Family size, household shocks and chronic and transient poverty in the Philippines

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ABSTRACT

This research is one of the few attempts to analyze chronic and transient poverty in the Philippines. Results indicate that poverty in the Philippines is largely comprised of chronic poverty with households in rural areas and Mindanao regions being the most affected. Using quantile regressions, results show that both chronic and transient poverty are affected by negative shocks to households. Shocks in the labor market such as job loss or income reduction affect chronic poverty while natural disasters such as droughts affect transient poverty. Results also indicate that a higher dependency burden due to a large number of younger children positively affects chronic poverty but not transient poverty. Policy suggestions to lower both types of poverty in the Philippine context are provided.
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1. Introduction

The study of poverty dynamics has been at the forefront of research in recent years. This is due to the increasing awareness among researchers that the formulation of policies for poverty alleviation and eradication can be strengthened using a more dynamic approach. Poverty studies based on cross-section data identify the poor only at a given point in time. It therefore fails to provide information on the chronic and transient poverty experienced by economic units, a better understanding of which may help in formulating more long-run and permanent solutions to poverty reduction. Policies to combat poverty would be different if poverty is a one-time event that affects economic units without any systematic relation to their demographic, economic and social attributes (Jalan & Ravallion, 1998). If poverty is experienced by groups with systematic characteristics on a persistent basis, then poverty alleviation can be directed toward concrete long-term structural objectives such as the provision of infrastructure for human capital accumulation and economic opportunities.

While poverty studies abound, poverty analysis within the dynamic context is limited in developing countries because longitudinal data in these economies are scarce. The only study that has analyzed chronic and transient poverty in the Philippines is Reyes, Tabuga, Mina, Asis, and Datu (2010). This research finds that at least half of the households below the official poverty line are chronically poor. This makes the Philippines an interesting case for further study since chronic poverty in the country has become a major constraint in achieving high levels of sustained growth (Aldaba, 2009).

The Philippines has a long history of battle against poverty. This is reflected on the government's various anti-poverty programs. The Aquino government (1986–1992) had three major programs namely, the Comprehensive Agrarian Reform,

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the Community Employment and Development and the *Tulong sa Tao* (Help the People). Under the Ramos government (1992–1998), the Social Reform Agenda had focused on countryside development by identifying the basic sectors and the twenty poorest provinces. Under the Estrada administration (1998–2001), *Lingap Para sa Mahirap* (Care for the Poor) program had identified the 100 poorest families in each local government unit. The Arroyo administration (2006–2010) had the *Kapit Bisig Laban sa Kahirapan* (Linking Arms Against Poverty Program) which aimed for the improvement of human development services and economic opportunities and for the acceleration of asset reform among others. Despite these, the country still has to achieve its Millennium Development Goal in halving poverty of its 1990 level by 2015. Poverty reduction has been much slower in the Philippines than in neighboring countries such as the People's Republic of China, Indonesia, Thailand, and Viet Nam (Aldaba, 2009).

Given this backdrop, the Philippines will benefit from studies within a dynamic setting since these will aid in the formulation and implementation of programs that more permanently address poverty reduction. This research is motivated to analyze the chronic and transient poverty in the Philippines using the Annual Poverty Indicator Survey and the Family and Income Expenditure Survey collected by the National Statistics Office in the 2000s. Duclos, Araar and Giles methodology is used to compute the national, regional and urban-rural chronic and transient components of poverty. Determinants of chronic and transient poverty at the household level are also analyzed.

2. Review of related literature

While research on poverty dynamics has been carried out in developed countries (Antolin, Dang, & Oxley, 1999; Finnie & Sweetman, 2003; Jarvis, 1997; Jenkins, Schluter, & Wagner, 2003), it still has to flourish in developing economies because of data availability. Studies on poverty in the Philippines abound (Balisacan, 2003a,b; Balisacan & Pernia, 2002; Intal, 1994). However, these studies only identify the poor at a given point in time since these studies use cross-section data. As such, there is no insight on the chronic and transient components of poverty and on the characteristics of economic units experiencing these types of poverty.

The literature on chronic and transient poverty encompasses healthy debates on methodologies. The model-based approach uses the estimation of components-of-variance to derive the probabilities of time sequences of poverty (Duncan & Rodgers, 1991; Lillard & Willis, 1978). The spells approach uses the construction of transition matrix to track down the movement of economic units into and out of poverty and effectively derives the 'distribution of time spent poor' (Devicienti, 2002). Critics, however, have argued that this approach may fail to correctly reflect the transitory poverty since it treats a household with two out of six poverty experiences and a household with five out of six poverty experiences as both transitory poor (Haddad & Ahmed, 2003). At the same time, there can be many households clustered around the poverty threshold that may lead to the transitions that are not economically or socially significant (Antolin et al., 1999). Owing to this, the components approach has been developed. First proposed by Jalan and Ravallion (1998), this approach measures chronic and transient poverty in relation to the intertemporal mean of per capita welfare indicator. In this approach, transient poverty is the variability in consumption relative to the mean welfare indicator overtime while chronic poverty is the poverty that persists in mean consumption overtime. This approach does not identify transient poverty as simply crossing the poverty line such as what is done in spells method. It is possible to find a transient component to the living standards of economic units that are poor at all times. Households that are chronically poor are not always poor in this method.

Using components approach, some studies show that transient and chronic poverty are explained by different sets of factors. Haddad and Ahmed (2003) show that chronic poverty is the dominant type of poverty in Egypt and identify the average years of schooling of adults, number of children under 15 and household size as factors affecting both types of poverty. The effect of these factors on chronic poverty is stronger. In addition, employment in manufacturing, community and recreational and other nonfarm sectors reduce total and chronic poverty. Jalan and Ravallion (2000) find that both chronic and transient poverty in rural Southern China are lowered through higher physical capital accumulation. Factors such as higher foodgrain and better educated households reduce chronic but not transient poverty. McCulloch and Baulch (2000) show that households with rainfed land and with less educated household male members experience higher income variability in rural Pakistan.

To date, the only paper that has used panel data to analyze chronic and transient poverty in the Philippines is Reyes et al. (2010). This paper has tracked down entry to and exit from poverty. Educational attainment of the household head, family size and percentage share of agriculture in total household income are identified as factors of household's entry into and exit from poverty.

Due to the availability of recent methodologies and data, there is a need to update the analysis of chronic and transient poverty in the Philippines. The importance of further research on chronic poverty in the country from a policy perspective is also highlighted in Aldaba (2009), who finds that chronic poverty in the Philippines has become a major constraint in achieving high levels of sustained growth and highlights the importance of additional research on chronic poverty.

3. Data and preliminaries

3.1. Data sources and samples

The datasets to be used are the Annual Poverty Indicator Survey (APIS) in 2004, 2007 and 2008 and the Family Income and Expenditure Survey (FIES) in 2003 and 2006 collected by the National Statistical Office (NSO) in the Philippines. APIS and FIES