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Research Article

Economic insecurity and material deprivation: Coping strategies among couple families with and without small children in Europe

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Contents

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Economic insecurity and material deprivation: Coping strategies among couple families with and without small children in Europe

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Abstract

BACKGROUND
Families in Europe are increasingly exposed to economic insecurity, which may heighten their risk of material deprivation. Coping strategies – typically involving employment by family members – may help mitigate such risks. However, the ability to adopt such strategies and their effectiveness may depend on the welfare context and the presence of small children, an aspect that remains under-investigated.

OBJECTIVE
This paper examines the role of the female partner's employment as a coping strategy against material deprivation in response to the male partner's loss of earnings, distinguishing between buffering (stable employment) and resilience (entry into employment).

METHODS
We used longitudinal EU-SILC data (2004–2019) for 31 European countries and applied first-difference models. We distinguished between couples with and without children aged 0–5 years, and compared outcomes across six European country clusters: Nordic, Anglo-Saxon, Continental, Southern, Central-Eastern, and Baltic. We analysed both the prevalence and effectiveness of buffering and resilience strategies.

RESULTS
Male earnings loss is associated with a substantial increase in material deprivation, regardless of the presence of small children. Buffering is more prevalent among families without small children and in more defamilised contexts, such as Nordic and Continental European countries. Resilience is more frequent among families with small children,

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especially in Baltic countries. Regarding effectiveness, buffering mitigates the impact of earnings loss in some countries, regardless of the presence of small children. By contrast, resilience is largely ineffective.

CONTRIBUTION

This study shows that although stable female employment is an effective coping strategy, employment activation remains fragile and highly context-dependent. Families with small children are more likely to rely on employment activation than families without small children; however, the capacity of employment activation to cushion material deprivation is limited and uncertain. Thus, policy efforts should prioritise support for maternal employment continuity.

1. Introduction

Economic insecurity, understood as employment and income instability, has become widespread across Europe, especially since the Great Recession (Berghammer and Adserà 2022; Burgard and Kalousova 2015; Gonalons-Pons and Gangl 2022). Economic insecurity disproportionately affects young individuals and couples (Ayllón and Ramos 2019; Sironi 2018) and may lead to material deprivation, with negative consequences for housing, healthcare, and financial stability. These effects can be particularly severe for families with children: deprivation during childhood hampers educational performance, health outcomes, and future life chances (Duncan et al. 1998; Evans and Kim 2012; Kalil et al. 2016).

Thus, it is crucial to understand how families cope with economic insecurity. This paper aims to answer the following questions: To what extent are couple families able to cope with the consequences of economic insecurity and material deprivation? Do the prevalence and effectiveness of coping strategies differ between couple families with and without small children? And do these dynamics vary across institutional contexts?

To address these questions, we conceptually distinguish between two types of coping strategies: buffering, defined as the protective effect of stable female employment, and resilience, defined as the female partner's entry into employment in response to the male's loss of earnings. This dynamic distinction allows us to contrast forms of coping that are latent and preventive (buffering) versus reactive and adaptive (resilience). In developing this framework, we pulled together separate strands of research that are rarely integrated, namely, studies on female employment and the motherhood penalty, the added worker effect (AWE), and family resilience theory.

The loss of the male partner's earnings is taken as the shock of interest. We operationalise buffering as the female partner's stable employment (i.e., the situation

where she is steadily employed in the years surrounding the adverse event). We operationalise resilience as the female partner's entry into employment (i.e., the situation where she moves from non-employment to employment as a reaction to the adverse event). The focus on his loss of earnings (and, consequently, on her reaction vis-a-vis the labour market) is justified by the fact that women are generally less attached to the labour market than men. This relative detachment implies that women have more room to increase their employment to prevent deprivation.

The focus here is on young heterosexual couples in which the woman is between 19 and 45 years old. Couples in this age range are in a career stage that puts them at a higher risk of experiencing loss of earnings than other groups. At the same time, these couples are in the family-forming phase. Having children has several critical implications beyond the negative effects of earnings loss on the offspring. Children increase the demand for economic resources, elevating the risk of material deprivation. Furthermore, children require care and may limit the mother's ability to stay in or enter the workforce. These are crucial aspects for families' coping strategies.

We adopt a comparative perspective to examine how couple families cope with economic insecurity across Europe. This approach is essential for two main reasons. First, the exposure to earnings loss and the risk of material deprivation are unevenly distributed across institutional contexts characterised by varying labour market structures and welfare state arrangements. Second, and most importantly for our purposes, the capacity of couple families to activate coping strategies – whether in terms of buffering or resilience – depends on the extent to which national contexts support women's labour market participation, particularly for mothers. This includes policy provisions such as childcare services and parental leave, and normative frameworks shaping gender roles and intergenerational responsibilities. By distinguishing between country clusters and leveraging longitudinal EU-SILC data (2004–2019), our analysis systematically assesses the prevalence and effectiveness of coping strategies across Europe.

2. Theoretical framework

2.1 Material deprivation and economic insecurity

Material deprivation conceptualises poverty as a multidimensional construct, defined as the enforced lack of essential goods or the inability to participate in activities crucial to societal life. Compared to other poverty-related concepts, in recent decades material deprivation has gained relevance in comparative studies on poverty (Bárcena-Martín et al. 2014; Bedük 2018; Nolan and Whelan 2010; Watson et al. 2022; Whelan and Maître 2012). This approach offers an angle when assessing child poverty or poverty among

households with children that differs from income-based measures. First, children's well-being is not fully captured by parental income. Second, income-based poverty measures are mechanically inflated by income losses. Third, adjusting incomes with equivalence scales inflates poverty among children because households with children are inherently more likely to be classified as income-poor. Therefore, using multidimensional deprivation indices has been recommended when comparing households with and without children (Cheung, Chan, and Chou 2019; Guio et al. 2018).

A well-established body of empirical research demonstrates the adverse effects of economic insecurity – often conceptualised as employment instability – on household material deprivation (Cheung, Chan, and Chou 2019; Figari 2012; de Graaf-Zijl and Nolan 2011). Pérez-Corral, Bastos, and Casaca (2024) explore the relationship between employment instability and children's exposure to material deprivation in Portugal and Spain. They find that employment insecurity is associated with a heightened risk of severe material deprivation among families with children. However, Pérez-Corral, Bastos, and Casaca exclude childless couples from their analysis, so their findings do not offer insights into differences between households with and without children.

There is limited empirical evidence on the consequences of loss of earnings for material deprivation from a dynamic perspective. Using longitudinal data from the early 2000s, Venn (2011) examines the effects of earnings losses (defined as a drop in earnings of at least 20% of the previous earnings) on various material deprivation indicators across 18 European countries, the United States, the United Kingdom, and South Korea. The findings consistently show that loss of earnings is linked to increases in each deprivation item considered. Moreover, the impact of loss of earnings was more pronounced in Mediterranean countries (Portugal, Italy, and Spain) than in Nordic countries (Sweden and Norway). The authors attribute this discrepancy to the higher prevalence of male-breadwinner households in the former.

Cross-country differences in the relationship between economic insecurity and material deprivation may stem from varying exposure to economic insecurity and, more importantly, from differences in the extent to which welfare arrangements cushion the effects of income insecurity. Past comparative research has illuminated the complexity of this issue within Europe. Saltkjel and Malmberg-Heimonen (2017) demonstrate that welfare generosity, measured as social benefits, reduces the risk of material deprivation among disadvantaged social groups such as the unemployed.

Recent research incorporates a longitudinal perspective to the study of material deprivation. Ayllón and Gabos (2017) find substantial persistence in (severe) material deprivation across EU countries during 2004–2010. Interestingly, they also find that low work intensity influences material deprivation. Other longitudinal studies focus on the Great Recession. Guio et al. (2018) show that although trends in material deprivation vary across EU countries, the increase in the severity of deprivation is consistent in all of

them. They also find that changes in entry rates to and exit rates from material deprivation contribute to cross-country differences. Finally, Watson et al. (2022) explore whether the Great Recession led to convergence or polarisation in material deprivation among disadvantaged groups, such as lone parents and individuals with disabilities. They find that, across Europe, Nordic countries had the lowest levels of material deprivation and experienced the smallest increases during the Great Recession. By contrast, Southern European countries experienced both the highest levels and the largest increases in material deprivation. Notably, patterns of disadvantage remained largely unchanged in all European countries during the recession, except for Anglo-Saxon nations.

2.2 Coping strategies for families

Women's employment is crucial for preventing household poverty, particularly when facing adverse events such as the loss of the male's earnings (Barbieri, Cutuli, and Scherer 2024; Ehlert 2012). Various concepts have been introduced in the literature to understand the role of additional household members in the risk-coping system. By adopting a dynamic perspective, we contribute to this body of research by distinguishing and jointly considering the role of stable employment (buffering) and the role of the proactive strategy of employment activation (resilience). Surprisingly, these two aspects of female employment have rarely been considered jointly. The recent study by Beduk et al. (2025) appears to be the only other contribution that, in the context of job loss, simultaneously examines household compensation in terms of stable employment and employment activation, which the authors call static and dynamic pooling, respectively.

A (family) buffer was originally defined as the difference between the loss in individual labour income and the loss in household total income before taxes and transfers stemming from the job loss of a household member (Brülle 2016; DiPrete and McManus 2000; Ehlert 2012). In this context, additional incomes, mainly coming from an employed partner, act as a family-based buffer.

