



Research note no. 1

Housing and Social Inclusion

By Erhan Özdemir and Terry Ward

ABSTRACT

Housing costs account for a large part of household expenditure across the EU .Since everyone needs a house, the costs that this involves are to a large extent inescapable, Accordingly, there is a strong argument for taking them into account when assessing the distribution of income and the risk of poverty in EU countries. The purpose of this Research Note is to examine the scale of housing costs in different Member States and they tend to vary across income groups, between home owners and those living in rented accommodation and between broad age groups. It is also to consider what difference it would make to estimates of the risk of poverty and the way that it affects different age groups if disposable income were calculated after deducting housing costs rather than before. The results indicate that housing costs vary widely across the EU, that the scale of costs is only slightly related to the extent of home ownership in different countries, that older people tend to have higher housing costs relative to income than those younger, though this is largely because their income tends to be lower and that measuring the risk of poverty after deducting housing costs affects the older age group in particular.

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Erhan Özdemir and Terry Ward ¹

I. Introduction

Housing costs are an unavoidable part of household expenditure which effectively reduce the amount of disposable income which households have to cover other purchases. As such, they should arguably be taken into account explicitly when assessing the risk of poverty which households face. This is in fact done in the UK, in particular, where estimates of the risk of poverty are made before and after deducting housing costs.

At the same time, the costs which households incur on housing are by no means fixed and there is a significant range of choice over how much to spend on accommodation. People, therefore, can elect to spend a larger or smaller proportion share of their income on housing according to where they want to live, the size, and quality, of the house they want to live in, the amount of ground they want it to stand in and so on. Simply deducting housing costs from income before assessing effective living standards or the risk of poverty, accordingly, ignores the utility, or satisfaction, associated with the housing in question and fails to take account of this potentially important aspect of differences in individual circumstances.

Moreover, housing also represents an asset which tends to maintain or increases its value over time and, in consequence, a store of wealth which generates a future income stream and against which people can borrow to increase their present effective purchasing power. Such an asset should arguably also be taken into account when assessing the differences in income and living standards between individuals and in their potential risk of poverty. This means that it matters whether people own their own home or not and that those who do are in a more favourable position in terms of their potential purchasing power than those who do not, even if their monetary income is the same.

Such a difference is the reason why it is often suggested that income should be measured to take explicit account of the income stream which housing generates, or of the rent which home-owners would need to pay if they rented rather than owned their housing². Including imputed rent in the calculation of disposable income, therefore, is a means of allowing for this difference between home-owners and tenants when comparing income levels.

The decision of whether to measure disposable income before or after housing costs is, therefore, not straight-forward. In essence, while housing costs as such are unavoidable, for most people, there remains an element of choice over how much of household income they absorb. This would seem to argue for deducting that part of housing costs which are inescapable before assessing income differences between people and considering whether or not a particular level of income is sufficient to avoid the risk of poverty and/or social exclusion. What the part concerned is, however, is difficult to identify since it tends to vary markedly between different locations as well as between different households – in the sense that a larger family requires larger, and more costly, accommodation than a smaller one.

¹ Applica

² See, in particular, Expert Group on Household Income Statistics (the 'Canberra Group'), *Final Report and Recommendations*, Ottawa, 2001.

Moreover, the cost of renting or of purchasing accommodation is not the only element of the costs of housing. There are equally the costs of repairs and maintenance and of heating – or cooling – to allow for as well as various charges, including local taxes, which can also vary significantly between both locations and households as well as between different types and quality of housing.

Outline

The concern here is to examine the scale of housing costs across the EU and how this varies between:

- households with differing levels of income within Member States
- home-owners and tenants
- different age groups
- different household types

The concern is also to consider the effect on both the distribution of income and the risk of poverty of deducting housing costs from disposable income before measuring both of these.

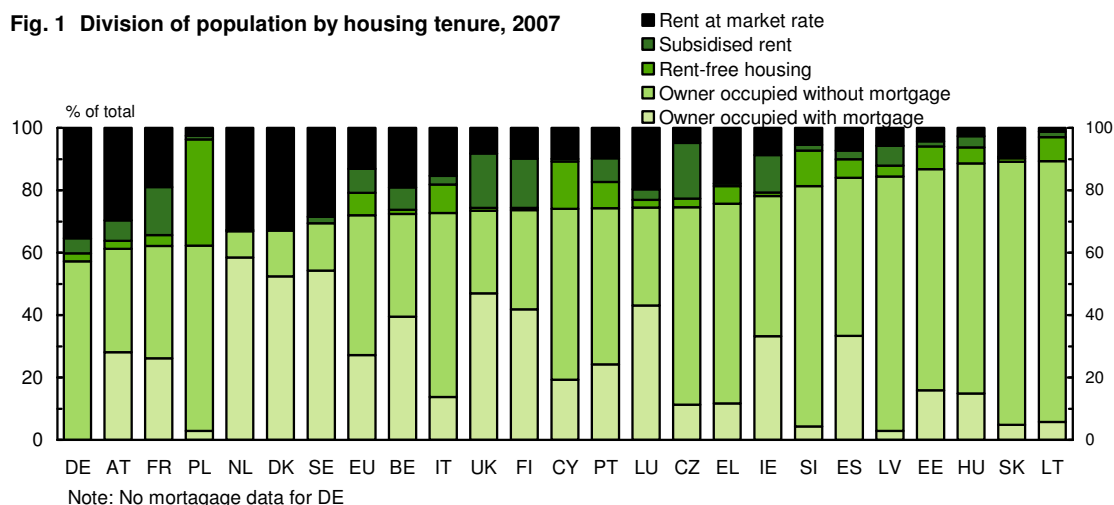
The analysis is based on the EU-SILC for 2007 which contains summary details of housing costs in terms of the total amount paid each month by households, the amount paid in rent or mortgage interest and the housing allowances received which offset these costs.

II. Variations in housing tenure across the EU

In order to be able to interpret variations in housing cost between countries and between social groups within countries and to put them into context, there is a need to begin by examining variations in housing tenure, or in the proportion of people who own their own homes as opposed to living in rented accommodation and of these the number who have mortgages, on the one hand, and have their rents subsidised or covered fully, on the other.

In practice, the structure of housing tenure varies markedly across the EU. Although in all countries, the majority of people own their own homes, the proportion varies from 85-90% in the three Baltic States, Hungary and Slovakia and three-quarters or more in all the EU10 countries which entered the EU in 2004, except Poland, and where, in the former communist countries, most people acquired possession of the housing they occupied soon after the transition, to only 57% in Germany (Figure 1). Within the EU15, the proportion is also around three-quarters or above in Greece, Spain and Portugal and only just over 60% in Austria and France.

Fig. 1 Division of population by housing tenure, 2007



The remainder live either in rented accommodation, paying market rents or having their rents subsidised, or in rent-free accommodation, in some cases because their housing is tied to the job that they do, the latter varying from over a third in Poland, 15% in Cyprus and around 11% in Slovenia to zero or close to in Denmark, Sweden, the Netherlands, Finland, Ireland and Slovakia. Indeed, apart from the three countries mentioned, it is above 5% only in the four Southern EU15 Member States, Estonia and Lithuania.

At the same time, the large majority of those living in rented accommodation in Ireland (12% of the total population), Finland (16%), the UK and the Czech Republic (around 18% of the total in both) have their rents subsidised by the State, local authorities or housing associations. The figure is also high in France (15% of the population).

On the other hand, a substantial proportion of people live in rented housing and report paying market rents in Denmark, Germany and the Netherlands (around a third of the population) as well as Austria and Sweden (just under 30%).

