Housing Observatories: A View of Affordability in Times of Soaring Inflation

A report on the International Social Housing Festival session

Coordination of the report

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Introduction

This report builds on a meeting held in the spring of 2023. The event, co-organised by the Barcelona Metropolitan Housing Observatory and Housing Europe's Observatory, was part of a collaborative effort by observatories and institutes that manage housing data at regional and local level across Europe, with the objective or sharing experiences and learning from each other. The workshop Housing Observatories: a view of affordability in times of soaring inflation brought together 11 observatories from different cities and regions in Europe in the framework of the International Social Housing Festival in Barcelona.

Launched in Amsterdam in 2017 and by now in its fourth edition, the ISHF has become a point of reference for social and affordable housing providers, policymakers, urbanists, architects, activists, and researchers. On 7-9 June 2023, more than 2,100 of them came from 82 countries to Barcelona to debate how housing systems are facing emerging social and economic challenges across the world.

And access to affordable housing is indeed a major global and European challenge – and one that is increasingly recognised by international and European actors ranging from the United Nations to OECD and EU institutions and agencies.

Despite the increasing attention, housing affordability remains a topic which is far from clear and uncontroversial. And this is not surprising as the terms is interpreted and used differently in the policy sphere and even within the academic world. The chapters in this report don't have the ambition to come to one single answer to this 'philosophical' question of what housing affordability means, but to show concretely how relevant sets of indicators, which necessarily must include quantitative as well as qualitative aspects, can help identifying gaps and come up with useful solutions.

At European level, despite the existence of several datasets such as those produced by Eurostat, available data seem to some extent to miss the point, failing to fully capture the complex dynamics of housing markets which are intrinsically local. The where and why and who cannot secure a roof over their head at a price they can afford are fundamental questions for policymaking and the answers vary across and even within Europe's regions – although in many cases and especially in attractive cities and urban areas some of the dynamics at play are more and more similar. We hope the chapters in this report can contribute to strengthening the evidence base on housing in Europe.

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Team Data & Research of the Amsterdam Housing Department creates and improves data, information and knowledge aimed at designing and evaluating housing policy. An important source is the biannual (since 1995) research Wonen in Amsterdam (Living in Amsterdam). This publication combines population and housing statistics based on a survey of about 20,000 respondents. It offers great possibilities regarding both research into the changing composition of the housing stock and income distribution, as well as into the experience of households regarding subjects like affordability, liveability and propensity for moving.

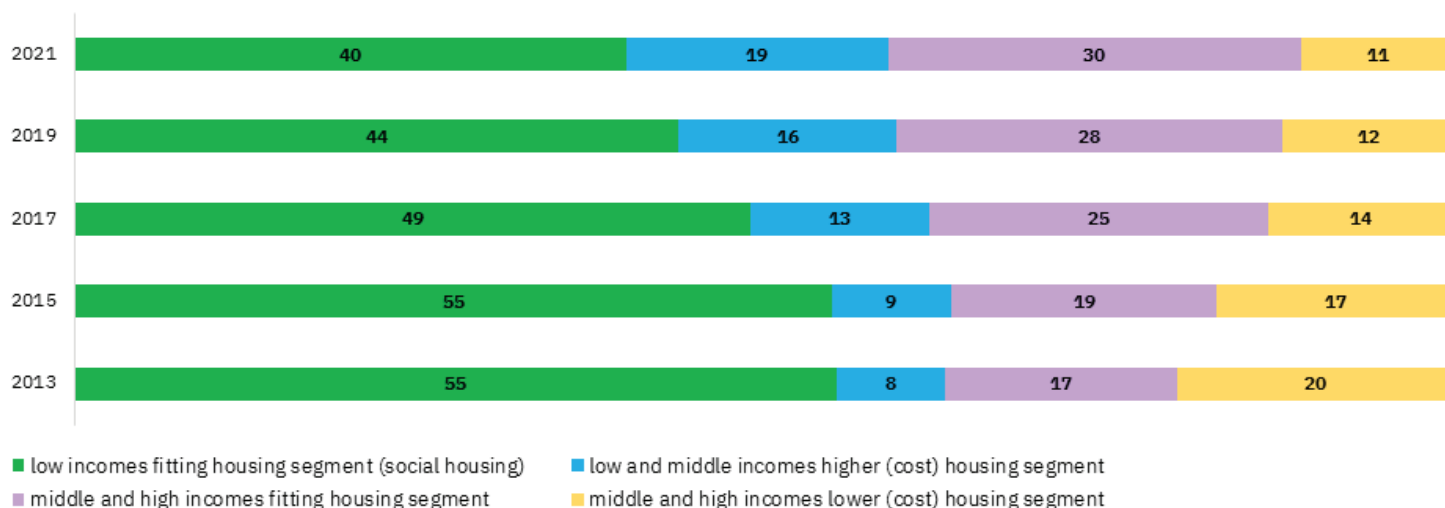## Division of income groups over housing segments

The indicator is based on the Living in Amsterdam survey. Household incomes are classified as low, middle or high. The income cutoff point for low incomes is €44,655 (price level 2021) and €62,237 for middle incomes. Low-income households reside in an appropriate housing segment if they rent a house with a monthly rent of €752 (2021) or lower. Low-income households are considered as living in a over-high price bracket if their monthly rent exceeds €752. Applying this standard we find that in 2021 40% of households in Amsterdam live in a house that fits their income level, however, nearly 20% of households have low or mid-range incomes and live in housing that fits a higher income group. On the other hand, over 10% of households have a mid-range or high income and live – compared to their income – in a low price segment. The part of the low and mid-range income households located in higher cost housing segments more than doubled from 9% in 2015 to 19% in 2021.

Advantages: The indicator matches income groups and price segments and provides facts for the debate on 'just allocation' and 'skewed tenants'.

Disadvantages: The indicator applies the government threshold on social housing and does not take into account absolute affordability at the level of individual households.

Match between income and housing segment

Source: Wonen in Amsterdam 2013-2021, Housing Department, City of Amsterdam

	low incomes fitting housing segment (social housing)	low and middle incomes higher (cost) housing segment
2021	40	19	30	11
2019	44	16	28	12
2017	49	13	25	14
2015	55	9	19	17
2013	55	8	17	20

■ low incomes fitting housing segment (social housing)
■ low and middle incomes higher (cost) housing segment
■ middle and high incomes fitting housing segment
■ middle and high incomes lower (cost) housing segment

Housing expense ratio to housing sector

This indicator is also based on the Living in Amsterdam survey. It describes the ratio of mortgage costs vs. income, and rent vs. income. In 2021 more than 40% of owner-occupiers spent less than 15% of their household income on mortgage costs. Nearly 90% of owner-occupiers pay less than 30% of their household income on the mortgage. In the rental sectors for both public-sector and private rental, however, the distribution is different. Housing costs of a large percentage of tenants are between 20 and 35% of their household income. Significantly, nearly 25% of tenants in the private sector spend over 40% of their income on rent.

In the city centre and in parts of southern Amsterdam many households (> 30%) have a high housing expense ratio. These areas also have a relatively large private rental stock.

Advantage: The indicator helps describe the relative affordability of different segments of the Amsterdam housing market, as well as the geographical spread of relatively high-cost housing.

Disadvantage: The indicator does not describe absolute affordability and cannot be used to signal the (potential) financial problems that households may have.

Housing expense ratio

Source: Wonen in Amsterdam 2021, Housing Department, City of Amsterdam
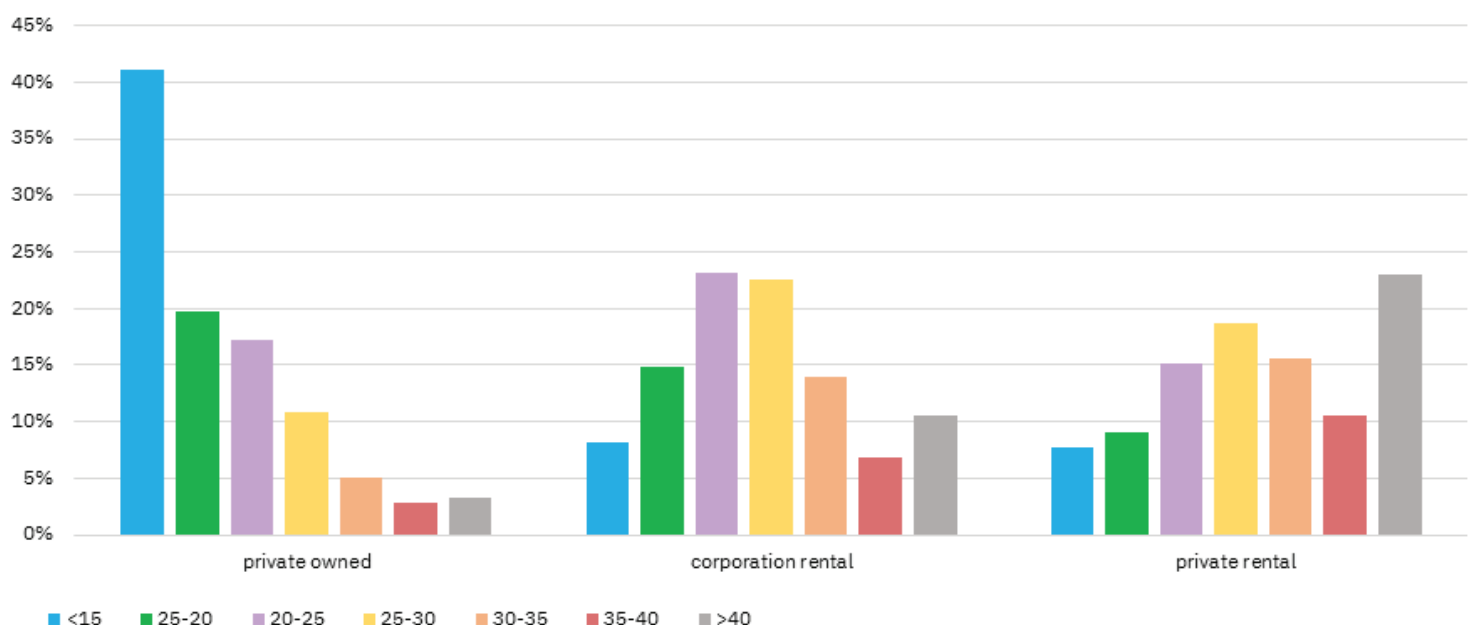
Satisfaction rate of household housing expenditure

Like the first two indicators, this third indicator is based on the Living in Amsterdam survey and is based on a question about the level of satisfaction regarding the affordability of housing (score: 1 to 10). It shows that most neighbourhoods with households with a low affordability score are located in the north, south-east and west (so called Nieuw-West) of Amsterdam. These areas do not stand out on the housing expense ratio (indicator 2) but are areas dominated by social housing and lower income groups, a part of which have financial problems.

Advantages: The indicator describes the personal experience of housing poverty. In combination with financial concerns (rent income ratio), it provides extra insights into affordability, poverty and inequality.

Disadvantages: the design of the Living in Amsterdam survey does not identify specific households with financial problems.