By contrast, (family) resilience is the capacity of family members to respond timely and effectively to external shocks and adversities (Benzies and Mychasiuk 2009; Ungar 2018; Walsh 2021). Family resilience is not a static trait but a dynamic process of adaptation that depends on internal family resources, such as communication, belief systems, and organisational patterns, and on the external context in which the family is embedded (Bawati et al. 2025). Framing female entry into employment as a resilience strategy implies viewing such activation as a response to an earnings shock, aligned with the broader conceptualisation of resilience as an adaptation rather than passive resistance. This interpretation echoes theories of family stress and adaptation (McCubbin and Patterson 1983; McCubbin and McCubbin 2013), which emphasise that economic

hardship can be mitigated through cooperative intra-household efforts, such as a partner entering employment to compensate for income loss. Nonetheless, although resilience implies agency, recent research warns against over-emphasising individual responsibility, and calls for greater attention to the structural constraints that shape families' capacity to respond to economic risks (Bawati et al. 2025). As discussed in the next section, this conceptualisation is analytically close to the notion of the 'added worker effect', commonly used in labour economics.

2.3 Small children as a constraint to coping strategies

Despite the overall increase in female labour market participation in recent decades, many women across Europe still experience discontinuous or weak attachment to the labour market, especially during childrearing. Gender inequalities in care provision and cultural factors and social norms regarding gender roles contribute to the 'motherhood penalty' (Bianchi and Milkie 2010; European Commission 2023; Uunk 2015), which results from not being able to re-enter the labour market, or re-entering part-time, low-paid occupations (Gangl and Ziefle 2009; Killewald and Zhuo 2019; Mari and Cutuli 2021; Musick, Bea, and Gonalons-Pons 2020).

The literature about the female partner's employment in response to the male partner's income loss is tied to studies on the 'added-worker effect' (henceforth AWE). Research that focuses on material deprivation as the outcome of the AWE is non-existent. Therefore, we built our theoretical argumentation on AWE studies focusing on the extent to which her earnings compensate for his loss of earnings.

Theoretical models suggest that women's labour-supply decisions are sensitive to children's well-being and the need to maintain material living standards. Thus, a stronger AWE is expected for women with children than for childless women (Blundell, Pistaferri, and Saporta-Eksten 2018; Starr 2014). Notwithstanding, childcare responsibilities limit the full labour-market participation of women with children, implying a lower AWE for them.

Empirical evidence partly aligns with this theoretical reasoning, while showing substantial cross-country heterogeneity. In the United States during the Great Recession, Starr (2014) finds a more pronounced AWE for women with children than for childless women, although the extent is not the same for women with small children. Cammeraat, Jongen, and Koning (2023) find that couples with children experienced a remarkably smaller AWE than those without children just before and after the Great Recession in the Netherlands. In Switzerland, during 2012–2015, Hevenstone, Kessler, and Luchsinger (2023) find a stronger, more intensive AWE (an increase in working hours) among mothers with young children, but a stronger, more extensive AWE (employment entry)

among mothers with older children. Halla, Schmieder, and Weber (2020) employ a quasi-experimental design, which provides causal evidence on the presence of the AWE in Austria. They find that mothers with children aged between 3 and 15 years are the most responsive group, as they increase their employment rates and earnings persistently after their male partners' job losses. By contrast, almost no increase is observed among mothers of very young children or among women without children or with older children. The result for childless women is due to this group being already highly attached to the labour market.

2.4 Coping strategies in a comparative perspective: The role of family policies

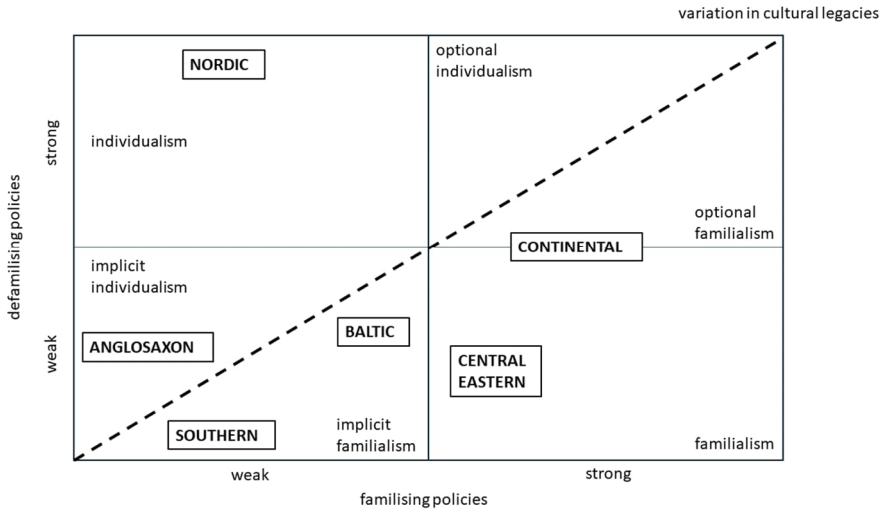
A long tradition of comparative research has scrutinised the role of family policies in reconciling work and childcare by comparing countries with different welfare mixes. Relevant social policies include public childcare provision, parental leave schemes, and tax-benefit arrangements. Lohmann and Zagel (2016) argue that family policies can be organised around the concepts of familisation and defamilisation. Defamilising policies reduce individuals' dependence on the family for care provision and income support by collectivising care and strengthening individual social rights; for instance, through affordable and accessible childcare services, public elder care, individualised taxation, and short, well-paid parental leave (Lohmann and Zagel 2016; Zagel and Van Winkle 2022). By contrast, familising policies reinforce reliance on the family as the primary provider of care and income; for example, through long parental leave, generous family benefits, joint taxation and income-splitting, cash-for-care schemes, or legal obligations of care.

In strongly defamilising contexts, where care responsibilities are supported by public services and individualised benefits, mothers are more likely to return to work under favourable conditions, often in full-time and higher-quality jobs (Scherer and Pavolini 2023). On the other hand, in familistic settings with limited state support for mothers' employment, re-entry is delayed, fragmented, or confined to low-paid and part-time positions, reinforcing gendered care roles and contributing to persistent wage penalties and career disadvantages (Olivetti and Petrongolo 2017). Finally, the scope for activating women's employment in response to a male income loss depends not only on this policy configuration but also on demand-side factors, such as the availability and quality of jobs, which are patterned by welfare-regime-specific institutional arrangements and, closely related, labour market structures (Barbieri 2025).

Here, we adopt Lohmann and Zagel's (2016) framework and consider six country clusters, each occupying a specific position along the familising and defamilising axis (Figure 1). Nordic countries lie in the individualism area, with strong defamilisation and

moderate familisation. Anglo-Saxon countries fall into the implicit individualism area, whereas Southern European countries are located around implicit familialism, characterised by weak defamilisation and modest familising transfers. Therefore, Continental, Central-Eastern, and Baltic countries are best understood as mixed rather than neatly bounded configurations. Continental countries are placed in the upper-right section, combining familising and defamilising policies. Central-Eastern countries tend towards familialism, whereas Baltic countries tend towards individualism.

Figure 1: Mapping of European country clusters in a four-field matrix of family policies, following Lohmann and Zagel (2016)



Bredtmann, Otten, and Rulff's (2018) comparative work on European countries shows that mothers whose youngest child is under 3 years old are less likely to join the workforce or make a transition from part-time to full-time employment. Bredtmann, Otten, and Rulff (2018) is the only study that also investigates the heterogeneity of AWE across welfare regimes, although it overlooks differences between households with and without children. Evidence for AWE is weak in the Nordic and Continental European countries, with limited behavioural responses such as part-time-to-full-time transitions. By contrast, strong AWE is observed in Southern European countries, with females increasing their labour supply after their male partners' job losses. In Central and Eastern Europe, female partners are more likely to enter unemployment or job searches but face labour market demand constraints. Variation in family policies, welfare generosity, and

tax systems explains these differences. In Mediterranean countries and to a similar extent in Central and Eastern Europe, strong family ties and low social protection incentivise increased labour supply in response to an income loss. On the other hand, in Continental Europe, high part-time employment rates allow for more part-time-to-full-time transitions, rather than new labour market entries. Income-splitting tax systems create disincentives for women to work full-time by reducing tax savings. These policies limit the strength of the AWE in these countries. Furthermore, Nordic countries' robust welfare systems, which buffer income losses, reduce the need for employment activation strategies (Bredtmann, Otten, and Rulff 2018).

The above-mentioned studies considered prevalence, that is, the propensity of female partners to increase their labour market attachment because of male partner job losses or earnings losses. However, effectiveness (i.e., the extent to which the income compensation is sufficient) has been mostly ignored. Ehlert (2012) finds that the AWE offsets 40% of job or earning losses in Germany and 60% in the United States. However, Ehlert (2012) combines prevalence and effectiveness, suggesting that the mentioned values represent bounds. Halla, Schmieder, and Weber (2020) are the only ones to isolate effectiveness. They find that the AWE by female partners compensates male income losses by approximately 30% in Austria. However, differences in effectiveness between couples with and without children are not investigated.

