

HC1.2. HOUSING COSTS OVER INCOME

Definitions and methodology

Housing costs can represent a substantial financial burden to households, especially low-income households. The median of the ratio of housing costs over income gives an indication of the financial pressure that households face from housing costs. Another common measure of housing affordability presented in this indicator is the housing cost overburden rate, which measures the proportion of households or population that spend more than 40% of their disposable income on housing costs (in line with Eurostat methodology). For a discussion of different measures of housing affordability and their advantages and limits, please see indicator [HC1.5 Overview of affordable housing indicators](#) in the OECD Affordable Housing Database. For policy measures aiming to support households with housing costs, please see indicators in the [PH2, PH3 and PH4](#) series.

Housing costs can refer to: (1) a narrow definition based on rent and mortgage costs (principal repayment and mortgage interest); or (2) a wider definition that also includes the costs of mandatory services and charges, regular maintenance and repairs, taxes and utilities, which are referred to as “total housing costs” below. Housing costs are considered as a share of household disposable income, which includes social transfers (such as housing allowances) and excludes taxes. Income is equivalised for household size based on a common equivalence elasticity (the square root of household size) which implies that a household’s economic needs increase less than proportionally with its size. Housing costs refer to the primary residence. The data presented here are based on household survey microdata and concern national household or population level data.

The figures presented in this indicator do not yet account for the impact of the COVID-19 pandemic or the increase in energy prices that have been recorded since late 2021, which are likely to have significant impacts on housing costs over income.

For additional information on housing affordability that include 2021 data, see also [HC1.4 Subjective measures on housing](#).

Key findings

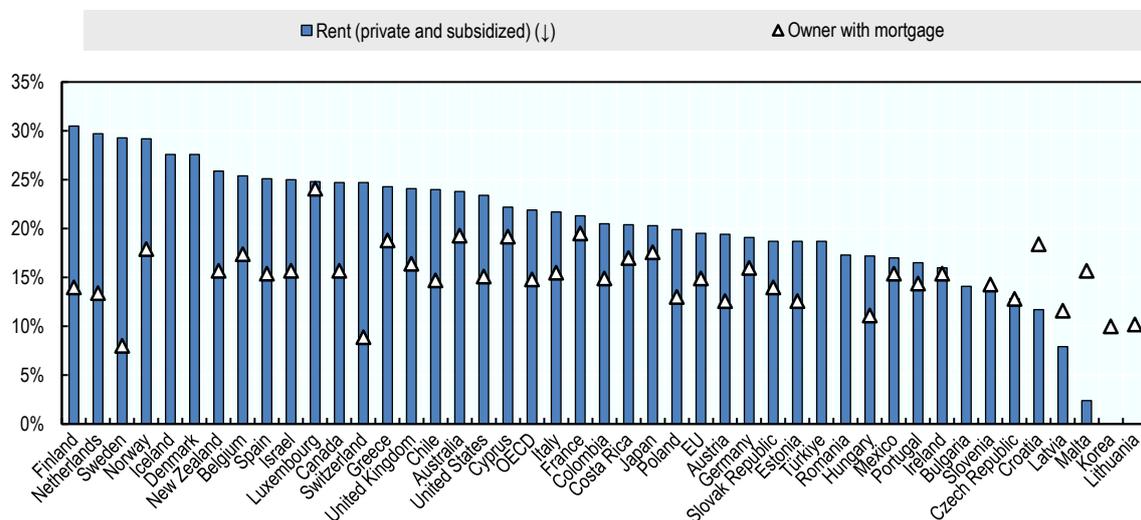
In most countries, median housing costs – based on the narrow definition described above – are higher for tenant households than they are for owner-with-mortgage households (see Figure HC1.2.1 and online worksheet HC1.2.A1 for earlier years). Outright owners are not considered here as they do not face mortgage costs (see Figure HC1.2.4 and the discussion below for information on the burden of total housing costs). The median burden of rent payments for tenant households is highest in Finland (31%), the Netherlands (30%), Norway (29%), Sweden (29%), Denmark (28%) and Iceland (28%). It is lowest in Central and Eastern European countries, as well as in Japan (20%), Mexico (17%), Ireland (16%), and Malta (below 3%).

This document, as well as any data and any map included herein, are without prejudice to the status of or sovereignty over any territory, to the delimitation of international frontiers and boundaries and to the name of any territory, city or area.