Variations in housing tenure with income

The pattern of housing tenure tends to vary with income right across the EU. In all Member States except Poland, the proportion of people owning their own home increases as income rises. Nevertheless, even among the bottom 20% of income earners, it is around 40% or more in all countries except Germany (around a third) and over half in the great majority. Among the top 20% of income earners, Poland apart, around 70% or more of people are home-owners and in 16 of the 24 countries, over 85% (Table 1).

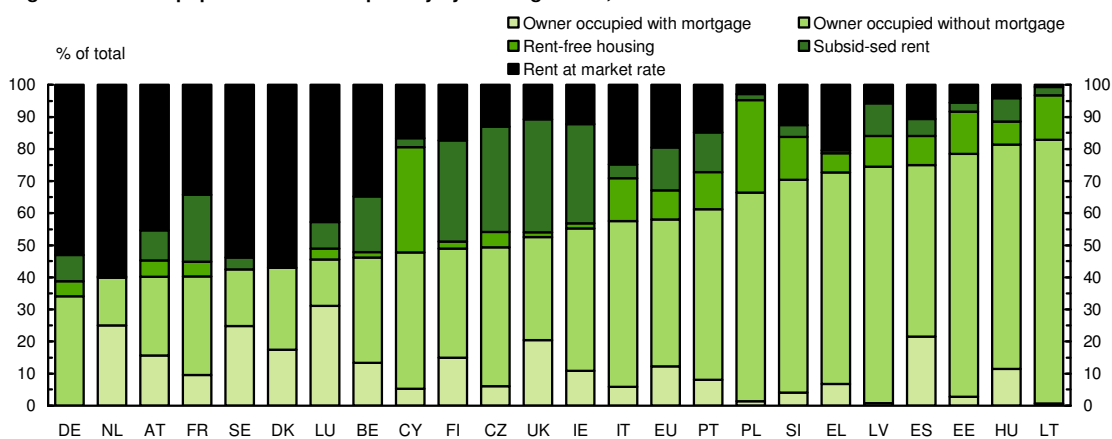
Table 1 Pattern of housing tenure for those in the top and bottom income quintiles, 2007

	% Disposable income					% Disposable income				
	Owned without mortgage	Owned with mortgage	Rent at market price	Subsidised rent	Rent-free	Owned without mortgage	Owned with mortgage	Rent at market price	Subsidised rent	Rent-free
	<i>Bottom quintile</i>					<i>Top quintile</i>				
BE	32.5	15.5	32.7	17.9	1.5	32.5	54.0	11.0	1.3	1.2
CZ	51.0	6.9	9.4	27.6	5.1	63.5	16.6	5.0	13.5	1.5
DK	22.2	20.4	57.4	0.0	0.0	12.2	75.5	12.3	0.0	0.0
DE	35.4		51.9	8.3	4.4	73.8	:	23.1	1.9	1.2
EE	75.9	2.7	5.4	2.7	13.3	56.0	33.4	4.4	0.8	5.3
IE	45.4	11.3	12.4	29.4	1.5	43.7	46.9	6.8	1.9	0.7
EL	66.3	6.6	20.2	0.9	6.0	59.8	19.1	14.7	0.8	5.6
ES	53.2	21.8	10.6	5.4	9.0	43.9	45.9	4.9	1.4	3.9
FR	29.0	10.3	33.7	22.8	4.2	45.2	35.0	8.6	8.5	2.7
IT	51.8	5.8	24.9	4.2	13.4	64.8	19.4	8.3	1.0	6.5
CY	46.4	7.2	14.8	2.5	29.1	58.6	27.5	7.7	0.2	6.0
LV	73.2	0.8	5.9	10.4	9.8	81.5	6.7	7.2	3.4	1.1
LT	82.1	1.1	0.7	2.7	13.5	77.3	15.9	2.0	1.0	3.8
LU	16.6	32.6	40.2	7.3	3.3	38.9	43.7	13.4	2.9	1.1
HU	69.6	13.2	3.8	6.5	6.9	75.3	16.1	2.2	2.7	3.7
NL	12.1	28.8	58.9	0.0	0.3	9.6	79.0	11.1	0.0	0.3
AT	25.9	17.2	43.6	8.7	4.6	37.9	33.4	20.9	6.5	1.4
PL	64.8	1.3	3.1	1.8	28.9	52.3	7.4	2.6	0.9	36.8
PT	54.1	8.5	14.0	11.8	11.6	50.0	38.2	4.9	3.6	3.3
SI	68.0	4.0	11.2	4.1	12.8	84.0	5.0	1.3	0.7	8.9
SK	80.1	3.7	14.2	0.8	1.3	84.3	7.4	7.4	0.3	0.7
FI	33.6	17.6	16.7	30.3	1.9	32.3	58.1	4.6	4.6	0.5
SE	17.5	27.7	51.3	3.4	0.0	12.1	72.8	13.7	1.3	0.0
UK	31.8	21.1	10.8	34.9	1.4	25.1	67.3	5.3	1.8	0.5
EU	44.0	13.0	21.1	13.5	8.3	45.3	38.2	7.2	2.9	6.3

Source: EU-SILC 2007

Those on low incomes at risk of poverty are, therefore, less likely to own their own homes and more likely to live in rented accommodation, though they are also more likely to live in rent-free housing (Figure 2).

Fig. 2 Division of population at risk of poverty by housing tenure, 2007

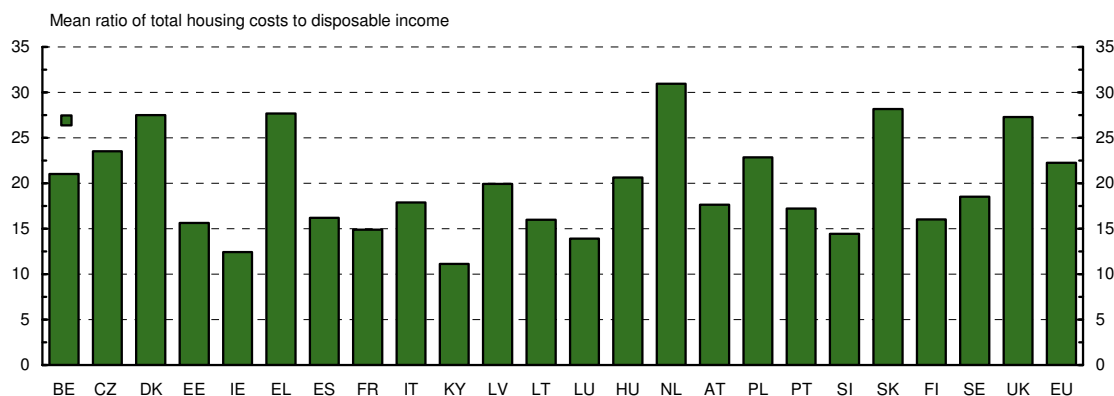


Note: No mortgage data for DE

III. The variation in housing costs across Member States

Total housing costs, defined to include rent and mortgage interest payments (though not repayment of capital) as well as the costs of fuel, maintenance and repairs and to exclude any housing allowances received (see Box), amounted on average to around 20% of disposable income (after deducting housing allowances) in the EU in 2006 (Figure 3 – see Annex for a description of the method of calculating average housing costs; note that Germany is not included in this and other figures and tables relating to housing costs because of problems with the data for housing allowances; see Annex for details).

Fig. 3 Ratio of housing costs relative to disposable income (%) for total population, 2007



The scale relative to income varied from just over 30% in the Netherlands and just under 30% in Denmark, Greece, Slovakia and the UK to under 15% in Ireland, Cyprus, Luxembourg and Slovenia.

Housing costs by quintile

The burden imposed by housing costs, however, tends to vary inversely with income. The cost of housing, therefore, absorbs a much larger share of disposable income for the more prosperous than for the less so (Table 2).

