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Article

## Is Property an Insurance or an Additional Burden? Financial Stress Among Homeowners in Europe

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### Abstract

A crucial function of wealth is to protect individuals from the consequences of adverse life events. However, sometimes wealth also implies additional financial risks. In addition to the insurance function of homeownership (the most common form of wealth), we therefore also examine financial squeezes that reflect the indebtedness and social embeddedness of homeowners and limit their options for dealing with social risks. A third hypothesis expects a trade-off between social protection and homeownership. Taking the example of unemployment, we examine the effects of short-term unemployment on the perceived financial situation of households based on data derived from EU-SILC for 27 European countries. It can be shown that debt-free homeownership reduces financial stress in the case of unemployment compared to tenants and indebted owners. A debt-free home thus offers an additional buffer and insurance against the financial consequences of unemployment. However, indebted homeowners are particularly hard hit by unemployment because they have to use all their financial resources to pay off their mortgages. Finally, we did not find a trade-off but a cumulation of advantages due to homeownership and generous unemployment benefits in countries with high net replacement rates.

### Keywords

financial stress; homeownership; mortgage; unemployment; wealth inequality

### Issue

This article is part of the issue “Wealth Stratification and the Insurance Function of Wealth” edited by Nora Müller (GESIS–Leibniz Institute for the Social Sciences), Klaus Pforr (GESIS–Leibniz Institute for the Social Sciences), and Jascha Dräger (University of Strathclyde).

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### 1. Introduction

For more than half of all European households, the property they own is their most valuable asset (European Central Bank, 2021, p. 21). Thus, for the majority of the population, wealth inequalities are documented by whether they live in an owned home or not. Property is a key dimension of wealth and wealth inequality (Pfeffer & Waitkus, 2021). Homeownership can offer many advantages: It may provide a higher income due to saved or received rents, or contribute to better living and housing conditions, a better living environment, and higher household life satisfaction (Zavisca & Gerber, 2016). Property may also increase the possibility and inclina-

tion to take economic risks because homeowners have easier access to loans since they can use their homes as guarantees. Thus, homeownership may function as additional insurance against life risks. At the same time, however, the opposite may also be true: Homeownership may imply a higher financial burden due to mortgage payments, expenditures for maintenance, or property and inheritance taxes. Homeownership may thus expand the financial room for manoeuvre but may also restrict it. The empirical question is therefore whether the financial opportunities or the financial risks of homeownership are more important when owners face adverse life events like unemployment. This is also a politically relevant question because it highlights the risks of a strategy

that tries to reduce the secular increase in economic insecurity (Hacker, 2019) by a higher ownership rate. This strategy might have unintended consequences in the case of job loss, divorce, illness, or other risks, generating even more inequality, insecurity, and status anxiety. In this article, we focus on the example of short-term unemployment in order to examine whether homeownership alleviates or increases financial stress in the case of biographical risks.

A second question relates to the national context and, in particular, to welfare institutions. Is homeownership in Europe, where social security levels are still considerably higher than in the US (Rehm et al., 2012), another way of reducing economic insecurity in addition to public welfare? Or is there a trade-off between homeownership and welfare because, in general, the levels of social protection are lower in less affluent countries, while less affluent countries in Europe generally have higher property ownership rates? The proportion of households that live in their own property varies between 40% and nearly 100%—with an average of 69% in the 27 countries as shown in Figure 1. While 91% of Slovaks and 90% of Croats lived in their own property in 2018, in Switzerland and Germany this is only the case for 43% and 51% of the population respectively. As per the authors' calculations based on 2018 data from the Europe-wide survey on income and living conditions (EU-SILC), the proportion of households owning their accommodation is highest in Central and Eastern Europe (87%) and Southern Europe (74%), and lower in Nordic (68%), liberal (65%), and Continental European countries (59%). Such a trade-off has already been shown in the 1980s (Castles, 1998; Kemeny, 2005). This thesis assumes that homeownership in poorer countries with less-developed welfare states plays an essential role in mitigating social risks—a role that in more affluent countries is played by public systems of social protection. This functional equivalence of private and public forms of insurance against social risks and the related trade-off seems to have been weakened or even reversed in recent years (Van Gunten & Kohl, 2020). However, this debate focuses mostly on the macro level and pensions. This raises the question of whether the expected relationship between homeownership and welfare can also be observed at the micro level and in other fields.

This article discusses the following two research questions:

1. Which role does homeownership play for households facing adverse life events such as unemployment in terms of financial stress?
2. Is the relationship between homeownership and financial stress in the case of unemployment moderated by the level of social protection?

The article is structured as follows: A review of the existing literature is followed by a discussion of property's potential insurance functions against the risks of

unemployment and its role in relation to social benefits. We then present the data and method used. After presenting some descriptive evidence, we test the impact of short-term unemployment on subjective financial stress by type of homeownership as well as potential trade-offs between social protection and homeownership. The article concludes with a summary and discussion of the main results.

## 2. Property as Insurance Against the Financial Risks of Unemployment

The debate on the insurance function of wealth assumes that wealth can protect individuals from the consequences of adverse life events: "Wealth...provides insurance for various types of failures, for instance, by substituting income losses or smoothing career disruptions, thereby reducing the impact of uncertainty by substituting for income" (Hällsten & Pfeffer, 2017, pp. 332–333). This has been convincingly demonstrated for the intergenerational transmission of educational inequalities: Children and their parents from lower socioeconomic backgrounds usually take more risk-averse educational decisions by choosing lower, supposedly less-risky educational courses, schools, and trajectories. These so-called secondary effects of class differentials in educational attainment reflect higher constraints on available information and resources and a lower ability to deal with failures. In contrast, children from more affluent households (or their parents) can take more risky decisions. This is often the basis for the more successful educational careers of children from more affluent families—even if the educational attainments of children from higher and lower social classes are identical (Jackson et al., 2007). This exemplifies the insurance function of wealth in the case of educational choices.

