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Housing inequality in Europe

Tackling inequalities in Europe: the role of social investment

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The study is printed in this form to communicate the result of an analytical work with the objective of generating further discussions on the issue.

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Overview of Key Findings

Housing inequality in Europe is a complex topic because of the many different ways in which governments deal with it and the wide variety of housing market models that exist throughout the continent. However, housing inequalities can be both a symptom and a cause of existing income inequalities; poor households cannot afford better homes and live in neighbourhoods that exacerbate inequalities.

Housing inequalities are chiefly a cost issue… – the high cost of housing can place additional pressure on the limited incomes of the poor. Unsurprisingly, the poor are more likely than their richer counterparts to be faced with the issue of housing costs being a heavy burden on their disposable income; they are also more likely to be behind in paying their housing related bills and unable to pay for basic housing amenities.

… as well as a quality issue – lower-income individuals have less choices available to them and often live in overcrowded homes with limited basic amenities and little floor space. Moreover, their homes are often not environmentally sustainable, which adds to the long-term quality and cost issues.

Spatial segregation based on income is prevalent – The inability of poor households to afford higher quality homes often results in their residing in poor neighbourhoods that underprovide basic services, thus dissuading income mixing among the population. Spatial segregation issues include:

> **Public transportation** – poor access to public transportation makes it more difficult to commute to work/school, due to often long and potentially costly transit.
>
> **Educational services** – schools in poor neighbourhoods are often deprived of the necessary materials and qualified teachers to ensure equitable access to education; the socio-economic background of people in such neighbourhoods can have peer-effects that can hinder students' progress
>
> **Health services** – doctors (generalists and specialists) are undersupplied in poorer neighbourhoods due to limited scope for earnings and the fact that they are unprepared to deal with challenging environments.
>
> **Sense of community** – community centres, green spaces, sports/cultural facilities, and aesthetically pleasing homes are often underprovided in poor neighbourhoods, thus preventing the development of a sense of community, which in turn negatively affects the social capital and wellbeing of residents.

Housing solutions should work to overcome cost and spatial inequalities – tackling housing inequality requires a two-fold approach of investment and policy change. Investment should be geared to promoting the provision/building of affordable high quality, modern and aesthetic homes that have access to all the necessary public infrastructure that help facilitate a normal and full life. While the issue of physical infrastructure can be solved with increased investment, retaining quality doctors and teachers and promoting income mixing among the different income groups will require smart policies that incentivise people to move and stay in low-income neighbourhoods.

Public Investment in social housing has declined in recent years – throughout Europe, the public sector has been playing an increasingly limited role in investing in social housing, instead shifting the burden to the private sector. Most countries today provide housing transfers to help low-income individuals meet housing costs in the private/social rental sector, while capital housing investments are on the decline. Overall, social housing spending (transfers and capital) by governments represents just 0.66% of European GDP, low by recent historical levels and on a downward trend.

Chapter 1: How Housing Inequality is shaped in Europe

This chapter provides a brief overview of the European housing inequality debate. It is divided into three sections:

1. **An introduction to housing inequality –** The focus is placed on the relationship between income inequality and housing inequality and how housing inequality manifests itself via income and cost channels and exacerbates socio-economic differences by segregating households based on income levels.

2. **A history of housing in Europe –** This section shows how housing policies have evolved in Europe and explains the two housing models (dualist vs. unitary) that prevail throughout the continent. It concludes by discussing the case of Central-Eastern Europe countries, which all saw considerable changes in their housing policies during their transition periods.

3. **The current state of housing supply –** This section discusses the correlation between social housing (the primary tool for tackling housing inequality) and income inequality; it also highlights the fact that the overall supply of housing (social and non-social) is low in many countries relative to the last couple of decades, in an era of increasing demand.

1.1 Housing costs exasperate socio-economic inequality and segregation

Housing inequality is distinctive in that it can be affected by income inequality and at the same time contributes to it. Simply put, those with lower incomes have less disposable income with which to acquire better quality housing. Increases in income inequality over the years have been associated with a growing disparity in the affordability of housing between lower and middle-income homeowners/renters[1], and although this gap existed prior to the 2008 financial crisis, the crisis has intensified these disparities (Dewilde and De Decker 2016). In effect, countries with higher levels of inequality tend to see low-income individuals in either private or rented housing suffering from overcrowding and housing deprivation issues. In some countries, inequality has increased due to incomes at the top growing and, in such cases, this has resulted in those at the bottom facing higher housing costs and overcrowding issues (only in tight housing markets) (Matlack and Vigdor 2006).

Worryingly, housing inequalities have spill-over effects that can exasperate other inequality issues. For instance, the intergenerational mobility (discussed in (CEB 2017) of a child can be affected by neighbourhood exposure effects; children who are in households that live in (or move to) better neighbourhoods and are thus exposed to better environments tend to see higher levels of educational attainment, lower levels of bad behaviour, and earn more in adulthood (Chetty and Hendren 2015)[2]. Moreover, intergenerational transfer of wealth through the transfer of homeownership can be one of the ways in which wealth inequality in a society builds up over time (Boehm and Schlottmann 2002, Xiao Di and Yang 2002). Earlier work by Henretta (1984) showed that the value of a parent's home is a strong predictor of a child's own home value (through raising the aspirations of the child); moreover, the study showed that the inheritance/transfer of wealth from parents to children provides housing financial support via down payments and rent support. However, as O'Dwyer (2001) showed, the way housing wealth is transferred (e.g. number of beneficiaries of the transfer) greatly influences the extent of wealth transfer; nevertheless, regardless of the transfer method, those who do inherit are also more likely to live in positive socio-economic environments.

---

1 this was especially the case in countries where homeownership was highly commoditised

2 In the cited study (Chatty and Hendren 2015), the benefits of moving to a better neighbourhood are strongest when the child is young.

Given the high cost of housing in all societies (typically the largest component of a household's expenditure), it is unsurprising that income differences reflect differences in housing characteristics. However, **access to good housing is also determined by an individual's access (or lack of access) to financing – and lower-income individuals have less access**. While access to finance eased during the de-regulatory era (from the mid-1980s) up to the 2008 financial crisis, through easier access to mortgage debts, reduced interest rates, increased market competitiveness, etc., today it is believed to have exasperated inequalities. Lower income households took on large and unsustainable debt burdens (due to various factors including predatory lending) which reduced wealth among the bottom income groups[3]. As the banking sector regulations increased (e.g. Basel III) and banks themselves became less risk averse, they were still more likely to offer financing to those who already owned high equity (e.g. those who already have housing of some sort and are looking to upgrade) and who had greater repayment capacities, i.e. those with higher incomes (Lunde (editor) and Whitehead (editor) 2015).

Spatial and segregation effects

Homeownership does not necessarily imply higher wealth (or even wealth opportunities) as the value of a home depends on various factors, including location, social environment (neighbourhood) and the socioeconomic makeup of other residents, all of which tend to be negatively associated with lower-income households.

While the choice of where to live can be dictated by factors such as proximity to work, health reasons, etc., the primary influence is often socio-economic; the affordability and choice of housing has a complex relationship with a country's institutional settings, demographic changes, and historical/cultural perspectives. **The different housing options that the rich and poor can afford have contributed to increasing economic segregation in many European cities and regions** (Musterd, et al. 2015).

The introduction of market mechanisms in the provision of housing (see Section 1.2 below), **has exasperated segregation effects**, as low-income families found themselves priced out of cities when they found that the low-cost/social housing they once had access to had been privatised (Kadi and Ronald 2014). Different policy approaches to homeownership/rental markets have also influenced segregation in European cities. Countries with stronger market-based dual housing models (again see Section 1.2 below for details) have seen wider social spatial segregation, while countries with less market influence and tenure-neutral housing have seen the inverse (Musterd, et al. 2015). Naturally socio-economic segregation also has sub-components, by influencing ethnic segregation. Giving choice regarding housing tends to lead high-income individuals to live near other high-income individuals; simultaneously that same freedom of "choice" can also lead to the poor segregating themselves amongst each other. Due to information asymmetries and income constraints of the poor, "real choice" results in choosing the easiest and quickest housing option, which is often low-cost, of poor quality, in ethnically segregated and less in-demand neighbourhoods (Ham and Manley 2012).

This segregation results in uneven socio-economic development (see Chapter 3 on spatial segregation for a more in-depth analysis). For instance, medical services may be more plentiful in high-income neighbourhoods than in lower-income ones (Squires 2009). As noted above, children growing up in poor quality neighbourhoods perform less well in school and earn less as adults (Chetty and Hendren 2015). The neighbourhood effects of income-induced housing segregation lead to a host of poor socio-economic outcomes (health, etc.), and lower levels of wellbeing (Reardon and Bischoff 2010, Clapham 2010). All of these factors can have long-term effects that lead to various negative life outcomes for low-income individuals.

[3] See section titled "Inequality in the run-up to the 2008 financial crisis" pg. 22 in CEB (2017)

1.2 A brief history of European housing policies and country differences

How housing markets and access to housing have changed over the years in Europe is central to understanding the current issues of housing inequality. In the last few decades, major policy changes have occurred in parts of Europe regarding who provides housing. The traditional role of the state as a provider of housing, for those with housing needs, has increasingly been shifted away from central to local levels of government and, even further, to the private sector, non-profit organisations and housing associations.

The historical role of the state in the housing sector was based on the ***convergence theory*** in which socially oriented policies became necessary as societies entered into the post-industrialised phase of development (historical societal structures/bonds that existed in the pre-industrial era disappeared, e.g. Guilds that supported their professional members, etc.). When applied to housing, the theory argued that the state should work to solve housing problems, given the economic and demographic changes that might be occurring during a country's development; thus, during the industrialisation/urbanisation era when housing was originally left to the private sector (the employers), this unregulated system left many in low quality housing and in an expensive tenure system (Dewilde and De Decker 2016). This resulted in a societal change in which people desired that housing provision become a necessary part of a modern welfare state (Donnison and Ungerson 1982, van der Heijden 2013). In the post-World War II era, the role of the state heightened as societies throughout the continent coalesced to tackle collective issues, one of which was to provide adequate housing after years of war that had left the continent with severe housing shortages.

From the 1970s and early 1980s, in many counters, major paradigm shifts occurred with the ***commodification*** of housing, in which the market increasingly directed the provision, allocation, and consumption of housing (for some countries this was actually re-commodification). The public provision of housing (namely social housing), common in many of the welfare states of the time, went through a process of "marketization" (in which a public service is provided by the private sector) where housing provision was privatised, or allocation responsibilities were passed over to non-profit organisations and housing associations, and some countries even enacted "right-to-buy"[4] schemes (Birch and Siemiatycki 2016, Forrest and Murie, Selling the Welfare State 1988). While the public sector retreated from the direct provision of housing in many countries (especially initially in the Anglo-Saxon countries), it was still involved in ensuring the provision of indirect sources, such as housing subsidies/allowances, sometimes via non-profit and private intermediaries; meanwhile, housing was increasingly provided to disadvantaged groups by private landlords/associations (Dewilde and De Decker 2016, Kemp 2011).

The resulting changes have had marked influences on inequality issues throughout the continent as outlined in the previous section (Section 1.1.) The privatisation process, which fragmented the responsibility for housing provision, increased overall housing inequality (in terms of access and quality) (Dewilde and De Decker 2016). Moreover, the shift towards a market oriented system increased the segregation of people based on socio-economic differences (and in terms of ethnic, racial, and migrant backgrounds). This affected lower-income individuals' access to the provision of public services such as education and transportation links, which were often of lower quality in lower socio-economic neighbourhoods.

Moreover, when the commoditisation of homes was captured by the financial sector, the de-regulated financial environment prior to 2008 produced excessive incentives to encourage homeownership among lower-income households[5] exposing those low-income homeowners to large income-to-debt ratios, interest-rate fluctuations, and to volatile housing markets (Stephens 2007).

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4 A scheme initially introduced in the United Kingdom which allowed tenants of social housing to buy their homes from the public sector.

5 While it is outside the scope of this paper, an entire set of literature speaks about how the privatisation of homeownership in Europe mixed with financial market liberalisation contributed to the 2008 financial crisis. Financial institutions increasingly used market-based funds and inter-bank lending (over traditional deposit financing) to sell large quantities of mortgages, including to sub-prime borrowers, which led to the speculative bubble that culminated in the 2008 financial crisis, which disproportionately affected low-income homeowners (see Dewilde and De Decker 2016).

Two models for housing provision

Housing inequalities can manifest themselves in part based on a country's historical, cultural, and policy relationship to housing provision. Kemeny (1992, 2004) postulated that these factors contributed to divergent models on how housing should be provided, either through private markets or via social collectivism. The opposing policy views are: the **dualist rental system**, championed in Anglo-Saxon countries and leaning towards private markets, and the **unitary rental system**[6] (also known as the integrated rental system) advocated in Germanic and Nordic countries with a social market approach.

The *dualist system* is characterised by a market-oriented policy regarding the rental and housing markets. The housing market is protected against the non-profit provision of housing. In other words, social housing providers are not part of a competitive market and are simply there to act as a safety net for the poor. Thus there is free-market profit-driven housing/rental market and a state controlled housing/rental sector (Hoekstra 2010). This type of system places a preference on home ownership (or rather pushes people towards homeownership due to limited non-private housing alternatives) (Kemeny 1995). The system's proponents advocate for homeownership acquisition as a means of increasing one's assets and wealth. Within the dualist system the private rental market is profit-driven, typically unregulated, provides minimal tenant security, and builds on the notion that landlord competition can increase the overall quality of housing (Borg 2014, Lennartz 2010).

The *unitary rental market* or the "social market" model is characterised by more rental tenancy and a larger non-profit/limited profit housing organisation/association sector, which competes in the private housing market to ensure more equitable access to housing (Kemeny 1995). The policy advocates a preference for a collective approach to solving housing disparities (Norris and Winston 2011). In this model, non-profit/housing association landlords directly compete with for-profit ones in the open market with the non-profit landlords integrating into the market through subsidies which phase out as the landlords become financially mature (when costs fall) (Kemeny 1995). The underlying theory works on the notion that the competition that arises between for-profit and non-profit actors decreases rental prices (making the rental market less vulnerable to exogenous economic shocks), and increases the quality of rental properties, all of which makes renting more attractive than home-ownership (Lennartz 2010).

Economic work has tried to analyse the effects of these two different systems on inequality. Those with higher incomes tend to have a higher probability of homeownership and higher standards of living, regardless of the system (Filandri and Olagnero 2014). Despite this, in a unitary market system (non-homeownership), housing deprivation rates tend to be lower (typically a problem that low-income individuals face) (Borg 2014). In dualist (market-oriented) systems, relative to their counterparts in unitary systems, lower socio-economic groups generally tend to face higher housing costs, overburdened rates, inferior housing conditions, and are more likely to live in bad neighbourhoods (Norris and Winston 2011).

Many Eastern European countries, as shown below, were heavily influenced by the dualist system, which may have contributed in part to some of the current housing inequalities (namely in quality). During the transition, the privatisation of social housing and the deregulation of rents created a situation in which housing ownership was transferred to the public at a discount (those who could afford it), creating a large pool of homeowners. Yet the rates of housing deprivation tend to be well above European averages for all income groups as people who could afford to purchase their homes could not afford to maintain them (see Chapter 2 below).

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[6] Though probably worth more than a footnote, it is important to say that a similar and complementary model exists known as the "residual model" in which the public sector has to step in to provide social housing when the market cannot (or does not) provide housing for disadvantaged groups. Thus both the residual and the unitary models are similar in the need to have a non-profit sector providing safety-nets for disadvantaged groups, but just operate through different mechanisms (one through a unitary/integrated rental market, and the other through mass social housing) (van der Heijden 2013, Blessing 2016).

The Central-Eastern European experience

This sub-section will very briefly provide an overview of how housing provision changed after the seismic political shift that post-communist European countries underwent when transitioning to market-friendly/democratic systems. During the socialist era, the state was in most countries the key provider of housing to the general population, typically multi-dwelling units. Housing was allocated based on the principles of need and merit, with strict guidelines regarding space standards per person (i.e. floor space) and with subsidies/price controls that ensured affordability (Pichler-Milanovic 1999).[7]

During the early 1990s, most Central/Eastern-European countries underwent some sort of privatisation scheme of their national housing stock, with nearly 30% of all housing in the region being privatised; naturally this regional average is skewed as some countries privatised less than others (Yemtsov 2007). The privatisation process worked to promote homeownership either by enacting favourable housing policies (e.g. tax allowances/rent subsidies) or pushing for market solutions for public housing (Grilli and Ball 1997). The process was naturally complex as it also required the introduction of private property laws, the decentralisation of ownership (i.e. shifting state housing control to localities/municipalities or institutional owners), restitution of property, elimination of historic housing subsidies, and a shift to private sector contractors to build homes, etc. (Pichler-Milanovic 1999). Part of the move towards housing privatisation in Eastern Europe also stems from the fact that the public sector (which owned a large amount of the housing stock) was losing money due to the low levels of rent, thus by selling off its housing stock a country could raise its revenues (Roberts 2003); however, the speed of privatisation was not uniform, with many Central European and Baltic states privatising at much slower rates or not privatising all of their public housing stock.

Given the different paths that many countries took in how they approached housing provision, the housing inequality effects today vary considerably[8]. For instance, those countries that privatised their housing stock quickly tended to sell off quality housing stock at discount rates (thus increasing homeownership rates), but left a large unsold housing stock of poor quality to be occupied by lower-income households; countries that did not undertake privatisation, on the other hand, found themselves in a more unitary system (see section above) where there was a mix of homeownership and rental (including public) markets (Lowe 2003). In those countries where privatisation led to high homeownership rates, the data show that housing quality tends to be poor and overcrowding rates high (especially for poor households – see figures 15 and 16 below). The maintenance of homes, which was traditionally undertaken by the state, became the responsibility of private households. A characteristic of the privatisation era is that homes were sold at a discount to individuals, who afterwards were not always able to afford the upkeep costs. Additionally, the privatisation of other elements of the economy, such as utility providers, resulted in sharp increases in utility prices, causing housing to become more costly overall. While countries are currently trying to reform their respective policies to address such issues, in most transition countries, wide housing inequalities remain, in part as a result of the (at times) rapid transition to the market-provision of housing.

1.3 The supply of housing in Europe

The ability to provide more housing to alleviate the housing inequalities that lower income households face is challenging, given that there is no universal social housing model[9]. Social housing provision in Europe can broadly be grouped into two different systems, those that provide housing based on specific target based criteria or those that allow social housing to be accessed by all when in need.

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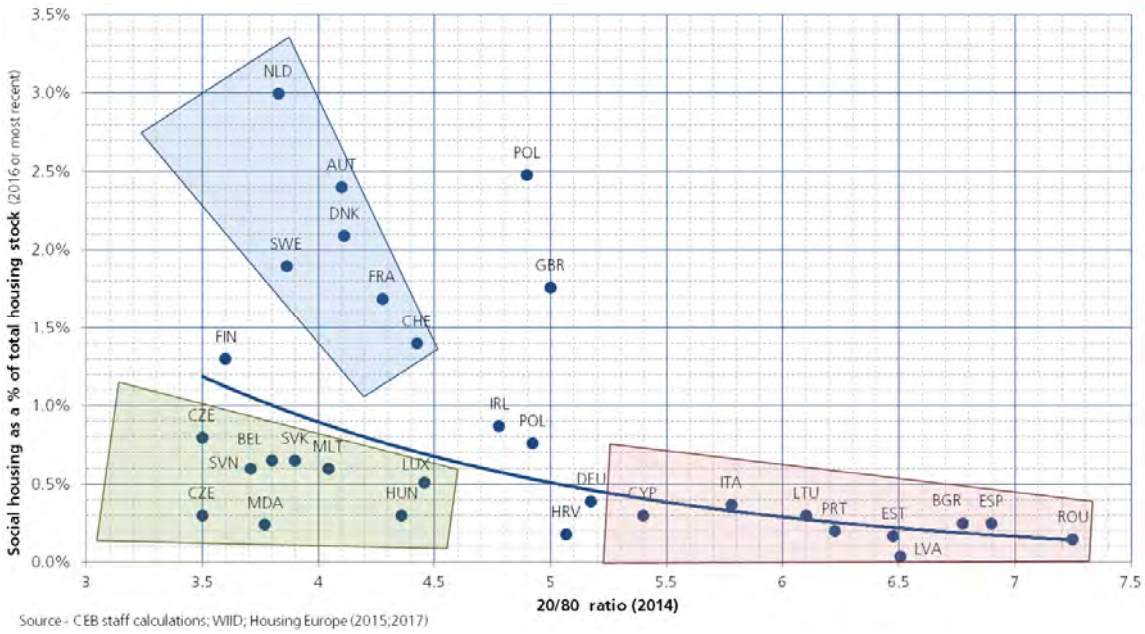
7 Within all of these societies, housing preferences were given to those individuals who were considered "favoured" (i.e. those who were communist party members)

8 It is important to note that many commentators on the subject of housing policy in post-communist countries stress that even during the socialist era, and especially afterwards, no uniform housing policy system could link all the countries (i.e. policies were at times different even during the socialist era, but certainly common features did exist).

9 In Chapter 1 we discuss this from the perspective of the dualist system and unitary market system.

Although different systems exist, the underlying goal is always the same, to provide affordable quality homes for lower-income individuals. Yet the link between providing social housing (or social rental housing) and inequality is not so clear cut. As can be seen in Figure 1 below, **countries that have a larger share of social housing as a percentage of total housing stock often tend to perform better on income inequality measures** (here measured by the 20/80 ratio[10], showing how much more the top 20% earn compared to the bottom 20%). These countries, which are represented by the blue shaded area, include a set of countries that, to start off with, are rich, have a strong tradition of social housing, and which have highly developed housing markets. On the other hand, the set of countries highlighted in green in Figure 1, have relatively high income equality, but do not possess large amounts of social housing; these countries are either geographically small (Malta, Luxembourg) or have much higher ownership rates or limited social rental markets (Belgium, Slovenia, Slovak Republic). A third group emerges, highlighted in red, which have neither high levels of income equality nor high levels of social housing. Many of these countries perform very badly regarding housing inequality in terms of cost, quality, and spatial segregation (see Chapters 2 and 3 below). It is important to point out two notable outliers, namely Poland and the United Kingdom. Both countries have a large amount of social housing, but are relatively unequal (especially the U.K. relative to other countries of similar GDP and its own historical relationship with social housing). Figure 1 below highlights the complexity associated with housing and inequality. Social housing is a mix of both the physical provision of homes and the policies that a country employs to help individuals and social home providers cover the costs of housing. The remainder of this section will discuss the current supply of housing in general, but it is important to keep Figure 1 in mind throughout the paper given the differences in housing inequalities, investments, and policies between countries.

Figure 1 – Income inequality vs. social housing as % of housing stock



Source - CEB staff calculations; WIID; Housing Europe (2015;2017)

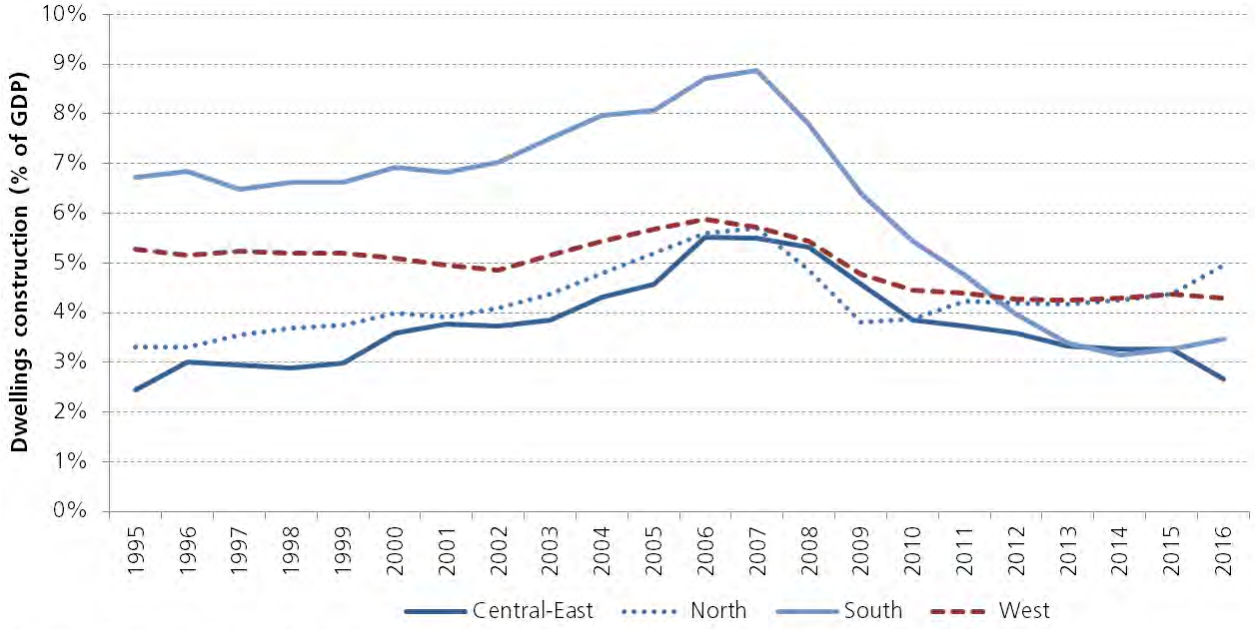
General housing supply

The share of new dwellings that are being constructed is dropping across the continent. New dwelling construction as a % of GDP (which makes no distinction between social and non-social housing) peaked in all regions around 2008, as can be seen in Figure 2 below. In the run-up to the 2008 financial crisis, the boom in new dwelling constructions was the obvious effect of the easy access to credit; the subsequent crash is well documented. However, for most regions, there has been no sustained recovery (except in the north, which in recent years has seen an increasingly upward trend in new home constructions). **What is more concerning is that, in some regions, the levels of home construction in 2016 are below the levels recorded in 1995**[11], i.e. well before the frantic construction phase characteristic of the years before the 2008 crash. For instance, in Southern Europe, home constructions as a % of GDP stood at 6.7% in 1995, whereas in 2016 the figure was

[10] A similar correlation occurs when we use the Gini coefficient or the Palma ratio as the measure for income inequality.
[11] This is the date when comparable data were available for the largest sample of European countries

3.4% (representing 52% of 1995 levels). A similar story emerges in Western Europe where, in 1995, the figure stood at 5.2% of GDP, compared to 4.3% in 2016 (81% of 1995 levels). Central-Eastern Europe, which began to increase housing supplies after 1995, is more or less back to the same level as in 2016 (dwelling construction amounts to 2.6% of GDP in the region).

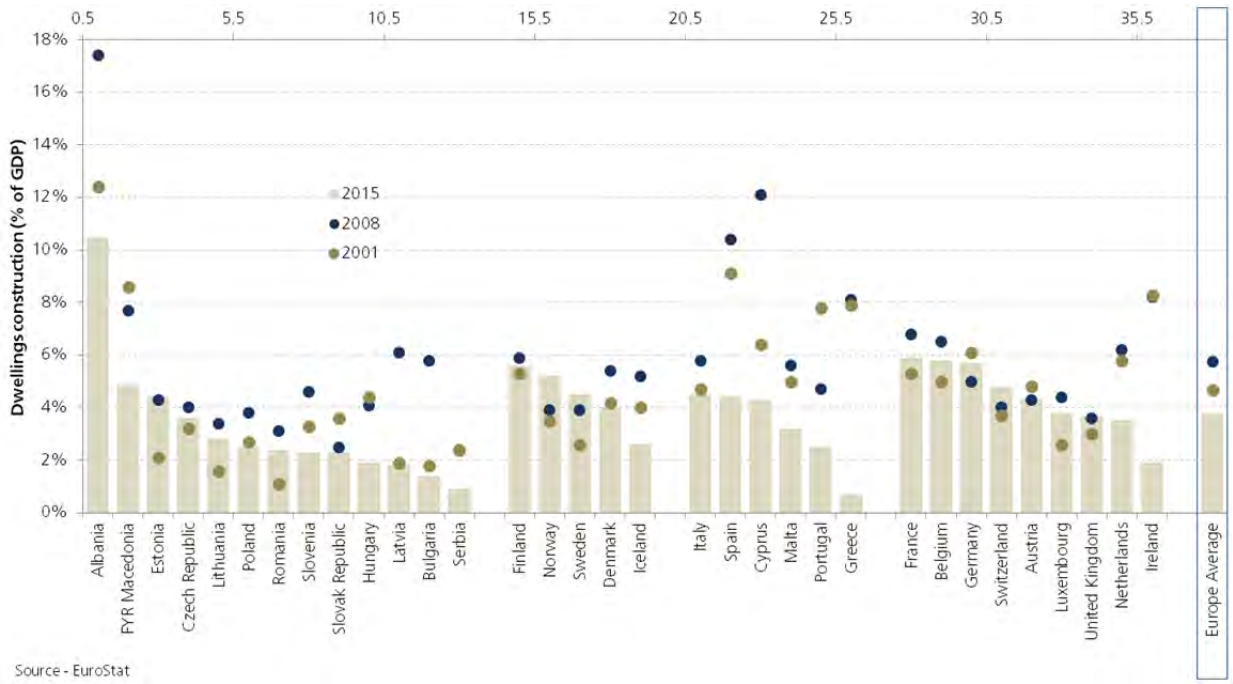
Figure 2 – Dwelling construction as a % of GDP, by region since 1995



Source - EuroStat; CEB Staff calculation

A more country specific examination of each region can be seen in Figure 3 below. In almost all countries, dwelling constructions as a % of GDP are below 2008 levels, and in many cases below 1995 levels. The drop in construction levels is most pronounced in Southern Europe where all countries are below the 1995 levels (especially Greece where housing construction is almost at a standstill today). **The decline in housing supply in the market indicates increased pressure to meet housing supply challenges in an era of increased demand**.