Beduk et al. (2025) compare the relative contribution of market, state, and household mechanisms to income compensation after job losses in Denmark, Finland, Germany, and the United Kingdom. They show that market compensation through re-employment is the main driver of income recovery, while state and household compensation play lesser roles. In particular, household compensation largely operates as a last-resort mechanism that becomes salient in institutional settings characterised by weaker social protection or where re-employment is insufficient to restore pre-shock living standards. These results suggest that cross-national differences in the impact of earnings losses and in families' coping strategies are shaped by broader institutional configurations and 'policy interactions' that go beyond narrowly defined policies.

To sum up, we treat familisation/defamilisation as a specific institutional dimension that most directly shapes care constraints and, in turn, the feasibility of coping strategies. Other institutional features such as the generosity of income protection and labour-market opportunity structures are conceptually distinct yet tightly related, though these dimensions do not align perfectly. In practice, contexts characterised by defamilisation also combine this with generous income protection and better, more favourable employment opportunities, supporting both continuous female employment and higher returns to employment-based coping. Conversely, familised contexts often coincide with weaker income protection and more segmented labour markets, where activation may translate into part-time or low-paid jobs.

2.5 Expectations

Theoretical arguments and empirical evidence from previous studies allowed us to delineate a set of hypotheses about the impact of economic insecurity on material deprivation and the role of coping strategies for families, including calling into question the role of the presence of small children.

Hypothesis 1: A male partner's loss of earnings increases household material deprivation.

Hypothesis 2: Buffering and resilience mitigate the impact of the male partner's loss of earnings on household material deprivation.

Hypothesis 3a: Buffering and resilience are less prevalent in couples with small children than in couples without small children.

These expectations are due to the lower labour market attachment of women with children. Women with children are less likely to be employed after childbirth, limiting the prevalence of buffering, and are less likely (to be able) to enter employment, limiting the prevalence of resilience.

Hypothesis 3b: Buffering and resilience are less effective in couples with small children than in couples without small children.

If buffering or resilience is in place, women with small children are more likely to work fewer hours or in lower-paid jobs than women without small children, leading to the motherhood penalty.

Hypothesis 4a: The prevalence of buffering and resilience varies across institutional contexts, depending on the configuration of familising and defamilising family policies.

Buffering is expected to be more prevalent in institutional contexts that strongly defamilise care through extensive and affordable public childcare, easy access to elder care, and shorter but well-compensated parental leave, among other things. By facilitating continuous maternal employment, these policies enlarge the pool of women who are already employed at the time of a male earnings-loss event, and can thus provide a buffer. By contrast, in more familising countries, female employment is structurally discouraged and employment interruptions around childbirth are more common. These contexts generate a higher need for activation in response to income shocks and a larger pool of

inactive women who could, in principle, enter employment, increasing the potential prevalence of resilience strategies, especially among women without heavy care responsibilities.

Hypothesis 4b: The effectiveness of buffering and resilience varies across institutional contexts, depending on the configuration of familising and defamilising family policies.

Although the need for female employment activation may be stronger in familising countries, the effectiveness of resilience in preventing material deprivation is constrained by limited institutional support, weak labour demand, and the prevalence of low-quality jobs. In these settings, women – particularly mothers – are more likely to (re-)enter part-time, temporary, or low-paid employment, limiting the extent to which their labour market participation can compensate for household income loss. By contrast, in regimes that combine generous defamilising policies with at least moderate familising support, continuous female employment is more often full-time and better remunerated, and newly activated jobs are of higher quality. Hence, buffering and – where it occurs – resilience are more likely to translate into substantial income gains and mitigate the effects of male earnings loss on material deprivation.

3. Data and methods

3.1 Data

We used the longitudinal component of EU-SILC microdata for 31 European countries over 15 years (2004–2019) to answer the research questions (see Wirth and Pforr 2022 for details on data). Following previous comparative literature on material deprivation (Whelan and Maître and 2012), female employment (e.g., Barbieri et al. 2019), and the AWE (e.g., Bredtmann, Otten, and Rulff 2018), we grouped the 31 countries into the following clusters: Nordic (Denmark, Finland, Iceland, Norway, and Sweden), Anglo-Saxon (Ireland and the United Kingdom), Continental European (Austria, Belgium, France, Germany, Luxembourg, the Netherlands, and Switzerland), Southern European (Cyprus, Greece, Italy, Portugal, and Spain), Central-Eastern European (Bulgaria, Croatia, Czech Republic, Hungary, Poland, Romania, Serbia, Slovakia, and Slovenia) and Baltic (Estonia, Latvia, and Lithuania). Table A-1 shows the sample size across country distribution.

Young heterosexual couples, in which the woman is between 19 and 45 years old, were our target population. The analytical sample included couples that were observed at

at least two time points. Overall, we had complete information on 118,000 couples. Table A-2 presents descriptive statistics.

3.2 The measurement of material deprivation

In line with the European Union's definition, we measured material deprivation as the inability to afford a set of items, including:

1. unexpected expenses
2. annual holidays
3. arrears on mortgage, rent, utility bills, and other loans
4. a meal with meat, chicken, or fish every second day
5. keeping the home adequately heated
6. a car if needed.

Although the EU has recently developed more complex and comprehensive measures of material deprivation based on a larger number of items, we relied on the six items listed above because they allowed us to consider a larger number of countries for a longer period.

Our measure of material deprivation is based on an index that counts the number of material deprivation items a family cannot afford. Hence, our index ranges from 0 (the family can afford all 6 items) to 6 (the family can afford none of the items). This strategy differs from more standard approaches, according to which families are considered materially deprived if they cannot afford at least 3 out of 9 items. Table A-3 in the Appendix reports average deprivation levels.

Past research using EU-SILC data has developed indices for capturing material deprivation in children (Ferrão, Bastos, and Alves 2021; Pérez-Corral, Bastos, and Casaca 2024). However, we did not use such measures because of the analytical aims of this paper (i.e., to compare households with small children with households without small children). Nonetheless, all the items our measure considers are also present in recent validated measures designed for children.

3.3 Analytical strategy

Our analyses leverage the longitudinal nature of the EU-SILC and model year-to-year variations in the outcome variable and the treatment variable, mimicking a first-

difference model. Table 1 depicts the timing of the measurement of variables included in the analyses.

Table 1: Timing of the variables used in the regression analysis.

	t_{-2}	t_{-1}	t
Target population			Heterosexual couples; female aged 19–45 years
Outcome		Δ Material deprivation: $Y_t - Y_{t-1}$	
Treatment	Δ Male wage loss: $T_{t-1} - T_{t-2}$		
		Δ Male wage loss: $T_t - T_{t-1}$	
Moderator (1)		Coping strategies NE_t; $E_{t-1} \rightarrow E_t$; $NE_{t-1} \rightarrow E_t$	
Moderator (2)		At least one child aged 0–5 years	
Controls		Absolute level of deprivation	Country

The outcome, material deprivation, was measured as the variation in the index of household material deprivation from time t−1 to time t: $\Delta Y = (Y_t - Y_{t-1})$.

Our treatment variable, the male partner's loss of earnings, was operationalised based on yearly measures of self-reported labour income. Specifically, the treatment was measured as a drop in earnings (*loss*) of at least 20% between t−1 and t or between t−2 and t−1.[4] The threshold was set at 20% because this is a common approach in the literature on economic insecurity (Hacker et al. 2014; Parma et al. 2025; Venn 2011). This threshold allows for capturing various events, such as income losses due to layoffs, reductions in working hours, or changes in position within the same company. Descriptive statistics indicate that half of all earnings losses of at least 20% involved a drop of 50% or more, and approximately 1 in 4 of such losses was associated with a job-loss event. See Table A-4 in the Appendix.

[4] We consider both a concurrent drop in earnings (from t−1 to t) and a lagged drop (from t−2 to t−1) because we recognise that the effects of earnings losses on material deprivation may not occur immediately. Including both windows allows for increasing the number of observable transitions, a crucial point given the limited prevalence of substantial income drops in longitudinal survey data.

Coping strategies (*coping*) and the presence of small children in the household (*children*) are moderator variables. Coping strategies are defined as follows: *no coping strategy* or non-employment – the woman is not employed after the loss of male earnings (if any), irrespective of her employment status the year before (NE_t); *buffering* or stable employment – the woman is steadily employed when the male earnings loss occurs ($E_{t-1} \rightarrow E_t$); *resilience* or employment entry – the woman moves from non-employment to employment ($NE_{t-1} \rightarrow E_t$). Lastly, we distinguish between families with at least one small child (aged 0−5 years) and families without any children aged 0−5 years before the loss of male earnings. Couples without small children include childless couples and couples with children aged 6 years or older.

We use the term 'prevalence' to refer to how often each coping strategy occurs across family types and country clusters. Thus, prevalence is estimated descriptively using survey-weighted proportions of couples in each coping category (no coping, buffering, or resilience), separately for couples with and without small children and for each country cluster. Results are reported in Figure 2.

By contrast, we define effectiveness as the extent to which buffering and resilience reduce the impact of male earnings loss on material deprivation, compared to a situation with no coping.

We estimated the following model to test Hypothesis 1 and thus investigate the impact of male earnings loss on material deprivation across couples with and without children:

$$\Delta Y = \beta_0 + \beta_1 Loss + \beta_2 Children + \beta_3 Loss \cdot Children + \beta_4 X + e$$

where X consists only of the absolute level of household material deprivation before earnings loss and country-fixed effects. The absolute level of household material deprivation before earnings loss is considered the initial condition (Wooldridge 2005) and captures unobserved confounding factors that can affect earnings loss, coping strategies, and the future material deprivation. Using this model, we predicted average marginal effects (AMEs), expressed as the average change in deprivation items following a male earnings loss.

