Research Brief

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Financial Inclusion and Resilience to COVID-19 Economic Shocks: Evidence from Kenya, Nigeria, and Uganda

I. Introduction

The impacts of the COVID-19 pandemic—including the impacts of the disease itself and of policy responses taken to reduce disease transmission—on the well-being of poor households around the world are expected to be wide-ranging. The International Monetary Fund estimates that the global economy has contracted by around 4.4 percent since the onset of COVID-19 and that the total price tag of the epidemic will eventually amount to 11 trillion dollars (International Monetary Fund 2020). Initial analyses suggest that the brunt of this economic hardship has been borne by large developed economies and that low- and middle-income countries are less affected by the global downturn (Goldberg and Reed 2020). However, global poverty experts have long noted that country-level economic statistics can fail to reflect the lived experience of lower-income people in developing countries (Deaton 2003). The World Bank predicts that those most affected by the COVID-19 economic crisis are likely to be engaged in the informal service sector and living in congested urban areas affected by social distancing and mobility restrictions (World Bank 2020).

One review of available survey data examined the effects of COVID-19 on household finances in 16 surveys from 9 low- and middle-income countries; researchers found widespread decreases in household income and corresponding increases in food insecurity (Egger et al. 2021). Among the survey samples considered, researchers found a median of 70 percent of households reporting lost income and a median of 31 percent reporting reduced access to markets. A median of 45 percent of households were experiencing some level of food insecurity. Researchers also noted reductions in non-food consumption and reduced access to health care. A recent study by the World Bank (Amankwah and Gourlay 2021) in several Sub-Saharan African countries found high rates of food insecurity since the beginning of the pandemic; in Nigeria, they found that food insecurity had increased by more than 50 percent and severe food insecurity had more than doubled.

Financial inclusion (FI) can bolster low-income households' resilience and reduce their vulnerability to economic shocks, such as those related to the pandemic. A joint 2019 report from the Consultative Group to Assist the Poor and the World Bank synthesizes research on the impact of FI interventions on the well-being of low-income people. They conclude that increasing access to financial services can reduce the vulnerability of poor people to economic shocks, among other benefits. The report refers to the importance of financial services such as credit and insurance to help poor households maintain liquidity and smooth consumption after a major shock (El-Zoghbi et al. 2019). A 2018 focus note examined the specific application of digital financial services (that is, "mobile money") in humanitarian crises, concluding that digital financial services could be effective in many contexts but have some clear drawbacks compared to cash benefit programs (Gurung and Perlman 2018). A 2019 report from Innovations for Poverty Action reported similar findings around the effects of financial services in increasing resilience to economic shocks for low-income families. The authors also note, however, that

there is not yet consensus on the most effective suite of services to offer these families (Moore et al. 2019).

To generate timely data on how the COVID-19 pandemic has affected household livelihoods and other economic outcomes, the Bill & Melinda Gates Foundation has sponsored a high frequency telephone survey incorporating a large sample across seven countries in Sub-Saharan Africa. FinMark Trust has been implementing the effort in collaboration with GeoPoll. This research brief and its analysis leverages this unique COVID-19 tracking survey data to generate critical learning for the foundation as well as policymakers and practitioners.

This analysis examines whether and how FI may help mitigate the effects of the COVID-19 pandemic on households' economic behavior and well-being. We examine whether households' FI status is associated with households' reported economic behaviors and outcomes. We also examine results disaggregated by gender and by rural compared with urban location. With the phone survey data having been collected monthly for multiple months across multiple countries during the pandemic (April through October), the survey provides a unique opportunity to assess how the influence of FI on economic outcomes evolved over time and helped households cope better with the pandemic.

II. Research Questions and Methodology

This study uses data from the COVID-19 tracking survey to address the following research questions:

1. How have financial service use, receipt of assistance, sources of funds, and economic shocks evolved over the course of the pandemic?
    a. What is the minimum payment that different types of households would accept to stay home to reduce the spread of COVID-19?
2. Did the household economic outcomes differ by FI status?
    a. How did FI correlate with household employment, earnings, and other financial outcomes during the pandemic?
    b. How did FI correlate with household receipt of public assistance during the pandemic?
    c. How did FI correlate with households' food security and vulnerability during the pandemic?
3. How did economic outcomes evolve over time for households depending on FI status?
4. Did the influence of FI on household economic outcomes vary by the gender of the main earner in the household?

To answer our research questions, we rely on cross-sectional high-frequency data collected in Kenya, Nigeria, and Uganda between April and October 2020 (Table 1). The survey used computer-assisted telephone interviewing to interview mobile phone owners in these countries. We chose these countries because the COVID-19 tracking survey was launched around the same time in April 2020 in all three countries, and we have the highest-quality data from the most waves of the survey from these three countries.

Table 1. Survey wave dates by country

	Mid-April	Late April – early May	Late May – early June	Mid-June	Mid-July	September
Kenya	4/8–17	4/27–5/8	5/22–29	6/10–22	n.a.	9/4–20
Nigeria	4/8–17	4/27–5/8	5/26–6/3	6/9–17	n.a.	8/29–10/15
Uganda	n.a.	4/29–5/8	5/28–6/3	6/9–21	7/13–20	9/9–17

Source: FinMark Trust 2020

n.a. = not applicable.

Because only mobile phone owners were eligible for the survey, the sample is nonrepresentative. The sample is also nonrandom, relying in part on a convenience sample of likely responders, meaning that we must rely on external population data to create nationally representative estimates. To address coverage problems associated with phone-based surveys—including bias arising from sampling bias and low response rates—we rely on multilevel regression with poststratification (MRP), a state-of-the-art approach for creating representative estimates from a nonrepresentative sample by bringing in external reference data from large population surveys. We have successfully applied MRP to similar analytic questions with ongoing analytic support to FinMark Trust. This approach enables us to generate estimates with improved reliability and representativeness, particularly for subgroups of interest such as female-headed households or rural households.

MRP is a model-based method for obtaining estimates for a target population based on a nonrepresentative sample. Though it is relatively new compared to more traditional weighting methods such as raking, it has gained popularity over the past 10 to 15 years (Ghitza and Gelman 2013; Gelman et al. 2017). MRP begins by selecting a set of variables to use for statistical adjustment, in this case relying on household-level demographic variables from the Demographic and Health Survey (DHS). The variables included, and their summaries in each country, are presented in Table 2 (the adjustment also includes region and language, which are not summarized in the table because they vary by country). The process then subdivides the population into "cells" based on their precise combination of these variables. The goal of MRP is to estimate the mean outcome in each of these cells using a multilevel regression model, and then take a weighted average of these cell-specific estimates according to how frequently each cell occurs in the target population (a procedure known as poststratification).

Table 2. Summaries of household-level adjustment variables

	Kenya	Nigeria	Uganda
Female household head (percentage)	32.6	18.3	31.8
Rural (percentage)	58.3	53.0	74.8
Household size (mean)	4.0	4.8	4.8
Number of children in household (mean)	0.6	0.8	0.9
Number of household members over age 60 (mean)	0.2	0.2	0.2
Uses electricity/gas/kerosene/coal for cooking (percentage)	24.3	31.0	28
Household has a TV (percentage): Kenya and Nigeria	34.7	49.6	n.a.
Household has a flush toilet (percentage): Uganda	n.a.	n.a.	2.9

Source: Demographic and Health Surveys (DHS) data, available at https://dhsprogram.com/.

n.a. = not applicable.

To estimate the mean outcome (and variance) within each cell, we fit a Bayesian multilevel regression model (Gelman and Hill 2006). The predictors in the model are the variables that define the poststratification cells. We also include two-way interactions between all poststratification variables. We use a hierarchical prior structure that promotes borrowing of strength across related cells. This allows us to obtain accurate estimates for cells that have little or no observed sample, by borrowing information from other cells that have similar values of the poststratification variables.

MRP tends to provide similar estimates to raking at the level of the target population, and better estimates for subgroups (in terms of lower root mean squared error). It also provides more realistic uncertainty intervals, which consider both the sampling error as well as the uncertainty in the statistical adjustment. Estimates from MRP are also more stable (lower variance) than estimates from more traditional methods such as raking. Additionally, the hierarchical priors allow for the inclusion of more demographic predictors as well as interactions between demographic predictors, which can improve representativeness of the ultimate estimates. However, the primary limitation of MRP is computational complexity: a separate model needs to be fit for each outcome of interest, and each of these models is more computationally complex than the simple raking model. Thus, it requires time and expertise for setting up, testing, and running each model. For this project, we fit all MRP models using Stan, a probabilistic programming language designed for Bayesian inference (Stan Development Team 2016). For the overall population estimates, the estimates from the multilevel model are poststratified to match the entire adult DHS. For subgroup estimates, the estimates from the model are poststratified to match a subset of the DHS—for example, the rural estimates are based on the rural subset of the DHS.

