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TREATMENT OF HOUSING COSTS IN THE UK INCOME STATISTICS

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ABSTRACT

The measurement of housing costs is an important precursor to research in public policy and discussions on the consumption patterns of low-income individuals. This paper analyses the two primary housing-cost measurements currently used in the UK: before deduction of housing costs (BHC) and after deduction of housing costs (AHC). BHC treats housing-costs as on par with everyday expenditures, whereas AHC distinguishes between housing expenditures and other general consumption goods. UK and EU researchers have shown a preference for the BHC method, however this paper argues that a wider acceptance of AHC allows for a more accurate statistical understanding of housing costs. The BHC is limited by its assumptions that housing costs are a reflection of an individual's chosen standard of living, while the AHC allows for adjustments such as regional price differences, life-cycle variations, and interest rate fluctuations. The paper also introduces alternative measures including imputed rent and decile-specific price indices that can be used to supplement BHC and AHC and produce more robust measures of housing costs.

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I. INTRODUCTION

The treatment of housing costs lies at the heart of income assessment. It is important for poverty measurement to decide whether incomes are measured before or after housing costs. In the UK, official publications of low-income statistics distinguish between income 'before the deduction of housing costs' (BHC), and 'after the deduction of housing costs' (AHC). This essay first introduces two definitions of BHC and AHC, seeking to address the conceptual and empirical differences between the two. It then examines the advantages and drawbacks of the two approaches. It moves on to introduce two potential alternative methods, and assess the validity and effectiveness of each in representing the real income distribution.

II. INCOME BEFORE AND AFTER HOUSING COSTS

The UK Households Below-Average Income (HBAI) statistics (Department for Work and Pensions 2011) define BHC as equivalised weekly net income (including housing benefits) after adjustments of household size and composition. By contrast, AHC is defined to be that "derived by deducting a measure of housing costs from the [BHC] measure, [which] includes the following: rent, water charges, mortgage interest, structural insurance premiums, ground rent, and service charges" (Department for Work and Pensions 2011 pp.242-243). The European Union usually adopts the BHC method, while AHC is rarely observed outside the UK (Atkinson et al. 2002).

The most common questions with respect to the treatment of housing costs in income statistics relate to the diverging trends exhibited between BHC and AHC numbers. For instance, if calculating by BHC, the mean UK household income increased by 32.6% from 1994/1995 to 2009/2010. But, if by contrast we assume AHC, this percentage increase was a larger 41.8% (see Department for Work and Pensions 2011). The difference of 9.2% between the two methods is significant relative to historical income growth.

As for intra-year comparisons, the percentage of the population living in poverty under the BHC measure in 1998/1999 constituted 19%. Instead if AHC is used, the number increases to 24%. Latest figures for the percentage in poverty by BHC and AHC were 10% and 14% respectively, maintaining a 4% divergence (Department for Work and Pensions, 2011). The difference in results produced by the two measures requires poverty researchers to be disciplined in making careful decisions when dealing with UK income statistics.

BHC is widely adopted in poverty research in the European Union because it does not rely on a universally recognised definition of housing costs amongst countries and thus increases comparability across countries. The BHC measure treats housing costs like other household expenditures like food and clothing. If people do spend much on housing, especially in the case of down payments or a large amount of instalments, it is reflected in their living standards and should not be excluded from income measurement (Goodman et al 1997).

The UK government also favours BHC. The Department of Social Security considers the income before housing costs the better approach for time-series comparisons (Department of Social Security 1990). But as mentioned above, the approach without deduction of housing costs poses problems of its own. The owner of a house who does not receive housing benefit has a tendency to be worse-off than a renter who receives it from the government because BHC counts housing benefit (Goodman et al. 1997). Regarding the measurement errors in BHC, Johnson and Webb (1992) argue that real income growth is underestimated by the BHC method because of a wrongly-incorporated price index inherent in BHC (which should have been based on net costs of housing) and an incomplete calculation of weights in the price index.