In this vein, Rodems and Pfeffer (2021) were able to show that the relationship between disruptive life events, e.g., divorce, disability, or income loss, and the likelihood of experiencing material hardship strongly depends on households' wealth. They conclude that higher household wealth provides an effective private safety net to buffer adverse life events. On a general level, this raises the question of whether the *insurance function* of wealth also applies to "crystallized" forms of wealth such as property.

Previous studies examining the insurance function of property and homeownership are rare. Manturuk et al. (2012) provide one of the few contributions that could show that during the financial crisis of 2009, homeowners, in contrast to renters, were less psychologically stressed and felt more satisfied with their financial situation when experiencing financial hardship. They conclude that homeownership somehow provides more financial security, resulting from a greater sense of being in control of their lives in times of financial hardship. However, Tharp et al. (2020) pointed out that, when it comes to financial satisfaction, a distinction has to be

made between debt-free homeowners and those still paying a mortgage. They show that debt-free homeownership is positively associated with financial satisfaction while having a mortgage is negatively associated with financial satisfaction. Given this background, we discuss the question of whether homeownership—as the most common form of wealth in Europe—can play such a role in the case of an adverse life event like unemployment. Unemployment is one of the most devastating life events for individuals and households due to its serious and long-lasting effects on the household's financial situation, life satisfaction, and the employability of persons of working age (Blanchard, 2006). Protection against the related financial risks would be a major advantage because unemployment has a strong and durably negative effect on life satisfaction (Clark et al., 2008; Voßemer et al., 2018), on income levels (Pohlig, 2021), and on further career and wage opportunities (Gangl, 2006).

But why should property function as insurance against the financial consequences of unemployment? One reason could be that property facilitates access to loans, even if the dwelling is not sold. In addition, homeownership reduces the costs of living, thus facilitating the maintenance of the previous living standard in the case of unemployment as well.

Another reason could be that—similar to the previously mentioned educational choices of more affluent families—homeowners can take riskier decisions, for example, by staying in their local environment. This expectation can be based on the classic Oswald (1997) hypothesis, which postulates that homeowners exhibit lower spatial mobility as a result of higher relocation costs. Selling a house and buying a new one is expensive and takes time, which reduces the willingness of homeowners to accept a new job in a different location. This increases their unemployment risks and, in particular, the duration of their unemployment spells. The Oswald hypothesis has been intensively discussed and specified by considering various control variables at the macro (e.g., level of unemployment benefits, unionisation) and micro levels. For example, Green and Hendershott (2001, p. 1518) have confirmed the hypothesis for middle-aged households (35–64 years) in the US, but not for younger or older heads of household, who are more often in education or retirement. For middle-aged households, their result “is close to the Oswald result of 10 percentage points of additional ownership leading to a 2 percentage point higher unemployment rate.” Other studies have also confirmed that “homeownership hampers mobility” (Munch et al., 2006, p. 993). However, this does not lead to longer unemployment spells because homeowners may find local jobs more easily. From an insurance perspective, the lower mobility of homeowners at the core of the Oswald hypothesis can thus be interpreted as the preparedness of homeowners to take a greater risk in order to stay in their local context, keep their friends and their usual living environment (and the related employment opportunities not only for the

temporarily-unemployed person but also for their partner/family). Taking this risk is facilitated (and enforced!) by the economic security of a home. The study by Munch et al. (2006) shows that, in general, this bet pays off. If this risk-based reinterpretation of the Oswald hypothesis is correct, lower financial stress could not only reflect more resources but also better local employment opportunities for homeowners—despite the higher mobility of tenants.

Therefore, we assume that homeownership reduces financial stress in the case of short-term unemployment compared to tenancy because property reduces the cost of accommodation and increases the possibility of obtaining loans to buffer income losses (H1).

However, opposing trends can also be expected: for example, the lower job mobility expected by Oswald (1997), or the “employment constraints, financial stress, and social intolerance” arising from homeownership observed by Zavisca and Gerber (2016, p. 350). Therefore, it can be assumed that property increases the financial burden of households experiencing unemployment if the dwelling is not yet fully paid off. In this case, unemployment will impede the repayment of loans. Another serious obstacle to the insurance function of wealth is that households are generally reluctant to sell their own homes. This is also true if a condition for the receipt of unemployment benefits is the previous mobilisation of resources—which might imply the sale of the dwelling. Households could oppose such forced insurance against adverse life events by refraining from mobilising their resources for as long as possible. This would increase (and not reduce) the financial stress of indebted homeowners even if they are often in a more privileged professional situation (also in comparison to debt-free owners): In a previous study (Heidenreich, 2022, ch. 10), we demonstrated that the poverty risks of tenants are significantly higher than those of debt-free and indebted property owners. This is not really surprising because only well-off households can afford to buy a property. Surprisingly, however, the poverty risk is higher for debt-free than for indebted households because homeowners paying their mortgage are in general younger, better educated and healthier and they earn more than debt-free homeowners. Only a very small proportion of indebted owners live in a household with a low work intensity. The adults in these households are still in the middle of their working lives and have to pay off their property—often a decades-long challenge. Mainly well-off, qualified, employed persons in good health can afford to buy a property. Many of the debt-free owners, on the other hand, are already retired. On average, they are older, the share of educationally poor is considerably higher and their health is poorer.

The insurance function of wealth thus might encounter serious obstacles when wealth consists mostly of property. Therefore, we assume that the moderating role of homeownership on financial stress in the case of unemployment decreases if households have to

service a mortgage (H2). The expected financial squeeze highlights the financial vulnerability of households with a mortgage, both in comparison to tenants and to households with debt-free property.

