C-19 Note
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The impact of cash during COVID-19: Evidence from Uganda

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We track households across Uganda over two years, one year before COVID-19 and one year after the onset of the pandemic. We find that the initial period of the pandemic is associated with a sharp reduction in income and an increase in stress. Some households were randomly assigned to receive cash transfers during the two-year period, and we find that the economic benefits of these transfers gained before the lockdown are maintained during the pandemic, suggesting that cash transfers can be a robust tool to improve household welfare. Our data also suggest that the cash transfer was effective in reducing stress, in particular during the lockdown.

Background

The Ugandan response to the COVID-19 pandemic has been one of the fastest and strictest in the world. Starting from mid-March 2020 the Ugandan Government prohibited mass gatherings for an initial period of 32 days and imposed a 14-day quarantine for all new arrivals to the country. Only two days later all schools and universities were closed. Further measures were quickly put in place, including a ban on all public transport, a curfew, the closure of most businesses and a ban on private transportation.

The policies were gradually lifted during the spring of 2020, starting with hardware shops, insurance companies or take-away restaurants. By the end of July most other businesses, such as shopping arcades, hair saloons and *boda boda* drivers, were allowed to resume their work. Public gatherings of more than five people were still prohibited and international borders remained closed until early October. However, preschools and schools remained closed during all of 2020, except for students taking their final exams.

Cash transfers have been introduced, or considered, by many countries to mitigate the impact of the COVID-19 lockdowns. While such policies have generally been found to be effective in promoting household welfare, it is not obvious that these lessons carry over to times of crisis, such as the recent pandemic and economic lockdown. The aim of this note, which is based on evidence from more than 600 households in peri-urban areas of Western, Central and Eastern Uganda, is twofold: First, we provide evidence on changes in economic and psychological well-being associated with the pandemic. Second, we evaluate the effectiveness of cash transfers both before and after the onset of the pandemic.

Data

We tracked the households over a period of more than two years, from late 2018 to early 2021. Some of these households were randomly assigned to receive cash transfers as part of a research project, framed as support for business investment, while other households received no such support, thereby constituting the control group. The cash transfers were paid to the female household head in three instalments, during the spring, summer and fall of 2019 and 2020 (to coincide with the beginning of each trimester of the school year). Accordingly, the first payment for all households was carried out in March 2019, with the final payment being paid in October 2020.[1] Each payment was approximately 250,000 Ush, implying a yearly transfer of around 750,000 Ush (which amounts to 200 USD, 580 USD PPP). To put this into perspective, the weekly income of the Control group in the year prior to COVID-19 was around 70 000 Ush, hence a yearly average of around 3.6 million Ush, with the cash transfers thereby corresponding to 20 percent of the household income.

In this note, we report from seven survey rounds, the first three rounds prior to the COVID-19 lockdown and the last four rounds after the onset of the pandemic.[2] We include only households that were interviewed in all surveys, such that we have a balanced panel, and restrict ourselves to two dimensions of well-being: economic, in the form of household income, and psychological, in terms of stress. Our measure of income is the household's income during the last week.[3] Importantly, the time frame of the surveys does not overlap with the payment of the transfers, and hence our measure of income does not include cash from the project. For instance, when asking about income in the last week or month, no transfers had been made in that time-period.

Stress is measured using Cohen's Perceived Stress Scale, which consists of 10 questions each measured on a five-point scale from 0 (Never) to 4 (Very often), and hence a total score ranging from zero to 40. The questions refer to "your feelings and thoughts during the last month", on being "upset because of something that happened unexpectedly", "unable to control the important things in your life", "angered because of things that were outside of your control", etc.

Methodology

Cash transfers were randomly assigned to the households, allowing us to make causal statements on the impact of cash transfers on well-being. Since cash was offered to the households both before the onset of COVID-19 and during the lockdown, any differences in outcomes between treatment and control group will be due to the cumulative effect of the intervention over time. This allows us to answer the question of whether

[1] The results presented in this note are derived from a larger, on-going project investigating the impact of subsidized childcare and cash transfers on business development. The present note does not include households that received subsidized childcare.

[2] Due to travel restrictions, the first two COVID surveys, in April and August 2020, were conducted by phone.

