HORIZON-CL2-2023-TRANSFORMATIONS-01-09

EqualHouse

Deliverable 3.2: Housing Inequalities Dynamic Framework

April 2026

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Project Acronym	EqualHouse
Project Title	From Housing Inequality to Sustainable, Inclusive and Affordable Housing Solutions
Project Coordinator	Michelle Norris michelle.norris@ucd.ie Geary Institute for Public Policy – University College Dublin
Project Duration	January 2024-December 2027

Deliverable No.	D3.2
Dissemination Level	PU
Work Package	WP3
Task	3.1, 3.2, 3.3 and 3.4
Lead beneficiary	Tilburg University
Contributing beneficiary(ies)	Tilburg University
Due date of deliverable	April 2026
Actual submission date	April 2026

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2 Chapter 2. The Residualisation Paradox: Resilient Housing Conditions in Europe's Regulated Rental Sector

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2.1 Introduction

As the overheated housing market increasingly violates the 'right to decent and affordable housing' (Bengtsson 2001; see also Clair, Fledderjohann & Knowles 2021), the role of social housing is once again under debate. Particularly low-income groups in Western-European countries are finding it increasingly difficult to access homeownership (e.g. Gielens & Dewilde 2025), while private rents are claiming a growing share of tenants' incomes (e.g. Dewilde 2018; Hick, Pomati & Stephens 2024). Social housing, a form of government intervention in the housing market, offers a solution for those for whom the 'right to housing' falls short. Although the European Union (EU) has set ambitious goals to promote affordable and sustainable housing (European Commission 2025), it remains uncertain to what extent these investments will benefit *social* housing, or whether the sector will instead give way to new forms of public-private partnerships aimed at promoting *affordable* housing. The future role of social housing is thus uncertain.

This European-comparative chapter examines recent developments in Europe's social rental sector, but advocates for a broader perspective on residualisation. We argue that the increased concentration of low-income households in the sector – a frequently used outcome measure indicating residualisation (e.g. Angel 2023; Borg 2019; Pearce & Vine 2014) – only provides a limited view of changes in social housing. Policy developments, in particular enhanced selectivity and conditionality, additionally entail a higher concentration of more vulnerable households in the sector. These more vulnerable tenants

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often constitute a specific subgroup of low-income households, struggling with accumulated social and financial difficulties (see also Van Echtelt, Eggink & Sadiraj 2023). This group furthermore faces a more extreme accumulation of severe housing problems (Gielens, Seo & Dewilde 2025; see also Clair et al. 2019; Beer et al. 2016). Building on a latent class analysis of cumulative housing problems in Europe (Gielens, Seo & Dewilde 2025, also see Chapter 1), we, firstly, investigate to what extent the growing concentration of low-income households in the regulated rental sector has been associated with trends in increasingly severe degrees of housing precariousness. Secondly, we investigate whether degrees of housing precariousness in the regulated rental sector are associated with levels of (between-country) and trends in (within-country) housing (rental) market liberalisation.

We begin this chapter by advocating for a broader perspective on residualisation. We then discuss the role of housing market liberalisation in the process of residualisation. Analyses in this chapter are based on aggregated country-year data from EU-SILC (EU Statistics on Income and Living Conditions, 2010–2020; 2023), covering 21 countries. Our main conclusion is that an increasing concentration of low-income groups in social housing, overall, does not necessarily result in more cumulative housing problems. On the contrary, social landlords appear quite capable of addressing more complex problems, despite the influx of low-income tenants – perhaps due to more effective collaboration with other social service providers. This might, however, be less the case for the most vulnerable households (headed by a non-EU migrant), who are increasingly confronted with more severe forms of housing precariousness.

2.2 A more nuanced perspective on the 'residualisation' of social housing

Since the 1980s, public investment in housing has been scaled back gradually, whilst taxes on social landlords increased. New construction and renovation

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within the sector have stagnated due to a lack of financing, as well as rising construction and maintenance costs (e.g. Beeckman et al. 2023). Given reduced rental income streams and declining government subsidies, social housing furthermore became increasingly based on market principles, such as the introduction of 'affordable' (rather than 'social') rents for households with higher incomes (Blackwell & Bengtsson, 2023; Kennett et al., 2013; Stephens, 2020).

The reduction of government subsidies has led to a contraction of the social housing sector in many European countries, even in countries with traditionally larger and more accessible social housing sectors, such as the Netherlands or Germany (Hoekstra, 2017; Kholodilin, Kohl & Müller, 2024; Kofner, 2017). Such contraction has been accompanied by enhanced selectivity (e.g. stricter eligibility criteria in terms of income or assets, more temporary rental arrangements) and/or higher conditionality (e.g. work or language requirements). In other words, social housing became more targeted towards low-income and, specifically, vulnerable households (e.g. Scanlon 2014; Malpass & Murie, 1982). Policy choices hence led to what is known as the 'residualisation' of the sector, resulting primarily in a stronger sorting of low-income households into social housing arrangements (e.g. Angel 2023; Borg 2019).

Other studies, especially in the context of housing quality issues, emphasize the resilience of social housing. In a comparative case study of Sweden, Denmark, and the United Kingdom (UK), Blackwell & Bengtsson (2023: p. 284) state that "*in terms of standards and quality the social rental housing stock has proven generally resilient*". Despite the stagnation of new build and renovation, as well as the selective sale of more attractive housing units, tenants are not significantly less satisfied with the quality of their homes, and energy efficiency appears better than in the private sector. On the other hand, issues with housing quality generally do occur relatively more often in the so-called 'regulated rental sector' compared to the private sector (Borg 2015), a difference which is explained by the concentration of vulnerable households in urban areas within the regulated

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rental sector (Hick, Pomati & Stephens 2024). Most of these studies, however, lack a longitudinal component, making it unclear how housing quality has developed over time, and how this compares with trends in the market rent sector. Relative differences between social and private rental housing, furthermore, differ between countries, depending on the nature of private renting and social housing (see Deliverable 3.1).