Unemployment is a major challenge for public systems of social security, even if the levels of expenditure (4.3% of total social protection expenditure in 2019 and 1.2% of GDP in the EU-27; see Eurostat, 2022a) are much lower than expenditures on pensions, health, family and children, and disability. In addition, owning a home may also act as a buffer against unemployment in the particular case of an adverse life event. Similar to the previously-mentioned relationship between homeownership and pensions (Castles, 1998), a trade-off between social protection for the unemployed and homeownership can thus be expected. This is the case least at the macro level: Figure 1 shows a negative relationship between net replacement rates (NRRs) and homeownership. The correlation between these variables is high and explains nearly a fifth of the variation. Therefore, it can be expected that wealth and, specifically, property can work as a private substitute for social benefits because home and family relations (in particular in Southern, Central, and Eastern Europe) are important forms of social protection against the risks of adverse life events. At the micro level, this would mean that debt-free homeowners in particular, in countries with low replacement rates, report lower levels of financial stress in the case of short-term unemployment compared to other households. In countries with high replacement rates, all groups benefit

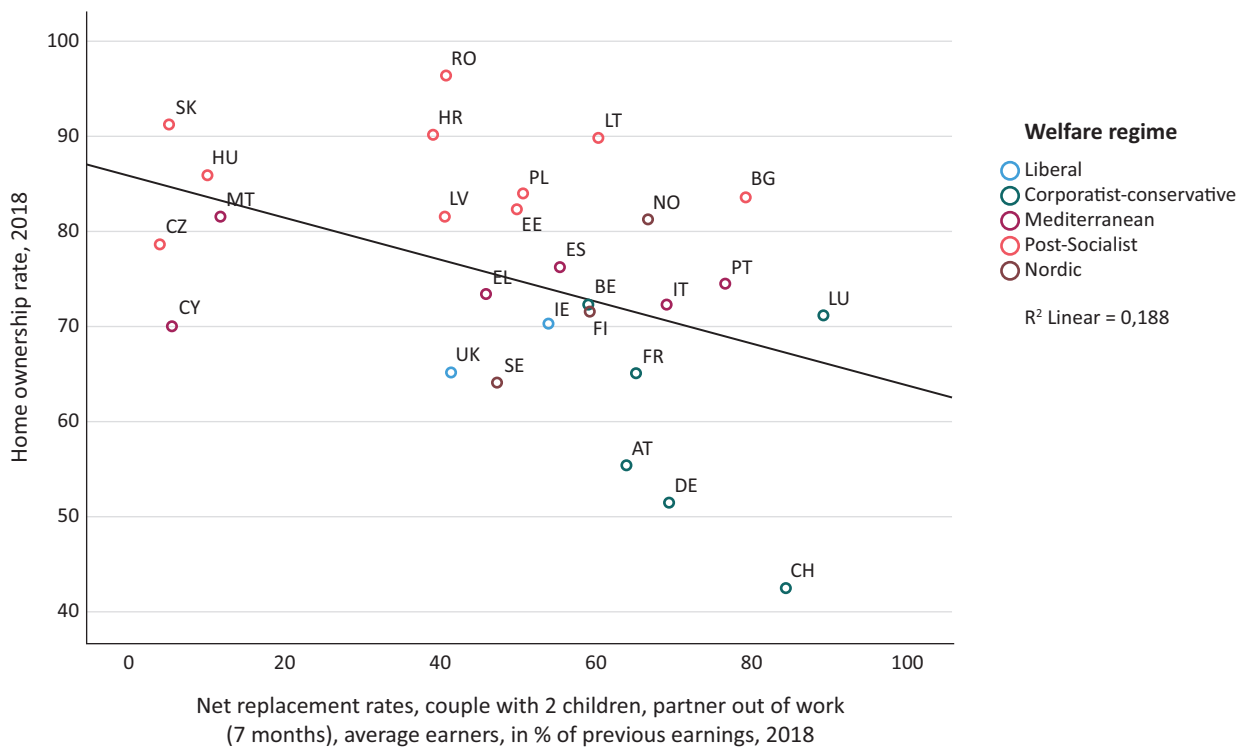
equally from the buffering of financial risks of short-term unemployment by welfare (H3).

In sum, we expect an *insurance* role for debt-free owners, a financial *squeeze* for indebted owners, and a *trade-off* between homeownership and welfare. These three hypotheses will be discussed in the following sections based on microdata for 27 European countries.

### 3. Data and Methods

#### 3.1. Dataset

In the following analysis, we deploy the EU-SILC for 2010–2018, in which the income, housing, and living conditions of individuals and private households in Europe are surveyed in great detail at the micro level (Eurostat, 2021). It is the only available up-to-date data source for international comparative and supranational analyses of income and living conditions in Europe (Guio et al., 2021). The chosen period includes both a deep crisis—the Eurozone crisis (2010–2013) directly after the Great Recession—and the subsequent upswing, until 2018, when the UK participated for the last time in EU-SILC. The following analysis includes the United Kingdom, Norway, Switzerland, and 27 EU member states (without Denmark, the Netherlands, and Slovenia, for which data on urbanisation and mortgages are not available). The inclusion of at least 25 countries is recommended for a linear multi-level analysis in order to properly estimate the impact of contextual factors on the



**Figure 1.** Net replacement and homeownership rates in Europe, 2018: Couples with two children, partner out of work (seven months), average earners (percentage in relation to previous earnings). Source: Based on Eurostat (2022b) and OECD (2022).

situation of individuals and households (Bryan & Jenkins, 2016). The 27 European countries represent five different employment and welfare regimes (Gallie, 2007): liberal, Nordic, corporatist-conservative, Mediterranean, and post-socialist European countries (cf. Supplementary File, Table A1). In the housing literature, related regime concepts have been discussed (Stephens, 2020). In particular, we will use the social embeddedness of homeownership in extended family networks in Southern, Central, and Eastern European countries. The sample is restricted to individuals aged 25–64 years who are either employed or short-term unemployed.

