Is It Who You Are or What You Get? Comparing the Impacts of Loans and Grants for Microenterprise Development *

Bruno Crépon
Mohamed El Komi
Adam Osman

May 1, 2020

Abstract

We randomize 3,294 approved loan applicants who requested funds to start or grow a business into four groups. Applicants either receive (1) a subsidized loan, (2) an in-kind grant, (3) a cash grant, or (4) no support. We find that all three types of capital assistance lead to increases in business creation (averaging a 17.5 percentage point increase) and business profits (42% increase relative to control). In-kind grants perform best but, loans and cash grants provide flexibility that leads to an increase in wage earnings. Together the impact on total earned income is equal across the three treatments. On the other hand, there are large differences in income *within* a treatment group. Quantile regressions show that in all three treatments impacts are concentrated at the top of the distribution, with no impact at the bottom of the distribution. We provide evidence that individual heterogeneity is a larger determinant of impacts than is the form of capital support provided, showcasing that advances in targeting are at least as important as changing the design of financial products. Since the cost of providing a grant is 3-5 times greater than the cost of administering the subsidized loan, these results show that low-interest microcredit can be a cost effective solution to encouraging entrepreneurship and tackling the youth unemployment problems plaguing developing countries.

JEL classification: D22, J23, J24, O12, C93.

Keywords: Microcredit, Cash Grants, In-Kind Grants, Field Experiment, Gender, Egypt

*Contact: Crépon: CREST, crepon@ensae.fr; Osman, UIUC, aosman@illinois.edu. This paper is the result of a collaboration with the Sawiris Foundation for Social Development. We thank Noha Fadl for outstanding research and operational support. We thank Abdelrahman Nagy, Mohamed Sholkamy, Mohamed Yousef, Mohamed Omar, Mohamed Zanati, Ahmed Yousef, Ola ElToukhi, and Ebaa El Sayed for support on research analysis and implementation. We thank Noura Selim, Nahed Yousry, Mohamed Barakat, Samy Abd Al Rahim, Ahmed Abdel Salam, Thaira Shalan, Randa Khalifa, and Noura Ghobrial from the Sawiris Foundation for operational support. We also thank Armia Khalaf and the Christian Peace MFI, Mohamed Hamed and the Feda MFI and Mohamed Meskin and the REDEC MFI as well as the study participants. The original design of the experiment is filed in AEARCTR-0003851. UIUC IRB approval 17189. Authors retained full intellectual freedom throughout this process, all errors are our own.

1 Introduction

The return to capital in developing countries has been shown to be high (De Mel et al., 2008; McKenzie, 2015), but extending credit to enterprises has often had modest impacts on firm outcomes (Banerjee et al., 2015b). Are these seemingly conflicting pieces of evidence due to the different contexts and populations of these studies or due to the difference in optimal behavior when receiving an unrestricted capital grant relative to the more rigid structure of the credit products that have been tested? Earlier work has shown that flexible microcredit contracts can increase microenterprise growth (Field et al., 2013) while other papers showcase how individual characteristics like experience can be important determinants of the returns to capital (Banerjee et al., 2019a). We provide evidence that individual heterogeneity is at least as important as contract type in microenterprise development.

Finding the most effective ways to improve microenterprise development is a priority for policymakers, academics and practitioners around the world. This is particularly true in countries that are dealing with high levels of unemployed youth struggling to transition into the labor force. Many policymakers see helping young people start their own businesses as an effective strategy for smoothing their transition into the labor market in cases where the private sector is unable to offer enough opportunities itself. Improving the performance and productivity of these businesses is also a priority itself. It's possible that some types of support could cripple some enterprises from the start making them unable to grow, while a larger early push may allow firms to grow into maturity, eventually employ others, and have higher overall productivity, chipping away at the large productivity differences we see between firms in high- and low-income countries.

We run an experiment with 3,294 individuals who applied for a loan to start a new business, or to grow an existing one, in Upper Egypt. Conditional on being approved for the loan, we randomize individuals into one of four groups: a group that receives the (subsidized) loan they applied for, a group that receives the amount of the loan as a cash grant, a group that receives the items that they listed on their loan application as an in-kind grant, and a control group that receives no capital support. By randomizing *after* loan approval we are able to keep the selection of individuals constant across groups, allowing us to identify how the different contract types affect enterprise performance.