Average satisfaction rate on affordability (1-10)

Source: Wonen in Amsterdam 2013-2021, Housing Department, City of Amsterdam

Affordability score 2021
- 6-6,5
- 6,5-7
- 7-7,5
- 7,5-8
- 8 and higher
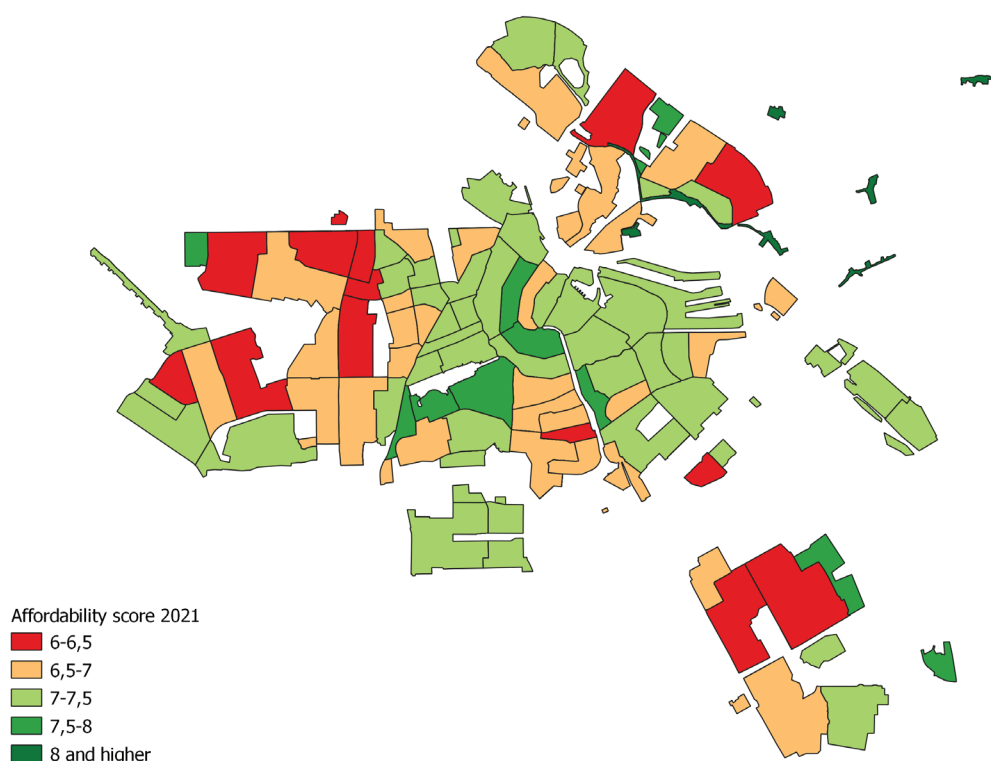
Osservatorio Casa Abbordabile (OCA) di Milano Metropolitana

Milan, Italy

Massimo Bricocoli and Marco Peverini

https://oca.milano.it/

OCA was founded in 2022 at the Department of Architecture and Urban Studies (Politecnico di Milano) in partnership with two main actors in the housing cooperative Lavoratori movement in Milano, Consorzio Cooperative Lavoratori and Cooperativa Delta Ecopolis. OCA aims to qualify public debate by monitoring housing affordability dynamics and access to housing by:

- Collecting and analysing quantitative data (profiles and distribution of housing costs and incomes)

- Qualitative research (tracing, describing and narrating the consequences of housing costs on individuals, communities and territories in the Milan Metropolitan Region)

OCA has provided data and given interviews to the media (newspapers, radio, television). A research report, published in Italian in November 2023, is available for download on the OCA website (oca.milano.it).

Divergence of housing prices, rents, incomes and wages

In Milan, the average annual rent recorded by the OMI (Real Estate Market Observatory) and the Italian Revenue Agency has grown from 129.60 €/m2 in 2015 to 158.40 €/m2 in 2021 (+22%). With regard to purchases and sales, the price per square metre grew on average by 40.7% between 2015 and 2021, with a significant increase in prices in neighbourhoods regarded as cheaper up to 2014.

House prices are growing three times faster than incomes and wages, and rents almost twice as fast. But if we look at the stagnant wages of the lower-middle categories – in the official classification referred to as 'blue collar workers' (average €1,410 gross monthly wage) and 'white collar workers' (average 2,435€) who together account for 61% of Milanese workers – purchase prices are growing 13.6 times faster than the wages of 'blue collar workers' and 5.8 times faster than those of 'white collar workers'; rents are growing 7.3 and 3.1 times faster than the average wages of these two categories, respectively.

Trend of housing prices, rents and average income. Milan. 2015-2021

Source: Osservatorio Casa Abbordabile (OCA) di Milano Metropolitana
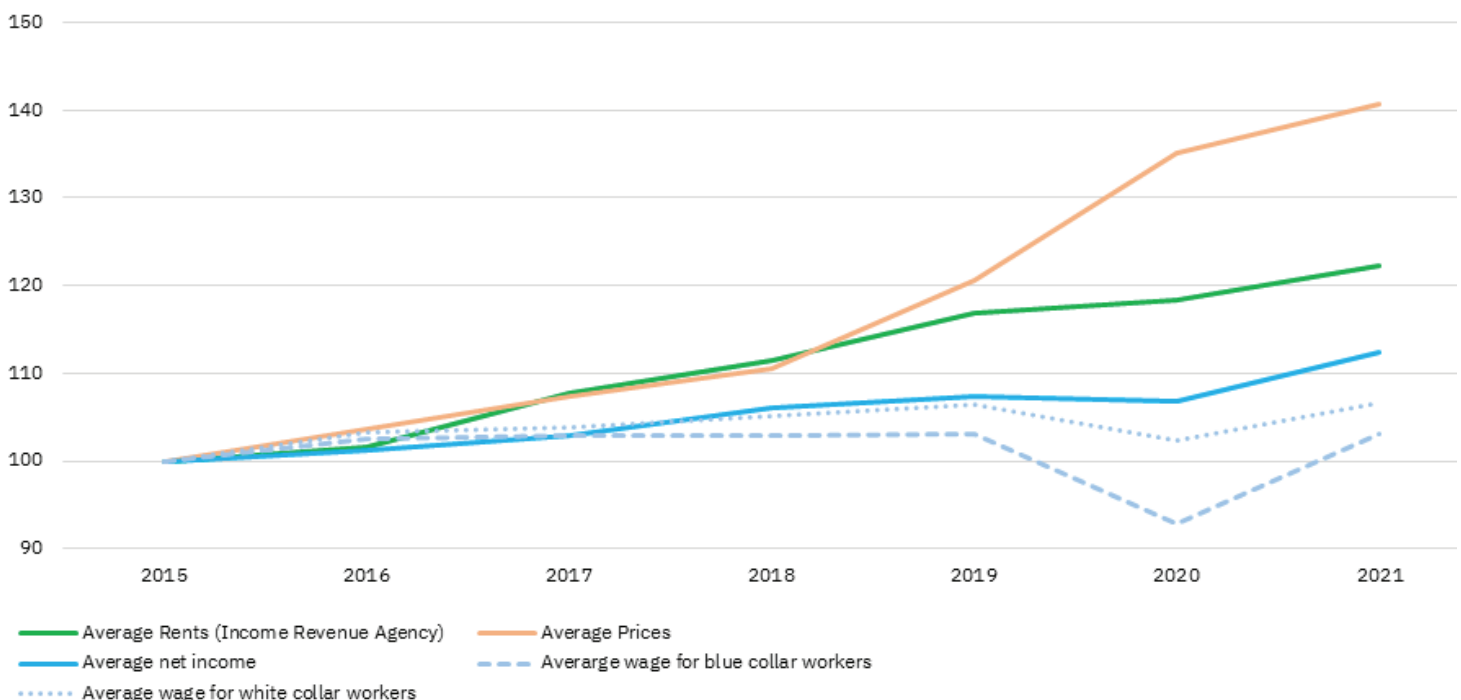
The average rent price per square meter is calculated by comparing different segments of the rental market.
The calculation of the average income is based on declared income after tax.

Advantages: it can be used to compare rents (per square meter instead of per dwelling) and to provide a simple measure of the divergence in trends between rents and incomes.

Disadvantages: methodological issues when determining true rent levels from official registries and portals that tend to under- and overestimate rents, respectively; growth in incomes is polarised.

Affordable residential surface index (A.R.S.I.) for selected working categories (per city ring)

The index looks at how the wage of each working category gives theoretical access to a certain 'quantity' of housing (i.e. residential surface) via a mortgage (20 years, 80% LTV, 3.5% interest rate) or a rental contract without overburdening. Using

Affordable residential surface index. Milan
Source: Osservatorio Casa Abbordabile (OCA) di Milano Metropolitana

Working category	How many square metres are affordable* for purchase on the average salary of…?			How many square metres are affordable** to rent on the average salary of…?		
	Historical centre	**Semi-centre**	**Rest of city**	**Historical centre**	**Semi-centre**	**Rest of city**
Blue collar	12	17	30	16	23	41
White collar	16	23	40	21	31	54
Middle manager	30	43	75	40	59	102
Manager	64	93	161	87	126	218
Nurse	13	19	32	17	25	44
Young doctor (residency)	14	20	35	19	28	48
Ph.D. candidate	10	15	25	14	20	34
Research fellow	12	17	30	16	23	41
Assistant professor	18	26	45	24	35	61
Associate professor	22	32	56	30	44	75

* A maximum instalment of 30% of net salary (community expenses and taxes are not counted) is considered affordable assuming a 20-year mortgage, 3.5% interest rate and 80% coverage of the value.
** A maximum rent of 30% of net salary (community expenses and taxes not included) is considered affordable. OMI values are considered

a single wage for calculations is coherent with the facts as nowadays around 50% of households in Milan are single-wage households; newcomers to the market have to pay even higher percentages.

We calculate the index of affordable residential surface area for sale-purchase and rent in three concentric rings that lie – albeit greatly simplified – around the centre of the territory: centre, semi-centre and rest of the city (identified in relation to the OMI zones). It can be seen that the average worker in the 'blue collar' category (with a gross average annual salary of €16,919) has an A.R.S.I. of 12 m2 in the historic central districts, 17 m2 in the semi-central districts, and 30 m2 in the rest of the city. The average office worker (average gross annual salary of €29,219), on the other hand, has an A.R.S.I. of 16 m2 in the historic central districts, 23 m2 in the semi-central districts and 40 m2 in the rest of the city. This means that, even in peripheral areas, the residential market has become unable to offer adequate housing for most wage-earners.

Advantages: it brings the polarisation of incomes and salaries into the debate regarding the housing market.

Disadvantages: household income is more important for housing costs (but in Milan 50% are single-person households); wealth is not included in the analysis; an unknown amount of housing costs are hidden.

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ECHR is a German urban research and consultancy firm established in 2004. It specialises in urban planning and development, housing analysis/monitoring/policy/strategies and participatory planning processes. The company works worldwide, exclusively on request. Its founder has 30 years of experience in housing policy and housing market analysis/monitoring and has worked for many national and international organisations worldwide in countries such as Cambodia, El Salvador, Ghana and South Africa.