The main reason to deduct housing costs from the income measure is that it enables adjustments to regional differences in living costs in the UK. Previous research confirms that housing costs do vary considerably across geographical areas. Greater London and the South East are the most expensive regions. Their mean housing costs stand as high as 50 per cent above the average UK level over 1970-90 (Borooah et al 2006). Thus, taking two households with equivalent incomes, the household in a higher housing cost region is worse-off than the household in a lower housing cost region. The BHC does not capture this cost of living discrepancy.

Johnson and Webb (1992) offer additional arguments in support of introducing AHC. They point out that with the existence of life-cycle effects, the young and the elderly should be treated separately in regard to housing issues, and that fluctuation in the level of interest rates should also be taken into account. These distinctions have significant impacts on costs of housing assuming equal accommodation quality.

The AHC approach is necessary to address these problems, but, as with the other existing methods, it is far from perfect. First, following the deduction of housing expenditures from income, AHC treats accommodation as an exogenous element in family life and consequently ignores a key factor in real household living. To some extent, one could argue that the AHC is not consistent in this way like BHC, because other common consumption goods like food and clothing also fluctuate with regional differences so housing should not be treated as a special case. More contradictorily, as explained above, AHC is

simply BHC minus housing costs, but housing benefit that is included in BHC still contributes to AHC. In this way, the income distribution based on AHC is skewed in favour of renters receiving the housing benefit. Further problems in AHC include calculation on mortgages without considering inflation under AHC as pointed out by J. Hills (1998).

III. ALTERNATIVE MEASUREMENT PROPOSALS

In order to overcome the weaknesses in the BHC and AHC statistics, the "imputed rent" estimation is proposed as an alternative accounting for both the housing price and housing quality. The definition of imputed rent in EU-SILC "takes into account both the returns to home ownership, i.e. that the main residence is an asset, as well as the economic benefits accruing to those tenants whose rent has been set below the prevailing market level" (Törmälehto and Sauli 2010 p.6). In other words, the measure of imputed rent produces a value for housing expenditure on non-rental properties by matching the property on various characteristics to a comparable home in the current private rental market. The actual housing consumption is replaced by the net imputed rent in BHC and the final income is obtained as imputed income. Imputed rent is estimated to constitute a large part of income in most European countries (Frick et al., 2008). Mullan et al. (2011) apply this method to the same data used in the 2009 UK official low-income statistics, focusing on performance in children and pensioners. In their findings, poverty risk of children sees no significant change while pensioner poverty risk decreases by one-quarter compared to the official BHC measure. The imputed rent approach improves consistency and comprehensiveness in measuring living standards; nevertheless, it has limitations of its own. The main difficulty with this method is to survey and assess the costs of housing with regard to dwelling quality in a comprehensive way. Besides, possible risks include an overstated income advantage from owner-occupied housing and incorrect estimation by homeowners who have lived in a property for a long period of time (Frick and Grabka 2003). A further issue concerning the comparability of the method within the European Union calls for an unified definition to estimate across countries. Unfortunately, existing differences in tenure type definitions and characteristics, and location of dwelling, weaken the comparability in imputed rent-based statistics.

Other alternative methods suggested by Johnson and Webb (1992) include that to introduce decile-specific price indices or that to take housing benefit away from income before housing costs, with the latter serving as a back-up to the former. Both approaches coincide with concerns discussed in this paper and the latter makes the terms of BHC and AHC more consistent. The authors compare these two alternative approaches with the standard BHC and AHC by re-measuring the annual income growth from

1981 to 1987: for the whole population the four measures demonstrate similar results, but the income growth for the poorest group reduces substantially after deduction of housing benefits.

These two methods, however, still have to overcome limitations in practice, because calculation of separate price indices for each decile group and housing benefit subtraction requires extra workload. In concept, the incorporation of decile-specific price indices is problematic when comparing data over multiple time periods. The alternative based on deduction of housing benefit may avoid biases thanks to a simpler calculation but it lacks substantive application and research supporting its effectiveness.