Empirical studies on residualisation tend to focus mainly on the shrinking of the sector (e.g. Kholodilin, Kohl & Müller 2024) and on the concentration of low-income households within it (e.g. Borg 2019; Angel 2023; Hoekstra 2017; see also Pearce & Vine 2014). This focus is understandable, given explicit income thresholds and the wider availability of income data, but it simultaneously conceals variation in the level of vulnerability within the broader segment of low-income households. The focus on income alone may underestimate the process of residualisation, because social housing is not only increasingly targeted at low-income households but also at vulnerable households, who are confronted with multiple, intersecting, problems. *Residualisation hence extends beyond income and obscures heterogeneity amongst low-income tenants*: it also involves housing former homeless individuals, psychiatric patients increasingly living outside institutions, people with criminal records, refugees with war trauma, … Croon, Hoekstra, and Dubois (2024: p. 3), for example, argue that residualisation "*implies that available social housing is increasingly allocated to people with very low incomes and marginalised groups with 'urgent status', such as migrants, persons with mental health issues, or those recovering from personal crises like divorce*". This process reflects developments in, for example, social assistance – often accessed by low-income groups eligible for social housing – where health issues, debt problems, and psychiatric conditions are not uncommon (see Van Echtelt, Eggink & Sadiraj 2023, for the Netherlands). While our focus on accumulated housing problems (i.e. from housing quality issues to more severe forms of housing precariousness) does not capture all these aspects,

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we take account of this most vulnerable group within social housing, thereby offering a broader view on residualisation that goes beyond the concentration of low-income households in the sector.

2.3 Housing precariousness in a liberalised housing market

The residualisation of social housing is part of a broader trend toward increased market orientation in the housing sector, resulting in more housing problems amongst a relatively vulnerable group of low-income households, in particular (private) tenants (Dewilde, 2022; Hick, Pomati & Stephens, 2024). The ongoing liberalisation of the housing market since the 1980s has influenced the housing systems of many (Western) European countries (e.g. Dewilde & Haffner 2022; Forest & Hirayama 2018). In recent decades, the share of first-time buyers on the homeownership market has declined, the social housing sector has shrunk, and the importance of the private rental sector has grown – partly under pressure from European regulations aimed at promoting a 'level playing field' for public and private actors in the housing market, especially in so-called unitary rental market-countries with a large and more accessible social housing sector (e.g. Elsinga & Lind 2013). In the Netherlands, for example, since the financial crisis of 2009, the liberalisation of social housing entailed reforms such as the landlord levy (revoked in 2023) and other changes to the Housing Act. Many measures were aimed at strengthening the competitive position of private landlords and at reserving social housing for low-income households and other vulnerable groups (Van Gent & Hochstenbach 2020).

Based on these general developments, we expect that the ongoing liberalisation of the housing market has resulted in a stronger accumulation of quality and affordability problems, in the private but also in the social rental sector. We distinguish between two contributing factors: cuts to social housing (measured as a shrinking proportion of social rental dwellings) and the reduction of tenant protection in general (measured by the rental market regulation index

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(Kholodilin 2020) as well as by access to housing allowances). Because of the variety in social housing arrangements across European countries, there is no clear-cut distinction between social and private renting. In countries with housing allowances, such allowances tend to be available to both social and private renters (though often with limitations in the latter case). We allow for such institutional 'unclarity' by investigating the impact of overall rental regulation, as it in part also affects renters in more regulated (social) parts of the rental market (also see below).

A well-known and important limitation is furthermore that EU-SILC does not apply the standard distinction between private and social rental housing. Instead, it distinguishes between *renting at prevailing or market rate* and *renting at reduced rate*. *Renting at reduced rate* generally corresponds, in most countries, to what is strictly defined as social housing, i.e. non-profit rental provided by housing associations or similar organisations. However, this category also includes households renting privately at reduced rates, for example as part of employment packages or due to legal rental agreements with private parties (EUROSTAT 2017: p. 172). Therefore, in this chapter – and in relation to our own and other prior research based on EU-SILC – we refer to the so-called *regulated rental sector*. For *renting at market rate*, we use the term *private rental sector*. In some unitary rental market-countries with strict rent regulation, such as Denmark and Sweden, where there is no clear distinction between market-rate and subsidised rents, we recoded all tenants as *renting at reduced rate* (rather than *renting at market rate*, as classified in the original data). For the Netherlands, we use the annually-indexed liberalisation threshold to distinguish between the regulated (mostly social) and the private rental sector. In the UK, the classification of Housing Associations changed in 2018 from *reduced rate* to *market rate*, rendering the most recent wave virtually unusable. In this chapter, in relation to prior and current research based on EU-SILC, we use the terms 'regulated rent' and 'market rent'.

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2.3.1 Social housing reforms

In social housing, subsidies have been scaled back (OECD 2021), and levies on social landlords have further strained their financial position. Income thresholds for access to strictly regulated rental housing also became more stringent (Scanlon 2014), social landlords introduced market-based rents in parts of their stock, and in nearly all European countries, low-income households became increasingly concentrated in regulated rental housing (e.g. Angel 2023). The contraction of the social housing sector can theoretically be linked to expected increases in both housing quality and affordability problems.

Quality issues may increase due to the selective sale of social housing. The sale of social housing to households – such as through 'Right to Buy' in the UK – and institutional investors is a selective process in which higher-quality homes are sold more frequently, whilst lower-quality dwellings are retained (Elsinga, Stephens & Knorr-Siedow 2014; Disney & Luo 2017). Social landlords in many countries also struggle to meet targets for renovation and new construction. On the hand, however, the sale of lower-quality dwellings has recently been cited as a strategy to finance renovation and new development (Housing Europe 2024). All in all, there is little empirical research on the actual relationship between housing quality in social housing, and the continued sale of such housing in recent years.

It is also plausible that the sector's contraction coincides with housing affordability issues due to changes in the composition of tenants. The initial wave of 'Right to Buy'-sales involved not only higher-quality dwellings but was also primarily an option for middle-income households (e.g. Forrest & Murie 1988; see also Pearce & Vine 2014), at a time when mortgage access was relatively easy. This selective outflow of higher-income renters coincided with an increasing concentration of disadvantaged groups in social housing. In recent years, stricter criteria regarding income and assets have further ensured that new entrants are

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increasingly those with the least chance of securing housing in the private rental sector (e.g. Scanlon 2014; Hoekstra 2017).

Considering a potential compounding effect of stigmatisation associated with enhanced selectivity and conditionality, we expect that a smaller social (or regulated) housing sector is associated with a higher concentration of low-income households (Borg 2019; Angel 2023). A further extension of this expectation is that the share of people experiencing various degrees of housing precariousness increases as the sector shrinks.

2.3.2 Tenant protection

The reduction of tenant protection is the second key component of the liberalisation process. On the supply side, tenant protection includes rules for private landlords, especially regarding eviction and rent increases (Weber & Lee 2020). This is directly relevant to tenants in the private rental market, where deregulation leads to higher housing costs and a greater risk of eviction. However, deregulation also affects tenants in so-called unitary rental markets, such as Denmark and Sweden, where the distinction between private and social rental is less pronounced (Kemeny 1995; see also Stephens 2020), and where, due to EU-SILC limitations, we were obliged to classify all tenants as renting in the regulated sector.

