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Discussion Paper 152

Income Diversification in Zimbabwe: Welfare Implications From Urban and Rural Areas

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In the early 1990s, Zimbabwe began a structural adjustment program that involved deregulation of the domestic economy, less restrictive trade policies, and reductions in public spending aimed at promoting sustainable economic growth. At the same time the country was hit by severe droughts, which complicated the economic reforms, as the majority of the country's population depends on agriculture for its livelihood. As a result, indicators of well-being fell drastically for both rural and urban households. Concerns have been raised over the social costs of structural adjustment programs, particularly for the poor, who are disproportionately hurt by short-run financial volatility and economic downturns. However, attributing these outcomes solely to policy change and droughts can be misleading, as individuals, households, and communities may have aggravated or lessened these impacts as they tried to cope.

Purpose of This Paper

This paper examines the role of income diversification as a livelihood strategy and its role in mitigating the adverse effects of the financial and weather shocks that hit Zimbabwe in the early 1990s. It introduces a measure of income diversification that lends itself to urban-rural comparison. It also examines changes in income diversification before and after economic shocks and tests the effectiveness of income diversification as a risk mitigation strategy.

Income Diversification as a Livelihood Strategy

Natural and policy-induced risks are facts of life for many people all over the developing world. A number of studies have explored the strategies employed for risk management in developing countries where insurance and credit arrangements are weak or nonexistent. Such studies show that most households generally have smoother consumption than income as well as smoother income than what a risk-neutral agent would achieve. People insulate their consumption from income fluctuations in different ways, from informal community risk sharing to participating in insurance and credit markets when such opportunities exist. Households also use income diversification for ex ante risk management or to cope with shocks. Most households in developing

countries avoid an extended period of dependence on only one or two sources of income and rarely derive the bulk of their income from a single source. This study attempts to extend the empirical literature on livelihood base diversification to urban and rural areas.

Data and Descriptive Statistics

This paper uses comparable cross-sectional data from national Income, Consumption, and Expenditure Surveys (ICES) in 1990-91 and 1995-96, and time-series rainfall data (1951-1996) from 113 representative weather stations located throughout Zimbabwe. Zimbabwe ICES were based on representative samples comprising both urban and rural sectors of the country. The surveys contain data on sociodemographic characteristics, incomes from various sources, consumption and other expenditures.

The second source of data for this study is time-series rainfall information for Zimbabwe from 1951-1996. Season- and region-specific rainfall variables were created from 113 representative weather stations collected by the Meteorological Office of Zimbabwe. Three basic rainfall variables representing different cropping seasons were used, allowing accounting for seasonal variations in observed rainfall.

Measuring income diversification. To improve the comparability between urban and rural areas, this paper proposes a relatively easy-to-measure diversification index: the number of income sources per capita (NYSPPC). Pursuit of more than one income source may arise from

Households with a more diversified income base are better able to withstand the unfavorable welfare impacts of financial and weather shocks.

the need to reduce income risk emanating, for instance, from macroeconomic policies that result in job losses due to shrinkage of public-sector employment, which may have been the case in Zimbabwe in the 1990s. The number of income sources allows studying of income diversification

behavior in urban areas, thus facilitating urban-rural comparison.

The second measure of income diversification takes into account the variations in the income shares from different sources. It is an index that measures the degree of concentration (scattered-ness) of household income into various sources; and it thus measures the level of income diversification.

Descriptive analysis and comparison of the two cross-sections. Between 1990 and 1995, there is a greater reliance on informal sources of income in both urban and rural areas. Reliance on government and parastatal incomes declined. In urban areas, private (formal and informal) income sources increased in importance, while public (government and parastatal) income sources declined. This probably reflects the retrenchment component of economic adjustment. Agriculture declines in importance in rural areas, reflecting the drought and the reduced food demand from urban areas. The importance of nonfarm income sources such as informal wage employment increased in rural areas. Meanwhile, in urban areas, the contribution of incomes from urban agriculture (mainly from fruit and vegetable production) increased.

Results and Conclusions

This study examines the role of household income diversification in weathering away some of the adverse effects of two shocks in Zimbabwe, structural adjustment and drought. It uses two national surveys that straddle a period of macroeconomic and weather shocks.

Before the shocks, per capita consumption expenditures varied positively (negatively) with the degree of income diversification for rural (urban) households, implying that multiple income sources are pursued mainly by the poor in urban areas and by the rich in rural areas. The urban poor commonly engage in temporary, seasonal, and informal-sector jobs, and they are thus more vulnerable to risk factors such as weather and policy changes.

In general, the results suggest different motives for diversification in urban and rural areas. While in urban areas diversification is driven more by survival than wealth accumulation motives, in rural areas diversification serves both as a means of wealth accumulation and protection from shocks.

Following the shocks, there were marked changes with regard to the role of income diversification on welfare as well as the factors affecting diversification, especially in urban areas. Unlike before the shocks, income diversification is positively and significantly associated with per capita consumption expenditures in urban areas. The positive impact of income diversification on consumption has significantly increased in both urban and rural areas. The observed changes in urban areas suggest that the urban rich also engage in income diversification as a coping strategy when faced with shocks.

A decomposition of changes in welfare indicates that the total contribution of income diversification is large and increased between 1990/91 and 1995/96 in both urban and rural areas. On the other hand, there were significant declines in returns to human and physical capital assets during the same period.

The findings suggest that households with a more diversified income base are better able to withstand the unfavorable impacts of the policy changes and weather shocks. The fact that relatively better-off households have a more diversified income base following the shocks implies that the poor are more vulnerable to economic changes unaccompanied by well-designed safety nets.

Keywords: Zimbabwe, income diversification, weather, adjustment

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