### 3.2. Variables

The dependent variable in this analysis is *subjective financial stress*, measured by whether the household is able to “make ends meet,” i.e., can pay for its usual necessary expenses (hs120). Values range from 1 (*with great difficulty*) to 6 (*very easily*). See Table A2 in the Supplementary File for all variables.

For the sake of a more intuitive interpretation of the results, we have inverted the values so that higher values indicate higher financial stress. We treat this ordinal variable as continuous due to the relatively high number of categories (6) and approximately normally distributed residuals. Our main independent variable is the *tenure status* (hh021), which distinguishes tenants and owners with and without a mortgage. The second key independent variable measuring an adverse life event is *short-term unemployment*. This variable indicates an adverse life event that households seek protection from. If owning a home serves as a buffer for the related reduction in disposable income, this can be seen as insurance against the financial outcomes of unemployment. To focus on this life event, it is necessary to exclude the long-term unemployed, because long-term unemployment is not a temporary event but a permanent situation of lower income as well as lower financial and life satisfaction. Persons are counted as short-term unemployed if they had been unemployed in the previous year for at least one and not more than 11 months. This does not correspond exactly to the official statistics that define short-term unemployment as being unemployed for less than a year, but it is the only way of measuring short-term unemployment in the cross-sectional EU-SILC data. Accordingly, a person who became unemployed in February of the previous year and who is still unemployed during the survey in spring will be counted as short-term unemployed in the following analysis, even if the actual unemployment spell is longer than a year. At the level of individuals, we further control for age group, household type, education, social class, degree of urbanisation, housing costs (as a share of disposable income), and disposable household income.

At the macro level, the NRR is used as a key indicator of the generosity of the welfare state in the case of short-term unemployment. The NRR is the ratio of

net income while out of work (unemployment benefits if unemployed or means-tested benefits if on social assistance) divided by net income while in work (see Figure 1). To account for cross-country differences in living standards, prosperity, and the housing market, we further control for: the national median income (in purchasing power standards); the total household debt in percentage of the GDP (also an indicator of the liquidity of the housing market); the average housing costs for tenants and indebted owners; and the share of mortgage repayments as a percentage of the disposable income of indebted homeowners (as an indicator of the role of mortgages and thus for the liquidity of the housing market in a country). Moreover, to account for common period effects, year dummies are included. A detailed description of all variables used can be found in Table 1 (see also Supplementary File, Table A1).

### 3.3. Analytic Approach

In order to estimate the impact of short-term unemployment on financial stress by different types of tenure, we apply linear multi-level regression analysis to account for the hierarchical structure of the data (individuals nested within countries) by estimating separate intercepts for each higher level (Rabe-Hesketh & Skrondal, 2012). Multi-level techniques also enable the analysis of cross-level interaction effects, i.e., the relationship between explanatory variables on the individual level and the country level. In particular, we estimate random intercept models including random slopes for types of tenure to account for the possibility that the relationship between the type of tenure and financial stress may be different across countries. Further, we estimate various three-way cross-level interaction effects to test whether the moderating role of welfare regimes and the NRR on the association between short-term unemployment and financial stress differs depending on the type of tenure, i.e., tenants and owners with and without a mortgage.

## 4. Financial Stress of Homeowners: Empirical Evidence

In the following, we analyse the impact of short-term unemployment on financial stress for different types of tenure in order to examine whether homeownership offers insurance against the financial risks of unemployment. We start with a description of the financial stress of homeowners in 27 European countries and the five previously-mentioned European country groups. Figure 2 shows the level of financial stress by type of tenure. The subjective assessment of their financial situation clearly differs between homeowners with and without debts and reflects the excellent financial situation of indebted owners: Only 10.9% (in 2018) of them report that they have difficulties in making ends meet; their average stress level is 3.1. This is considerably lower than for debt-free owners (18.5% and 3.5) and tenants (23.3% and 3.5), illustrating that owners paying a mortgage are