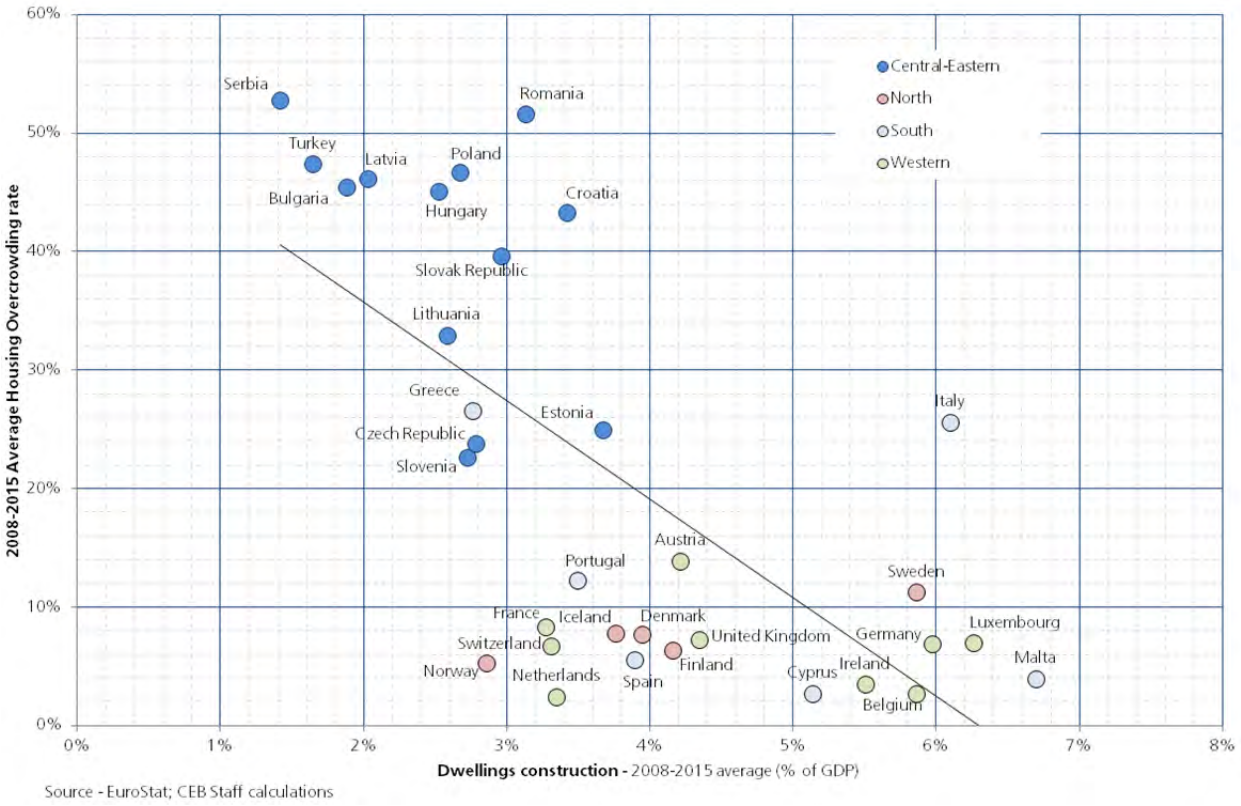
Figure 3 – Dwelling construction as a % of GDP, by country in 1995, 2008, 2015



Source - EuroStat

The need for housing is of critical importance in many European states. Figure 4 below correlates the average level of housing overcrowding rates (a proxy for demand) to dwelling construction as a % of GDP. The countries with the highest overcrowding rates (mainly those in Central Eastern Europe) are the countries with the lowest levels of new dwelling construction and overcrowding issues are mainly faced by lower-income households. An increase in housing supply, including an increase in social housing, may help alleviate some of the overcrowding pressures (again the countries in the top far left-hand corner currently have the lowest supply of social housing on the continent).

Figure 4 – Dwelling construction is lower in countries with higher housing overcrowding rates



Source - EuroStat; CEB Staff calculations

Chapter 2: Housing Cost and Quality Inequalities

This chapter shows how low income households face housing inequalities that manifest themselves through both high housing costs and quality issues. Housing costs place a disproportionately large burden on low-income household incomes relative to those of higher-income groups and, typically, the housing they live in is of a lower quality. The chapter is split as follows:

1. **The high cost of housing** – This section showcases the housing cost overburden rates that low-income households face throughout Europe (including in different types of tenure status) and how these rates have been increasing in recent years. Additionally, the section examines the difficulties low-income households face in paying the upkeep and amenities associated with housing.
2. **The quality of housing** – This brief section outlines the housing quality issues that affect low-income households, such as those arising from overcrowding rates, severe housing deprivation, and decreased floor space.

2.1 The high cost of housing for the poor

Cost is the natural starting point when discussing income inequality effects on housing. Lower-income individuals have less income to devote towards meeting housing costs. Within Europe, for lower-income individuals (those in the bottom 20% and bottom 20% to 40%), housing represents a major cost burden (i.e. housing costs represent 40% of their disposable income[12] - see Figure 5 below). **Those in the bottom 20% suffered the highest housing cost overburden rates, with nearly 31% of that population group in Europe being overburdened by housing costs in 2015.** The rate for the group immediately above (bottom 20% to 40%) was considerably lower, at 9.6%, but still significantly higher than the following three groups (which see overburden rates decrease substantially). As would be expected, the high cost of housing is thus chiefly a low-income problem in Europe.

Figure 5 – Housing cost overburden rates by income quintile in Europe

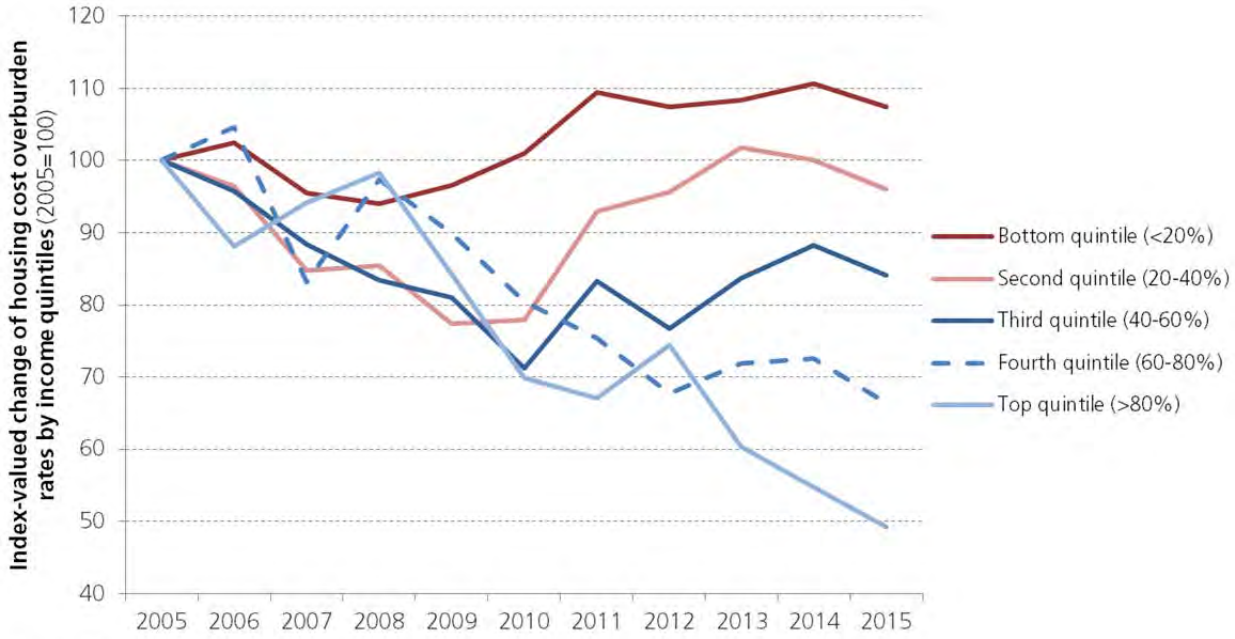


Source - Eurostat and CEB staff calculation

[12] Net of housing allowances provided by the government.

The increase in the housing cost overburden rate has been most notable in the bottom quintile (up 2.1% since 2005); this change is more clearly seen when the housing cost overburden rates are indexed in Figure 6 below (2005 rate = 100). **The chief takeaway from Figure 6 is that, despite a temporary drop in overburden rate before 2008 for the bottom quintile, in 2015 it is well above 2005 levels (although it has begun to drop**). Although housing overburden cost rates dropped for the top two income quintiles (i.e. highest income quintiles) around 2007/08, they began to increase for the bottom quintiles. The second to bottom quintile began to see rates increase around 2009, when its rate increased to above the 2005 level. The third quintile (40% to 60%) followed, with rates increasing after the 2008 recession, but never returning back to 2005 levels. – it is important to note that many of these increases were primarily led by overburdened rate increases in Southern and Central-Eastern Europe, while other regions saw more stable overburden rates among the bottom quintile groups. Those in the top two income quintiles have been primarily on a downward trajectory since 2008 (with housing cost overburden rates never being all that high in the first place (see Figure 5 above).

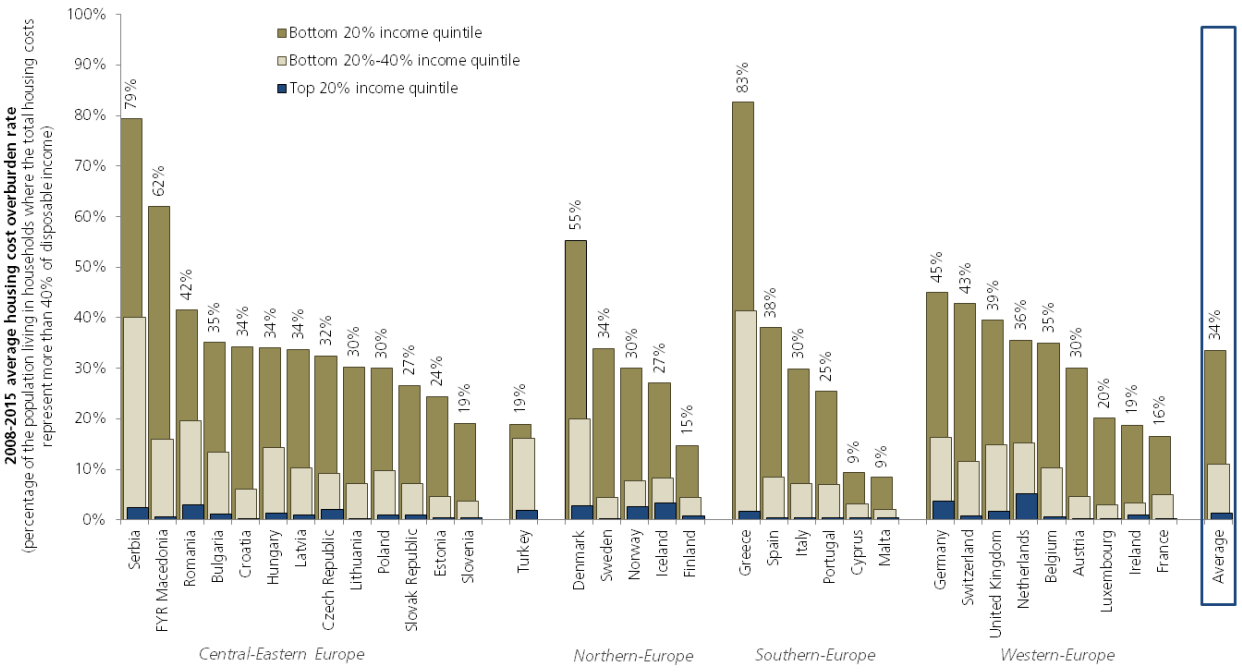
Figure 6 – Index-valued change in housing cost overburden rates, year 2005=100



Source - Eurostat and CEB staff calculation

At country level, regardless of the region or the country, those in the bottom 20% see substantially higher housing cost overburden rates than their counterparts in the bottom 20% to 40% (see Figure 7 below). In fact, many Western European and even some Nordic countries see the bottom quintile having higher cost overburden rates than those in Central-Eastern and Southern Europe. In part, these are reflections of the institutional and cultural differences in both housing support and housing market dynamics. Moreover, in the top quintile, housing cost overburden rates are always in the low single digits – which only serve to showcase the wide disparity between income groups and how housing inequality manifests itself via cost channels.

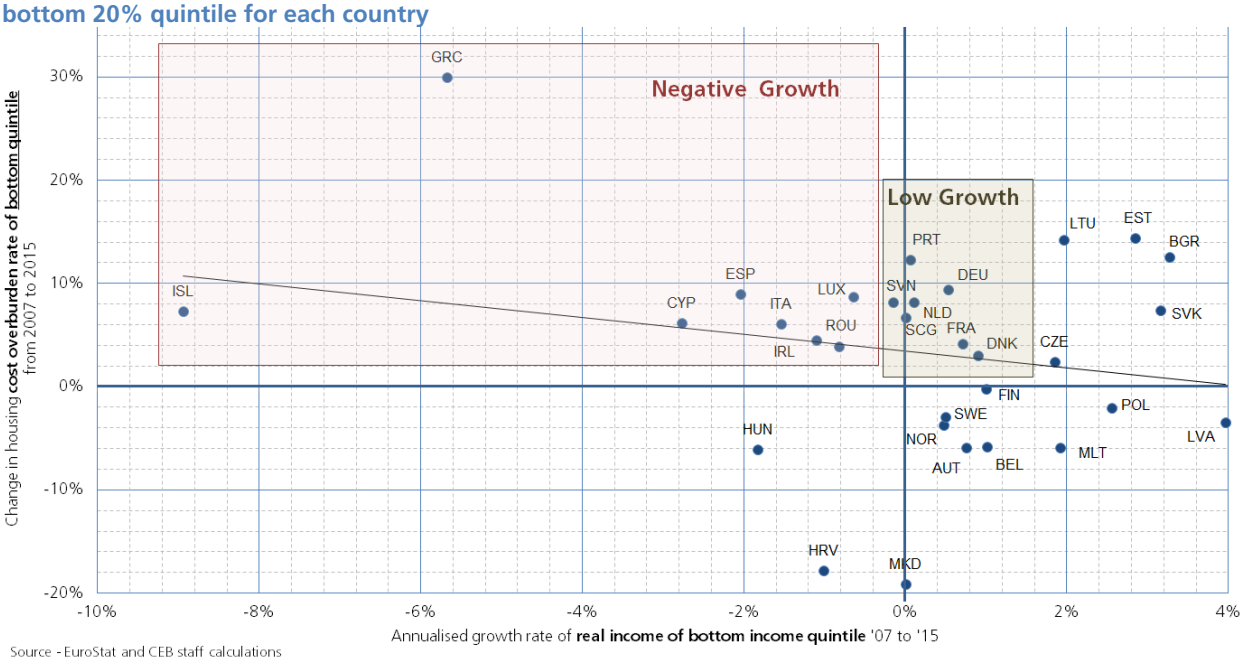
Figure 7 – Country level housing cost-overburden rates (2008-2015 average)



Source - EuroStat and CEB staff calculations

In many countries, the bottom income quintile households saw real incomes (in 2015 euros) drop whilst housing cost overburden rates increased between 2007 and 2015/16; in the top-left quadrant of Figure 8 below, one can see the countries that were hardest hit by the 2008 financial crisis and where income levels of the bottom income quintile were disproportionately negatively affected (mainly in Southern and Central-Eastern Europe), which resulted in in their housing overburden rates. In 8 European countries, real incomes dropped and overburden rates increased, indicating potential stress on already limited incomes. A large number of Western and Northern European countries hover around the intersection of the axes, where changes in real median incomes were marginal yet housing cost overburden rates grew, thus stressing stagnate incomes.

Figure 8 – Real median income growth vs. changes in housing over-cost overburden rates from 2007 to 2015, for bottom 20% quintile for each country



Source - EuroStat and CEB staff calculations

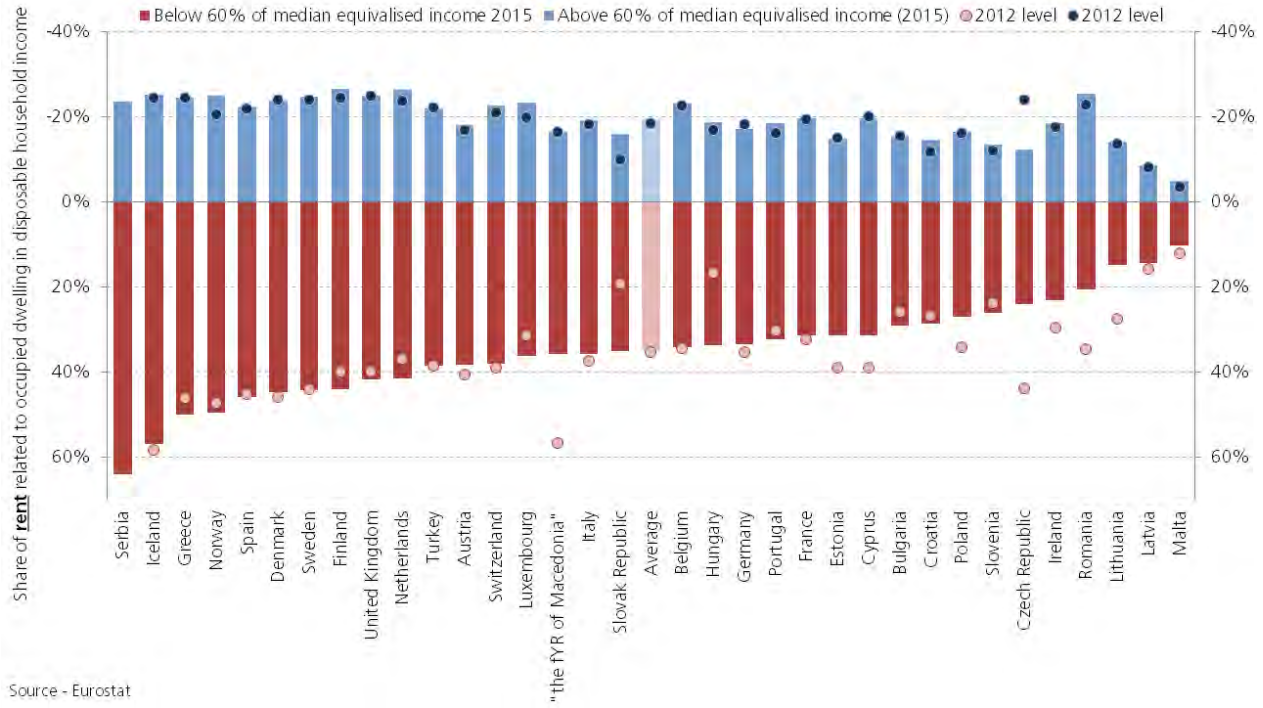
Cost differences by tenure status - and the importance of social/subsidised housing

When disaggregating the data based on tenure type (either rental or homeownership) we tend to see a similar storyline. Those who are financially worse off (i.e. below 60% of median disposable income) tend to devote more of their disposable income to either **rental** or **home (ownership)** costs compared to their richer counterparts (i.e. those above 60% of median disposable income).

Figure 9 below shows the data related to rental markets. On average, **in 2015, poorer households spent 35% of their disposable income (red bars) on renting a dwelling, as opposed to 19% for their richer counterparts (blue bars)**; on average, these levels have remained unchanged in Europe since 2012. However, in a number of Central-Eastern European countries and Ireland, between 2012 and 2015, poorer households saw a drop in how much of their disposable income they spent on rent (see primarily right-hand side of Figure 9), indicating improvements in housing costs (it is important to note that in some of these countries there are high ownership rates). Overall, in many Western, Northern, and Southern European countries, poor households still spend more of their disposable income on rent than the European average.

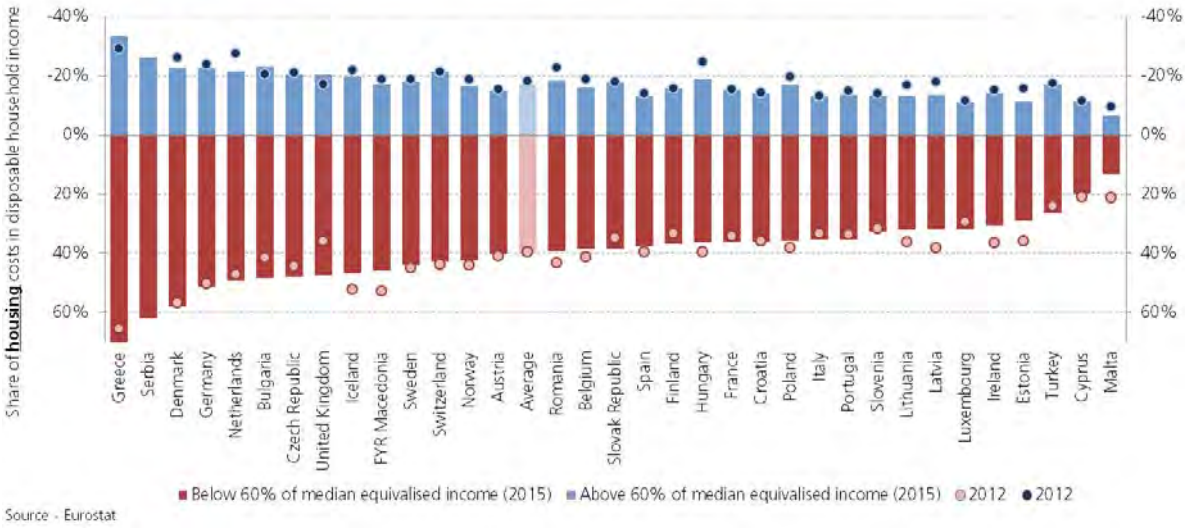
A similar story emerges when examining homeowners housing costs relative to disposable income in Figure 10. On this measure, poor households once again do worse than their richer counterparts; **on average, the poor spend 40% of disposable income on housing related costs, while their richer counterparts spend just 17%**. While some countries have seen some marginal drops in these levels since 2012 for poorer households, in the vast majority there has been more or less no real change, indicating continued pressure on the already limited (or at times shrinking) incomes of lower-income households.

Figure 9 – Share of rent costs in household disposable income (rich vs. poor households)



Source - Eurostat

Figure 10 – Share of housing costs in household disposable income (rich vs. poor households)

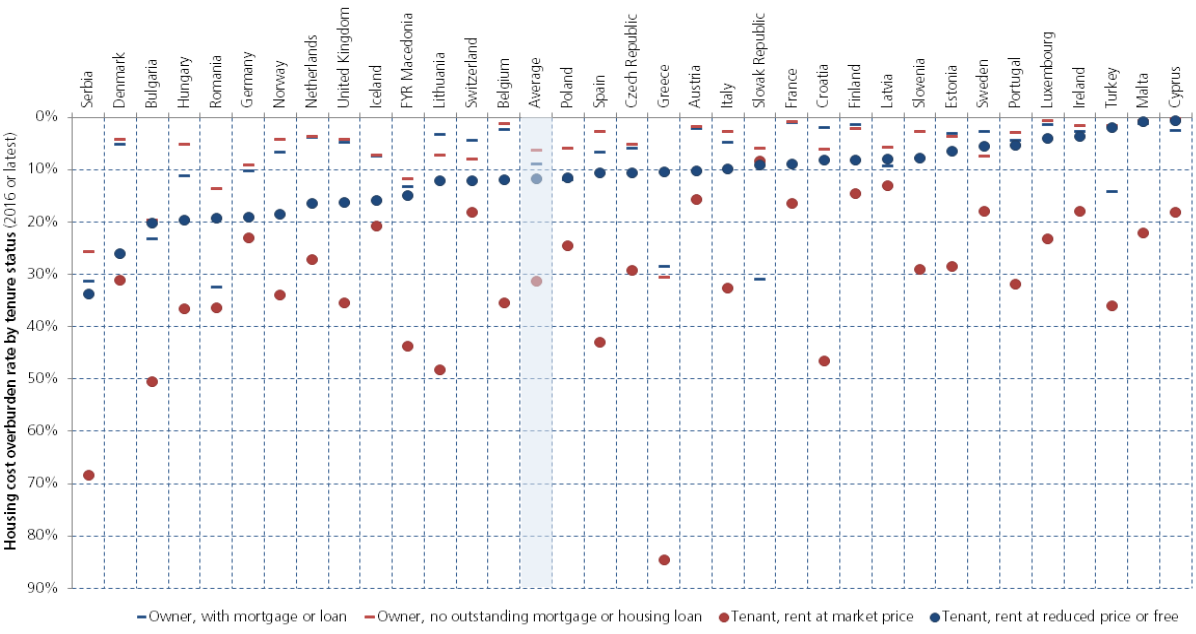


Source - Eurostat

The considerable amount of disposable income that poorer households spend on housing costs showcases the important need for social housing or housing transfers. In Figure 11 below, one can observe the housing cost overburden rates once again, but by different tenure status (homeownership dashed lines, and rental markets dots). Typically, in most countries, homeowners (with or without a mortgage) tend to see housing cost overburden rates below 10% (with the exception of Serbia, Bulgaria, Romania, Greece, Slovak Republic, and Turkey).

However, what is striking when one examines Figure 11 is the cost overburden rate of tenants. Those tenants that are required to pay rent at market prices (red dots) typically have the highest levels of housing cost overburden rates in any given country. When comparing these levels to those tenants who received subsidised or free rents (blue dots), we see overburden rates drop significantly. **On average, tenants who pay at market price face housing cost overburden rates of 31.2%, as opposed to just 11.7% for those who receive subsidised/free rent.** This showcases the financial pressures that the market places on tenants, who also often happen to be lower-income households. While it is impossible to offer reduced/free rent to all tenants, the figure below does showcase what an important role such housing policies can have on alleviating the economic pressures associated with high housing costs.

Figure 11 – Housing cost overburden rate by tenure type

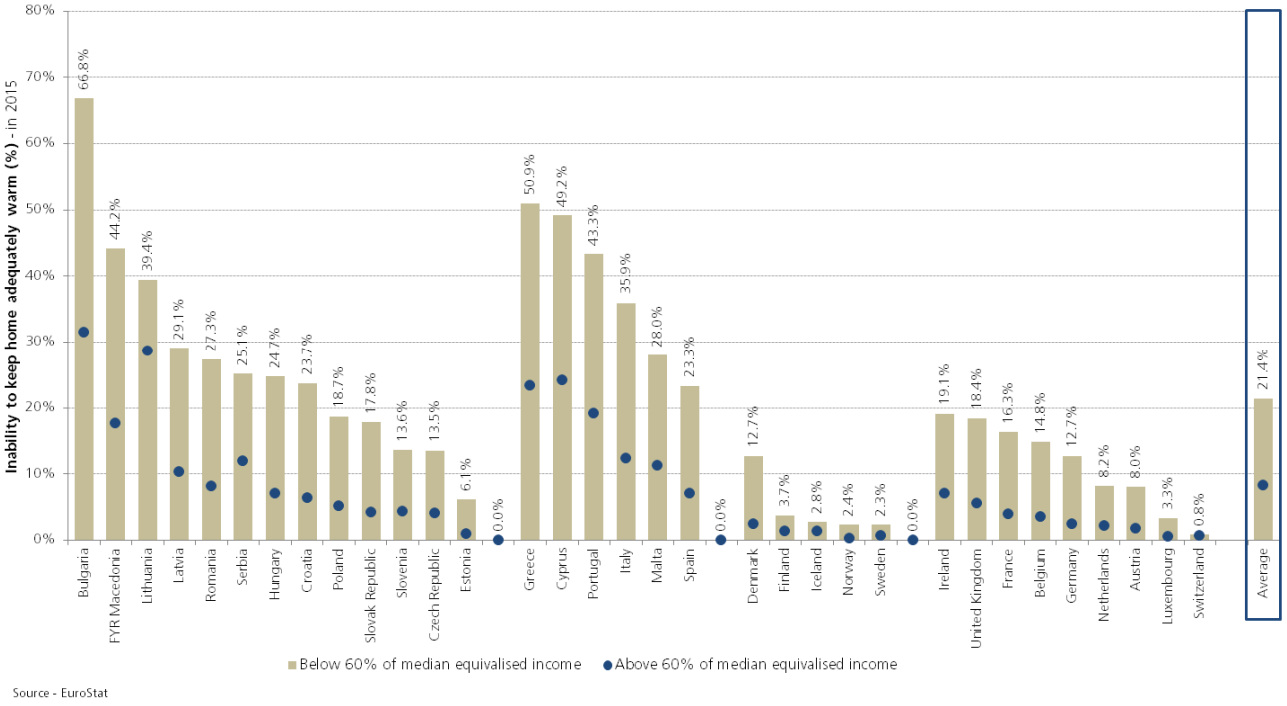


Source - EuroStat data

The difficulty of keeping up with housing bills

Dissecting the financial cost data further, we can see specific housing cost elements that are the biggest financial constraint to households. For instance, those households that are at the highest risk of poverty[13] (below 60% of median equalised income) tend to have a much harder time keeping their homes adequately warm due to financial constraints (see Figure 12 below). This financial burden is most pronounced in Central-Eastern and Southern Europe, where rates are frequently above the European average. (Notable exceptions are in Central Europe and the Baltic states). In Southern Europe, even those who are not at risk of poverty (blue dots) have relatively high levels of inability to keep their homes warm, showcasing the widespread issue of being able to afford basic home amenities.

