HC.1.5. OVERVIEW OF AFFORDABLE HOUSING INDICATORS

Definitions and methodology

There is no international consensus on how to define or measure housing affordability, and no single measure fully captures the range of concerns around the ability of households to secure decent housing in an appropriate location for an acceptable price.

Relatively straightforward measures that are based on data that are readily available in most countries, such as house-price-to-income and housing-expenditure-to-income ratio measures, provide an association of housing prices (or spending) relative to income levels. More data-intensive indicators, such as residual income measures, focus on the income households have left after paying for housing. These can be complemented by housing quality measures, which assess what households are paying for, as well as subjective indicators of housing affordability that can help better understand the determinants of housing satisfaction (Ezennia and Hoskara, 2019). Each approach has its merits and limitations, which are presented in this indicator, and summarised in Table HC.1.5.1.

Key findings

Housing affordability can be assessed using different metrics, which come with advantages and limitations. These include measures relating to: housing price-to-income and expenditure-to-income; residual income; housing quality; and subjective measures of housing affordability, described in further detail below.

How much does housing cost, relative to income levels? Housing price-to-income and expenditure-to-income measures

Price-to-income ratios can provide a snapshot, at aggregate level, of how the association between prices and income varies over time and/or across markets, such as across countries. If housing (rent) prices increase faster than incomes, the price-to-income ratio would suggest that housing is becoming less affordable on average; if incomes rise faster than housing prices, the ratio would suggest that housing is becoming more affordable.

However, from a policy perspective, price-to-income ratios have their limits. Because they are calculated at the aggregate level, they say little about the distribution of housing costs and housing affordability. They do not take into account household borrowing costs to acquire housing. They do not provide information on who does and does not have access to affordable housing, or why, nor do they provide any indication of the quality of housing that households are paying for. Because these measures provide only a general indication of the extent to which housing is (un)affordable for a (median) household, they are ill suited to support policy makers in targeting housing supports to different groups.

Expenditure-to-income ratios capture actual spending on housing at the individual household level. This means that they can be disaggregated (across different household and tenure types, income levels and regions) to identify the particular people and places that struggle to pay for housing. A common price-to-income ratio is a 30% affordability threshold, whereby housing is considered "affordable" if

households do not spend more than 30% of their gross income on housing costs. A related measure is the housing overburden rate, which captures the share of households spending an unacceptably large share of income on housing (e.g. above a given threshold); both Eurostat and the OECD set the overburden threshold at 40% of household disposable income (net of housing allowances).

Nevertheless, the choice of the threshold – for instance, whether 30% of gross income is "acceptable" and 40% is a "burden" – is arbitrary. Moreover, such thresholds are not consistently meaningful across the income distribution: for a low-income household, spending even 10% or 20% of their household income on housing costs may leave little money left for other key consumption items, as discussed below. Further, like price-to-income ratios, expenditure-to-income ratios do not provide an indication of housing quality.

How much money is left after housing costs? Residual income measures

Residual income measures focus on the level of income a household has left *after* paying for housing costs, based on the rationale that what really matters to households is not what share of income is spent on housing, but rather whether they have sufficient income left for non-housing expenses after paying for housing. The *shelter poverty indicator* (Stone, 2006; Stone, Burke and Ralston, 2011), for instance, measures whether a household's after-housing-cost disposable income is sufficient to cover a minimum basket of non-housing expenses. Canada, for instance, has adopted a measure of shelter poverty called the Housing Hardship Measure, which assesses how much a household has available to afford such goods and services after paying for shelter. Residual income measures are particularly useful to identify households that are struggling to get by.

However, they also suffer from arbitrariness, because there is no straightforward way to quantify the minimum income that households would need for non-housing expenses (Gabriel et. al, 2005; Ezennia and Hoskara, 2019). Such measures also say little about housing quality, and, from a practical point of view, can require extensive additional data collection (Gabriel et. al, 2005; Ezennia and Hoskara, 2019). Most critically, however, from a policy perspective, there is a risk that residual income measures can misdiagnose general cost-of-*living* problems as cost-of-*housing* problems. While it is difficult to argue against the principle that a household's after-housing-cost income should cover at least a basket of essential expenses, it is possible that an inability to afford these other essentials may be driven as much or more by the cost of other essentials themselves than by the cost of housing.

What are households paying for? Housing quality indicators

Housing quality indicators help to assess what households are *paying for,* in terms of housing quality and standards. Housing quality can be measured in different ways. The *overcrowding rate*, for instance, aims to capture whether dwellings provide a given household with sufficient space, measured as the number of rooms per household member, taking into account different factors of household composition.[1] *Housing deprivation rates* measure maintenance deficiencies (such as a leaking roof, damp walls, floors or foundation, or rot in window frames and floor) and the absence of other essentials, such as sanitary facilities. In most countries, housing quality measures are most pertinent in the lower end of the income distribution, given that poorer households are more likely to live in lower quality housing, relative to their higher-income peers.

While housing quality measures are an important complement to other affordability measures, there are cross-country and cross-cultural differences in terms of the characteristics that are most relevant to assess housing quality. In addition, there are potential trade-offs between social and environmental objectives when interpreting indicators relating to dwelling size, given the detrimental environmental impacts of sprawling urban development. From a practical point of view, metrics relating to the technical quality of dwellings require up-to-date data on dwelling characteristics, which may not be readily available in all countries.