The statistical data for Israel are supplied by and under the responsibility of the relevant Israeli authorities. The use of such data by the OECD is without prejudice to the status of the Golan Heights, East Jerusalem and Israeli settlements in the West Bank under the terms of international law.

Figure HC1.2.1: Households' housing cost burden (mortgage and rent cost) as a share of disposable income

Median mortgage burden (principal repayment and interest payments) or rent burden (private market and subsidized rent) as a share of disposable income, in percent, 2020 or latest year available



Notes. 1. In Chile, Colombia, Mexico, New Zealand, Korea and the United States, gross income instead of disposable income is used due to data limitations. No data on mortgage principal repayments available for Denmark, Iceland and Türkiye due to data limitations.

2. Results only shown if category composed of at least 100 observations.

3. Data for Japan only available on the respondent level due to data limitations.

4. Data for Germany and Italy refer to 2019, for Canada, Iceland and Luxembourg to 2018 and for Chile to 2017.

Source: OECD calculations based on the European Survey on Income and Living Conditions (EU-SILC 2020), except for Germany and Italy (2019), and Iceland and Luxembourg (2018); the Household, Income and Labour Dynamics Survey (HILDA) for Australia (2020); the Canada Income Survey (CIS 2018); the Encuesta de Caracterización Socioeconómica Nacional (CASEN) for Chile (2017); the Gran Encuesta Integrate de Hogares (GEIH) for Colombia (2020); the Encuesta Nacional de Hogares (ENAH) for Costa Rica (2020); calculations from the Bank of Israel for Israel, the Japan Household Panel Study (JHPS 2020); the Korean Housing Survey (2020); the Encuesta Nacional de Ingresos y Gastos de los Hogares (ENIGH) for Mexico (2020); Household Expenditure Survey (HES, Stats NZ) for New Zealand (2017); Türkiye-National SILC (2020); Understanding Society - The UK Household Longitudinal Study (2020); the American Community Survey (ACS) for the United States (2020).

Note by the Republic of Türkiye: The information in this document with reference to “Cyprus” relates to the southern part of the Island. There is no single authority representing both Turkish and Greek Cypriot people on the Island. Türkiye recognises the Turkish Republic of Northern Cyprus (TRNC). Until a lasting and equitable solution is found within the context of the United Nations, Türkiye shall preserve its position concerning the “Cyprus issue”;

Note by all the European Union Member States of the OECD and the European Union: The Republic of Cyprus is recognised by all members of the United Nations with the exception of Türkiye. The information in this document relates to the area under the effective control of the Government of the Republic of Cyprus.

Rental and mortgage cost burdens vary across the income distribution

The housing cost burden rate (based on the narrow definition of rent and mortgage payments) varies considerably across the income distribution and is often significantly higher for lower income households relative to higher income households. In nearly all countries, housing costs as a share of income are highest for households in the bottom quintile of the income distribution (Figure HC1.2.2, see online worksheet HC1.2.A2 for other quintiles and earlier years), regardless of whether the household is a tenant (Panel A) or services an outstanding mortgage (Panel B):