A key focus of this report is to produce subgroup estimates based on FI status. Because the FI indicators we use from the survey do not have analogues in the DHS, our subgroup estimates based on FI rely on a *data fusion* procedure that we developed in our research collaboration with FinMark Trust on gender and FI (Gellar 2020). The key to our procedure is to recognize that estimating the outcome among households that are financially included is simply a change in the target population from all households in the country to just those who are financially included, and in MRP the information about the target population is encapsulated in the poststratification weights. Thus, we will be able to obtain our estimates if we simply change the definition of our poststratification weights from the proportion of the entire country that falls within each poststratification cell to the probability that financially included households fall within that poststratification cell. We can estimate the probability that a financially included household falls within the poststratification cells by fitting a multilevel regression model to estimate the relationship between FI and the demographic variables (for full details of this procedure, see the appendix of Gellar et al. 2020). A key assumption of this procedure is that the outcome variables we examine are independent from FI within each poststratification cell, meaning that we only capture the relationship between the outcome variables on FI via the relationship of each with the demographic variables.

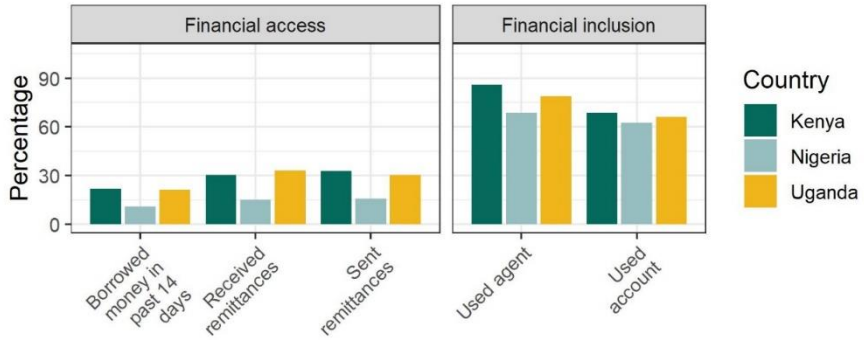
The analysis relies on a proxy for household FI status to establish how FI is associated with household outcomes during the pandemic. Because the COVID-19 tracking survey doesn't include a direct question on ownership and access to bank and mobile money accounts, we identify household FI status by using a question on whether fees charged by banks and mobile money agents have changed to identify respondents who use those services, and define those respondents as financially included. The response options include an increase, decrease, and no change in fees, so our definition will include respondents who report a change or no change and exclude those who report not using those services.

MRP produces estimates that account for uncertainty, and that uncertainty is expressed by *posterior probabilities* that describe the range of possible values for a given estimate. A posterior probability can be interpreted as the probability, given all the available information, that a certain outcome is different from a particular value or another outcome. For example, a posterior probability of 0.80 in the difference between outcomes for two groups can be interpreted as an 80 percent chance that the outcome is different for the two groups. It is important to note that the goal of MRP is to produce representative estimates, rather than isolating the effect of demographic characteristics. For example, our results broken down by FI bring in differences in demographic variables by FI status. Because those who are financially included are a self-selected group and we are unable to account for self-selection, our analysis results should be viewed as correlational, not causal.

III. Results: Economic Activities, Shocks, and Coping Mechanisms

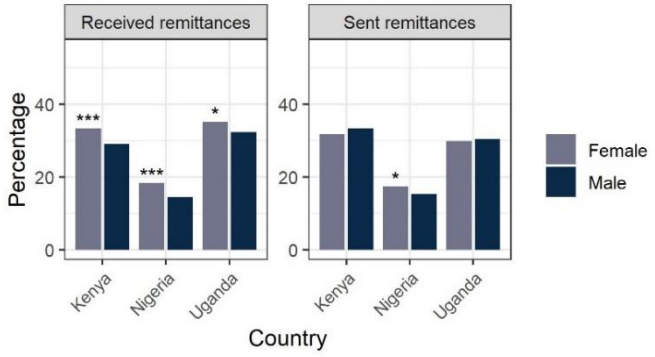
Most households in all three countries use a variety of financial services, with a majority using money agents or financial accounts (Figure 1). Nearly one-third of households in both Kenya and Uganda sent or received remittances, with approximately half as many households doing so in Nigeria. Borrowing was less common, with approximately 20 percent doing so in Kenya and Uganda and 10 percent in Nigeria. Rates of FI were high, with between 62 and 69 percent reporting having used an account in the past 30 days and between 69 and 86 percent reporting having used a money agent before March 1.

Figure 1. Financial access and financial inclusion



Source: FinMark Trust 2020.

Figure 2. Remittances by sex of household head



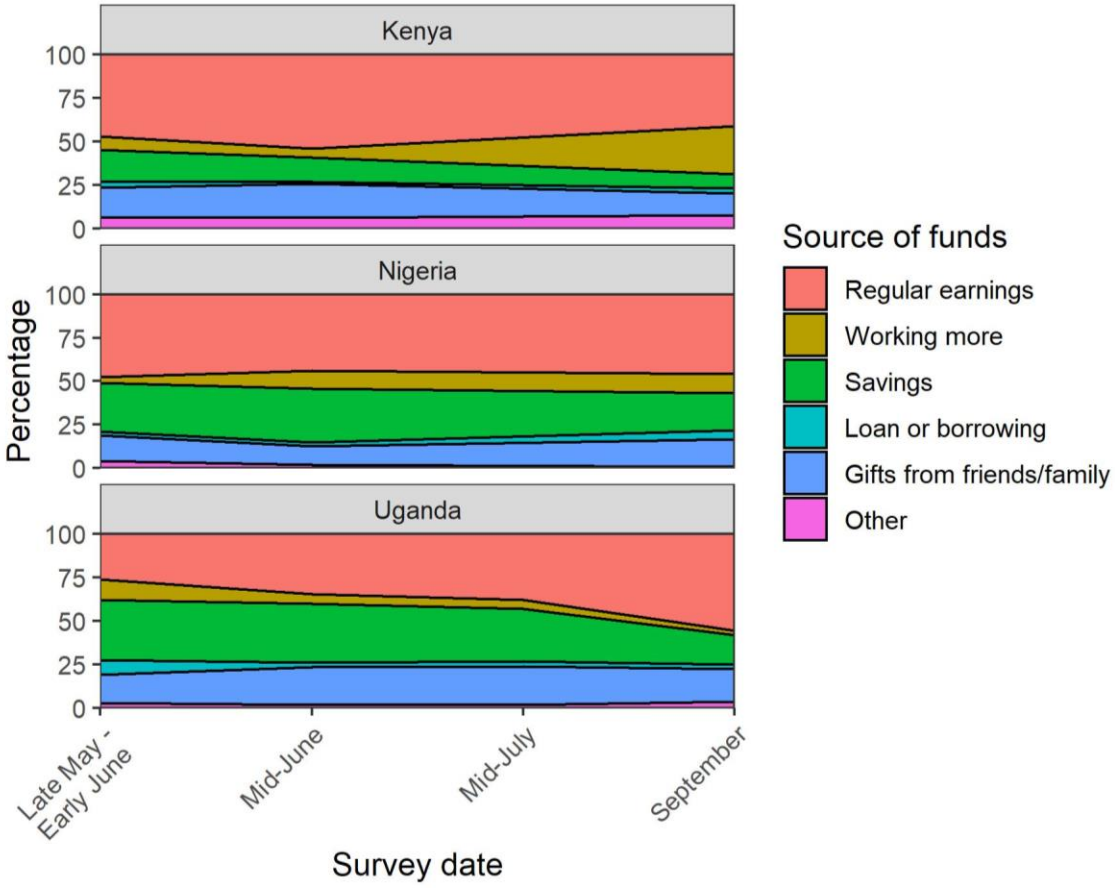
Source: FinMark Trust 2020.

Female-headed households were more likely to send and receive remittances in Nigeria and more likely to receive remittances in Uganda (Figure 2). Urban households had higher levels of financial services use than rural households: these households were more likely to use money agents and to send remittances in all countries, and were more likely to have used a financial account in the past 30 days in Kenya and Nigeria. The results did not show any clear trends in financial services use over time, showing that as the pandemic and its effects continued over time, households' financial behavior did not change.

One indication of households' financial status is the source of funds they rely on for their living expenses. Households rely on a variety of sources of funds during this time (Figure 3). The primary source

of funds changed somewhat over time in some countries. Kenyan households were more likely to work more as the pandemic went on. In Uganda, relying on regular earnings increased over time, whereas relying on savings decreased.