Economic theory provides ambiguous predictions about the impacts of each of these

types of capital assistance on firm performance. While a cash grant is the most liquid, and hence easiest to allocate towards the highest return activity for the recipient, it is also the easiest to allocate to non-income generating activities that could increase consumption at the expense of the business.[1] In-kind grants have the potential to mitigate the concern regarding utilizing the capital in non-productive ways due to the costs of liquidating the assets, but it also makes it more difficult for businesses to pivot to higher return opportunities that may arise.[2]. Standard loans have several drawbacks, including needing to pay back the capital with interest, in this case on a monthly basis over 12 months. This potentially limits investment choice to things that have short-run and low-risk returns. On the other hand, some make the case that forcing businesses to make monthly payments on a loan leads them to develop important discipline that improves the businesses' ability to be streamlined and efficient (Armendáriz and Morduch, 2010). Finally, there is evidence from different contexts that each of these types of assistance can fail to make a positive impact on average on business outcomes[3].

We focus on three main results. (1) Twelve month after randomization all three forms of capital assistance lead to large increases in business profits, particularly for women. Much of this impact is coming at the extensive margin through the creation of new businesses, and the impacts for loans and grants are similar. This showcases that microloans can perform just as well as grants in contexts where the return to capital is high and credit constraints bind. (2) While cash grants and microloans had the smallest impacts on profits, they also lead to a large increase in wage earnings. This compensating effect leads to finding no significant differences between the three capital assistance treatments on total labor income (although total labor income for each group is still much higher than income in the control group). This provides evidence that unconditional cash grants can be just as effective as more restrictive options to encourage work. (3) Using quantile regressions we document that the impacts on total income are concentrated at the top of the distribution for those that recieved a

[1]Lack of insurance might also be common reason to underinvest the cash in productive activities De Mel et al. (2008), as well as psychological constraints Banerjee et al. (2019b).

[2]Fafchamps et al. (2014) examines four reasons for in-kind grant to outperform cash grants: transaction costs, mental accounting, lack of self-control and family and social pressures to share the grant

[3]Several studies consider the impacts of credit including, but not limited to Angelucci et al. (2015); Attanasio et al. (2015); Augsburg et al. (2015); Banerjee et al. (2015a); Crépon et al. (2015); Tarozzi et al. (2015), while the above cited work on cash and in-kind grants showcase limited impacts for particular subgroups.

loan as in Meager (2016), but we show that cash and in-kind grants have the same pattern. Furthermore, we show that while the difference *within* a treatment arm is large there is no detectable difference *across* treatment arms at the same quantile. This provides evidence that "who you are" is more important than "what you get" in terms of increasing incomes using capital assistance.

Digging deeper into these results we find that the in-kind grant had the largest impact on having a business. Only 15 % of women in the control group have a business one year later, whereas 39% who received an in-kind grant have a business, a 24 percentage point increase (a 158% increase relative to control). This results in an increase in average business profits of 133 Egyptian Pounds (1USD$\sim$15EGP) relative to a control group average of 59EGP (a 225% increase). The business impacts for microloans and cash are also large and statistically significant relative to control, but slightly lower than that of the in-kind grant. Impacts on men are also large and significant, with an average increase in having a business of 13.8 percentage points (relative to 26.8% of control), and business profits increasing by 100EGP (relative to 511 in control).

The impact on total income paints a more nuanced picture. Women who received the microloan and cash grant make up for their lower levels of business profits with higher levels of income from wage work. This leads to large and significant increases in total income for women, averaging 132EGP relative to 459 in control (a 29% increase), but there is no statistically significant difference in total income across the three interventions. For men the increase in business profits across all three types of capital assistance is partially offset with decreases in income from wage earning activities, leading to relatively small increases in total income that are not statistically different from the control group (average income for men in treatment is 2.5% more than control). We are able to further explore these differences with time-use data. Participation in the program lead women to switch out of uncompensated chores and childcare activities and men to switch out of wage activities.