Table 2 Mean housing costs relative to disposable income by quintile, 2007

% Disposable income

Income quintile

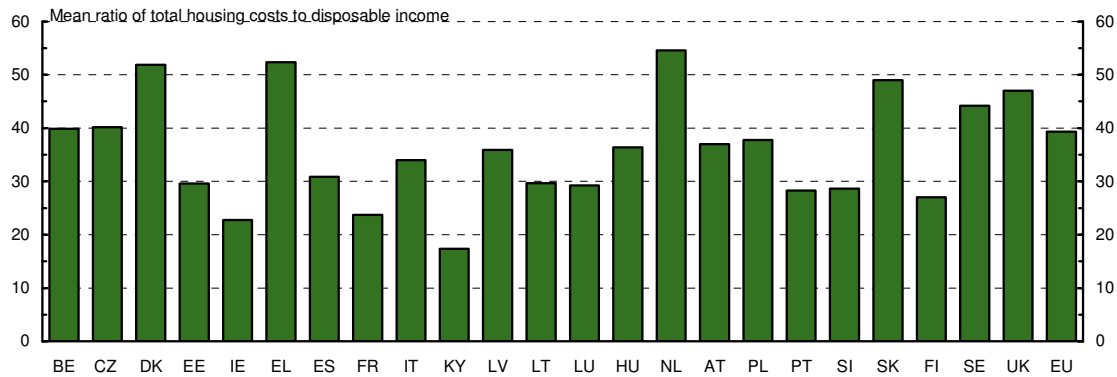
	First	Second	Third	Fourth	Fifth	Total
Belgium	36.8	23.7	17.7	15.0	11.9	21.0
Czech Rep	35.1	26.4	22.2	19.1	14.7	23.5
Denmark	44.1	27.8	24.8	22.1	18.8	27.5
Germany						
Estonia	29.3	16.7	13.2	10.6	8.4	15.6
Ireland	21.8	12.2	10.7	9.3	8.1	12.4
Greece	52.5	29.9	23.3	18.7	14.2	27.7
Spain	30.7	16.8	12.6	11.5	9.0	16.1
France	22.4	16.6	14.4	11.9	9.2	14.9
Italy	33.9	19.2	15.2	12.1	9.1	17.9
Cyprus	16.3	11.8	10.4	9.4	7.8	11.1
Latvia	36.5	22.3	17.2	13.8	10.2	19.9
Lithuania	29.3	17.1	14.1	10.8	8.6	16.0
Luxembourg	25.9	13.7	11.2	10.4	8.6	13.9
Hungary	32.0	23.1	18.9	16.7	12.6	20.6
Netherlands	47.4	33.0	27.2	25.1	22.0	30.9
Austria	31.2	18.3	15.7	12.9	10.5	17.7
Poland	36.4	24.9	21.3	18.3	13.3	22.8
Portugal	27.6	19.0	16.7	13.1	9.7	17.2
Slovenia	24.6	15.3	12.8	10.8	8.6	14.4
Slovakia	43.4	31.2	26.5	22.2	17.6	28.2
Finland	24.8	17.9	15.1	12.5	9.8	16.0
Sweden	35.1	19.9	15.3	12.7	9.8	18.5
United Kingdom	46.5	28.9	23.7	19.9	17.6	27.3
EU	37.4	23.9	19.8	16.8	13.4	22.2

Source: EU-SILC 2007

The difference is particularly large in Greece, where housing costs amount to over 50% of disposable income for those with income in the bottom quintile as opposed to only around 20% in the former and 15% for those with income in the top quintile. Only in the Netherlands do those in the top quintile have housing costs which, on average, exceed 20% of their disposable income and only in Cyprus do those in the bottom quintile have housing costs averaging below 20% of their income.

This difference is, of course, reflected in the scale of housing costs borne by those with income below the poverty threshold in each of the countries as opposed to the population as a whole. In the EU as a whole, such costs amount, on average, to around 37% of disposable income for those with income below the poverty threshold, while in Denmark and the Netherlands, they amount to over 50%. Only in Ireland, France and Cyprus is the figure below 25% (Figure 4).

Fig. 4 Ratio of housing costs relative to disposable income (%) for population below at risk of poverty threshold 2007



There are large variations in the scale of housing costs between those with similar levels of income, reflecting in part whether they have mortgages outstanding or not in the case of home owners, in part whether they live in low rent or rent-free accommodation. At the EU level, therefore, some 40% of those with income below 60% of the national median have housing costs amounting to 40% or more of income, while almost as many (37%) have costs of less than 25% of income (Table 3).

The situation, however, varies markedly between countries in this respect. In Greece, around 65% of those at risk of poverty have housing costs which are over 40% of disposable income and in the Netherlands, over 60%. By contrast, in Estonia, Slovenia and Finland, the figure is under 20% and in Ireland and Cyprus, under 15%. For most of those with income above the poverty threshold, housing costs represent under 25% of disposable income in all countries, apart from the Netherlands. In Estonia, Ireland, Cyprus, Luxembourg, Lithuania and Slovenia, over 90% of the people with this level of income have housing costs below this level. Moreover, in the great majority of countries (17 of the 24), less than 5% of those with income above the poverty threshold have housing costs of over 40% of disposable income,

Table 3 Distribution of housing costs as a share of disposable income

	<i>% population with income above/below threshold</i>					
	<i>Above 60% of median</i>			<i>Below 60% of median</i>		
	<i><25%</i>	<i>25%-40%</i>	<i>>40%</i>	<i><25%</i>	<i>25%-40%</i>	<i>>40%</i>
Belgium	80.9	14.1	5.0	29.0	32.1	38.9
Czech Republic	70.8	21.9	7.3	23.3	37.8	38.9
Denmark	59.2	33.2	7.5	7.7	34.3	58.0
Germany						
Estonia	93.2	4.8	2.0	55.1	25.8	19.1
Ireland	93.9	4.9	1.2	75.5	12.3	12.1
Greece	70.3	26.4	3.3	7.8	26.6	65.6
Spain	89.4	7.4	3.1	61.2	16.8	22.0
France	85.0	11.4	3.6	65.1	16.0	18.9
Italy	88.2	8.9	2.9	51.8	21.4	26.8
Cyprus	94.2	5.1	0.7	76.2	15.7	8.0
Latvia	84.8	11.2	4.0	42.4	27.1	30.6
Lithuania	93.5	5.3	1.2	53.9	25.9	20.2
Luxembourg	90.2	8.8	1.0	43.8	33.2	23.0
Hungary	82.9	13.3	3.8	36.3	31.6	32.1
Netherlands	47.3	39.0	13.7	10.8	28.1	61.2
Austria	88.2	10.0	1.9	35.7	32.7	31.6
Poland	75.8	18.4	5.8	35.5	31.3	33.2
Portugal	84.9	10.9	4.2	57.3	20.8	21.9
Slovenia	91.8	5.6	2.6	58.8	21.3	19.9
Slovakia	59.8	25.3	14.9	18.9	28.3	52.8
Finland	87.3	10.0	2.7	61.4	20.3	18.3
Sweden	83.1	13.7	3.3	28.2	26.3	45.5
United Kingdom	65.5	24.6	9.9	22.8	30.6	46.6
EU25	74.6	18.3	7.0	38.3	23.9	37.8

Source: Eurostat, EU-SILC, 2007

The variation in housing costs by tenure

As might be expected people who own their own homes tend to have lower housing costs than those who rent accommodation, especially since many of those concerned have no longer any outstanding mortgage payments. The extent to which this is the case, however, is less than might be expected, reflecting the fact that a large proportion of housing costs consist of the cost of repairs, maintenance, heating, electricity and charges of various kinds as well as rent or the costs of servicing a mortgage.