Figure 3. Primary source of living expenses



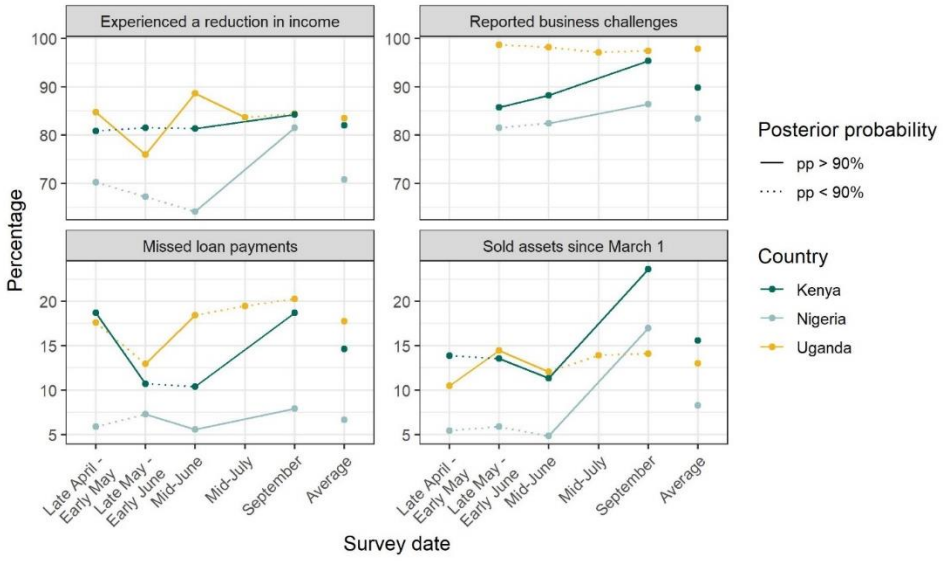
Source: FinMark Trust 2020.

Sources of funds for living expenses varied by population subgroup as well. Rural households were more likely to rely on gifts from family and friends in all countries. In Nigeria, male-headed households were more likely to rely on regular earnings, whereas rural households were more likely to rely on working more and less likely to rely on savings.

A. Economic shocks

Households experienced substantial economic shocks in all three countries (Figure 4). This figure shows the share of households reporting each outcome. The solid lines represent a change over time between two waves with a posterior probability of at least 90 percent. In other words, a solid line for a given outcome between wave 1 and wave 2 can be interpreted to mean that we can be 90 percent confident that the level of that outcome was different in wave 2 than it was in wave 1. A dotted line indicates that we cannot be confident that the outcome changed between those two waves.

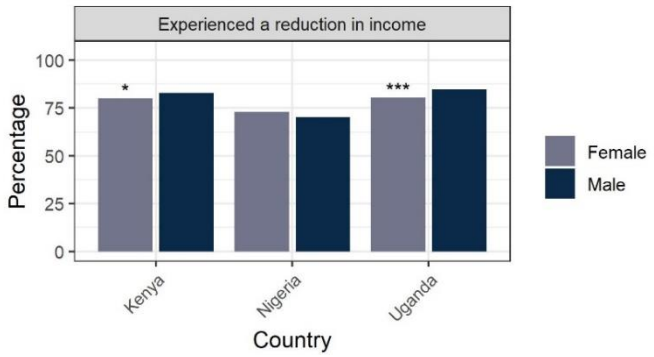
Figure 4. Financial insecurity measures over time



Source: FinMark Trust 2020.

Female-headed households were less likely to have reduced income in Kenya and Uganda (Figure 5). Rural households were more likely than urban households to have reduced income in all countries. Female-headed households were more likely to have business challenges and less likely to sell assets in Nigeria. In Kenya, urban households were more likely to miss loan payments and less likely to have sold assets. Rural households were more likely to have business challenges in Kenya but were less likely to in Nigeria.

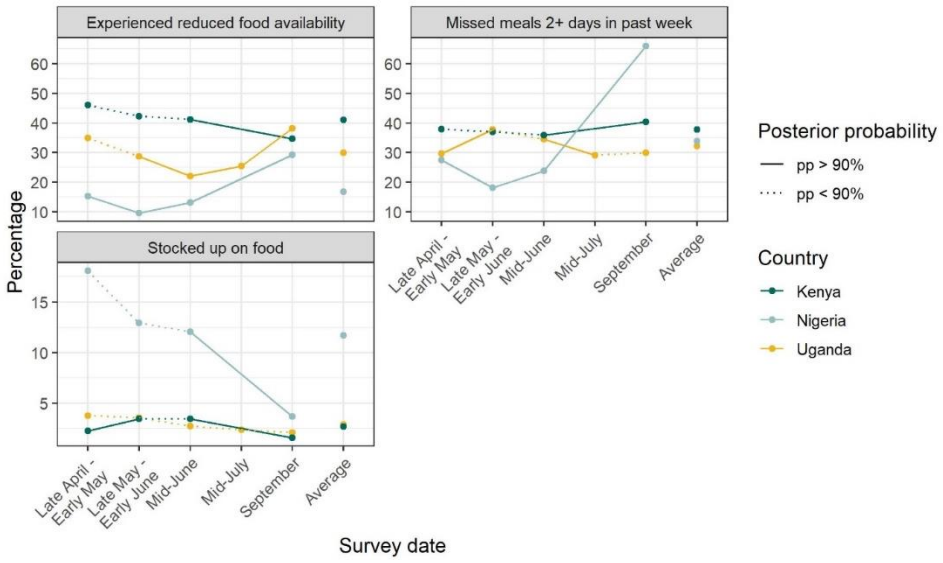
Figure 5. Percentage reporting a reduction in income by sex of household head



Source: FinMark Trust 2020.

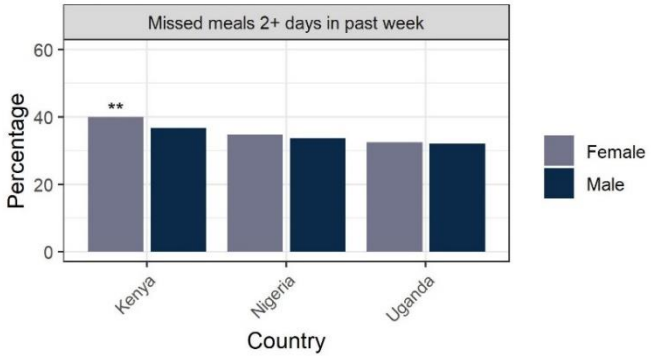
Food insecurity was also high in all three countries (Figure 6). Between 10 and 45 percent of households reported reduced availability of food, whereas between 18 and 65 percent reported that someone in their household had skipped meals on at least two days over the past week. Stocking up on food was not very common in any country and appears to have decreased somewhat, particularly in Nigeria, as the pandemic went on. There is some evidence that skipping meals increased over time in Kenya and Nigeria, suggesting increased hardship for families as the effects of the pandemic wore on.

Figure 6. Food insecurity measures over time



Source: FinMark Trust 2020.

Figure 7. Percentage reporting skipping meals at least two days last week by sex of household head



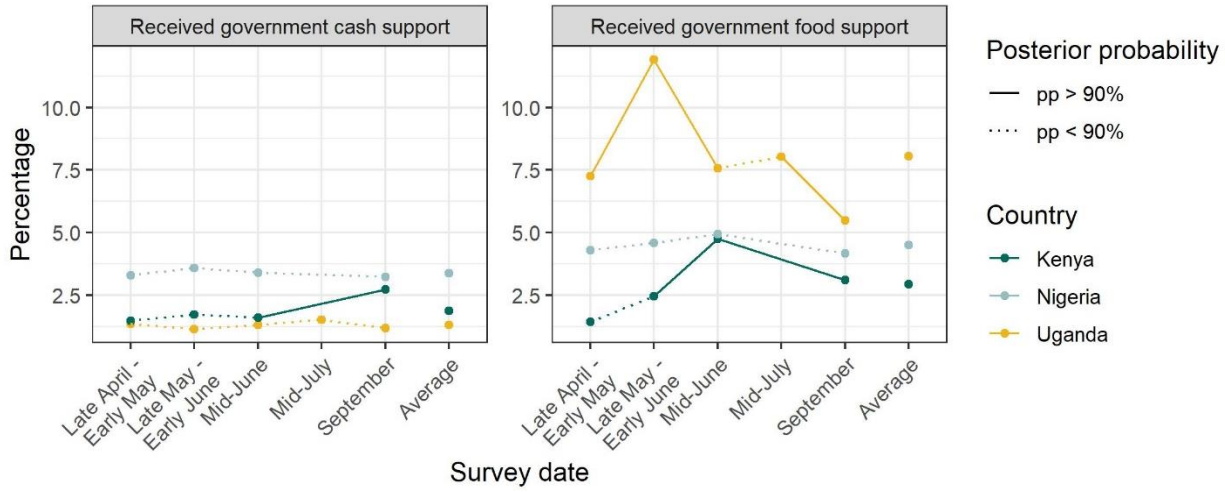
Source: FinMark Trust 2020.

Female-headed households were more likely than male-headed households to report that someone in the house had skipped meals at least two days in the past week (Figure 7). Skipping meals was more common in rural areas in Kenya and Uganda. Urban households were more likely to stock up on food and more likely to report reduced food availability in Kenya and Nigeria. Female-headed households were more likely to stock up on food in Uganda but not in the other two countries.

B. Supports for households to cope with shocks

Few households have received any government support (Figure 8). Male-headed households in Nigeria and female-headed households in Kenya were more likely to receive both types of support. Urban households were more likely to receive both types of support in Uganda, but less likely in Nigeria.