**Table 1.** Descriptive evidence for 27 European countries by welfare regimes.

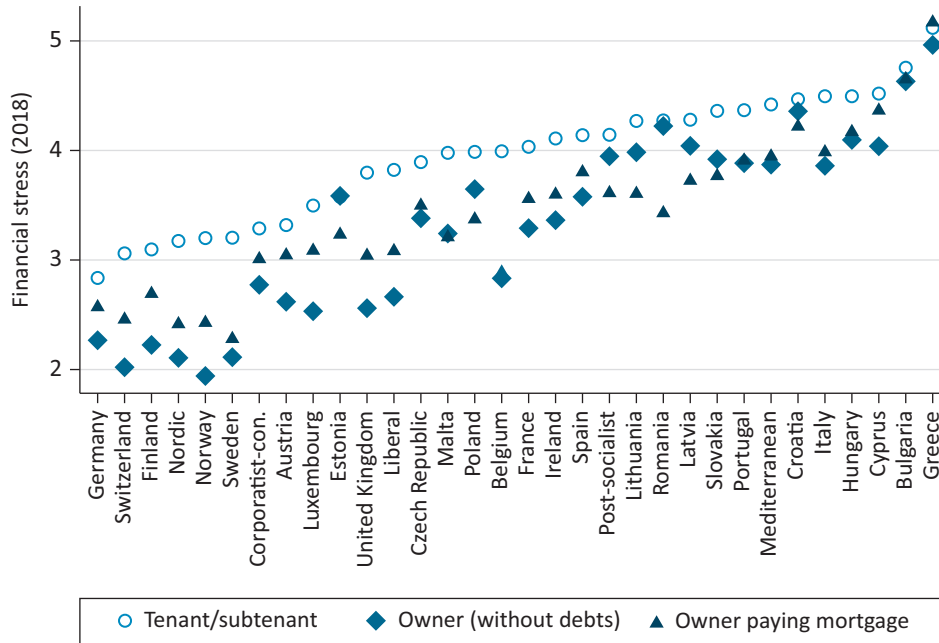
Country groups	Liberal	Corporatist-conservative	Mediterranean	Post-socialist	Nordic	Total (27)
<i>Micro level</i>						
Financial stress (mean)	3.3	3.2	4.1	4.2	2.5	3.7
Tenure status (%)						
Tenants	30.3	40.6	24.2	12.9	27.0	27.5
Owners without debts	32.8	31.5	52.5	78.7	21.4	48.2
Owners paying mortgage	37.0	28.0	23.3	8.4	51.7	24.3
Age group (%)						
15–24 years	7.9	6.8	4.9	5.0	8.0	6.0
25–54 years	54.9	54.8	60.7	56.7	52.3	56.8
55 years and older	37.2	38.4	34.5	38.3	39.8	37.2
Household type (%)						
One-person household	16.1	21.6	13.4	13.1	26.4	16.7
Adults, no children	48.4	43.4	46.6	45.2	41.1	45.3
Single parents	3.5	3.4	2.0	1.6	3.6	2.6
Adults with children	32.0	31.7	38.0	40.1	29.0	35.4
Education (%)						
Low education	26.1	20.3	45.3	18.0	21.0	27.5
Medium education	35.4	47.8	30.9	60.8	44.6	44.3
High education	38.5	31.9	23.8	21.2	34.5	28.2
Social class (%)						
Salaried	40.5	42.8	27.7	28.6	41.7	34.9
Intermediate employees	13.5	18.7	14.4	10.2	11.9	14.5
Small employers and self-employed	6.1	2.8	7.7	8.1	2.4	5.9
Lower sales and service tasks	18.7	12.2	15.5	13.3	20.9	14.7
Lower technical and routine work	21.2	23.5	34.7	39.9	23.1	30.1
Urbanisation (%)						
Densely-populated area	55.7	41.1	45.3	36.5	36.0	43.1
Intermediate area	28.0	32.7	31.5	22.6	30.6	29.2
Thinly-populated area	16.4	26.2	23.2	40.9	33.4	27.7
Short-term unemployed (% total)	2.9	5.7	7.8	5.5	5.5	5.8
Housing cost (% of disposable income)	21.9	20.6	18.8	23.5	19.8	20.9
Housing cost indebted owner	19.1	17.4	19.4	35.4	16.3	22.4
Housing cost tenant	39.9	30.7	41.9	39.6	31.8	37.3
<i>Macro level</i>						
National median income (PPS)	20,938	23,361	17,675	9,747	23,979	18,247
Household debt (in% of GDP)	93.4	59.2	59.4	29.4	80.9	58.0
Mortgage repayments (% income)	10.7	13.4	14.8	11.2	8.1	12.6
Net replacement rate (%)	46.9	67.8	62.2	35	58.2	55.1

Source: Based on data derived from Eurostat (2021, 50% sample, years 2010-2018) and OECD (2022).

in a comparatively-good financial position due to their higher disposable household income and their strong involvement in the labour market.

Figure 2 also demonstrates that the lowest level of financial stress can be observed in Nordic and corporatist-conservative countries and the highest in the Mediterranean and some Eastern European countries (Bulgaria, Hungary, Croatia). This also reflects different levels of social security—in general, higher in Northern and Continental Europe and lower in Southern and

Eastern Europe. Interestingly, the gap between the financial stress levels of homeowners and tenants is smaller on the right-hand side of the figure and much higher on the left, i.e., in countries with higher levels of social benefits. This result already raises doubts about H3 because it was assumed that, in countries with lower levels of social security, a particularly low level of financial stress for homeowners compared to tenants and indebted homeowners could be expected. In countries with higher levels of social security, H3 would expect a lower gap between

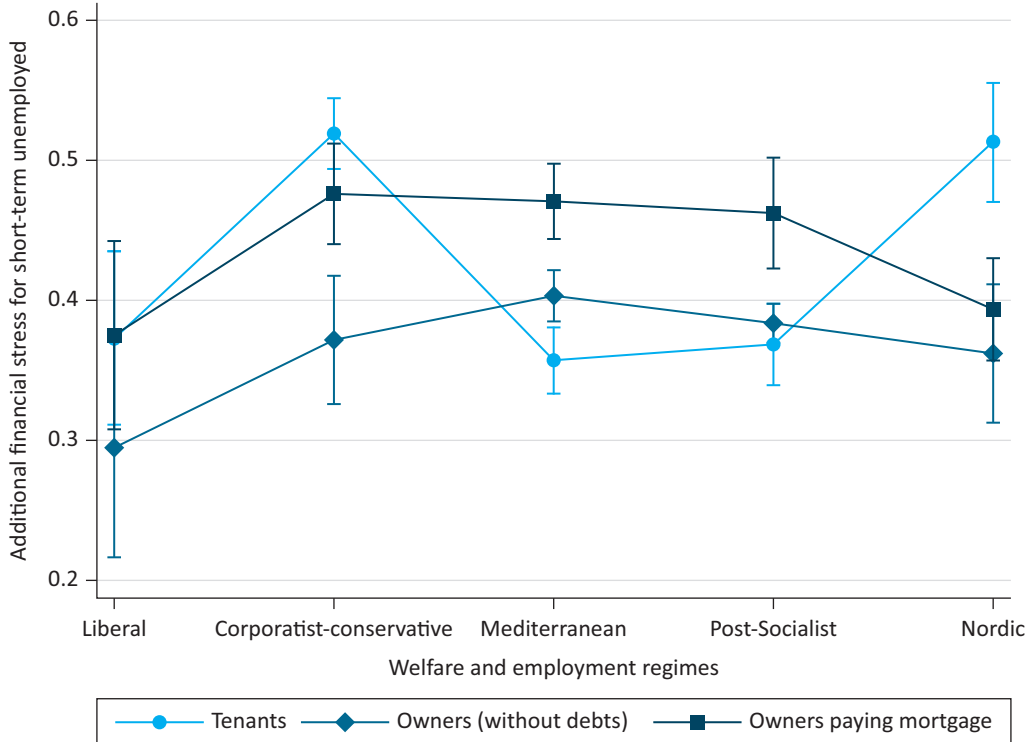


**Figure 2.** Difficulty in making ends meet in 2018 (averages by type of tenure). Note: The scale should be read from 6 (*with great difficulty*) to 1 (*very easily*). Source: Based on Eurostat (2021).

the stress levels of tenants and homeowners due to the better protection of all groups.

