Author: Francisco Azpitarte, Universidade de Vigo and LSE (azpitarte@uvigo.es)

Paper Outline

There is widespread agreement about the multidimensional character of poverty. Implicit in this view is the idea that income by itself may not be an appropriate variable to quantify the level of deprivation of individuals. Consequently, many authors have recognized the need to include other dimensions of welfare into the practical definition and measurement of poverty (Deutsch and Silber 2005, Bourguignon and Chakravarty 2003, Tsui 2000). Within all possible factors that contribute to determine families' well-being, one that has received an increasing attention in last years is household wealth. Assets promote well-being by providing direct income flows and consumption services to their owners. Most importantly, household wealth is central to the measurement of vulnerability of households in times of economic crisis like the current one, as it will determine the capacity to smooth consumption during low income periods. Indeed, wealth is the most important source of liquidity for families in times of economic stress, given that assets can be directly converted into cash or serve as collateral in order to obtain liquidity. Moreover, wealth determines the capacity that families have to participate in many of the opportunities offered by a market economy. In fact, the lack of assets may impose an important constraint on individuals when willing to take risky actions which could lead to an increase in the equilibrium standard of living of their household, such as running a new business, increasing their stock of human capital, or quitting a job in order to look for a more desirable one.

Once recognized that poverty is multidimensioned, an important question that needs to be faced, and on which there is less agreement, is how to integrate the different dimensions of welfare (Silber 2007, Atkinson 2003). In the case of income and wealth, two alternative approaches have been proposed in the literature. The first and mostly used approach, applies the annuity method to aggregate the two variables into a single indicator of welfare, converting household net worth into a flow of resources, such that, every household whose annuity from wealth is not enough to compensate the income poverty gap is considered as poor (Zagorsky 2006, Short and Ruggles 2006, Van den Bosch 1998, Weisbrod and Hansen 1968). Alternatively, in the second approach a poverty line is specified for each dimension, identifying as poor all those households that have an insufficiency in either income or wealth (Wolff 1990, Radner and Vaughan 1987). These two approaches represent different forms of dealing with the multidimensionality of poverty, which may have important consequences for the measurement and characterization of poverty. Thus, the annuity method exploits the possibility of expressing both income and wealth in monetary terms to measure the economic well-being using a one-dimensional indicator, whereas the second approach does not imply the use of any technique to

combine income and wealth in a single measure, so that the dimensionality of the problem remains unaltered.

The main goal of this paper is to analyze how these two approaches relate regarding the identification and the characterization of the poor. This question is especially relevant given the recent suggestions for including a "crisis definition of resources" into the practical definition of the poor in countries such as the US (Citro and Michael, 1995), and Spain, where the new "Dependency Law" establishes wealth thresholds to determine those households that are eligible to participate in the welfare programme. Thus, the annuity method identifies as poor only those households whose income is below the poverty threshold and that lack enough wealth to obtain an annuity flow to compensate the income poverty gap. In contrast, the fact of considering separately each dimension does not generate any "information loss" which implies a more efficient use of the information on income and wealth than the annuity method, as it allows us to measure the vulnerability of households to negative income shocks independently of their current position in the income distribution, which enables a better description of the different poverty status. Indeed, this methodology, in contrast with the annuity approach, permits to characterize *vulnerable-non poor* households, that is, households whose incomes are above the poverty line but that hold few assets, which makes them vulnerable if current income were to be reduced or to cease entirely. In addition, it also allows us to identify *protected-poor*, as well as, *twice-poor* households, where the former refers to households with incomes below the income threshold but with sufficient wealth holdings to maintain a minimum standard of living, whereas the second category includes all the households that are deprived in both dimensions. The first objective of this paper is to determine to what extent the annuity method is able to identify vulnerable-non poor, protected-poor, twice-poor households. More concretely, we want to investigate how the capacity of the annuity approach to identify these collectives varies across age groups. Thus, one the features of the annuity method is that it implies a marginal rate of substitution between income and wealth that decreases with age, so that the poverty frontier that delimits the combinations of income and wealth associated with poverty is not the same for all age groups, which may condition the capacity of this methodology to fully identify the different poor groups.

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