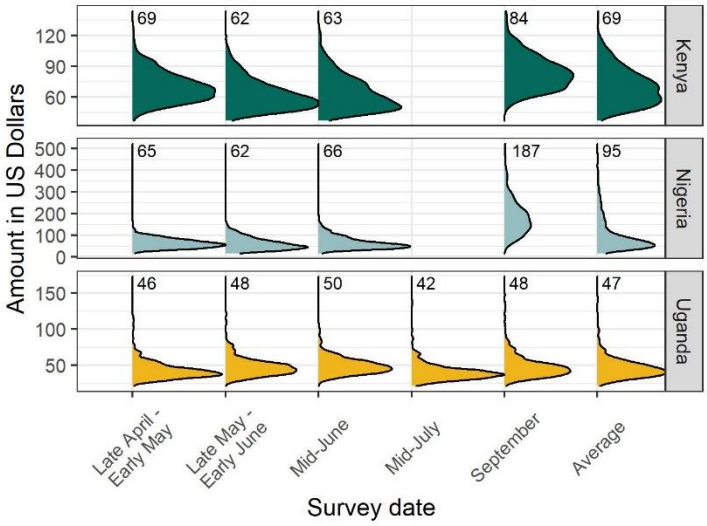
Figure 8. Percentage reporting receipt of government support



Source: FinMark Trust 2020.

Because asking people to stay at home is a key component of controlling the spread of the virus, a possible policy response to control the pandemic is to pay people to stay home. Our survey asked respondents, "If the government or an NGO was to give you money to stay home and avoid leaving your home or property for the next 7 days, what is the least amount of money . . . that you would accept to do this?" (Figure 9). The average minimum amount respondents stated they were willing to accept ranged from $47 in Uganda to $95 in Nigeria. The average amount increased slightly over time in Kenya and Nigeria, which could be an indication that people are doing better financially and thus require a larger payment to stay home because of higher opportunity cost of time. The increase could also indicate COVID fatigue over time, leading to people stating a higher minimum amount that they would require. The variance across the population also increased over time in Kenya and Nigeria. This increased variance could lead to increasing uncertainty about the appropriate amount a country should choose if implementing such a policy.

Figure 9. Minimum payment required to stay home for seven days



Source: FinMark Trust 2020.

Urban households and, in Kenya and Uganda, male-headed households require higher payments to stay home for seven days (Table 3). This finding is consistent with the possibility that those who are better off financially require a larger payment to stay home because of higher opportunity cost of time.

Table 3. Amount household would accept to stay home for seven days (US dollars)

	All	Female-headed	Male-headed	Rural	Urban
Kenya	69	67	71**	63	78***
Nigeria	95	99	94	89	102***
Uganda	47	41	49**	43	56***

Source: FinMark Trust 2020.

Notes: Results are pooled across all survey waves, and MRP-adjusted. Survey question asked: "If the government or an NGO was to give you money to stay home and avoid leaving your home or property for the next 7 days, what is the least amount of money, in (local currency), that you would accept to do this?"

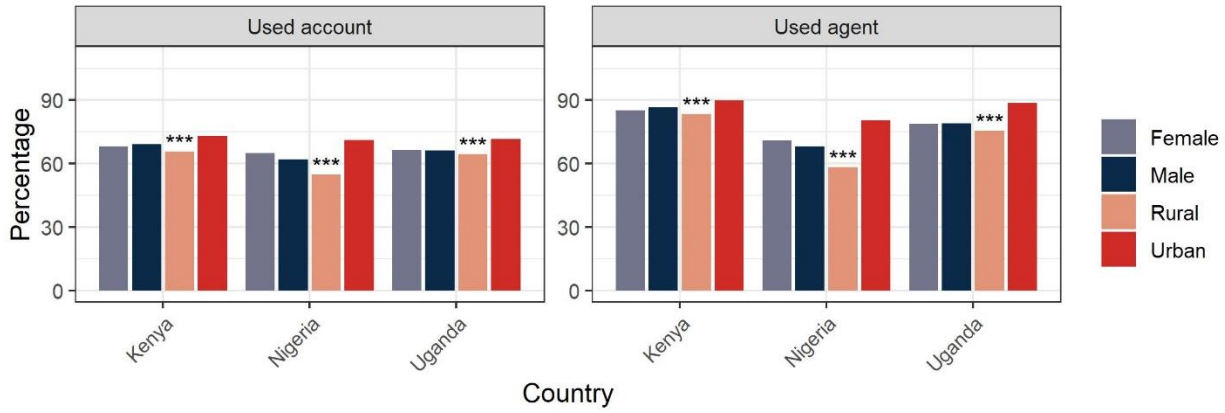
*/**/*** Indicates posterior probability above 90/95/99 percent.

IV. Results: Links Between Financial Inclusion and Economic Shocks

To analyze the correlation between FI and resilience to shocks related to COVID-19, we rely on two indicators of FI. The first is whether someone in the household used a bank or money agent before March 1 (we will call this measure *used agent* in the remainder of the report). This measure is based on pre-pandemic use, so it is not affected by the pandemic and can be interpreted as a baseline measure of FI. On the other hand, the question was asked indirectly in the survey, based on a question about whether money agent fees have changed, so it may be an imperfect measure of baseline FI. The second measure we use is whether someone in the household has used a financial account in the past 30 days (we will call this measure *used account*). This measure is likely to be more accurate because it was asked more directly. However, because it is based on use in the past 30 days, it may miss people who have an account but haven't used it regularly. Because it is not based on pre-pandemic use, it could also reflect changes in FI due to the pandemic. Both measures are at the household level due to the wording of the survey questions and the outcomes analyzed, and they are highly correlated with one another.

Most households are financially included according to both measures, with higher rates of FI based on the used agent measure (Figure 10). Urban households have higher rates of FI than rural households for both measures and across all three countries, but we do not observe differences by the sex of the household head.

Figure 10. Financial inclusion by subgroup

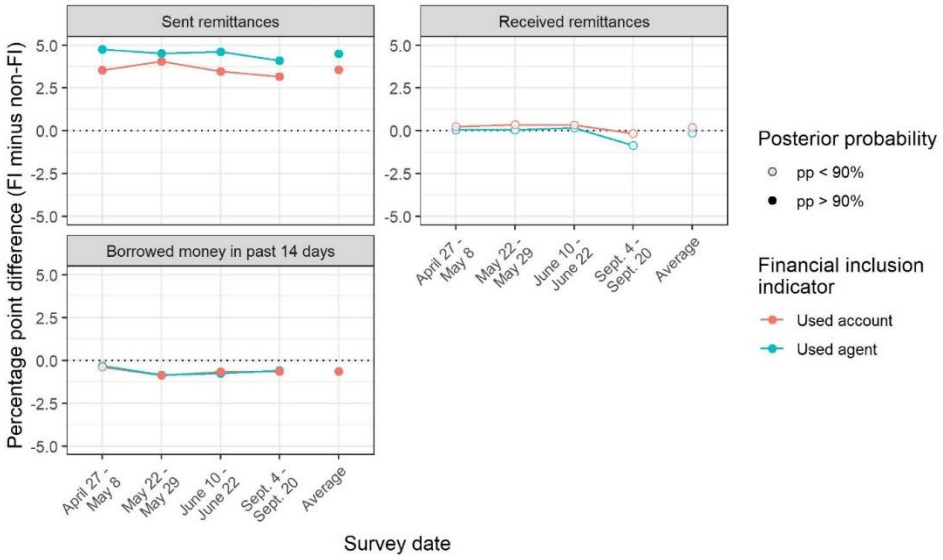


Source: FinMark Trust 2020.

A. Kenya

In Kenya, we found that FI households were more likely to send remittances and less likely to borrow money than non-FI households (Figure 11). Although FI households were more likely to send remittances, they were not more likely to receive remittances. These results may indicate that these households are better off to start with. The MRP adjustment controls for assets, but the data lack sufficiently comprehensive income or well-being indicators to fully control for income or wealth. The correlation between FI status and sending remittances is larger for male-headed and urban households. Financial access doesn't increase borrowing behavior, so financial access does not seem to be the reason these households are weathering shocks better. This finding may reflect that non-FI households were economically disadvantaged to begin with and were therefore less able to send remittances and more in need of loans to cover expenses.

