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Developing Indicators of Poverty and Shared Prosperity Consistent with National Accounts

The Report of the Atkinson Commission on Global Poverty (World Bank, 2017) provides a number of recommendations on how to develop the measurement and monitoring of poverty worldwide. One of these recommendations relates to exploring the construction of national accounts-based indicators of household living standards. In coming to this recommendation, the report highlights two broad reasons why household surveys and national accounts aggregates can differ, often substantially, from each other: The first is differences in recorded amounts, which may reflect issues with survey coverage, non-response and under-reporting, as well as measurement error in the national accounts. The second is definitional differences, reflecting the different purposes to which the two sources are traditionally put.

This paper builds upon recent research into both sets of reasons, in order to develop new indicators of poverty and shared prosperity, based upon and consistent with national accounts, in line with the Atkinson Commission recommendations. Data from the United Kingdom is used as an example of how such indicators can be produced for a wider group of countries. The analysis in the paper highlights how such indicators may differ from those based on survey microdata alone and how they may provide new and complementary insights regarding both overall trends and the characteristics of those in poverty, supporting the timely monitoring of poverty and inclusive growth at both the national and international levels.

The national accounts, produced under the System of National Accounts (SNA 2008) framework, provide measures of both household income and consumption. However, no distributional information is provided within the SNA framework, with these data instead only providing overall aggregates and simple per capita (or per household) averages. In recent years, there has therefore been a growing body of work seeking to produce distributional national accounts, including that coming out of the OECD Expert Group on Disparities within a National Accounts Framework (EG DNA e.g. Tonkin & Wildman, 2016; Zwijnenburg et al., 2017).

A key step of the EG DNA methodology is to map variables within the microdata onto the different components of household income and consumption in the SNA framework. Doing so reveals the differences in recorded amounts between the two that were highlighted by the Atkinson Commission report. Importantly for the measurement of poverty and shared prosperity, there is considerable evidence suggesting that, at least on the income side, a significant proportion of this difference may be accounted for by under-reporting towards the

bottom of the distribution (e.g. Meyer & Sullivan, 2011; Brewer & O'Dea, 2012). This may reflect people forgetting income they have received during the reference period from sources such as intra‐household transfers, social transfers, or home‐produced items they have sold. People may also be reluctant to disclose their full incomes for privacy reasons. Under-reporting at the top of the distribution is also a problem for both income and consumption, particularly for some components (e.g. Burkhauser et al., 2018; Bee et al., 2015). While this is of less relevance for poverty measurement, it is important where one wishes to assess the shared prosperity premium, as set out in SDG indicator 10.1.1, as the expenditure or income growth rate of the total population may be heavily influenced by the top of the distribution.

To address these differences in recorded values between microdata and the national accounts, the EG DNA methodology includes a subsequent step to impute and scale the microdata to the adjusted national accounts totals. In some research, this has taken the form of proportionate scaling, but this necessitates large assumptions, particularly where the gaps between micro and macro figures are large, and is something that Bourguignon (2015) and others have warned against when measuring poverty. The current paper therefore takes a more sophisticated approach to addressing these issues of non-response and under-reporting, making use of administrative data and other auxiliary information where possible, building on recent developments by Aitken & Weale (2018), Corlett et al. (2018), Shine et al. (2019) and others.

This paper also seeks to address the other reason for differences between surveys and the national accounts aggregates highlighted by the Atkinson Commission, namely the conceptual differences between them. These definitional differences reflect to a large extent different purposes and user needs: Micro statistics on income and consumption, following UNECE (2011) and OECD (2013), view transactions from the perspective of households, whereas national accounts aggregates need to take a broader, macro-economic perspective. For example, inter-household transfers are important for many households and included in microstatistics but are not considered within a macro framework. By contrast, while important for National Accounts, FISIM is not directly relevant from the perspective of households considering their own economic wellbeing, so is excluded from income in microstatistics. This paper therefore explores the development of distributional national accounts-based indicators that are as consistent as possible with the definitions and concepts used in microstatistics.

Finally, the paper considers the potential to produce such national accounts consistent measures on a timely basis, ideally alongside or close to the release of national accounts aggregates, rather than having to wait for the collection and processing of survey-based estimates. In recent years there has been growing interest in the production of flash estimates

or ‘nowcasts’ of income distribution and poverty statistics by both national statistical offices and international organisations, often with considerable success (e.g. Mallet & Weale, 2018; Stoyanova & Tonkin, 2016). The paper will therefore examine the feasibility of extending such methods to these national accounts-consistent measures.