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Who Should Diversify? Income Portfolios and Household Welfare in Rural Uganda

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Abstract

Rural households are increasingly diversifying their income portfolios away from agriculture, raising an intensive debate on whether income diversification can foster pro-poor growth and contribute to rural development in sub-Saharan Africa. While the impact of income diversification on household welfare has been extensively studied in the literature, insights on possible heterogeneous effects are scarce. The question of who should diversify has hardly been addressed. In this paper, we provide empirical evidence on the heterogeneous welfare effects of income diversification from the Mount Elgon region in rural Uganda. We use household survey data from two panel rounds in 2014 and 2016, to compare income, poverty and vulnerability dynamics for slightly diversified, moderately diversified and highly diversified households. We apply fixed and random effects regressions to estimate the average welfare effects of income diversification. We estimate heterogeneous effects using panel quantile regressions to address heterogeneity related to the outcome indicators, and use a large set of interaction terms to address heterogeneity related to the explanatory variables. In addition, we attempt to identify causality between income levels and income diversification by exploiting the panel nature of the data. In general we find that income diversification is related with higher per capita incomes, a lower propensity to be poor and reduced vulnerability. Causality is found to run in both directions but with the positive effect of diversification on income being much stronger than the effect of income on income diversification. In particular, we find that with an increase of 10 points in the Simpson index of diversification, per capita income increases with 20.8 % for households in the lowest income quantiles and 9.6 % for households in the highest income quantiles; and the likelihood of being vulnerable reduces with 6.9 % for the lowest vulnerability quantile and with 5.1 % for the highest vulnerability quantile. In addition, we find that the welfare increasing effect of income diversification is larger for larger and younger households with smaller landholdings. Our findings imply that diversified income portfolios can significantly improve household welfare and reduce household vulnerability to income poverty.

Keywords: Income diversification, panel quantile regressions, poverty, Uganda, vulnerability

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