Deregulation of the rental market affects market dynamics by encouraging private rental investment and by pushing potential homeowners to buy, and coincides with a shrinking supply of regulated rental housing (Kholodilin & Kohl 2023; Kholodilin, Kohl & Müller 2024). Furthermore, deregulation of the private rental sector indirectly affects social housing. Rising rents increase pressure on social housing as demand rises while fewer people move out of social housing (Wiesel & Pawson 2015; see also Angel 2023).

Tenants are protected from high housing costs through compensation mechanisms such as housing allowances and similar income-support measures like energy subsidies. Housing allowances are an important source of income

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support for low-income households in Western Europe (Griggs & Kemp 2012), and housing problems amongst low-income groups tend to be less severe in countries where housing allowances are more generous and universal (Dewilde 2022).

All in all, we expect that a decline in overall tenant protection over time (rental deregulation and reduced receipt of housing allowances) is associated with increasing housing precariousness for renters in (parts of) the regulated rental sector.

2.4 Data and variables

2.4.1 Data

In this chapter, we examine developments in, and explanations for, the accumulation of housing problems within a country's regulated rental sector. The analysis is based on aggregated data (all adults and children forming part of an interviewed household) from 21 countries (AT, BE, CH, CY, CZ, DE, DK, EL, ES, FI, FR, IE, IT, LU, LV, MT, NL, NO, PT, SE, UK) and 12 repeated cross-sections (2010–2020; 2023) from EU-SILC. The dataset comprises N = 234 available country-years. Countries where the rental sector (market and reduced) equals less than 5% of the housing market are excluded from the analyses. In practice, this excludes most Eastern-European countries, with a few exceptions, as their (formal) rental sectors are too small for reliable estimation and are of limited relevance to housing system developments. Cross-sectional weights are used to adjust country-year-level percentages for sample-to-population differences.

2.4.2 Operationalising accumulated housing problems

In this chapter, we use an operational definition of *degrees of housing precariousness*, based on a latent class analysis (LCA) of housing problems (Gielens, Seo & Dewilde 2025), derived from EU-SILC data (see below). Our broader perspective on residualisation aligns well with recent work on precarious housing, mostly focusing on the private rental sector (e.g. Waldron 2023; Listerborn 2023).

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The exact definition of precarious housing remains debated. This literature emphasizes, on the one hand, housing insecurity, including "*difficulty finding housing*" (DeLuca & Rosen 2022, p. 345) or "*frequent moves*" (Dorling 2014, p. 20). On the other hand, precarious housing also refers to the absence of affordability, a safe neighbourhood, and decent living conditions (e.g. Routier 2019; Cox et al. 2019). Crucially, precarious housing refers to the accumulation of housing problems, that furthermore often coincide with difficulties related to employment and health (e.g. Clair et al. 2019; see also Beer et al. 2016).

Not everyone agrees on the value of composite indicators based on multiple housing problems. Critics argue that affordability issues and maintenance problems have fundamentally different causes, require different policy responses, and should therefore be studied separately (EUROFOUND 2016; Nolan & Winston 2011; see also Hick, Pomati & Stephens 2024). On the other hand, an exclusive focus on isolated issues overlooks the theoretical and practical significance of intersections between housing problems and other issues. Households for whom various problems converge form a particularly vulnerable group – often referred to as the precariat – that remains invisible in averages referring to singular problems (e.g. Standing 2011; Listerborn 2023; see also Bulmer 1989). For these households and individuals, problems are interlinked. In social housing allocation, for example, the lowest-income households are more often placed in older, lower-quality housing, a practice known in the Dutch context as "*passend toewijzen*" (Hoekstra 2017, p. 36). The most vulnerable tenants thus frequently end up in the same housing blocks (Musterd & Van Gent 2016; Brattbakk & Sorvoll 2024). Due to their elevated risk of health and/or employment problems (Pevalin et al. 2017), this group also requires the most support.

LCA is a statistical method used to group respondents based on observed response patterns across multiple indicators (Vermunt & Magidson 2004; Collins & Lanza 2009). In our case, we model the accumulation of housing problems to identify common stacking patterns. The algorithm assigns individuals into one of

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a predefined number of classes, and the grouping with the fewest prediction errors of observed responses is considered 'optimal' (Vermunt & Magidson 2004). Simply put, the latent grouping is plausible when it explains the occurrence (and co-occurrence) of housing problems. The solution with eight clusters (k = 8) yielded the lowest classification error rate (11%) and highest entropy R^2 (84%), indicating it best distinguished respondents across latent classes. This chapter focuses more specifically on the three clusters where a clear accumulation of housing problems is visible, as presented in Table 2.1. These classes were labelled in terms of increasingly severe degrees of housing precariousness.

Individuals were clustered based on well-established indicators of housing problems: housing deprivation (e.g. dampness, rot in window frames, lack of sanitary facilities), overcrowding, excessive housing costs relative to income, arrears on rent/mortgage payments and utilities, and the subjective burden of housing and energy costs. This clustering yields profiles, i.e. combinations, of housing problems that frequently co-occur (see Table 2.1). Further detail on the exact measurement of these variables can be found in Appendix A. A full description of procedures is available in Gielens, Seo & Dewilde (2025).

Table 2.1. Stacked housing problems in Europe (individuals interviewed households) (Gielens, Seo & Dewilde, 2025)

	Quality-precarious	Cost-precarious	Security-precarious
Latent class size	7.3%	7.5%	3.2%
Housing cost burden	0.0%	100.0%	48.9%
No subjective housing cost burden	3.7%	0.4%	4.0%
Slight subjective housing cost burden	30.7%	25.6%	19.0%
Heavy subjective housing cost burden	65.7%	74.0%	77.1%
Perceived energy poverty	44.7%	29.1%	33.7%
Utility arrears	32.2%	26.7%	68.2%
Rent/mortgage arrears	0.0%	0.0%	100.0%
Overcrowding	43.6%	34.5%	34.3%
Housing deprivation	52.4%	34.4%	41.9%

Source: EU-SILC (2010-2020; 2023, pooled sample).

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By identifying common combinations (or latent classes) of housing problems, a more complete – but also more complex – picture of housing precariousness emerges. A significant portion of the European population (about 18%), especially in the rental sector, is affected by multiple, overlapping housing problems (Gielens, Seo & Dewilde 2025; see also Clair et al. 2019). The latent class analysis suggests three increasingly severe *degrees of precariousness*.

Quality-precariousness involves a combination of housing deprivation, overcrowding, and perceived difficulty keeping the home warm, along with arrears on energy, water, and other bills. This measure is conceptually similar to the European indicator pertaining to *severe housing deprivation* (see e.g. Hick, Pomati & Stephens 2024).