DEFINITION OF HOUSING COSTS

Housing costs are measured to cover all the costs of accommodation, including the cost of utilities (water, electricity, gas and heating) and any charges levied. For home owners, they include mortgage interest payments net of any tax relief, insurance on the house, mandatory services and charges (such as for sewage removal or refuse collection), and regular maintenance and repair costs. They exclude the cost of mortgage repayments which are regarded as being matched by the value of the capital asset being acquired. For tenants, they include rent payments, gross of housing benefits, any insurance on the house paid by the tenant, service charges where applicable and regular maintenance and repair costs, again if applicable. Any housing allowances received are deducted from the gross housing costs as defined above to give the net amount paid.

Those living in owner-occupied houses or apartments on which there is no mortgage outstanding, therefore, tend indeed to have lower housing costs than home-owners with

mortgage payments (only mortgage interest payments are included in the EU-SILC in housing costs, it should be noted), though the difference is relatively small – only just over 4% of disposable income over the EU-25 as a whole (Table 4). Moreover, in five countries – Estonia, Greece, France, Sweden and Poland (in the last only marginally) – home-owners without mortgages have on average higher housing costs than those with, reflecting differences in their circumstances (in, for example, the size of the house or the location or, more generally, their income levels).

Table 4 Mean housing costs as % of disposable income by tenure, 2007

Country	Owner occupied without mortgage	Owner occupied with mortgage	Rent at market rate	Subsidised rent	Rent-free housing	Total
Belgium	15.1	17.5	36.2	28.9	9.9	21.0
Czech Republic	22.3	25.2	33.0	24.8	20.3	23.5
Germany						
Denmark	19.2	25.7	34.0			27.5
Estonia	15.2	12.7	30.6	17.9	16.8	15.6
Ireland	8.1	12.3	32.2	15.3	6.5	12.4
Greece	28.0	25.0	33.5	11.1	14.0	27.7
Spain	10.9	19.5	38.0	25.3	11.6	16.2
France	10.4	8.1	27.0	23.4	9.5	14.9
Italy	13.5	19.6	33.8	25.9	14.2	17.9
Cyprus	7.8	15.6	24.8	23.0	8.0	11.1
Latvia	19.4	30.9	21.3	22.7	16.2	19.9
Lithuania	15.3	19.0	34.7	21.5	17.0	16.0
Luxembourg	5.2	13.1	27.5	32.6	5.2	13.9
Hungary	20.6	21.1	20.3	18.1	21.8	20.7
Netherlands	16.3	28.8	38.7		12.4	30.9
Austria	12.2	14.9	25.6	21.5	16.6	17.7
Poland	21.5	21.2	35.8	30.5	24.1	22.8
Portugal	13.9	20.9	30.8	17.8	9.9	17.2
Slovenia	12.6	25.1	31.9	28.1	12.2	14.4
Slovakia	26.6	36.4	38.6	33.4	20.6	28.2
Finland	11.0	14.3	27.0	24.6	3.6	16.0
Sweden	13.5	12.0	32.7	30.1		18.5
United Kingdom	18.7	27.1	43.1	33.9	19.3	27.3
EU25	16.0	20.3	33.4	27.3	18.4	20.5

Note: No available mortgage data for DE in year 2007

Source: EU-SILC 2007

Those living in rented accommodation have substantially higher costs in most countries (averaging around 33% of disposable income across the EU), though not in all. In Greece, Latvia and Hungary, in particular, the difference is relatively small, again reflecting differences in the underlying circumstances and the levels of income of the two groups. The relatively large difference which exists in most cases, however, tends to be exaggerated by the tendency for housing tenure itself to vary with income. A larger proportion of those who live in rented accommodation, therefore, tend to have relatively low income levels and, accordingly, higher housing costs than those living in owner-occupied housing (see reference to Social Situation Report).

Those living in accommodation where rents are subsidised tend to have lower housing costs than those paying full market rents, though higher costs than home-owners. In Latvia and Luxembourg, however, housing costs are higher for those living in subsidised rented accommodation than for those paying market rent. Those living in rent-free accommodation have lower housing costs, on average, as would be expected than other tenants, but similar

costs to home-owners, again reflecting the nature of these costs and the fact that a large share consist of charges other than for the payment for the accommodation itself. Again, however, there are exceptions – in Greece and Hungary, those in rent-free housing having, on average, higher costs than those paying rent on their accommodation, perhaps reflecting their lower income levels.

The effect of differences in income levels on the scale of housing costs can be allowed for in some degree by examining the level of costs relative to income for households at risk of poverty – i.e. those with income below 60% of the median in each country (Table 5).

Table 5 Housing costs as % of disposable income by tenure for those at risk of poverty, 2007

Country	Owner occupied without mortgage	Owner occupied with mortgage	Rent at market rate	Subsidised rent	Rent-free housing	Total
Belgium	30.6	38.6	52.2	35.7	17.2	39.9
Czech Republic	40.7	38.2	50.1	37.6	27.6	40.1
Germany						
Denmark	35.3	64.8	55.3			51.9
Estonia	28.9	40.5	40.0	27.4	27.6	29.6
Ireland	16.3	26.9	55.7	18.1	14.3	22.8
Greece	51.9	56.1	59.8	20.5	31.6	52.3
Spain	22.7	41.0	56.3	38.5	20.9	30.9
France	22.7	12.9	27.5	25.8	15.7	23.7
Italy	27.2	40.4	49.5	39.7	26.8	34.0
Cyprus	13.2	22.8	37.9	31.3	10.3	17.4
Latvia	37.5		34.2	35.7	20.2	35.9
Lithuania	29.2			33.2	29.3	29.7
Luxembourg	13.1	19.9	38.9	50.9	10.7	29.3
Hungary	36.8	38.9	36.9	29.2	37.2	36.5
Netherlands	38.1	59.6	56.6			54.5
Austria	26.7	32.1	45.2	37.7	28.2	37.0
Poland	35.7	64.7	57.2	42.8	38.9	37.7
Portugal	24.3	34.9	48.7	27.3	17.0	28.3
Slovenia	24.1	48.2	46.5	49.6	22.7	28.6
Slovakia	45.6	67.5	63.9		33.4	49.0
Finland	19.7	27.3	39.4	29.5	4.3	27.1
Sweden	28.2	31.2	55.0	49.3		44.2
United Kingdom	36.9	55.7	62.8	46.7	36.3	47.0
EU25	30.6	43.5	47.8	38.6	29.2	36.5

Note: Missing values signify that the number of people concerned is too small for the data to be reliable, the values with bold font imply the figures that should be used with a statistical caution because of number of observations. No available mortgage data for DE in year 2007

Source: EU-SILC 2007

It is evident that there is much less of a difference than indicated above in the scale of housing costs between those living in rented accommodation and paying either full or subsidised rent and those living in owner-occupied housing, especially those with mortgages in the latter case, Home owners with mortgages, therefore, have higher housing costs, on average, than tenants paying market rent in Denmark, Hungary, the Netherlands, Poland, Slovenia, Slovakia and Estonia (if marginally), despite the fact that their housing costs do not include the cost of mortgage repayments. Nevertheless, those with income below the poverty threshold living in market rented accommodation have very high housing costs on average in number of countries, most especially in Slovakia and the UK, where they amount to 63% of

disposable income (though in the former, those with mortgages have even higher costs), Greece, where they are close to 60% and the Netherlands and Poland, where they are around 57% of disposable income.

An important point which comes out of a comparison between Tables 4 and 5 is that for each type of housing tenure, differences in housing costs relative to income tend to be as wide if not wider between countries than between types of tenure within countries. The implication is that differences in the pattern of tenure across countries are unlikely to explain much of the variations between them in the scale of housing costs relative to income noted above.