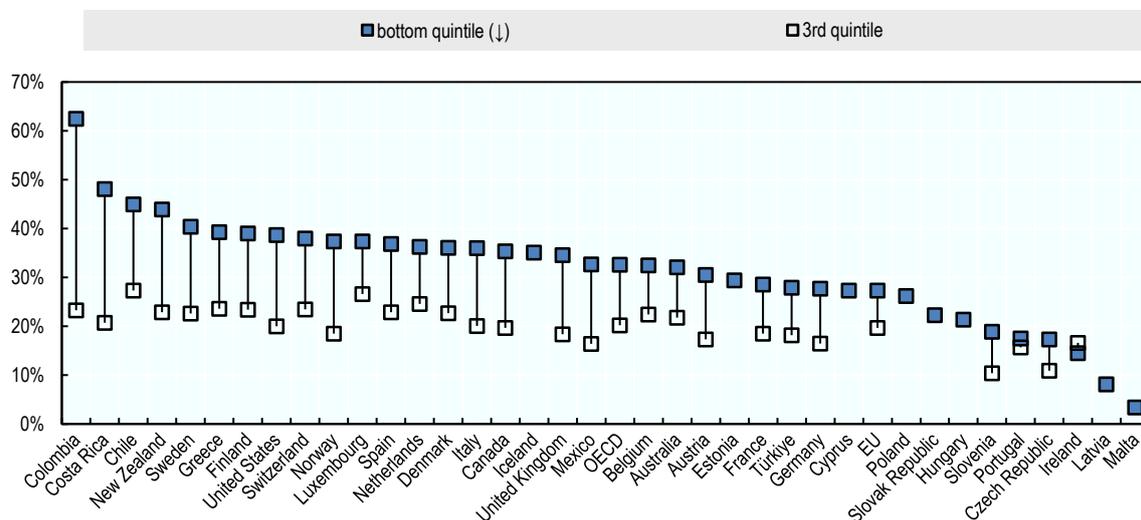
- Low-income tenant households face a higher housing cost burden than their better-off peers in the majority of countries (Figure HC1.2.2 - Panel A). In Colombia, Costa Rica, Chile, New Zealand and Sweden, housing costs consume more than 40% of disposable income for tenant households in the bottom quintile of the income distribution. In most countries, low-income tenant households face median housing costs between 20 to 40% of disposable income. The median burden is lowest (20% or less) among tenant households in Slovenia, Portugal, the Czech Republic and Ireland. Only in Ireland -- where rental costs consume a relatively small share of household disposable income across the income distribution -- do households in the middle quintile face a slightly higher housing cost burden than households in the bottom quintile.
- Among homeowners with a mortgage, in all countries with available data, the median mortgage cost as a proportion of disposable income is highest for households in the bottom quintile of the income distribution (Panel B of Figure HC1.2.2). In Greece, Italy, Mexico and the United States, the median household in the bottom quintile of the income distribution face mortgage costs of close to or higher than 35% of income. In many Southern European countries, as well as Belgium, Canada and Chile, the median mortgage burden of low-income households is almost 30% or more. In most Central and Eastern European countries, in German-speaking countries, as well as Korea and New Zealand, mortgaged households face relative housing costs less than 30% of income at the median. At less than one-fifth of disposable income, low-income owner-with-mortgage households face the lowest relative housing costs in Finland, the Netherlands, Sweden and Switzerland.

In Canada, Mexico, the United States, and several Southern European countries, low-income households have a substantially higher mortgage burden relative to households in the third quintile (Panel B, Figure HC1.2.2). By contrast, in Finland, Norway, the Netherlands, Sweden, and Switzerland owner-with-mortgage households in the bottom and the third quintiles of the income distribution face similar median mortgage burdens.

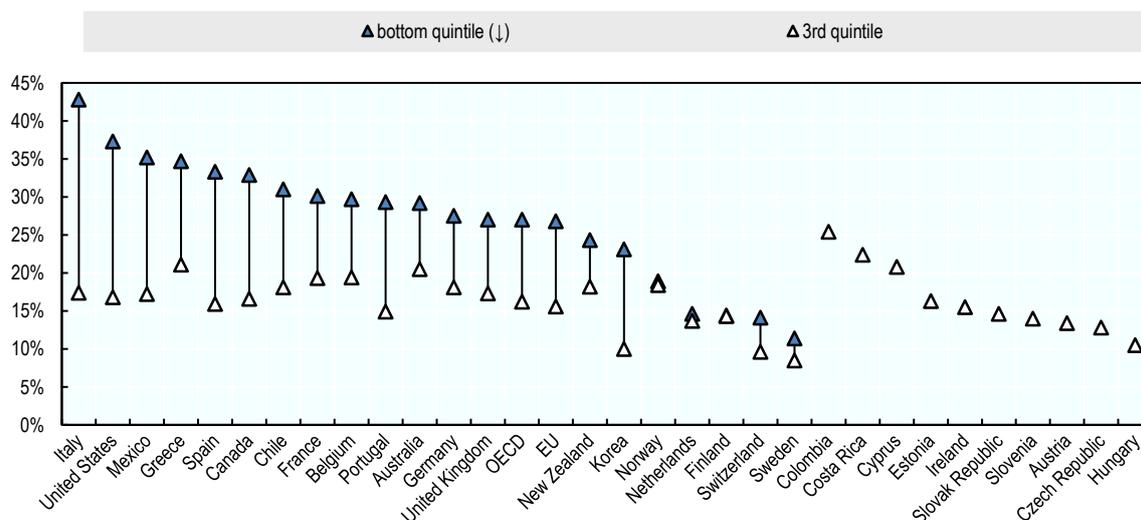
Various factors contribute to higher (or lower) housing cost burdens across tenure types at different income levels. For instance, access to mortgages, mortgage conditions, loan-to-value and loan-to-income ratios may help to explain variation across countries and income quintiles (André, 2016; Whitehead and Williams, 2016). In countries with larger social housing sectors, such as France, the burden on low-income tenants may be lower (see the discussion on housing cost overburden among low-income tenants with subsidized rent below, as well as Indicator HM1.3 on tenure).