Cost-precariousness includes the above, plus housing cost overburden – defined as spending more than 25% of household income on housing costs in the lowest income quintile, rising to 50% in the highest quintile (see also Heylen 2023).

Security-precariousness includes problems with both quality and affordability, with the crucial complication of arrears in rent/mortgage payments. All individuals in this group are behind on rent/mortgage payments, and more than two-thirds have arrears on utility bills, suggesting underlying debt issues and a higher risk of eviction.

2.4.3 Variables

Descriptive statistics for the variables included in our country-year dataset are presented in Table 2.2. To disentangle the development of income concentration and cumulative housing problems (i.e. degrees of housing precariousness) in social housing from general trends in the population, we construct four indices. The underlying logic is that an increase in housing problems in social housing does not imply further concentration if this increase is mirrored across other housing market segments.

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Table 2.2. Descriptive statistics (N=234 country-years)

	Variable description	Mean	Sd.	Min.	Max.	N
Quality-precarious (Δ%)	Concentration of quality-precarious tenants in regulated rent relative to the share of quality-precariousness in the population at large.	7.4	8.9	-3.5	41.6	236
Cost-precarious (Δ%)	Concentration of cost-precarious tenants in regulated rent relative to the share of cost-precariousness in the population at large.	2.5	7.0	-30.2	24.3	236
Security-precarious (Δ%)	Concentration of security-precarious tenants in regulated rent relative to the share of security-precariousness in the population at large.	8.9	8.3	-2.7	52.5	236
Low-income share (Δ%)	Concentration of low incomes (Q1) in social housing in a country-year, relative to the share of low incomes in the population at large (Pearce & Vine 2014).	30.1	13.3	-20.6	54.0	236
Reduced rental market (%)	Proportion of individuals living in regulated rental housing.	8.5	7.8	0.1	33.4	236
Rental market regulation index	Index based on the degree of tenant protection against eviction and rent increases, and degree of regulation of the housing stock (Kholodilin 2020).	43.1	15.1	20.8	81.5	236
Access to housing allowances	Proportion of households receiving any level of housing allowances.	10.4	9.7	0.0	69.1	234
Non-EU migrant (%)	Proportion of regulated renters with a non-EU migration background as head of household	14.7	9.4	0.0	59.3	236

Note: Multi-level regressions are based on N = 234 valid cases (two country-years are missing for the variable 'access to housing allowances'. Apart from the rental market regulation index, all indicators have been aggregated from EU-SILC.

Our index of income concentration is based on the widely-used index by Pearce and Vine (2014). It ranges from –1 to 1 and takes the value 0 if the share of low-income households (1st quintile) is the same in the regulated rental sector as in the general population. The index R is calculated as:

$$R = L * 2 - 1$$

$$L = \sum_{i-1}^{5} \frac{1}{2} [F(p_i) + F(p_{i-1}) (p_i - p_{i-1})$$

Here, p_i is the weighted proportion of households in the full sample at or below income quintile *i*, and $F(p_i)$ is the weighted proportion of regulated renters at or below quintile *i*.

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For the three degrees of housing precariousness, we calculate the difference in weighted prevalence of problems between the regulated rental sector and the overall population:

$$W = F(p_i) - p_i$$

As indicators of housing market liberalisation, we include the following:

Size of the regulated rental sector in a country – measured as the weighted share of the population renting at reduced rate. In integrated rental markets like those in Denmark and Sweden all rental housing is considered regulated rental housing (as indicated before). For the Netherlands, we use the annually-indexed liberalisation threshold to distinguish between regulated (mostly social) and private market renting.

Housing allowances are a direct form of government intervention in housing costs for low-income households, primarily consisting of rent allowances. We aggregate these from household-level data, measuring the share of households receiving such housing allowances in each country-year (Otto 2018; Van Oorschot 2013).

Migrant concentration – for all individuals living in regulated rental housing we compute the weighted share of those whose household head is a non-European migrant. In this way we include co-resident children (i.e. second-generation migrants) who experience the same disadvantages as their parents.

All percentages are multiplied by 100 to make regression coefficients more interpretable: a 1 percent change is noted as 1.0 instead of .01.

2.4.4 Method

We use a multilevel linear regression model, with years nested within countries, to model changes in aggregated percentages of households experiencing quality-, cost- and security-precariousness at the country-year level. We estimate separate models for each of the three types of cumulative housing problems. The model includes random intercepts to capture country-level

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variation but does not include random slopes, since interactions between country and time are not tested.

Using a within–between decomposition of effects (Fairbrother 2014), we distinguish between cross-sectional between-country differences and within-country changes over time. For instance, the between-country effect of the percentage of low-income households is measured as the average per country across all years. The within-country effect over time (level 1) is centred on each country's mean and reflects deviations from that mean. This decomposition analytically separates temporal change from structural differences between countries. The approach is comparable to a fixed-effects panel regression, with the added benefit of also including between-country effects.

2.5 Results

We first describe how the accumulation of housing problems (i.e. degrees of housing precariousness) has developed over time. We then explore the extent to which these changes are related to the liberalisation of the (regulated) rental sector and the changing composition of tenants.

2.5.1 Housing precariousness over time

Figure 2.1 shows the general trends in the three forms of accumulated housing problems and income over the period 2010–2023, broken down by market-rate and regulated rental housing. First, we confirm that low income-respondents are indeed increasingly concentrated in the regulated sector (see also Angel 2023; Borg 2019). The share of low-income tenants in the regulated sector increased from 32.3 percent in 2010 to 39.8 percent in 2023, while in the market-rate rental sector there is instead a slight decrease, from 32.5 percent in 2010 to 29.6 percent in 2023. Low-income households are increasingly sorted into regulated rental housing.

The development of housing precariousness paints a different picture. The most severe form of precarious housing – *security-precariousness* – is decreasing

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in both the market and the regulated rental sector. In the market-rate rental sector, security-precariousness decreases from 14.9 percent at its peak in 2013 to 8.2 percent in 2023. In the regulated rental sector, we see a peak around the same year, where 15.4 percent of respondents is classified as security-precarious in 2014, which then falls back to 8.7 percent in 2023. A partial explanation for this decline may lie in a general decline in income poverty rates, combined with economic recovery, as well as a long-term secular trend of improving housing quality. The average relative income poverty risk in the countries we observed rises from 15.2 percent in 2010 to 15.9 percent in 2016 and then falls again to 15.3 percent in 2023 (EUROSTAT 2025).