We estimated the following model to test Hypotheses 2 and 3b:

$$\Delta Y = \beta_0 + \beta_1 Loss + \beta_2 Coping + \beta_3 Children + \beta_4 Loss \cdot Coping \cdot Children + X + e$$

where X again consists only of the absolute level of household material deprivation before earnings loss and country-fixed effects.

Using this model, we predicted the AMEs for each coping strategy and family type (with/without small children) combination. We then defined the effectiveness of each coping strategy as the contrast between these AMEs, using the same regression model:

- The buffer was measured as the difference between the AME for couples in which the female partner was stably employed (buffer) and the AME for couples in which she remained non-employed (no coping).
- Resilience was measured as the difference between the AME for couples in which the female partner entered employment (resilience) and the AME for couples in which she remained non-employed (no coping).

Finally, to test Hypothesis 4b we performed separate analyses for each welfare cluster using the same modelling strategy. All models were estimated through OLS regressions with clustered standard errors at the couple level.

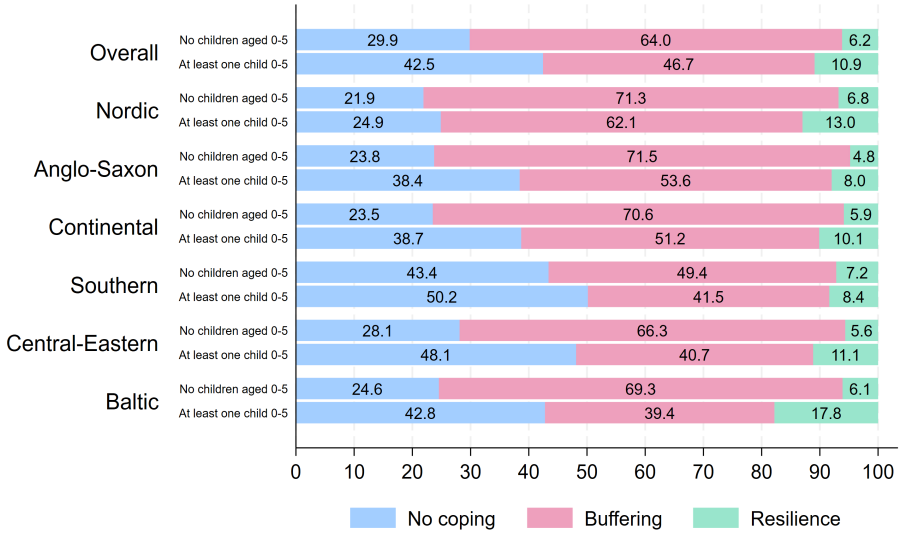
4. Results

In the following sections, we first describe the prevalence of coping strategies across family types and country clusters, addressing Hypotheses 3a and 4a; these patterns are presented descriptively to document how frequently couples rely on buffering and resilience around an earnings loss. We then turn to regression models that estimate the impact of loss of male earnings on material deprivation and the effectiveness of buffering and resilience, addressing Hypotheses 1, 2, 3b, and 4b.

4.1 The prevalence of coping strategies

Figure 2 shows the prevalence of female employment patterns around male earnings-loss events, distinguishing between no coping, buffering (stable female employment), and resilience (employment entry by the female). The figure highlights the clear differences across family types and country clusters.

Figure 2: Prevalence of coping strategies across couples (with and without small children) who experienced male earnings loss in the previous 2 years



Note: No coping is NEt = not employed at t; buffering is Et−1→Et = employed at t−1 and t; resilience is NEt−1→Et = not employed at t−1 and employed at t.
Source: EU-SILC longitudinal data, 2004–2019, 31 countries.

Overall, couples without small children are more likely to rely on buffering: 64% have a steadily employed female partner, compared to 47% among couples with small children. By contrast, no coping (i.e., female non-employment) is considerably more prevalent in families with small children (42.5%) than in those without children (29.9%). As expected, this reflects the lower labour market attachment among mothers of young children. However, resilience is more common in families with children (10.9% vs. 6.2%), likely due to the larger pool of inactive women who can enter the labour market in response to earning losses. These findings align with previous research on the AWE, suggesting a higher potential for labour market activation in households where women are not initially employed. Thus, Hypothesis 3a is only confirmed for buffering.

By comparing country clusters, we observe substantial variation in the availability of coping strategies. Buffering is most widespread in the Nordic, Anglo-Saxon, and Continental European countries, particularly among women without children (above 70%). In these contexts, even among mothers, stable employment remains high – over 60% in the Nordic cluster – pointing to institutional conditions that enable employment continuity. By contrast, in Southern European and Baltic countries, fewer than half of

women are stably employed around the time of the male earnings loss, regardless of the presence of children. This pattern agrees with our interpretation of familising and defamilising policies, stated in Hypothesis 4a: countries located closer to individualism (explicitly, as in Nordic and, to a lesser extent, Continental countries, or implicitly, as in the Anglo-Saxon cluster) exhibit higher levels of buffering than Southern European countries characterised by implicit familialism.

The presence of small children consistently increases the no-coping strategy, although to varying degrees. The largest gaps in stable female employment between families with and without children appear in Central-Eastern and Continental European countries (around 15 percentage points). By contrast, the gap is fairly small in the Southern and Nordic clusters. In Southern European countries this observation reflects low levels of female employment across all families. In Nordic countries it reflects more uniform access to employment across family types, likely supported by generous and inclusive family policies. From a familising–defamilising perspective, these patterns suggest that the presence of small children has the strongest effect on women's sustained employment in mixed configurations such as the Central-Eastern and Continental clusters, where family formation still triggers substantial employment interruptions. By contrast, in Southern regimes characterised by implicit familialism, female employment remains low regardless of the presence of children. In strongly defamilising contexts, such as Nordic countries, generous and inclusive family policies sustain high employment continuity for both mothers and women without children, resulting in small differences when comparing couples with and without small children.

Resilience shows a more context-selective pattern. Its prevalence rises with the presence of small children, particularly in Baltic countries, where it reaches nearly 18%, the highest observed across all clusters. Resilience is also high in Central-Eastern and Nordic countries. By contrast, in Anglo-Saxon and Continental regimes, resilience remains low in both family types, suggesting that even when women are not employed, structural or cultural constraints may limit their capacity to re-enter the labour market in response to shocks.

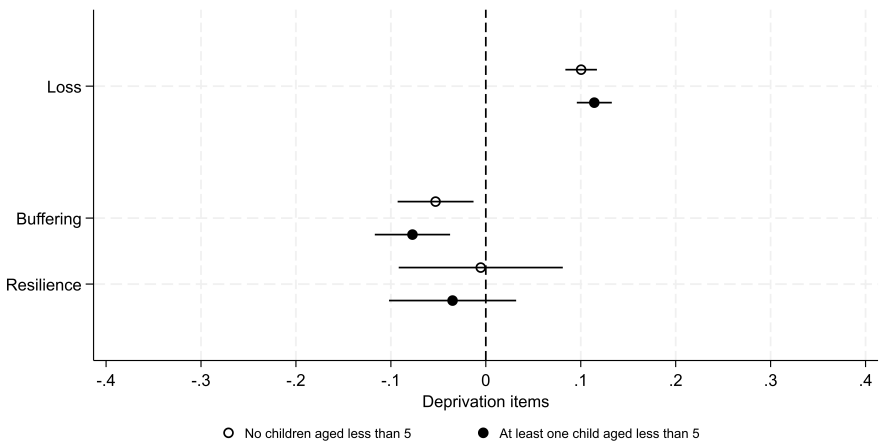
Overall, the findings only partially support Hypothesis 4a. For buffering, the results are in line with our familising–defamilising framework: buffering is most prevalent in clusters located closer to individualism, notably Nordic, and, to a lesser extent, Continental and Anglo-Saxon countries, and among couples without small children. By contrast, the patterns for resilience are more at odds with our expectations. We anticipated resilience being common in Southern European countries, where 'familialism by default' combines strong financial pressures with large pools of non-employed women; however, its highest prevalence was observed in other countries. This finding suggests that the conditions that come with familisation do not necessarily guarantee the activation of

resilience strategies, and that labour-demand conditions and job quality constrain the scope for employment activation as a coping strategy.

4.2 The impact of male earnings loss on material deprivation and the effectiveness of coping strategies

Figure 3 quantifies the impact of earnings loss on material deprivation. The top dots show the impact of male earnings loss, in the form of AMEs across couple families with and without small children. An earnings loss is associated with an increase in household material deprivation of approximately 0.10 deprivation items, corroborating H1. To put this into perspective, note that the average level of deprivation in the sample is 0.9 items (see Table A-2). This result implies that male earnings loss increases material deprivation by about 10%, implying a substantial impact. However, we did not find substantial differences in AME when we compared couples with and without small children, suggesting that the impact of male earnings loss on material deprivation is similar, regardless of the presence of small children.

Figure 3: Average marginal effect (AME) of male partner's earnings loss on material deprivation and heterogeneity, by female employment



Note: *Loss* is the AME of male earnings loss on material deprivation; *Buffering* is the difference between AME for NEt = not employed at t and AME for Et−1→Et = employed at t−1 and t; *Resilience* is the difference between AME for NEt = not employed at t and AME for NEt−1→Et.
Source: EU-SILC longitudinal data, 2004–2019, 31 countries.

