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Measuring Economic Insecurity: An Application to Chile

Joaquin Prieto

Although the macroeconomic effects of the financial crisis of the late 2000s, such as the decline in economic activity and the rise in unemployment, affected—with different intensities—all high-income countries, it did not cause significant changes to income inequality or poverty (Jenkins et al. 2013). However, a high proportion of households experienced unemployment, descending income mobility, and sharp falls in their assets all of which contributed to an increase in the perception of economic insecurity (Hacker, 2019; Rohde & Tang, 2018).

Stiglitz et al. (2009) highlighted the importance of measuring economic insecurity to understand how economic risks are related to individuals' well-being and offer social policies with a broader perspective than the one obtained through static measures of poverty and material deprivation. Since then, several authors have proposed measures of economic insecurity that address the stress and anxiety produced by exposure to adverse economic events and the incapacity to face them when they occur. For reviews, see Osberg (2018) and Hacker (2018).

Although a unique definition of economic (in)security has not yet been established (Rohde & Tang, 2018), a comprehensive measure of economic security should account for three elements: i) the household risk of a having an adverse event, ii) the negative economic consequence of that event occurring, and iii) some set of protections such as self-insurance through wealth or unemployment insurance to compensate or prevent the losses (Hacker, 2018). The measures proposed up to now have made use of the available data, mainly from developed nations, that capture the economic insecurity dimensions (usually giving an emphasis to some of them), for instance, the estimation of the probability of economic shocks using data from longitudinal surveys (Hacker et al., 2014; Rohde et al., 2014), or the measurement of households and individual buffers using data from household financial surveys (Balestra & Tonkin, 2018; Bossert & D'Ambrosio, 2013).

In emerging countries, such as Chile, Brazil, Colombia and Mexico, there is a scarce theoretical or empirical discussion on economic insecurity even though a large proportion of the population are exposed to economic shocks that not only generate income losses for the households but also lead them to experience poverty. In the case of the Latin-American region, the social group most exposed to economic shocks has been described as the 'strugglers' (Birdsall et al. 2014) due to

the permanent effort made by this type of household to maintain their income levels. This social group faces high economic insecurity since they have neither sufficient assets to offset an economic shock, nor access to unemployment insurance or compensation in case of dismissal when working in the informal sector. The emergence of this group of households that are vulnerable to poverty in Latin America has been accompanied by a massive increase in access to credit for consumption and mortgages (Matos, 2017). This economic situation increases the risk of over-indebtedness in low-income households (Guérin et al., 2013) In addition, several countries in Latin America are highly vulnerable to natural disasters such as floods, droughts and earthquakes, which cause aggregate shocks to both the assets and income of households living in the affected areas (Baez et al. 2017)

In this paper, I propose a measure of economic insecurity at the household level that can be applied in contexts where: i) inequalities in household wealth are high, ii) the social safety net is limited, iii) indebted households are increasing due to strong credit growth, and iv) the reduction of absolute income poverty rather than relative poverty is the primary concern for policy. In particular, I study the adverse effect on households' well-being of the uncertainty of not being able to cope financially with an unexpected event that triggers an economic loss. I use data from the Chilean Survey of Household Finances (2007, 2011, 2014 and 2017) and build four objective indicators (unexpected economic shocks, unprotected employment, over-indebtedness and asset poverty) for two dimensions of economic insecurity: i) household risk to an unexpected economic event, and ii) lack of household buffers to face an economic shock.

Following the works of Bucks (2011) and Romaguera de la Cruz (2017), I combine these indicators using a multidimensional approach to build an adjusted multidimensional vulnerability rate for Chile called the 'Integrated Economic Insecurity Index' (IEII). This approach has two stages. First, I identify the economic vulnerabilities, and then, I apply an aggregation procedure to integrate the multidimensional information on economic insecurity into a single scalar measure (Alkire & Foster, 2011).

My estimates for Chile between 2007/2017 show high levels of economic insecurity regarding both the risk of an unexpected economic event and the lack of a household buffer to offset a potential loss. More than a third of households were exposed to unexpected economic shocks during this period. The indicators providing information about households' lack of protection reveal that 62.0 per cent were asset poor, 30 per cent had only unprotected workers, and 15.4 per cent faced over-indebtedness. When I combined the measures in the IEII, I found that, on average, about half of Chilean households experienced two or more economic vulnerabilities during the last decade, with an intensity of 2.9 vulnerabilities. The index tracks the GDP growth rate and labour informality rate, which shows its highest levels between 2007 and 2011, before registering a significant decrease between 2011 and 2014, followed by an increase between 2014 and 2017.

My work makes two contributions. First, I use the two components of economic insecurity definition as dimensions of my measure (IEII) related to an unexpected economic event and the household buffer to protect from this potential economic loss. This distinction allows one to understand IEII results comprehensively. In previous research, the focus in terms of the selection of indicators has either been on choosing between subjective and objective indicators or on just one source of economic insecurity. Second, it is the first time that economic insecurity is measured in a Latin-American country, delivering a measure of well-being that contemplates the possibility of future events, which complements the forward-looking measures of vulnerability to poverty used in the region.