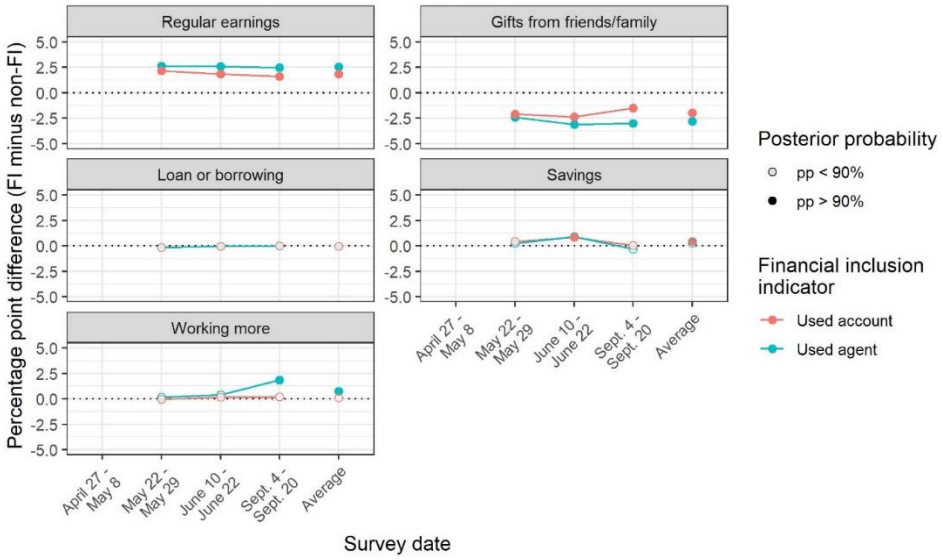
Figure 11. Financial access and use in Kenya



Source: FinMark Trust 2020.

The primary sources of living expenses for different types of households reveal more evidence suggesting that non-FI households appear to be more disadvantaged (Figure 12). FI households are more likely to have their regular earnings or be working more and less likely to rely on gifts or selling/pawning, especially male-headed households. They are also more likely to have savings they can rely on, perhaps due to access to savings accounts, or due to higher wealth that allows them to save. FI status is not correlated with borrowing behavior; financial access to loans does not appear to play a role in how people pay for their living expenses.

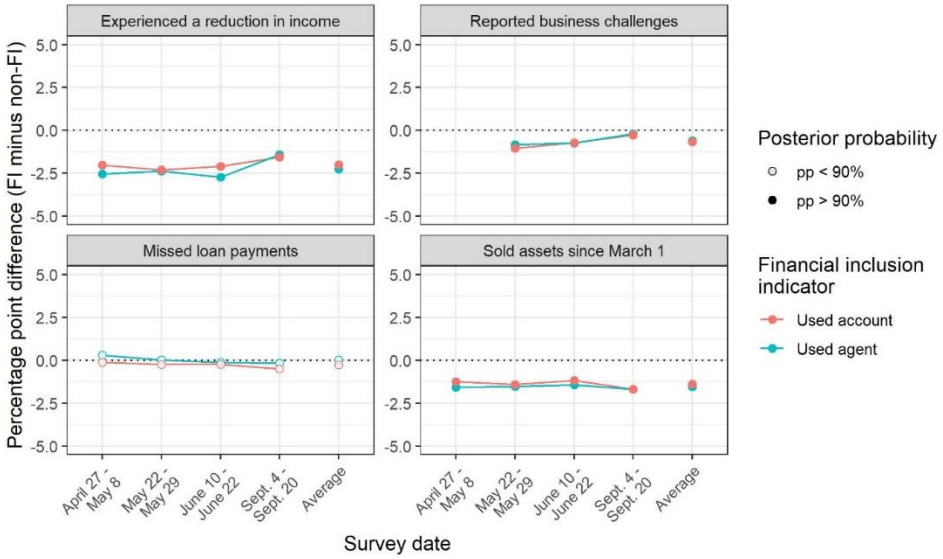
Figure 12. Primary source of living expenses in Kenya



Source: FinMark Trust 2020.

FI households were less susceptible to most financial shocks than non-FI households (Figure 13). This result could be evidence that financial access itself mitigates financial shocks, or that these households were better off to begin with. FI status is more negatively correlated with both reduced income and business challenges for urban households, and more negatively correlated with selling assets for male-headed and urban households.

Figure 13. Evidence of financial shocks in Kenya

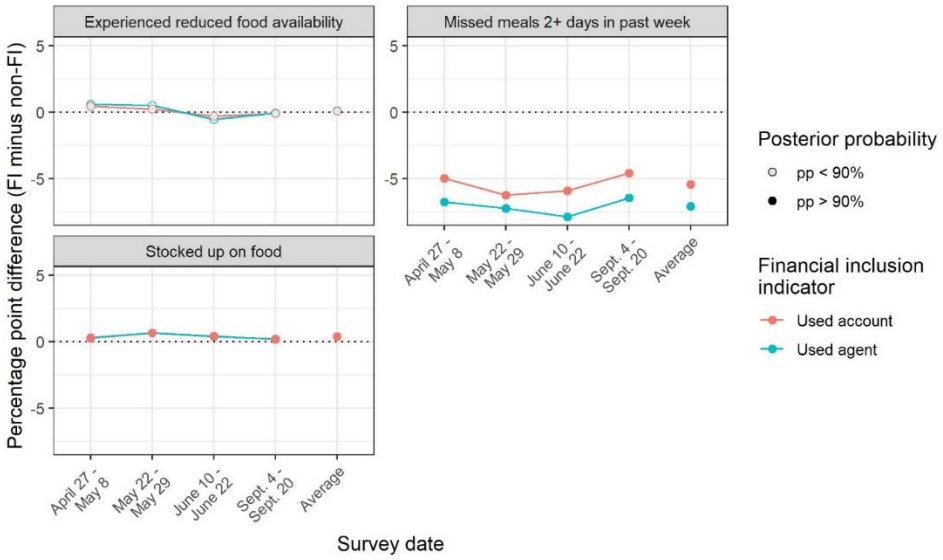


Source: FinMark Trust 2020.

FI households also experienced less food insecurity; they were less likely to have skipped meals and slightly more likely to stock up on food (Figure 14). These correlations are stronger for urban households.

It is possible that people are accessing financial tools to be able to buy food, but we don't observe FI households taking out more loans in those survey questions. It is also possible that we see stronger food insecurity impacts on non-FI households because they were more disadvantaged to begin with.

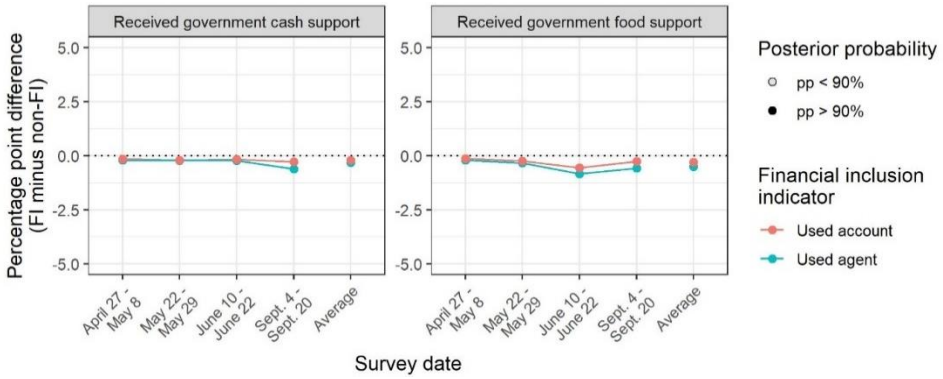
Figure 14. Evidence of food insecurity in Kenya



Source: FinMark Trust 2020.

FI households are less likely to have received either government cash or food support (Figure 15). The difference is small in magnitude, but very few households in either group received support in the first place. This finding is consistent with the idea that non-FI households were disadvantaged and more in need of the support.

Figure 15. Government support in Kenya

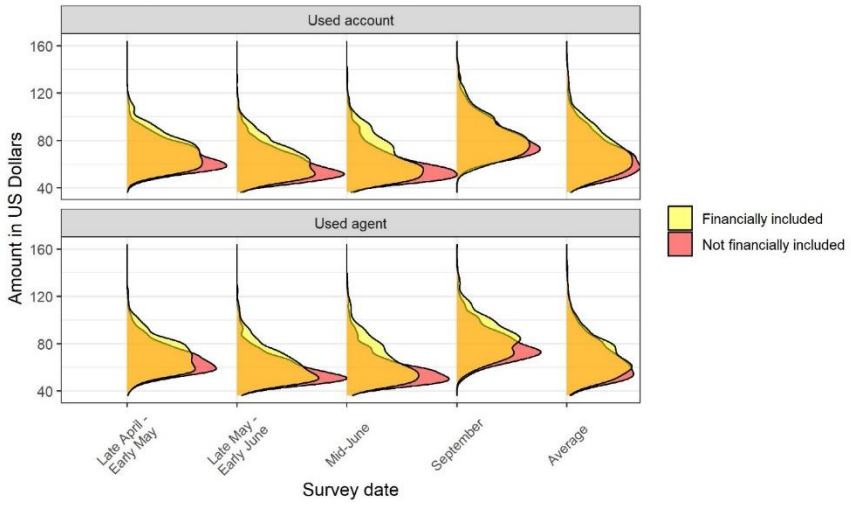


Source: FinMark Trust 2020.

When asked the minimum payment they would be willing to accept to stay home for seven days to reduce the spread of COVID-19, FI households required a slightly higher payment than non-FI households (Figure 16). This finding is consistent with the idea that non-FI households are disadvantaged and have a lower opportunity cost. Willingness to accept—that is, the amount of a hypothetical payment—is higher

for urban households, and the link between FI and willingness to accept to stay home is higher for both male-headed and urban households.