Figure HC1.2.2. Housing cost burden of low- and middle income households as share of disposable income

Panel A: Median rent burden (private market and subsidized rent) as a share of disposable income in the bottom and the third quintile of the income distribution, 2020 or latest year available



Panel B: Median mortgage burden (principal repayment and interest payments) as a share of disposable income in the bottom and the third quintile of the income distribution, 2020 or latest year available



Note: 1. In Chile, Colombia, Mexico, Korea and the United States, gross income instead of disposable income is used due to data limitations. No data on mortgage principal repayments are available for Denmark, Iceland and Türkiye due to data limitations. No data on rent (private and subsidized) for Korea due to data limitations.

2. Results only shown if data available for at least 100 observations, therefore data for bottom quintile (Panel B) for Colombia, Costa Rica, Cyprus, Estonia, Ireland, Slovak Republic, Slovenia, Austria, Czech Republic, Hungary are not available.

3. Data for Germany and Italy refer to 2019, for Canada and Iceland to 2018 and for Chile to 2017.

Source: OECD calculations based on the European Survey on Income and Living Conditions (EU-SILC 2020), except for Germany and Italy (2019), and Iceland (2018); the Household, Income and Labour Dynamics Survey (HILDA) for Australia (2020); the Canada Income Survey (CIS 2018); the Encuesta de Caracterización Socioeconómica Nacional (CASEN) for Chile (2017); the Gran Encuesta Integrate de Hogares (GEIH) for Colombia (2020); the Encuesta Nacional de Hogares (ENAHOG) for Costa Rica (2020); the Japan Household Panel Study (JHPS 2020); the Korean Housing Survey (2020); the Encuesta Nacional de Ingresos y Gastos de los Hogares (ENIGH) for Mexico (2020); Household Expenditure Survey (HES, Stats NZ) for New Zealand (2017); Türkiye-National SILC (2020); Understanding Society - The UK Household Longitudinal Study (2020); the American Community Survey (ACS) for the United States (2020).

Mortgage and rent burden

People that spend more than 40% of disposable income on housing are considered overburdened by housing costs. Figure HC1.2.3a shows the share of the population in the bottom quintile of the income distribution who face housing cost overburden, by tenure type (see online worksheet HC12.A3 for earlier years and other quintiles, and Indicator HM1.3 for more information on the distribution of tenure types across the income distribution).

In Colombia, Costa Rica, Chile, Israel, New Zealand and the United Kingdom, more than half of tenants in the private rental market are overburdened by housing costs. By contrast, in many Central and Eastern European countries, overburden rates among tenants are lower than 20%.

In almost all countries, people living in subsidized rental dwellings are less likely to be overburdened by housing costs than people living in privately rented dwellings, often by a significant margin. In Israel for example, the overburden rate among subsidized tenants is 2%, compared to 54% among private market rental tenants. The overburden rate among the low-income population that live in owner-with-mortgage dwellings is highest in Costa Rica (61%) and Italy (49%).

Overburden rates among low-income people living in owner-with-mortgage households vary widely across countries. Low-income owner-with-mortgage populations in Cyprus, Finland, Hungary, the Netherlands, and Switzerland are the least likely to face a housing cost overburden. In these countries, the overburden rate among the low-income mortgaged population is about or below 10%.

Mortgage and rent burdens are not only an issue for low-income people; high housing costs can also overburden people with higher incomes. In Finland, New Zealand, Norway, Spain and the United Kingdom, more than one in five tenants in the private rental market (regardless of income level) are overburdened by housing costs (Figure HC1.2.3b). Among the total population servicing a mortgage (regardless of income level), overburden rates vary widely and generally comprise less than 10% of the total population, except in Colombia, Costa Rica and Greece, where they comprise a bigger share (Figure HC1.2.3b).

