

The Importance of Having an Indicator for Vulnerability to Poverty: an Empirical Analysis of Brazilian Metropolitan Areas (2002–2011)¹

by Solange Ledi Gonçalves, Doctoral Candidate, Institute of Economic Research, University of São Paulo

Many studies have cast light on the dynamic character of the poverty phenomenon—poverty cycles propagate themselves, and individuals as well as households both enter and exit a situation of deprivation. However, most anti-poverty policies are based on indicators constructed with cross-sectional data, which simply reflect the situation of individuals at a particular moment. If an anti-poverty policy aims to ensure minimum income and welfare for a family, static measures may underestimate the poverty rate and exclude potential beneficiaries that have frequent deprivation cycles with intervals of non-poverty in between. Thus, efforts to monitor and evaluate programmes geared towards overcoming poverty should be based on dynamic poverty measures and panel data that take into account not only the current poverty situation but also the risk of future poverty. Therefore, studies about vulnerability are important.

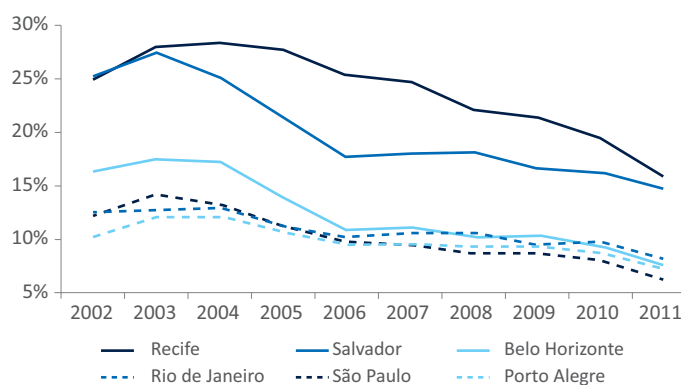
Although there is no theoretical or methodological consensus regarding the concept of vulnerability, the most widespread approach has been employed here, which defines vulnerability to poverty as the likelihood—calculated in the present—of individuals or households undergoing a decrease of their well-being in the future.

The main difference between studies that aim at comprehending the phenomenon of poverty and those that attempt to measure household vulnerability lies in the intrinsic properties of their respective objects of study. The observed level of poverty can be seen as an *ex post* measure of well-being, and is not necessarily a good indicator of a household's expected poverty; it does not allow one to analyse whether currently non-poor households are likely to become poor or whether, alternatively, currently poor households might leave this condition of deprivation in the future. Measures of vulnerability are in turn seen as an *ex ante* assessment of well-being, for they are mainly built to offer future perspectives, as opposed to shedding light on a household's current situation.²

This work estimates the probability, in a given period, of households entering poverty in the subsequent year, based on data from the Monthly Employment Survey (*Pesquisa Mensal de Emprego*, PME) for 2002–2011 (IBGE 2015). A panel database was built with information on the households at two different times, with a 12-month interval between observations. An absolute, administrative poverty line was used—the federal government-defined eligibility threshold for the *Bolsa Família* programme (PBF).³ Estimations were carried out for the six metropolitan regions covered by the survey—Belo Horizonte, Porto Alegre, Recife, Rio de Janeiro, São Paulo and Salvador—and the households' monthly income was used as an indicator of well-being.

The research results indicate that the percentage of vulnerable households in the sample is 13.4 per cent, when non-labour earnings are also considered, and 25.2 per cent when the dependent variable only measures labour income, without imputations. They also reveal a decrease in vulnerability over the period analysed in all metropolitan areas covered by the survey. Regarding regional disparities, it can be seen that most of the vulnerable households are in the metropolitan region of Recife, followed by Salvador. The smallest proportions are to be found

Vulnerability to Poverty by Metropolitan Area, Brazil, 2002–2011 (Total Income)



Source: Author's elaboration, based on data from the PME 2002–2011 (IBGE).

in the metropolitan region of Porto Alegre; nonetheless, there is evidence of regional differences in the factors related to household vulnerability—the decrease was more pronounced in the metropolitan areas of the northeast of the country.

Vulnerability was found to be more prevalent when the head of household was female. The highest percentages of vulnerability were registered for the households whose heads had no formal education or had not finished primary education. The labour market segment of the household heads is also related to the degree of vulnerability—households whose heads are engaged in the informal labour market are proportionally more vulnerable.

Results suggest that public policies set up over the last decade, targeting the reduction of poverty and inequality as well as an increase of the well-being of Brazilian households—such as larger cash transfers (PBF), consecutive increases of the minimum wage, higher employment levels and credit facilitation policies—might have played a vital role in alleviating vulnerability to poverty.

References:

Gonçalves, Solange Ledi. 2015. *Vulnerabilidade das famílias à pobreza: uma análise empírica para seis regiões metropolitanas (2002 a 2011)*. Rio de Janeiro: National Bank of Economic and Social Development (BNDES).

Instituto Brasileiro de Geografia e Estatística (IBGE). 2015. "Pesquisa Mensal de Emprego." Accessed 7 August 2015. <<http://goo.gl/rIM3>>.

Notes:

1. This One Pager is based on the author's Master's thesis, which won the 34th BNDES Economics Prize. For further information, see Gonçalves (2015).

2. For further information about the comparison between poverty measures and vulnerability indicators, as well as for other results about vulnerability to poverty in Brazil, see Gonçalves (2015).

3. As the PBF was only implemented in 2004, for 2002 and 2003 we use the eligibility criteria for the *Programa Bolsa Escola*. These values are corrected on a monthly basis by the National Consumer Price Index (INPC), available at <<http://www.ipeadata.gov.br>>. We highlight the fact that the government readjusted the PBF eligibility criteria in 2007, 2009 and 2014.