Concerning the impact of adverse life events, Figure 3 shows that the ability to make ends meet clearly differs between the short-term unemployed and employed

persons in various European employment and welfare regimes. While the financial stress due to short-term unemployment increases in all European employment regimes, the additional stress of debt-free owners is lower in the Liberal, Nordic, and corporatist-conservative



**Figure 3.** The additional financial stress of short-term unemployment (for 2010–2018, 27 countries, 95% confidence interval). Notes: N = 1,503,456 people aged 25 to 64 years; plot of the average marginal effects of a three-way interaction (regime\*tenure status\*short-term unemployment) in a linear multi-level regression on subjective financial stress; no individual or national control variables are considered. Source: Based on Eurostat (2021).



countries. These are wealthy countries with advanced systems of social protection. In the poorer Southern and Eastern European countries, however, where property is the backbone of family-based assets and family networks (Allen et al., 2004; Stephens et al., 2015), even the economic stress of debt-free owners is higher in comparison to the additional stress of tenants in particular. An explanation could be that the hypothesised insurance function of wealth threatens the socioeconomic basis of extended family relations. It is hard to sell a family home or to use it as a guarantee for a loan if this endangers the essential basis of social integration—the extended family. If this expectation can be confirmed by a more fine-grained analysis, it would contradict H3, which expects lower levels of homeowners' financial stress in countries with lower, but not higher, levels of social security. In contrast to H3, the figure might indicate a cumulative advantage of private and public forms of social security, housing, and public welfare. Therefore, a closer look at and careful control of individual characteristics and national context factors is necessary. It is this next step to which we now turn.

Table 2 presents the compressed results of five linear multi-level regression models (Rabe-Hesketh & Skrondal, 2012) on the impact of short-term unemployment on financial stress by type of tenure for the five welfare

and employment regimes in Europe shown in Figure 3 (model 1). In model 2, seven socio-demographic control variables at the individual and household levels have been included to eliminate composition effects. Next, the impact of the NRR on financial stress is examined (model 3). In model 4 and Figure 4, this impact on the additional financial stress is shown as a function of the tenure status. Model 5 controls whether the effect of the replacement rate remains stable even after the inclusion of indicators for the national income situation and the national financial and housing markets.

Model 1 and Figure 3 illustrate that short-term unemployment has a significant positive effect on financial stress. This effect is especially high for tenants compared to homeowners without debt. The respective interaction effects remain significant in the following models (except for model 3). It is noteworthy that, in the case of short-term unemployment, the additional stress of indebted homeowners does not differ significantly from the stress of tenants. This means that H1 can only partially be confirmed: Homeownership reduces financial stress in the case of short-term unemployment compared to tenants only when the dwelling is debt-free. The financial leeway of indebted homeowners is severely restricted and additional challenges

**Table 2.** Homeownership and national welfare as determinants of subjective financial stress (2010–2018).

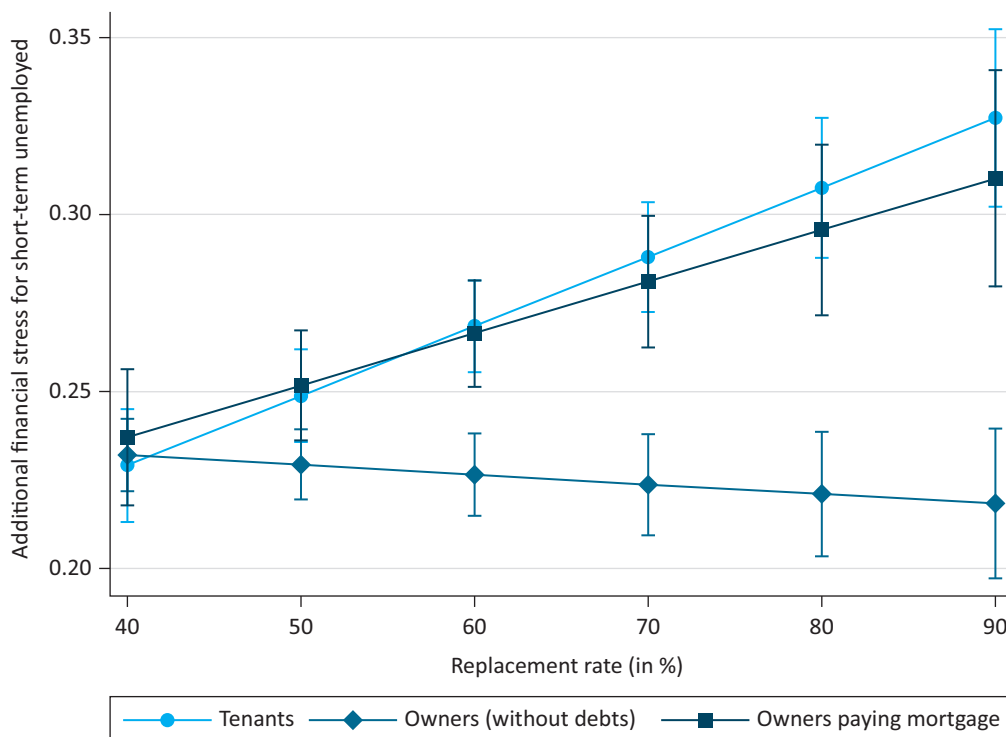
	Regime and 3-way interaction (1)	Individual controls (2)	Replacement rate (3)	Replacement rate & 3-way (4)	Replacement rate & national controls (5)
Ownership (ref. tenants)					
Owners without debts	-0.8795* (0.3911)	-0.3193* (0.1610)	-0.3192 (0.1664)	-0.3874* (0.1668)	-0.4001* (0.1682)
Owners paying mortgage	-0.4580 (0.3911)	-0.0852 (0.1611)	-0.0853 (0.1664)	-0.1235 (0.1676)	-0.1140 (0.1691)
Short-term unemployed	0.3731*** (0.0317)	0.2599*** (0.0064)	0.2601*** (0.0064)	0.1505*** (0.0190)	0.1551*** (0.0190)
Short-term unemployed * Owners without debts	-0.0784 (0.0508)	-0.0296*** (0.0081)	-0.0295*** (0.0081)	0.0925*** (0.0219)	0.0900*** (0.0219)
Short-term unemployed * Owners paying mortgage	0.0020 (0.0465)	0.0002 (0.0099)	0.0001 (0.0099)	0.0282 (0.0302)	0.0262 (0.0301)
Net replacement rate			0.0009*** (0.0001)	-0.0002 (0.0003)	-0.0005 (0.0003)
Constant	4.0535*** (0.2766)	3.9041*** (0.1139)	3.9005*** (0.1177)	3.9130*** (0.1185)	3.9225*** (0.1196)
Respondents	1503456	1503456	1503456	1503456	1503456
Wald Chi <sup>2</sup>	22357	306417	306474	306548	308564
McFadden pseudo-R <sup>2</sup>	0.327	0.433	0.433	0.433	0.433
AIC	4499629	4242597	4242833	4242851	4241268