The company's main objective is to improve the lives of vulnerable groups through the active involvement of all relevant stakeholders, including residents. Accordingly, the company sees itself as a mediator between actors ranging from 'barefoot' planners to the institutionalised planning system. In addition, the company also takes on academic teaching assignments around the world. It is organised in several international professional organisations such as ENHR, IPSA, AECR, etc.

Housing in times of need - A look at housing affordability

This paper examines housing affordability in the German state of North Rhine-Westphalia using the two indicators, the 'rental cost burden ratio' and 'housing affordability'. New framework conditions such as the COVID-19 pandemic, the war in Ukraine, and increases in interest rates in response to rising inflation – while rents and property prices remain very high – have all had a significant impact on housing affordability. At the same time, demand for affordable housing is becoming increasingly competitive. The stock of publicly subsidised housing is shrinking annually, while international migration has increased significantly in 2022 and 2023, partly as a result of the war in Ukraine.

This article first gives a very brief overview of the development of the above indicators, then classifies them and provides an outlook on the consequences of the findings.
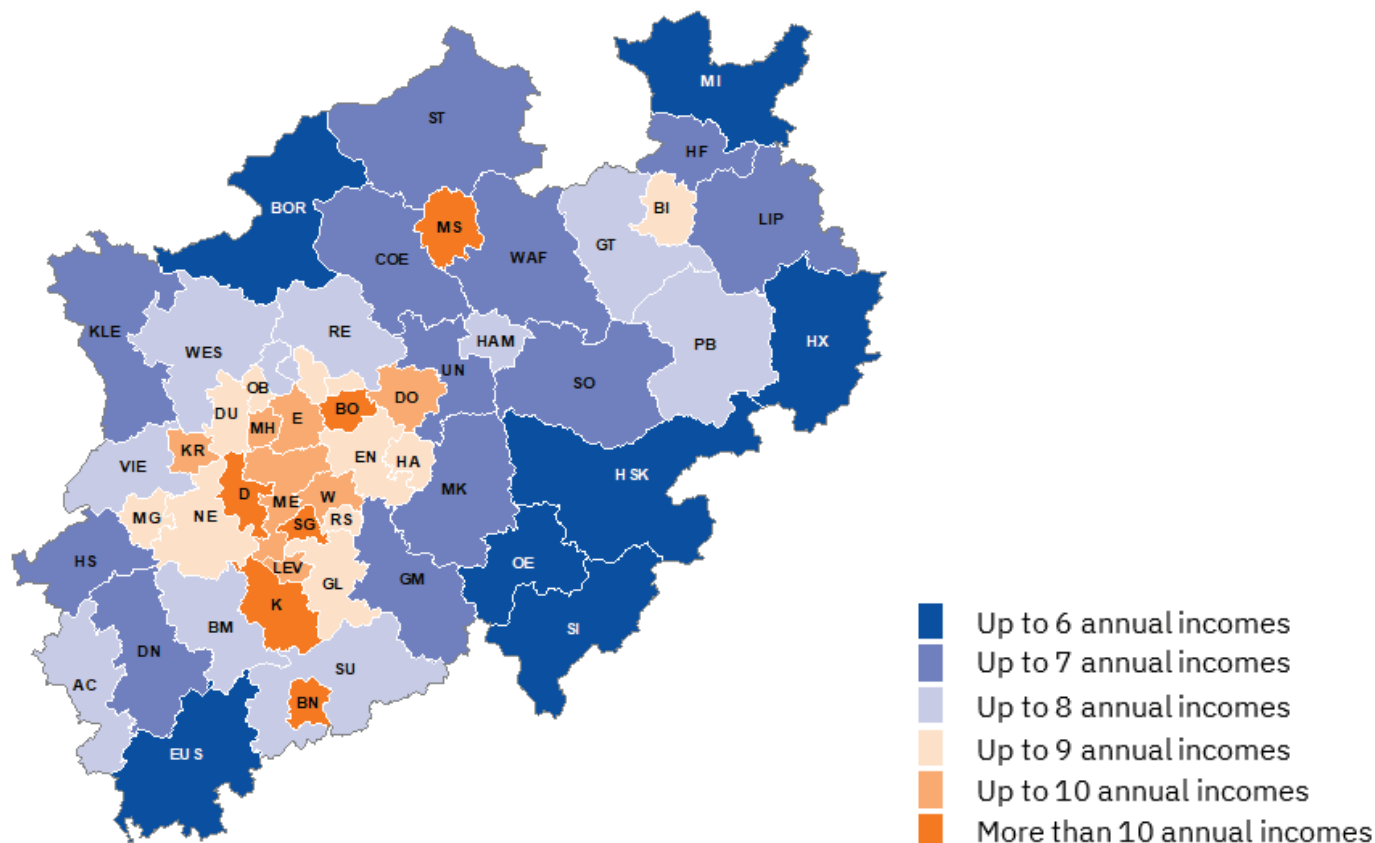
Housing rental cost burden

The rental cost burden is the most commonly used indicator to illustrate the financial impact of housing on households. In North Rhine-Westphalia, the official figures are published by the statistical office, IT.NRW, and are derived from the annual micro-census of a 1% sample of all households. However, all figures are based on self-reporting by the respondents, which is where the first margin of error lies. Although the micro-census asks about gross rent (which includes all service charges except heating and hot water), most respondents report what they pay for their dwelling each month, which does not always include the components of gross rent or sometimes under- or overestimates them. However, service charges, particularly for gas and electricity, have risen significantly for many households since mid-2002, adding significantly to the overall rental cost burden. Nevertheless, the average official rental cost burden for households in 2020 is still below 30% in most municipalities, the figure that is considered to be the threshold for overburdening.

A specific housing survey is only included in the annual micro-census every four years and so there is a considerable time lag in the data. Furthermore, due to methodological changes, the results for the years since 2020 are only comparable to a very limited extent with those from previous years.

The advantages of the rental cost burden indicator are clear: it is a relatively simple indicator but gives a 'big picture' of the situation and is, perhaps most importantly, regarded as 'official data'. However, it also has significant disadvantages: it does not generate up-to-date data, provides only averages and is based on a relatively small database (especially in smaller municipalities).

Rental cost burden. North Rhine-Westphalia. 2020
Source: IT.NRW Mikrozensus 2020

Rental cost burden (%)

- <25,0
- <26,0
- <27,0
- <28,0
- <29,0
- <30,0
- <31,0
- <40,0

Affordability of owner-occupied housing

A second indicator is that of the affordability of owner-occupied housing. This is measured by the annual net disposable household income required to purchase an existing one- or two-family dwelling. The advantage of this indicator is that it can potentially be adjusted to new market conditions (e.g. changes in interest rates, inflation/wage increases, average equity capitalization and increases in transaction costs). Market prices for existing properties are very up-to-date and available for almost any area of interest. The disadvantage of this indicator is that it is only available as an average for whole cities or districts. In addition, household income data lag by at least two years and are only available for whole cities and districts. Data on house prices usually have to be purchased, which can be an obstacle for the use of the indicator. Overall, this indicator is of interest for cross-municipal comparisons but less so for policy making.

Affordability of Home Ownership. North Rhine-Westphalia. 2020

Source: empirica price database (basis: VALUE market data)

Legend:
- Up to 6 annual incomes
- Up to 7 annual incomes
- Up to 8 annual incomes
- Up to 9 annual incomes
- Up to 10 annual incomes
- More than 10 annual incomes

Conclusion

In general, the changes in market conditions over the past two years such as the turnaround in interest rates, inflation and changes in demand are not yet reflected in the available official data. Few more up-to-date data exist, as all contain a component of outdated data such as figures on household income. In addition, the definition of 'affordability' varies widely. Scientific studies are needed to determine the affordability of housing (e.g. for individual cities and regions with different framework conditions).

Luxembourg Institute of Socio-Economic Research (LISER)

Luxembourg

Kristell Leduc, Nathalie Lorentz, Patrick Bousch and Eugenio Peluso

www.logement.public.lu/fr/observatoire-habitat

In 2003, the Housing Observatory was established within the Department of Housing of the Ministry of Middle Classes, Tourism and Housing. Its primary objective is to provide essential information to help guide housing policy and inform the public on housing-related matters in Luxembourg. Since its founding, the Housing Observatory has been put in charge of several tasks including data collection, monitoring, analysis and the dissemination of information related to housing, and also provides support for the development of housing policy. For example, in 2023, two laws on housing subsidies and affordable housing were enacted with inputs from the Housing Observatory.

LISER (Luxembourg Institute of Socio-Economic Research) is a key partner of the Ministry of Housing in fulfilling the missions of the Housing Observatory. This public research institute is dedicated to both fundamental and applied research in the social sciences, and has been entrusted with the mission to enhance knowledge, provide insights for public authorities and socio-economic actors, and inform key stakeholders and the wider public.

More specifically, the Housing Observatory monitors real-estate prices, rents and land costs, while also examining land developments in Luxembourg. This includes surveying the land available for housing construction, studying the ownership of residential land and analysing housing production trends.

Additionally, the Observatory monitors socio-economic aspects of housing by assessing the financial accessibility of housing using various indicators such as the affordability ratio and the cumulative deprivation index. It also evaluates the impact of public policies on housing costs.

The most recent publications of the Housing Observatory cover a range of subjects including the non-take-up of housing allowances (Górczyńska-Angiulli, 2023), the cumulative housing deprivation index (Leduc, Lorentz, 2023), the affordability ratio (Leduc et al., 2021), furnished room rentals (Licheron, 2023) and the impact of housing-related subsidies and fiscal policies on household income (Vergnat, 2022).

Net Housing Affordability Ratio (NHAR)

The NHAR is an indicator that highlights the ability of households to access and maintain themselves in housing. It measures the ratio between housing costs, which include mortgage payments, rents and typical household operational expenditures such as electricity and heating, and the household's disposable income (EUROSTAT definition). The latter is defined as the financial resources available for household consumption and savings, i.e. after taxes and social security contributions. An examination of this indicator offers valuable insights into fluctuations in housing costs.