Figure HC1.2.3a Housing cost overburden rate for low-income owners (with mortgage) and tenants (private rent and subsidized rent), in % of the population

Share of population in the bottom quintile of the income distribution spending more than 40% of disposable income on mortgage and rent, by tenure, in percent, 2020 or latest year ^{1 2 3}

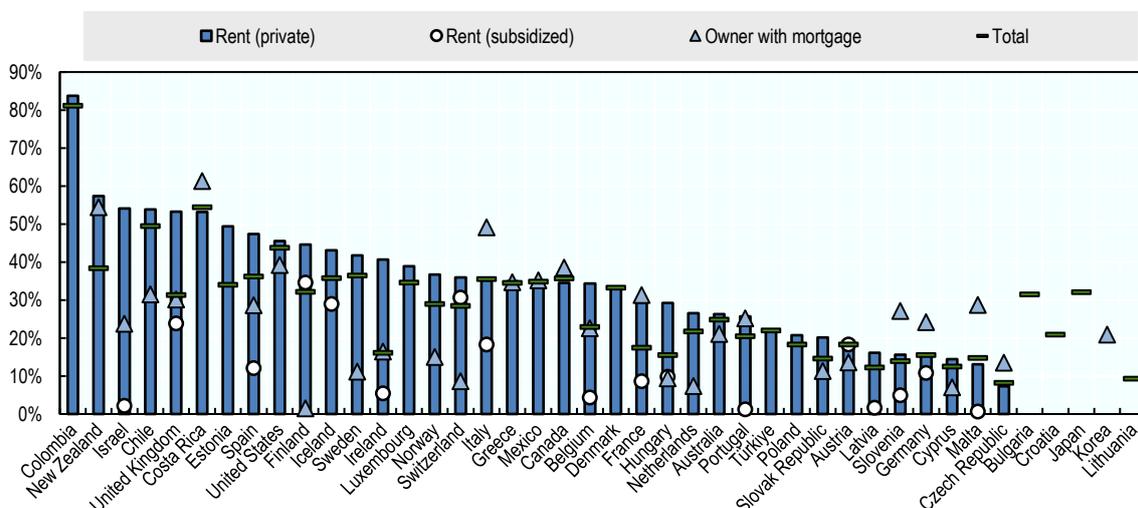
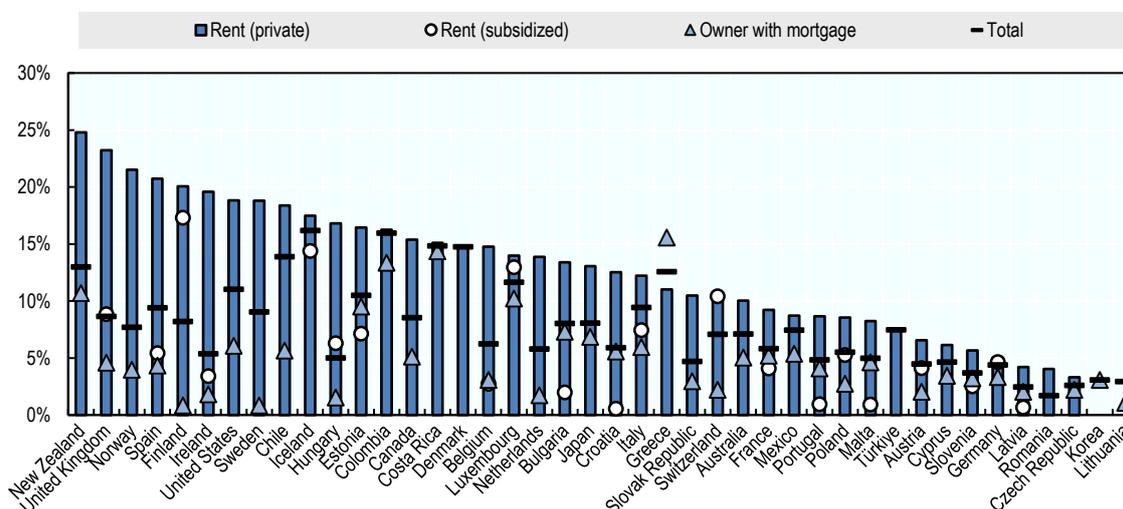


Figure HC1.2.3b Housing cost overburden rate for owners (with mortgage) and tenants (private rent and subsidized rent)

Share of population spending more than 40% of disposable income on mortgage and rent, by tenure, in percent, 2020 or latest year ^{1 2 3}



Note: 1. In Chile, Colombia, Mexico, Korea and the United States gross income instead of disposable income is used due to data limitations. No data available on subsidized rent in Australia, Canada, Chile, Mexico and the United States. In the Denmark, the Netherlands, New Zealand and Sweden tenants at subsidized rate are included into the private market rent category due to data limitations. No data on mortgage repayments available for Denmark, Iceland and Türkiye.