Quality-precariousness decreases to a comparable extent in both rental sectors: in the regulated rental sector from 15.3 percent in 2010 to 13 percent in 2023, and in the market-rate sector from 9.5 percent in 2010 to 7.5 percent in 2023. A decrease in quality-related issues is normally expected, particularly in growing economies where old homes are renovated and/or replaced with new construction (e.g. Borg 2015; Dewilde 2022). The comparison between the market and regulated rental sector is therefore more interesting. Quality-related issues structurally occur more frequently in social housing, but there is no indication that social housing is further drifting away from the private rental market, particularly because of the unexpected increase in quality-precariousness in the market-rate rent sector from 5.4 percent in 2020 to 6.8 percent in 2023. For now, the stagnation in new construction and renovation does not appear to be an exclusive issue for social housing (Beeckman et al. 2023), and the sector indeed appears to be 'resilient' (Blackwell & Bengtsson 2023) in terms of housing quality. More data points are needed to assess whether this trend will continue.

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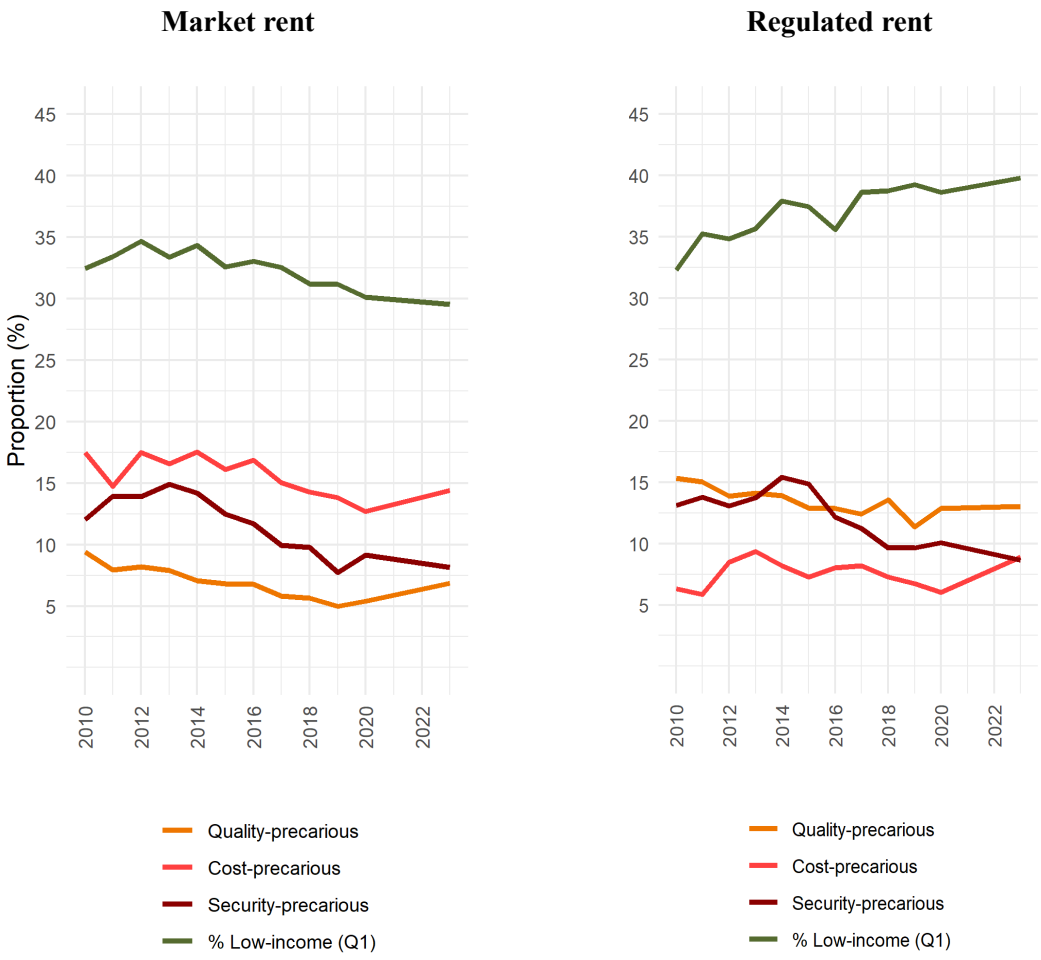
Figure 2.1. Trends in the prevalence of housing-precariousness and share of low income-respondents in European rental sectors



Note: UK and Germany are excluded from this figure to prevent composition effects due to incomplete time series. Source: EU-SILC.

In 2010, the level of *cost-precariousness* was about three times as high in the market-rate rental sector (17.5 percent) in comparison to the regulated rental sector (slightly above 5 percent), where rents are modulated according to income. During the period 2012-2020, the level of cost-precariousness declined in the market-rate sector, while for both rental sectors we note a small increase as of 2020. In 2023 the difference between both sectors was reduced to ca. 5% percent (twice as high in the market-rate rental sector compared with the regulated rental sector).

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To confirm changes in the relative position of renters in regulated renting, we additionally look at the development of income concentration and accumulated housing problems relative to the total population in Figure 2.2. The picture that was sketched in the figure above is confirmed. In 2010, low income-respondents were 22.1 percent more likely to live in regulated rental housing than in the general population, and this concentration increases to 32.6 percent in 2023. *Security-precariousness* is relatively prevalent in regulated rental housing in 2015 (+13.3 percent more than the overall population) but decreases to a +7.6 percent difference in 2023. *Cost-precariousness* became slightly more concentrated in regulated rental housing over time, whilst *quality-precariousness* remained relatively stable, also in comparison to the general population.