The NHAR offers several significant features that make it a valuable tool for governments, researchers and policymakers. It serves first of all as a basis for housing affordability policies

Evolution of the average net housing affordability ratio of households by tenure status and equivalised disposable income. 2016–2019

Source: EU-SILC, 2016-2019, transversal data, version of March 2021 for Luxembourg
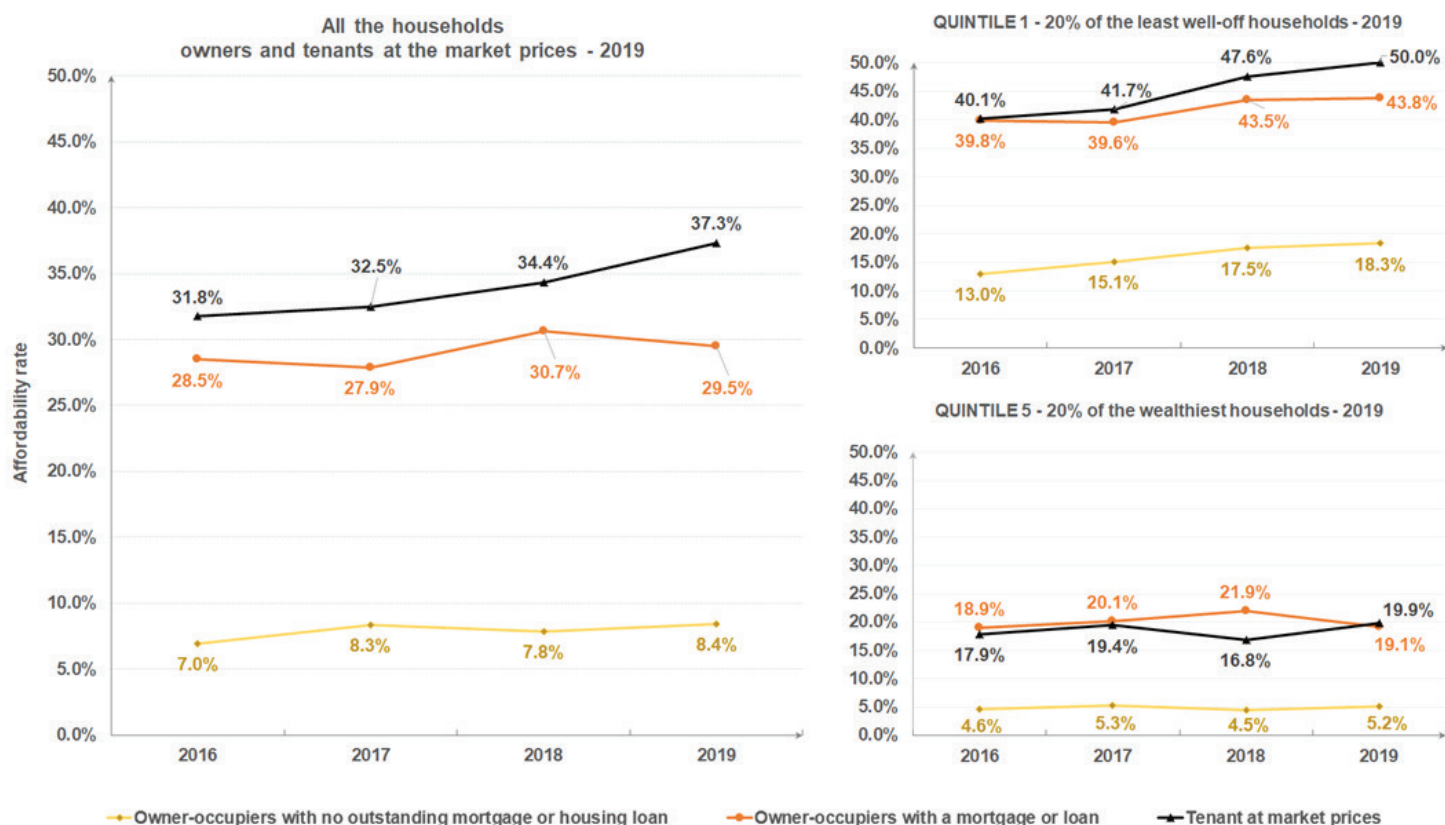
All private households and their current members residing in Luxembourg at the time of the data collection, except tenants renting at a reduced price or for free.

and legislation, which allows governments to take informed decisions and implement measures for addressing housing cost issues effectively. A tangible example of this impact is evident in two new laws on affordable housing and housing subsidies proposed by the Luxembourg Ministry of Housing in 2022 and subsequently ratified in August 2023*. These legislative advances were significantly influenced by the research and findings presented in the publications of the Housing Observatory concerning the NHAR. Moreover, this ratio can also be broken down by various household characteristics such as income levels, family composition or seniority in tenure status, thereby providing a detailed view of how different demographics are affected by housing costs. It also provides a methodology for addressing specific issues such as energy poverty. Finally, use of this indicator allows for comparisons between different European countries especially wherever the underlying data comes from the same source (EU-SILC).

Nonetheless, it is essential to acknowledge that this indicator has its limitations. Firstly, it simplifies complex housing affordability issues into a single numerical value, thereby potentially overlooking nuanced factors that affect individual households. Furthermore, the NHAR does not consider the quality or condition of the housing unit, which is a vital aspect of overall affordability. A low-cost dwelling may be affordable but it could lack essential amenities or be in poor condition. Finally, it is difficult to establish long time series of reliable data due to the number of breaks that have occurred, especially over the last couple of years as a result of the pandemic.

The analysis of the affordability ratio for households residing in Luxembourg by tenure status** shows that owner-occupier households with no outstanding mortgage or housing loan (33% of all the households) have the lowest affordability ratio (under 10%) as their housing costs are limited to normal

*Law of August 7, 2023 on affordable housing and Law of August 7, 2023 on individual housing subsidies.
**Other studies of this ratio have been done on family composition (Leduc, K., Paccoud, A., & Lorentz, N. (2022, Oct 7). Évolution du taux d'effort des ménages résidant au Luxembourg selon leur composition familiale entre 2016 et 2019. Ministère du Logement - Observatoire de l'Habitat and seniority in the tenure status (Affordability ratio (%) of resident households by seniority in their tenure status (2016 – 2019)

household running costs. Owner-occupiers with a mortgage or loan and tenants in the private rental sector (around 60% of all the households) were the two groups of households with the highest affordability ratios during the study period. Nevertheless, private tenants have seen a large rise in their affordability ratios (from 30% in 2016 to 37.3% in 2019), while those of owners with a mortgage have remained stable.

After refining the analysis, it becomes clear that the proportion of households whose affordability ratio exceeds 40% increased more quickly for private tenants than for households with a mortgage or loan. In total, 34.5% of tenant households spent more than 40% of their income on housing in 2019 (24.0% for owner-occupiers with mortgages or loans), while this figure was about 25% in 2016 (21.3% for owner-occupiers with mortgages or loans). The stability in the affordability ratio experienced by home-buyers can be explained by the regulation of mortgage lending, as well the low interest rates that were preponderant in this period. While rents are also regulated, landlords have in all likelihood adjusted rents to reflect market values given the increase in property prices in recent years. Tenant incomes have increased less quickly than those of owners with mortgages or loans and more slowly than property prices. This explains why more and more tenants are spending a significant proportion of their budget on housing.

The studies conducted also suggest that the most economically disadvantaged households, particularly those who are private tenants, are disproportionately affected by housing affordability issues. When comparing the 20% of households with the lowest equivalised disposable income to the 20% with the highest equivalised disposable income, a significant disparity in affordability ratios appears. Indeed, lower-income private tenants have affordability ratios that are 2–3 times higher than their wealthier counterparts.

Two main observations emerge from the study of NHAR by quintile of equivalised disposable income:

- as the equivalised disposable income of households increases, the percentage of their budget allocated to housing costs (including mortgage or rent payments and household expenses) decreases, regardless of whether they

are homeowners or tenants;

- the increase in housing affordability ratios is more pronounced among lower-income households and is gradually less visible as equivalised disposable income rises. This means that the least well-off tenant households experience the greatest increase in the proportion of their income spent on housing costs. One of the reasons behind this sustained growth among the least well-off households is that, although housing costs have risen fairly uniformly across all households, the income of these lower-income households has increased at a slower pace compared to their wealthier counterparts. This income disparity directly influences changes in affordability ratios.

Cumulative Housing Deprivation (CHD)

The aim of the Cumulative Housing Deprivation (CHD) is to measure and assess the extent of housing deprivation within a population. This multidimensional approach to housing

Share of private households residing by combination of housing-related problems and tenure status. Luxemburg. 2019

Source: EU-SILC 2019
Scope: private households residing in Luxembourg at the time of collection
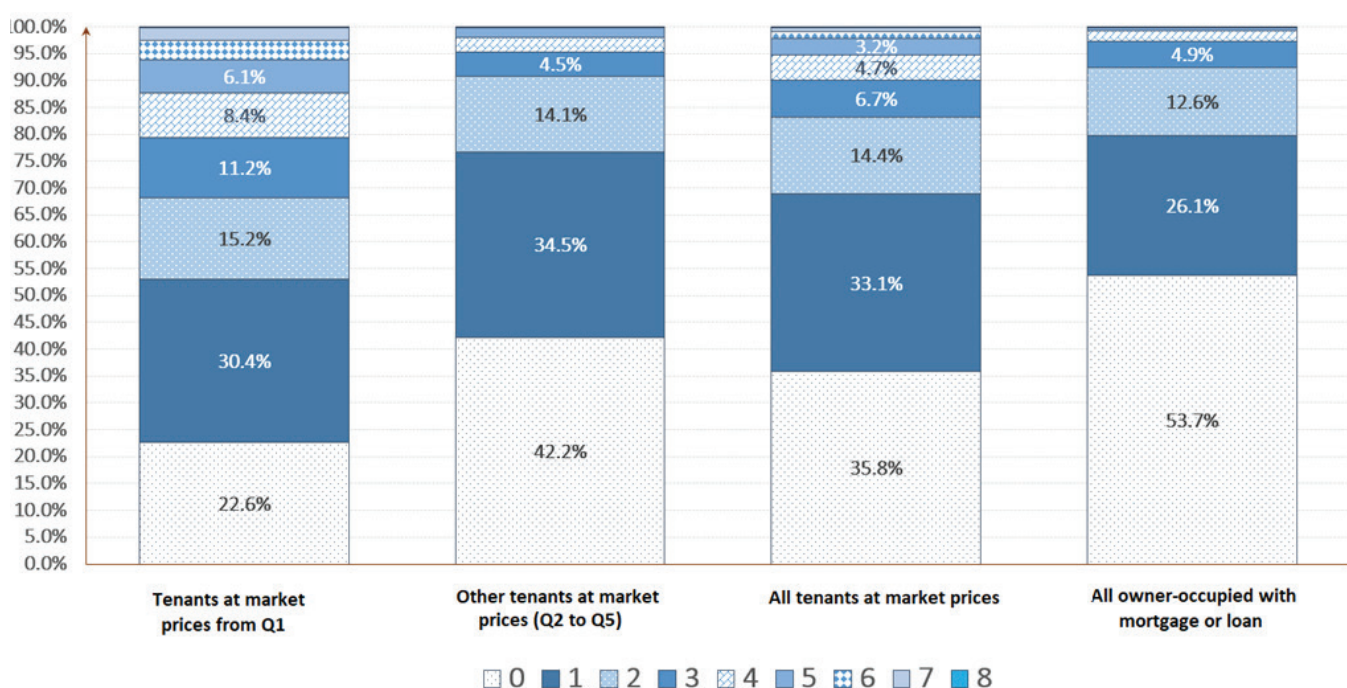
conditions therefore complements the NHAR, which focuses on the financial side. It allows for a better understanding of the housing conditions of the least well-off in a holistic rather than unidimensional way. Moreover, this methodology can provide a synthetic assessment of both the incidence and severity of housing deprivation across the population (see Aaberge, Peluso, Sigstad, 2019 for further details).

