The Inclusion of Non-cash Housing Advantages in the Income Concept.

Estimates and Distribution Effects for Belgium.¹

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As pointed out by the Canberra Group (2001), the way in which is dealt with the income value of home ownership is crucial for distributional analyses. The focus of the Belgian housing policy has always been on home acquisition rather than the provision of social housing. As a result, a large majority of Belgian households are living in their own home (around 70%), while only a small percentage are living in a social rented home (less than 10%). Home-ownership has a large impact on a household’s expenditure structure. Firstly, mortgage free owner-occupiers are much better off than renters with comparable incomes. Secondly, the impact of mortgage payments can lower a household’s disposable income considerably. Because of the large proportion of home-owners in Belgium, a serious attempt to estimate the economic well-being of households should take the non-cash advantage derived of home-ownership, the so-called ‘imputed rent’ into account. Also tenants who

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benefit from below-market rent or rent-free accommodation can be considered as beneficiaries of imputed rent.

In this paper we explore different techniques to estimate imputed rent for Belgium, based on the methodology presented by Frick and Grabka (2003). We apply two methods for estimating imputed rent, namely 1) the self-assessment approach, and 2) the opportunity cost approach. In the self-assessment approach respondents are asked to make an assessment of the rental value of their home. For application of the opportunity cost approach we rely on a hedonic regression estimation of the logarithm of rent actually paid by main tenants on the private non-subsidized housing market. Since renters are a specific group, we control for selection bias by using a two-step Heckmann procedure. In order to arrive at net imputed rent, owner specific costs (i.e. maintenance costs, taxes and interest payments) are deducted in both approaches. It is not possible to use a third method proposed by Frick and Grabka (2003), namely the capital market approach, due to lack of information in the dataset on the market value of the owner-occupied dwelling.

Calculations are performed on the micro-data of the Belgian EU-SILC of the survey year 2004 (with income data referring to 2003). The SILC-2004 of Belgium contains 5,275 households and 12,971 individuals. For the distribution analysis households with a negative or zero household income are excluded. The opportunity cost approach is applied for all potential beneficiaries of imputed rent, namely home owners and tenants that rent for free or at a reduced rate. The self-assessment approach is only applicable to owners and rent-free tenants, as the self-assessment question was not asked to reduced-rent tenants.

We find substantial differences in amounts of imputed rent between the two approaches: on average amounts according to the self-assessment approach turn out to be twice as high as those according to the opportunity cost approach. With 0.2502 the correlation between the two measures of imputed rent is, though statistically significant, not very high (calculated over owners and rent-free tenants only). We go more deeply into the reasons for these differences.

But even though this correlation between the two methods is rather low, they both yield similar distributional consequences. We present a variety of inequality indicators and poverty measures, in order to capture the effect on various parts of the income distribution. The
inequality measures used are the Gini index; the Atkinson index for inequality aversion parameters 0.5 and 1.5; the mean log deviation (MLD); the half squared coefficient of variation (Half SCV); and three percentile ratios (90/10; 90/50 and 50/10). The poverty measures are those from the Foster-Greer-Thorbecke (1984) family.

The poverty indicators and overall inequality lower after we put housing costs into account. These findings are in line with other research on the income value of housing (see e.g. Frick & Grabka 2003; Lefebure et al. 2006; Van den Bosch & Van Dam, 2001). We find that the inclusion of imputed rent in the income concept causes an increase of disposable income in all quintiles, but the relative increase is the highest in the bottom quintiles and the lowest in the top quintile. The interdecile ranges show that accounting for imputed rent lifts the income of the lower deciles while it has little effect on the higher deciles: the interdecile range between top and median remains constant, while both the range between top and bottom as the range between median and bottom drop to the same extent. Also low-income sensitive inequality indicators report the strongest drop in inequality, indicating that inequality reduction is especially important at bottom of the income distribution. This drop in inequality is due to the relation between ownership and age, and income and age. At old age, when income is lower, many households own their homes outright. At active age, when income is higher, large mortgage payments are putting a burden on disposable income.

We feed these results back to the Belgian policy context. The post-war Belgian housing policy has always emphasized the stimulation of home ownership. In particular, the acquiring of modest housing has been stimulated. Below market loans, below market sale of social housing and renovation subsidies - all with means tested eligibility- brought the ownership of a small family home in the reach of many Belgian households. Overall inequality does not rise after controlling for home ownership – it declines. Since the positive effect of imputed rent is the largest in lower income households, the Belgian housing policy is indirectly achieving its goal of bringing home-ownership in the reach of lower income groups. Nevertheless, some groups who are in need of protection against poverty due to housing costs often are unable to acquire a home. The increasing attention of regional housing policies in extending social housing policies seems justified, as the house-poor and the income-poor (especially at active age) are often the same.
Our paper is structured as follows. After the introduction, we present a short overview of Belgian federal and regional housing policies, as well as the current situation on the housing market that clearly bears these policies shape. Next, we briefly discuss the data and the methods used to estimate imputed rent. Special attention will go in this context to the reasons why the self-assessment and the opportunity cost approach yield such different amounts of imputed rent. The following section deals with the distribution effects of including imputed rent in the income concept. We present these results for a range of inequality and poverty indicators. We go into more depth why imputed rent especially affects the lower side of the income distribution. The last section concludes and tries to formulate some policy insights and recommendations.

References:


