HC1.3. ABILITY OF HOUSEHOLDS TO KEEP DWELLING WARM

Definitions and methodology

Apart from rents and mortgages, additional costs burden owners and tenants such as utility and repair costs (refer to Indicator HC1.2 for a discussion of different definitions of housing cost burden). Heating costs often pose a substantial additional burden for households up to the extent that some households cannot afford to keep the dwelling adequately warm. Low building quality contributes to problems in keeping the dwelling warm (Eurofound, 2016). In some countries taxes on heating fuels also affect poor people more than their better-off peers (Flues and Thomas, 2015). This indicator shows the share of households that cannot afford to keep their dwelling adequately warm to illustrate who is most affected by the problem. The indicator is based on household survey microdata. Refer to indicator PH3.1 for further information which types of costs are covered by housing allowances.

Key findings

In the Nordic countries, Estonia, Luxembourg and Switzerland few households report difficulties to keep their home warm, regardless of their income position (Figure HC1.3.1, refer to online Annex HC1.3.A1 for earlier years and data for all quintiles). In the rest of countries, by contrast, the situation is difficult for a considerable share of households. In about a third of countries (Southern European and Central and Eastern European countries) heating affordability problems concern more than 20% of households in the bottom quintile of the income distribution. Heating costs are also an issue for more than every tenth low-income household in Belgium, Germany, France, Ireland and the United Kingdom. Also, in eight, predominantly Southern European countries more than 15% of households in the middle quintile report difficulties to keep their dwelling adequately warm.

Since 2010 the share of concerned households in the bottom income quintile has remained more or less stable or increased in the majority of countries (refer to Annex HC1.3.A1 for data). The biggest increases in the share of low-income households reporting heating affordability problems took place in Greece, Italy and Spain. The share of households facing such issues in the third quintile, by contrast, has changed little in many countries. Several factors may affect the affordability of heating: In countries hit hard by the crisis – such as Spain and Greece for example – household incomes decreased and households making it harder to cover heating costs.

Greater investment in insulation and general building quality may decrease a household's heating costs, also often supported by policy measures. At the same time the household's disposable income may be affected more or less by the renovation costs, either directly (owners) or indirectly through higher rents (if the landlord passes the costs on to tenants). Heating costs are also affected by, for example, world commodity prices and the structure of (national) electricity market and taxes levied on heating fuel and electricity (Ameli and Brandt, 2014).
HC1.3.1. Share of households with difficulties to keep the dwelling warm at different points of the income distribution, 2014 or latest year available

Share of households that cannot afford to keep its dwelling adequately warm, bottom and third quintile of the disposable income distribution, in percent

1. No data available for Australia, Canada, Chile, Germany, Mexico, Japan, Korea, New Zealand, Turkey and the United States due to data limitations.

a) Note by Turkey: 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. Turkey recognises the Turkish Republic of Northern Cyprus (TRNC). Until a lasting and equitable solution is found within the context of the United Nations, Turkey shall preserve its position concerning the “Cyprus issue”.

b) 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 Turkey. The information in this document relates to the area under the effective control of the Government of the Republic of Cyprus.

Source: OECD calculations based on European Survey on Income and Living Conditions (EU SILC) 2014 except for Germany.

In Central and Eastern European countries outright owners are most common amongst low-income households with heating affordability problems (see Figure HC1.3.2 (only shows results for countries where more than 5% of low-income households affected by heating affordability problems); refer to Indicator HM1.3. for more information on tenure structure across the income distribution). These outright owner households are mostly located in thinly-populated areas. Ownership is less dominant but still the most important tenure type among low-income households with difficulties to keep the dwelling adequately warm in Southern European countries where about a third of concerned households are tenants.
HC1.3.2. Tenure structure of low-income households with difficulty to keep dwelling warm, 2014 or latest year available, selected countries

Tenure shares of low-income households with difficulty to keep dwelling warm, in percent 1,2

1. No data available for Australia, Canada, Chile, Mexico, Japan, Korea, New Zealand, Turkey and the United States due to data limitations. In Denmark and the Netherlands all tenants are attributed to private market rent due to data limitations.

2. Disaggregation by tenure type only shown for countries where more than 5% of low-income households report heating affordability problems and 30 or more households in the survey reported that they are concerned.

   a) Note by Turkey: 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. Turkey recognises the Turkish Republic of Northern Cyprus (TRNC). Until a lasting and equitable solution is found within the context of the United Nations, Turkey shall preserve its position concerning the “Cyprus issue”.

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   Source: OECD calculations based on European Survey on Income and Living Conditions (EU SILC) 2014 except for Germany.

   In English and German-speaking countries, Belgium, Denmark, France and the Netherlands, by contrast, tenants are more likely than owner-occupiers to be affected by heating affordability problems. In the Netherlands, Denmark, Germany and Austria more than three quarters of the concerned households are tenants. Many of the concerned tenants pay subsidized rents: Low-income households with problems to keep the dwelling warm are more likely to live in a subsidized rental accommodation than the average low-income household (see Indicator HM1.3 for more details on tenure structure).

Data and comparability issues

This indicator is calculated based the European Survey on Income and Living Conditions (EU SILC) for European countries. No comparable information is available in the household surveys of other countries. The variable in EU SILC refers to whether the household can afford to keep the dwelling adequately warm, regardless of whether the household actually needs to keep it adequately warm.

In Denmark and the Netherlands all tenants are attributed to the private market rent category as EU SILC does not allow distinctions by tenant type (private market rent as opposed subsidized rent).

Last updated 20/12/2016
Sources and further reading:


Eurofound (2016), Inadequate housing in Europe: Costs and consequences, Publications Office of the European Union, Luxembourg;