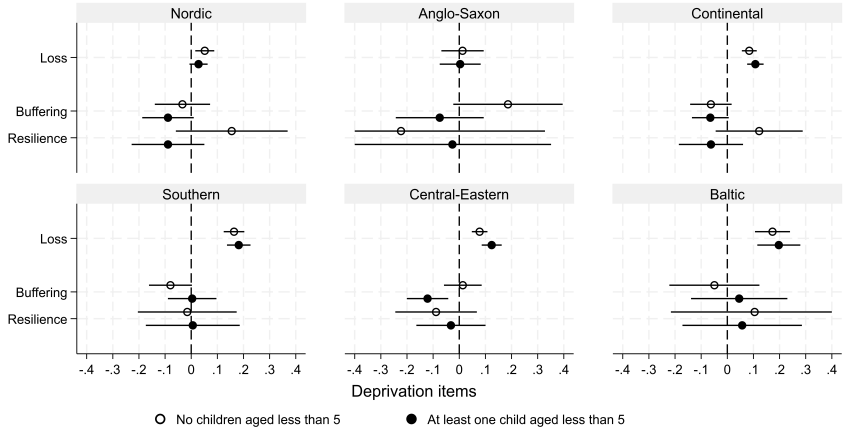
The bottom set of dots in Figure 3 shows the effectiveness of coping strategies employed by families, measured as explained in Section 3.3. Among couple families without children, buffering is associated with a smaller AME of about 0.05 deprivation items, comparable to the AME of couples with non-employment. As a result, the impact of male earnings loss for these couples is halved, representing a substantial reduction. We noticed the same pattern for families with small children. On the other hand, resilience does not play a major role in reducing the negative impact of male earnings loss. This result holds for couple families both with and without small children.

In summary, Hypothesis 2 on the effectiveness of coping strategies is only partially confirmed. Although buffering mitigates the negative impact of male earnings loss, resilience does not. Meanwhile, Hypothesis 3b is rejected because the effectiveness of coping strategies is not stronger among couples without small children.

We now move to consider the heterogeneity of male earnings loss across country clusters. These results are presented in Figure 4, which distinguishes between the six country clusters. Considerable cross-country variation was observed in the impact of male earnings loss on material deprivation, which ranged from negligible to sizable, with almost no detectable differences due to the presence of small children. As before, the extent to which the impact of earnings loss can be considered substantial is based on the relative increase in deprivation with respect to the average deprivation levels in each country (see Table A-3 in the Appendix).

The impact is modest in Nordic countries: A male earnings loss is associated with an increase in household material deprivation of about 0.05 items for couple families without children and 0.03 for those with children, corresponding to percentage increases of 16% and 8%, respectively. However, the impact is null in Anglo-Saxon countries. On the other hand, the effect is more substantial in Continental European countries: a male earnings loss is associated with an average increase in material deprivation of about 0.08 items (20%) for couple families without children and 0.10 items (20%) for those with children. The AMEs of 0.16 and 0.18 items in Southern European countries are large in absolute terms; however, considering the higher baseline levels of deprivation (1.15 and 1.10 deprivation items), the relative size of the impact is similar to that observed in Continental countries: approximately 14% for couples without children and 17% for those with small children. In Central-Eastern European countries the impact is not negligible in absolute terms but appears less substantial when considered in relative terms: the AMEs are 0.07 items (5%) for couples without children and 0.12 items (9%) for those with children. Finally, Baltic countries display the strongest AMEs, with a substantial impact: a male earnings loss is associated with an increase of 0.17 items for couple families without children (14%) and 0.20 items for those with children (17%).

Figure 4: AME of male earnings loss on material deprivation and heterogeneity, by female employment across country clusters



Note: *Loss* is the AME of male earnings loss on material deprivation; *Resilience* is the difference between AME for NEt = not employed at t and AME for NEt−1→Et; *Buffering* is the difference between AME for NEt = not employed at t and AME for Et−1→Et = employed at t−1 and t.
Source: EU-SILC longitudinal data, 2004–2019, 31 countries.

Concerning coping strategies, in Nordic countries, buffering is associated with a smaller AME of an earnings loss of 0.03 deprivation items for couple families without children and 0.08 for those with children. This observation implies that the impact of male earnings loss is more than halved in the first case, and fully compensated in the second case. Note that the confidence intervals overlap with zero in couple families without children, but they do not for couple families with children. By contrast, for the resilience scenario we observe differences in AME that are positive but uncertain in the case of families without children. For families with children, we observe a compensation that is similar to buffering, despite confidence intervals overlapping with zero. In Continental European countries, buffering is associated with a difference in AME of −0.06 deprivation items in couples without and with small children, meaning that the impact of male earnings loss is halved in both cases. Resilience plays a role that is quite similar to that of buffering in Nordic countries, where there is no compensation for couples without small children and only some hints of compensation for couple families with children. In Southern European countries, buffering is associated with a difference in AME of −0.07 deprivation items in families without children, but it is null when small children are present. Hence, there is a compensation for the male earnings loss of approximately 40% only in the first case. In the resilience scenario, differences in AME

are null in both couple families and no compensation is in place. In Central-Eastern European countries, buffering is associated with a null difference in AME in couple families without children and with a difference of −0.12 when small children are present. Therefore, full compensation of male earnings loss occurs only in families with small children. On the other hand, resilience shows a difference in AME that partially compensates for loss of earnings in couples without children and fully compensates for loss in couples with children. However, in both cases the high uncertainty of the estimates should be noted. Finally, in Baltic countries, neither buffering nor resilience results in differences in AME that cushion the loss of male earnings. We refrain from commenting about any compensatory effects in Anglo-Saxon countries, where no substantial impact was detected in the first place.

Overall, although buffering is more consistently effective in defamilised countries, resilience shows a more uncertain and inconsistent pattern, with limited effectiveness, even in institutional settings where we expected it. Therefore, Hypothesis 4b is only partially validated: Institutional context matters for buffering, but the effectiveness of resilience remains uncertain and cannot be accounted for by defamilising or familising policies.

4.3 Supplementary analyses

We performed several supplementary analyses to confirm the robustness of our results. First, we considered alternative specifications of the treatment variable, using a 50% earnings loss and actual job loss. Employing these specifications, the effect size of earnings loss was larger than the 20% threshold used in the main analyses (see Table A-5). This is not surprising, given that these measures imply a larger loss of earnings. However, these analyses imply a dramatic reduction in the number of treated cases (see Table A-4), which in turn affects statistical power and comparability across groups and countries. Therefore, we retained the 20% threshold, consistent with recent studies, such as Parma et al. (2025). In this set of analyses we also included additional controls for age, within-couple age differences, and the female partner's educational attainment. Nonetheless, the main findings remained essentially unchanged.

Second, we explored the validity of our country clustering. We performed a meta-analysis of the impact of earnings loss on material deprivation and assessed the homogeneity of effect sizes across country clusters. The results, and particularly the I-squared statistic presented in Figure A-1 of the Appendix, indicate low heterogeneity between countries in the same cluster and high heterogeneity between clusters, supporting our clustering strategy.

Third, to prevent country differences from being driven by different breadwinning patterns across countries, we conducted the analyses on a restricted sample of couples in which the male partner was the main earner before the earnings loss. Overall and cross-country differences in the impact of male earnings loss persisted when focusing exclusively on male-breadwinner households, indicating that cross-country differences are not driven by variation in household employment patterns (see Figures A-2 and A-3).

Fourth, we addressed sample attrition by applying longitudinal weights, which were unavailable for the full analytical sample, presenting approximately 9% missing values. The overall impact of earnings loss and the effectiveness of coping strategies remained largely unchanged, though the estimated effectiveness of coping strategies tended to be smaller and less precisely estimated, and resulted in none of the compensations strategies reaching statistical significance in any of the countries. This could be the result of selective attrition or of the different analytical sample employed due to missing weights (see Figures A-4 and A-5).

Fifth, we disentangled differences between the levels of deprivation and the risk of deprivation by re-estimating our models on the subpopulation of deprived households (those with at least one deprivation item) and using logit models with a dichotomous outcome indicating any deprivation. In doing this, it is important to highlight that we are focusing on two distinct and selected groups, where the former is more vulnerable and disadvantaged than the latter. When focusing on deprivation levels, we find larger impacts of earnings loss on material deprivation and a more limited effectiveness of coping strategies, even in countries where they appear effective in the full population. This suggests that, first, already deprived households are particularly vulnerable to earnings shocks, likely because they have lower incomes to begin with; second, they might have unobserved characteristics associated with both low income and fewer opportunities to activate coping strategies. When we focus on deprivation risk, the patterns by country cluster largely mirror those in the main analyses, but with some nuance: buffering remains relevant in Continental and Central-Eastern countries, while it becomes less evident in Nordic countries (see Figures A-6–A-9).

5. Conclusions

5.1 Summary of findings

This study examined (a) the impact of the male partner's loss of earnings on material deprivation among couples with and without small children, and (b) the prevalence and effectiveness of coping strategies employed by families, represented by stable female employment (buffering) and timely entry of the female into employment around the

earnings-loss event (resilience), compared to a situation where the female partner is not employed. Our analysis systematically assessed these dynamics across different European country clusters characterised by differences in family policies (see Table 2 for a summary).

