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Developing New Equivalence Scales for Alternative Measures of Household Income

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Equivalence scales provide the basis for more meaningful analysis of inequality and poverty, adjusting income to account for the relative costs of living for different household sizes and compositions. One of the most commonly used approaches is the use of the so-called OECD-modified scale, an adapted ‘normative’ scale developed by Hagenaars, De Vos & Zaidi (1994). Like other similar scales, it takes into account the size of the household and the age of its members (whether they are adults or children) in assigning each household a value in proportion to its needs. It is the primary scale used in the UK and the EU for official poverty and inequality statistics.

One of the many questions regarding such equivalence scales concerns their suitability beyond a narrow focus on the household disposable income measures for which they were first developed. For instance, Nora Lustig (in OECD, 2018), highlights the importance to informed public debate of income measures that are expanded to include the social-transfers-in-kind (STIK) available from the state-provision of services such as education and healthcare. However, the OECD-modified and other similar scales are designed for equivalising cash income and may not be appropriate once STIK are included in the income definition. It is arguably highly desirable to use an equivalence scale that takes into account the extra non-cash needs when carrying out poverty analysis based on adjusted disposable income. This point is illustrated particularly clearly when considering young children. The OECD-modified scale assigns a smaller value for children than for additional adults in the household, based on assumed needs. However, young children have a high need for education services and also comparably higher needs for healthcare (though less than for older people). Therefore, applying a standard equivalence scale to adjusted disposable income would risk overstating the standard of living of those households with young children.

Similarly, although much comparative research has historically been based on measures of income excluding the net value of owner-occupied housing costs, there is considerable policy interest in adopting more complete measures of household disposable income including such imputed rent, in order to better assess material living standards across different population sub-

groups, across time and across countries. However, it is not clear whether the OECD-modified scale remains appropriate for such a measure, or whether an adjusted scale is necessary to account for different economies of scale in housing costs?

This paper will explore these challenges in detail and propose new equivalence scales that adapt the traditional approaches to encompass alternative measures of household income. Using data on UK's Living Costs and Food Survey – an annual household survey containing detailed information on income and expenditure - it will examine the economies of scales available to different types of households, and for different goods and services. It will provide experimental measures of income inequality and poverty based on these new scales, assessing how they affect our understanding of trends for particular sub-groups over time.