Creating and using a CHD index confers several advantages –– exactly which will depend on various factors including the specific context in which the index is used, the quality of the available data and the methodology used. In the case of Luxembourg, the CHD approach provides a comprehensive assessment of housing deprivation by considering several indicators, thereby providing a good overview of housing conditions. The use of the EU-SILC survey also allows comparisons to be made between different regions and countries, which enables us to assess disparities and learn from successful housing policies elsewhere. As EU-SILC is an annual survey, it is possible to track changes over time, evaluate the impact of policies and interventions and identify trends in housing deprivation. Finally, it provides policy-makers and stakeholders with a quantifiable measure of housing deprivation and thus helps direct interventions towards the areas and populations that most need them. However, there are some limitations to this approach since it may not capture qualitative aspects of housing deprivation such as the experiences of individuals and families living in inadequate housing. Other limitations of this analysis include the use of inaccurate or incomplete data, which can lead to misleading results. In addition, the declarative nature of the EU-SILC housing questionnaires means that they rely on household self-assessment without the possibility of objective verification. As a result, answers may appear subjective given that it is not always possible to determine objectively whether a dwelling is insufficiently heated or whether a neighbourhood is particularly noisy. In addition, the CHD measure used here does not cover all aspects of housing deprivation and disregards important factors such as access to the transport network.

To create a CHD index according to equivalised disposable income quintiles, various housing-related indicators were

selected, weighted and aggregated into a binary numerical value. Many versions of this indicator are possible, but the indicator described here includes 12 items available in the EU_SILC on dwelling conditions. These are classified into 3 groups:

1. Linked to the dwelling itself:

- Living in an overcrowded dwelling
- Experiencing leaking roof, damp walls/floors/foundations, or rot in window frames or flooring
- Inability to keep home adequately warm
- No bath or shower in the dwelling
- Households lacking an indoor flushing toilet for sole use
- Living in a dwelling that is too dark, without enough light

2. Linked to the neighbourhood:

- Living in a dwelling in which you are disturbed by noise from neighbours or from the street
- Living in an area with pollution, grime or other environmental problems
- Living in an area with crime, violence or vandalism

3. Linked to financial issues concerning the dwelling:

- Experiencing arrears on mortgage or rental payments
- Experiencing arrears on utility bills
- Cannot afford to replace worn-out furniture

In 2019, almost 36% of private rental tenant households and 54% of owner-occupier households with a mortgage claimed not to be experiencing any difficulties with their housing. The least-well off tenants are, however, under-represented here, with only 22.6% claiming to be in this situation, in contrast to the rest of the tenants (42.2%). When households declare that they are suffering from at least one housing-related difficulty, almost a third of tenants in the first quintile declare that they only experience one difficulty (30.4%; see Table 3), while 47.1% experience at least two: 15.2% declare two difficulties, a third (31.8%) at least three, and 12.2% have at least five. In

comparison, wealthier private sector tenants and homeowners with mortgages are half as likely to have at least two housing problems: 23.3 and 20.4%, respectively. Moreover, less than 10% of these two groups face at least three housing-related problems at any one time.

Among the housing-related difficulties identified, some are more frequently mentioned than others and vary according to household group. For example, of all problems, the two that appear most often when households encounter only one difficulty are the inability to replace worn-out furniture (43.9%) and overcrowding (29.4%) for the least well-off tenants, and neighbourhood noise (19.7%) and overcrowding (18.6%) for the other tenants. For homeowners with a mortgage, neighbourhood noise (22.8%) and leaks in the dwelling (19.7%) are the commonest complaints.

When households are faced with two problems simultaneously, the most frequent combinations of difficulties also differ from one household type to another. Thus, for the least well-off tenants, the most frequent combinations are:

- overcrowding and the inability to replace worn-out furniture (27.9%);
- leaking roofs or damp and the inability to replace worn-out furniture (18%);
- noise and location in a polluted, dirty neighbourhood or one with other environmental problems (10.6%).

Other tenants, for their part, are more affected by:

- noise and pollution (or other environmental problems) in their neighbourhood (16.3%);
- neighbourhood noise and violence (8.1%);
- overcrowding and violence in the neighbourhood (7.6%).

Finally, homeowners with mortgages seem to suffer more frequently from the following combinations:

- neighbourhood noise and pollution (or other environmental problems) (21.8%);
- leaking roofs, dampness and violence (11.8%);

- neighbourhood noise and violence (8.3%).

For those facing three difficulties at the same time, the commonest combination of two problems relate to the neighbourhood environment and a housing condition problem, or a combination of all three types of difficulties (condition, environment and financial arrears). For example, the least affluent tenants most frequently mention problems of overcrowding associated with neighbourhood noise and violence (12.0%), while other tenants cite problems of leaks in the structure of the dwelling, pollution and difficulties replacing worn-out furniture (14.2%). Homeowners with mortgages more frequently cite a combination of three problems related to the neighbourhood environment (noise, pollution and violence: 24.7%).

Overall, the analysis of the situation using the NHAR and CHD metrics shows that price increases have had a significant impact on the conditions of the least well-off private rented households (belonging to the first quintile of equivalised disposable income), for whom housing costs represent on average half of their disposable income in 2019. Moreover, looking at the characteristics of their dwellings, this vulnerable population is also the one most likely to experience and accumulate a range of housing, neighbourhood and financial difficulties. It therefore appears that the financial pressures caused by housing and its costs exacerbate the problems of the most vulnerable households.

The data used in this publication is from EU-SILC 2019. However, the economic and social context has changed significantly since 2019, notably due to the COVID-19 pandemic, the conflict in Ukraine and rising inflation. Vulnerable households have been particularly affected by the economic and social consequences of these events that include job losses, financial instability and price increases. As a result, meeting rent or mortgage payments has become more challenging, especially for disadvantaged households. Simultaneously, inflation has caused the expenses related to housing to rise (specifically, energy expenses) and rents for

new leases have increased significantly since the beginning of 2022 in Luxembourg. Should these patterns persist, there is a possibility that these households will be unable to cater for their basic needs, primarily in relation to housing affordability. The forthcoming 2022 EU-SILC data will offer an improved insight into the living arrangements of vulnerable households.

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ETH Wohnforum – ETH Centre for Research on Architecture, Society and the Built Environment

Zurich, Switzerland

Jennifer Duyne Barenstein

www.wohnforum.arch.ethz.ch/eth-wohnforum

The ETH Centre for Research for Architecture Society and the Built Environment (ETH CASE) was founded within the Department of Architecture of ETH Zurich in 1990.

ETH CASE conducts research on socioeconomically, demographically, culturally, environmentally and politically relevant questions related to housing. Our research projects focus on four main domains: (1) urban and housing policy analysis; (2) socio-demographic transformations and their impact on housing markets; (3) housing cooperatives' role in the provision of socially innovative, affordable and inclusive housing; and (4) housing quality analysis from an architectural, infrastructural, sociocultural and environmental perspective. ETH CASE pursues inter- and transdisciplinary research approaches in collaboration with public institutions such as the Federal Offices of Housing, municipal governments, civil society organizations, housing cooperatives, foundations and academic institutions in Switzerland, Europe and the Global South. Our research projects are supported by the Swiss National Science Foundation (SNSF), the EU Commission, the Swiss Network for International Studies (SNIS), Innosuisse, the public sector and private foundations.

The ETH CASE is currently directed by a board including Prof. Dr. Elli Mosayebi, Prof. Maria Conen and Dr. Jennifer Duyne Barenstein, who also acts as its Executive Director.

We present here the indicators that we used within the framework of a research project aimed at assessing the affordability and accessibility of housing cooperatives in comparison to the housing provided by the private rental market*.

In Switzerland the amount of public social housing is marginal and housing cooperatives are the most relevant providers of non-profit, affordable and non-commodifiable housing. To benefit from public support in the form of land and/or subsidized loans, housing cooperatives have to subscribe the Charter for non-profit housing. The private sector and liberal political parties regularly question public support for housing cooperatives by arguing that the provision of housing should be left to the private market. Within the framework of the current housing affordability crisis, our research project How affordable and accessible are housing cooperatives in Switzerland? Insights and reflections on Swiss housing policies and outcomes aimed to analyse the viability and effectiveness of housing cooperatives in the provision of affordable, dignified and inclusive housing. We present below the indicators we selected to assess the affordability of cooperative housing and the socioeconomic profile of their inhabitants.

Affordability Indicators

Based on an analysis of statistical data provided by the city of Zurich and the Swiss Association of Housing Cooperatives, we assessed housing affordability issues in the canton of Zurich by focusing on three indicators:

1.We compared the **average monthly** rent for a 3–3.5 room apartment owned by a non-profit housing cooperative with the rent of a comparable apartment provided by the private for-profit sector. We found that the average monthly rent in a housing cooperative for such an apartment was CHF 1324 as opposed to the CHF 2063 in the private rental market. This shows that rents in housing cooperatives are currently on average 35.8% lower than in the private rental housing market.

For further details see: Duyne Barenstein, J. & P. Koch. 2022. How accessible and affordable are Swiss housing cooperatives? Insights and reflections on housing policies and outcomes in Switzerland. Zurich ETH CASE Working Paper.

Indeed, according to official sources, monthly rents in housing cooperatives are 25–38% lower than in the private sector.

2. We analysed the **stability of housing costs** over time by analysing rent increases over a period of 20 years. We found that between 2000 and 2020 rents in the private rental market increased by 25–38% as opposed to 11–19% in housing cooperatives.

3. Finally, we compared **tenants' opinion** about the adequacy of their rent in relation to their household budget. Our findings showed that 74% of the households living in housing cooperatives consider their rent to be adequate as opposed to 53% in the private rental market, who consider their rents to be excessive.

Accessibility indicators

Conservative and liberal actors that are critical of public support for housing cooperatives often argue that they primarily benefit the middle and upper-middle classes, i.e. people who could afford housing provided by the private rental market. To find out whether such criticisms are justified, we analysed the socioeconomic profile of inhabitants of cooperative housing by focusing on the following indicators: **median household income, household type** and **nationality,** and compared them with the inhabitants of the private rental market and those of public housing owned and managed by the city of Zurich.

A comparative analysis of the socioeconomic profile of housing cooperatives' inhabitants with tenants in the private sector showed that housing cooperatives do primarily provide affordable housing for lower-income households, families with children and single parent households, for example, that are

Socioeconomic profile of housing cooperative inhabitants

Source: ETH Wohnforum

Indicator	Housing cooperatives	Private rental market	Public housing (city of Zurich)
Median HH	CHF 58,000	CHF 76,000	CHF 41,000
Income > CHF 40,000	29%	21%	48%
HH income < CHF 150,000	5%	18%	3%
Single parent HH	8%	3%	10%
HH with children	25%	15%	22%
HH with Swiss citizenship	80%	36%	32%

at a disadvantage in the currently very restrictive private rental market. However, non-Swiss citizens are under-represented in housing cooperatives, which indicates that social capital and knowledge about the Swiss housing system are required to access cooperative housing.