Figure 16. Willingness to accept by FI status in Kenya



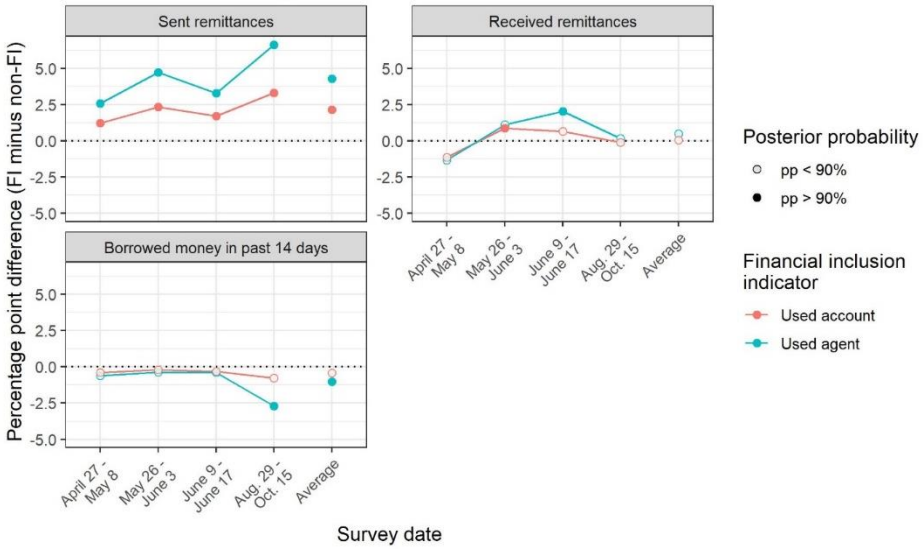
Source: FinMark Trust 2020.

We observed several signs that FI households in Kenya are managing better through the pandemic: they are less likely to have reduced incomes or business challenges, more likely to have their regular income, less likely to rely on gifts or selling goods or assets, more likely to be able to stock up on food, and less likely to skip meals. We do not see evidence that they are using their financial access to weather the pandemic shocks; they are less likely to have borrowed money recently or receive remittances, or to be relying on loans for their expenses. FI households are more likely to rely on savings for living expenses, which could be a sign that access to savings accounts increases resilience, but it could also reinforce the rest of the evidence suggesting that non-FI households are economically disadvantaged and less likely to have savings to rely on. Despite controlling for well-being through asset controls, we see substantial evidence that FI households are less disadvantaged: they sent more remittances, have a higher minimum payment they would accept to stay home, and are less likely to receive government support, likely because they are less in need of the support. If financial access does increase resilience to shocks like that posed by the COVID-19 pandemic, we are unable to detect evidence of such a link in our Kenya data.

B. Nigeria

In Nigeria, as in Kenya, we observe far higher rates of sending remittances among FI households than among non-FI households (Figure 17). There is limited evidence from some waves that FI households also receive more remittances, a finding that is consistent with FI being a driver, but it's not a strong correlation. Financial access doesn't increase borrowing behavior, so it doesn't seem that financial access is the reason these households are weathering shocks better. The correlation between FI status and sending remittances is larger for male-headed and urban households, whereas the negative correlation between FI status and taking out a loan is especially strong for urban households. The link with both sending remittances and taking out loans with FI status is largest in the last wave of the survey, conducted in September–October 2020, mirroring earlier findings that the economic shocks were strongest in the last wave.

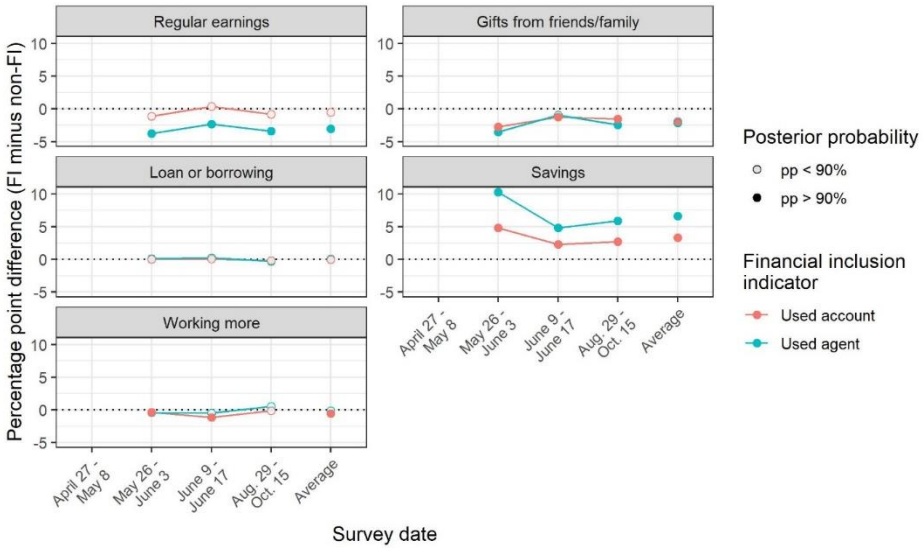
Figure 17. Financial access and use in Nigeria



Source: FinMark Trust 2020.

In Nigeria, we observed that FI households rely more on savings and less on working or gifts to pay for their regular living expenses (Figure 18). This is a very different story from what we saw in Kenya. FI status may mean they have access to savings that they can rely on, or this correlation may be an indication of economic well-being. FI households are also less likely to rely on gifts or selling/pawning, a finding that is consistent with non-FI household being more disadvantaged. FI status was not correlated with borrowing behavior, so financial access isn't enabling people to take out loans to pay for their expenses. We do not have a good explanation for why FI households are less likely to rely on their regular earnings or on working more than non-FI households.

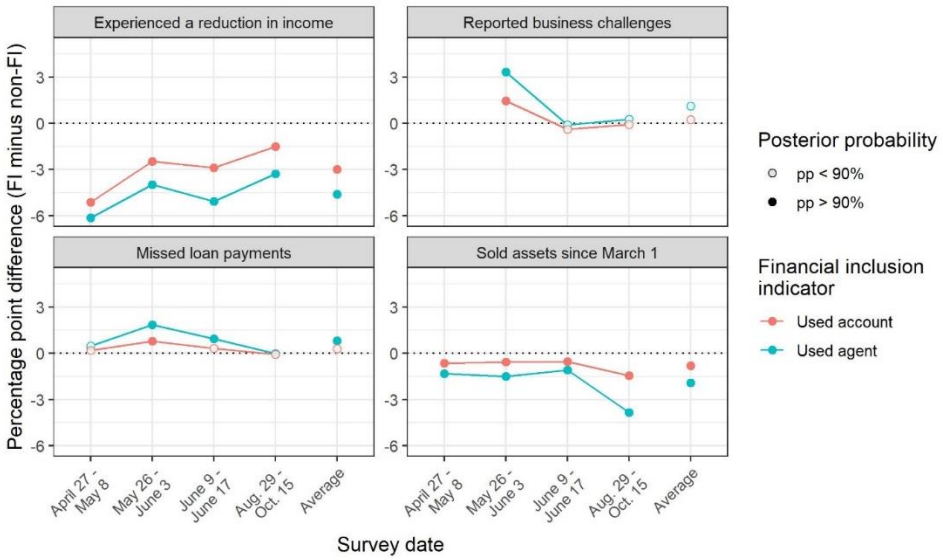
Figure 18. Primary source of living expenses in Nigeria



Source: FinMark Trust 2020.

The relationship between FI and financial shocks is mixed in Nigeria (Figure 19). FI households were less likely to experience reduced income and selling assets but were more likely to have missed loan repayments or have had business challenges, especially in later waves. FI status is more negatively correlated with reduced income for male-headed and urban households, and more positively correlated with missing loan repayments for male-headed and rural households.

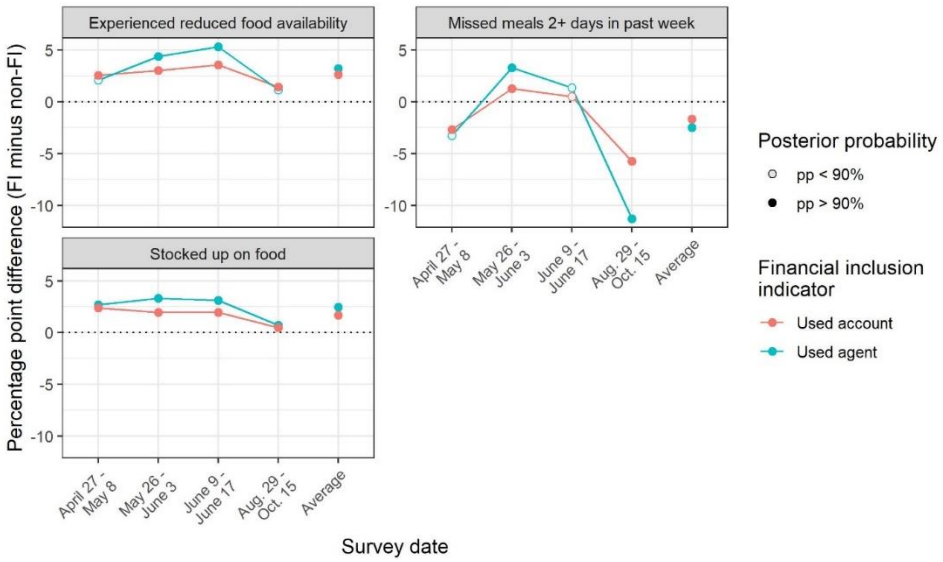
Figure 19. Evidence of financial shocks in Nigeria



Source: FinMark Trust 2020.