Table 2: Summary of findings across European country clusters

Welfare regime	Prevalence of coping strategies around male earnings loss	Impact of male earnings loss on material deprivation	Coping strategy: buffering	Coping strategy: resilience
Nordic	Buffering: high Resilience: moderate	Low in absolute terms; modest relative to baseline deprivation	Effective; full compensation with children, partial without	Effective only in families with children; uncertain or null in others
Anglo-Saxon	Buffering: high Resilience: low	Null impact	Not applicable due to null impact	Not applicable due to null impact
Continental	Buffering: high Resilience: moderate	Moderate in absolute and relative terms	Effective; partial compensation	Little effective and only in families with children
Southern	Buffering: low Resilience: low	High in absolute terms; moderate relative to baseline deprivation	Modest effect in childless couples; no effect in couples with children	Ineffective
Central-Eastern	Buffering: moderate; Resilience: moderate	Moderate in absolute terms; low relative to baseline deprivation	Effective only in families with children; null in others	Partially effective in both groups, but with high uncertainty
Baltic	Buffering: moderate Resilience: high	Very high	Little effective or null across all groups	Ineffective in all family types

Note: *Buffering* signifies the female partner being in stable employment; *Resilience* signifies the female partner entering employment around the time of the loss of male earnings. See Section 3 (Data and Methods) for details.

Overall, loss of male earnings has a clear and substantial impact on household material deprivation. Male earnings loss is associated with an increase of 0.10 deprivation items, equivalent to a 10% rise, regardless of the presence of small children. However, the magnitude of this impact varies across countries: it is largest in absolute terms in Southern European and Baltic countries, small in Nordic countries, and even null in Anglo-Saxon countries. Once differences in baseline deprivation are considered, the relative impact becomes more homogeneous: negligible in Anglo-Saxon countries, modest in Nordic and Central-Eastern clusters, and pronounced in Continental, Southern, and Baltic countries. While the presence of small children increases households' deprivation risks, their presence does not substantially alter the size of the impact of earnings loss.

The prevalence of coping strategies also differs across family types and country clusters. As expected, buffering is more common among families without small children,

whereas resilience is more frequent in families with small children. This is likely due to a larger pool of inactive women who could enter employment in response to economic insecurity. When comparing country clusters, the Nordic and Continental clusters exhibit higher rates of sustained female employment, especially among women without children. Meanwhile, weak defamilising policies do not necessarily imply a high prevalence of resilience, highlighting the fact that coping strategies are less accessible in these contexts than in high-welfare countries. Southern European countries stand out for their low prevalence of buffering and resilience. On the other hand, Baltic countries display the highest increase in the prevalence of resilience in couples with small children.

Effectiveness varies considerably between the two coping strategies. On average, buffering emerges as an effective coping strategy: in families both with and without small children, stable female employment reduces the impact of male earnings loss on material deprivation by half. By contrast, resilience does not substantially reduce the impact of loss of male earnings. The presence of small children does have limited implications for coping strategies.

The effectiveness of coping strategies also varies markedly across country clusters. Buffering consistently reduces material deprivation in Nordic and Continental European countries. Continuous female employment reduces the effect of male income loss by half, compared to those without buffering, or even fully offsets it in families with children. In Southern European countries, buffering offers only partial compensation for childless couples, while in Central-Eastern European countries it appears effective only for families with children. However, buffering is largely ineffective across all groups in the Baltic countries. On the other hand, resilience is not an effective strategy to mitigate the consequences of earnings loss basically in any of the countries, with estimates showing high statistical uncertainty because of its low prevalence. Resilience shows some compensatory effect in Nordic and Central-Eastern European countries among families with children, but the estimates are highly uncertain. In Southern European and Baltic countries, resilience fails to mitigate the impact of earnings loss altogether.

In summary, the comparative analysis reveals substantial cross-country variation in the impact of loss of male earnings and the capacity of families to compensate for such loss through female employment. Although buffering emerges as an effective strategy, particularly in more defamilising countries where women's jobs are often stable and sufficiently remunerated, resilience offers negligible protection, where present at all. Overall, the familising–defamilising framework helps structure our expectations for the prevalence of coping strategies, but it does little to explain their effectiveness, which appears systematically weak across country clusters.

5.2 Discussion

This study integrates three strands of research: studies on economic insecurity, material deprivation, and female employment. By so doing, it offers a new analytical framework to understand how families with and without small children cope with income shocks through female employment. The conceptual distinction between buffering (stable female employment around the earnings-loss event) and resilience (employment entry of the female in response to earnings loss) allows us to capture qualitatively different forms of coping and assess their prevalence and effectiveness across family types and institutional contexts.

A key insight emerging from our findings is that resilience rarely translates into effective protection against the increased material deprivation associated with economic insecurity. In most countries, entering employment does not reduce the impact of the loss of male earnings. This observation points to structural constraints, such as low pay, weak labour demand, and a lack of childcare, which limit not only families' possibility to resort to resilience, but also the actual compensatory power of employment activation. Notably, resilience is limited in prevalence and efficiency in contexts where it would be most needed; that is, where earnings shocks are more common and come with more severe negative consequences and where buffering is scarce, namely in the Southern and, to a lesser extent, the Eastern European countries.

By contrast, buffering – when in place – proves to be a reliable strategy to mitigate the consequences of economic insecurity. Besides its higher prevalence, the effectiveness of buffering is more consistent in contexts with defamilised family policies, where institutional support for maternal employment enables women to remain employed despite childrearing responsibilities. Notably, stable employment also retains its protective function in families with small children. This observation suggests that the presence of children does not inherently reduce a family's ability to cope, as long as supportive conditions for continuous female employment are in place. These findings highlight the critical role of institutional support for stable maternal employment as a condition for effective household responses to economic insecurity.

From a policy perspective, these findings suggest that promoting (or allowing for) temporary female entry into employment through activation policies alone is insufficient, especially if employment opportunities are of low quality or incompatible with caregiving responsibilities. Strengthening women's labour market continuity after childbirth appears to be a more effective way to protect families from short-term hardship. Hence, policies that sustain maternal employment should be seen not only as tools to achieve gender equality but also as insurance against economic insecurity. Our results show no systematic variation in buffering across contexts with different family policy configurations, underscoring the need to consider social protection arrangements

and labour market institutions more explicitly and in an integrated way, in line with recent comparative evidence on job loss compensation (Beduk et al. 2025).

5.3 Limitations and further research

This study has limitations. First, our results point to the relevance of considering selection into parenthood because differences in resources are likely between couples with and without small children. Thus, it should be remembered that materially deprived couples may be unable or unwilling to afford childbearing in the first place. A well-established body of sociodemographic research suggests that worsening economic conditions coincide with a decline in fertility (Comolli 2017; Goldstein et al. 2013). As several studies have documented (Alderotti et al. 2024; Matysiak, Sobotka, and Vignoli 2021), the link between employment and economic insecurity and fertility is particularly strong in the Southern and, to a lesser extent, Central and Eastern European countries. The fact that we documented weaker coping mechanisms against deprivation in these countries is interesting and warrants further investigation to reveal the connections between economic insecurity, fertility, and poverty.

Second, from a methodological standpoint, a limitation stems from the observational window and data granularity available in the EU-SILC data. Although we demonstrated that valuable insights can be gained by exploiting year-to-year variation over two or three years, more granular data (e.g., monthly) and a longer observation period would be advantageous. Based on yearly data and the short time window, we cannot expand into the time dynamics of material deprivation after earnings loss or the dynamics of coping strategies. Because both economic insecurity and deprivation (and poverty) tend to show strong temporal persistence and state dependence, our focus on a short observational window may have missed important accumulation dynamics (Arulampalam, Booth, and Taylor 2000; Biewen 2009). For these reasons, we consider our results to be conservative estimates. Moreover, a longer time frame would allow testing whether resilience is sustained over time as a long-term adaptation (Walsh 2021), an aspect that theoretically defines resilience mechanisms.

Third, while our research accounts for initial levels of deprivation, we do not zoom into the differences in the consequences of earnings loss according to previous deprivation. Additional analyses (not reported) show that among a previously deprived subsample the consequences of male earnings loss is more pronounced in the presence of small children and that compensation strategies are less effective, if not inefficient.

Finally, although we focus on couple families, we acknowledge that single-headed and lone-parent households – most often headed by women – are the most vulnerable to poverty and material deprivation across Europe. Extensive research has shown that lone

parents are particularly exposed to persistent material deprivation (Fabrizi, Mussida, and Parisi 2025; Grotti et al. 2024; Watson et al. 2022). At the same time, these groups lack access to coping strategies as defined here. However, these groups had to be excluded from our analysis for both conceptual and methodological reasons. Conceptually, this work aims to assess the moderating role of the female partner's employment in mitigating the impact of male earnings loss, a mechanism that, by definition, does not apply to single-headed households. Methodologically, including lone parents would introduce substantial heterogeneity in household structures and employment dynamics, limiting the comparability of coping strategies within couple families. Nonetheless, future research should address the coping capacity of single-parent households.