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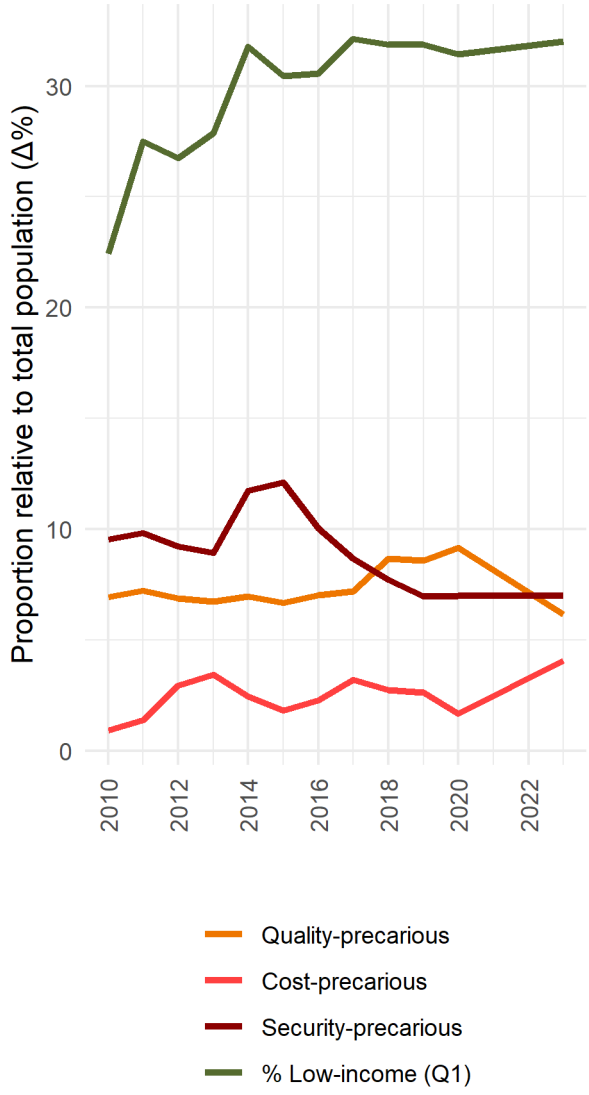
Figure 2.2.Conentration of degrees of housing precariousness and low income-respondents in the regulated rental sector, relative to the total population



Note: UK and Germany are excluded from this figure to prevent composition effects due to incomplete time series. Source: EU-SILC.

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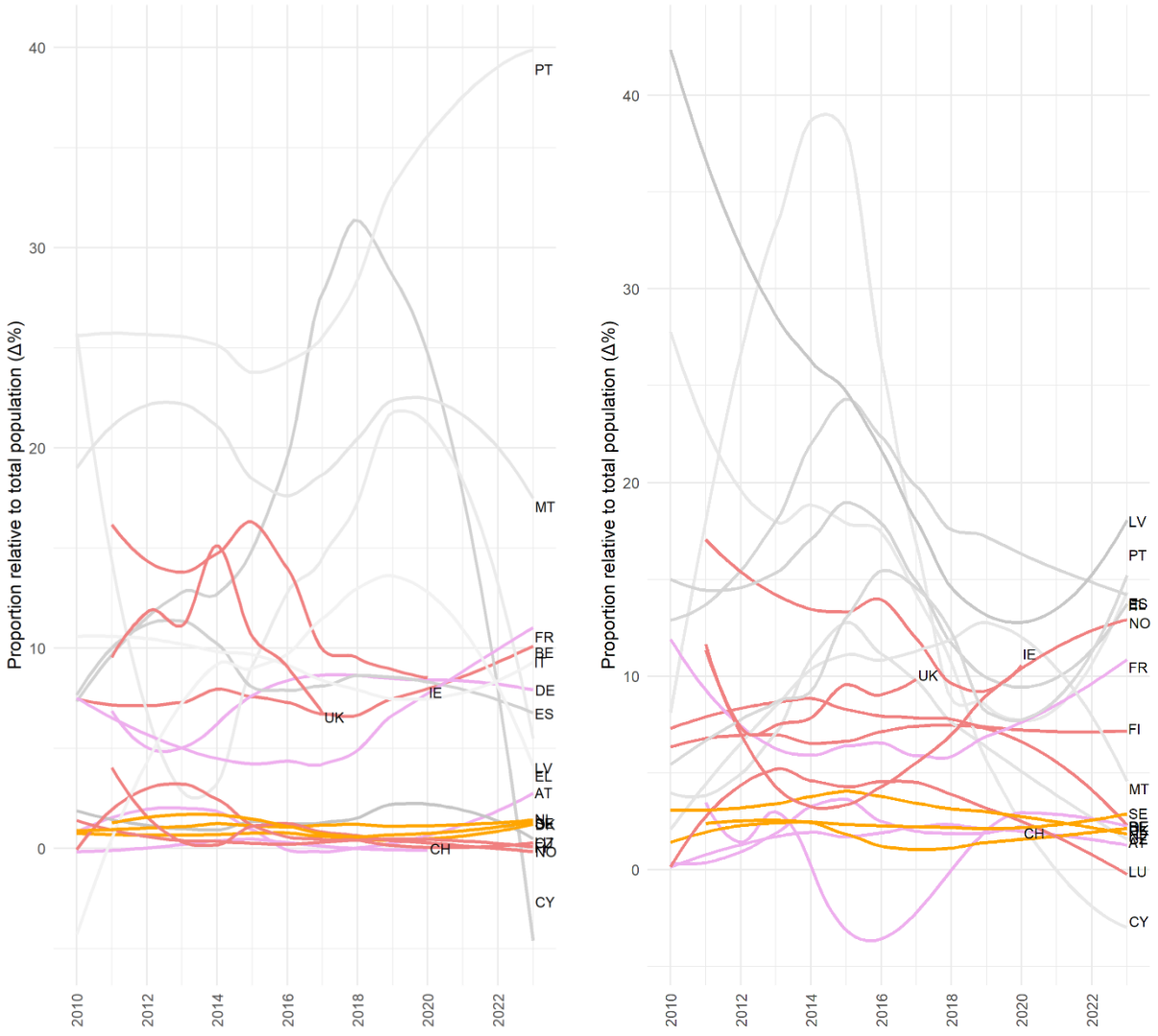
Figure 2.3 Concentration of housing precariousness in the regulated rent sector

Quality-precariousness

Security-precariousness



Note: Lines smoothed with loess curve to aid interpretation.

Colours refer to housing-welfare regime typology:

Orange – social-democratic countries with unitary rental market

Purple – conservative-corporatist countries with unitary rental market

Red – North-West European countries with a dual rental market

Grey – South- and Eastern-European countries

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These overall trends mask significant differences between countries. In Figure 2.3, we present developments in quality- and security-precariousness in regulated rental housing by country. In many Western-European countries (e.g. the Netherlands, Denmark, Germany, Norway), quality-related housing problems remained fairly stable. In some Southern- and Eastern-European countries (Cyprus, Malta, Latvia), there is a strong decline in quality-precariousness. An increase in quality-precariousness in the regulated rental sector is however visible in France, and also in the last five years, in Belgium. In the smaller sectors of Southern-European countries such as Portugal, Italy, Greece, and Spain we note an increase quality-precariousness in recent years. The considerable fluctuation in trends indicates that the measurement of especially quality-related problems is somewhat uncertain/unstable, particularly in countries with a relatively small regulated rental market. Despite this variance, however, observed developments in quality-precariousness are not a statistical artefact. A robustness analysis based on EUROSTAT's 'severe housing deprivation' (combining overcrowding and housing deprivation) – included in Appendix A – shows, for example, that this more stable measure also increases in France and Belgium, particularly in the past five years.

