.0	10.3	7.7	16.7	5.7	48.6	100.0	2,221
MT	65.4	4.3	1.5	4.5	2.4	22.0	100.0	1,838
PT	37.4	9.4	3.4	4.8	8.1	37.0	100.0	1,814
RO	4.9	7.7	7.8	25.2	10.9	43.4	100.0	2,783
SK	17.5	22.1	4.5	12.6	4.5	38.8	100.0	3,344

Source: Authors' calculations based on the EU-SILC 2010 ad hoc module on intra-household sharing of resources.

Table A12.2 Ability of co-resident young adults (aged 18–34 years) to decide about spending on personal consumption in 17 EU countries, 2010

Country	No	Yes, sometimes	Yes, always	Total	*n*
BE	6.2	10.3	83.5	100.0	1,313
BG	22.8	33.0	44.3	100.0	2,538
CY	6.2	17.6	76.2	100.0	1,784
CZ	21.7	30.3	48.0	100.0	2,855
EE	15.8	30.1	54.1	100.0	1,551
EL	18.0	25.7	56.2	100.0	2,295
ES	8.4	17.2	74.4	100.0	4,573
HU	10.9	25.9	63.3	100.0	3,595
IE	20.7	12.2	67.1	100.0	1,277
IT	29.7	25.8	44.5	100.0	5,727
LT	12.4	39.4	48.2	100.0	1,772
LU	12.5	15.1	72.4	100.0	1,488
LV	25.2	24.8	50.1	100.0	2,221
MT	1.6	4.7	93.7	100.0	1,832
PT	14.6	16.3	69.1	100.0	1,819
RO	36.5	36.6	26.9	100.0	2,783
SK	17.6	21.4	61.0	100.0	3,345

Source: Authors' calculations based on the EU-SILC 2010 ad hoc module on intra-household sharing of resources.

Table A12.3 Dependent variable: Proportion of personal income contributed by co-resident young adults (aged 18–34 years) to common household budget, coefficients of ordinal probit model, pooled models

	Model 1: Those with positive income	Model 2: Those aged 25–34 years	Model 3: Those aged 18–34 years
Log household income	−0.0961***	−0.1737***	−0.1306***
Relative income			
0%–30%	0	0	0
30%–50%	0.5270***	0.3000***	0.5582***
50%–80%	0.5783***	0.3681***	0.6072***
80%–120%	0.5984***	0.3985***	0.6522***
120+%	0.5805***	0.3826***	0.6507***
Female	0.0112	0.0319	0.0167
Age	0.0230***	0.0247***	0.0226***
Education, three categories			
Below upper secondary	0	0	0
Upper secondary	0.0147	−0.0637*	−0.0721
Tertiary	−0.0946**	−0.1941***	−0.1890***

Table A12.3 Continued

	Model 1: Those with positive income	Model 2: Those aged 25–34 years	Model 3: Those aged 18–34 years
Labor market status			
Works full-time	0	0	0
Works part-time	0.0084	−0.0421	0.0277
Unemployed	−0.6501***	−0.5652***	−0.6643***
Student	−0.9736***	−0.8640***	−0.7811***
No work, other	−0.2270***	−0.0286	−0.1227
Partner in household	0.5563***	0.6351***	0.6098***
Child in household	0.4167***	0.3385***	0.3455***
Number of parents in household			
Only mother	0	0	0
Only father	−0.0738	−0.0458	−0.1004
Two parents	−0.3735***	−0.3915***	−0.3362***
Parents' average age	−0.0023	−0.0029	−0.0024
Parental education level			
All below upper secondary	0	0	0
With and without upper secondary	0.0085	−0.0640	−0.0842
All at least upper secondary	−0.1298***	−0.1248**	−0.1430**
Parental work intensity			
0–0.5	0	0	0
0.5–0.99	−0.0343	−0.0342	−0.0015
1	−0.0574*	−0.0675*	−0.0272
Parent has health limitations	0.0323	0.0004	−0.0337
Parent migrant origin	0.2196***	0.2551***	0.2660***
Contribution of parent to household budget			
No contribution	0	0	0
Half or less	0.3852***	0.4020***	0.4648***
More than half	0.4480***	0.5348***	0.5663***
No income	0.5121***	0.5743***	0.5886***
Home ownership			
Owner/no rent	0	0	0
Reduced rent	0.0740	0.0917	0.0426
Market rent	0.1921***	0.2650***	0.2644***

Table A12.3 Continued

	Model 1: Those with positive income	Model 2: Those aged 25–34 years	Model 3: Those aged 18–34 years
Rooms per household member	−0.0531	−0.0268	−0.1142*
No. of household members aged <18 years	0.0035	0.0042	0.0133
No. of household members aged 18–34 years	−0.0148	−0.0246	−0.0620*
N			
Pseudo R^2			

Note: Pooled models include control dummies (coefficients not shown).
*$p < .10$.
**$p < .05$.
***$p < .01$.
Source: Authors' calculations based on the EU-SILC 2010 ad hoc module on intra-household sharing of resources.

Table A12.4 Ability to decide about spending on personal consumption, coefficients of ordinal probit model, pooled models

	Model 1	Model 2	Model 3
Log household income	0.5276***	0.3055***	0.2561***
Relative income			
0%–30%	0	0	0
30%–50%	0.2832***	0.0774	0.1047*
50%–80%	0.4570***	0.1400**	0.1999***
80%–120%	0.6107***	0.2159***	0.2616***
120+%	0.7146***	0.2514***	0.3156***
Female		0.0075	0.0103
Age		0.0022	0.0033
Education, three categories			
Below upper secondary		0	0
Upper secondary		0.1998***	0.1482***
Tertiary		0.3086***	0.2402***
Labor market status			
Works full-time		0	0
Works part-time		−0.2311***	−0.2409***
Unemployed		−0.8278***	−0.8147***
Student		−0.8481***	−0.8415***
No work, other		−1.0199***	−0.9994***
Partner in household		−0.2935***	−0.3422***

Table A12.4 Continued

	Model 1	Model 2	Model 3
Child in household		−0.0503	−0.0206
Number of parents in household			
Only mother			0
Only father			0.1544
Two parents			0.1063**
Parents' average age			0.0036
Parental education level			
All below upper secondary			0
With and without upper secondary			0.0573
All at least upper secondary			0.1662***
Parental work intensity			
0–0.5			0
0.5–0.99			0.1143*
1			0.0255
Parent has health limitations			0.0397
Parent migrant origin			−0.0984
Contribution of parent to household budget			
No contribution			0
Half or less			0.1148
More than half			0.0573
No income			−0.1565
Home ownership			
Owner/no rent			0
Reduced rent			−0.0088
Market rent			−0.0858
Rooms per household member			0.1374**
No. of household members aged <18 years			0.0381
No. of household members aged 18–34 years			0.0450*
N	19,861	19,708	18,596
Pseudo R^2	0.094	0.125	0.129

Note: Pooled models include control dummies (coefficients not shown).
*p < .10.
**p < .05.
***p < .01.
Source: Authors' calculations based on the EU-SILC 2010 ad hoc module on intra-household sharing of resources.