Turning to our third main result- using quantile regressions we find that the impacts of the microloans are concentrated at the top of the distribution, consistent with Meager (2016). Expanding beyond this we are able to showcase that cash and in-kind grants exhibit the same behavior with impacts concentrated at the top and no effect on the bottom of the distribution. Moreover we are able to reject equality of impacts within a treatment arm,

meaning that those at the top of the distribution are indeed performing better than those at the bottom, but we cannot reject equality of impacts across treatment arms at the same quantile. We also reject equality across genders. This shows that "who you are", based on what quantile a person is at, is more important than "what you get" in terms of type of capital assistance. This is true even in our sample where individuals were previously pre-screened on both their interest in getting a loan and submitting an acceptable business plan. Despite these restrictions, which limits the amount of heterogeniety in our sample, we still find that individual heterogeneity outstrips capital type in its importance for driving microenterprise development. This has important implications for academics and policymakers. Finding ways to better identify high potential entrepreneurs could be a more effective investment than exploring different structures of financial products intended to induce particular types of recipient behavior.

We contribute to several literatures including the above mentioned work on the returns to credit (Banerjee et al., 2015b; Meager, 2016) and the returns to grants (De Mel et al., 2008; Fafchamps et al., 2014). Two important papers also consider the impacts of loans and grants in the same context. Beaman et al. (2020) compare the return to grants for individuals who have applied for a loan to those who have not and find that applicants are positively selected. We expand on this work by comparing the returns to loans and grants for individuals with the same selection, allowing for estimating the impacts of the contract structure itself. Fiala (2018) implements a 2x2 design of microloans or cash grants crossed with business training and compares those four groups to a control group. We extend on this work by focusing only on different types of capital support and achieving a higher powered test through a larger sample and higher take up. We also contribute to the work on flexible financial products for microenterprises (Field et al., 2013; Barboni and Agarwal, 2018; Gulesci and Madestam, 2018; Czura et al., 2019). Since a cash grant in our context can be considered equivalent to a microloan with an infinite grace period, we show that the benefits of flexible repayment products have limits in what kind of behavior they can encourage.

We also contribute to the literature associated with the labor market impacts of unconditional cash transfers and universal basic incomes. Banerjee et al. (2019b) reviews this literature and notes that the mixed results of cash transfers are likely due to the different constraints facing individuals in different contexts. In our case we show that women

who were credit constrained used the unconditional cash to increase income in both self-employment and working for others, while those who were provided the in-kind grant only increased income in self-employment. Providing cash gave people the freedom to pursue multiple strategies to improve income without having to focus on just one avenue for work. We find that providing cash grants leads to more hours of work, and not less, continuing to dispel the notion of sizable negative wealth effects on economic activity for the poor.

We also contribute to the literature on supporting youth employment. Helping young people increase their economic activity is difficult, as shown in several meta-analysis of hundreds of studies of active labor market interventions (Card et al., 2018; McKenzie, 2017). There has been several studies examining the impact of providing capital and/or training to help encourage youth integration through self-employment (Blattman et al., 2013, 2018, 2019; Berge et al., 2015; Baird et al., 2018; Brudevold-Newman et al., 2017). Despite the many studies considering these issues there has been no study examining the relative effectiveness of loans versus grants in the context of youth integration of the labor market.

Finally, this paper makes a contribution to the literature on gender and development. Many papers find that returns to capital assistance for men outpace returns for women which are normally indistinguishable from zero[4]. We find large positive impacts of all types of capital assistance for women. Jayachandran (2019) outlines how social norms can act as a barrier to women's employment and discusses how women's business potential may be limited by intrahousehold dynamics. Several papers provide evidence for this hypothesis including Bernhardt et al. (2017); Fiala et al. (2017); Field et al. (2016). We also report some evidence of the importance of intrahousehold dynamics. We contribute to this literature by reporting on a context where women working as employees in the private sector is discouraged, and where women are also more credit constrained than men.