Security-precariousness in the regulated rental sector, in contrast, appears to decrease in nearly all countries or at least remain stable over time. A decrease is visible in countries that were hit hardest by the economic crisis and subsequently recovered (e.g. Greece, Ireland), as well as in countries that experienced strong economic growth (e.g. Latvia). In most Western-European countries, the share of precarious housing situations is stable or slightly decreasing. This confirms the previous conclusion: the enhanced concentration of 'more vulnerable' tenants in regulated rental housing does not necessarily coincide with an increase in precarious housing situations.

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2.5.2 Paradoxical trends in the European regulated rental market

Finally, we test the extent to which the liberalisation of rental markets affects the concentration of low income-households in the regulated rental sector, as well as different degrees of housing precariousness affecting these respondents. This regression analysis is presented in Table 2.3. First, housing market liberalisation coincides with the sorting of low incomes into regulated rental housing. In countries where the regulated rental sector is shrinking, there is also an increased concentration of low income-households. This relationship is very strong: if the regulated sector shrinks by one percent, the share of low-income households increases on average by 0.775 percent (b=-.775, p<.01). Deregulation of the private rental market over time is also associated with a higher concentration of low incomes in regulated rental housing (b=-.407, p<.001). This supports the assumption that when private rents rise, demand for social housing grows and low-income tenants extend their stay in the social housing sector (Wiesel & Pawson 2015; see also Angel 2023). Broader access to rent allowances over time, on the other hand, has no significant effect on the degree of income concentration in regulated rental housing (b=-.132, p>.10).

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Table 2.3. Multilevel linear regression on the relative concentration of low incomes and degrees of housing precariousness in the regulated rent sector (unit of analysis: country-years)

	Low incomes		Quality-precarious				Cost-precarious				Security-precarious			
	(a)		(a)		(b)		(a)		(b)		(a)		(b)	
Intercept	23.1	**	11.4	+	-300.3		-3.3		-131.4		15.1	**	1139.0	***
	(8.7)		(5.7)		(184.5)		(4.4)		(151.7)		(4.4)		(202.4)	
Year	.503	***	.090		.156	+	.116	+	.062		-.284	**	-.558	***
	(.124)		(.088)		(.091)		(.069		(.075)		(.100		(.100)	
Regulated rental sector size (country)	-.056		-.327		-.281		-.079		-.018		-.464	+	-.479	+
	(.452)		(.298)		(.310)		(.229)		(.186)		(.229)		(.245)	
Regulated rental sector size (time)	-.775	**	.019		.166		.026		.058		-.213		-.057	
	(.259)		(.184)		(.178)		(.143)		(.146)		(.210)		(.195)	
Rental market regulation (country)	.038		-.072		-.077		.143		.129		-.053		-.046	
	(.185)		(.122)		(.126)		(.093)		(.075)		(.093)		(.099)	
Rental market regulation (time)	-.407	***	-.017		.085		-.094		-.082		-.129		-.074	
	(.105)		(.075)		(.074)		(.058)		(.061)		(.085)		(.081)	
Housing allowances (country)	.326		.139		.037		-.030		-.221		.135		.173	
	(.363)		(.239)		(.268)		(.183)		(.161)		(.183)		(.212)	
Housing allowances (time)	-.132		-.051		-.083		-.057		-.040		-.089		-.001	
	(.149)		(.106)		(.101)		(.083)		(.083)		(.121)		(.111)	
Low-income concentration (country)					.059				.315	**			-.062	
					(.168)				(.101)				(.133)	
Low-income concentration (time)					.167	***			.045				.226	***
					(.047)				(.039)				(.052)	
Non-EU migrant concentration (country)					-.262				-.286	+			.050	
					(.258)				(.155)				(.204)	
Non-EU migrant concentration (time)					-.252	***			.050				.269	***
					(.058)				(.048)				(.064)	
Variance components														
Residual variance	.005		23.1		20.6		14.0		14.0		30.0		24.9	
Intercept variance	.014		59.9		63.8		35.1		22.3		33.6		38.6	
N level 1 (country-year)	234		234		234		234		234		234		234	
N level 2 (country)	21		21		21		21		21		21		21	

Notes: *** p < 0.001, ** p < 0.01, * p < 0.05, + p <.10.

Source: EU-SILC.

Otherwise, there is no evidence that a liberalising housing market produces more precarious housing conditions: our indicators of liberalisation have no significant effect on the concentration of housing precariousness in regulated rental housing. Countries with a larger regulated rental sector have marginally fewer cases of security-precariousness affecting households in this sector (b=-

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.464, p<.10), but this does not apply to cost-precariousness (b=-.079, p>.10) and – perhaps due to fluctuation in the measurement – quality-precariousness (b=-.327, p>.10). The shrinking of the regulated rental sector over time is not significantly associated with any of the degrees of housing precariousness in the sector. This suggests that accumulated housing problems in the regulated rental sector do not directly worsen due to (or despite) cuts in the sector, and deregulation of the private rental sector.

Housing precariousness, however, does appear to be an *indirect* result of liberalisation. As discussed above, liberalisation leads to a stronger concentration of low income-households in regulated rental housing, which in turn is associated with more quality-precariousness (b=.167, p<.001) and higher security-precariousness (b=.226, p<.001). The influx of non-European migrants into regulated rental housing also leads to more security-precarious housing situations (b=.269, p<.001). Whilst in general over time, as became evident in Figures 2.1-2.3, there is a secular decline in security-precarious housing situations in the reduced rental sector (b=-.284, p<.01) without controlling for the increase in vulnerable households, this negative trend is even stronger when we do control for tenant characteristics (b=-.558, p<.001). Such a suppressor-effect could be taken to indicate that the increase in vulnerable households in the sector has rendered this time trend less negative (i.e. more positive) than would have been the case when tenant characteristics would have remained stable over time. This is in line with the above noted positive association between a stronger influx of low-income and non-European migrant households in the sector, and the increased incidence of security-precariousness. The increased concentration of non-EU migrants in the regulated rental sector unexpectedly coincides with a decline in quality-precariousness (b=-.252, p<.001). In other words, countries that increasingly sort non-western migrants into the social housing sector tend to have better housing quality over time, at least compared to the total housing stock. This effect is similar without control variables in the model (results not

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reported). We have no explanation for this effect other than a suspicion of spuriousness: countries that receive many non-European migrants are also specifically countries with high housing quality and a large regulated rental sector (e.g. Sweden, the Netherlands).