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Appendix

Table A-1: Country distribution, by country cluster. EU-SILC 2004–2019, pooled data

	Nordic	Anglo-Saxon	Continental	Southern	Central-Eastern	Baltic	Total
AT			2,997				2,997
BE			3,178				3,178
BG					3,420		3,420
CH			1,647				1,647
CY				2,389			2,389
CZ					5,178		5,178
DE			536				536
DK	2,395						2,395
EE						2,952	2,952
EL				4,263			4,263
ES				6,044			6,044
FI	4,882						4,882
FR			12,225				12,225
HR					1,445		1,445
HU					3,904		3,904
IE		1,122					1,122
IS	1,278						1,278
IT				8,281			8,281
LT						1,760	1,760
LU			8,277				8,277
LV						1,851	1,851
NL			4,953				4,953
NO	4,222						4,222
PL					8,312		8,312
PT				3,414			3,414
RO					3,724		3,724
RS					1,223		1,223
SE	2,850						2,850
SI					4,273		4,273
SK					3,019		3,019
UK		2,929					2,929
Total	15,627	4,051	33,813	24,391	34,498	6,563	118,943

Table A-2: Descriptive statistics of analytical samples. EU-SILC 2004–2019, pooled data

	No children aged 0–5 N 68,167 (57.3%)	**At least one child 0–5** N 50,776 (42.7%)	Test
Main variables			
Material deprivation	0.9 (0.0)	(0.9) 0.0	<0.001
Earnings loss t-1 to t or t-2 to t-1	0.2 (0.0)	(0.2) 0.0	<0.001
Earnings loss t-1 to t	0.1 (0.0)	(0.1) 0.0	0.058
Female employment status t-1 to t			
Not employed at t	23.4	34.5	<0.001
Employed at t-1 and t	71.9	56.4	
Entry into employment from t-1 to t	4.7	9.2	
Male characteristics			
Age	41.4 (0.0)	37.6 (0.0)	<0.001
Education (3 cat.)			
Low	19.6	17.8	<0.001
Medium	53.9	47.7	
High	26.5	34.5	
Female characteristics			
Age	37.9 0.0	34.7 0.0	<0.001
Education (3 cat.)			
Low	18.2	14.8	<0.001
Medium	49.3	41.9	
High	32.4	43.3	
Additional household characteristics			
Family type detailed			
Childless	30.2	0.0	<0.001
Only older children 6–18	69.8	0.0	
Only young children 0–5	0.0	53.3	
Young and older children	0.0	46.7	
Married			
Not married	18.9	19.9	<0.001
Married	81.1	80.1	
Breadwinning income arrangement			
Male breadwinner	45.2	58.9	<0.001
Female breadwinner	7.2	5.0	
Similar earnings	47.6	36.1	

Note: Standard error in parentheses for metric variables.

Table A-3: Average levels of material deprivation, by country cluster. EU-SILC 2004–2019, pooled data

	No children aged 0–5	At least one child 0–5	Total
Nordic	0.32	0.34	0.33
Anglo-Saxon	0.68	0.80	0.74
Continental	0.43	0.54	0.48
Southern	1.16	1.11	1.14
Central-Eastern	1.41	1.32	1.38
Baltic	1.22	1.18	1.21
Total	0.94	0.86	0.90

Table A-4: Earnings loss (20%), severe earnings loss (50%), and job loss, by country cluster. EU-SILC 2004–2019, pooled data

	Nordic	Anglo-Saxon	Continental	Southern	Central-Eastern	Baltic
Earnings loss 20%	0.18	0.25	0.15	0.24	0.24	0.32
Earnings loss 50%	0.06	0.09	0.06	0.10	0.09	0.15
Job Loss	0.04	0.05	0.03	0.06	0.05	0.08

Table A-5: Impact of male earnings loss on household material deprivation across different models. EU-SILC 2004–2019

	Model A	Model B	Model C	Model D	Model E
Earnings loss 20%	0.100***	0.100***	0.0905***	0.101***	0.0911***
	(0.00847)	(0.00848)	(0.00844)	(0.0121)	(0.0237)
Earnings loss 50%	0.186***	0.186***	0.168***	0.160***	0.204***
	(0.0141)	(0.0141)	(0.0140)	(0.0196)	(0.0405)
Job loss	0.273***	0.273***	0.260***	0.288***	0.207***
	(0.0204)	(0.0204)	(0.0203)	(0.0322)	(0.0573)
Lagged absolute deprivation	✓	✓	✓	✓	✓
Country FE	✓	✓	✓	✓	✓
Age of male		✓			
Education of female			✓		
Male breadwinner subsample				✓	
Longitudinal weights					✓
N	118,943	118,943	117,575	60,699	55,863

Note: Model A corresponds to main analyses.

Figure A-1: Forest plot: effect size of earnings loss on material deprivation, by country and cluster. EU-SILC 2004–2019

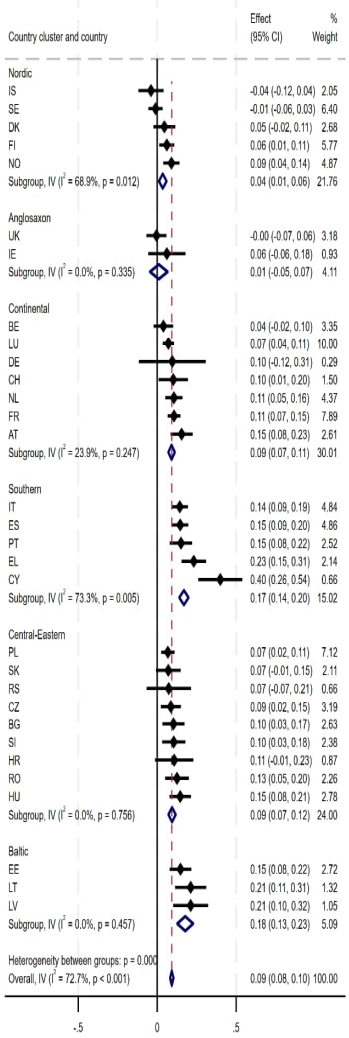
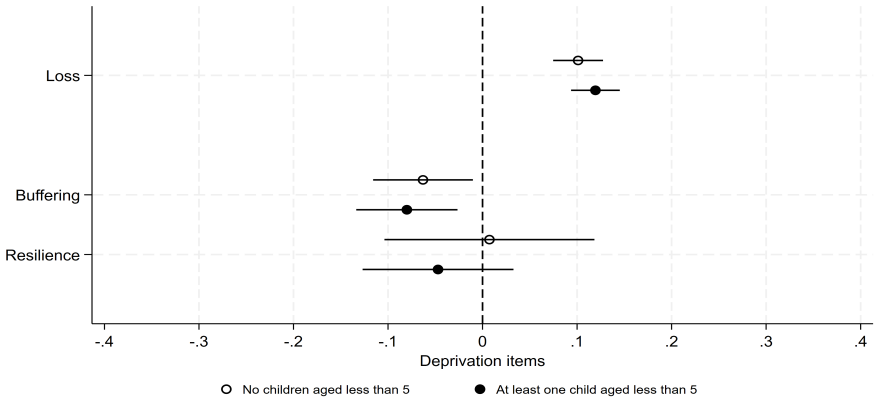
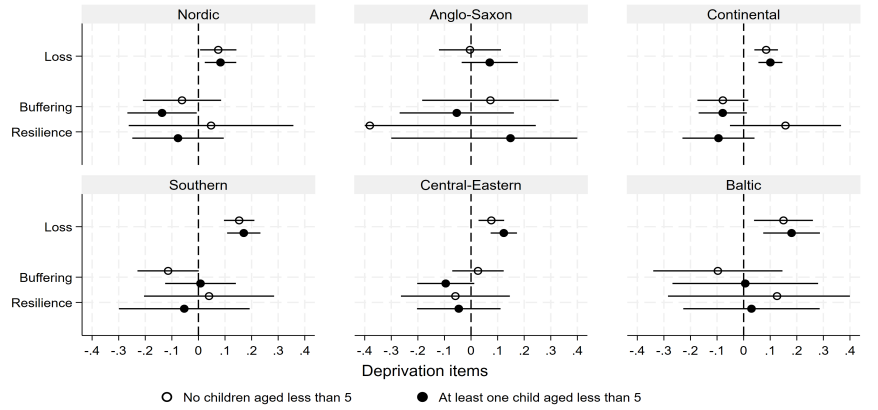


Figure A-2: AME of male's earnings loss on material deprivation and heterogeneity, by female employment. Male breadwinner subsample



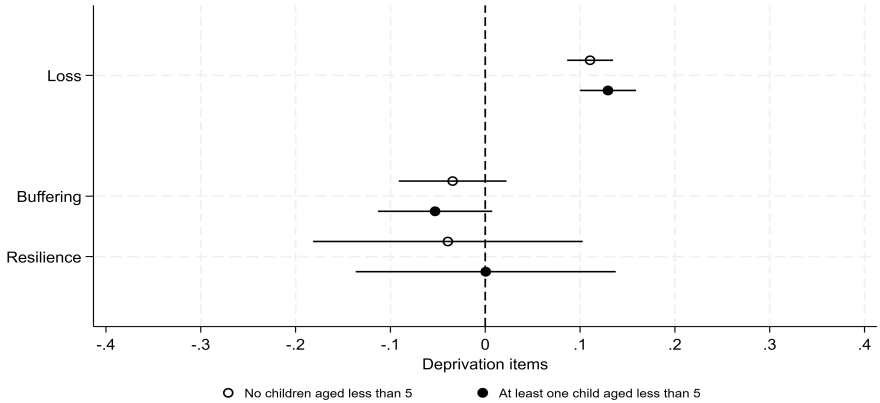
Note: *Loss* is AME of male earnings loss on material deprivation; *Buffering* is the difference between AME for NEt = not employed at t and AME for Et-1→Et = employed at t-1 and t; *Resilience* is the difference between AME for NEt = not employed at t and AME for NEt-1→Et.
Source: EU-SILC longitudinal 2004–2019, 31 countries.