The paper proceeds as follows. Section 2 outlines the study setting and experimental design. Section 3 presents the average treatment effects from the experiment on a variety of outcomes. Section 4 considers distributional tests of impacts, Section 5 discusses marginal returns and cost effectiveness and Section 6 concludes.

[4]Grants: De Mel et al. (2008) finds increases in profits for men but not women, Fafchamps et al. (2014) finds the same pattern in Ghana, Fiala et al. (2017) finds a positive impact of loans from men but no impact for women from loans or grants, Berge et al. (2015) find no impact on men or women, and Blattman et al. (2019) find no impact for women in the short or long term. Loans: Banerjee et al. (2015a); Angelucci et al. (2015); Attanasio et al. (2015) each find no impacts on profits for women.

2 Study Setting and Experimental Design

This study took place in Egypt, a rapidly growing lower-middle income country with a population of over 100 million people. Egypt has struggled with high youth unemployment for many years and it's a priority issue for policymakers in government and civil society (Assaad et al., 2016; Ghafar, 2016). At the same time Egypt suffers from extremely low female labor force participation, standing at 23% which comes in as the 10th lowest out of 189 countries that the World Bank collects data for.[5] Of the 10 countries with the lowest rates, 9 are in the Middle East North Africa region. While educational attainment of women is similar to that of men, women are much less likely to work, and more likely to stop working after they are married (Amer and Atallah, 2019). Societal expectations for women's personal and professional lives are very different relative to men. This is even more pronounced outside Egypt's two major cities (Cairo and Alexandria), and in the areas that we work.

The experiment took place in Qena, Egypt. Qena is about 600km south of Cairo and 70km north of Luxor. With a population of 3 million inhabitants, Qena is largely rural and is the ninth poorest state in Egypt (out of 27 states) with a poverty rate of 41% in 2019 (Samir, 2019). The unemployment rate in Qena reached 9.3% in 2017, with a big gap between men and women with female unemployment at 24.8% compared to 6.3% for men.

In collaboration with the Sawiris Foundation and three local microfinance institutions we designed an experiment that was intended to allow us to estimate the impacts of different types of capital assistance on the development of microenterprises. All three MFI's were experienced in providing micro-loans in these areas, and each worked in separate locations in Qena.[6] This was done as part of the Sawiris Foundation's "Job Creation Competition" which was meant to identify and fund local organizations who had a track record of helping young people find work. While the funding from the foundation allowed the MFI's to provide subsidized loans this did not affect the MFI's screening processes, and individuals were approved for loans using the standard criteria that MFI's had used in the past.

[5] India is ranked 11th lowest and has a female labor force participation rate of 23.4%

[6] Our three partner NGOs were (1) Feda, who works in Al Wakf and Nag Hamadi districts, REDEC, who works in Qena and Naqada and Christian Peace, who works in the district of Qos. Outside our experiment, Feda had 361 loan clients, Redec had 8994 and Christian Peace had 179 clients. As of the time we began the study Qena had 123 registered MFIs that served 56,158 active clients with a total outstanding portfolio of 218 million EGP.

2.1 Randomization and Intervention Details

To recruit the sample, starting in October 2016, the three MFIs advertised that they were providing loans to young people who were interested in starting a business or expanding an existing one. To be eligible to receive financing people needed to be between the ages of 21-35 and needed to go through the normal loan application process including by submitting a basic business plan. Individuals were then screened by the NGOs for suitability and conditional on passing that screen their information was sent to the research team for randomization. Recruitment occurred over time with the MFI's going to different locations and recruiting a batch of suitable applicants and then moving on to the next location. Randomization happened by batch (cohort) at the individual level, with one group of the applicants getting a loan, another getting an in-kind grant, a third getting a cash grant and a final group serving as the control.

Loans were provided at slightly below market interest rates, between 15-24% depending on the MFI. A surprise currency devaluation during the early part of this project led to the great majority of loans have a real interest rate below 0. This is important in interpreting our results- while the loans still needed to be paid back with interest, these loans are fairly different relative to many of the high-interest rates loans that are common in the microcredit industry.