Discussion

Switzerland's major cities including Zurich, Geneva and Basel are currently undergoing a severe housing crisis. Housing affordability problems primarily affect low-income households, amongst whom 38% spend over 40% of their income on housing. There is increasing demand for more public support for non-profit housing cooperatives, which in Switzerland constitute the most important providers of non-commodifiable affordable housing. However, opponents to state intervention in the housing market challenge this demand by arguing that housing cooperatives do not reach out to those who really need it.

In this context, our study assessed the viability and effectiveness of housing cooperatives in the provision of affordable and inclusive housing. We selected a number of indicators that clearly show that apartments provided by housing cooperatives are significantly more affordable than those in the private rental market, that rents remain stable over time, and that a higher proportion of cooperative housing tenants consider their rents to be adequate.

With the aim of assessing the socioeconomic profile of housing cooperative vs. private sector tenants, we compared their median income, the percentage of lower vs. higher-income households, the type of households and their nationalities, which can be regarded as proxies of socioeconomic status. This comparative analysis demonstrated that housing cooperatives do indeed primarily provide affordable housing to lower-income households but that they are not sufficiently inclusive with regard to the integration of people with immigrant backgrounds. Furthermore, the study also revealed that housing cooperatives are not necessarily an alternative to public social housing. In fact, an analysis of the socioeconomic profile and migration background of tenants of public social housing showed that the public sector is more effective in reaching out to the most disadvantaged households.

Osservatorio del sistema abitativo - Emilia Romagna Region

Emilia Romagna, Italy

Marcello Capucci

https://territorio.regione.emilia-romagna.it/politiche-abitative

https://territorio.regione.emilia-romagna.it/osservatorio-delle-politiche-abitative

https://emiliaromagnainnodata.art-er.it/faber/

The region of Emilia-Romagna is located in central-northern Italy at the heart of the country's most industrialised area and is the sixth Italian region in terms of inhabitants (4,457,318) and surface area (22,452.78 km2). The territory of this region is dominated by the mountains of the Apennines that cross its western part and by the plain of the river Po to the north-east. It contains nine provinces and 330 municipalities, and the regional capital is Bologna. As in almost all the major towns of the region, Bologna is crossed diagonally by the Via Emilia, an old Roman consular road that has connected Rome to the heart of Europe for over 2,000 years. Emilia-Romagna lies in a privileged geographical position that makes it an ideal link between northern and southern Italy and between the Mediterranean Sea and northern Europe.

The Regional Housing Policies Area

The Housing Policies Area is part of the Government and Territorial Quality sector of the Emilia-Romagna Region. Its goals are:

- to identify the social and economic factors that cause housing distress;
- to provide solutions that can reduce housing deprivation through, for example, rental support programmes;
- to focus on housing services such as community management that can give local authorities a new creative role;
- to encourage urban regeneration in accordance with the goals of UN Agenda 2030;
- to increase the provision of housing for poor individuals and families by offering below-market rents and sale-purchase prices.

It is important to note that in Emilia-Romagna a number of different types of housing fragility occur, to which different responses are required that take into account households' economic, family and social situations:

- for those in situations of severe housing deprivation, municipalities provide emergency homes;
- a person in a condition of economic and housing hardship with a family income below about €17,500 can apply for social housing (ERP), which is assigned following a municipal ranking. The ERP rent is proportionate to households' economic situation. In Emilia Romagna in 2021 there were more than 56,000 public housing units hosting about 120,000 people. However, in the same year there were also about 26,000 households on the ERP waiting list, for whom it is not easy to provide a housing solution in the short term;
- families with specific requirements can apply for affordable social housing (ERS) with rents that are higher than in public-sector housing but lower than on the private housing market.

The Regional Observatory of the Housing System – ORSA and the FABER tool

The Regional Observatory of the Housing System (ORSA) was created as part of the Housing Policies Area in 2001 on the basis of previous monitoring activities dating back to 1997. ORSA is one of the longest-established such experiences in the field of regional housing observation in Italy. The main goals of the observatory are as follows:

- to analyse housing needs;
- to monitor and evaluate policies;
- to support and improve housing and welfare policies;
- to disseminate and promote reports related to these themes.

In 2022 Emilia-Romagna launched FABER, an instrument designed to increase available knowledge and help improve planning choices relating to housing, urban and welfare policies. It is an interactive, online, independently searchable dashboard consisting of:

- four thematic macro-topics
- about 35 indicators
- originating from five institutional sources

This instrument allows researchers to analyse the different components of housing conditions including demographic dynamics, social and income conditions, trends in the housing market, and housing supply from a historical and territorial point of view. It provides decision makers and stakeholders' with up-to-date data and indicators that are highly useful for estimating housing tensions.

The Index of Potential Housing Fragility

With the FABER dashboard it is possible to calculate the Index of Potential Housing Fragility, a composite index that can be calculated by summing a set of simple indicators:

- the average percentage of household income spent on rent for an 80-m2 house in 2020 (%);

- the average Housing Market Intensity Indicator (IMI) 2018–2020 (%);

- the share of a household's income spent on rent and requirements for access to public housing compared to 2020 in resident households (%).

To design this index we used the Adjusted Mazziotta-Pareto Index (AMPI), a time-tested and robust method that provides a summary measure of a multidimensional phenomenon by making comparisons between spatial units in time and space. The map shows at municipal level that there is greater housing fragility (red) in the area around the Via Emilia where the most important cities are located and less in the more mountainous areas of the region (blue). We assume that the higher fragility is generally directly connected with greater urbanisation.

FABER integrates available data for the first time – at least in Emilia-Romagna – in a user-friendly fashion. Some local authorities are already using this instrument, for example, to elaborate their PUGs (General Urbanistic Plan). In addition, the region is investing in further developing FABER's technological potential to improve links with ORSA by including data from rental support programs, ERP and other regional policies. Every development is designed with the ultimate aim of defining appropriate policies that can answer current socio-economic challenges.

Index of Potential Housing Fragility analysed at municipal level. 2020
Source: Regione Emilia-Romagna
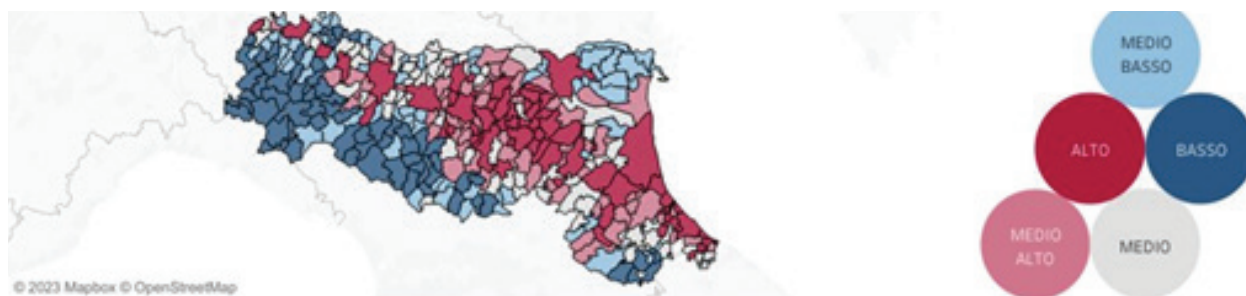
Local Housing Observatory – Barcelona Provincial Council

Barcelona, Spain
Benet Fusté
www.diba.cat/hua/habitatge

The Barcelona Provincial Council is a public administration body that operates in the province of Barcelona, in the autonomous community of Catalonia. It is composed of 311 municipalities which represent three quarters of the population of Catalonia.

The Barcelona Provincial Council provides technical, financial, and technological support to the councils so that they can provide quality local services in a homogeneous way across the territory. In the specific case of housing policies, the Housing Office offers support to local governments to design and deploy local housing policies. The work of the Housing Office is structured around three strategic objectives:

- Providing support to expand the offer of affordable housing.
- Reinforcing a network of local housing services that covers all the municipalities and collaborate with them to deploy housing programs.
- Providing knowledge, evidence, to make better housing-policies.

To achieve this last objective, the Housing Office does two types of interventions. On the one hand, it provides consultancy services to councils to help them plan their housing policies. And on the other hand, it generates some activities and services through the Local Housing Observatory. The Observatory promotes some data analysis and visualization tools –of secondary and administrative data–, it does periodic reviews of legislation and literature, it organizes training activities, and it conducts a biannual survey on housing policies for council staff.

Effort Rate

The first proposed indicator is the "effort rate" wich comes from the indi_mahb* statistical viewer. The "effort rate" measures the percentage of a household's income that is dedicated to rent, providing insight into their ability to pay rent and afford housing. It is a typical income-to-rent affordability ratio where affordable housing is defined as housing that requires no more than 30% of a household's income, almost the rule of thumb in affordability indicators.

To calculate this indicator, we divide the average rent by the average household income in each municipality. The rental cost data comes from the deposits, which in Catalonia are collected by the public administration, and are an excellent proxy for

Effort rate. Province of Barcelona. 2022

Source: Barcelona Provincial Council

https://media.diba.cat/diba/indicadors-habitatge/index.html
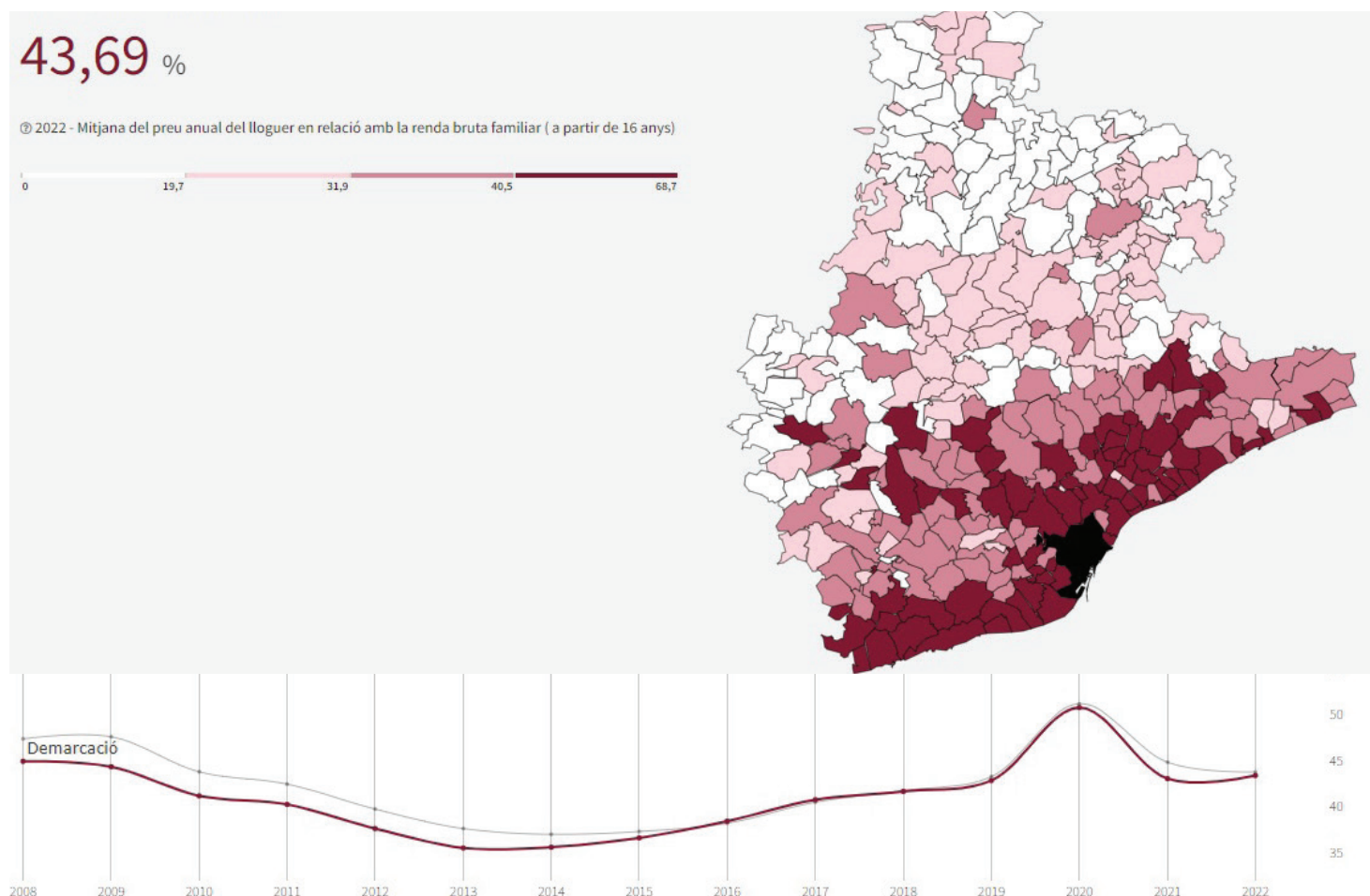
rental prices –because the amount to be paid is equal to the monthly rental price. The income data comes from the gross disposable household income statistics, that measures the income available to the population and that we can obtain at the local level. This income depends on salaries and benefits, but it is also influenced by the activity of the public administration through taxes and social transfers such as pensions.

