Credit's limited impact on smallholder farm profitability

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Increasing access to traditional microcredit has had limited impacts on smallholder farmers' profitability in randomized evaluations in developing countries. Demand for new offers of credit was low, ranging from 17 to 33 percent, and even when farmers used traditional credit products to invest in new technologies and practices they rarely experienced increased profits.

Women working with argan fruit in Morocco. Photo: danm12 | Shutterstock.com

Summary

Farmers in developing countries often experience low productivity. For example, while cereal yields in the United States exceeded 7.5 metric tons per hectare in 2014, yields in sub-Saharan Africa were less than 1.5 metric tons per hectare [1]. Smallholders may be constrained from making optimal investments because they either do not have access to capital or do not have access to it at the right time. In theory, credit could help farmers make investments in inputs and other technologies by freeing up cash when needed.

A review of nine randomized evaluations that expanded access to credit for smallholders in developing countries showed that a majority of farmers—upwards of two-thirds—did not utilize new sources of credit when offered to them. In most of these settings, other credit products already existed in the area but were not commonly used by smallholders. Four randomized evaluations also measured the impact of access to capital on farmer profitability or farm income. While farmers who used credit invested in more productive technologies and practices, this did not increase their profits with the exception of one case. These results suggest that credit is not the primary constraint that farmers face to increase their profitability. Tailoring products to agricultural contexts may be one way to improve credit, but more research is needed to identify designs that facilitate use and

increase profits.

Supporting evidence

One reason that formal credit products had a low impact was that smallholders did not use them. In particular, the repayment terms of traditional microcredit products are not well designed for rural, agricultural contexts. Repaying loans on the rapid, regular schedule required by traditional microcredit is difficult for farmers—who earn income primarily at harvest time, once or twice per year. Moreover, microcredit often relies on group liability, in which a group of borrowers jointly holds responsibility to repay one another's debt. The risk of bad weather, which could affect many farmers in an area, undermines the ability of farmers' to repay another farmer's default. Together, this mismatch between microcredit borrowing terms and farmers' credit needs can dampen farmers' interest in using these products. In studies in Mali, [2], , Malawi, [3], , andMorocco, [4],only between 17 and 33 percent of eligible farmers took up the loans that they were offered.

When they helped farmers overcome a lack of cash, financial products enabled smallholders to invest more in productive technologies and practices. Households who took up loans in Morocco invested more in agriculture and animal husbandry [4], . In Ethiopia, , microcredit increased crop-related expendituresby ETB 154 (US$68), an 83 percent increase[6], . In Zambia, , loans timed to provide farmers with cash or food between harvests allowed smallholders to work 23 percent less on others' farms for cash and hire labor to work on their own land [7].

Using credit products to invest in more productive technologies and practices rarely increased smallholders' profits or income, suggesting that lack of access to credit is not the main barrier to improving their profitability. In Mali, loans increased the value of farm outputs but did not increase profits [2], . In Morocco, while credit increased income from agriculture, households' overall income did not increase because they chose to work (and earn) less from casual labor once they started earning more from agriculture [4], . In Kenya, , offering a bundle of credit and services to support exporting encouraged more farmers to grow crops that sell at higher prices but did not result in income gains [8].

Tailoring products to agricultural contexts can improve the take-up and impact of credit. For example, smallholders' income and input expenses are concentrated at harvests and planting seasons. Timing credit offers and repayment requirements to account for these seasonal patterns can help encourage take-up and investment. In Kenya, , loans were offered at the time of harvest to encourage farmers to sell when prices were highest, and 64 percent of farmers took up the loan offer [9], . In Zambia and Mali, lenders allowed farmers to delay repayment of a loan until after the harvest.In Zambia, in each of the two years offered loans, 98 percent of households opted to borrow, and agricultural output rose by 8 percent[7], .In Mali, smallholders who were offered loans repayable after harvest invested US$20 (11 percent) more in inputs in the first year [2].

Other strategies to tailor credit products could include flexible collateral arrangements. In Kenya, a dairy cooperation extended asset-collateralized credit offers, to smallholders to purchase a water tank, and loan payments were deducted from milk sales. If borrowers failed to repay, the cooperative would repossess the tank [10], . Under the most flexible terms, 44 percent of farmers borrowed, whereas 2.4 percent of farmers took up a loan under the strictest terms. Another flexible collateral arrangement allowed smallholders to use stored crops to secure a loan. In Kenya, farmers who were offered storage loans, timed to the agricultural cycle, in which credit is backed by stored crops, increased their annual profits by KSH 1548 (US$18) by taking advantage of price fluctuations [9], . However, storage loans in Sierra Leone had no effects on profits, likely in part because farmers were reluctant to break existing relationships with traders and struggled to predict price changes [5].

The higher take-up rates and evidence of changes in production decisions suggest that credit tailored to the agricultural cycle may support smallholders' investments more effectively than traditional credit products. More research is needed to develop and test credit product designs that fit smallholders' borrowing needs with respect to timing of offers, repayment structures, and collateral

agreements.

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