Figure 12 – % of households unable to keep home warm (by rich and poor households)

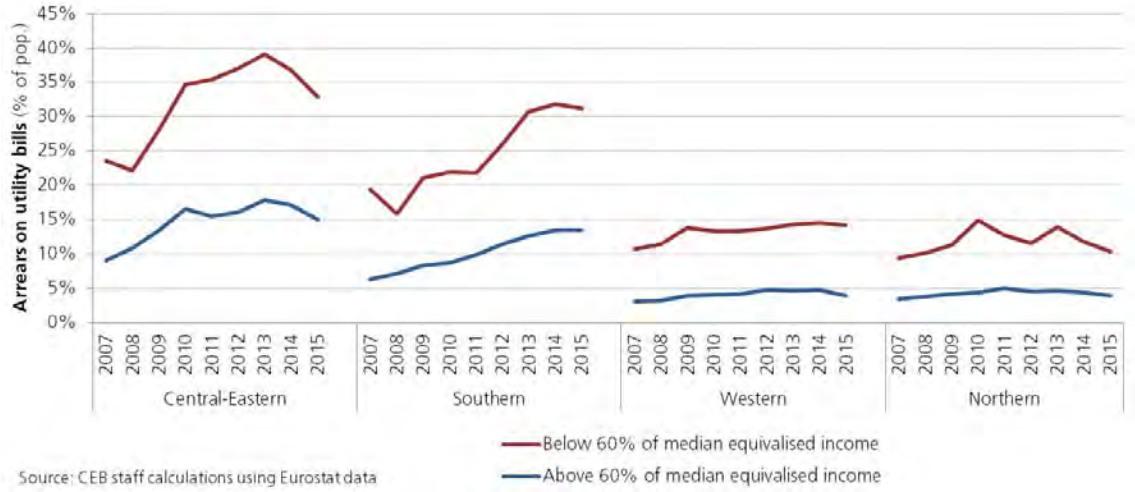


Source - EuroStat

Keeping a home warm is reflected in the overall high cost of utility bills that poorer households face throughout Europe. As can be seen in Figure 13 below, **arrears on utility bills (the inability to pay utility bills on time due to financial difficulties) by poorer households have been growing significantly since 2007** in both Central-Eastern and Southern Europe (as would be expected from the preceding section); the trend has only begun to reverse since 2013. Within these regions, those with incomes above 60% of median equalised income also saw increases in their inability to keep on top of their utility bills. If one was to look at country level averages (see appendix Figure 1.1), the arrears issue has been most pronounced in Central-Eastern Europe. For instance, in "the former Yugoslav Republic of Macedonia", Serbia, Hungary, and Bulgaria, over 50% of poorer households have been unable to pay their utility bills; in all these countries, even the relatively rich are unable to keep up with their utility bills, with levels above even the average for European "poor" households. In Southern Europe, the increase shown in Figure 13 below is predominantly led by high utility bill arrears in Greece, which increased substantially after the onset of the financial crisis.

[13] This data cannot be analysed at an income quintile level, however the at-risk-of-poverty rate (below 60% median equalised income) is a fair approximation for those who are in the bottom income quintiles and is in line with pervious chapters (in both Part 3 Housing, and Parts 1 and 2 of this report).

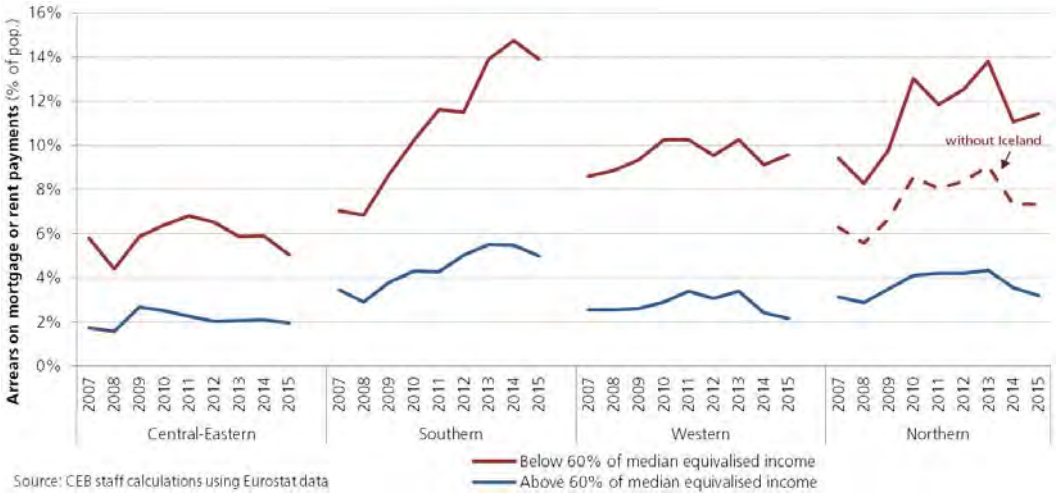
Figure 13 – % of households with utility bill debts (by rich and poor households)



While being able to maintain a functioning home is financially difficult for poorer households, even more worryingly is how difficult it is just to maintain the cost of living in a home altogether. As can be seen in Figure 14 below, the arrears on either mortgage or rental payments affect the poorest in all European regions. However, unlike the other graphs, the poorer households in Central-Eastern European countries have had some of the lowest levels of problems paying their mortgage/rent of the whole continent (explained by the high private ownership and low-rent costs that are characteristics of many transition countries); and in some Central-Eastern European countries the poor have the same low arrears rates as the rich (see appendix Figure 1.2). In Southern Europe, the proportion of poor households that were unable to pay the mortgage/rent shot up dramatically after the 2008 crisis and is among the highest rates in Europe.

Northern Europe was uncharacteristically a poorly performing region in this area. Poorer households there have had considerable difficulty in paying their mortgage/rent bills on time, with levels increasing dramatically after the recession and remaining stubbornly high (even when the calculations do not include the high mortgage indebtedness of Iceland in the run-up to the 2008 recession. At country level (see appendix Figure 1.2), in Iceland, Norway and Finland, arrears rates among poor households were well above European averages. A similar but less pronounced story emerges in Western Europe, where poor households have had difficulty in paying mortgage/rent bills relative to their richer counterparts (who have low and declining arrears rates), see Figure 14 below. And much like the North, the poorest households in some Western European states (France, Ireland, Austria, Belgium, and the Netherlands) have arrears rates well above the European averages.

Figure 14 – % of households with mortgage or rent bill debts (by rich and poor households)

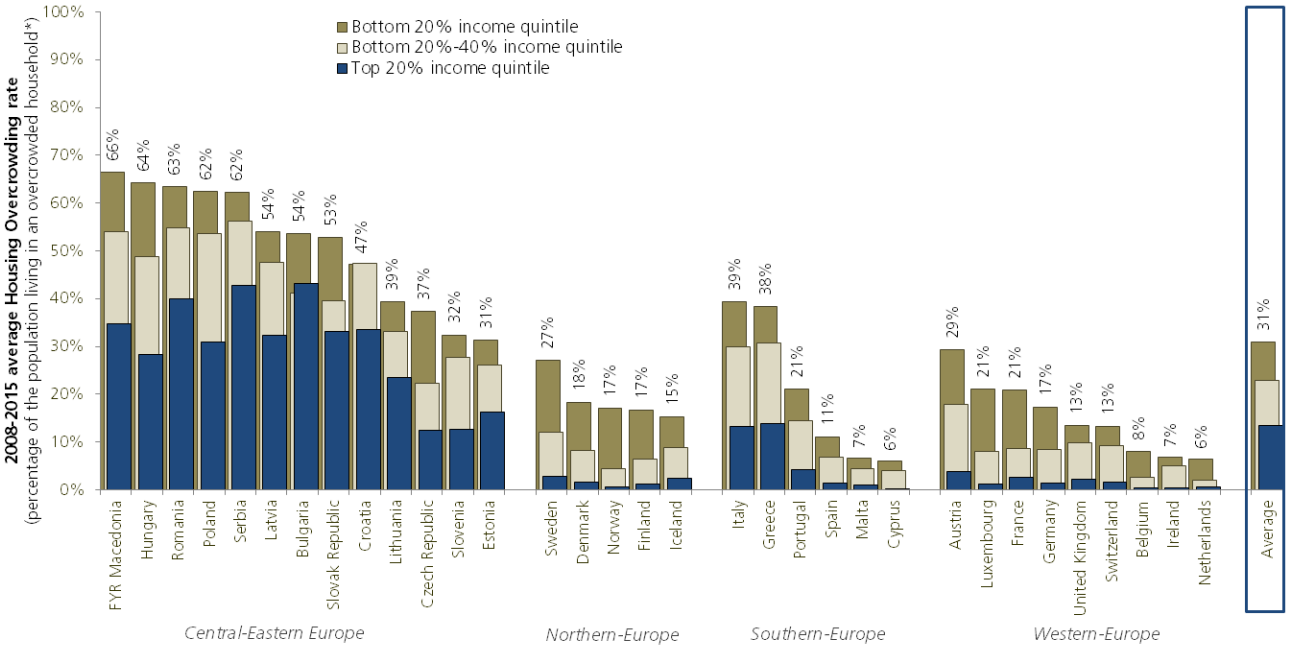


2.2 The lower quality housing at the bottom

When examining the quality of a person's dwelling, we focus on two primary indicators: the *overcrowding rate,* which measures the percentage of the population living in an overcrowded home[14] and the *housing deprivation rate* – which builds on the overcrowding data and includes a list of housing deprivation measures[15].

Here the data paint a clear picture. In Europe, the bottom 20% face greater housing overcrowding issues compared to all other income groups (see Figure 15 below). **On average in Europe 31% of those in the bottom 20% income quintile are likely to live in an overcrowded home**. While this is a problem in all regions (relative to richer counterparts), it is most acute in Central-Eastern Europe. In eight of thirteen countries, over half of those in the bottom 20% face overcrowding; the figures are only slightly better for the next income quintile (the bottom 20% to 40%). However, most notably in almost all Central-Eastern European countries (aside from the Czech Republic, Slovenia, and Estonia), even the top 20% face major overcrowding issues (ranging from 25% to over 40%). As for the rest of Europe, the inequality differences were much less pronounced. Italy and Greece exhibited higher than European average overcrowding rates for all income quintiles, but the rest of the Southern European countries exhibited more average levels. In the more equal north, in a few countries, the gap between the bottom and top 20% was far more pronounced than in some Western and Southern counterparts; in Sweden 27% of those in the bottom 20% were in an overcrowded house, higher than in Portugal, France, Germany.

Figure 15 – Severe housing overcrowding rate by income quintiles



Source - EuroStat and CEB staff calculations

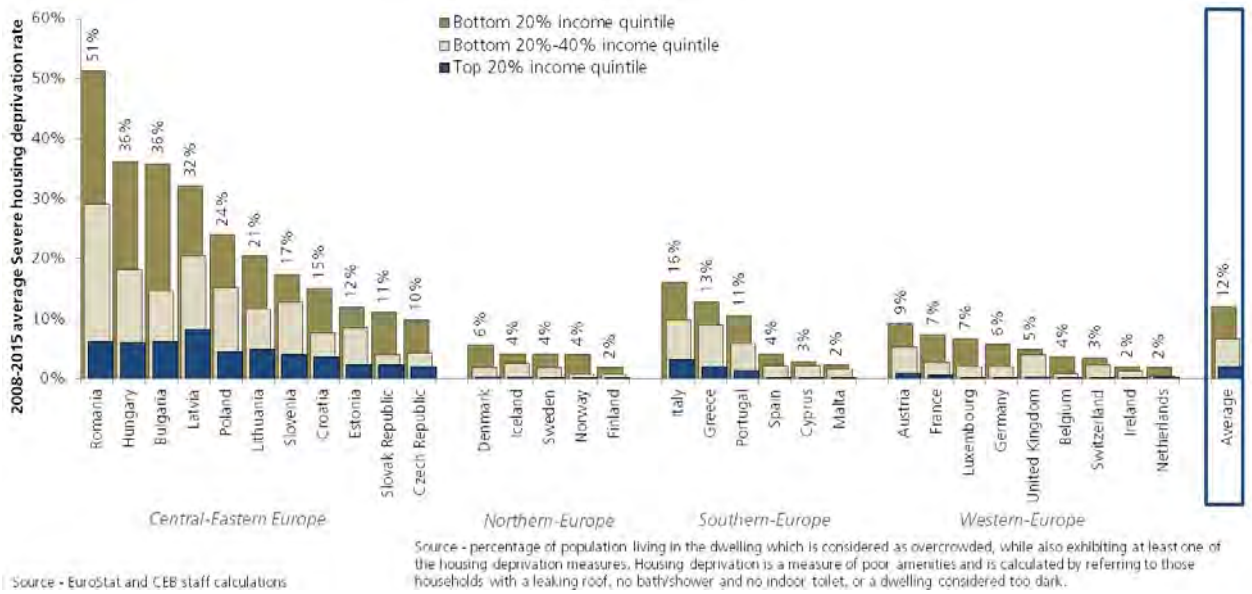
* A person is considered as living in an **overcrowded** household if the household does not have at its disposal a minimum number of rooms equal to: one room for the household; one room per couple in the household; one room for each single person aged 18 or more; one room per pair of single people of the same gender between 12 and 17 years of age; one room for each single person between 12 and 17 years of age and not included in the previous category; one room per pair of children under 12 years of age.

[14] Eurostat definition detail: A person is considered as living in an **overcrowded** household if the household does not have at its disposal a minimum number of rooms equal to: one room for the household; one room per couple in the household; one room for each single person aged 18 or more; one room per pair of single people of the same gender between 12 and 17 years of age; one room for each single person between 12 and 17 years of age and not included in the previous category; one room per pair of children under 12 years of age.

[15] **Housing deprivation** is a measure of poor amenities and is calculated by referring to those households with a leaking roof, no bath/shower and no indoor toilet, or a dwelling considered too dark.

When expanding the issue of quality to examine how severely deprived a home is, a similar but less dramatic story emerges in Europe – see Figure 16 below. Regional and between-country variations still exist, but within-country disparities drop significantly, especially in Central-Eastern European. For instance, the bottom 20% in Central-Eastern Europe live in homes that are highly deprived relative to their richer counterparts. However, the rates of severe home deprivation in the region are much lower for the next income quintile (bottom 20% to 40%), and for the top 20% the rate typically hovers around 5%. In the rest of Europe, the bottom 20% consistently have higher severe home deprivation rates than their richer counterparts, but nonetheless rarely exceed 10% (this only occurs it Italy, Greece, and Portugal).

Figure 16 – Severe housing deprivation rate by income quintile



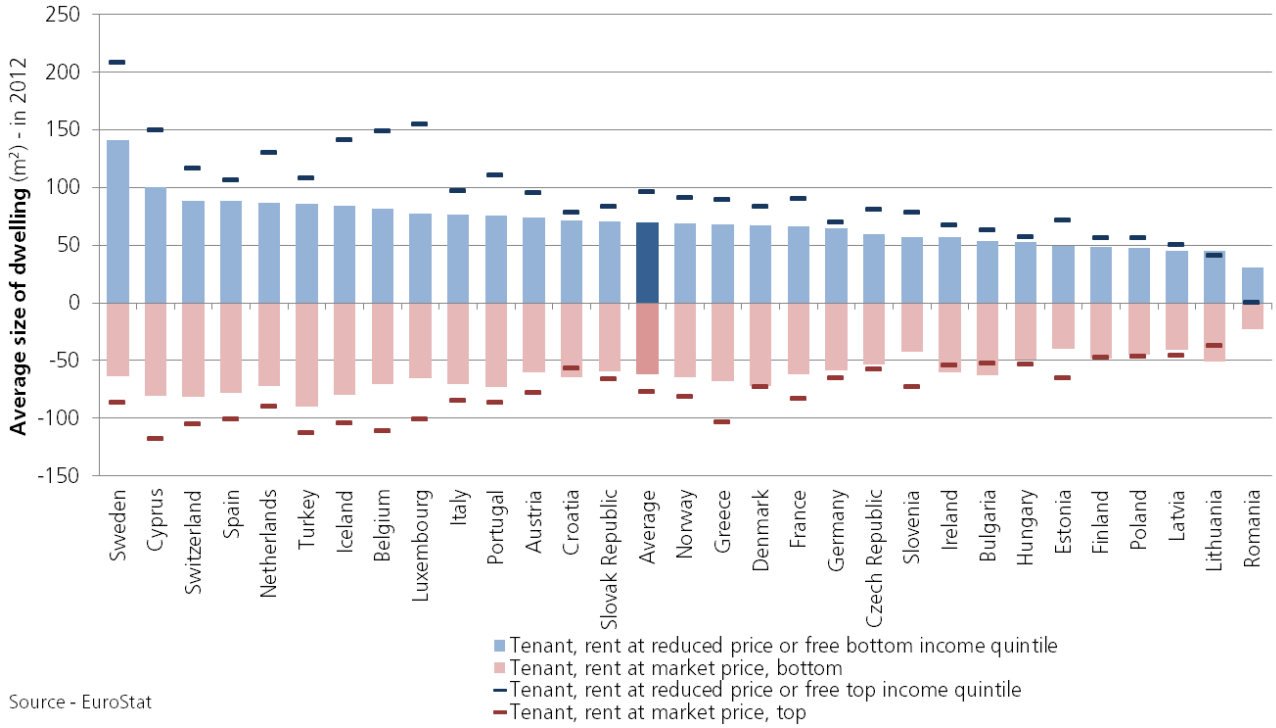
Source - EuroStat and CEB staff calculations

Source - percentage of population living in the dwelling which is considered as overcrowded, while also exhibiting at least one of the housing deprivation measures. Housing deprivation is a measure of poor amenities and is calculated by referring to those households with a leaking roof, no bath/shower and no indoor toilet, or a dwelling considered too dark.

Rental markets and home size

What stands out is that those in the top income quintiles typically have larger dwelling sizes in the rental market. In Figure 17 below, we examine the size of a dwelling (in square metres) for those in the top income quintiles (dashed lines) and those in the bottom quintiles (bars). Tenants renting at market prices (bottom red area of Figure 17) tend to have much smaller flats relative to tenants who pay rent at reduced/subsided prices (top blue area). Regardless of the rental price arrangements, top income quintiles have larger dwellings than their poorer counterparts. For instance, a top income quintile individual who rents at a reduced rental price, on average has a dwelling that is 95.5 square metres, as opposed to their poorer counterparts who get 69.4 square metres; the figures are further reduced when rents are at market prices (77.4 square metres for the top quintile, and 61.5 square metres for the bottom quintile). In some countries the size discrepancy can be explained by the fact that reduced rent prices are linked to employment status – so, for instance, top income quintile individuals may have larger dwellings to begin with and, once unemployed, may receive subsidies to keep them in their rental unit. In other countries, there is a minimal size requirement for most rental homes in the social domain. Furthermore, the total number of individuals who receive reduced rents is much larger in the bottom quintile relative to the top quintile (which is not represented in Figure 17 below). However, in general, the smaller size of dwellings reflects the general trend in housing inequality between the rich and poor.

Figure 17 – Size of dwelling, by top and bottom quintile (at market and subsidised/free price levels)



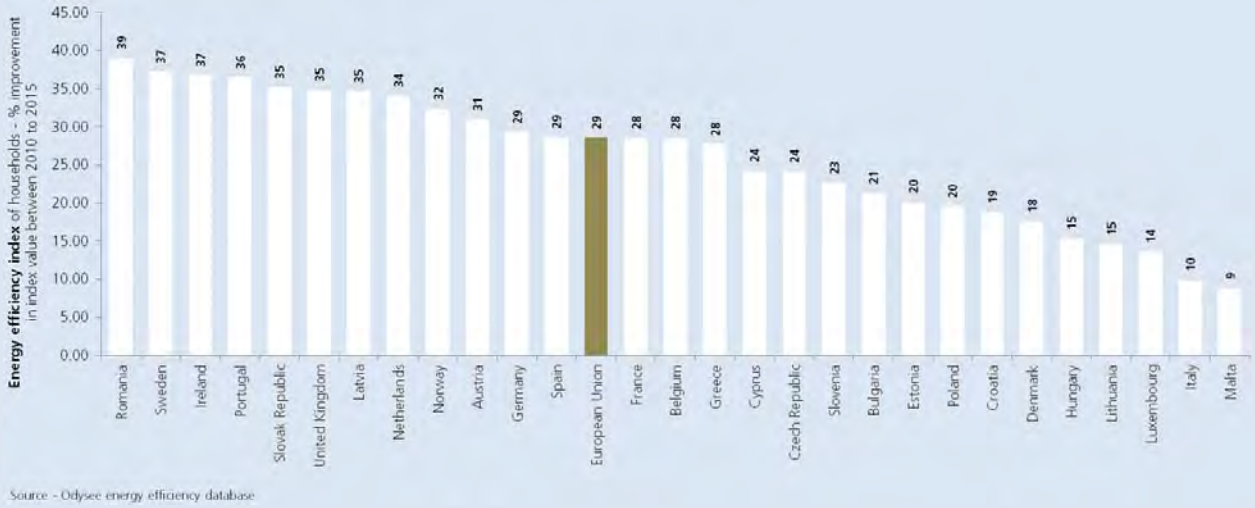
Source - EuroStat

Info-Box 1 - The sustainability of existing and future social housing

The discussion concerning the quality of homes also extends to the environmental footprint they leave behind. More environmentally friendly homes that are built to be more energy efficient, that utilise more renewables and are constructed with more environmentally sustainable and durable materials will create both wide social (reduced CO_2 emissions, better air quality) and individual economic benefits (less money spent on heating and energy). One means of reducing the environmental foot-print is through "passive design", that is to design homes that decrease energy consumption (designing heating, ventilation, cooling, etc.) before considering using any external sources of energy. Another means is to select materials that can be easily recycled/re-used, that have no internal pollutants, that use locally sourced materials, and which are durable to minimise long-term maintenance costs (Wiesel, et al. 2012). The last point is of considerable importance as it is necessary to consider the total life-cycle cost of a building; **green social housing may have higher initial upfront costs, but over the whole life cycle of the building the operating costs and reduced energy/water bills will make them more economically viable** (Assa 2017).

Many countries have made marked improvements in the energy efficiency of their homes, as can be seen in Figure 18 below, which shows the annual percentage increase in energy efficiency in homes (based on an evaluation by Odysee). The positive gains in household energy efficiency are the result of the introduction of new and higher standards since the mid-1990s, which has reduced energy consumption across the board. As some countries have undertaken different paths, variations exist in in the speeds for upgrading standards and in the overall volume of new building constructions (e.g. Luxembourg and Malta are small countries with fewer overall new constructions, thus smaller gains).

Figure 18 – Energy efficiency index improvement, from 2010 to 2015



Future social housing design should consider the long-term sustainability of the housing (i.e. environmental efficiency). Environmental sustainability can be encouraged by working to build more energy efficient homes, retrofitting existing housing supplies, building more green spaces, promoting higher environmental/energy-efficiency standards, and using more renewable energy sources (Government of Ireland 2009, EU 2011).

Chapter 3: Neighbourhood Inequalities

As the study has shown thus far, housing inequalities most obviously arise in the form of financial/cost and quality issues. Yet there is a second important element: the neighbourhood inequalities that arise from spatial segregation based on income differences. These spatial inequalities generate from lower-income individuals being exposed to worse neighbourhood environments, having less access to public infrastructure, and enjoying reduced levels of social capital and wellbeing.

These elements can at times be highly interconnected with the cost dimensions dealt with in Chapter 2; for instance, better neighbourhoods tend to see less crime and have more green spaces, but are typically in more expensive areas where houses are also of higher quality. Thus addressing housing inequalities means ideally attempting to tackle both cost/quality and neighbourhood segregation problems.

This chapter will focus on three overarching elements that are characteristic of the neighbourhood differences that arise due to income inequalities, namely;

1. Neighbourhood quality differences (crime and noise levels)
2. Access to public infrastructure (transportation, schools, health services)
3. Wellbeing and social capital (housing aesthetics, green spaces, and community facilities)

These three topics are the general issues that those in lower income quintiles face relative to their richer counterparts, who often live in neighbourhoods that provide not just better homes but better serviced communities overall.

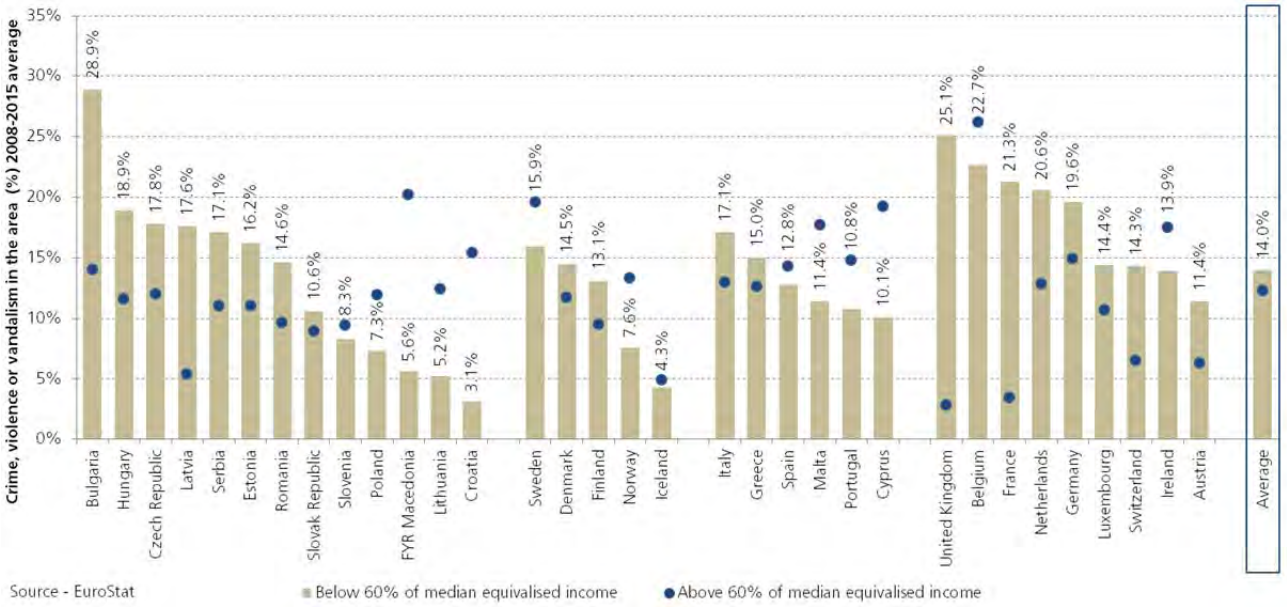
3.1 Neighbourhood quality differences

The quality of the neighbourhood in this section will focus on a selection of household survey-based variables regarding satisfaction/issues with crime rates, pollution, noise levels, and the overall living environment. These issues are often far worse for lower-income households who are forced to choose less than optimal neighbourhood conditions due to financial and information asymmetry constraints.

When examining the **level of crime, violence, or vandalism (henceforth criminality)** in a neighbourhood, those with incomes below 60% of the median equalised income (i.e. at risk of poverty) are more likely to report living in neighbourhoods with criminality problems relative to richer households (i.e. those with 60% of median equalised income[16]). However, on this measure, the issue is strikingly mixed throughout the continent. For instance, neighbourhood criminality is a problem in some Central-Eastern European countries for the poorest households, while in others it is the relatively better off who face the issue (see Figure 19 below). The picture is no clearer in other regions. In the North, in most countries, the poor and relatively richer households often face criminality issues at similar levels (and again in some cases the poor have less of a problem then the rich). The same goes for the Southern European states of Italy, Greece, Spain, Malta, Portugal and Cyprus, where data show that poor households report fewer criminality issues in their neighbourhoods relative to their richer counterparts. Countries in the Western region exhibit the expected result of poor household neighbourhoods having more reported criminality than richer households, with the latter faring only slightly better. However, in the United Kingdom over a quarter of poor households report issues of neighbourhood criminality, as opposed to just 2.8% for richer households. A similar problem exists in France, where the figures stand at 21.3% and 3.4%, for poor and rich households respectively. In such cases we can see the clear societal differences in the types of neighbourhood the richer and the poorer live in.