Notes: Linear multi-level models for active persons (without apprentices, 25–64 years) and 27 European countries; year dummies and control variables at the individual level (models 2–5) and the national level (model 5) included but not shown (for detailed models see Supplementary File, Table A2; for a description of the variables used see Table A1); standard errors in parenthesis; \* p < 0.05, \*\* p < 0.01, \*\*\* p < 0.001. Sources: Based on Eurostat (2021) and OECD (2022).

due to unemployment will often exceed their financial possibilities—despite their better professional and financial position. This may also be explained by the lower job mobility of homeowners predicted by the Oswald hypothesis. Therefore, it can be established that property can work as insurance against the financial risks of unemployment but only if it is fully paid off—in clear support of H2.

The additional financial stress differs significantly between the various European welfare and employment regimes included in the first model. The stress is lower in the corporatist-conservative and Nordic countries compared to the Liberal, Mediterranean and Post-Socialist countries (see Figure 3; cf. Supplementary File, Table A1). However, the reference to regimes cannot be considered a sociological explanation: the challenge of comparative research consists in the replacement of names (i.e., the name of a regime) by substantial variables as Kohn (1987) has argued. Therefore, we will include in the next steps individual (models 2–5) and national control variables (model 5). Model 2 controls for various sociodemographic characteristics: financial stress is higher for younger persons; single-parent households; low- and medium-educated persons; those in lower technical and routine occupations; persons living in a thinly-populated area; households with a lower disposable income and higher housing costs (Supplementary File, Table A2). The model confirms that homeownership reduces financial stress. The financial stress for homeowners with debt-free homes is clearly lower than the financial stress of tenants.

To test H3, the NRR is included as an indicator of social welfare (model 3). As expected, this rate has a significant impact on financial stress. In contrast to our expectations. However, this effect is positive i.e., a higher NRR is associated with a higher level of financial stress. To better understand this surprising result, we include a three-way interaction between homeownership, short-term unemployment and the NRR to differentiate between the three types of homeownership (see Figure 4 and Table 2, model 4). The replacement rate—which refers now to the situation of tenants—is no longer significant in this model, while the interaction between replacement rate, unemployment and owners without debts is significantly negative (model 4; see also Supplementary File, Table A2). This is also illustrated in Figure 4. In countries with an NRR of 60% and more, the additional stress of debt-free homeowners experiencing short-term unemployment is significantly lower compared to tenants and owners paying a mortgage. This is primarily the case in Continental and Northern European countries, but also some Eastern and Southern European states (Bulgaria, Portugal, Italy, and Lithuania). Once again, this result contradicts H3, which assumed an identical increase in stress for tenants and homeowners. Furthermore, it also contradicts the Oswald hypothesis, which would expect a lower stress level among tenants due to their higher job mobility. The trade-off hypothesis thus has to be refuted since the additional financial stress of debt-free homeowners decreases with higher NRRs. Therefore, debt-free homeowners not only benefit



**Figure 4.** The additional financial stress of short-term unemployment—as a function of the NRR and homeownership (2010–2018; 27 European countries; without controls for national context; based on Table 2, model 4). Source: Based on Eurostat (2021).

from relatively-high unemployment benefits and other forms of public assistance but also from the financial advantages of owning their homes, in particular from lower running expenses and easier access to credit due to property that can be used as a guarantee. Instead of a trade-off between welfare and homeownership, we thus observe a *cumulation* of (also wealth-based) advantages. The advantages of public and private insurance add up. An explanation for the surprisingly-high financial stress of indebted homeowners (which does not differ significantly from the stress of tenants) could be the previously-reported squeeze of indebted owners (H2).