2. Results only shown if category is composed of at least 100 observations.

Source: OECD calculations based on the European Survey on Income and Living Conditions (EU-SILC 2020), except for Germany and Italy (2019), and Iceland (2018); the Household, Income and Labour Dynamics Survey (HILDA) for Australia (2020); the Canada Income Survey (CIS 2018); the Encuesta de Caracterización Socioeconómica Nacional (CASEN) for Chile (2017); the Gran Encuesta Integre de Hogares (GEIH) for Colombia (2020); the Encuesta Nacional de Hogares (ENAH) for Costa Rica (2020); calculations from the Bank of Israel for Israel; the Japan Household Panel Study (JHPS 2020); the Korean Housing Survey (2020); the Encuesta Nacional de Ingresos y Gastos de los Hogares (ENIGH) for Mexico (2020); estimates provided by Statistics New Zealand (2021); Türkiye-National SILC (2020); Understanding Society - The UK Household Longitudinal Study (2020); the American Community Survey (ACS) for the United States (2020).

Housing costs other than rent and mortgage costs increase the burden on low-income households considerably

In addition to mortgage costs (principal repayment and mortgage interest) and rents considered above, households face a variety of other housing-related costs. For instance, costs relating to insurance, mandatory services and charges, regular maintenance and repair, taxes and utilities can significantly push up total housing costs. These additional costs are also relevant to – and may be substantial for – outright owners.

Across countries, low-income households renting at private market rates and households servicing a mortgage both face high overburden rates when total housing costs are taken into account. In many countries, total housing costs exceed 40% of disposable income among more than 60% percent of households in the bottom income quintile (Figure HC2.1.4, and online worksheet HC12.A4 for earlier years and data for other quintiles). Less than half of low-income tenants in the private market are overburdened when total housing costs are taken into account in Austria, Cyprus, Latvia, Malta, Portugal, the Slovak Republic and Slovenia. Only in the Netherlands, Switzerland, and several Nordic countries do less than half of low-income households with a mortgage face total housing costs that amount to more than 40% of their disposable income.

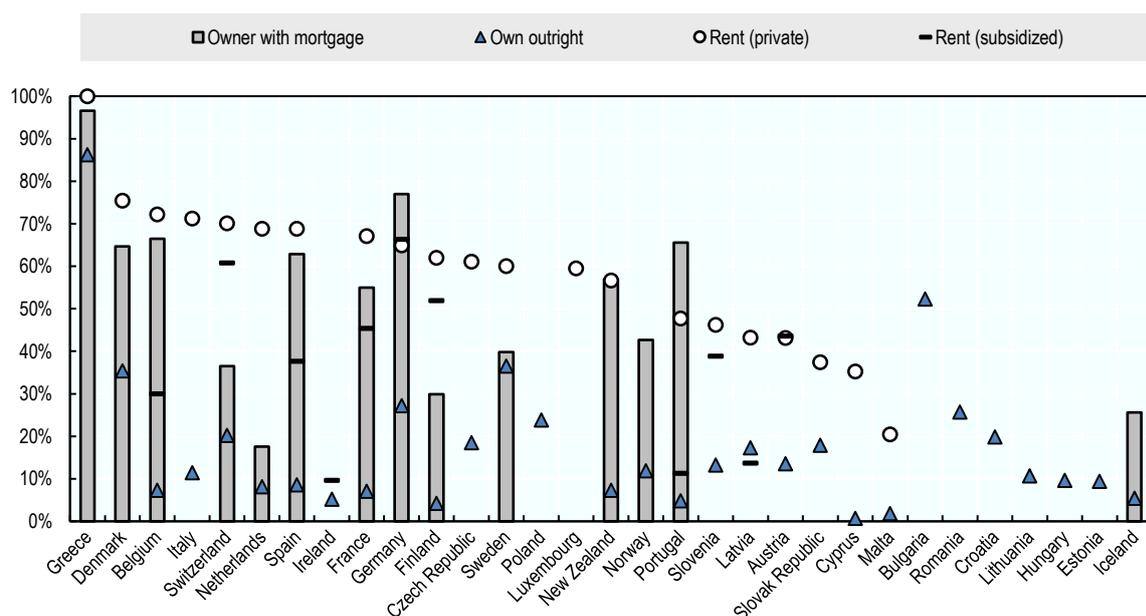
In Germany and Portugal, households servicing a mortgage are more likely to be overburdened by total housing costs than tenants renting in the private market. This has also been observed in some Central and Eastern European countries where rental markets have been traditionally small, ownership is the dominant tenure type and housing quality is often low (see, for example, Norris and Shields [2007]).