As with financial insecurity, the relationship between FI and food insecurity is mixed (Figure 20). FI households were more likely to stock up on food and less likely to have skipped meals in later waves; both correlations are stronger for male-headed households. The link with reduced meals—arguably the most meaningful measure of how food insecurity is affecting household well-being—is inconsistent over time. The trend in the link between FI and reduced meals is opposite the trend in the share of households reporting having reduced meals: when fewer households overall have reduced meals, FI status is positively linked with reduced meals, and when more households have reduced meals, FI status is negatively linked. In other words, the likelihood of skipping meals moves less over time for FI households than it does for non-FI households.

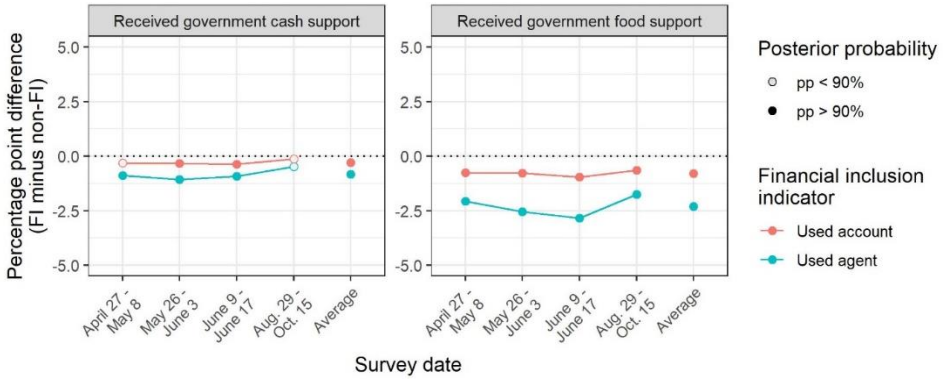
Figure 20. Evidence of food insecurity in Nigeria



Source: FinMark Trust 2020.

FI households were less likely to have received either government cash or food support (Figure 21). This finding is consistent with non-FI households being more disadvantaged and therefore more likely to need government support. The difference was observed for all subgroups, but larger for male-headed households than for female-headed households.

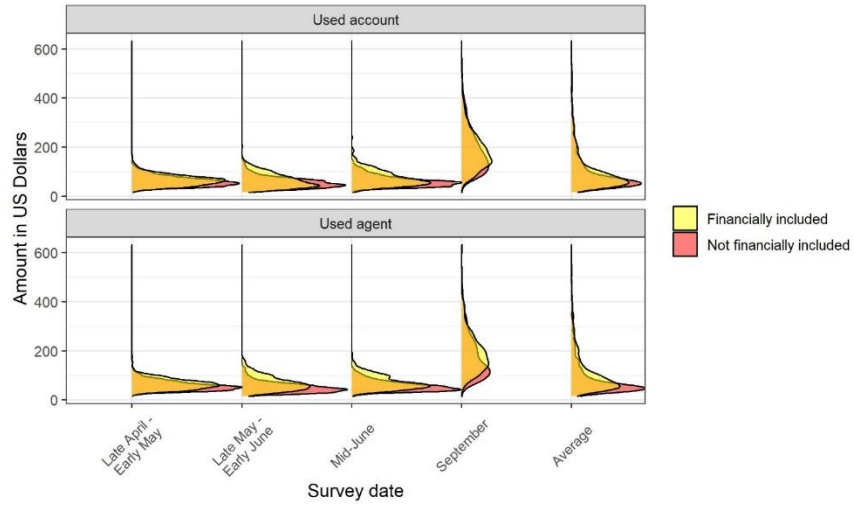
Figure 21. Government support in Nigeria



Source: FinMark Trust 2020.

As in Kenya, when asked the minimum payment they would be willing to accept to stay home for seven days to reduce the spread of COVID-19, FI households in Nigeria required a slightly higher payment than non-FI households (Figure 22). This finding is consistent with the idea that non-FI households are disadvantaged and have a lower opportunity cost. Willingness to accept is higher for urban households, and the link between FI and willingness to accept to stay home is higher for both male-headed and urban households.

Figure 22. Willingness to accept by FI status in Nigeria



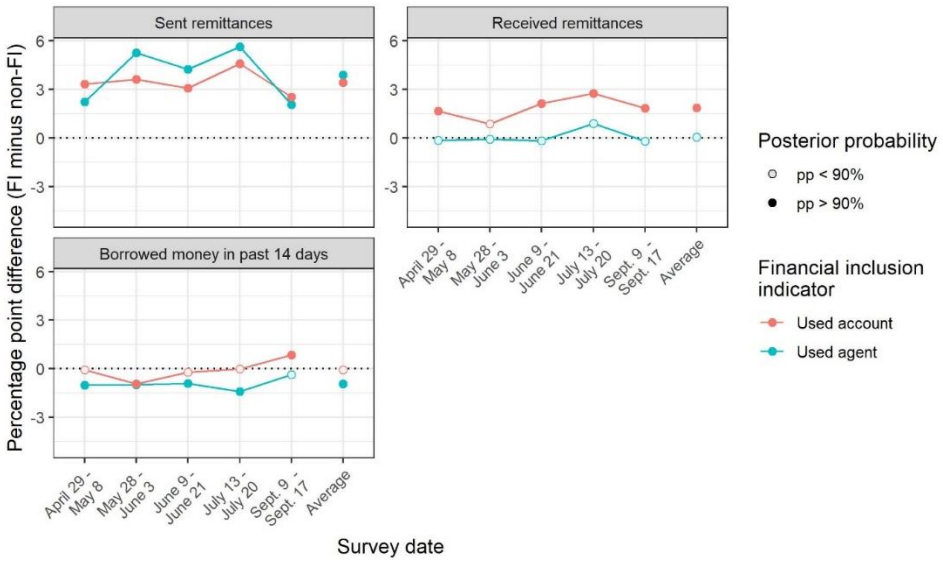
Source: FinMark Trust 2020.

We observed mixed evidence that FI households are managing better through the pandemic: they are less likely to have reduced incomes or to have sold assets, but they are less likely to have their regular income to rely on for their living expenses. FI households are more likely to be able to stock up on food and less likely to skip meals in some waves. We observe some evidence that they are using their financial access to weather the pandemic shocks: they are less likely to have borrowed money recently, so loans don't appear to be an important coping mechanism, but they are more likely to have both sent and received remittances, especially in the middle waves. FI households are also more likely to rely on savings for their living expenses, so access to savings could play a role here. Financial access could be playing a role here in helping households manage through the pandemic through accessing savings and remittances, but we see no evidence of accessing loans as a mechanism for coping with economic shocks.

C. Uganda

In Uganda, FI households are more likely to both send and receive remittances (Figure 23). This finding is more suggestive that financial access gave these households a way to weather the financial shocks through receiving remittances. But the link to receiving remittances is only for one measure of FI (recent account use), so this link is not as robust as the link to sending remittances. FI households are less likely to borrow in most waves, so it doesn't appear that access to loans is the reason these households are weathering shocks better.

Figure 23. Financial access and use in Uganda



Source: FinMark Trust 2020.

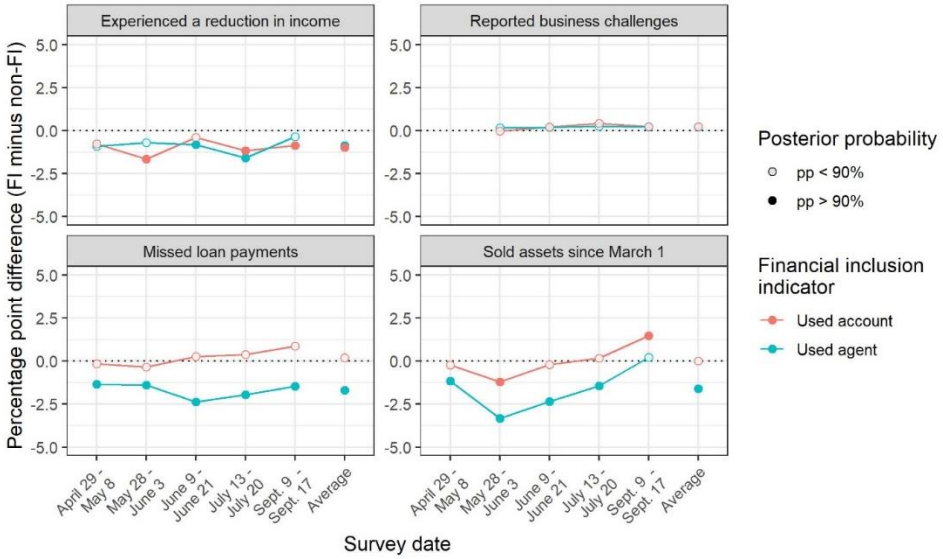
FI households were more likely to have their regular earnings—especially male-headed households—or to be working more (Figure 24). This finding may be an indication that non-FI households were more disadvantaged to begin with. FI households are less likely to rely on savings, so access to a savings account does not appear to drive people to use their savings for their living expenses. FI status is not correlated with borrowing behavior, so it appears that financial access itself doesn't seem to be driving how people pay for their living expenses.