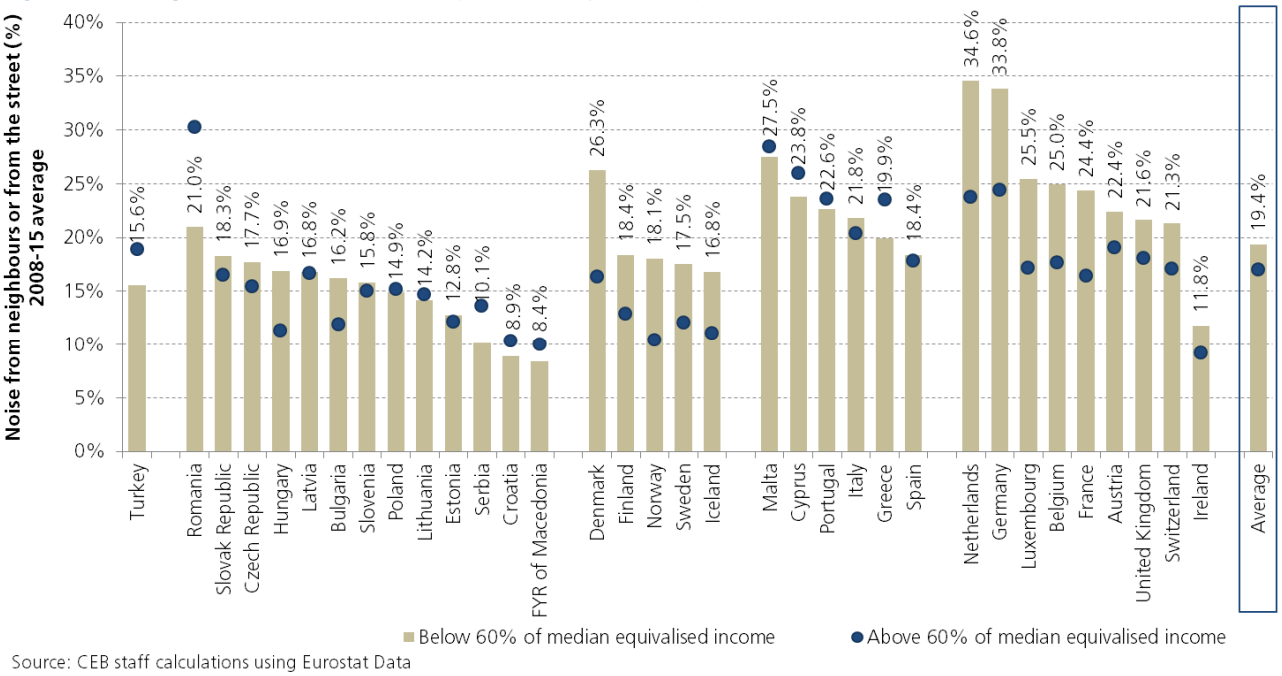
[16] See footnote 6 for reason we cannot examine income quintiles.

Figure 19 – Crime, violence or vandalism in area (by rich and poor households)



When it comes to less menacing neighbourhood effects, such as noise levels, a different story emerges. **Typically, lower-income households face much higher levels of noise in their neighbourhood than their rich counterparts**. However, much clearer regional stories emerge. In the diverse Central-Eastern European region, neighbourhood noise is typically a problem irrespective of household income group; but the region has some of the lowest rates in Europe, with almost all countries having rates below the continental averages. Neighbourhood noise is a much bigger problem in Southern Europe, shared by both the rich and the poor. The problem of the high noise pollution that low-income households face is found in the prosperous (and at times more equal) Western and Northern regions. In the highly equal North, the disparity between rich and poor households is noticeably large, with Denmark being the regional outlier. In the West, the disparities are wide for the majority of countries (bar a few exceptions such as Ireland, where the gap is both narrow and overall noise levels are low by European standards).

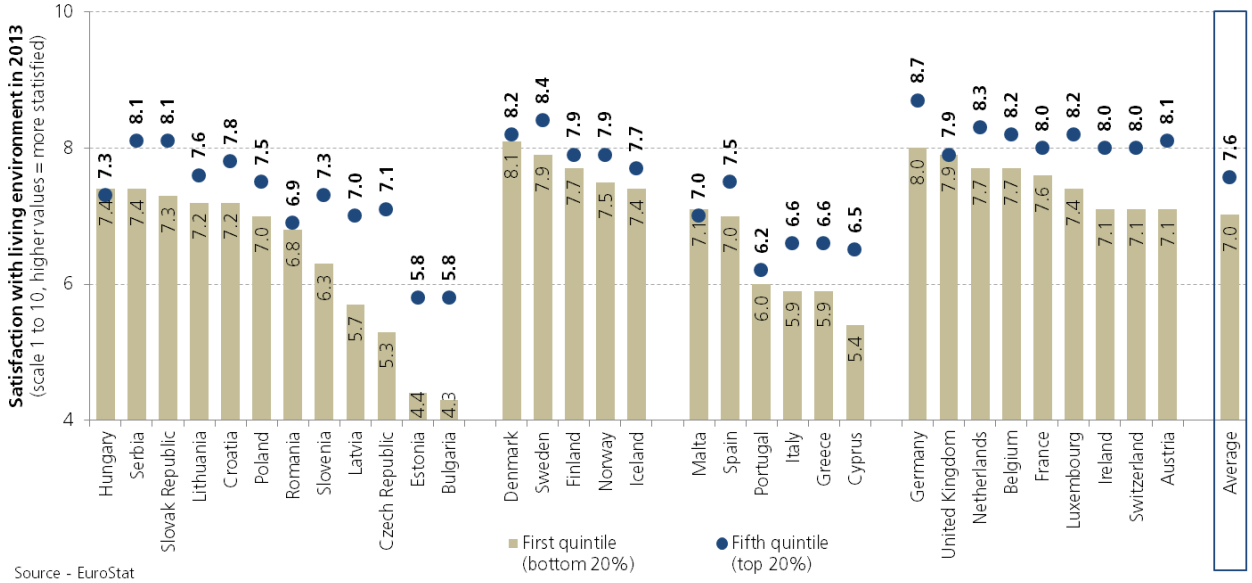
Figure 20 – Neighbourhood street noise problems (by rich and poor households)



Source: CEB staff calculations using Eurostat Data

The perception of one's neighbourhood can also be understood by **looking at the residents' satisfaction with their living environment** (see Figure 21 which examines subjective perceptions regarding one's living environment in 2013, by income quintile[17]). Throughout Europe, rich households always tend to be more satisfied with their living environment relative to their poorer counterparts, with the lowest differences in the Northern and Western European countries. In Central-Eastern Europe, the differences are far starker within countries; on average, in Central-Eastern European countries, those in the top 20% report living environment satisfaction rated at 7.19 as opposed to 6.36 for the bottom 20%. Typically, satisfaction with the living environment for the top 20% in Central-Eastern Europe does not reach the same levels as the bottom 20% in either Northern or Western Europe. Southern Europe fares worst in Europe, with average satisfaction levels for the top 20% standing at 6.7 and for the bottom 20% at 6.22; in countries such as Portugal, Italy, Greece, and Cyprus, the bottom 20% have some of the lowest levels of living environment satisfaction on the continent.

Figure 21 – Satisfaction with living environment in 2013 (by top and bottom income quintiles)



3.2 Access to public infrastructure/services

One of the main ways in which spatial income-based segregation generates long-term inequality issues is by differences in ability to access public infrastructure, namely transportation, education and health services, all of which are crucial to living normal lives and are instrumental in helping overcome income-based inequality (see the Educational Inequality report in this series of papers)

Transportation access inequality

Some low-income neighbourhoods face difficulty in accessing public transportation combined with long commuting times: it is a problem that is only made worse by the fact that low-income households are the largest users of public transportation. The highest concentrations of jobs are typically found in city centres. Since low-income households may be priced out of homes in these areas, they are often forced to live on city peripheries, in suburbs or even in rural areas, thus having to commute into the city centres. This not only exasperates inequalities as lower-income households have to spend more money and time on commuting[18], but also reduces their overall life satisfaction[19] (Eurostat 2017).

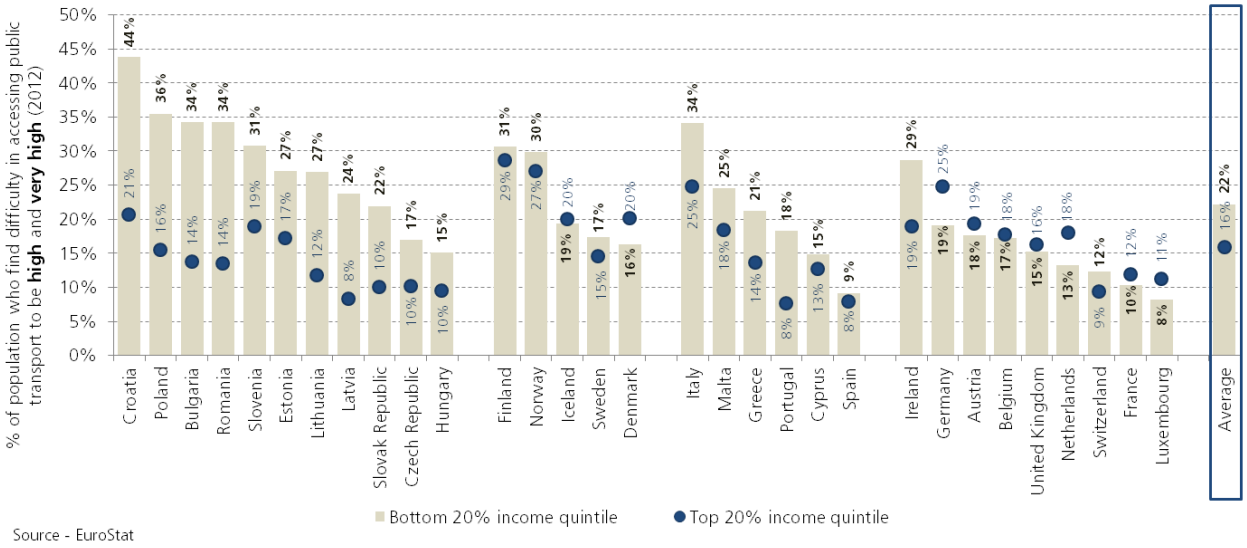
[17] The table only examines the bottom and top 20%, the full table can be found in Appendix Table 1.1.

[18] Eurostat 2017 also shows that higher-income individuals, typically managers, also have high commute times, but this often is the result of a choice to live in more affluent suburbs away from city centres where "the quality of life is sometimes considered as far from ideal (e.g. when bringing up a family)".

[19] Commuting has been linked to lower levels of overall life satisfaction.

In Figure 22 below, we can see that access to public transportation is an issue that many low-income individuals do face. **On average 22% of Europeans in the bottom 20% of the income distribution have high or very high levels of difficulty in accessing public transportation**. However, the disparity between the top 20% and bottom 20% is not always very wide – 16% in the top 20% face similar difficulties. In Central-Eastern and Southern Europe, the differences in public transportation access between the two groups are much more acute. On the other hand, in Western and Northern Europe, the top income quintiles in most cases have more difficulty than those in the bottom quintiles. However, the figures below make no distinction between level of urbanisation and, when considering those living in suburbs/towns or rural areas, the difficulties regarding access to public transportation increase for all income groups.

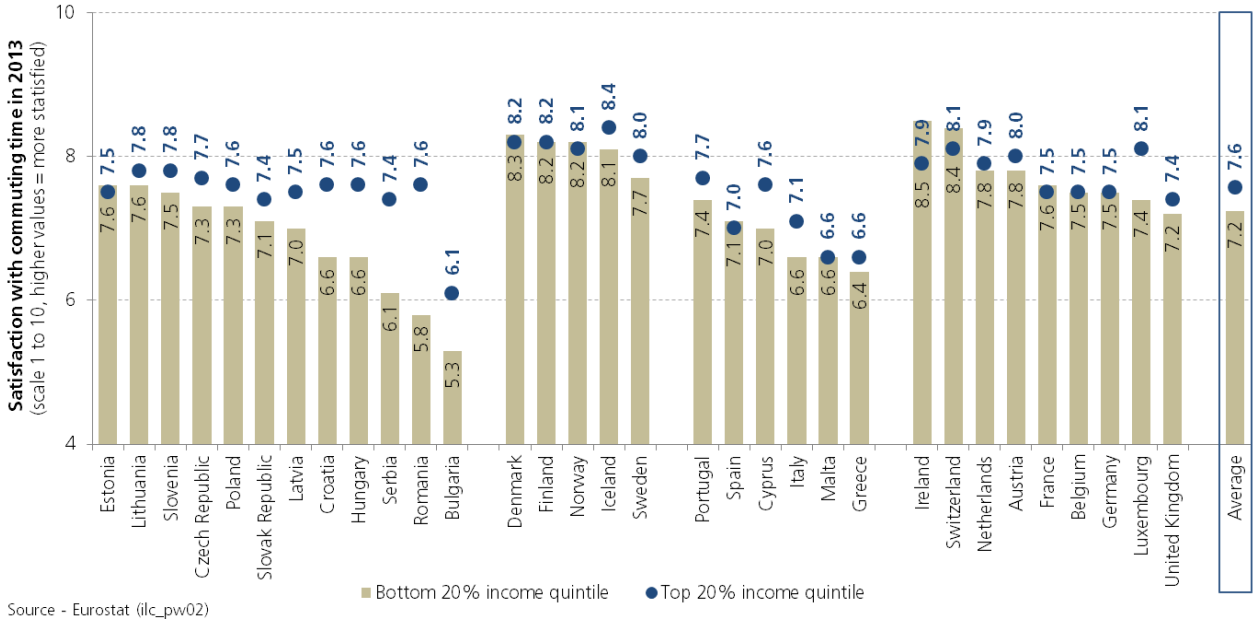
Figure 22 – % of population having high or very high difficulty in accessing public transport (by top and bottom income quintiles)



Source - EuroStat

This can often translate into lower levels of satisfaction with commuting times from home to work. It is assumed that the better-off have lower commuting times as they are able to afford homes closer to work, with better transport connections, or are able to afford quicker transportation options. Examining satisfaction with commuting time (see Figure 23 below) can act as a proxy for this, and what we see is that, on average, in Europe, the top 20% are slightly more satisfied (7.6) on this measure than the bottom 20% (7.3). However, as is to be expected, regional variations exist. For instance, in the North, West and South, all income quintiles have almost equal satisfaction levels, although these regional averages have a descending order; for example, for the bottom 20% in North the score equalled 8.1, in the West 7.7, and in the South 6.9, which indicates potential differences in regional and country level commuting issues (for example, public transport connectivity between neighbourhoods and work/commercial districts are better in the North and West). In Central-Eastern Europe, the differences are far more pronounced, with higher-income individuals reporting considerably higher satisfaction with commuting times (potentially reflecting better housing choices).

Figure 23 – Commuting time satisfaction (by top and bottom income quintiles)



Source - Eurostat (ilc_pw02)

Planning the type of public transportation may have economic motivations rather than ones that work to reduce poverty/inequality. For instance, motorways, overpasses, and rail-roads may be constructed through poor neighbourhoods due to lower property values, which leads to further segregation of those neighbourhoods from the rest of the urban area, causing "urban splintering" (i.e. a motorway that literally creates a wall that separates poor neighbourhoods from the rest of the city) (Titheridge, et al. 2014, Graham and Marvin 2001).

Reducing the difficulties associated with access to or the cost of transportation may require policy makers to consider land-use zones that allow the building of new public transport facilities; this would reduce the distance between peoples' homes and work (and leisure locations) (OECD 2010). Existing transportation routes may not sufficiently service poorer communities and thus, whenever possible, new routes should be organised to minimise such issues. In countries where public transportation has been deregulated and delegated to the private sector (through multi-year contracts with the public authorities), poorer communities are often under-serviced due to limited profit potential. To solve this problem, public authorities can undertake tenures to find a transportation provider to service those areas; but this may require providing subsidies to the private sector partner to make the venture profitable (Titheridge, et al. 2014).

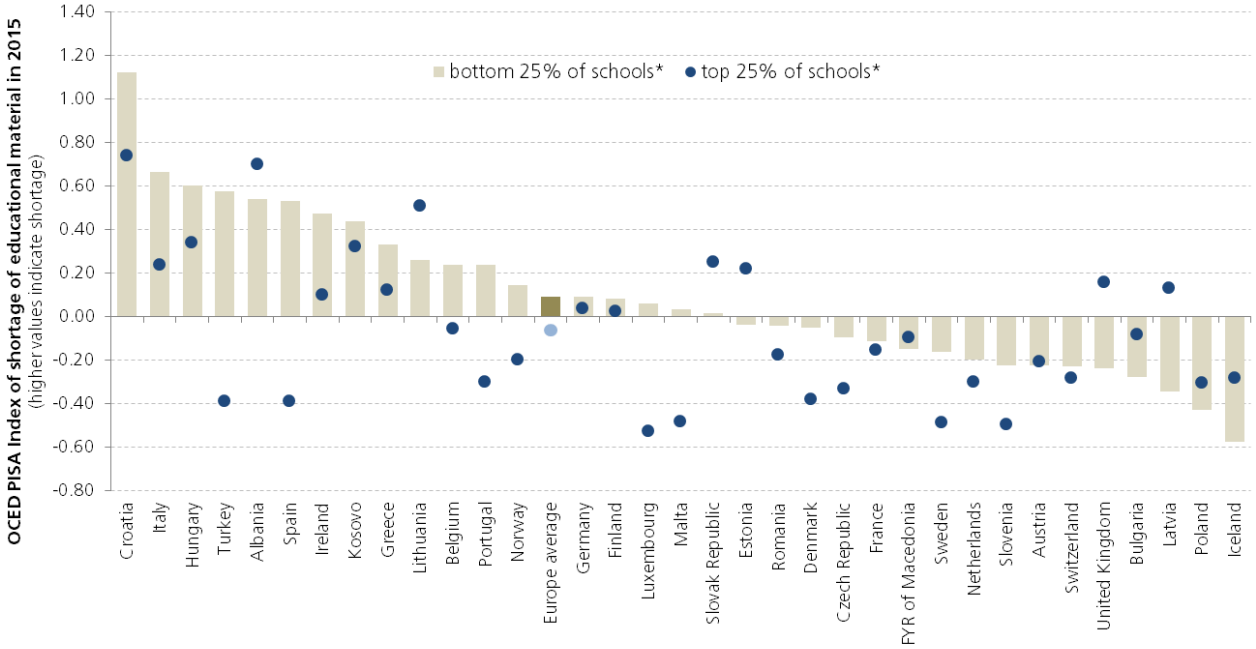
Educational quality in low-income neighbourhoods

Educational quality is another public service that can be adversely affected in low income neighbourhoods. In many developed countries, there is a persistent problem of poor educational performance in low-income neighbourhoods. While the relationship between poor educational outcomes of students and neighbourhood effects is a complex one, two overarching problems persist:

1. School quality is lower in low-income neighbourhoods; schools do not use educational resources effectively, or may even have fewer resources with which to ensure equity in education than more affluent neighbourhoods.
2. Neighbourhood characteristics and peer effects can influence students' educational attainment levels; in areas with segregated neighbourhoods, students tend to go to schools with students from similar socio-economic backgrounds, thus impacting educational outcomes.

Admittedly, not all schools in low-income neighbourhoods perform badly, and in many they are able to achieve positive results despite adverse circumstances. That being said, in many parts of Europe, **disadvantaged areas tend to have disadvantaged schools which do not have the necessary resources or teachers to ensure equity in education**. As can be seen in Figure 24 below, in most countries, disadvantaged schools often are more materially deprived than non-disadvantaged schools[20] (higher values mean more material deprivation). In a number of countries, material deprivation is a problem *per se* (see left-hand side of Figure 24), regardless of the school's socioeconomic background.

Figure 24 – Shortage of educational material between poor and rich schools (indexed value)



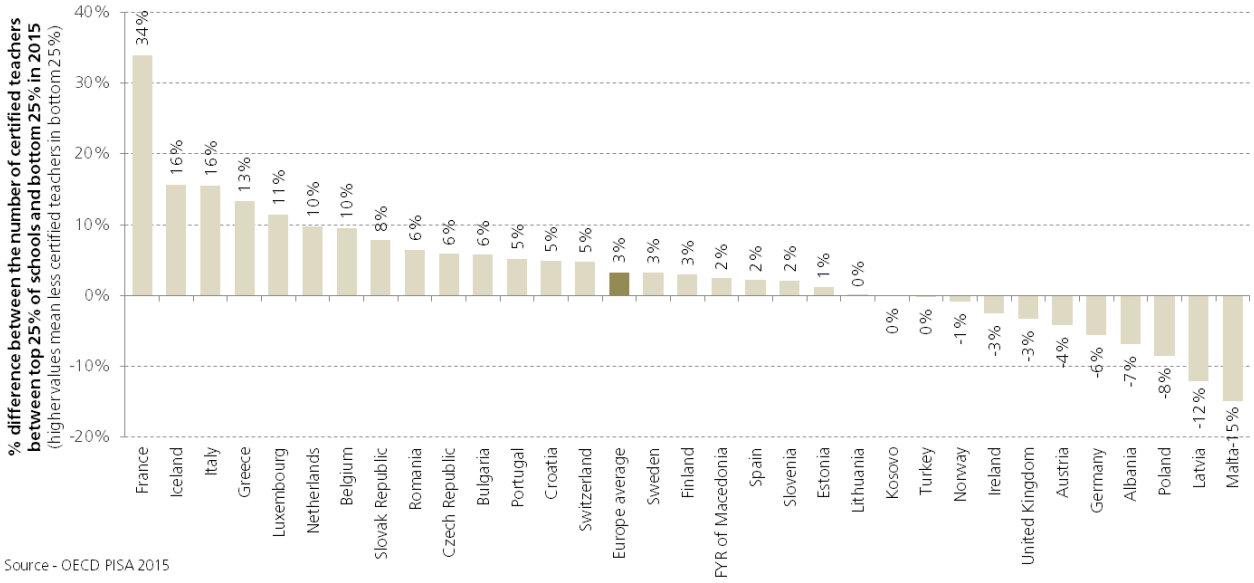
Source - OECD PISA database
* this is based on the socio-economic profile of the school based

Beyond material deprivation, the **quality of teaching staff** can also be much lower in disadvantaged schools. For instance, on average in Europe, 84.7% of teachers in disadvantaged schools are certified compared to 88% in non-disadvantaged schools – a 3.3% difference (see Figure 25 below). This average naturally masks within-country disparities. For instance, in France, 56.1 % of teachers in the bottom 25% of schools[21] are certified compared to 90% in the top 25% of schools, representing a 33.9% difference, the worst in Europe. In other countries, the disparity is also notable, namely Iceland (15.7%), Italy (15.5%), Greece (13.3%), Luxembourg (11.4%), the Netherlands (9.8%), and Belgium (9.5%).

[20] Although this not always the case, such as in Albania, Lithuania, Slovak Republic, Estonia, "the former Yugoslav Republic of Macedonia", United Kingdom and Latvia.

[21] Based on the school's socio-economic profile

Figure 25 – The % difference in the number of qualified teacher by socioeconomic status of school



Source - OECD PISA 2015

The lack of necessary resources in disadvantaged schools can have far reaching effects in delivering effective educational services. Disadvantaged schools may have to work to minimise the negative effects of the poor socio-economic backgrounds of their students without expecting any financial contribution from parents to cover the cost and planning of enrichment activities (e.g. field trips), and providing access to learning resources (e.g. computers, libraries, homework clubs, etc.) and basic learning equipment (writing utensils), all of which places constraints on finances and teaching time (Lupton 2004).

Beyond material deprivation, disadvantaged schools can also contribute to a student's underperformance even when the student is capable of doing better; the socio-economic make-up of the study body can influence the educational performance of individual students. When schools have a disproportionately high number of students from low-income backgrounds (typically these are the disadvantaged schools), students, on average, perform worse in exams (OECD 2012). In addition, the intergenerational link between the parents and a child's education (i.e. parental educational background) contributes to a child's abilities and resources in their own education – [see CEB (2017)]. Since parents seek to help the children obtain the best education, richer families are able to be more selective as to where they live, and thus place their children in schools with other socio-economically advantaged children.

Disadvantaged schools often have a large intake of lower-income students resulting in a diverse make-up of students with varying abilities (some have higher learning needs), different emotional and psychological backgrounds (they may be more anxious, traumatised, vulnerable, and/or have uncomfortable living environments) (OECD 2012, Lupton 2004). This creates financial challenges for the schools, but also effects teaching staff relationships with students and time allocation to lessons (teachers can feel they have the extra "parental" or "social worker" duties when helping some children) (Lupton 2004). This creates a large drain on the teaching staff who do not feel that they have the necessary support to balance all the demands placed on them and often translates into the inability of disadvantaged schools to retain qualified and experienced teachers (Harris and Chapman 2004).

Overcoming educational inequality in low-income neighbourhoods is not straightforward and a range of different housing and educational policy prescriptions exist. Investing in housing developments in deprived areas that targeted both low-income and higher-income individuals in conjunction with an investment in local schools can help promote income mixing in neighbourhoods and a more socio-economically diverse student population. Conversely, expanding affordable housing options in affluent neighbourhoods can have similar income-mixing effects[22] (Turner and Berube 2009). School choice[23] can help overcome educational

[22] This solution primarily comes in the form of offering vouchers for low-income individuals to be able to afford higher priced homes in more affluent neighbourhoods.

inequalities by helping children access better schools in high-income neighbourhoods. In Copenhagen, Denmark's capital, the educational inequality issues are being addressed through policies which aim to increase diversity in schools by reserving places for students that come from socio-economically challenged neighbourhoods (OECD 2010).

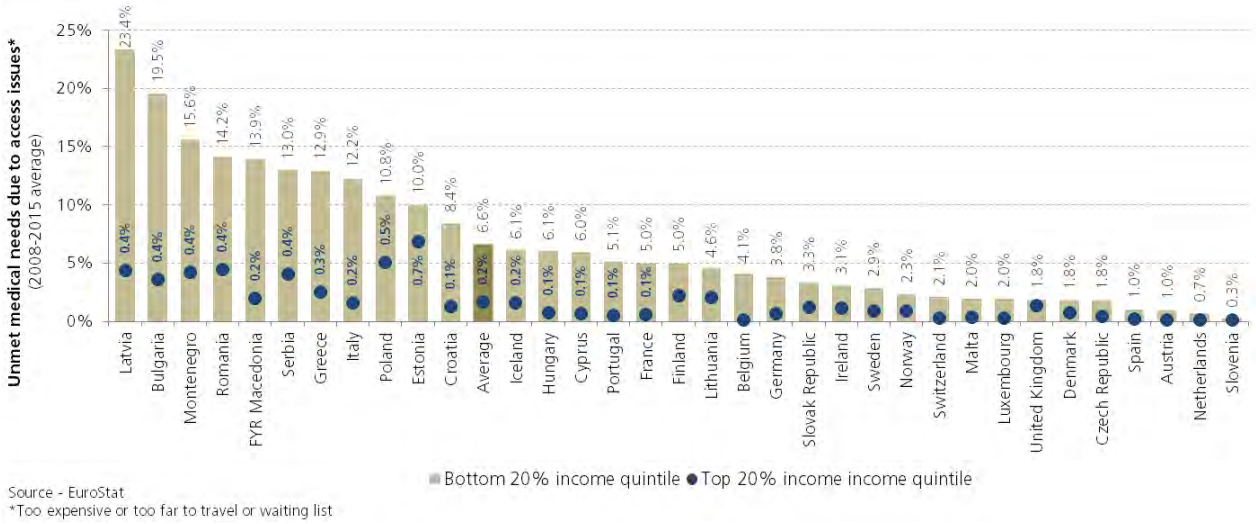
A more policy-oriented perspective is to heighten school management (improve leadership), to improve learning environments (by designing programmes to target the specific needs and issues that arise from a school's student population (e.g. addressing learning difficulties, minimising disruptions, etc.), and to work to attract and retain high quality teachers (providing support for existing teachers, including in teacher career tracks that require working in disadvantaged areas, etc.)[24] (OECD 2012).

Health service inequality

Residents of low-income or disadvantaged neighbourhoods can also face challenges in accessing health-care services. Throughout Europe, people who are in the bottom income quintiles are on average more likely to report health issues compared to their richer counterparts (CEB, An introduction in inequality in Europe 2017). On average 6.6% of people in the bottom 20% of the income distribution reported having unmet medical needs due to access issues between 2008-2015 (see Figure 26 below), as opposed to just 1.7% of those in the top 20%. This average is highly skewed by ten countries where 10% or more of those in the bottom 20% report unmet medical needs[25] (in Latvia nearly a quarter reported so). The most often cited issue for low-income individuals is high costs, followed by long waiting lists and, in some cases, travel time. All of this points to a greater need for more medical services in disadvantaged neighbourhoods where most low-income individuals reside.

Yet meeting those medical needs can be challenging. To start off with, there are fewer doctors per capita in disadvantaged communities and the few there are rarely live in the community or are aware of its specific needs (Ono, Schoenstein and Buchan 2014, Huisman, et al. 2013). As the OECD showed in a Paris case example, there were 3.18 GPs per 1,000 inhabitants in the affluent 8th district as opposed to just 0.76 GPs per 1,000 inhabitants in the more disadvantaged 20th district. Disadvantaged areas have few specialised doctors, leaving disadvantaged areas with limited specialised medical services (which may thus mean requiring patients to travel long distances and/or spend more money to acquire such services).

Figure 26 – % of population that have unmet medical needs due to access issues (by top and bottom income quintiles)



Source - EuroStat
*Too expensive or too far to travel or waiting list

[23] School choice is helpful only when there is financial support for low-income households and access to necessary information about schools. Affluent households have both more money and more information when selecting which schools to send their children to – this is explained in more detail in Part II – Educational Inequality in this series of papers

[24] This was a brief summary of OECD (2012), for more details on these specific recommendations, please refer to the OECD report "Equity and Quality in Education: Supporting Disadvantaged Students and Schools").

[25] This data in part is a reflection of large rural and urban divides (rural areas on average have fewer medical services or their medical services are spread over larger land areas).