In most countries, the total housing cost overburden rate is lower -- often considerably -- among tenants in subsidized housing. In Belgium and Spain, for example, the overburden rate amongst subsidized tenants is less than half the overburden rate amongst tenants in the private rental market (about 30%, compared to 70%) while in Ireland it is about 10% compared to 70%. On the other hand, in Finland, Slovenia and Switzerland, the difference in the overburden rate among tenants in private vs. subsidized rental housing is relatively small.

As might be expected, the total housing cost overburden rate is often lower among poor households that are outright owners of their dwellings, compared to those who are renting or paying off a mortgage. Nevertheless, the overburden rate is still considerable in some countries. For instance, in Bulgaria, 52% of low-income outright-owner households suffer from total housing cost overburden. In Greece, this is as high as 86%.

HC1.2.4. Total housing cost overburden rate among low-income households, by tenure,

Share of households in the bottom quintile of the income distribution paying more than 40% of disposable income on total housing costs, by tenure, in percent, 2020 or latest year available ¹



Note: 1 Data on total housing cost only available for European countries and New Zealand due to data limitations. Total housing costs include mortgage principal and interest repayment, rents, structural insurance, mandatory services and charges, regular maintenance and repair, taxes and utilities (including electricity, water, gas and heating). In the Netherlands and Norway, no tenants at subsidized rate are subsumed into the private market rent category due to data limitations. No data on mortgage repayments available for Denmark. No distinction available between private or subsidised renters in New Zealand.

Source: OECD calculations based on European Survey on Income and Living Conditions (EU SILC), Household Expenditure Survey (HES, Stats NZ) for New Zealand (2017).

Data and comparability issues

This indicator is calculated based on household surveys. The European Survey on Income and Living Conditions (EU-SILC) is used for European countries; the Household, Income and Labour Dynamics Survey (HILDA) for Australia; the Canada Income Survey (CIS) for Canada; the Encuesta de Caracterización Socioeconómica Nacional (CASEN) for Chile; the Gran Encuesta Integrate de Hogares (GEIH) for Colombia; the Encuesta Nacional de Hogares (ENAH) for Costa Rica; the Japan Household Panel Study (JHPS) for Japan; the Korean Housing Survey for Korea; the Encuesta Nacional de Ingresos y Gastos de los Hogares (ENIGH) for Mexico; Türkiye-National SILC for Türkiye; Understanding Society - The UK Household Longitudinal Study for the United Kingdom; and the American Community Survey (ACS) for the United States. Data for Japan is sampled on the respondent level and not on the household level.

Due to limitations in the data of these household surveys, net income which adjusts for taxes and transfers is not always available to calculate the income quintiles of countries. In Chile, Colombia, Mexico and the United States, gross income is used rather than net income. In the United Kingdom, net income does not adjust for local council taxes and housing benefits. In Türkiye, net income does not adjust for personal income taxes.

Mortgage costs are calculated as the sum of mortgage principal repayments and mortgage interest payments. For Australia and Chile, only mortgage principal repayments are available. No data are available on mortgage principal repayments in Denmark and Iceland.

For Australia, Canada, Chile, Colombia, Costa Rica, Mexico, New Zealand, the United States, Denmark, the Netherlands and Türkiye no information on reduced/subsidized rent is available due to data limitations (Dewilde, 2015). All types of tenants are grouped into the private market rent category. For countries covered through EU SILC the "other" category refers exclusively to accommodation provided for free.

Total housing costs can only be computed consistently for countries analysed based on EU SILC data and HES for New Zealand, as not all cost elements that make up total housing costs according to the EU-agreed definition are available for other countries.

Sources and further reading

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