Variations in housing costs with age

Housing costs relative to income tends to increase slightly with the age of the occupants, despite the fact that home ownership and, in particular, the proportion of home owners with no mortgage, also tend to increase with age. (On average, some 73% of those aged 65 and over the EU-25 live in owner-occupied housing as opposed to 69% of those aged 25-64 and 62% of those aged 18-24. At the same time, around 67% of those aged 65 and over are owner-occupiers with no mortgage as against 40% of those aged 25-64 and just 26% of those aged 18-24.) This largely reflects the tendency for income – i.e. the denominator in the calculation – to decline with age, as is reflected by the fact that housing costs are a smaller share of disposable income for those aged 65 and over than for younger age groups if the comparison is confined to those with income below the poverty threshold (see below).

For those aged 65 and over, therefore, housing costs average around 23% of disposable income across the EU25 as opposed to 22% for those aged 25-64 and around 22.5% for those aged under 25 (Table 6).

The limited variation across age groups, however, is not true of all Member States. In the former communist countries among the EU10 countries, in particular, there is a marked tendency, except in Poland, for housing costs of those aged 65 and over to be a larger share of disposable income than for those in younger age groups. This is also the case in Belgium, Germany and Sweden, if, apart from the last, to a smaller degree.

The scale of housing costs, by contrast, is relatively high relative to income for young people those aged 18-24 in some number of countries, especially those in which a relatively large proportion of them live alone – in Denmark, Finland and Sweden, in particular – whereas it is low in others, where young people tend to remain in the family home (Cyprus, Latvia, the Czech Republic and Slovakia, for example).

.In most countries, the scale of housing costs for children (those aged under 18) is similar to people of working age with whom they share households, though it is higher on average in Spain, Italy and Portugal, reflecting in part the relatively low incomes of families with children in these countries.

Table 6 Mean housing costs relative to disposable income by age group, 2007

Country	<i>% Disposable income</i>				Total
	0-17	18-24	25-64	65+	
Belgium	20.5	20.4	20.6	23.4	21.0
Czech Rep	24.2	21.4	22.7	27.3	23.5
Denmark	26.4	33.2	26.9	28.6	27.5
Germany					
Estonia	14.8	15.7	14.9	18.8	15.6
Ireland	12.5	13.5	12.6	10.1	12.4
Greece	29.6	31.2	26.7	27.3	27.7
Spain	18.3	14.7	16.3	14.3	16.2
France	12.3	17.7	15.0	16.2	14.9
Italy	19.1	17.6	17.1	18.9	17.9
Cyprus	11.9	9.2	11.2	11.4	11.1
Latvia	19.2	17.6	19.6	23.3	19.9
Lithuania	15.6	15.3	15.4	18.8	16.0
Luxembourg	15.9	11.6	14.5	9.8	13.9
Hungary	20.3	20.6	20.1	22.9	20.6
Netherlands	31.9	28.9	30.2	33.7	30.9
Austria	18.2	16.9	17.6	17.7	17.7
Poland	22.7	22.8	22.8	23.4	22.8
Portugal	20.9	15.9	17.1	14.4	17.2
Slovenia	13.7	13.1	14.2	17.0	14.4
Slovakia	28.5	25.7	26.9	34.9	28.2
Finland	15.8	20.8	15.6	15.4	16.0
Sweden	16.4	26.4	17.0	22.1	18.5
United Kingdom	28.6	28.3	26.9	26.2	27.3
EU25	22.4	22.4	21.9	23.1	22.2

Source: EU-SILC 2007

The pattern of variation in housing costs across age groups is somewhat different for those with income below the poverty threshold, where accordingly the effect of differences in the average level of income on the calculation is reduced to a large extent. In this case, housing costs tend to account for a smaller rather than a larger share of disposable income for those of 65 and over in the EU10 countries – the only exception being Hungary – which suggests that the average figure indicated above is due more to the relatively low average income level of the people concerned rather than to higher housing costs as such (Table 7)..

The same is the case in all the EU15 countries apart from France, most especially in Denmark, Spain, Finland, Sweden and the UK.

Children also tend to live in households with income below the poverty threshold also tend to have lower housing costs relative to income in most countries, in this case reflecting their tendency to live in larger houses which proportionately tend in turn to have lower housing costs in relation to income (see below).

Table 7 Mean housing costs relative to disposable income for those at risk of poverty by broad age group

Country	% Disposable income				Total
	0-17	18-24	25-64	65+	
Belgium	35.9	44.5	43.0	36.5	39.9
Czech Rep	38.6	38.2	42.0	37.3	40.1
Denmark	49.9	53.7	60.8	37.5	51.9
Germany					
Estonia	29.2	29.2	31.7	26.9	29.6
Ireland	20.2	32.2	25.1	15.5	22.8
Greece	53.9	57.5	53.2	46.5	52.3
Spain	32.8	31.6	33.9	22.8	30.9
France	17.1	30.5	24.2	26.4	23.7
Italy	34.3	31.7	35.0	32.5	34.0
Cyprus	18.5	20.3	20.3	13.7	17.4
Latvia	32.6	30.5	39.1	34.3	35.9
Lithuania	28.4	28.0	32.3	26.9	29.7
Luxembourg	28.9	23.4	31.0	26.7	29.3
Hungary	32.1	38.1	37.7	42.6	36.3
Netherlands	52.2	57.2	56.9	49.7	54.5
Austria	34.9	43.6	38.9	31.3	37.0
Poland	36.2	36.0	39.7	32.3	37.7
Portugal	32.6	27.5	29.3	22.9	28.3
Slovenia	28.0	28.0	29.8	27.0	28.6
Slovakia	47.6	47.7	50.3	48.6	49.0
Finland	24.2	38.3	28.8	19.9	27.1
Sweden	34.7	56.3	46.8	37.7	44.2
United Kingdom	42.7	53.6	51.8	41.2	47.0
EU25	36.6	41.3	41.7	35.8	39.3

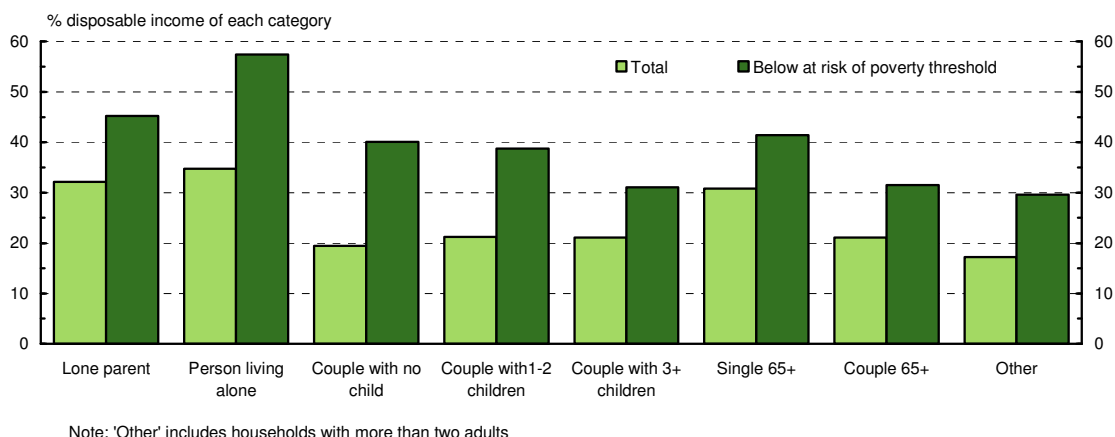
Source: EU-SILC 2007

Variations in housing costs by household characteristics

Housing costs tend to represent a larger share of income for those living alone than for large families rather than the reverse. This reflects the fact that housing costs, considered overall, may be only slightly higher for larger families than smaller ones, given the large share of costs which are absorbed by fuel, maintenance, repair and so on, and given also the fact that house prices and rents do not tend to increase in proportion to the size of houses.