In the context of housing inequality, access to medical services is therefore not about a lack of physical medical infrastructure (although some problems do exist in this respect), but rather about attracting more physicians to work in disadvantaged areas. Attracting qualified physicians is challenging due to potentially undesired living environments (e.g. limited educational opportunities for children, work opportunities for spouses, safety, housing issues, etc.), limited income (reduced number of patients, limited insurance coverage of population, etc.), difficult working conditions (lack of resources or support, work-life balance, etc.), and/or career prestige and recognition issues (Ono, Schoenstein and Buchan 2014).

Attracting more doctors into disadvantaged areas can best be served through a combination of government policies and financial incentives. One element is to start promoting working in under-represented regions during medical education or to establish specific medical training programmes/schools for underrepresented areas; financial incentives can also lure doctors by either offering subsidies/one-off payments or wage-linked incentives to practice and/or open up services in underrepresented areas (Ono, Schoenstein and Buchan 2014)[26]. Different employment models such as dual practices (doctors being able to have private and public-sector positions) and group practices (a network of physicians and medical related staff to reduce workloads, etc.) are another alternative. Additionally, telemedicine can help increase access to medical services[27] in underprovided areas.

3.3 Wellbeing and social capital differences

Social housing that just serves to provide a dwelling is insufficient if it fails to provide a proper community environment. Such things as access to recreational facilities, community centres, parks and green spaces can positively affect an individual's social capital and personal wellbeing. Social housing that provides such things tends to see inhabitants who are more closely linked to their neighbours, who are more physically active and overall happier with their day-to-day lives.

One element that can improve wellbeing issues is to improve the construction/refurbishment of social homes by making them places people actually want to live in (i.e. the aesthetics). In the past, such concerns were not a priority when designing social housing; often designers were confined by budgetary and even timetable restrictions, which meant building homes purely for function without wider sustainability considerations. The result was homes that were not prioritised to be energy-efficient (see info Box. 1) and were often visually unpleasing (often the image of large grey concrete multi-story buildings).

The aesthetics of a home have a multitude of benefits. When social housing is constructed to more closely resemble market-based housing, the aesthetic difference reduces the stigma associated with social housing and can potentially help to achieve income mixing (and thus reduce income-based neighbourhood segregation) as other income groups will be more willing to own property near social housing (Realignment 2010). Research has shown that individual mental wellbeing is positively associated with the aesthetic quality of the external appearance of a home. Research extended to examine social housing found the same relationship (Bond, et al. 2012, Guite, Clark and Ackrill 2007).

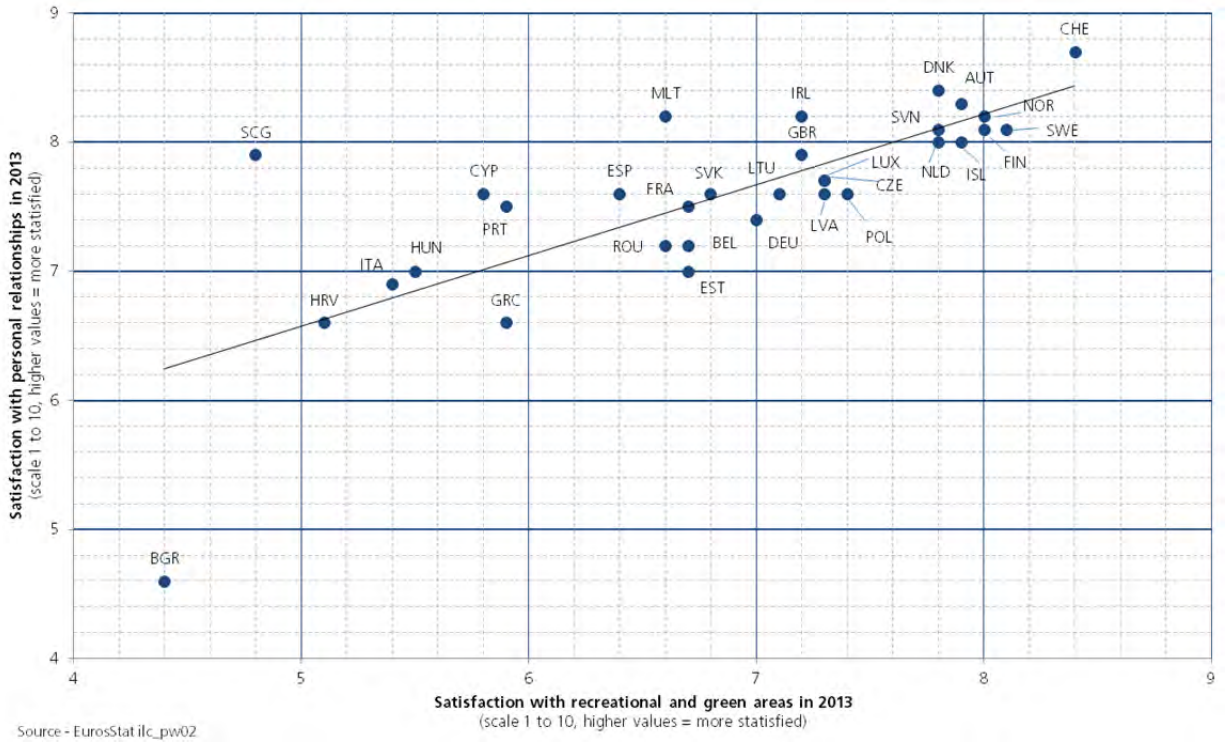
Additionally, there appears to be a strong correlation between access to recreational facilities and green spaces and the likelihood of people being satisfied with their personal relationships and trust in others. For those in the bottom income quintiles, those who are unsatisfied with their level of access to recreational and green spaces tend also to see the lowest levels of satisfaction regarding their personal relationships with others (see Figure 27

[26] There is also the possibility of required services as a condition for future specialised training or limits on doctors' location choices, to create a more equitable medical service distribution, but many developed countries choose not to undertake such measures, and evidence may even indicate it is not wholly effective (Wilson, et al. 2009).

[27] This is advocated primarily in rural areas with large geographical distances, but where costs are high and the ability to use telecommunication may be limited (e.g. sup-optimal telecommunication network) – however in underprovided disadvantaged urban areas, the fixed costs associated with such a service are not as great and may potentially offer greater returns in terms of medical service access.

below). While lower-income individuals may not always be in social housing, they do tend to cluster in disadvantaged neighbourhoods where there is a higher proportion of social housing units.

Figure 27 – Access to recreational/green space and satisfaction with personal relationships (of bottom quintile)



Green space

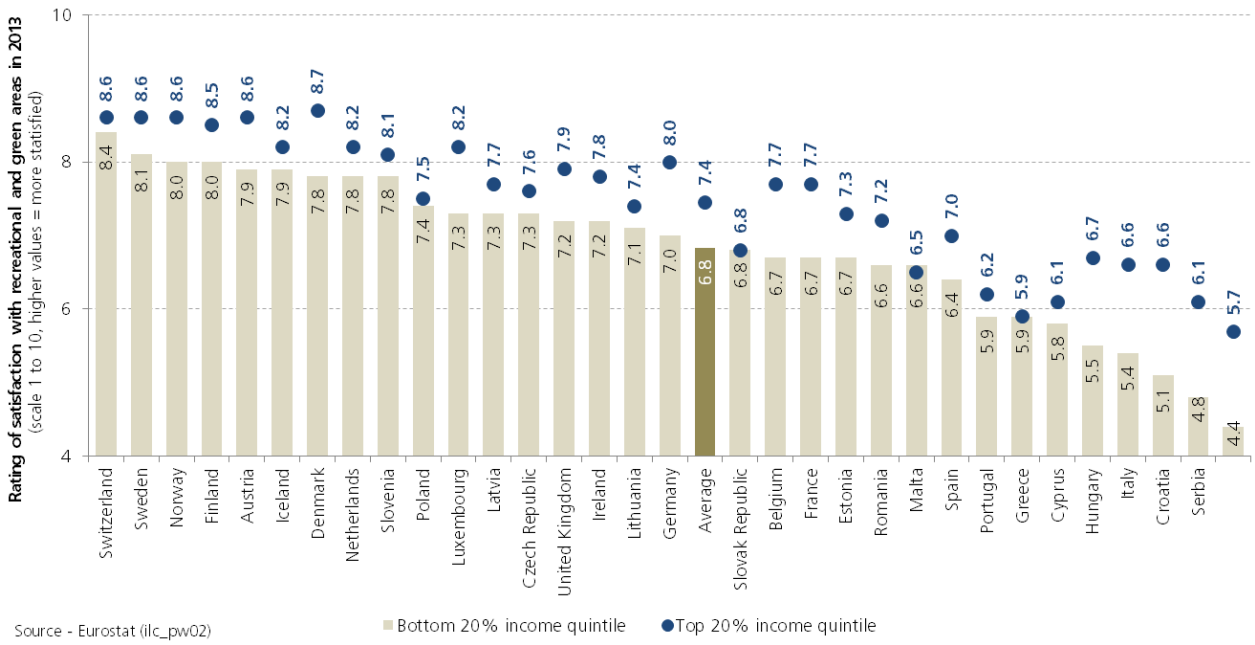
The presence of green space (e.g. parks, trees, etc.) near a home can have a number of positive effects on an individual's health and overall wellbeing. The simple act of just observing a green environment can have positive psychological benefits, enhance mental and spiritual health, reduce stress, and help minimise the negative effects of depression (Hiscock and Mitchell 2011, Natural England 2010). Access to green areas can also promote more healthy living, physical activity, social contacts, integration, and improved air quality (Morris 2003, The Marmot Review 2010).[28]

Studies have shown that when social housing is built near green spaces and common spaces, this promotes social interaction between neighbours, increases the incidence of neighbours relying and helping each other out during hard times, and generates increased social cohesion (Sullivan, Kuo and Depooter 2004). In the context of high-rise inner city social housing (typical in many urban areas in European countries), research has shown that not only do residents prefer having common areas with green space, but they also use these areas to create more vital neighbourhoods (Kuo, Bacaicoa and Sullivan 1998, Kuo, et al. 1998).

Access to green space varies throughout Europe, as can be seen in Figure 28, and in almost every country those in the bottom income quintile report having lower satisfaction with recreational and green areas compared to those in the top quintiles; the disparities are often most pronounced in Central-Eastern Europe.

[28] The proven evidence of the benefits of green space is so varied that this report could not include all of it. Beyond just the positive wellbeing effects, there are economic gains, productivity enhancements, climate change mitigation effects, positive land use effects, and much more.

Figure 28 – Satisfaction with recreational and green space (by top and bottom income quintiles)



Recreational and community facilities

Wellbeing and social capital in a neighbourhood can also be enhanced by ensuring access to recreational and community-based facilities. The scope and complexity of this topic is wide and social cohesion/capital can come in multiple forms, such as social involvement, i.e. informal relations, civic organisations, and/or political participation (Schmeets and Riele 2010). However, the relationship is perhaps best summarised by Forrest (2001) who indicates that social capital formation within neighbourhood policies is a mixture of several fields; helping provide community support, establishing local activities/organisaitons, developing networks, creating an ethos of co-operation, and an overall sense of belonging and working together to harmonise social relations.

Community centers can help foster social cohesion within a neighbourhood, act as a central administrative area for local services/organisations, provide local knowledge and help support network building. In the case of a survey undertaken in Australia, people used such centers primarily to gain local knowledge, to organise/partake in community development activities/events, host external events, and to provide child support programmes (playgrounds, breakfast clubs, and homework clubs) (Izmir, Katz and Bruce 2009).

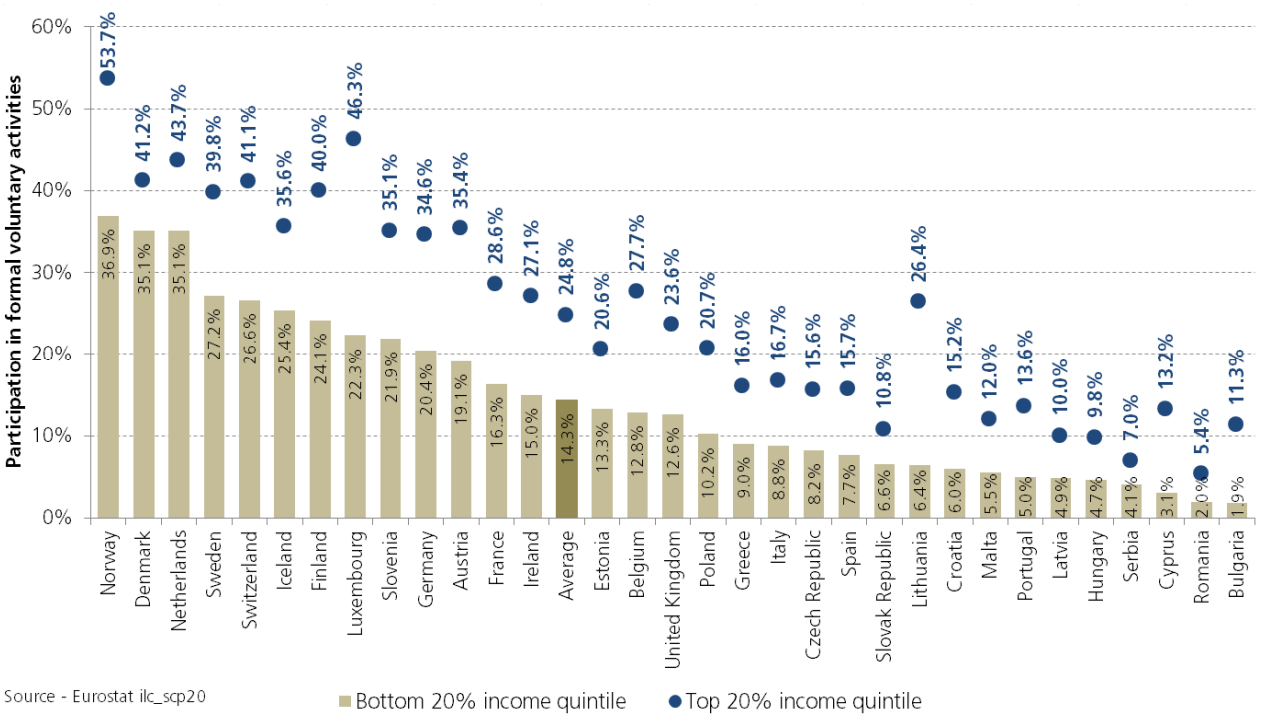
Volunteerism can also flourish when communities have a place to organise such programmes (volunteerism can of course form organically without community centres, but it helps when some sort of infrastructure is already in place). When people volunteer in a community programme, group sports, recreational or cultural/artistic activities, this can generate higher civic engagement among people and can make it easier to mobilise a community for future community projects; i.e. community social capital (Izmir, Katz and Bruce 2009). Volunteerism does not always need to be formal; the informal variant (helping friends or neighbours when they need assistance[29]) is often found in deprived areas where people do not have the time or the resources to undertake formal volunteering (Williams 2003).

Within Europe, volunteerism rates (both formal and informal) vary between income quintiles. When it comes to formal volunteering, on average, in Europe 24% of those in the top income quintile participated in some type of formal volunteering in the past year, as opposed to 14.3% for those in the bottom quintile (see Figure 29 below). Regional variations do exist, for instance in Nordic and many Western European countries there is still a

[29] E.g. gardening help, driving someone to hospital, helping take care of a neighbour's kids (Woolvin and Harper 2015)

rich-poor divide, but volunteerism rates among all income quantities are much higher than the European averages. In many Central-Eastern and Southern European countries the formal volunteerism rates are extremely low regardless of income quintile (right hand side of Figure 29 below). Informal volunteering does not fare much better, with those in the top income quintiles more likely to report informally helping someone else out. However, the rates are much higher for all income groups relative to formal volunteering, with on average a quarter of those in the bottom income quintiles informally volunteering and a third of those in the top quintile (see Appendix Figure 1.3).[30]

Figure 29 – Formal voluntary activities as % of population (by top and bottom income quintiles)



Participation in recreational and cultural activities (as an active participant or just a viewer) can provide wide ranging social capital benefits. Sport for instance, which can be part of a community centre, a green space or stand-alone, are a means for children and adults to form community ties.[31] People who are involved in a sports organisation[32] (be it as a competitor or not) tend to observe positive social capital outcomes such as increased self-confidence, strengthened tolerance and egalitarian values; they are also more likely to exhibit increased levels of trust, civic engagement, and volunteerism (non-sports related) (Uslaner 1999, Seippel 2006, Karimian, et al. 2015).

Cultural activities, such as art programmes/exhibitions, theatre, dance troops, are just as effective in promoting social capital through participatory and non-participatory means. A group of actors, artists, and dancers create social bonds among themselves, creating similar social capital effects to those of sport associations (self-confidence, trust levels, civic engagement, etc.) (Guetzkow 2002). Moreover, the events organised under culture-based activity programmes (galleries, plays, dance performances) can bring together members of a community via a shared experience, increase community pride, community norms (such as free expression) and can help bridge/resolve community differences (McCarthy and Jinnett 2002).

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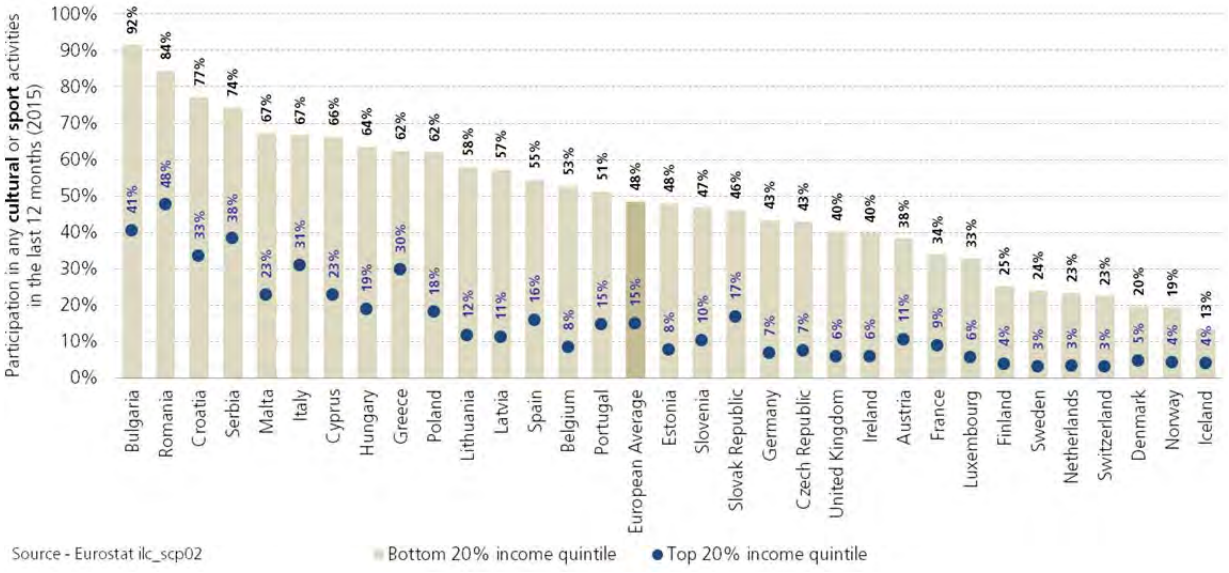
30 The paper also examined active citizenship indicators (see Appendix Figure 1.4) which were overall much lower than either formal or informal volunteerism; 15.5% of those in the top income quintile participated in active citizenship and just 9% of those in the bottom quintile. Overall the vast majority of countries in Europe saw low levels of active citizenship for lower income quintiles, with the top income quintiles only performing marginally better – the exceptions were the Nordic and some Western European countries were active citizenship is more pronounced (left hand side of Appendix Figure 1.4)

31 Aside from a social capital benefit, there are also the added health benefits of increased physical activity.

32 It is also important to ensure access to sports at all levels, not just competitive, to ensure wider participation (Edwards, et al. 2015).

Yet, access to such facilities (sport or cultural) is often a cost issue for most disadvantaged individual and neighbourhoods, as well as time and transport issues (Edwards, et al. 2015, NESF 2007). As can be seen in Figure 30 below, almost half of those in the bottom income quintiles have not participated in a cultural or sport activity in the past 12 months, as opposed to 15% of those in the top income quintile[33]. The disparities between rich and poor are wide in almost all countries (with the smallest disparity in the Nordic states), with extremely high rich-poor disparities in many Central-Eastern and Southern European states.

Figure 30 – Participation in cultural and sport activities (by top and bottom income quintiles)



As part of social housing (and for that matter community) development policy, investments should be geared to finance both the building of physical community-based infrastructure (community centres, sport facilities, etc.) and support for community programmes. However, investments in the physical community infrastructure will most effectively function when policies to support community-based programmes are enacted, for example, policies that work to incentivise both formal and informal volunteering. Formal volunteering is relatively straightforward as funds can be given to programmes that work to overcome a specific community problem. Informal volunteering, a more nuanced form of volunteering as it involves one-on-one interactions (and thus inherently harder to monitor), could be promoted through the funding of non-governmental or non-profit associations which put people in need together with those who have a desire to help (North 1999, Williams 2003).

When it comes to investing in recreational facilities, policies could aim to give individuals a diversity of options, ranging from sports to cultural activities. For instance, it can be helpful to diversify the options of the types of sports that are made available in disadvantaged neighbourhoods and those tied to social housing. The location of sport facilities (area-based activity) is especially important as access issues that arise from long travel times to facilities may deter participation (Edwards, et al. 2015). Local authorities or national programmes can offer funds or subsidies to art/cultural groups and outreach programmes to widen cultural participation (NESF 2007). Naturally, this adds another layer of complexity when considering how to build social homes, as planners have to take into account an already large list of other considerations (housing quality/sustainability, access to transport, education and health facilities, etc.). However, access to community and recreational facilities is imperative if social housing planners want to ensure social cohesion and harmony.

[33] Within this figure, based on Eurostat data, the most common reasons were cost but also lack of interest and access – this speaks to the wider issues of how to engage willing participation and achieve wide access.

Chapter 4: Public Spending on Social Housing

This chapter explores how governments in Europe work to finance social housing and describes the public-sector financing trends of recent years. Since there is no one single model of how social housing is provided to lower-income households in Europe, the chapter begins by undertaking a general overview of the different methods countries employ and how governments support the provision of housing (either directly building new homes, supporting private social housing providers, or transferring housing allowances to lower-income households). It concludes by examining the resources that governments are allocating to social housing (both in terms of housing allowances and physical housing developments).

4.1 Social housing financing in Europe

The meaning of social housing differs among European countries and even more so when we look at how countries allocate funds and investments towards it. For instance, in Spain, social housing does not exist per se; instead the government enacts a series of subsidies to increase the affordability of homes and promote individual homeownership (Gibb, Maclennan and Stephens 2013). In the Netherlands, on the other hand, housing corporations provide much of the social housing without using public funding and receive virtually no special treatment[34], but at the same time tenants may qualify for government rent subsidies (Housing Europe 2013). **Methods may differ in Europe, but two common elements can be noted: the first, and most obvious, is that all countries ultimately aim to provide affordable housing to those most in need; the second is the current and long standing trend away from governments providing physical social housing and instead using demand-side support policies (subsidies, guarantees, etc.) to encourage a private sector supply of homes**.

The historical role of the public sector in providing social housing can be traced back to the industrial era, when states throughout Europe began to supply affordable housing at a time when housing was costly, of low quality, and highly overcrowded for most people. From the end of World War II until the 1970s, the state sector throughout Europe took on an increasing role in heavily subsidising or directly constructing homes in response to the unparalleled shortages that resulted from the destructive war years; the public-sector investment in social housing during this era typically accounted for 10 to 15% of national budgets, typically exceeding 40% of GDP (Priemus, et al. 1993). By the mid-1970s/1980s, governments had shifted away from brick-and-mortar policies towards more market-oriented ones such as: promoting demand-side subsidies; devolving social housing related matters to municipalities; focusing on increasing housing quality (not just providing shelter but access to public services and community/neighbourhood facilities); and increasing use of the private sector or housing associations to meet housing needs (Whitehead 2003, Scanlon, Arrigoitia Fernandez and Whitehead 2015, UNECE 2006, Priemus, et al. 1993).

The different social housing models

The overarching aim of the different models in Europe is to provide access to affordable and quality housing, and they differ primarily on the criteria for establishing how housing support is allocated. The two general models found in Europe, as identified by Czischke and Pittini (2007), are the *universalistic* and *the targeted* models. The **universalistic** model places the government as the central actor that is responsible for providing affordable and quality housing for the entire population, with housing being provided either by local housing companies (municipal level) or via non-profit organisations. Countries that apply this model tend to have large rental housing sectors (where rents are cost based) and individuals receive housing allowances and/or rental guarantees, all with the overarching aim to promote social mixing so as to prevent socio-economic based

[34] The social housing corporations work under a multi-layered security arrangement that includes an independent public supervisory body (to ensure financial health of corporations), a cash reserve set up by the corporations as a means to guarantee loans from the private sector, and finally having the Dutch government (both state and municipalities) act as the final guarantor if the other layers of securitisation fail; the corporations also receive no special tax treatment (Housing Europe 2013).

segregation. On the other hand, there is the **targeted** model where the government only acts to provide housing (typically social housing) when the private market is unable to supply affordable and quality housing. Under this model, the remainder of the population simply utilises the private sector to find their housing solution. However, as Czischke and Pittini (2007) note, the targeted model has two sub-components, the *generalist* and the *residual.* In the generalist model, housing is allocated if the income of a houshold is below a defined income ceiling (clear rules based on those ceilings dictate how housing providers allocate housing), with social housing rents typically being fixed, and households receiving housing allowances. In contrast the *residual* model allocates housing based on need/vulnerability, with rents being cost- and/or income-based.

Financing social housing

The diversity of housing systems throughout Europe, with the multitude of institutions involved (central government, municipalities, private sector, NGOs, housing associations, etc.) make comparison of the different social housing financing methods complicated. However, a starting point for such a comparison can consist in analysing the two primary stages of social housing finance:

> **Supply side** – financial instruments/mechanisms which aim to increase the overall supply of quality and affordable housing through the construction of new housing or the refurbishment of existing stock by reducing investment and operation costs for social housing providers.
>
> **Demand side** – typically government subsidies (housing allowances) that are transferred to target group tenants to help them pay their rent.

The types of financial mechanisms found in both funding stages can at times be interlinked. For instance housing allowances in effect guarantee that investors (e.g. banks) will see a steady return on investment, thus reducing the initial risk on the supply-side investment. On the other hand, a public loan or a guaranteed private-sector loan may reduce financing costs by decreasing investment risk, translating into a lower interest rate demanded by commercial banks, which in turn can reduce the overall cost of providing a home.

Overall, in most countries, the primary objective has been to **turn away from supply-side financing towards demand-side mechanisms,** with governments increasingly relying on private actors/social housing associations to supply housing. However, demand-side mechanisms do have the drawback of not being able to heavily impact the supply of social housing, thus a mix of programmes are often provided to ensure a more reliable supply. Moreover, governments have undergone large-scale decentralisation programmes, placing most of the responsibility for social housing related provision (i.e. grants, subsidies, etc.) on local/municipal-level government. It is also important to note that countries with "mature" social housing sectors are more easily able to employ sophisticated and complex financing mechanisms (as outlined below) (UNECE 2015).

The following section will briefly summarise the main financial mechanisms that are employed within Europe for both stages of funding.

Supply-side financing

Typically, financial instruments on the supply side aim to reduce the costs associated with the construction or operation of social homes (UNECE 2006)

The financing mechanisms employed often reflect the way the social sector has evolved within a country and the actors that provide social housing. Today, depending on the country, social housing can be provided by public authorities (typically local), non-profit organisations, housing co-operatives, housing associations, and commercially oriented social housing suppliers (Haffner, et al. 2009). **Regardless of the system, housing providers are similar in most countries in that they often receive some form of public support and have regulations governing how they operate, all of which allows them to provide housing options below the market rate for those who need them.**

Housing finance typically requires capital investment that either comes in the form of grants/subsidies from the public sector or involves taking out loans from private financial markets (UN Habitat 2009). In many cases, public sector subsidies help reduce the financing risk of social housing, which helps social housing providers more easily access private-sector loans. Table 1 below shows a list of the main supply-side financing mechanisms employed throughout Europe. From a starting point, social housing legislation often limits the developers' profits in an effort to reduce housing development costs (most social housing providers make either no or limited profit) (UNECE 2015), and, whenever possible, those who develop new homes are sometimes provided with land at sub-market prices by municipal authorities (UN Habitat 2009).

However, **in most cases today government housing construction support comes in the form of reductions in the financing costs when providers/builders try to obtain funding from the private market**. While public loans and grants offer a direct subsidy to help reduce the cost of commercial borrowing, most countries are shifting away from such financial support (Austria and the United Kingdom still rely on grants to housing associations to help raise additional financing). Instead, **most countries rely on a host of public/private solutions**. For instance, public support can come in the form of government-secured private investment or state-backed guarantees (social housing associations raise capital in the private sector with a state guarantee, which allows the association to obtain favourable terms from commercial banks) (UNECE 2015). Bond issuances that support the development of new social homes can help with financing costs due to the financing advantages they offer (such as tax exemptions). In the case of Austria, bonds are converted by banks into loans for development (with the bond in effect acting as a pre-subsidised loan) (CECODHAS 2013). Development costs can also be reduced via tax exemptions on land and property that will serve a social housing function; tax deductions and credits can also be offered to social housing providers, which translates into more affordable homes (CECODHAS 2007).