Using income-to-rent affordability ratio indicators has many advantages. In the first place, the income-to-rent affordability ratio is easy to calculate. We need only two data points: income and rent and we can calculate the relative effort every year, for every municipality. Additionally, it is easy to compare: It is an indicator that allows us to compare the affordability between different municipalities and between different years.

On the downside, our "effort rate" indicator has many problems, and we are trying to fix some of them. In the first place, it is an indicator that does not consider geographic differences, nor residential mobility: we assume that the population remains static in its municipality. Using a different income threshold for each municipality makes it possible to estimate deprivation situations in each territory but does so at the cost of not considering the effects of housing prices on residential mobility. A fixed threshold would show the barriers and exclusions that exist in the municipalities with the highest prices and the effects this may have on the dynamics of residential segregation. Another limitation of the indicator is that we do not have disaggregated income data for households living in rented housing. We use an indicator that does not differentiate between the incomes of tenants and homeowners even though we know that tenants' incomes are at least 20% below the median (i.e., we are underestimating affordability problems).

But beyond the limitations of our indicator, there are some common problems in all the ratio indicators. In the first place, the 30% reference is somewhat arbitrary. It does not differentiate between high income households who choose to spend large proportions of their income on housing and low-income households that after spending a proportion of their income around 30% cannot afford the expenses of other basic needs. And in the second place, it does not acknowledge

differences in household size or composition. Household size and composition make a substantial difference to affordability. As an example, when this is not considered, a single parent on an income of 30 thousand euros per year with two children would be classified as having the same affordability level as a single person earning the same amount of money, even though their housing –and particularly non-housing– needs would be quite different.

The "effort-rate" indicator allows us to see how the economic effort required to access rental housing has been increasing steadily over the last few years. In addition to a progressive worsening of the affordability data, the indicator also shows a peak in 2020 due to the drop in household income caused by the pandemic, as well as a concentration of affordability problems in the coastal municipalities and the metropolitan region of Barcelona.

Concern for affordability problems

Housing is usually the expense paid before all other expenses. That means that the more people spend on housing, the less resources they have for other expenses. The income-to-rent affordability ratio indicators don't account for other expenses like food, education, transportation, and other services, which can impact an individual's ability to pay rent. And the other way around: We do not know if what is left after paying the rent allows decent living standards.

That's why subjective indicators could be interesting. Subjective affordability indicators measure how comfortable or burdened an individual feels about the cost of their housing expenses. People are well aware of what it takes to satisfy their basic financial needs and probably it is easier to ask them than to calculate a living wage –the minimum income necessary for a worker to meet their basic needs.

In the Local Housing Observatory, we do not provide subjective indicators of affordability, but we do have data on the subjective perceptions of affordability by local elected officials. The second indicator comes from the local housing policy panel, a survey of the housing departments of the municipalities in the

province of Barcelona. The survey aims to collect and analyze information on the design and development of local housing policies. One of the survey questions asks local elected officials about their main housing concerns. The problems related to housing expenses have been at the top of the ranking in the last ten years and they are a growing concern.

Beyond the virtues of this particular indicator, subjective indicators have some potentialities to be explored and can complement the income-to-rent affordability ratio indicators. They provide insights into personal experiences: Subjective affordability indicators provide valuable insights into how individuals perceive their housing expenses, allowing for a better understanding of the challenges and concerns they face. They can reveal hidden costs: Subjective affordability indicators can highlight hidden costs associated with housing, such as transportation or utility expenses, that may not be captured by

Main problematics detected by local councils. Province of Barcelona

Source: Barcelona Provincial Council
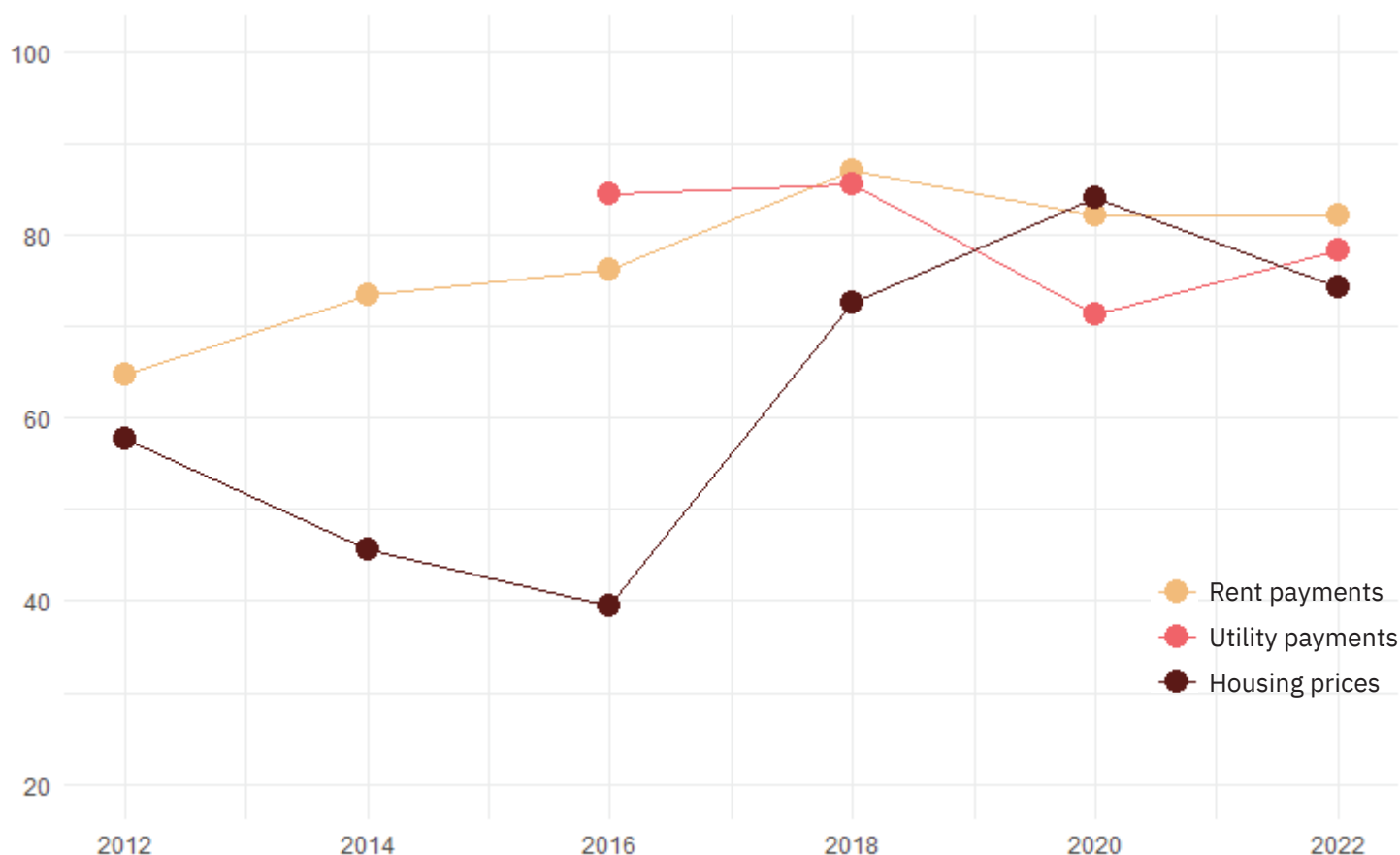
objective measures. And finally, they can account for individual circumstances that may not be captured by objective measures, such as health conditions or caring responsibilities.

Unfortunately, subjective indicators also have weaknesses. Subjective affordability indicators are, by definition, subject to bias and individual perceptions, which may not accurately reflect the true financial burden of housing expenses. Subjective affordability indicators may not accurately reflect an individual's true financial burden, as perceptions can be influenced by factors such as cultural norms, social comparisons, or psychological biases. There is limited standardization in the measurement of subjective affordability indicators, which can make it difficult to compare results across households or regions.

In any case, subjective indicators can be a good complement to traditional objective indicators and can help to overcome one of the challenges of income-to-rent affordability ratio indicators, that is: to shed light on what is left after paying housing expenditures.

Barcelona Metropolitan Housing Observatory

Barcelona, Spain

Jordi Bosch and Aleix Arcarons

www.ohb.cat

The Barcelona Metropolitan Housing Observatory (O-HB) is a supra-municipal instrument dedicated to research and data analysis related to housing. It was created in 2017 as an initiative of the Barcelona City Council, the Metropolitan Area of Barcelona (AMB), the Provincial Deputation of Barcelona, and the Government of Catalonia, with the support of the Social Housing Managers Association (GHS). Since 2018, it has been integrated into the structure of the Metropolis Institute.

The O-HB is dedicated to supporting the development of effective public housing policies. It specializes in the detailed analysis and centralisation of housing data, enhancing data quality and addressing gaps through targeted research. In addition, the O-HB works in partnership with various administrative bodies and organizations, and disseminates its research and insights.

The O-HB primarily focuses on projects within Barcelona and its metropolitan area and targets local housing issues. Though primarily focused on this area, the Observatory occasionally extends its remit to cover the wider region of Catalonia and applies its expertise to broader housing challenges and strategies at a regional level.

