

H. Xavier Jara (University of Essex) and Cesar Amores (Universidad Central del Ecuador)

### **Missing Dimensions of Well-being and Respect for Individual Preferences. How Affected is Equivalent Income?**

Traditionally, most economic studies have focused on the measurement of poverty and inequality based on a single dimension, namely income. However, individuals do not only care about income, and other life dimensions such as health, employment, leisure, housing, and environmental quality are highly valued as determinants of a good life. As such, it has become increasingly recognised, both at the academic and political level, that in order to have a broader picture of social progress, poverty and inequality should be measured based on a multidimensional concept of well-being (Stiglitz, Sen and Fitoussi, 2009; Alkire and Foster 2011).

Importantly, recent studies have highlighted that individuals differ in their preferences over different life dimensions and that these preferences should be respected when measuring poverty and inequality (Decancq et al. 2019). Equivalent income has been proposed as measure of well-being which respects individual preferences (Fleurbaey and Blanchet 2013; Decancq et al., 2015). This concept is closely related to the old idea of money-metric utility. Imagine, for instance, that information about individual preferences over different life dimensions is available; “the equivalent income of an individual is the hypothetical income that, if combined with the best possible value on all non-income dimensions, would place the individuals in a situation that he/she finds equally good as his/her actual situation” (Decancq et al., 2015). In addition to fulfilling the principle of respect for individual preferences, equivalent income has the advantage of being a monetary measure, which can be used to calculate inequality and social welfare. Note that information about individual preferences is needed to construct equivalent incomes.

While this growing strand of the literature has acknowledged the importance of accounting for a wide range of life dimensions, empirical applications have considered a limited number of them (e.g. income, employment, health and housing quality), most likely due to data limitations (Decancq et al., 2015; Decancq et al. 2019). The aim of this paper is to illustrate the extent to which analysis based on equivalent incomes is affected by the set of life dimensions included in the measurement.

Our empirical analysis makes use of a rich dataset from Ecuador, which in addition to the life dimensions previously considered in the literature allows us to account for other dimensions, such as empowerment, social isolation, treatment with dignity, bodily integrity (i.e. experience of violence), as well political engagement. In addition, the specific context of Ecuador allows us

to account for preference heterogeneity across different population groups, for instance ethnic minorities. The calculation of equivalent incomes in our study follows Decanq et al. (2015) and Schokkaert et al. (2011) and derives preference information based on life satisfaction regressions.

Our study provides several interesting findings. First, our additional dimensions of well-being are important determinants of life satisfaction, which highlights the importance of accounting for a wide range of life dimensions in the measurement of well-being. Empowerment has a positive and significant effect on life satisfaction, whereas living in social isolation, not being treated with dignity and experiencing violence have a negative effect. Political engagement has a positive effect on life satisfaction but significant only for women. Most other interaction terms are not significant but present the expected signs. In particular experiencing violence affects more individuals with high education but also ethnic minorities. Results for the life dimensions previously used in the literature are in line with previous studies. Income and housing quality have a positive and significant effect on life satisfaction, whereas experiencing health problems and being unemployed have a negative effect.

Second, there is substantial reranking when our basic measure of equivalent income (based on income, health, unemployment, and housing quality) is compared to equivalent income including the additional dimensions of well-being. The correlation between the two measures of equivalent income is low (0.2691) and the main drivers of the differences are the dimensions capturing social isolation and treatment with dignity.

Finally, the population identified as the worst off based on equivalent income with and without the additional dimensions of well-being differs substantially. In particular, less than 20 per cent of those identified as the worst off according to our basic measure of equivalent income, are identified as the worst off according to our measure of equivalent income including the wider range of life dimensions. Consistent with the results from reranking, the main drivers of the differences are social isolation and treatment with dignity. Only 25 per cent of those identified as the worst off according to our basic measure of equivalent income, are identified as the worst off according to equivalent income including dignity as an additional dimension of well-being.

Our paper conveys two important messages. First, it highlights the importance of accounting for a wide range of life dimensions in the measurement of individual well-being. The divergence between our measure of equivalent income with and without additional life dimensions has implications in the analysis of poverty and inequality based on these measures. Second, our analysis should encourage data producers to include information of various life dimensions in

data collection process in order to provide additional input for policy analysis based on multidimensional measures of well-being.

## References

- [1] Alkire, S. and J. Foster (2011) .Understandings and misunderstandings of multidimensional poverty measurement., *Journal of Economic Inequality* 9: 289-314.
- [2] Decancq K., M. Fleurbaey, and E. Schokkaert (2015). Inequality, income and well-being. In: Atkinson, A. and Bourguignon, F., (Eds.) *Handbook of Income Distribution*, Vol. 2A, pp. 67-140. New York: Elsevier.
- [3] Decancq, K., Fleurbaey, M. and Maniquet, F. (2019). Multidimensional poverty measurement with individual preferences. *Journal of Economic Inequality*.  
<https://doi.org/10.1007/s10888-019-09407-9>
- [4] Fleurbaey, M., and D. Blanchet (2013). *Beyond GDP. Measuring welfare and assessing sustainability*. Oxford: Oxford University Press.
- [5] Schokkaert, E., L. Van Ootegem, and E. Verhofstadt. 2011. Preferences and subjective job satisfaction: measuring well-being on the job for policy evaluation. *CESifo Economic Studies* 57, no. 4: 683-714.
- [6] Stiglitz, J., A. Sen, and J.-P. Fitoussi (2009). *Report by the Commission on the Measurement of Economic Performance and Social Progress*. Paris.