[3] In the physical surveys, the time frame of income was the preceding month, while in the phone surveys, it was the preceding week. To have a consistent measure (weekly income), we divide monthly income by four.

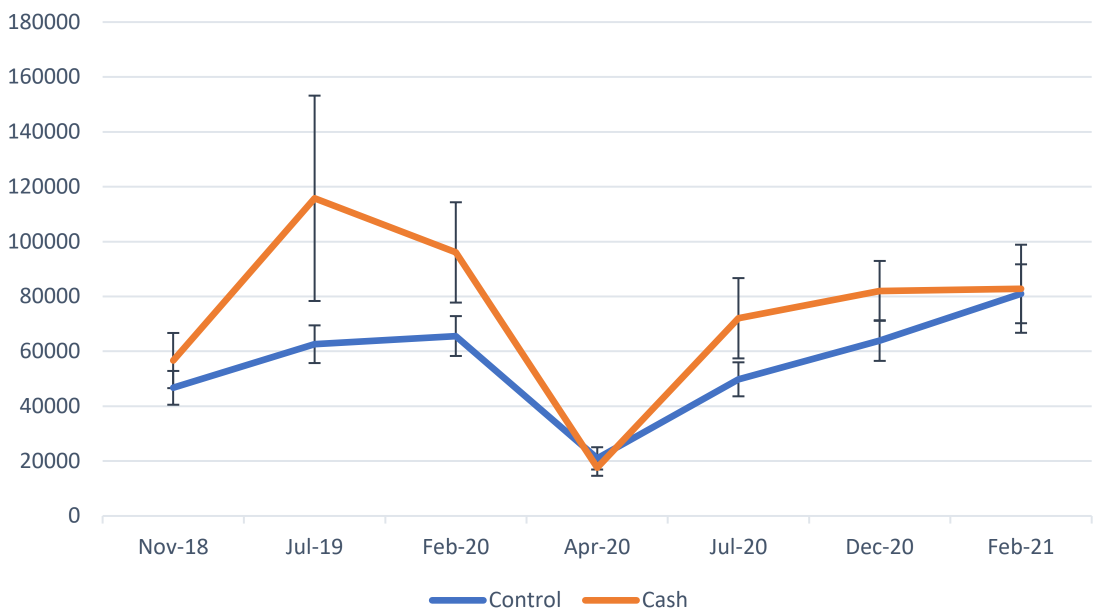
the impact of the cash transfer can be sustained during a time of crisis but does not allow us to address the question of the impact of cash transfers introduced as a response to the crisis. Note that the first survey, conducted in November 2018, constitutes the baseline, with interventions being implemented in early 2019.

Results

Starting with income, illustrated in Figure 1, we find that the lockdown is associated with a sharp, but relatively short-lived, downturn in household income. The immediate impact of the lockdown is evidenced from the drop from February 2020 (just before COVID-19) to April 2020 (when the severe lockdown measures had just been introduced). For the control group, incomes fall from around 60 000 Ush to 20 000 Ush, while for the cash group the fall is even more dramatic: from around 100 000 Ush to 20 000 Ush. We observe, however, that income levels for both treatment and control groups rebound after the immediate initial shock, suggesting a quick response to the gradual easing of lockdown measures.

Considering the impact of the transfers, we observe from Figure 1 that the intervention caused substantial gains in household income prior to COVID-19. During the initial period of the lockdown, as captured by the April 2020 survey, the transfer did not have any impact on income, possibly because of the government-imposed limitations on economic activity. In the ensuing months, the income of the cash group again dominates that of the control group, but in the final survey it appears that the control group has caught up with the treatment group, which could suggest that the impact of the cash treatment, with the last payment being made in the fall of 2020, is not an enduring one. Note that the income level at baseline (November 2018) is roughly the same for the treatment group and the control group, which is as expected due to randomization.