In the EU as a whole, therefore, housing costs averaged around 34% of disposable income for people of working age living alone and around 32% for lone parents. Housing costs also represent a relatively large share of income (31%) for those aged 65 and over living alone. These figures are substantially higher than for other households with more than one adult, whether they have children or not (Figure 5).

Fig. 5 Average housing costs as % of disposable income by household type for total population and those at risk of poverty in the EU, 2007



The figures, moreover, show a similar pattern in most countries. In all Member States without exception, therefore, housing costs represent a larger share of disposable income for people of working age living alone and for lone parents than for the population as a whole. They also represent a larger share for those aged 65 and over living alone in all countries except Luxembourg, where the share is similar to that for the rest of the population. The picture is similar for those with income below the poverty threshold, suggesting that the pattern observed is due to the housing cost element rather than differences in average income.

IV. The effect of housing costs on the risk of poverty

As argued at the outset, the fact that housing costs are a primary charge on disposable income suggests that there is a case for deducting them before assessing the risk of poverty – though as also argued, housing costs also reflect personal preferences to have a more or less expensive house. There is no easy way of determining whether it is justifiable or not to exclude housing costs when measuring the risk of poverty, which argues perhaps for measuring the risk of poverty in both ways, as in the UK.

Since housing costs account on average for a larger proportion of disposable income for those with lower income than those with higher levels, the effect of measuring disposable income to exclude housing costs is to increase the proportion of the population in all countries with income below the poverty threshold, whether this is defined as 60%, 50% or 40% of median income. While, therefore, deducting housing costs reduces median income, it reduces the income of those at the lower end of the scale by more.

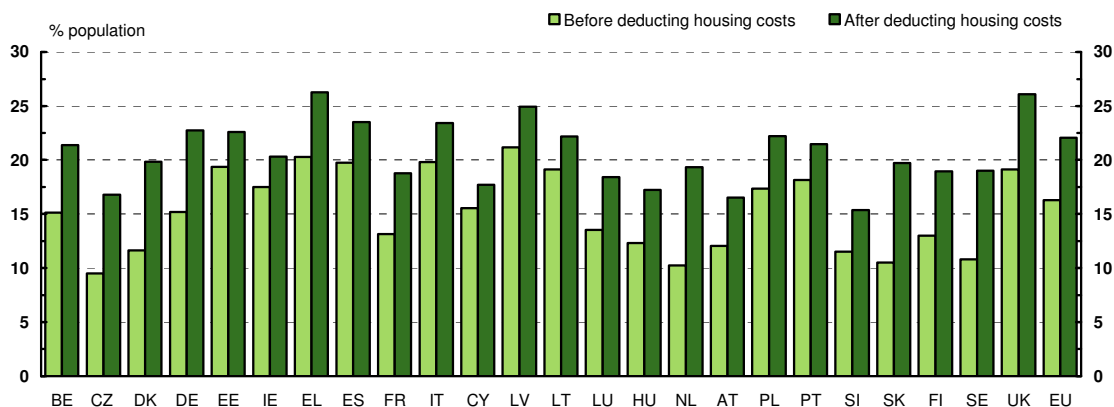
Accordingly, if disposable income is defined after housing costs, the proportion with income below 60% of the median is increased, on average, across the countries taken together from 16% to 22% (Figure 6). The increase is particularly large in countries where housing costs are high relative to income – in Denmark, Germany³, the Netherlands, Sweden and Slovakia (8-9 percentage points in each case). On the other hand, the increase is relatively small in

³ Note that in Germany the estimates of the risk of poverty after taking account of housing costs are not affected by problems with the data on housing allowances.

the southern countries, excluding Greece but including Cyprus, as well as in Ireland, Estonia, Lithuania and Slovenia, where housing costs are much lower in relation to income.

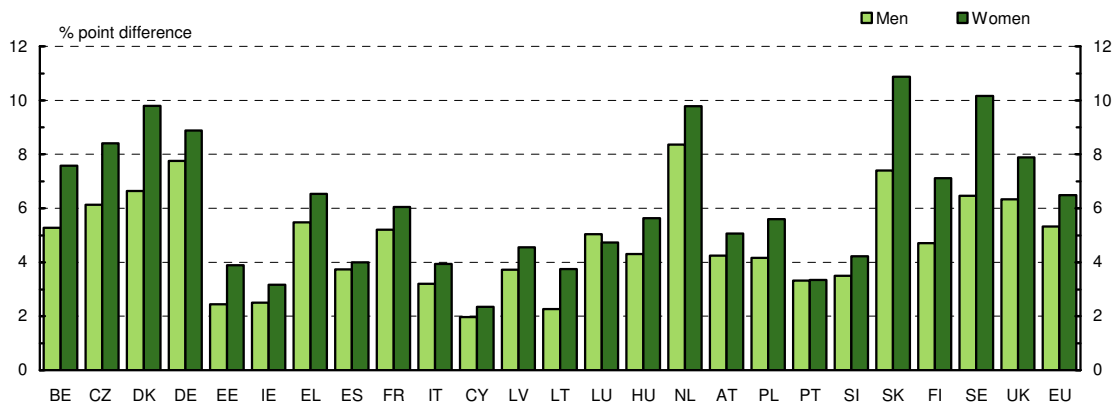
As a result, after housing costs, Germany becomes one of the countries with the largest proportions of the population with income below the poverty threshold defined in this way, above Portugal and to a lesser extent, Estonia, Lithuania and Poland, but still below Greece, Spain, Italy and the UK.

Fig. 6 Proportion of population below at risk of poverty threshold (60% below median) before and after deducting housing costs, 2007



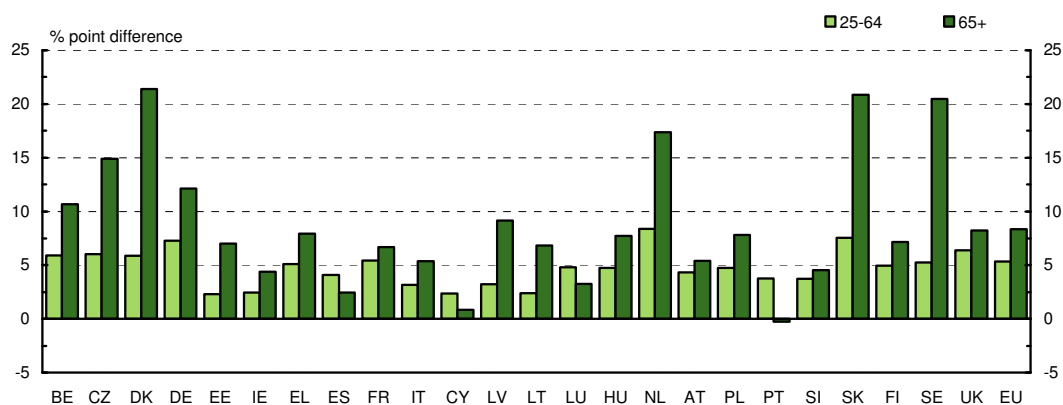
The effect of measuring the risk of poverty after deducting housing costs varies between men and women and across broad age groups. In particular, defining income to exclude housing costs tends to result in the proportion below the poverty threshold being increased by slightly more for women than for men (Figure 7). This reflects the larger number of women, especially lone parents and those aged 65 and over, who live alone and who, accordingly, tend to have high housing costs in relation to income. The larger effect on women is common across all countries, with the exception of Luxembourg and Portugal. It is especially large in Denmark, Sweden and Slovakia, where in each case the poverty rate among women is increased by around 10-11 percentage points if income is measured after housing costs, 3-4 percentage points more than for men.