Do people think affordable housing is out of reach? Subjective measures of housing affordability

Subjective measures of housing affordability can complement other housing indicators, and can help better understand the determinants of housing satisfaction. For instance, satisfaction with the availability of good, affordable housing can be relatively high in countries in which households, on average, tend to spend a larger share of their income on housing (this is the case, for instance, in some Nordic countries; see indicator HM1.4 in the OECD Affordable Housing Database). These results appear to suggest that people are willing to spend more on good quality housing (and other public services) if they are offered high-quality accommodation. Subjective indicators can also point to differences in experiences across groups (such as different ages, income levels, or other characteristics).

However, because quality and affordability standards are by their nature subjective, perceptions and expectations of what constitutes "satisfactory", "quality" or "affordable" housing can differ widely across individuals, countries and cultures. Satisfaction levels may also depend on country-specific factors, such as the overall economic environment and/or the level of social protection policies – which, from a policy perspective, are not directly related to housing policy (OECD, 2019).

Using multiple measures of housing quality and affordability can provide a more comprehensive assessment of outcomes and gaps

The use of multiple measures of housing quality and affordability can help policy makers assess how challenges may differ across household types and regions, and identify the dimensions of affordability that are most relevant in their country context. For example, disaggregating household expenditure on housing by tenure type, by region and across the income distribution can help to identify the people and places that struggle most, which can improve the targeting of public policies.

Data and comparability issues

In addition to the data limitations discussed above, some housing affordability metrics are more or less meaningful, depending on the country context. For instance, indicators that compare housing costs to income levels are not especially revelatory in countries with a very large share of outright homeowners (such as Eastern European and Baltic countries), because on average households do not spend much on housing. However, housing quality indicators can reveal a different sort of affordability challenge, suggesting that many outright-owner households live in dwellings of poor quality because they cannot afford regular maintenance or improvements to their dwellings, and/or because they cannot afford to move to a higher quality home.

Table HC1.5.1.Selection of housing affordability measures used in OECD and EU countries

Type of measure	Example of indicators	Advantages	Limitations	OECD data and examples
Price-to-income ratios	► House-price-to-income ratio ► Rent-price-to-income ratio	► Relatively straightforward, intuitive ► Relies on data that are generally readily available in most countries ► Shows, at aggregate level, how the association between prices and income varies over time and/or across markets, such as across countries	► Does not provide any indication of the distribution of housing costs and housing affordability (e.g. who has/does not have access to affordable housing) ► Does not provide any indication of housing quality ► Does not take into account borrowing costs	OECD Affordable Housing Database, Indicator HM1.2
Housing expenditure-to-income ratios	► Housing cost burden ► Housing cost overburden rate (e.g. share of households spending over 40% of disposable income on housing costs)	► Relatively straightforward, intuitive ► Relies on data that are generally readily available in most countries ► Can be disaggregated to measure actual housing spending at household level	► "Overburden" threshold is set at an arbitrary level that remains fixed, regardless of household characteristics or their position in the income distribution ► Does not provide any indication of housing quality	OECD Affordable Housing Database, Indicators HC1.1 and HC1.2
Residual income measures	► Shelter poverty ► Housing-induced poverty	► Captures the level of income a household has left after paying for housing costs, to assess the extent to which households have sufficient income left for non-housing expenses after paying for housing ► Can be useful to measure affordability gaps among vulnerable low- and middle-income households	► Can require extensive additional data collection on the cost of the minimum basket of non-housing expenses ► Arbitrariness with respect to what constitutes the minimum income a household needs for non-housing expenses ► Does not provide any indication of housing quality (e.g. what households are paying for) ► Can misdiagnose general cost-of-living problems as cost-of-housing problems	See OECD (2020), *Policy Actions for Affordable Housing in Latvia*, OECD, Paris.
Housing quality measures	► Rooms per person ► Overcrowding rate ► Housing deprivation rate	► Overcrowding can be assessed based on a very simple (or more complex) definition ► Provides insights into a key dimension of housing affordability, e.g. what households are paying for	► Potential trade-offs between social and environmental objectives when interpreting indicators relating to dwelling size ► Cross-country/cultural differences in what characteristics are most relevant to assess housing quality ► Some quality metrics require up-to-date data on technical characteristics of dwellings, which may not be readily available	OECD Affordable Housing Database, Indicators HC2.1, HC2.2 and HC2.3
Subjective indicators of housing affordability	► Satisfaction with the availability of good, affordable housing ► Housing as a key short-term concern	► Can complement other measures of housing outcomes and can help better understand the determinants of housing satisfaction	► Perceptions and expectations about what constitutes good-quality affordable housing differ across individuals, countries and cultures, and may also depend on socio-demographic characteristics ► Satisfaction levels may depend on country-specific factors, including the overall economic environment, and/or the level of social protection policies	OECD Affordable Housing Database, Indicator HC1.4

Source: OECD (2021), "Building for a better tomorrow: Policies to make housing more affordable", *Employment, Labour and Social Affairs Policy Briefs*, OECD, Paris.

Sources and further reading

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