The cash grants were provided by the MFI's to the individuals directly. The recipients were informed that these funds did not need to be paid back. They were lightly encouraged to consider using it to pursue their business objectives as outlined in their loan applications but it was made explicit that they were not required to do so. Similarly the in-kind grants were provided by the loan officers going to the market with the recipient to buy the items the recipient had outlined in their loan application. The recipient was informed that these goods were a grant and they did not need to repay any portion of them to the MFI.

Since many of the individuals in the sample were starting a business for the first time all three treatment groups were provided a basic business training course. Individuals with business experience were able to opt-out of this training.

2.2 Sample Characteristics

Table 1 provides descriptive statistics regarding the make up of our sample as well as tests for balance across treatment groups. The average age in our sample is nearly 29 years old, with 60% of the sample being female. Only 9% of the sample has a college education, with about a quarter having less than a high school degree.

Given the above mentioned differences in societal gender norms we also produce balance tables split by gender in the appendix, and we split our analysis of the impacts by gender below. While the average age and educational attainment of men and women are similar they differ in their home and professional lives. Women are much more likely to be married, 68% compared to 38% of men. Women are also much less likely to have any prior work experience, with only 17% having worked before relative to 52% of men. Similarly while 17% of men had an existing business at baseline, only 8% of women do.

To get a sense of the selection on observable characteristics of applications to this program we compare the characteristics of this sample to the average young person in this governorate using the Egypt Labor Market Panel Survey. Appendix Table A6 shows the differences in characteristics that are collected by the ELMPS and in our own data. We restrict the sample from the ELMPS to individuals between the ages of 21-35 and Column 2 reproduces our summary statistics while also restricting to this age threshold.[7] We see that our sample is not so different from the average young person in Qena. The women in our sample are slightly more educated than average, less likely to be married and more likely to have worked in the past than the average woman in Qena. The men in our sample have similar levels of education as the average man in Qena but are also less likely to be married, less likely to be working and less likely to have previously borrowed.

2.3 First Stage

Using data from the MFI's we are able to check how well our treatments were implemented relative to the intended randomization . Table 2 shows the proportion of each group that received each form of capital. Since the randomization occurred after people were already approved for a loan we have very high take up rates, allowing for improved statistical power

[7] A small portion of older people managed to join the program, we include these people in all future analysis to ensure the validity of our intent to treat estimates.

for second stage results. About 87% of the loan group ended up taking out the loan, while 99% of the in-kind grant group received the grant, and 98% of the cash group took the grant[8]. No one in the control group managed to get support. The results are nearly identical by gender. These take up rates on loans are the highest in the literature, as far as we are aware, which improves our ability to detect impacts relative to many earlier studies on the impacts of microcredit (Dahal and Fiala (2020); Banerjee et al. (2015b)). Column 5 of 2 shows that the amount received conditional on receiving funds is functionally equal across each of the three groups.

3 Average Treatment E□ects

Approximately one year after each cohort received their respective treatments we went back and implemented an in-person follow up survey with the respondents, with an average response rate of 95%. We use that survey to estimate the impacts of the provision of capital on the sample. Our main tables are split by gender, tables that look at the impact pooling both genders can be found in the appendix.

Most of our analysis in this section consists in examining intention to treat estimates.[9] Thanks to the randomization we are able to use a simple ANCOVA specification where we regress the outcome variable on indicators for each treatment while controlling for the baseline value of the outcome when available while including cohort fixed effects.

$$Y_i = \quad + \quad _L Loan_i + \quad _{IK} InKind_i + \quad _C Cash_i + Y_{0i} + \quad _{cohort} \tag{1}$$

3.1 Outside Financing

We begin by reporting impacts on financial market engagement in Table 3. While the previous table showed that applicants accepted the funds provided to them it is possible that individuals in the control could have just accessed capital from other lenders, or compensated by using other methods of financing.

[8]Previous work has shown lower than 100% take up of grants (Haushofer and Shapiro (2016)), and in our case we were informed that there was some within-village conflicts between some clients and loan-officers that led to a small number of grants not being made.

[9]Since takeup of credit and grants were so high our treatment on the treated effects would be very similar to our ITT estimates.

