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Risk Sharing and Transactions Costs: Evidence from Kenya's Mobile Money Revolution

By William Jack and Tavneet Suri

We explore the impact of reduced transaction costs on risk sharing by estimating the effects of a mobile money innovation on consumption. In our panel sample, adoption of the innovation increased from 43 to 70 percent. We find that, while shocks reduce consumption by 7 percent for nonusers, the consumption of user households is unaffected. The mechanisms underlying these consumption effects are increases in remittances received and the diversity of senders. We report robustness checks supporting these results and use the four-fold expansion of the mobile money agent network as a source of exogenous variation in access to the innovation. (*JEL* E42, G22, O16, O17, Z13)

In developing countries, informal networks provide an important means by which individuals and households share risk, though the insurance they provide is often incomplete. Economists have proposed a number of reasons for this incompleteness, including information asymmetries, which manifest in problems of moral hazard, and limited commitment, both of which induce positive correlations between realized income and consumption. In this article we emphasize a complementary source of incompleteness: transaction costs—literally, the costs of transferring resources between individuals. We test the impact of transaction costs on risk sharing by analyzing data from a large panel household survey that we designed and administered in Kenya over a three-year period to capture the expansion of "mobile money." This financial innovation has allowed individuals to transfer purchasing power by simple short messaging service (SMS) technology and has dramatically reduced the cost of sending money across large distances.

Mobile money is a recent innovation in developing economies—one of the first and most successful examples to date is Kenya's "M-PESA." In just four years after its

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