Fig. 7 Difference in the proportion of the population at risk of poverty before and after the deduction of housing costs, 2007



Housing costs also tend to have more of an effect on those aged 65 and over than on younger age groups, though the scale of the effect varies greatly across countries. The proportion of those aged 65 and over at risk of poverty is increased, on average, by around 8.5 percentage points if income is measured after housing costs as opposed to before, some 3 percentage points more than for those aged 25-64 (Figure 8). There are, however, four countries – Spain, Cyprus, Luxembourg and Portugal – where the effect of excluding housing costs is smaller for the older age group than for the younger one. (In Portugal, the effect of deducting housing costs from income is to reduce the risk of poverty among those aged 65 and over.) Conversely, measuring income after housing costs increases the proportion with income below the poverty threshold substantially more for those aged 65 and over than for those aged 25-64 in Denmark, Sweden and Slovakia, the same countries as in the case of women and for a similar reason.

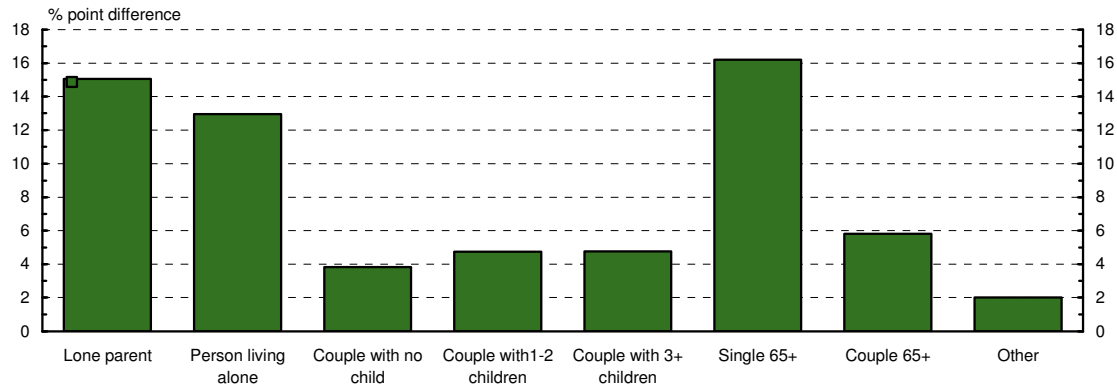
Fig. 8 Difference in risk of poverty measured including and excluding housing costs for the population aged 25-64 and 65+, 2007



The risk of poverty after housing costs by household type

Measuring the risk of poverty after deducting housing costs rather than before has a much bigger effect on people living alone than on those living in households with other people, reflecting the higher costs of housing relative to income for the former than the latter. The proportion with income below the poverty threshold is, therefore, raised, on average by between 13 and 16 percentage points for lone parents, those living alone under 65 and those living alone aged 65 and over, whereas for couple households, whether with children or not, the increase is only around 4-5 percentage points (Figure 9).

Fig. 9 Difference in the proportion of the population at risk of poverty before and after the deduction of housing costs by household type, 2007



A similar pattern of difference is evident for all Member States, the effect of housing costs on the risk of poverty among those aged 65 and over living alone (and to a lesser extent lone parents) – most of whom are women – being especially large in Denmark, Slovakia and Sweden (the three countries noted above) as well as in the Czech Republic (Table 8).

This is reflected in the much higher risk of poverty among people in this age group across the EU as a whole if measured after deducting housing costs from disposable income rather than before. In Denmark, Sweden and Slovakia, the proportion at risk is increased by 20-21 percentage points (to close to 40% in Denmark) and in the Netherlands and the Czech Republic, by some 15-17 percentage points (Figure 8 and Table 9).

Table 8 Difference between the proportion at risk of poverty before and after housing costs by household type, 2007

Percentage point difference between risk of poverty rate before and after housing costs

	Lone parent	Person living alone	Couple with no child	Couple with 1-2 children	Couple with 3+ children	Single 65+	Couple 65+	Other
BE	15.4	14.3	4.3	4.3	1.3	23.0	4.5	2.1
CZ	16.1	17.4	4.6	5.9	4.6	34.6	6.1	2.1
DK	19.4	14.0	2.9	1.8	3.0	31.9	15.4	1.9
DE	14.7	10.4	6.2	6.7	8.7	19.8	8.4	2.4
EE	9.8	4.9	2.4	2.0	1.5	10.7	5.7	-0.4
IE	7.5	6.0	2.5	2.5	1.6	8.1	4.0	-0.2
EL	13.7	14.3	3.9	6.2	6.8	14.6	9.2	3.2
ES	11.0	12.0	2.9	4.7	6.3	4.4	2.5	1.6
FR	16.3	15.8	3.7	2.8	3.5	12.4	4.1	2.0
IT	6.2	8.1	2.2	3.4	-0.2	8.3	5.9	2.4
CY	8.7	8.7	2.2	2.1	3.1	0.1	0.6	0.3
LV	8.0	6.5	4.5	3.6	-0.9	8.0	19.7	0.5
LT	9.6	6.9	3.5	1.9	-2.7	12.4	5.5	-0.4
LU	5.9	10.5	2.1	6.1	5.1	4.1	4.2	2.1
HU	11.0	12.0	3.6	4.2	4.1	16.1	4.2	2.6
NL	23.7	21.2	5.5	4.3	8.2	28.1	12.7	-2.3
AT	12.1	10.0	2.2	4.6	6.2	11.8	2.6	0.6
PL	12.4	15.3	4.7	4.8	3.2	17.6	2.8	1.5
PT	10.9	12.5	0.8	6.2	3.1	2.1	-2.2	2.4
SI	5.5	10.0	2.9	3.9	5.0	8.8	4.4	2.3
SK	23.9	26.7	5.8	7.9	7.6	39.9	17.5	3.0
FI	16.4	11.7	3.1	3.8	5.9	17.1	1.1	0.9
SE	22.7	12.7	2.5	3.3	2.1	38.5	8.8	2.5
UK	18.8	14.7	3.8	6.3	6.5	17.4	4.0	3.3
EU	15.1	13.0	3.8	4.7	4.8	16.2	5.8	2.0

Source: EU-SILC 2007

The difference, however, is far from uniform across the EU. In almost half the Member States, although the risk of poverty is increased if measured after deducting housing costs, the extent of the increase is not much bigger than for other groups. In Portugal, allowing for housing costs has no significant effect on the proportion of older people at risk, while in Cyprus and Spain, it increases the proportion by only 1-2 percentage points

Table 9 Risk of poverty before and after deducting housing costs by age group, 2007