IV. CONCLUSION

The question of how to treat housing costs plays an important role in income measurement, and has important policy implications. . The most obvious implication is that the choice between BHC and AHC is critical in advising policymakers on modern trends in poverty-reduction and consequenetly social policy choices. BHC treats the cost of accommodation as it does other consumption goods while AHC considers housing to be incomparable with other types of spending and sets it apart. The BHC approach, which is widely adopted outside the UK, fails to capture the advantage of homeowners and is deficient in the existing price index. The AHC approach is comparatively better at reducing regional differences but ignores housing characteristics and causes ambiguity in housing benefits. Although the UK government shows preference for BHC, it still uses both methods for low-income statistics in order to provide a wide and comprehensive picture of trends in the income distribution. The alternative approaches to BHC and AHC discussed in this paper, which aim to address the biases in more conventional approaches, unfortunately exhibit their own weaknesses in practice. However, introducing imputed rent and producing decile-specific price indices would improve the income measure and serve as a good complement to current methods on the whole.

REFERENCES

Atkinson, T., Cantillon, B., Marlier, E. and Nolan, B. (2002) Social indicators: the EU and social inclusion, Oxford : Oxford University Press.

Borooah, V. K., McGregor, P. P. L., McKee, P. M., and Mulholland, G. E. (2006) 'Cost-of-living differences between the regions of the United Kingdom', of J. Hills (ed.), New Inequalities pp.103–132. Cambridge: Cambridge University Press.

Department of Social Security (1990) 'The measurement of living standards for households below average income' Cmnd 1162. London: Her Majesty's Stationary Office.

Department for Work and Pensions (2009) Low-Income Dynamics: 1991-2007 (Great Britain). London: Department for Work and Pensions.

Department for Work and Pensions (2011) Households Below Average Income: analysis of the income distribution 1994/95 – 2009/10. London: Department for Work and Pensions.

Expert Group on Household Income Statistics ('Canberra Group') (2001). Final Report and Recommendations. Ottawa: Statistics Canada.

Frick, R. and Grabka, M. M. (2003) 'Imputed rent and income inequality: a decomposition analysis for Great Britain, West Germany and US' Review of Income and Wealth, 49, 4, pp.513–37.

Frick, J. R., Grabka, M. M., Smeeding, T. M. and Tsakloglou, P. (2008), 'Distributional effects of imputed rents in seven European countries'[online]. Available from: http://www.iser.essex.ac.uk/files/msu/emod/aim-ap/deliverables/AIM-AP1.1_final.pdf, [Accessed 5 Dec 2011]

Goodman A., Johnson P. and Webb S. (1997) Inequality in the UK. Oxford: Oxford University Press.

Hills J., (1998) 'Housing, tenure and international comparisons of income distribution', Part III of Kleinman, M., Matznetter, W. and Stephens, M (eds), European integration and housing policy .London: Routledge, pp. 157-178.

Jenkins, S. P. (1991) 'The measurement of income inequality', chapter 1 in L. Osberg (ed.) Economic Inequality and Poverty: International Perspectives. Armonk, NY: M E Sharpe, pp.3–38.

Jenkins, S. P. and Van Kerm, P. (2009) 'The measurement of economic inequality', in W. Salverda, B. Nolan and Timothy M. Smeeding (eds), The Oxford Handbook on Economic Inequality. Oxford: Oxford University Press, pp.40–67.

Johnson, P. and Webb, S. (1992) 'The treatment of housing in official low income statistics', Journal of the Royal Statistical Society, Series A (Statistics in Society), 155 (2):273–290.

Eurostat .(2010) The comparability of imputed rent Luxembourg: Publications Office of the European Union.

Mullan, K., Sutherland, H., and Zantomio, F. (2011)‘Accounting for housing in poverty analysis’, Social Policy & Society, 10 (4): 471–482.

Törmälehto V. and Sauli H., (2010)‘The distributional impact of imputed rent in EU-SILC’ Luxembourg: Publications Office of the European Union p.6.