Rental housing cost burden

The chosen indicator for measuring housing affordability effectively quantifies the proportion of income a household must allocate to rent. Specifically, it looks at households with theoretical annual incomes of €25,000 and €35,000 . This measurement is achieved by dividing the average rent price in each municipality within Barcelona province, as determined by the rental deposit registry of the Catalan Land Institute, by these annual income thresholds divided by 12 to get a monthly figure. It is noteworthy that in the Barcelona metropolitan area, approximately 45.3% of households led by individuals aged 18 to 39 reported annual incomes below €25,000*.

This methodology provides a detailed municipal-level analysis, enabling territorial comparisons. It leverages the reliable data from the Catalan Land Institute's rental deposit registry, facilitating longitudinal studies and allowing for potential

Rental housing cost burden according to the theoretical household income. Municipalities in the province of Barcelona and districts of the city of Barcelona. 2022.

Source: Barcelona Metropolitan Housing Observatory

Rent/income (%)
- Less than 25%
- 25 to 30%
- 30 to 35%
- More than 35%
- No data
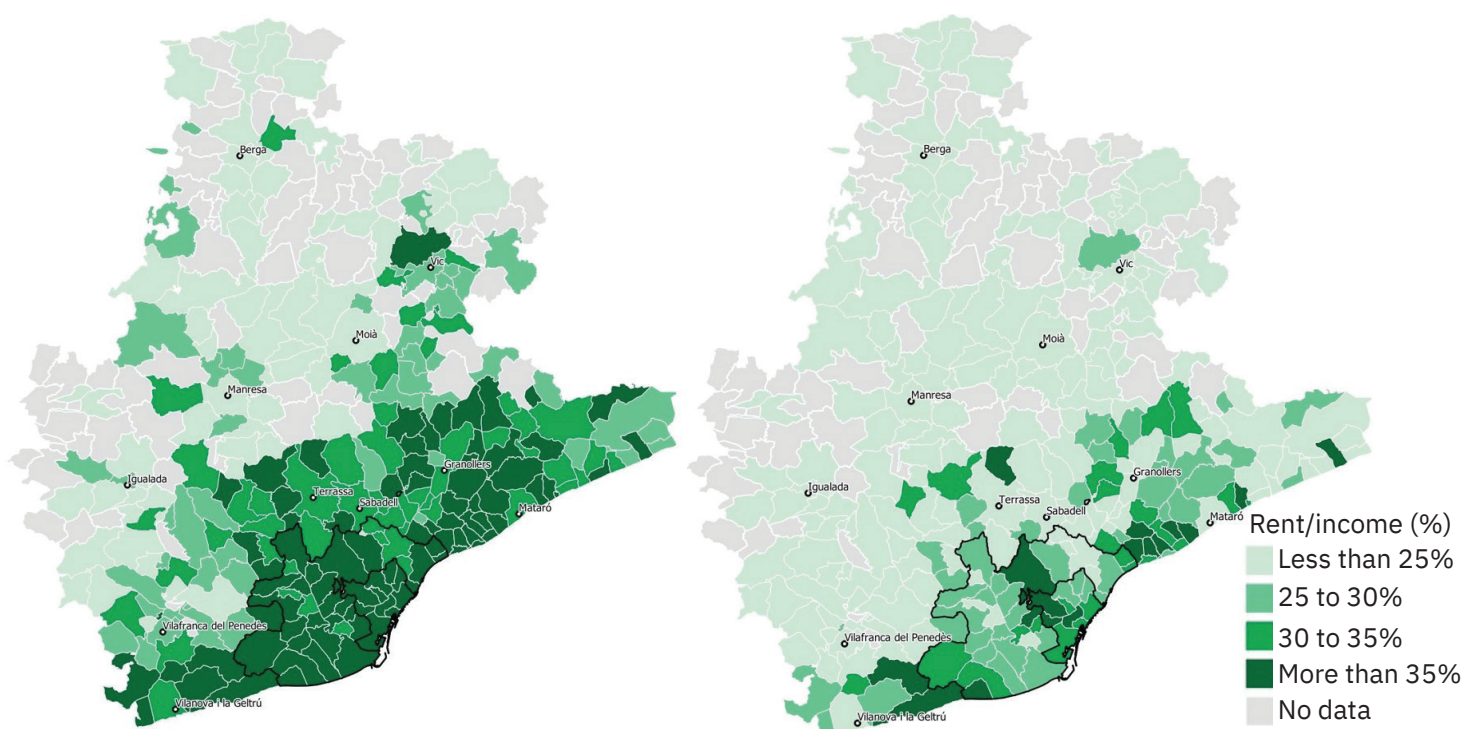
Observatori Metropolità de l'Habitatge de Barcelona. (2022). L'habitatge a la metròpoli de Barcelona en el 2021. Entre la Covid-19 i la crisi inflacionista. Barcelona: Observatori Metropolità de l'Habitatge de Barcelona.

quarterly updates. However, one limitation of this approach is the application of uniform theoretical income thresholds across all areas, without accounting for regional variations in income. This highlights the potential need for more nuanced social housing policy access requirements, which currently do not differentiate between municipalities despite evident income disparities.

In the context of housing affordability, a common benchmark is the 30% income threshold. The data from 2022 shows that households with an annual income of €25,000 could afford rents in only 112 out of 244 municipalities studied, with all these municipalities being outside the Barcelona metropolitan area. Conversely, for households with an annual income of €35,000, the range of affordability expands to 209 municipalities. This includes 26 municipalities within the Barcelona metropolitan area and 3 districts within Barcelona city itself**. These figures underline the stark differences in housing affordability across different income levels and geographical areas, emphasizing the challenges faced by lower-income households in accessing affordable housing, especially in high-demand urban areas like Barcelona.

Executed evictions per 1.000 inhabitants

The eviction indicator serves as a crucial metric in evaluating emergency situations and the risk of homelessness resulting from residence displacement. It is calculated by dividing the total number of evictions within a judicial district by the population of that district and then multiplying by 1000. This method yields a weighted figure, which is crucial for comparative analysis across different regions, providing a clear picture of the incidence of evictions in relation to population size.

This indicator introduces an innovative approach to analyzing housing affordability, relying on objective and official data sources. It indirectly addresses the issue of affordability by focusing on the consequences of the lack of housing accessibility, such as evictions. Currently, it enables a detailed territorial analysis at the level of judicial districts, which are larger than municipalities, and supports longitudinal analysis
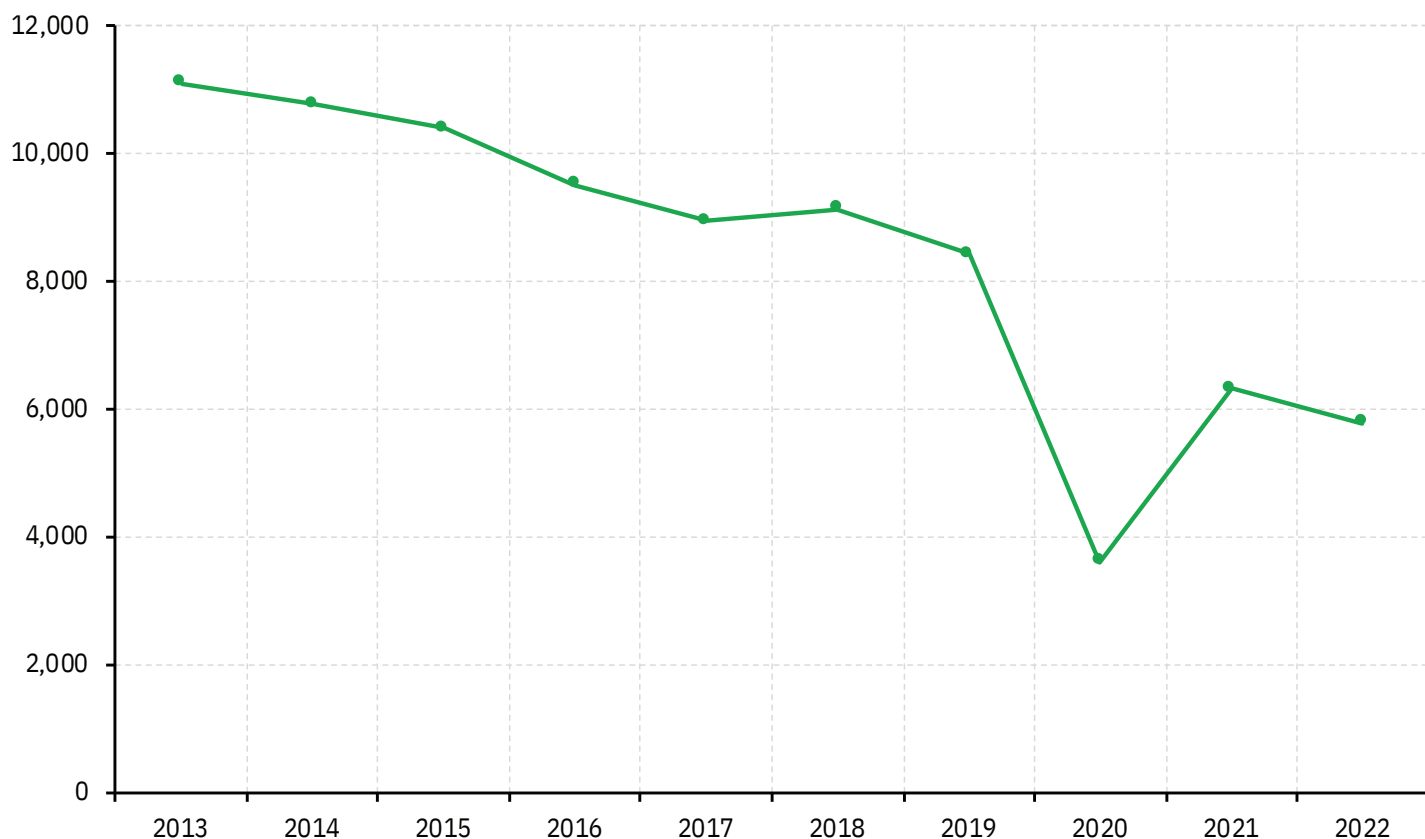
**Observatori Metropolità de l'Habitatge de Barcelona. (2020). L'habitatge a la metròpoli de Barcelona 2022. Barcelona.

to track changes over time. However, one of its limitations is that it does not account for instances of housing displacement instigated by economic insolvency that occur outside the judicial system. For comprehensive policy design to prevent housing crises, there's a need for broader data collection, particularly regarding the socioeconomic profiles of affected households.

This eviction indicator encompasses evictions resulting from unpaid rent and mortgage foreclosures. The data indicates that since 2013, improvements in the macroeconomic environment and job creation have contributed to a steady decline in the number of evictions. Notably, the onset of the COVID-19 crisis in 2020 led to the implementation of extraordinary measures aimed at curbing evictions, which resulted in a significant decrease in their occurrence. This pattern highlights the impact of broader economic and policy factors on housing stability, underscoring the importance of economic health and targeted measures in reducing the frequency of evictions.

Executed evictions per 1.000 inhabitants. Judicial districts in the Province of Barcelona. 2013-2022

Source: Barcelona Metropolitan Housing Observatory