Developing Indicators of Inequality and Poverty Consistent with the National Accounts

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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.

Distributional statistics on household income and expenditure are in most countries primarily based on data from household surveys. However, it is widely recognised that the estimates from these household surveys and National Accounts aggregates can differ, often substantially, from each other, with the Report of the Atkinson Commission on Global Poverty (World Bank, 2017), among others, highlighting two broad reasons for these discrepancies: 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, as well as the literature on Distributional National Accounts (e.g. Alvaredo et al., 2018; Tonkin & Wildman, 2016; Zwijnenburg et al., 2017), in order develop new indicators of inequality, poverty and shared prosperity, based upon and consistent with the National Accounts, in line with the recommendations of both the Atkinson Commission and the High-Level Expert Group on the Measurement of Economic Performance and Social Progress (Stiglitz, Fitoussi & Durand, 2018).

Data from the United Kingdom are used as an example of how such indicators can be produced for a wider group of countries. In particular, it makes use of survey microdata including the Living Costs & Food Survey (LCFS), an anonymised sample of tax records (Survey of Personal Incomes), and other administrative aggregates. 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 inequality, poverty and inclusive growth at both the national and international levels.

There is considerable evidence suggesting that, at least on the income side, a significant proportion of the difference between survey and national accounts estimates 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). To address these differences in recorded values the current paper develops and presents a suite of methods, 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 conceptual differences between the surveys and national accounts aggregates. 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 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.