Figure 24. Primary source of living expenses in Uganda

Source: FinMark Trust 2020.

FI households have, for the most part, experienced fewer economic shocks than non-FI households (Figure 25). FI households were less likely to experience reduced income and, in most waves, selling assets, and were less likely to have missed repayments. Wave 2 saw a big spike in non-FI households selling assets, whereas the trend over time was smoother for FI households. FI status was more negatively correlated with missing loan repayments for female-headed and urban households.

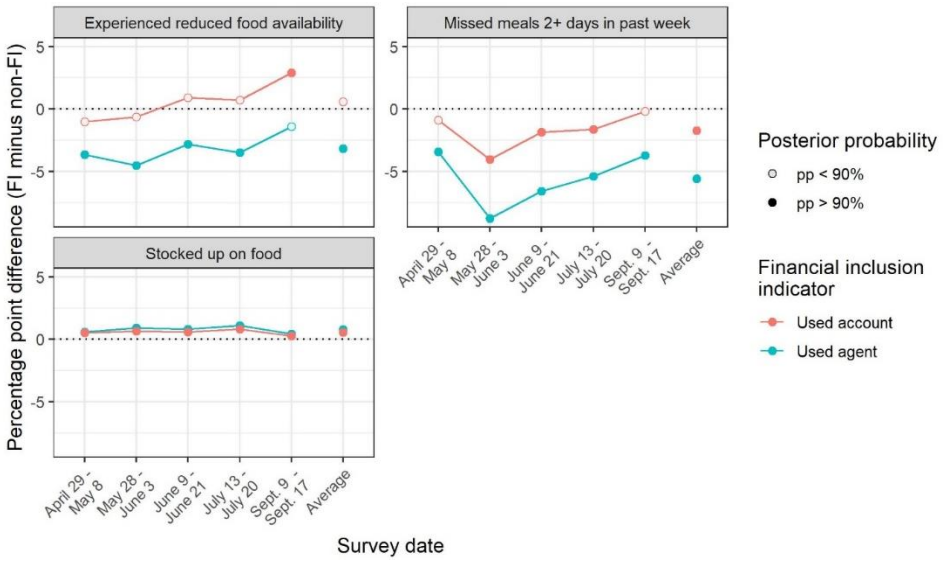
Figure 25. Evidence of financial shocks in Uganda



Source: FinMark Trust 2020.

FI households experienced less food insecurity in Uganda than non-FI households (Figure 26). FI households were also more likely to stock up on food; this correlation is much stronger for male-headed households. The link between financial access and reduced meals was strongest when most households were skipping meals: wave 2 saw the highest rates of skipping meals, but the spike was greater for non-FI households. Similar to the results from Kenya, the share of households skipping meals moves less over time for FI households, possibly showing a greater ability to smooth consumption over time.

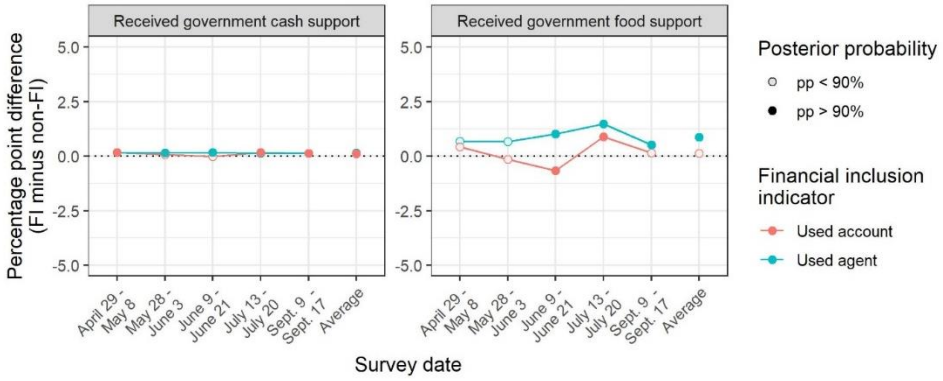
Figure 26. Evidence of food insecurity in Uganda



Source: FinMark Trust 2020.

The link between FI and the receipt of government support is mixed in Uganda (Figure 27). FI households were more likely to receive food support in some waves of the survey. In some waves, the difference varies depending on which FI indicator we use, so this finding is not very robust.

Figure 27. Government support in Uganda

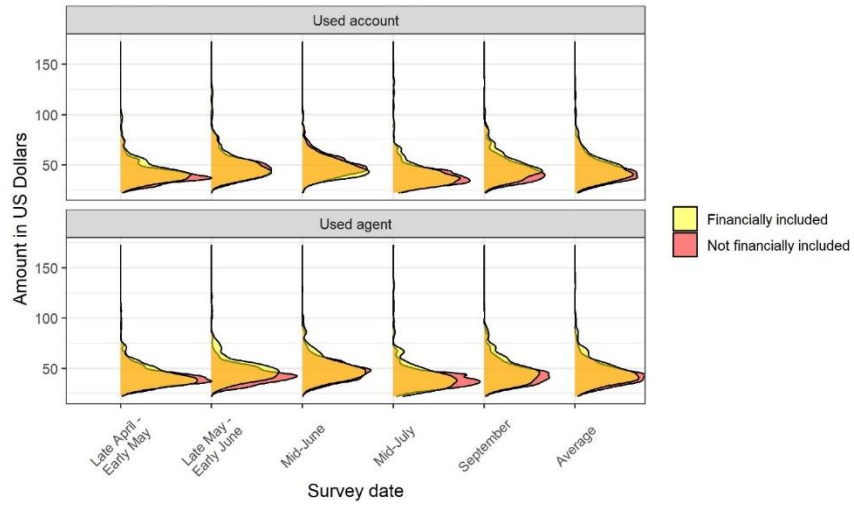


Source: FinMark Trust 2020.

As in Kenya and Nigeria, when asked the minimum payment they would be willing to accept to stay home for seven days to reduce the spread of COVID-19, FI households in Uganda required a slightly higher payment than non-FI households (Figure 28). This finding is consistent with the idea that non-FI households are disadvantaged and have a lower opportunity cost. Willingness to accept is higher for urban households, and the link between FI and willingness to accept to stay home is higher for both male-headed and urban households.

In Uganda, we see several signs that FI households are managing better through the pandemic than non-FI households: they were less likely to have reduced incomes or missed loan repayments, more likely to

Figure 28. Willingness to accept by FI status in Uganda



Source: FinMark Trust 2020.

have their regular income or be able to work more to pay for expenses, and less likely to have to rely on savings to cover living expenses. FI households were also less likely to skip meals and more likely to be able to stock up on food. There is limited evidence that they are using their financial access to weather the pandemic shocks. FI households were more likely to have both sent and received remittances, though the link with receiving remittances is weak; there was no other evidence of leveraging financial access through savings or loans. It appears that non-FI households are more economically disadvantaged despite controlling for well-being through asset controls. Sending and receiving remittances may be a sign that financial access matters, but given the weak link with receiving remittances, this appears unlikely to be the whole story.

V. Conclusion

Households in all three countries included in our study have suffered substantial economic shocks. Many have experienced reduced incomes and business challenges, and many have had to skip meals. Evidence on time trends is mixed, but some of these indicators have increased over time in some countries, suggesting an increase in economic distress as the pandemic has gone on. In all countries, FI households are managing better through the pandemic: FI households are less likely to have reduced incomes and less likely to have had to skip meals in all countries. We see limited evidence, however, that households are using their financial access to weather the pandemic shocks. The evidence of financial access giving households the tools to cope with shocks is strongest in Nigeria, where FI households are more likely to rely on savings and remittances, and weakest in Kenya, where we see no evidence of FI households using financial services to pay for expenses. We do not see FI households relying on loans as a coping mechanism in any country. Our analysis appears to reveal a story of non-FI households being more economically disadvantaged. Our methodology controls for assets as a measure of economic well-being, but without more comprehensive income or expenditures data, we are unable to fully control for well-being. Finally, our analysis is based only on three countries; it is possible that analysis of additional countries could lead to more conclusive evidence of the importance of FI for resilience to shocks related to COVID-19.

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