	Before deducting housing costs (% age group)				After deducting housing costs (% age group)				Difference (percentage point)			
	0-17	18-24	25-64	65+	0-17	18-24	25-64	65+	0-17	18-24	25-64	65+
BE	17	17	12	22	22	21	18	33	5	4	6	11
CZ	16	12	8	5	23	17	14	20	7	5	6	15
DK	10	33	8	17	15	39	14	39	6	6	6	21
DE	13	19	14	16	21	25	21	28	8	6	7	12
EE	18	18	16	33	21	21	18	40	2	3	2	7
IE	19	18	14	29	22	20	16	33	3	3	2	4
EL	23	24	18	23	30	31	23	31	7	7	5	8
ES	24	18	16	28	29	21	20	31	5	3	4	2
FR	15	22	11	13	20	28	16	20	5	7	5	7
IT	25	25	17	22	29	27	20	27	3	3	3	5
CY	12	9	10	50	15	10	13	51	3	1	2	1
LV	20	18	18	33	23	22	21	42	3	4	3	9
LT	22	16	16	29	23	20	18	36	1	4	2	7
LU	20	16	12	7	26	22	17	10	6	5	5	3
HU	19	16	11	6	23	20	16	14	4	4	5	8
NL	14	18	8	10	21	22	16	27	7	4	8	17
AT	15	13	10	14	21	15	15	19	6	3	4	5
PL	24	22	16	8	28	26	21	16	4	4	5	8
PT	21	16	15	26	27	19	19	25	6	3	4	0
SI	11	9	10	19	15	13	14	24	4	3	4	5
SK	17	12	9	8	24	19	16	29	7	7	8	21
FI	11	24	10	21	17	33	15	29	6	9	5	7
SE	12	26	8	11	18	34	13	31	6	8	5	20
UK	22	19	14	30	31	26	21	38	8	7	6	8
EU	19	20	14	19	25	25	19	27	6	5	5	8

Source: EU-SILC 2007

Overall, housing costs have a similar effect on the risk of poverty among children as on those aged 25-64, the proportion with income below the poverty threshold being increased by 5-6 percentage points, on average, in both cases. The effect, however, again varies between countries. In around half, it increases the risk among children by more than among those aged 25-64, in the other half, it increases the risk by less, but nowhere in both cases by more than 2 percentage points more or less than for those aged 25-64.

For young people aged 18-24, deducting housing costs before calculating the proportion at risk of poverty increases the figure by much the same amount as for those aged 25-64. The exceptions are Finland and Sweden where it increases the proportion by 3-4 percentage points more for the former group than the latter and where a relatively large number of young people live alone, and the Netherlands, where it reduces the proportion by around 4 percentage points less.

V. Concluding remarks

As indicated above, housing costs absorb a substantial proportion of the disposable income of many households across the EU, especially of those with low levels of income. The amount involved, however, varies markedly between Member States, bearing only a limited relationship with housing tenure, or, more specifically, with the relative number of people who own the homes they live in. This partly reflects the fact that housing costs are composed to a significant extent of elements such as heating, maintenance, repairs or charges of one kind or another rather than just rent or mortgage payments. Accordingly, despite the fact the great majority of people in the former communist countries which entered the EU in 2004 own their

homes, housing costs in these countries account in many cases for a large share of disposable income which makes them difficult to cover if income is low.

The scale of costs relative to income varies to a limited extent across age groups and much more between household types. Those living alone, therefore, tend to have substantially higher housing costs in relation to their income than couple households, including those with children, reflecting the significant fixed element in housing costs which varies much less than in proportion to the size of the accommodation itself.

This is reflected in the difference it makes to the risk of poverty if this is calculated after housing costs rather than before. While the risk is generally increased in all countries, with the sole exception of Portugal, if housing costs are deducted from disposable income before the calculation is made, the increase is especially large in a number of countries for those living alone and for older people of 65 and over, many of whom live on their own.

Whether or not it is justifiable to exclude housing costs from the calculation of the poverty risk remains an open question, since such costs also reflect the size and quality of accommodation and the location in which people choose to live which is an important part of their standard of living and quality of life. To deduct housing costs before assessing relative income levels is to ignore this element, but it is difficult to take it explicitly into account by trying to identify the truly fixed, or inescapable, element of housing costs.

Annex – Calculation of housing costs relative to disposable income

The formula used for calculating housing cost as a share of disposable income (HCR) is:

$$HCR = \frac{100 * (12 * hc - halw)}{Y - halw}$$

where **hc** is total monthly housing costs (HH070 in the EU-SILC) of households, **Y** is the total disposable income of the household in the income reference year (HH020) and **halw** is housing allowances received by households in the same period (HY070). The latter is therefore deducted from the denominator in order to strip out the effect of housing on disposable income.

The figures presented in the tables and figures in the study are the mean values of HCR of all households in each of the countries covered. In order to adjust for the effect on the mean of extreme values, which may arise from unusual household circumstances or possibly errors in the data collected, cases where HCR exceeds 100% of disposable income or is less than zero (i.e. negative) because housing allowances exceed costs are modified as follows::

HCR = 100 if $(12 * hc - halw) \geq Y - halw$

HCR = 100 if $Y - halw \leq 0$ & $(12 * hc - halw) > 0$

HCR = 0 if $(12 * hc - halw) \leq 0$

HCR = missing if $hc = \text{missing}$ or $Y = \text{missing}$ or $halw = \text{missing}$

Allowing for the income support received in respect of housing, however, is not always straight-forward since in some countries, such support is included as part of minimum income, or social exclusion, payments. In principle, this should be separately distinguished and included under Housing allowances in the EU-SILC, but this is not done in the case of Germany, where the actual cost of housing and heating is covered by minimum income payments and included under this head for many of the households in receipt. Accordingly in Germany, the relatively small amounts included in Housing allowances in the EU-SILC for 2007 understate the actual income support provided for housing and so overstate the scale of housing costs in relation to disposable income. Consequently, Germany is excluded from the Tables and Figures which present details of this. It is, nevertheless, included in the calculation of the EU total, since the effect of the under-reporting of housing allowances at this level of aggregation is very small.

Table A.1 compares the (adjusted) mean values and (unadjusted) median values for HCR, the latter being an alternative way of expressing 'average' costs, though one which is more liable to variation as the number of observations declines.

The mean values are, of course, higher than the median ones for all countries, the difference varying between countries, though the rank order of countries is similar if the average is measured by the median rather than the mean, though not precisely the same, reflecting the variation in housing costs between households, especially in the relative number of households with relatively high costs.

Table A.1 – Comparison of mean and median housing costs, 2007

% Disposable income (excluding housing allowances)

Country	<i>Total</i>		<i>Above 60% of median</i>		<i>Below 60% of median</i>	
	Mean	Median	Mean	Median	Mean	Median
Cyprus	11.1	8.1	10.0	7.5	17.4	11.2
Ireland	12.4	9.1	10.3	7.8	22.8	15.5
Luxembourg	13.9	9.0	11.5	8.1	29.3	29.1
Slovenia	14.4	10.4	12.6	9.7	28.6	22.4
France	14.9	9.8	13.6	9.3	23.7	16.6
Estonia	15.6	11.5	12.3	10.2	29.6	23.1
Lithuania	16.0	12.2	12.7	10.7	29.7	22.9
Finland	16.0	12.4	14.4	11.5	27.1	20.2
Spain	16.2	10.4	12.5	8.8	30.9	20.2
Portugal	17.2	12.9	14.7	11.3	28.3	21.5
Austria	17.7	14.0	15.1	12.9	37.0	29.3
Italy	17.9	12.5	13.9	10.8	34.0	24.2
Sweden	18.5	13.9	15.5	13.0	44.2	37.9
Latvia	19.9	14.3	15.8	12.4	35.9	29.0
Hungary	20.6	17.0	18.5	16.1	36.3	29.6
Belgium	21.0	16.3	17.7	14.9	39.9	34.6
EU25	22.2	17.5	18.9	15.8	39.3	31.8
Poland	22.8	18.8	19.7	17.3	37.7	30.6
Czech Rep	23.5	19.9	21.8	19.1	40.1	33.8
United Kingdom	27.3	22.2	22.7	19.8	47.0	37.6
Denmark	27.5	24.2	24.3	23.0	51.9	44.8
Greece	27.7	22.5	21.4	20.0	52.3	46.6
Slovakia	28.2	22.9	25.7	21.7	49.0	43.2
Netherlands	30.9	27.1	28.2	25.8	54.5	45.0

Source: EU-SILC 2007