Increasingly, governments are encouraging housing providers and landlords to self-finance new social housing, as well as the maintenance and retrofitting/regeneration of existing housing. In table 1, the bottom four mechanisms show how associations are doing this. The rents from tenants can generate a steady stream of revenue for landlords, which can be used to help generate new investments (if the rents are not being used up for maintenance/renovation costs or current debt obligations) (UNECE 2006). The rent revenue combined with existing equity can work together to obtain new investment finance. However, this depends on the social housing policy/programme of a country and the level of rents landlords are able to set (UN Habitat 2009). For instance, in England and Denmark rents do generate surpluses. Landlords can raise capital by selling existing equity, selling homes to the tenants (typically when tenant mobility is low) or to other housing providers (UNECE 2006). Finally, cross subsidisation (or social mixing) allows housing providers to offer both social and market-rate homes (as well as commercial properties); the funds obtained from the market-rate homes subsidise the social homes (Gregory, et al. 2016).

Phase of Housing life-cycle: Development/ Construction	Phase of Housing life-cycle: Obtaining Financing	Phase of Housing life-cycle: Operational; Maintenance; Upgrading	*Financing Instrument*	Responsible Institution: Public*	Responsible Institution: Private Sector	Responsible Institution: Housing Providers	Brief Description
			Housing provider Support	●	○	○	This is primarily used to incentivise the use of housing providers (limited profit/non-profit) by discounting developers' profit (considered a large investment cost).[A,B]
			Lost-Cost Land	●	○	○	Governments offer sub-market priced or free land to housing providers (public or private) to develop social housing on (typically with set planning conditions).[A,C]
			Public Loans	●	○	○	These can be direct long-term loans with sub-market rates of interest or a guarantee (indirect subsidy) for a private sector loan taken out by provider. [A, C]
			Grants	●	○	○	A direct subsidy to a housing provider to reduce any fixed costs of a development, construction costs, and/or to reduce financing costs. [A]
			State Guarantee	●	○	○	Allows for private sector lending to be underwritten by the state, which reduces both the risk of the loan and the associated interest rate. [C]
			Bonds	●	○	○	Bonds can help improve private financing access for housing providers; such bonds offer fiscal advantages making investment more favourable. [C]
			Tax benefits	●	○	○	Social housing providers and private investors are given favourable tax subsidies (exemptions, lower rates, rebates); although most countries are now taxing new developments and even social housing providers. [A, B]
			Commercial Loans	○	●	○	Housing providers borrow from commercial banks (and other financial bodies) who lend capital based the creditworthiness and ability of repayment of said social housing. Banks may charge high-interest rates to reflect the level of risk associated with an investment and often the investment is long term and on occasion banks require a high value-to-loan ratio. Government support (see above) can reduce these "cost premiums"
			Use of own reserves and surpluses	○	○	●	Social housing associations, typically in more advanced countries, use their own funds to support housing provision - an example is the "Guarantee for Social Housing (WSW) in the Netherlands, which helps with reducing the costs of obtaining finance. [A, D]
			Investment from equity/property sale	○	○	●	Social housing providers sell off existing homes (to tenants or other housing providers) to finance the construction of new homes and/or to cover maintenance/refurbishment of existing homes. [A]
			Provision of commercial properties (cross-subsidy)	○	○	●	Cross-subsidy development options, through commercial property development, can help raise funds for social housing options, as lenders see alternative forms for revenue. [A,C]
			Rents from Tenant (this may include housing allowances)	○	○	●	Each country has different criteria on the level of rents tenants are expected to pay. However, social housing providers can extract rents (this may include housing allowances) which are able to cover operating costs and even generate surpluses for future investment [A,C]

Can be direct / indirect subsidy to help obtain commercial loans

Source – *this table was constructed using information from the research and tables of* [A] *UNECE (2015);* [B] *UNECE (2006);* [C] UN HABITAT (2009); [D] CECODHAS (2013)

* this can include central government and local/state/ municipality level

Demand-side financing

In Europe, most of demand-side financing typically comes in the form of housing allowances (or in some countries favourable lending terms for low-income homeownership). The primary aim is to transfer cash (an allowance) to help beneficiaries pay their rent and, in some cases, associated housing utility bills (UNECE 2015, OECD 2016). Housing allowances are not just provided to social rental housing tenants, but can also be granted to those in the private rental sector. Households in the social rental sector typically benefit from rents below market levels (see how rents are set in the information box below), but, despite this, some low-income households still face difficulties in paying reduced rent levels. Thus, in some countries additional income-related subsidies are offered (Scanlon, Arrigoitia Fernandez and Whitehead 2015).

Housing allowances have both benefits and drawbacks, as summarised by UNECE (2006). The benefit is that they are able to target those in a country who most need social housing (i.e. based on the socioeconomic characteristics of a household) and are flexible as they can be adjusted based on changing circumstances of a household (increases in income/family size). Their shortcomings are that they are counter-cyclical (the number of individuals who need them increases during economic downturns), they may create a poverty trap, they have rent-price inflationary effects when applied to the private rental market (the allowance potentially increases housing demand without a corresponding increase in supply), they are administratively complicated (constant need to update information regarding a beneficiary's socio-economic status) and do not directly affect the quantity or quality of available social housing.

Aside from housing allowances, governments are able to support tenants via loan programmes (mortgages) and tax benefits. For instance, in some countries, homeowners are able to deduct interest costs. In a number of countries imputed rent is not taxed and, in the case of Germany, tax rebates are based on accelerated depreciation (UNECE 2006). Furthermore, there are various tools governments can use to support homeownership such as subsidised loans, mortgage guarantees, and tax and mortgage relief programmes (for those homeowners with unsustainable levels of debt) (OECD 2016).

Info-Box 2 - Rent-setting across Europe

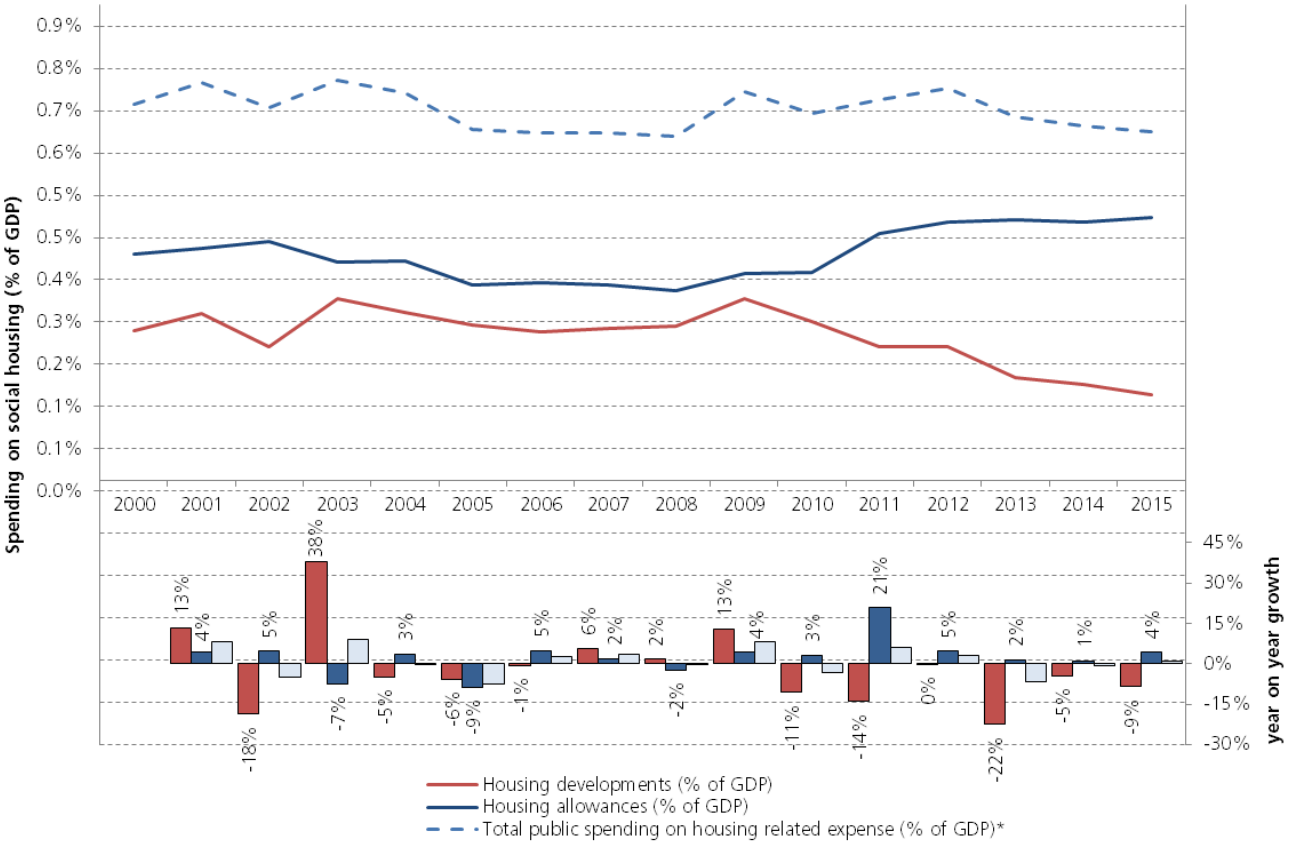
The way and the level at which rents in social housing are set within a country have direct implications on how governments provide either demand- or supply-side financing support. Typically, social housing rents are set below the private rental market level (in some countries the social housing rental price is what defines and constitutes social housing), while in other countries rents are set based on the financial costs a landlord will face (Scanlon, Arrigoitia Fernandez and Whitehead 2015). Rent levels are also calculated based on "cost/rent principles" (i.e. a calculation based on the aggregate cost of a social housing programme), involving either the cost of a specific dwelling or the cost of all dwellings within a specified block (UNECE 2006, UN Habitat 2009). In some countries, rents are set on the beneficiary's income level or on a point system concerning the dwelling's characteristics (e.g. size, quality, location, etc.) and even the market value. (Scanlon, Arrigoitia Fernandez and Whitehead 2015, UN Habitat 2009).

The appropriate level of rent, based on the system a country employs, is able to ensure that investors receive a return over time (or, in the case of non-profit providers, to ensure a balanced account). In other words, what is known as the "equilibrium rent" (UNECE 2006). When the rents are too low (this is especially the case in a household income-based system of rent-setting) and are unable to meet operating costs, landlords may require supply-side subsidies/financing to ensure maintenance of the existing stock or investment in new homes.

4.2 Financing trends in social housing

The level of public spending on social housing related expenditure in Europe varies among countries, with some countries placing more emphasis on public housing support than others. Additionally, spending on social housing relative to other areas of public spending tends to be lower in many countries. This should come as no surprise, given that in the last several decades the state sector has been trying to diminish its role in providing social housing. However, the need for social housing has become ever more important (especially in the wake of the 2008 financial crisis) as lower-income individuals face increased financial pressures regarding housing (see Chapter 2 above). While the state sector has reduced investment in physically building new homes, it has instead increased the levels of housing allowances (subsidies) to poorer households in order to meet the cost of finding homes in the rental sector (as was explained in the preceding section). Housing provision is different in some countries and not all countries rely solely on private markets to provide social housing).

Figure 31 – Spending on housing as % of European GDP, by different type of housing spending



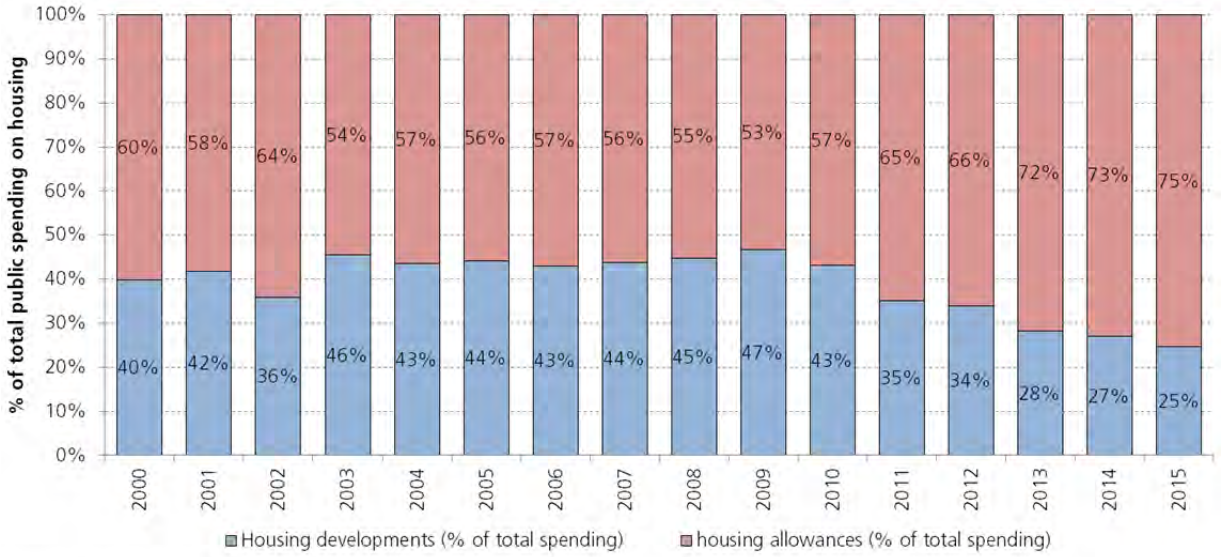
Source - EuroStat and CEB staff calculations

* data for Germany, Austria, and Lithuania is not disagregated beyond general government expenditure

The general investment trends since 2000 show that the total spending on housing related expenses by all the governments in Europe has for the most part hovered around 0.7% of European GDP (see Figure 31 above). As at 2015, this figure stood at 0.66% of European GDP. However, what is most noticeable is that, since the 2008 financial crisis, the proportion of this total spending has been increasingly geared towards the provision of housing allowances (blue line) and away from capital housing investments (red line). Housing allowances amounted to 0.5% of European GDP, as opposed to just 0.16% for capital investments. Capital investment levels peaked in 2009 at 0.34% of GDP, while housing allowances reached an all-time high as of 2015 and look likely to continue growing in the near future.

This trend is reflected in the year-on-year growth levels of either sector (bottom section of Figure 31). Since 2008, year-on-year capital investment growth has contracted or stagnated, while housing allowances continue to see positive (although diminishing) growth. Moreover, in Figure 32, we can see that the share of capital investment in total public spending stood at just 25% in 2015, further illustrating its diminished role.

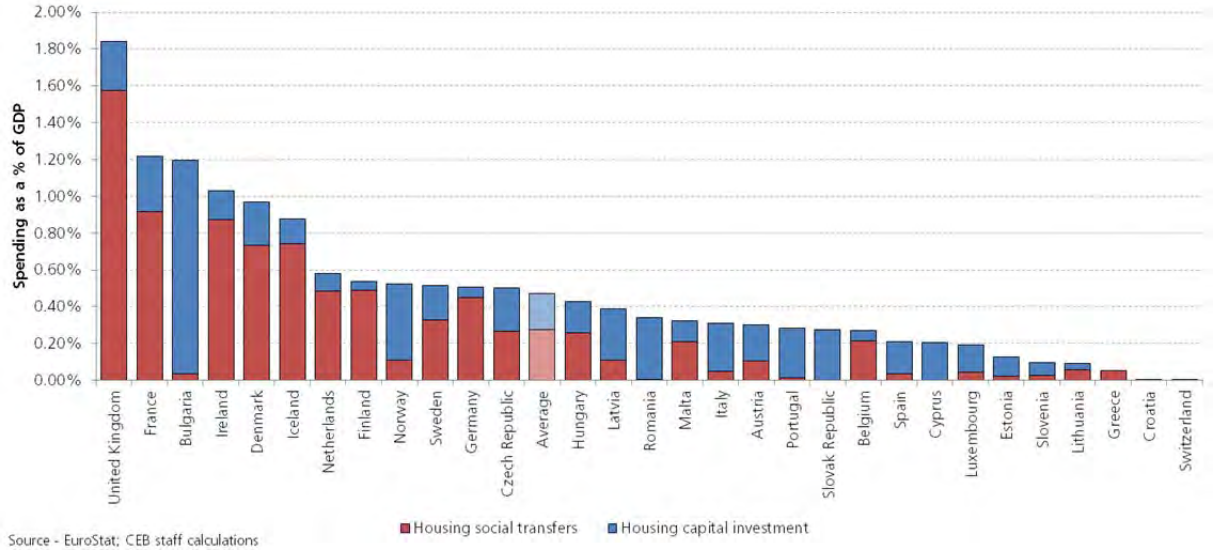
Figure 32 – The proportion of capital housing vs. housing allowance of total European housing spending



Source - EuroStat and CEB staff calculations

For each country the level of spending dedicated to capital investments or housing social transfers varies. Figure 33 below showcases the total spending levels for each country for the most recent year (2015), split by the two forms of spending choices. For the most part social transfers (housing allowances) dominate most countries' social housing expenditure portfolios. In the United Kingdom, Denmark, Ireland, Iceland, Germany, and Belgium, social transfers constitute 75% or more of all housing related expenditure (in Greece where overall spending is among the lowest on the continent, 100% of spending relates to social transfers). In the cases of Bulgaria, Norway, Latvia, Romania, Portugal, Slovak Republic, and Estonia, housing development investments still overwhelmingly dominate social housing expenditure.

Figure 33 – Level of housing allowances vs. housing capital spending by country (as % of GDP)



Source - EuroStat; CEB staff calculations

Moreover, the level of government that is responsible for the appropriation of public spending on housing has been predominantly the sub-national level (see Figure 34). While central government spending increased in the wake of the 2008 financial crisis (primarily as a response to the increased demand for housing), it has been on a consistently downward trend ever since. As of 2015, central government spending on social housing stood at 0.2% of GDP. In contrast, spending on social housing at sub-national level governments consistently stayed around 0.33% of GDP, thus playing a dominant role in social housing provision. Social security funds played a role in housing spending in a few countries (primarily via housing allowances), but, in total, the amount equalled just 0.03% of GDP as of 2015 (the same level seen since 2000, with a dip into negative territory in 2002).

Figure 34 – Level of public spending on housing by level of government



Source - EuroStat and CEB staff calculations

Social housing transfers

In 2015, the level of total European expenditure on social housing transfers[35] stood at around 0.5% of the continent's GDP (in 2010 EURs) – a level which the continent has been hovering around since 2011. This is a marked improvement from the 2008 low of just 0.36% of GDP, and above the continent's average of 0.43% since 2000.

However, a sizeable part of the increase in social housing transfer spending levels since 2011 is the result of Germany increasing its social housing transfer expenditure. In effect, in 2010, Germany was spending just 3.3% of Europe's total on social housing transfers, but, by 2015, the figure stood at between 16.0% and 17.5%[36] - in part a reflection of the increased need to house the growing numbers of refugees and migrants.

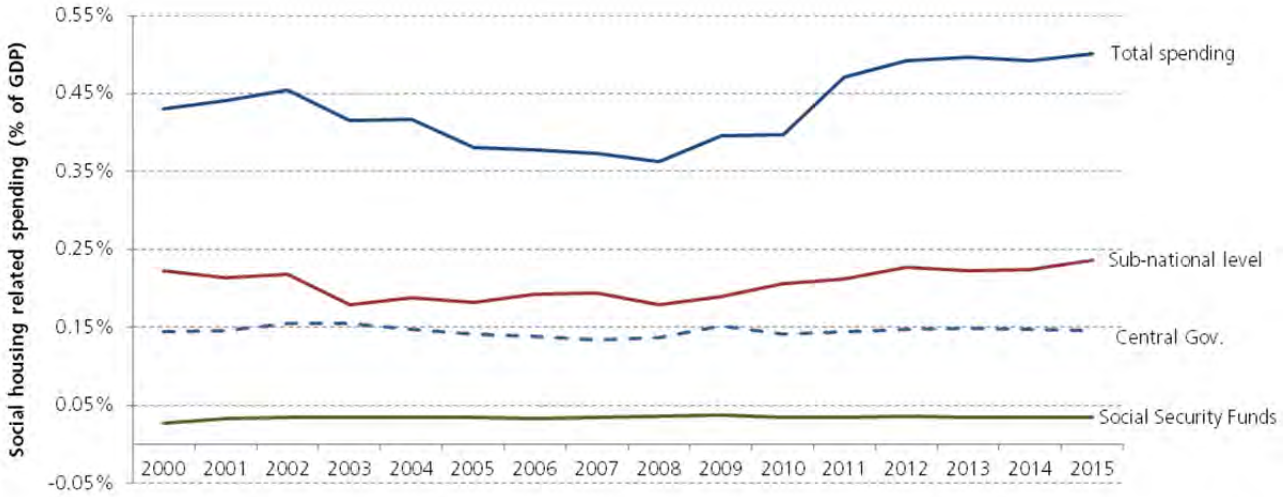
An important key finding is that **social housing transfer spending has increasingly become the responsibility of sub-national authorities (the local or state level, depending on the country).** In 2015, the sub-national level authorities accounted for 57% of the total European social housing transfer spending, or about 0.24% of European GDP (see Figure 35 below). Central government social housing spending levels have stagnated or dropped in most countries; central authorities are instead transferring their resources to the authorities at the sub-national level in order for them to carry out social housing related activities. Social security

[35] For the purposes of this section, and in the context of public spending/expenditure, we use data on social housing that encompasses the various different methods that governments use when providing "social housing" (i.e. not necessarily just building a physical stock of social homes). We use the Eurostat variable COFOG 10.6 (housing). This variable, as defined by Eurostat (2011), "relates to the provision of social protection in the form of benefits in kind to help households, who are means-tested, to meet the cost of housing. The support can be related to payments to tenants for rental costs, payments to owner-occupiers related to mortgages or interest, provision of low-cost or social housing."

[36] In fact, before 2005, Germany typically accounted for about 10% of Europe's total spending on social housing transfers, but dipped and stayed at historically low levels between 2005 and 2010 – see appendix Figure 1.3 for comparison.

funds account for a small amount of the spending on social housing transfers in Europe, representing about 8% in 2015 (or approx. 0.034% of European GDP); the main European countries which have social security funds providing social housing transfers are Bulgaria, Finland, France, Greece, and Portugal.

Figure 35 – Housing allowance spending by level of government as % of European GDP

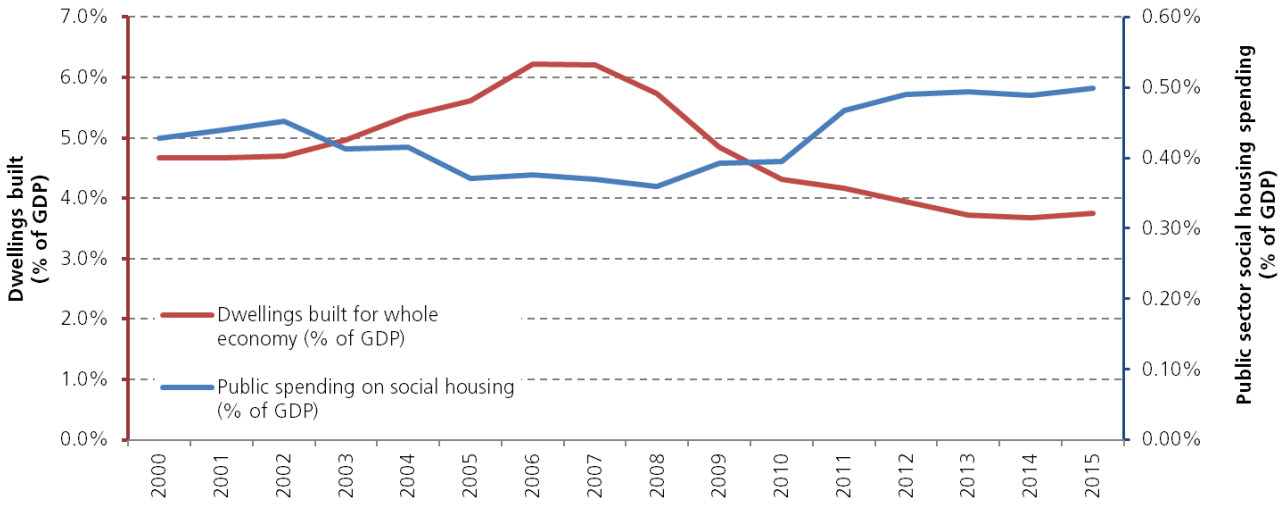


Source - Eurostat; CEB staff calculations

Note - Austria, Germany, and Spain investment data is not disaggregated below total spending

The role of the public sector in providing housing units is dwarfed by private sector contributions. However, **since the onset of the 2008 crisis, dwelling construction throughout Europe has dropped** (red line in Figure 36 below) **and, in recent years, public sector spending on social housing transfers has increased** (see blue). The decline in dwelling construction is almost entirely the result of a decline in private sector construction of new buildings. This has exposed large segments of the population in lower-income quintiles to not being able to find housing on the open market or to afford the price of existing stock. Many governments have stepped in, at the very least, to support the most vulnerable people in meeting these increasing costs, although a large-scale under-supply of homes is affecting the entire market.

Figure 36 – housing allowance spending increasing after the onset of the recession

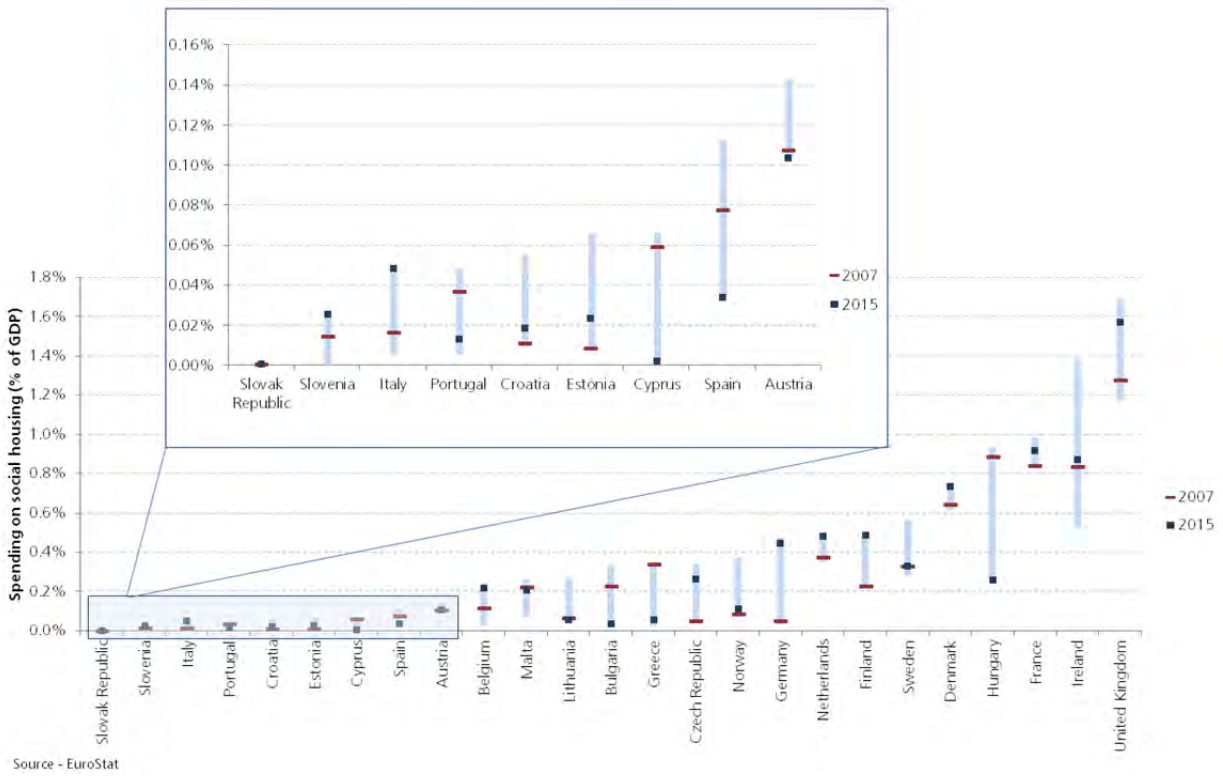


Source - EuroStat; CEB staff calculations

At the country level, the difference between countries' spending on social housing is extremely varied (see Figure 37 below). In most countries the level of spending on social housing transfers as a % of GDP has varied between years (the light blue line in Figure 37 below shows the distribution area of all levels of spending as % of GDP between 2000 and 2015), but France, Denmark, and Netherlands are the exceptions with public social housing expenditure levels staying within their respective narrow ranges[37]. The highest spending nations have consistently been the United Kingdom, Ireland, and France.

In some cases the range was pushed up in the run-up to the 2008 financial crisis, only to see levels in 2015 (the most recent year for which data is available) reaching the bottom level of spending in a country's historical spending distribution. This was the case in Hungary[38], Greece[39], Bulgaria[40], Spain[41], and Cyprus[42]. Inversely, other countries had low levels of social housing transfer spending in the run-up to the recession, only to see their levels in 2015 climbing to the highest or close to highest, levels since 2000. This was particularly evident in the United Kingdom[43], Finland[44], Germany[45], the Czech Republic[46], and Belgium[47].