We observe substantial differences between treatments and between genders. Our estimates show that getting access to the program leads to women increasing their utilization of finance through an increase in total loans with the largest effect coming for those who received grants. On the other hand we find negative impacts for men, with men decreasing their outside borrowing in response to getting capital from this program. We see the largest decrease coming from the loan group, showcasing that many men in the control group did end up going and getting credit from elsewhere. The point estimate is 963 EGP, a substantial amount given the size of loans from the capital assistance was around 2000 EGP. Although the decrease in total loans is not statistically significant for the two grant treatments they are also large and negative.

These estimates imply that in this context men may not have suffered from financial constraints since they were able to access other sources of financing when they were denied capital support from our MFIs. Women, on the other hand, did seem to face important financial constraints, and the women who got grants found a way to leverage those funds to get additional credit relative to control. While it is complicated to identify the exact mechanisms behind this effect, one interpretation is that the program generated additional opportunities for women and eased their access to funding, maybe because they were able to use the assets they received from the program as collateral on new loans.

Columns 4-6 report participation in RoSCAs and overall savings levels. We show overall positive impacts on savings for women in RoSCA use but no significant impacts for men, providing additional support for the idea that men were not particularly financially constrained in this context. We see outside savings going up for both genders, but this increase is imprecisely estimated for men.

3.2 Impacts on Business, Employment and Income

Table 4 outlines the impacts on business outcomes. All three types of capital assistance are effective in increasing the proportion of individuals who have their own business. To start we note that 26.8% of men in the control group own their own business (compared to 17% at baseline) while 15.0% of women do (8% at baseline). These numbers reflect the fact that everyone in our sample had been approved for a loan and so it is not surprising that despite being denied the loan many of them still managed to find a way to start a business. Using

the randomization we see that the loan increases business ownership by 13.5 percentage points for women, and 13.7 percentage points for men. The in-kind grant increases it by 23.7 percentage points for women and 15.6 percentage points for men. The cash grant increases it by 21.8 percentage points for women and 12.2 percentage points for men. These impacts are some of the largest in the literature on capital assistance.

Column 2 reports the impacts on asset accumulation. Comparing control group means shows that men are more likely to have significant assets, with the average asset level for men at 3326EGP while women in the control group only have 232EGP worth of assets. Accordingly we see relatively large and precise increases in assets for women, with grants more than doubling the amount of assets for women and loans increasing it by about 80%. For men we see even larger increases but the estimates are much less precise given the increased variance amongst that group.

Columns 3-5 outline impacts on revenues, expenditures and profits respectively. Individuals who do not have a business are included as "zeros" in these regressions. The survey was implemented after those in the loan group finished repaying their loan so their business measures are comparable to those in the grant groups. We find that women in the control group report 59EGP a month in business profits compared to 511EGP a month for men. We also see large and precisely estimated increases for women with all types of capital more than doubling profits. Loans led to an additional 63EGP a month, in-kind grants led to a 133EGP increase, and cash grants led to a 60EGP increase per month. We see slightly larger increases for men in the cash grant treatment, slightly lower in the in-kind treatment and much larger in the loan treatment, but each difference is estimated less precisely, and none reach conventional levels of statistical significance. As a percent increase the impacts on profits for women range from 107% to 224%, whereas the increases from men range from 13% to 28%. Patterns are similar when we consider monthly revenues and expenses. [10] We also include an standardized index variable in column 6 that standardizes each outcome by gender, adds them together and then standardizes again. This index confirms the increase in business outcomes for women, with the in-kind grant performing best, while showing smaller positive effects for men, with loans performing the best.

[10]Note that profits are not mechanically calculated as revenues-expenditures due to the classical timing problems with that constructed measure and instead we use a direct question about profits last month as our main outcome of interest De Mel et al. (2009).