2.6 Conclusion

The broad perspective on residualisation we argued for in this chapter points to a somewhat paradoxical development in European regulated housing. On the one hand, the residualisation of social housing in Europe continues, if we look exclusively at the concentration of low income-households in the sector. Low-income households are increasingly sorted into social housing: they are not only more frequently excluded from the homeownership market (Gielens & Dewilde 2025) but also rent less often in the private rental sector. This is partly attributable to the ongoing liberalisation of the housing market (Van Gent & Hochstenbach 2020), as well as to a higher degree of targeting (selectivity) in countries that previously preferred a more accessible social rental sector. The greater concentration of low income-households coincides with a shrinking of the sector (Angel 2023; Thunstall 2023), as well as with the deregulation of the private rental market. This suggests that – when implemented in a way that does not discourage landlordship – more regulation of the private rental sector could relieve pressure on the social sector, for instance by facilitating the transition out of the sector of middle-income households and easing demand for social housing amongst low-income households. As prior studies also suggested, there is convincing evidence that the liberalisation of the housing market is linked to the sorting of low-income households into regulated housing. This also implies that across countries, the 'convergence' toward a dual rental market, driven by European legislation, has been increasingly materialising (e.g. Malpass 2014).

At the same time, housing precariousness is stable or declining in the regulated rental sector, suggesting that a more dualized rental market model

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appears to be working for all but the most vulnerable group of tenants. Precarious housing has become less common since the financial crisis (2009), in society at large, but especially within social housing. This trend is independent of the liberalisation of the housing market and persists despite the grown concentration of low-income households and non-European migrants in social housing. On the other hand, the decline in housing precariousness would have been even stronger, had the tenant composition remained stable over time. We can only speculate on the different causes of this somewhat unexpected tendency. For one, the integration of social services may explain why rental market segregation does not necessarily lead to more but rather to less precarious housing in social housing (Parsell et al. 2022). If social housing is more often linked to access to (mental) health care, employment support, and debt counselling, then the segregation of low-income households may yield positive outcomes for more vulnerable tenants – at least those that manage to gain entry to the social housing system. Through more intensive support, social housing could potentially become a more integral part of an increasingly selective welfare state. However, this strengthened role of social housing must be accompanied by structural funding, as the internal redistribution mechanisms of social housing – where higher incomes/rents compensate for lower incomes/rents – are under pressure due to the concentration of low income-households in the sector.

The overall downward trend in security-precariousness could also be attributed to a general decline in income poverty rates. Poverty rates have been slightly declining over the past decades, as economies recovered from the Global Financial Crisis of 2009. To illustrate, the average relative poverty risk in the countries we observed rises from 15.2 percent in 2010 to 15.9 percent in 2016 and then falls again to 15.3 percent in 2023 (EUROSTAT 2025). In some countries, this trend aligns with a decline in rent/mortgage arrears, which is one of the key indicators of security-precariousness. Since rent is generally the last bill to be

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postponed, more disposable income means fewer arrears (Spicker, 2014; Doling, 1999).

A final interpretation of the decline in security-precariousness regards potential distortion due to selective sampling. It is well-known that EU-SILC excludes those in various stages of homelessness from their sampling framework (e.g. Hick, Pomati & Stephens 2022). It is possible that the most vulnerable tenants are increasingly barred from social housing due to recently enhanced conditionality (e.g. language or work requirements) (Coene et al. 2025, various chapters), and thus more often end up in homelessness or unstable housing situations. If the inflow of new 'problem cases' tends to become more limited, the share of precarious situations amongst regulated tenants would also decrease. This aligns with the idea that poverty is declining overall but is increasingly concentrated on vulnerable groups where it does occur (Hick, Pomati & Stephens 2024). Considering these explanations have very different implications, the precise causes of the decline in precarious housing in the regulated rental sector therefore warrant further investigation.

Housing quality problems are also stable in most countries and slightly declining overall, both in absolute terms and relative to the general population. This may indicate that stagnation in new construction and renovation is not limited to the social sector, but affects the entire housing market. At the same time, this confirms the image of a 'resilient' social sector (Blackwell & Bengtsson 2023), where housing quality remains fairly stable despite ongoing austerity measures and rising costs. Altogether, the increasingly explicit role of social housing as a provision for low-income households does not (yet) seem to lead to the deterioration of the sector, and income concentration even coincides with a decline in precarious housing, though not for the most vulnerable households, who are confronted with multiple problems that extend beyond the domain of housing. Nevertheless, the selective access to social housing, possibly combined

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with more intensive social support, in general appears to have a positive impact on the housing situations of most social housing tenants.

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This project has received funding from the European Union Horizon Europe research and Innovation program under grant agreement 101132325. The views expressed in this publication are the sole responsibility of the author/s and do not necessarily reflect the views of the European Commission.

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Appendix A

Table A1. Description of housing problem indicators used in the LCA (Gielens, Seo & Dewilde 2025)

Indicator	Description	Categories
Housing cost burden	Person living in household where total housing costs exceed a variable threshold of disposable income ('net' of housing allowances). Variable threshold: 25% for 1st quintile, 30% for 2nd quintile, 40% for 3rd quintile, 50% for 4th-5th quintile.	Overburdened, Not overburdened
Subjective cost burden	Person living in household experiencing a financial burden of the total housing cost, including mortgage/rent payments and insurance/service charges. Question: to what extent are these costs a financial burden to you?	A heavy burden, A slight burden, No burden
Perceived energy poverty	Person living in household experiencing the inability to keep the home adequately warm. Question: can your household afford to keep its home adequately warm?	Yes, No
Utility arrears	Person living in household with arrears on utility bills in the past 12 months. Question: in the past twelve months, has the household been in arrears, i.e. has been unable to pay the utility bills (heating, electricity, gas, water etc.) of the main dwelling on time due to financial difficulties?	Yes (once, twice or more), No
Rent/mortgage arrears	Person living in household with arrears on mortgage or rental payments in the past 12 months. Question: in the past twelve months, has the household been in arrears, i.e. has been unable to pay on time due to financial difficulties for (a) rent (b) mortgage repayments for the main dwelling?	Yes (once, twice or more), No
Overcrowding	Person living in household with less rooms available than required given the composition of the household. Following EUROSTAT, except we do not consider one-person households living in studio apartments as overcrowded.	Overcrowded, Not overcrowded
Housing deprivation	Person living in household with one or more of the following dwelling problems: Leaking roof / damp walls / floors / foundation or rot in window frames; Accommodation too dark; No bath/shower; No indoor flushing toilet for sole use of the household.	Yes (one or more problems), No (no problems)

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Figure A1. Trends in severe housing deprivation in regulated rental housing relative to the total population

Source: EU-SILC.

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