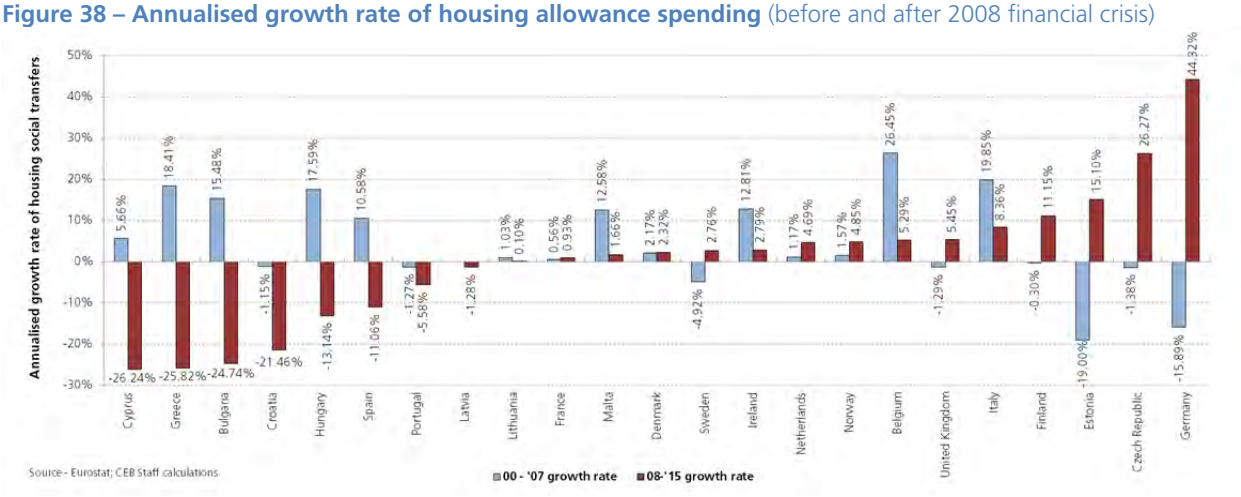
Figure 37 – Public spending on housing allowances by country as % of GDP (blue line is the distribution share of public spending at any point from 2000 to 2015)



37 **France** – range of social housing spending was between 0.84% to 0.97% of GDP; **Denmark** – 0.62% to 0.73% of GDP; **Netherlands** – 0.35% to 0.48% of GDP.
38 **Hungary** - social housing related expenditure% of GDP – 0.9% (*2007*); 0.26% (*2015*)
39 **Greece** – social housing related expenditure% of GDP – 0.33% (*2009*); 0.05% (*2015*)
40 **Bulgaria** – social housing related expenditure % of GDP – 0.29% (*2008*); 0.04% (*2015*)
41 **Spain** – social housing related expenditure % of GDP – 0.11% (*2011*); 0.04% (2015)
42 **Cyprus** – social housing related expenditure % of GDP – 0.06% (*2006*); 0.002% (*2015*)
43 **United Kingdom** – social housing related expenditure % of GDP – 1.2% (*2008*); 1.6% (*2015*)
44 **Finland** – social housing related expenditure % of GDP – 0.2% (*2008*); 0.6% (*2015*)
45 **Germany** – social housing related expenditure % of GDP – 0.04% (*2008*); 0.5% (*2015*)
46 **Czech Republic** – social housing related expenditure % of GDP – 0.06% (*2008*); 0.3% (*2015*)
47 **Belgium** – social housing related expenditure % of GDP – 0.03% (*2003*); 0.22% (*2015*)

The growth rate of social housing transfer spending is also highly heterogeneous among European countries (see Figure 38 below). In terms of growth rates before and after the 2008 crisis, three groups of countries emerge. One set of countries saw inflated growth levels between 2000 to 2008, only to see growth rates enter into negative or very low territory between 2008 to 2015 (mainly those on the left hand of Figure 38, but also countries such as Malta, Ireland, and Belgium). A second group emerges which saw spending growth levels remain relatively unchanged, and in several cases only growing slightly faster since 2008 (mainly in the centre). A third group emerges that primarily had downward growth trends in spending from 2000 to 2008, only to see growth return to positive territory (see Sweden, United Kingdom, Estonia Czech Republic, and Germany in Figure 38 below).

Figure 38 – Annualised growth rate of housing allowance spending (before and after 2008 financial crisis)

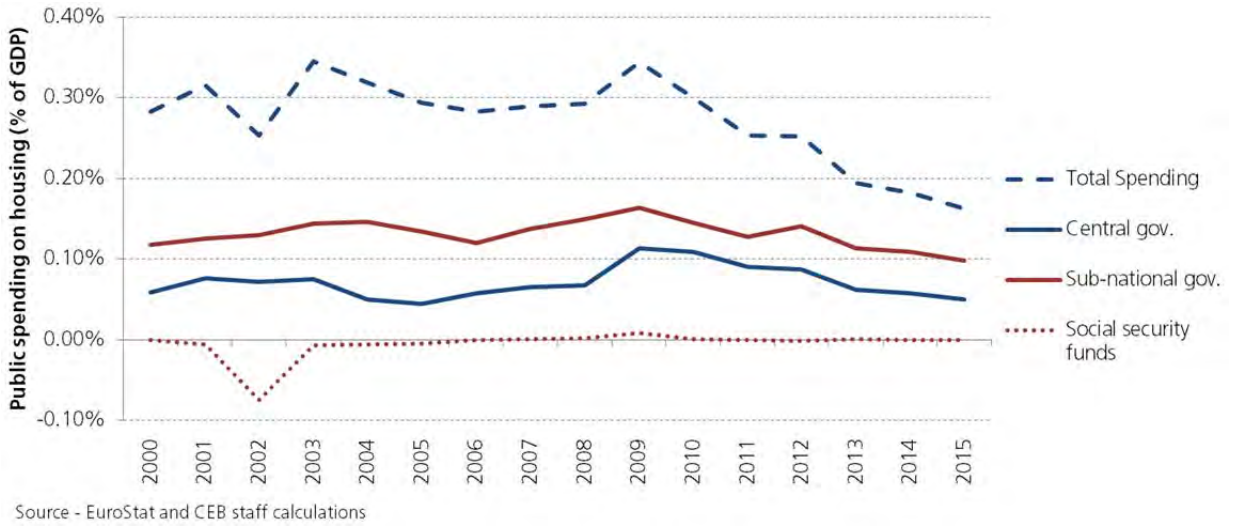


Housing development investments

A second element of housing spending is on the physical development of housing by the government. As we saw in Figure 31, **public spending on housing capital investments has been diminishing in Europe in recent years compared to social housing transfers**. Figure 39 highlights this decrease in more detail – with housing development in 2015 accounting for just 0.16% of European GDP, down from a peak of 0.34% in 2008.

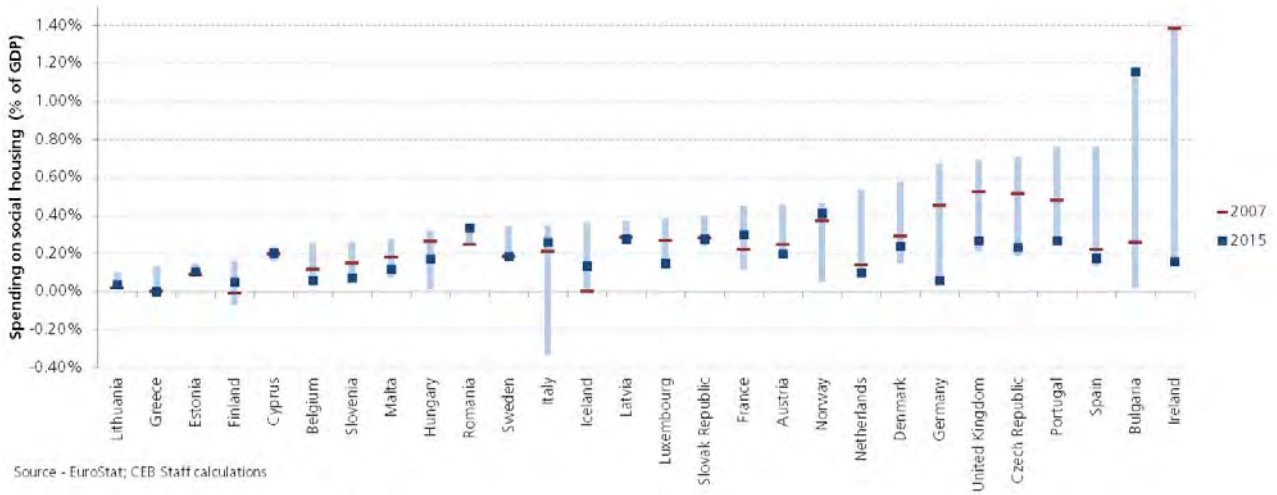
The declining level of housing development spending has been uniform at all levels of government. While sub-national levels of governments still are the main investors in public housing development, both levels of government have been on the decline in recent years as can be seen in Figure 39. Sub-national government spending on housing development stood at 0.10% of GDP (2015) and central government spending stood at just 0.5%.

Figure 39 – Capital housing spending by level of government



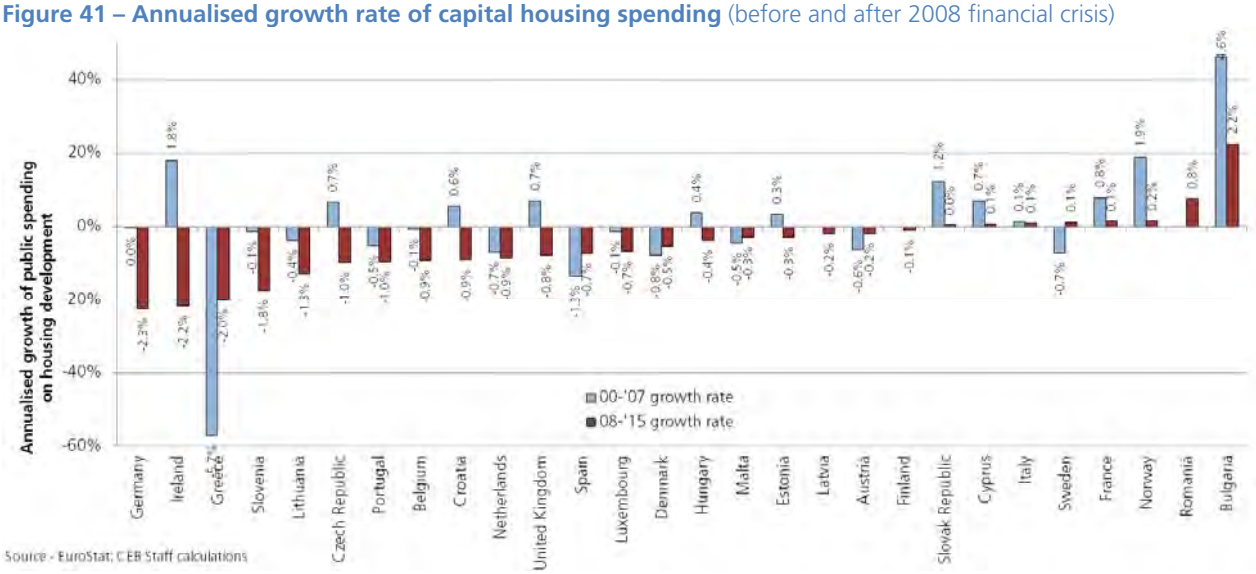
At country level, much like social housing transfers, spending on housing developments is immensly varied. In most countries the level of spending on housing development as a % of GDP differs between years (the light blue line in Figure 40 below shows the distribution area of all levels of spending as a % of GDP between 2000 and 2015). What is noticable is that,in the vast majority of countries (17 of the EU 28), the 2015 level of spending is at or near the historical low of the distribution area. The countries on the right-hand side of the graph represent the nations which have traditionally been among the largest spenders on housing development in Europe and, as of 2015, were at their lowest spending levels over the last decade and a half. A few countries such as Bulgaria, Norway, and Romania, in 2015, were spending near the top of their historical spending distribition levels. At 1.16 % of GDP, Romania was the highest spender in 2015.

Figure 40 – Public spending on capital housing spending by country as % of GDP (blue line is the distribution share of public spending at any point from 2000 to 2015)



The decline in housing development spending can be further explored by examining the annualised growth rate in the pre and post-2008 financial crisis era, as can be seen in Figure 41 below. What is noticeable immediately is that, prior to the recession, the growth rates on housing development were relatively low or stagnating, and in many cases contracting. After the onset of the crisis, the majority of countries saw contracting rates, and the rest were mainly stagnating. Romania and Bulgaria were the only two countries after 2008 that saw noteworthy postive growth. Bulgaria is a major outlier becasuse, in 2000, spending on housing development stood at barely 6.7 million EUR (in 2010 EURs), as opposed to 477 million EUR by 2015; as a result, growth rates will be exagerated. In most countries the downward trend looks set to continue unabated in the near future.

Figure 41 – Annualised growth rate of capital housing spending (before and after 2008 financial crisis)



Conclusion

Unsurprisingly, income and housing inequalities are strongly interlinked. In many parts of Europe poor households are unable to afford decent homes or maintain the ones they have due to high costs. This has placed an extreme financial burden on poor households' limited incomes, forcing many of them to live in substandard homes (crowded and deprived). In contrast, among high-income households hardly anyone lives in substandard housing.

Due to the high cost of housing, low-income households end up in lower quality housing in more deprived neighbourhoods, which results in spatial segregation between income groups. These low-income neighbourhoods have undesirable qualities (high crime rates and noise issues), which in turn lead to lower levels of living environment satisfaction.

One of the primary concerns in poor neighbourhoods is limited access to the necessary facilities to overcome income inequality and live fulfilled and happy lives. In effect, poor neighbourhoods have fewer public transportation options, reduced levels of health services, and lower quality education resources relative to high income neighbourhoods. These limitations can exacerbate existing inequalities between income groups (poor transportation links make it hard to access better jobs and limited educational options prevent people from obtaining the required skills to get such jobs in the first place). Furthermore, poor neighbourhoods have fewer green spaces, recreational facilities and community centres, which adversely impacts personal wellbeing and social capital levels.

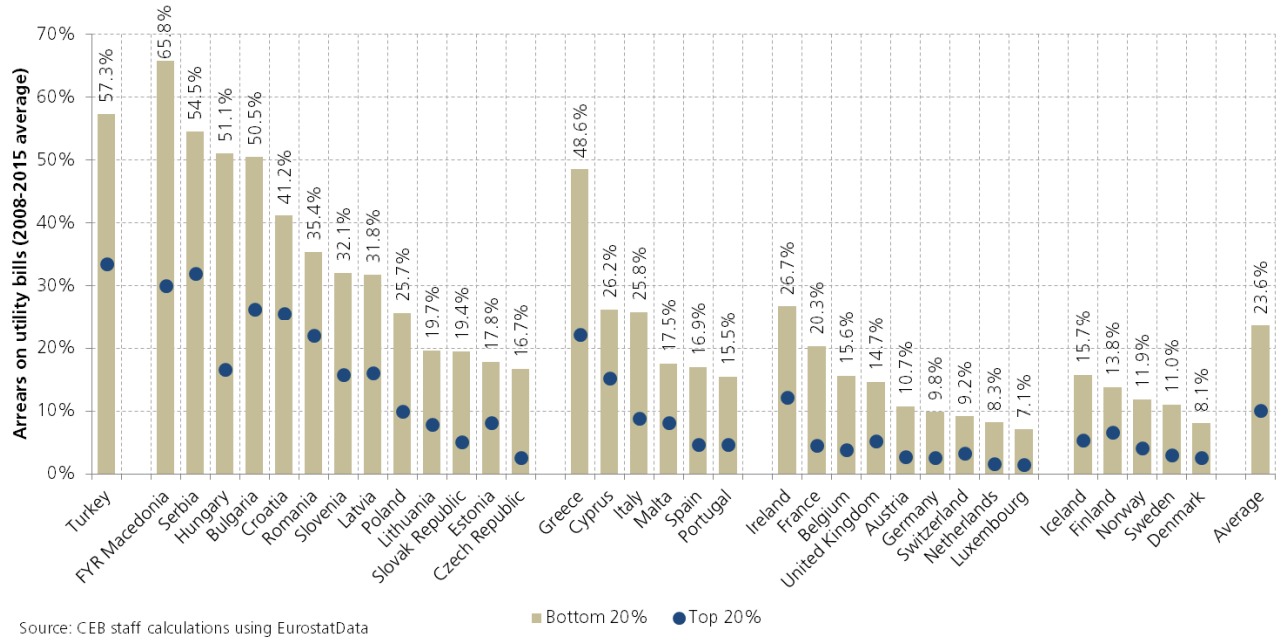
In view of these challenges, the study shows that there is no one single European model for resolving housing inequality issues, but instead a wide range of actors involved in providing housing solutions to the poor (governments, municipalities, private sector, NGOs, housing associations, etc.). Most countries fall into some version of two broad categories, depending on whether they employ private market solutions or social market solutions. However, a common feature is that both models utilise the market as a means to solve housing inequality issues. This also reflects the fact that most governments are moving/or have moved away from directly providing housing to disadvantaged groups (typically through social housing allowances) and, when a public authority does remain involved, it is increasingly at the local/municipal level. At present, public sector actors tend to provide social housing via a variety of types of housing association or more frequently through the direct transfer of housing allowances to disadvantaged households.

Public investments to stimulate social housing address either the supply side (i.e. financial instruments/mechanisms that help to reduce the investment and operation costs of building new housing) or, increasingly, the demand side (i.e. housing allowances transferred to specific groups to help them pay their rent). Total European public spending on housing in 2015 was 0.66% of European GDP, which is slightly below the 2000-2015 average of 0.7%. However, housing allowance spending on public housing has been rising throughout Europe in recent years and, as of 2015, stood at 0.5% of GDP, as opposed to capital investments which were on a downward trajectory and stood at 0.16% of GDP (2015). This reflects how states are limiting their role in the direct provision of physical social housing. In this context, local level/municipal governments have become the chief providers of social housing solutions throughout Europe (either via allowances or capital investment), although between-country variations do exist. In countries where there is a limited historical relationship with social housing, the level of public sector involvement in any form remains extremely limited.

Solving housing inequality issues requires a delicate mix of financing models that aim to reduce the high cost of quality housing and a set of policies and investment programmes that work to overcome spatial segregation and encourage income mixing. A general increase in public investment (transfer or capital) is also needed in most countries to ensure that the housing provision models within a country are able to provide equitable levels of housing.

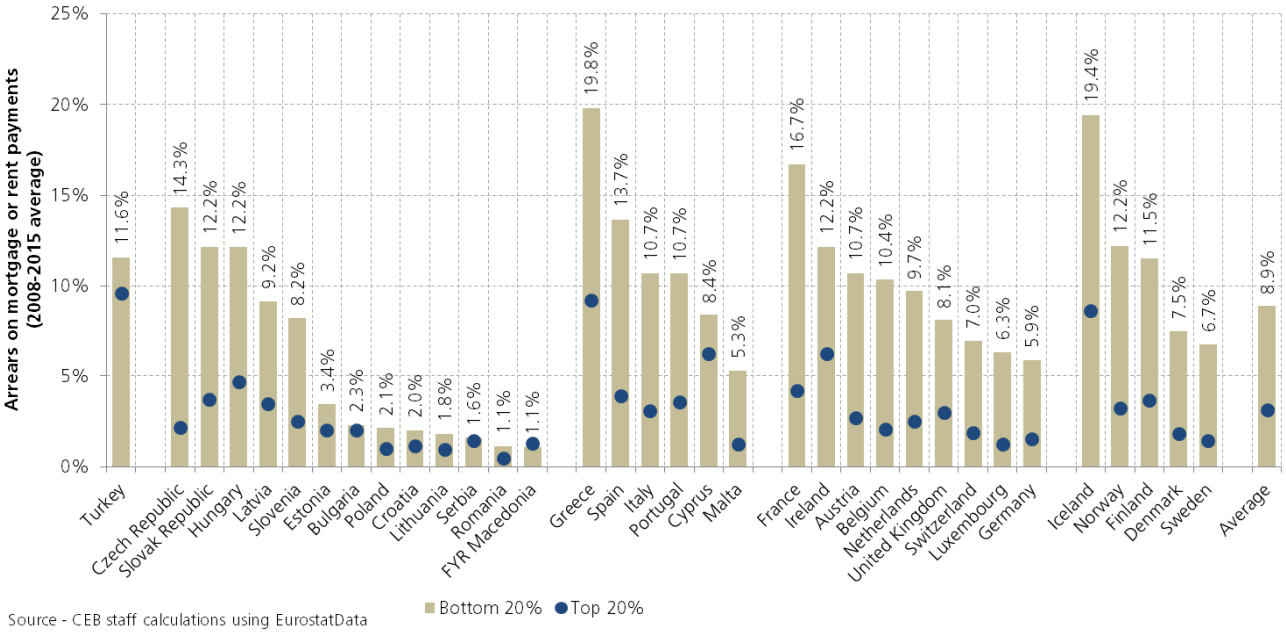
Appendix 1 - Additional figures

Appendix **Figure 1.1 – Arrears on utility bills** (top and bottom income quintiles)



Source: CEB staff calculations using EurostatData

Appendix **Figure 1.2 – Arrears on mortgage or rent payments** (top and bottom income quintiles)



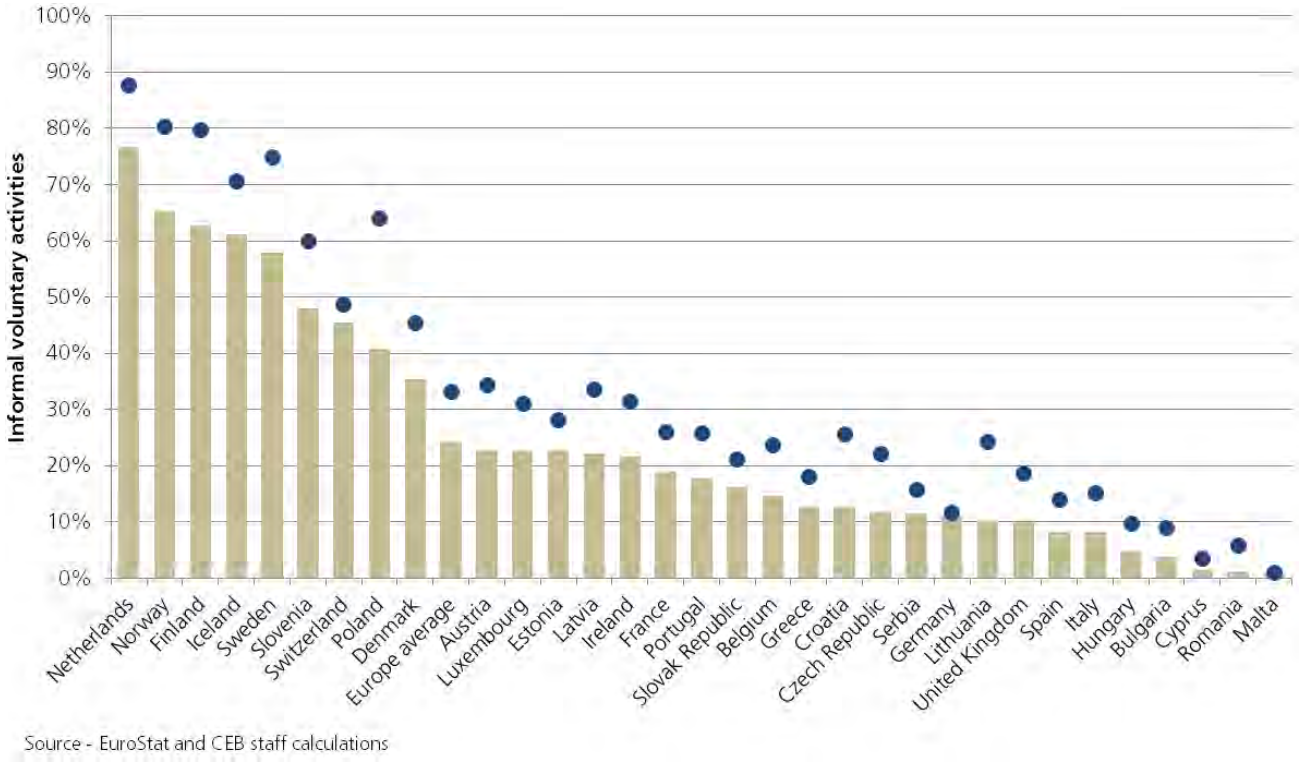
Source - CEB staff calculations using EurostatData

Appendix **Table 1.1** – Satisfaction levels with various neighbourhood effects (scale 1 to 10, higher values indicated higher levels of satisfaction)

A selection of life statisfaction variables - scale of 0-10 (0 = not satisfied at all, 10 = fully satisfied)