Figure A-3: AME of male's earnings loss on material deprivation and heterogeneity by female employment across country clusters. Male breadwinner subsample



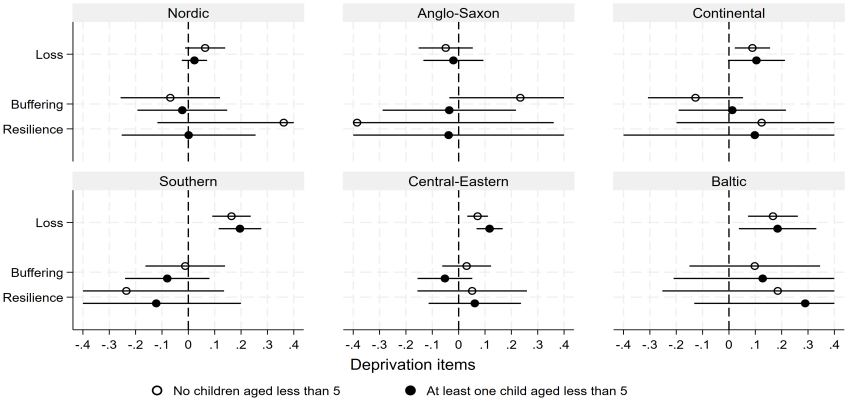
Note: *Loss* is AME of male earnings loss on material deprivation; *Resilience* is the difference between AME for NEt = not employed at t and AME for NEt-1→Et; *Buffering* is the difference between AME for NEt = not employed at t and AME for Et-1→Et = employed at t-1 and t.
Source: EU-SILC longitudinal 2004–2019, 31 countries.

Figure A-4: AME of male's earnings loss on material deprivation and heterogeneity, by female employment. Longitudinal survey weights applied



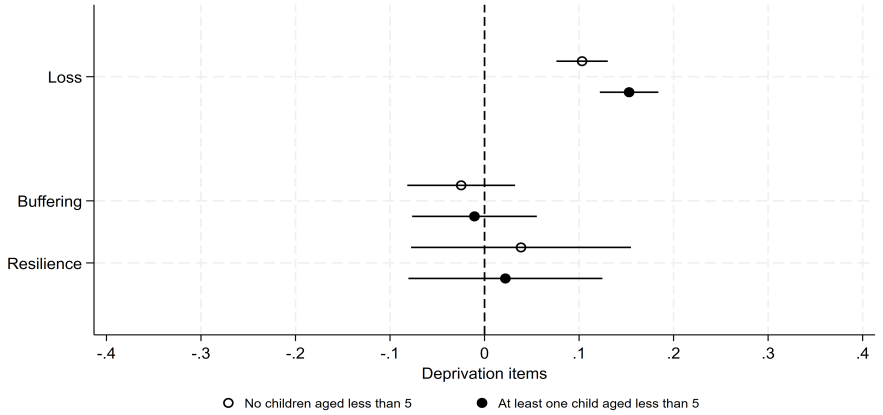
Note: *Loss* is AME of male earnings loss on material deprivation; *Buffering* is the difference between AME for NEt = not employed at t and AME for Et-1→Et = employed at t-1 and t; *Resilience* is the difference between AME for NEt = not employed at t and AME for NEt-1→Et.
Source: EU-SILC longitudinal 2004–2019, 31 countries. Longitudinal survey weights (rb064s).

Figure A-5: AME of male's earnings loss on material deprivation and heterogeneity, by female employment across country clusters. Longitudinal survey weights applied



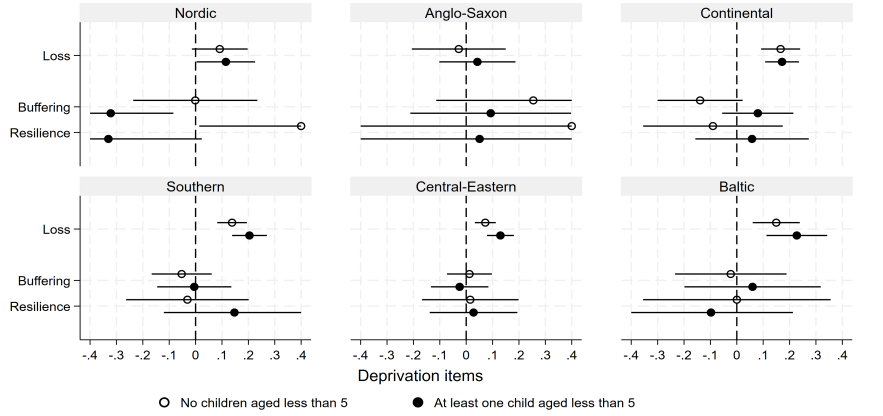
Note: *Loss* is AME of male earnings loss on material deprivation; *Resilience* is the difference between AME for NEt = not employed at t and AME for NEt-1→Et; *Buffering* is the difference between AME for NEt = not employed at t and AME for Et-1→Et = employed at t-1 and t.
Source: EU-SILC longitudinal 2004–2019, 31 countries. Longitudinal survey weights (rb064s).

Figure A-6: AME of male's earnings loss on material deprivation and heterogeneity, by female employment. Deprived subsample



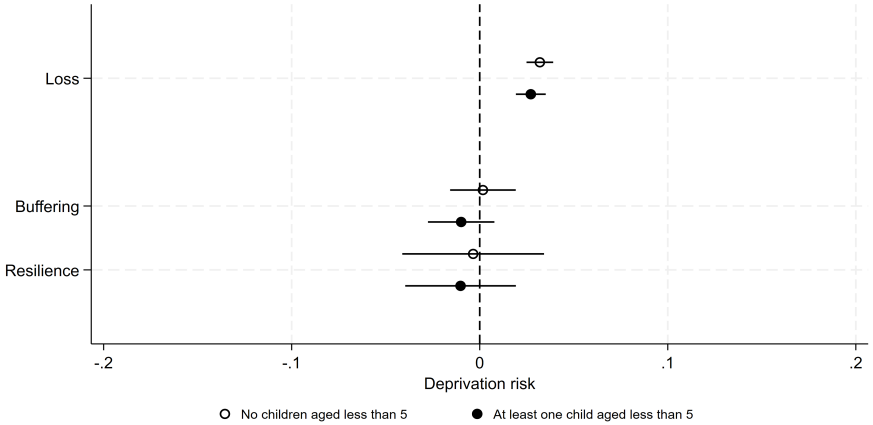
Note: Loss is AME of male earnings loss on material deprivation; *Buffering* is the difference between AME for NEt = not employed at t and AME for Et-1→Et = employed at t-1 and t; *Resilience* is the difference between AME for NEt = not employed at t and AME for NEt-1→Et.
Source: EU-SILC longitudinal 2004–2019, 31 countries.

Figure A-7: AME of male's earnings loss on material deprivation and heterogeneity, by female employment across country clusters. Deprived subsample



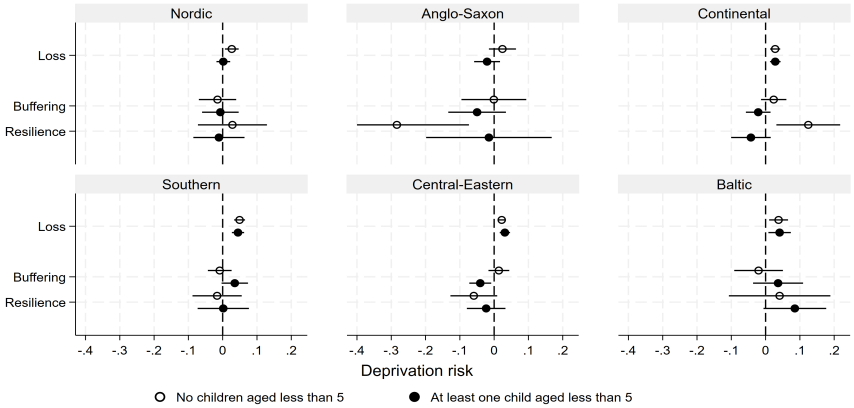
Note: *Loss* is AME of male earnings loss on material deprivation; *Resilience* is the difference between AME for NEt = not employed at t and AME for NEt-1→Et; *Buffering* is the difference between AME for NEt = not employed at t and AME for Et-1→Et = employed at t-1 and t.
Source: EU-SILC longitudinal 2004–2019, 31 countries.

Figure A-8: AME of male's earnings loss on risk of material deprivation and heterogeneity, by female employment



Note: *Loss* is AME of male earnings loss on material deprivation; *Buffering* is the difference between AME for NEt = not employed at t and AME for Et-1→Et = employed at t-1 and t. *Resilience* is the difference between AME for NEt = not employed at t and AME for NEt-1→Et.
Source: EU-SILC longitudinal 2004–2019, 31 countries.

Figure A-9: AME of male's earnings loss on risk of material deprivation and heterogeneity, by female employment across country clusters



Note: *Loss* is AME of male earnings loss on material deprivation; *Resilience* is the difference between AME for NEt = not employed at t and AME for NEt-1→Et; *Buffering* is the difference between AME for NEt = not employed at t and AME for Et-1→Et = employed at t-1 and t.
Source: EU-SILC longitudinal 2004–2019, 31 countries.