In Table 2, model 5, five additional macro-variables have been added to control for the national context: the average national income situation and its interaction with the disposable household income; the average housing costs for tenants and indebted homeowners; the national average for mortgage repayments (in percentage points of disposable income); and the debts of private households (in percentage points of GDP). Models 4 and 5 are almost identical in demonstrating that the reported relationships between national replacement rates and the additional financial stress of tenants and homeowners are stable even after the control of the national context. They do not reflect national specificities of the income situation or the housing and financial markets. This is also clear in Figure A1 in the Supplementary File, in which the impact of the previously-mentioned national context factors are also controlled for and which is nearly identical to Figure 4.

As previously outlined, the replacement rate—which indicates now the additional financial stress of tenants—is no longer significant in models 4 and 5. This result can be interpreted in the context of the compensation perspective (Rodrik, 2018), which explains public welfare expenditures by the need to buffer the social consequences of modernisation and globalisation. Higher replacement rates in more affluent countries might only partially compensate for the increased economic insecurity in case of unemployment—in particular for tenants and indebted homeowners. More specifically, one explanation for the *squeeze* also observed in affluent countries such as the Scandinavian and Continental European ones could be that financial losses due to unemployment are only partly buffered even by relatively high unemployment benefits. On the one hand, housing prices are relatively high due to the commodification of housing in the more advanced, richer countries in Northern, Continental, and Northwestern Europe, but, on the other, additional resources (self-help, moonlighting, support by members of the extended family, secondary activities, for example in the agricultural sector) are less important than in the Southern and Eastern European countries.

In sum, we found strong evidence that debt-free homeowners' property reduces financial stress in the case of unemployment compared to tenants and indebted owners. A debt-free home offers an additional

buffer and insurance against the financial consequences of unemployment (H1). Indebted homeowners, however, have to use all their financial resources to pay off their mortgages; thus, they are particularly hard hit by short-term unemployment (H2). A trade-off between unemployment benefits and homeownership in reducing the consequences of adverse life events could not be observed (H3). Instead, a cumulation of advantages due to homeownership and public benefits in countries with higher NRRs was found, with no significant differences in financial stress in countries with lower NRRs.

## 5. Discussion and Conclusion

In this study, we interrogated the relationship between homeownership and critical life events on the perceived financial stress of households, taking the example of short-term unemployment. Based on microdata for 27 European countries, three hypotheses were tested by applying linear multi-level regression models: the *insurance* hypothesis, which expects that wealth increases the capacity to face additional risks; the *squeeze* hypothesis, which expects that illiquid resources increase these risks; and the *trade-off* hypothesis, which expects that countries with lower levels of social protection rely more on homeownership for dealing with social risks.

The insurance hypothesis is supported by the observation that homeowners' financial stress is significantly lower than that of tenants. However, a more detailed analysis finds that this best describes the situation of debt-free homeowners in wealthier societies. Their additional financial stress while experiencing short-term unemployment is clearly lower than the financial stress of indebted homeowners or tenants in corporatist-conservative countries.

The squeeze hypothesis best describes the situation of indebted homeowners whose financial situation is as severe as the situation of tenants despite their higher income, professional status and wealth.

The trade-off hypothesis assumes lower additional stress for homeowners in countries with less-generous welfare systems. However, a higher replacement rate reduces financial stress for debt-free homeowners in particular, indicating a *cumulation* of advantages due to homeownership and a good social protection system. Otherwise, an effect of the replacement rate or significant differences between the additional stress of unemployed tenants and homeowners could not be observed. One explanation could be that the extended family plays an important role in homeownership, especially in Southern and Eastern European countries, thus limiting the owner's opportunity to use the property to guarantee a loan. Therefore, even if wealth is more relevant for well-being in countries with less-generous social protection (Hochman & Skopek, 2013), this is not true for the financial stress of unemployed homeowners. These results imply that the function of property as insurance against adverse life events is restricted to particular

groups of homeowners, i.e., debt-free owners in more affluent societies. Therefore, it is useful to carefully analyse the limitations of particular types of wealth in buffering negative life events.

In addition, our results contribute to the debate on the Oswald hypothesis—even if unemployment was an independent variable in our study and not a dependent variable as it was for Oswald (1997). First, the Oswald hypothesis contributes to the explanation of the relatively-high financial stress of indebted homeowners in contrast to debt-free homeowners in the case of unemployment: even if the initial financial losses of unemployment may generally be sustainable, the spatial constraints of homeowners and their expected poorer opportunities of finding another job increase their perceived stress. This is particularly true for indebted owners, who are more often still of working age than debt-free homeowners. Second, the comparable stress levels of homeowners with a mortgage and more mobile and, thus, more-easily employable tenants might also reflect the better local employment opportunities of homeowners observed by Munch et al. (2006).

The political conclusions that can be drawn from these results point to a dilemma. On the one hand, debt-free homeownership is correlated with significantly higher life and financial satisfaction in comparison to tenants when controlling for age, household type, social class, education, urbanisation, and housing costs. On the other hand, the life satisfaction of homeowners with a mortgage is lower than the life satisfaction of tenants—a crucial flip side to the much-acclaimed “ownership society” (Hacker, 2019). This obviously reflects the risks of buying a home. Therefore, increasing homeownership rates is only a promising strategy for improving financial security and life satisfaction for non-wealthy households if the risks of this strategy are taken into consideration (for example, by covering payment default risks by unemployment insurance in Bismarckian systems). A classical alternative to such an approach is the publicly-supported provision of dwellings—an important form of “in kind” social welfare. However, due to data limitations, the social housing market could not be considered in this study. This points to an even broader opportunity for future research which fully takes into consideration the internal heterogeneity of owners and tenants and the heterogeneity of the housing and rental markets in European countries, as well as the various regulations for housing in terms of tenure security, rent regulation or housing-specific support for unemployed homeowners.

### Conflict of Interests

The authors declare no conflict of interest.

### Supplementary Material

Supplementary material for this article is available online in the format provided by the author (unedited).

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