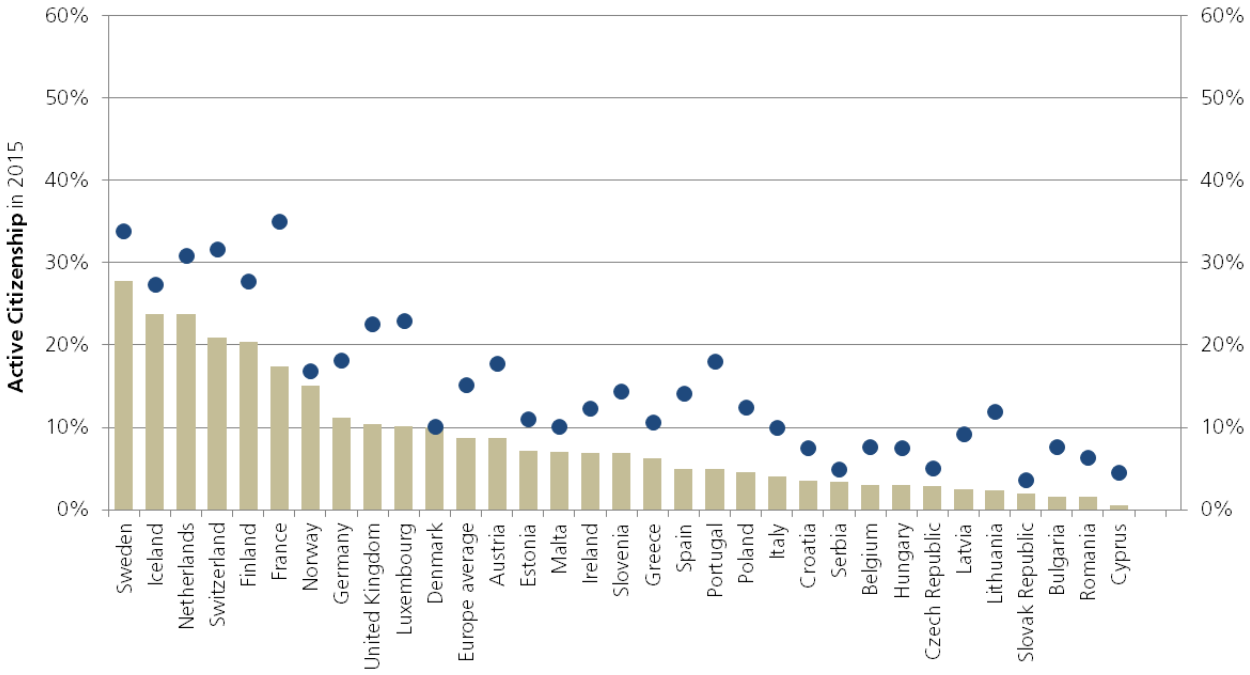
	Country	Satisfaction with accommodation					Satisfaction with commuting time					Satisfaction with recreational and green areas					Satisfaction with living environment				
		First quintile (bottom 20%)	Second quintile	Third quintile	Fourth quintile	Fifth quintile (top 20%)	First quintile (bottom 20%)	Second quintile	Third quintile	Fourth quintile	Fifth quintile (top 20%)	First quintile (bottom 20%)	Second quintile	Third quintile	Fourth quintile	Fifth quintile (top 20%)	First quintile (bottom 20%)	Second quintile	Third quintile	Fourth quintile	Fifth quintile (top 20%)
East	Bulgaria	4.7	5.8	6.1	6.4	6.7	5.3	5.7	6.0	6.1	6.1	4.4	5.0	5.3	5.6	5.7	4.4	5.0	5.3	5.6	5.8
	Czech Republic	7.1	7.7	7.7	7.8	8.1	7.3	7.3	7.5	7.5	7.7	7.3	7.5	7.5	7.4	7.6	7.2	7.5	7.5	7.5	7.6
	Estonia	6.6	7.0	7.1	7.3	7.7	7.6	7.2	7.2	7.4	7.5	6.7	6.8	7.1	7.1	7.3	6.3	6.6	6.8	6.9	7.3
	Croatia	5.9	6.6	6.8	7.2	7.9	6.6	6.8	7.2	7.1	7.6	5.1	5.4	5.8	5.9	6.6	5.3	5.9	6.5	6.6	7.1
	Latvia	5.8	6.4	6.6	6.9	7.3	7.0	7.0	7.2	7.2	7.5	7.3	7.4	7.6	7.6	7.7	7.0	7.1	7.2	7.3	7.5
	Lithuania	6.7	7.4	7.3	7.6	7.8	7.6	7.5	7.5	7.8	7.8	7.1	7.5	7.5	7.3	7.4	7.3	7.8	7.9	8.0	8.1
	Hungary	5.5	6.5	6.9	7.2	7.6	6.6	6.8	7.1	7.2	7.6	5.5	6.0	6.3	6.5	6.7	5.7	6.3	6.6	6.7	7.0
	Poland	6.6	7.1	7.4	7.7	7.9	7.3	7.4	7.4	7.6	7.6	7.4	7.5	7.5	7.6	7.5	7.2	7.5	7.5	7.7	7.8
	Romania	6.6	7.2	7.5	7.7	7.8	5.8	6.6	7.3	7.6	7.6	6.6	6.7	7.0	7.2	7.2	7.4	7.3	7.5	7.5	7.3
	Slovenia	7.0	7.6	7.6	7.9	8.2	7.5	7.7	7.8	7.8	7.8	7.8	7.8	7.9	8.0	8.1	7.4	7.7	7.8	7.8	8.1
	Slovak Republic	7.0	7.5	7.7	7.7	7.8	7.1	7.2	7.3	7.3	7.4	6.8	6.7	6.8	6.7	6.8	6.8	6.8	6.9	6.8	6.9
	Serbia	5.1	5.6	6.2	6.7	7.4	6.1	6.1	6.4	6.7	7.4	4.8	5.1	5.2	5.6	6.1	4.3	4.5	4.9	5.3	5.8
	Average	6.2	6.9	7.1	7.3	7.7	6.8	6.9	7.2	7.3	7.5	6.4	6.6	6.8	6.9	7.1	6.4	6.7	6.9	7.0	7.2
North	Denmark	7.7	8.4	8.4	8.5	8.8	8.3	8.3	8.4	8.4	8.2	7.8	8.3	8.5	8.5	8.7	8.1	8.3	8.3	8.2	8.2
	Finland	8.0	8.3	8.5	8.6	8.8	8.2	8.1	8.2	8.2	8.2	8.0	8.2	8.3	8.3	8.5	7.7	7.7	7.8	7.8	7.9
	Sweden	7.7	8.1	8.2	8.4	8.7	7.7	7.9	7.9	8.0	8.0	8.1	8.5	8.5	8.5	8.6	7.5	7.7	7.6	7.6	7.9
	Iceland	7.7	8.1	8.1	8.2	8.5	8.1	8.2	8.0	8.1	8.4	7.9	8.0	8.1	8.0	8.2	7.4	7.4	7.5	7.6	7.7
	Norway	7.5	8.0	8.1	8.1	8.2	8.2	8.2	8.3	8.2	8.1	8.0	8.5	8.6	8.7	8.6	7.9	8.3	8.5	8.5	8.4
	Average	7.7	8.2	8.3	8.4	8.6	8.1	8.1	8.2	8.2	8.2	8.0	8.3	8.4	8.4	8.5	7.7	7.9	7.9	7.9	8.0
South	Greece	5.7	6.4	6.6	6.9	7.2	6.4	6.2	6.3	6.7	6.6	5.9	6.0	5.9	6.0	5.9	6.0	6.2	6.1	6.3	6.2
	Spain	6.7	7.1	7.3	7.5	7.7	7.1	7.1	7.2	7.1	7.0	6.4	6.5	6.6	6.7	7.0	7.0	7.0	7.2	7.2	7.5
	Italy	6.6	7.1	7.2	7.5	7.7	6.6	6.8	7.0	7.1	7.1	5.4	6.0	6.3	6.5	6.6	5.4	5.9	6.1	6.3	6.5
	Cyprus	7.1	7.5	7.7	7.9	8.1	7.0	7.1	7.3	7.4	7.6	5.8	5.7	5.8	5.9	6.1	5.9	5.8	5.7	6.0	6.6
	Malta	7.7	7.8	7.9	8.1	8.1	6.6	6.7	6.6	6.5	6.6	6.6	6.6	6.6	6.5	6.5	7.1	7.2	7.1	7.0	7.0
	Portugal	6.7	7.1	7.2	7.5	7.8	7.4	7.3	7.6	7.6	7.7	5.9	5.9	6.1	6.2	6.2	5.9	6.0	6.3	6.5	6.6
	Average	6.8	7.2	7.3	7.6	7.8	6.9	6.9	7.0	7.1	7.1	6.0	6.1	6.2	6.3	6.4	6.2	6.4	6.4	6.6	6.7
West	Belgium	7.1	7.7	7.9	8.1	8.3	7.5	7.6	7.8	7.7	7.5	6.7	7.2	7.4	7.6	7.7	7.1	7.5	7.7	7.8	8.0
	Germany	6.6	7.4	7.7	7.8	8.1	7.5	7.4	7.5	7.5	7.5	7.0	7.4	7.7	7.8	8.0	7.1	7.5	7.8	7.9	8.0
	Ireland	7.6	7.9	8.1	8.2	8.4	8.5	8.0	8.2	8.0	7.9	7.2	7.4	7.4	7.6	7.8	7.7	7.8	8.1	8.2	8.3
	France	7.0	7.4	7.6	7.7	8.0	7.6	7.6	7.5	7.4	7.5	6.7	7.0	7.2	7.3	7.7	7.1	7.4	7.6	7.8	8.1
	Luxembourg	6.9	7.8	7.8	8.1	8.4	7.4	7.5	7.7	7.9	8.1	7.3	7.8	7.8	8.1	8.2	7.6	7.8	7.8	7.9	8.0
	Netherlands	7.7	8.0	8.0	8.2	8.3	7.8	8.0	8.1	7.9	7.9	7.8	8.0	8.1	8.1	8.2	7.7	7.9	7.9	8.0	8.2
	Austria	7.7	8.0	8.3	8.4	8.7	7.8	8.1	8.1	8.0	8.0	7.9	8.0	8.3	8.5	8.6	8.0	8.3	8.4	8.6	8.7
	United Kingdom	7.5	7.8	8.0	8.0	8.3	7.2	7.5	7.6	7.6	7.4	7.2	7.4	7.6	7.8	7.9	7.4	7.6	7.8	8.0	8.2
	Switzerland	8.3	8.2	8.3	8.4	8.6	8.4	8.2	8.4	8.2	8.1	8.4	8.2	8.4	8.4	8.6	7.9	7.9	8.0	7.9	7.9
	Average	7.4	7.8	8.0	8.1	8.3	7.7	7.8	7.9	7.8	7.8	7.4	7.6	7.8	7.9	8.1	7.5	7.7	7.9	8.0	8.2
	Europe average	**6.9**	**7.4**	**7.6**	**7.8**	**8.0**	**7.3**	**7.3**	**7.5**	**7.5**	**7.6**	**6.8**	**7.1**	**7.2**	**7.3**	**7.4**	**6.9**	**7.1**	**7.2**	**7.3**	**7.5**

Appendix **Figure 1.3 – Informal voluntary activities in 2015** (top and bottom income quintiles)



Source - EuroStat and CEB staff calculations

Appendix **Figure 1.4 – Active citizenship participation** (top and bottom income quintiles)



Source - EuroStat and CEB staff calculations ■ Bottom 20% income quintile ● Top 20% income quintile

Appendix 2 - CEB lending to decent and affordable housing

The CEB regards housing as a key factor for stabilising population movements, a human right and a starting point for employment. The Bank addresses housing need from closely interrelated social, environmental and economic perspectives. By financing housing projects in its member states, the Bank increases the availability of affordable and decent housing for low-income and other vulnerable population groups, thus improving their quality of life and facilitating their integration into the community and the labour force. By financing energy saving and efficiency investments, the Bank also plays a role in mitigating climate change and combatting energy poverty in Europe.

Scope of action

The main purpose of CEB housing projects is to facilitate access to decent and affordable housing for low and middle-income persons either by providing mortgages or by alleviating the scarcity of housing (constructing new dwellings or rehabilitating the existing stock). CEB projects target beneficiaries who can service a mortgage or regularly pay a rent however low or subsidised it may be. Eligible projects may target access to property ownership, rented accommodation and associated infrastructure, provided under national or local government assisted schemes or regulated commercial programmes. The provision of social and affordable housing (**Case Study 1**) to economically and socially disadvantaged population groups represents a large share of the CEB's activities.

Beyond the objective of improving the living conditions for those who are poorly housed, the construction of housing is also part of the Bank's priority mission to provide shelter to refugees, migrants, victims of natural disasters and other vulnerable populations such as the elderly, ethnic minorities and handicapped persons. The CEB contributes to the provision of housing to vulnerable groups with specific needs and/or lacking in special-purpose housing (**Case Study 2**).

The provision of sustainable housing (**Case Study 3**) at an affordable price can especially target vulnerable households hit by energy poverty, thus combining environmental and social objectives. From a broader perspective, the Bank also plays a role in urban renewal through the financing of housing-related municipal infrastructure and contributes to combating climate change through the financing of energy saving and efficiency investments in residential and non-residential buildings. Within this cross-sector approach, these projects are not explicitly defined as investments in the housing sector, but their main goal is to address specific social objectives by providing housing and related infrastructure.

Amounts approved and disbursed

With the roots of the Bank's financing in favour of the housing sector dating back to 1956, the total volume of projects approved in this sector comes close to € 11 billion, representing a significant 20% share of total loans approved over the period 1956-2016.

	Loans approved	Loans disbursed
1956-2016	**€ 10.7 billion**	**€ 7.5 billion**
1956-2006	€ 6.6 billion	€ 5.1 billion
2007-2016	**€ 4.1 billion**	**€ 2.4 billion**

Geographic distribution

In the last ten years, while some of the main traditional borrowers from Southern Europe have decreased their share (Spain) or disappeared from the portfolio (Greece, Italy, Turkey), the housing sector in Western and Eastern Europe has particularly gained in importance. In effect, in countries with substantial housing needs (Belgium) and/or faced with a massive influx of asylum seekers (Germany), the CEB's share of financing has noticeably increased,

whereas in countries without public housing provision CEB-financed projects have been the only source of affordable public dwellings (Republic of Moldova, Serbia, "the former Yugoslav Republic of Macedonia").



Sectoral distribution

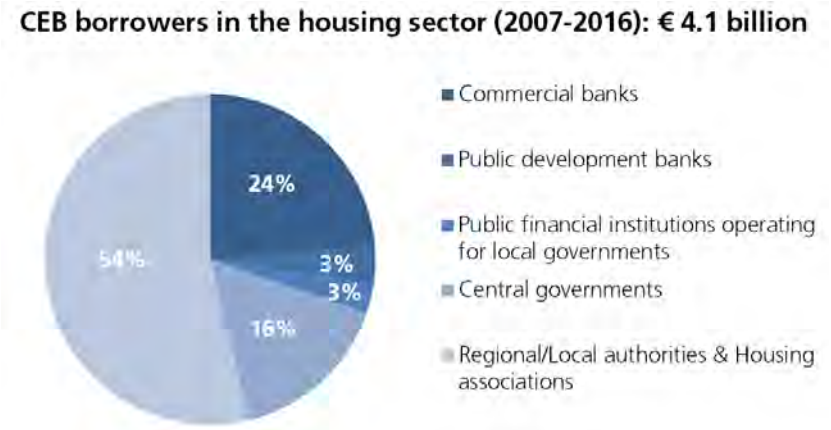
Since its creation in 1956, the CEB has provided extensive support to the housing sector. The original reference to housing in the CEB's mandate was within the statutory priority to provide assistance to refugees and displaced persons. However, very quickly, the Bank broadened its scope of action in this sector: in addition to handling emergency situations, it also had to respond to the needs of its member states in matters of "housing for the less well-off parts of the population", by facilitating their access to home-ownership or rental housing. Thus, the first project financed in Greece, in 1956, was a programme of aid facilitating access to home-ownership for refugees but also for low-income craftsmen. Statistics covering the projects financed between 1956 and 1995 show that housing investments financed during that period were aimed at the provision of social housing and post-disaster reconstruction in Cyprus, France, Germany, Greece, Italy, Malta, Portugal, Spain and Turkey.

The accession of the Central and Eastern European countries to the CEB in the late 1990s and the early 2000s shifted the Bank's geographical focus to the East as of the 2000s. In the Western Balkans, the CEB has participated in the reconstruction of housing and war-damaged infrastructure and helped reintegrate thousands of refugees and displaced persons in the region following the Yugoslav war of the 1990s. At the same time, the CEB has contributed to providing social and affordable housing in Central (Hungary, Poland, Slovak Republic) and South-Eastern Europe (Albania, Republic of Moldova, Romania, Serbia and "the former Yugoslav Republic of Macedonia"). Furthermore, CEB lending to housing for low-income persons has remained significant in Western Europe (Belgium, Germany, France and Ireland) and the provision of social housing and of housing to vulnerable population groups (including mainly the elderly) has gained in importance in Northern Europe (Denmark, Finland). More recently, the CEB has also contributed to financing energy efficiency investments in the housing sector located in Belgium, the Czech Republic, Estonia, France, Hungary, Ireland, Latvia, Poland, Portugal, Romania, Serbia and Slovak Republic.

Distribution channels

To reach the intended final project beneficiaries, the CEB operates via intermediaries, i.e. sovereigns, local governments, public or private financial institutions. Depending on the type of tenure (access to home-ownership vs. rental housing), the CEB's intermediary borrowers include the banking sector, national or local authorities and local or regional government funding agencies. In effect, borrowers such as the banking sector may be considered as "intermediaries" distributing mortgages to final beneficiaries in order to help them purchase their dwelling. Conversely, public authorities or other public bodies entrusted with responsibilities in the field of housing, when borrowing from the CEB, generally aim at providing housing for rental purposes.

During the period 1957-2016, one third of CEB borrowers in the housing sector were private financial institutions, i.e. commercial banks, while two thirds of CEB borrowers were public, i.e. central, regional or local public administrations, and public financial institutions. During the last ten-year period (2007-2016), the public/private distribution of borrowers tipped more in favour of the public sector (76/24).
From a geographic perspective, in Western and Southern European countries, housing projects have mainly been implemented through commercial banks. On the other hand, in the Central, Eastern and South-Eastern European countries, borrowers in the housing sector have been almost exclusively central authorities. In Nordic countries, public financial institutions operating for regional/local authorities have been the main distribution channel for housing lending, whereas in some cases in Belgium, Finland, France, Germany and Spain, the CEB has operated with regional/ local authorities implementing projects through housing associations or public-sector companies.



Grant assistance

In addition to loans, grant resources can be made available through the CEB's fiduciary accounts in order to subsidise interest rates, to provide loan guarantees and/or to finance technical assistance and/or part of the investment costs. This blending of loans and grants can facilitate the preparation and implementation of projects (via technical assistance), improve the economic viability of a given project (via interest rate subsidies, loan guarantees and/or investment grants) and ensure greater social impact.

Grants to the housing sector can be allocated via the CEB's Social Dividend Account (SDA), the Spanish Social Cohesion Account (SCA), the Norway Trust Account for the Western Balkans (NTA) and the CEB's consultancy budget. Additional support of this type has been allocated to the following projects:

Type of grant assistance	Amount	Countries
Interest rate subsidies (SDA)	**€ 16 million**	Albania, Bosnia and Herzegovina, Bulgaria, Croatia, Hungary, Lithuania, Republic of Moldova, Romania, "the former Yugoslav Republic of Macedonia" and Serbia
Technical assistance (NTA, SCA, CEB's consultancy budget)	**€ 5 million**	Albania, Bosnia and Herzegovina, Republic of Moldova, Montenegro and Serbia
Grant contributions (SDA)	**€ 7 million**	Bosnia and Herzegovina, Georgia, Kosovo, Montenegro and Serbia

The **Regional Housing Programme** (see Box 1), administered by the CEB, is another source of grant assistance and provides a telling example of international assistance and commitment to the sustainable resettlement of refugees and displaced persons in the Western Balkans.

Box 1: The Regional Housing Programme

Since 2010, the CEB has been actively involved in the joint initiative called the "Joint Regional Programme on Durable Solutions for Refugees and Displaced Persons", known as the "Regional Housing Programme" (RHP), whose purpose is to provide a significant number of refugees and displaced persons with durable housing solutions in the Western Balkan countries (Bosnia & Herzegovina, Croatia, Montenegro, Serbia). The costs of the Programme are supported by the international community, including the European Union, the United States of America, the UNHCR, the OSCE and the CEB.

The Bank's main role is the management of the multi-donor RHP Fund and other related accounts (with contributions totalling € 188 million at end-2016) and to assist the Partner Countries in preparing and implementing their housing projects. The Fund aims to provide flats and houses through building, reconstruction, renovation or purchase; construction materials; accommodation in social welfare institutions. By the end of 2016, the RHP had provided a housing solution to over 1,000 vulnerable families in the four Partner Countries. Approximately 2,600 families were provided with housing solutions at the end of 2017.

Case Study 1: Social and affordable housing
Case Study 2: Housing for vulnerable populations
Case Study 3: Energy efficiency retrofitting

Case study 1. Social and affordable housing

SOCIAL HOUSING IN BELGIUM (2009, 2011)

Objective: the provision of some 3,000 mortgage loans in the form of "social mortgages" for the purchase, construction or renovation of principal residences and zero-interest *éco-prêts*, i.e. "green loans" for energy-efficiency investments in social dwellings

Borrower: Fonds du Logement des Familles Nombreuses de Wallonie (FLW)
Beneficiaries: large low-income families with at least three children in Wallonia

CEB loan:
- Approved in 2009, € 50 million, covering 50% of the total cost of € 100 million
- Approved in 2011, € 80 million, covering 50% of the total cost of € 160 million

Social effects:

A total of 2,535 large families living on low incomes benefitted from 2,130 social mortgages and 710 green loans. This financing helped provide decent, affordable and energy-efficient dwellings to vulnerable families, 54% of whom used to live in insalubrious dwellings and 21% in overcrowded ones. Implemented between 2009 and 2013, the programme also helped address the issue of fuel poverty and improve the energy efficiency of housing in Wallonia.

SOCIAL RENTAL HOUSING IN FINLAND (2009)

Objective: the renovation and construction of social rental dwellings, including housing designed for the elderly, in the Helsinki area

Borrower: City of Helsinki

Beneficiaries: lower income households and disadvantaged population groups living in Helsinki

CEB loan: € 100 million, covering 47% of the total cost of € 213 million

Social effects:

Implemented between 2009 and 2011, the programme provided for the construction of 637 new housing units and rehabilitation of 1,374 units. The tenants selected for the city-owned state-supported rental housing were low- and lower income households, of which 75% had an monthly gross household income under € 3,000 and 50% under € 2,000 (while the average monthly gross income per person in 2011 was approximately € 3,200). Moreover, 60% of beneficiaries were households in urgent need of a housing solution. The programme contributed to the development of the social rental sector in fast growing areas due to rural-urban migration, increasing numbers of one-person households and a particularly fast growing foreign-born population.

RENTAL HOUSING FOR YOUNG HOUSEHOLDS IN ROMANIA (2001, 2002, 2005)

Objective: the construction of social rental dwellings implemented by the National Housing Agency

Borrower: Ministry of Finance

Beneficiaries: young people in the 18-35 age bracket living on low incomes

CEB loan:

- Approved in 2001 and 2002, two CEB loans totalling US$ 100 million, covering 44% of the total cost of US$ 226 million
- Approved in 2005, a CEB loan of € 140 million, covering 67% of the total cost of € 210 million

CEB grant support: € 1 million allocated in the form of interest-rate subsidies from the SDA
The programme was implemented between 2001 and 2013.

Social effects:

The first two phases of the programme (US$ 100 million) allowed for the construction and rehabilitation of more than 12,800 apartments providing accommodation for about 28,000 persons. During the third phase, an additional 8,620 social rental housing units were provided in favour of more than 15,500 young persons on low incomes. The dwellings were rented at affordable rates (not exceeding 25% of the monthly income) to young families giving them an opportunity to save money so as to acquire their own residence at the end of the contractual rental period.

SOCIAL RENTAL HOUSING IN THE REPUBLIC OF MOLDOVA (2006, 2011)

Objective: the development of the rental housing stock in favour of socially-vulnerable families

Borrower: Ministry of Finance

Beneficiaries: low-income and vulnerable households

CEB loan:

- Approved in 2006, € 4.9 million, covering 64% of the total cost of € 7.6 million
- Approved in 2011, € 13.4 million, covering 65% of the total cost of € 20.4 million

CEB grant support:

- € 1 million allocated in the form of interest-rate subsidies from the SDA (1st phase)
- € 2 million to be allocated in the form of interest-rate subsidies from the SDA (2nd phase)
- € 67,000 allocated for technical assistance from the CEB's consultancy budget

Social effects:

Implemented between 2006 and 2013, the 1st phase allowed for the provision of 250 dwellings in 4 buildings accommodating some 800 persons. It represented the first social housing project in the Republic of Moldova and succeeded in establishing a new model of partnership between the Government and municipalities. Moreover, it helped solve the issue of Transnistrian refugees (36% of the project's beneficiaries) in Chisinau, pending since 1992. By completing 15 unfinished blocks of apartments in 12 municipalities throughout the Republic of Moldova by 2018, the 2nd phase should deliver some 700 social dwellings providing access to affordable housing to some 2,500 persons from poor and vulnerable social groups. In a national context of high rental rates and unsatisfied housing demand, the project is expected to contribute to strengthening social cohesion in one of the CEB's most economically disadvantaged member countries.

Case study 2. Housing for vulnerable population groups

MUNICIPAL INFRASTRUCTURE PROGRAMME IN HESSE, GERMANY (2016)

Objective: the construction, renovation, refurbishing and conversion of buildings and related infrastructure for rented social housing throughout Hesse, especially in high-rent regions

Borrower: Wirtschafts- und Infrastrukturbank Hessen (WIBank)

Beneficiaries: low-income households, including migrants and refugees

CEB loan: € 230 million, covering 32% of the total cost of € 715.5 million
The planned implementation period for the project is 2016-2019.

Social effects:

In addition to promoting long-term and sustainable infrastructure investments in financially weak municipalities, the programme is aimed at enabling all Hessian municipalities to maintain, renovate, expand or scale down their local public infrastructure as necessary in order to provide essential public services efficiently and reliably. Public infrastructure expansion will focus on handling current challenges such as the creation of affordable housing and the accommodation of refugees. In addition, trend-setting topics for the future such as education and care, expansion of broadband networks, mobility and the removal of barriers will be incentivised.

The sub-projects ensure the continued provision of affordable dwellings for the local population, counteracting the declining supply for low-income households. Furthermore, they are an instrument for municipalities to support young families and the elderly, stabilise social hotspots, integrate migrants and avoid segregation. Energy efficiency improvements reduce utility bills and total housing costs for low-income households. The programme is also expected to substitute sub-standard first-level accommodation for migrants with long-term accommodation at standard quality levels. This will further improve the integration of refugees and migrants. Finally, as a side-effect, each sub-project will also support the local economy with positive consequences in terms of employment.

RENTAL HOUSING FOR THE ELDERLY IN DENMARK (2002, 2005-2007)

Objective: the construction and rehabilitation of some 6,500 public state-subsidised rental housing units for the elderly within the framework of the national social welfare programme.

Borrower: KommuneKredit, Copenhagen

Beneficiaries: Danish municipalities and regions providing housing for the elderly on their territory

CEB loan: € 400 million approved in four loans (for € 100 million each) in 2002, 2005, 2006 and 2007, covering 32% of the total cost of € 1.27 billion (based on aggregate amounts). The programme was implemented between 2002 and 2009. The fourth loan was financed in 2007 in conjunction with the EIB.

Social effects:

The programme helped build and rehabilitate some 6,500 rental housing units benefitting some 10,000 seniors, in the form of sheltered housing, residences providing services and care, and nursing facilities for the most dependent elderly. Final beneficiaries were selected by the municipalities responsible for carrying

out a selection on the basis of individual needs, including health situations and special care needs, in accordance with the general criteria applicable concerning their ability to live alone in a flat or a house. Most housing units had a surface area of 65 sq. m or less as this was the maximum size that entitled the tenant to obtain an individual housing benefit. Irrespective of its typology, the average cost per dwelling provided varied slightly, from € 144,000 to € 160,000, mainly reflecting the difference between construction and renovation investments.

HOUSING FOR VULNERABLE GROUPS IN "THE FORMER YUGOSLAV REPUBLIC OF MACEDONIA" (2009)

Objective: the construction of around 1,700 public rental housing units for specific vulnerable persons, i.e. economically weak households, socially endangered or having dependent household members, living on low incomes, who are entitled to housing under the Law on Social Protection

Borrower: Ministry of Finance

Beneficiaries: orphans, or children not in parental care, attaining the legal age for leaving institutional care; long-term unemployed and welfare recipients; residents of areas affected by natural disasters; dependent or disabled persons and households with such members; socially threatened Roma; single parents with children under the age of adulthood and blind persons

CEB loan: € 25.35 million, covering 50% of the total cost of € 50.7 million

CEB grant support: € 2 million allocated in the form of interest-rate subsidies from the SDA
Under implementation since 2008, the project is expected to be completed in 2018.

Social effects:

This project aims to improve social integration in the country by satisfying the crucial need for basic housing for persons in the most vulnerable segments of the population. Without this project, approximately 6,000 persons would never gain access to housing, thus putting them at risk of social exclusion. As of June 2016, housing units were allocated to 1,778 socially vulnerable persons or 558 families, including mainly welfare recipients and Roma families living in peripheral urban areas.

Municipalities select the final beneficiaries on the basis of the housing needs of each group targeted by the project and establish the number of apartments that proportionally should be available for each. The procedure is announced in the media and is public. Upon final allocation, lease contracts are concluded between the project implementing (public) agency and the beneficiaries; contracts specify inter alia the amount of rent and the five-year lease duration.

ROMA INTEGRATION IN HUNGARY (2005)

Objective: the social integration of Roma by addressing the serious housing, education, health and employment problems of the Roma community. Investments were concentrated on the improvement of housing conditions and related social and technical infrastructure.

Borrower: Ministry of Finance

Beneficiaries: Roma families living in segregated settlements

CEB loan: € 5 million, covering 78% of the total cost of € 6.4 million
The project was implemented between 2005 and 2009.

CEB grant support: € 200,000 allocated in the form of interest-rate subsidies from the SDA

Social effects:

The "housing component" (87% of CEB loan proceeds) was implemented for the benefit of nearly 950 Roma families in 36 municipalities, where segregated settlement problems were the most serious. Additionally, some members of Roma civil society and minority self-governments benefitted from capacity building. By addressing the multi-dimensional problems that Roma were faced with, the project provided tangible improvements in the housing conditions of Roma families. The project implementers tried a multi-sector approach, involving many actors and creating partnerships between local governments, Roma organisations and NGOs, as well as combining domestic and international financing sources.

Case study 3. Energy efficiency retrofitting

GREEN INVESTMENT PROGRAMME (PIVERT) IN BELGIUM (2010)

Objective: the thermal renovation of up to 12,000 social dwellings amongst the least energy efficient of the Walloon housing stock. The works mainly cover the insulation of dwellings and the replacement of windows and heating and ventilation systems. The technical and financial eligibility criteria in this programme are very stringent. The targeted energy performance of rehabilitated buildings is high, and in some cases very high (e.g. passive housing).

Borrower: Société Wallonne du Logement (SWL)

Beneficiaries: low-income groups living in social dwellings in the Walloon Region of Belgium

CEB loan: € 125 million, covering 31% of the total cost of € 400 million

Environmental effects:
Energy efficiency measures resulted in an average 60% reduction in energy consumption in about 8,500 dwellings renovated in the two phases of the PIVERT programme. On the basis of an energy consumption of 9 litres of fuel/sq. m, this programme consistently reduced the overall carbon footprint by 30,000 tons of CO_2 per year. Environmental impact is expected to increase in the two subsequent phases of the programme.

Social effects:

Around 26,000 inhabitants in Wallonia benefitted from the renovation during the first two phases of the programme. SWL estimated that the average monthly reduction in rental service charges (through the reduction in energy bills) was around € 62 per household. Given the average household income of 15,000€/year, energy efficiency measures helped reduce fuel poverty and contributed to increasing the purchasing power of the targeted population. Lastly, the project also contributed to improving the living conditions of social tenants with insecure or low incomes.

RETROFITTING OF MULTI-APARTMENT BUILDINGS IN ESTONIA (2008)

Objective: the retrofitting of about 17,700 dwellings in multiple-unit residential buildings built before 1993 and thus a reduction in greenhouse gas emissions in Estonia's residential sector

Borrower: KredEx, Credit and Export Guarantee Fund

Beneficiaries: housing associations, co-operatives and communities of apartment owners

CEB loan: € 28.8 million, covering 50% of the total cost of € 57.6 million
KredEx on-lent the CEB loan, together with the EU Structural Funds (€ 17 million or 29.5% of the cost), to two local commercial banks, SEB and Swedbank, that provided long maturity sub-loans at preferential interest rates to Estonian housing associations, co-operatives and communities of apartment owners. The remaining share came from KredEx (5.5%) and final beneficiaries (15%). This programme was implemented between 2008 and 2012, with technical assistance provided by KFW Bankengruppe.

Environmental effects:
The project enabled at least 20% savings in energy consumption, especially in smaller (up to 3,000 sq. m of living area) multi-apartment buildings that usually have less access to financing. CEB technical services estimated that this project assisted the country in consistently reducing greenhouse gas emissions by more than 24,000 tons of CO_2 per year.

Social effects:

The thermal rehabilitation of about 17,700 dwellings directly benefited more than 25,000 inhabitants. In addition to lowering the energy cost burden on the beneficiary households (with reductions of between 7% and 20%, based on CEB estimations), the reduction in energy consumption is sufficient to cover the reimbursement of loans contracted within this project. Communication campaigns carried out in connection with this innovative project led to increasing awareness of the importance of energy saving measures among the population.

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