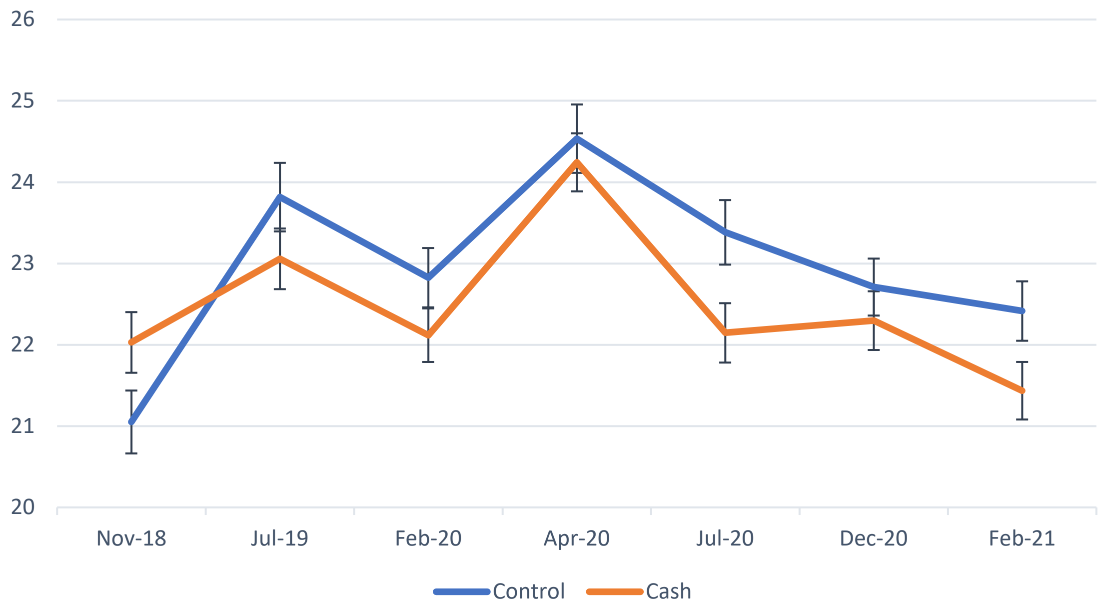
Figure 1: Household income, cash group and control group, November 2018 – February 2021



Note: The graph shows the development of household income in Uganda shillings (and standard error bands), based on the question "What was your household's income during the last week?". There are seven survey rounds, from November 2018 (baseline) to February 2021 (end line), with the November 2018 to February 2020 being pre-lockdown and April 2020 to February 2021 being post-lockdown.

Turning to stress, we find that the initial stage of the lockdown is associated with a sharp increase, as illustrated in Figure 2, but also that stress goes down as the lockdown measures are eased. In fact, the changes in stress mirror quite closely the changes in income, with lower income being associated with higher stress. Looking at the causal effect of cash, the cash group reports lower levels of stress for the entire period after the baseline, with the difference being particularly marked after the initial lockdown (and significantly lower for the July 2020 and February 2021 surveys). Note that there is a slight imbalance in the level of stress at baseline (November 2018). However, given that the baseline level of stress is actually higher for the cash group, our treatment effects do not seem to be driven by this initial imbalance.

Figure 2: Stress, cash group and control group, November 2018 – February 2021



Note: The graph shows the respondent's stress (and standard error bands), based on Cohen's Perceived Stress Scale, which consists of 10 questions each measured on a five-point scale from 0 (Never) to 4 (Very often), and hence a total score ranging from zero to 40. There are seven survey rounds, from November 2018 (baseline) to February 2021 (end line), with the November 2018 to February 2020 being pre-lockdown and April 2020 to February 2021 being post-lockdown.

Conclusion

Our data suggest that the lockdown due to COVID-19 in Uganda led to a sharp reduction in the incomes of peri-urban households, but that the impact was rather short-lived. Moreover, we find that cash has been an effective tool in raising the incomes of these households during the summer and fall of 2020, that is, after the initial lockdown period. At the same time, the fact that we do not observe a difference in income at end line, which was conducted four to five months after the last transfer, could imply that the cash treatment does not have an enduring impact on income. However, additional, longer-term data would have to be collected to make firm conclusions on this point. The psychological effect of the pandemic, as measured by stress, mirrors that of the income development, with the level of stress peeking at the April 2020 survey, that is, with the onset of the pandemic and initial lockdown measures. The cash transfers seem to have been rather effective in reducing stress, for the period seen as a whole, and in particular during the period after the initial lockdown measures.

This note is based on research conducted as a part of PEDL MRG 5491.