Despite the large increase in business ownership only between 28-42% of both men and women in the treatment groups have a business, whereas about 87% took a business loan and over 98% in the grants arms got a grant to help them start a business. We explore this gap in Table A10. This table provides insights on the different reasons people report for why they don't have a business. 81% of the control group women claim that they don't have a business because they don't have enough capital. This falls by more than half for those in treatment, with about half of the remaining people saying that they tried to start a business and it failed, while the other half saying that they just used the money on non-business activities. For men the story is similar, with 68% in control claiming that they didn't have enough capital, this decreases by about a third in treatment, while only about 8% claim to have tried to start a business and failed, with about 19% saying they used the funds on other items. Taking these results at face value would imply that capital constraints still are binding for many in treatment even after our intervention. A large portion of sample tried and failed to start a business, implying that more support may be needed for business success. We also find that the flypaper effect seems to be more pronounced for men relative to women, as women with the in-kind grant are just as likely to claim to have used the funds in other ways as those in the loan and cash arms, whereas for men they are less likely to have used it outside of the business.

Table 5 reports impacts on employment outcomes. Column 1 considers whether an individual works at all, be it in their own business or working for others. It's worth again noting the stark differences between men and women in the control group. While 24.1% of women in the control group are working one year after they applied for a loan, 89.6% of men are working. This showcases an important difference in the ability for individuals who want to work and start their own business to do so without support. Women, as outlined above, have been shown to systematically face a more difficult time in the labor market. The table shows that all three capital treatments lead to economically large and statistically significant increases in economic activity for women, with a 14 percentage point increase from the loan, and 21 percentage point increases from the in-kind and cash grants. Men on the other hand have precisely estimated null effects, with no impact on overall employment from any of the treatments.

We break the employment impacts apart further in Appendix Table A12 where columns

3 & 5 show that the increase in employment for women is coming nearly all from having their own businesses, while for men the increase in having their own business is coming through a shift away from working for others. Hence while the treatments did not increase labor force participation for men it did change their occupational choices.[11]

We then turn to look at impacts on income in Table 5. Columns 2 & 3 report the impacts on self-employment and wage earnings respectively, while column 4 combines those to showcase the impacts on total labor earnings. We see large and significant impacts for women, nearly doubling their reported labor earnings. Interestingly the impacts from the in-kind grant are concentrated in self-employment, whereas the impacts of cash and loans are split from both self-employment and wage work. This shows that capital that is less restrictive is still able to lead to increases in labor income. For men we see an increase in self-employment earnings which come primarily at the expense of wage earnings leading to small and statistically insignificant impacts on total labor earnings.

Column 7 reports impacts after combining monthly income from all activities including transfers and rents. All three types of capital support lead to increases in monthly income for women, with a 103EGP increase from the loan, a 171EGP increase from the in-kind grant and a 123EGP increase from the cash grant. All of these estimates are precisely estimated and significant at the 1% level. We see smaller and less precisely estimated impacts on income for men, with the loan leading to a 81EGP increase, the in-kind grant leading to a 44EGP increase and the cash grant leading to an 8EGP increase.

Table 6 utilizes data on reported time use to dig deeper on the mechanisms of these income changes. We again see stark differences by gender, with an increase in self-employment hours by women that is coming at the expense of time spent on home activities including child care and household chores. Men on the other hand increase the time spent on self-employment and home agricultural production at the expense of time spent working for others. It's worth noting that the increase in self-employment and home agriculture are larger than the decrease in working for others, showing an increase in productive activities overall.

[11](Osman, 2014) provides evidence from a broad sample of students that occupational choices in this context are malleable and can respond to information provision.

3.3 Impacts on Non-Business Outcomes

Table 7 reports impacts on several non-business outcomes. Column 1 reports responses to a question that aims to assess their quality of life using "Cantril's Ladder" where respondents are asked to imagine a ladder with 0 at the bottom and 10 at the top where 0 is their worst possible life and 10 the best. Men and women both see themselves relatively low on the ladder with a control group average around 3.4 for each gender (recall that these are largely poor young people who had trouble finding employment). We find statistically significant increases of about 0.33 points for women who got the loan and 0.45 points for women who got a in-kind grant. On the other hand we find a 0.01 point increase for women who got a cash grant. Men report 0.14, 0.14 and 0.22 point increases for loans, in-kind and cash grants respectively, all of which are not statistically significant. Column 2 shows no sizable differences in a mental health index, but an improvement in reported physical health by women coming from a question that asks them to rate their health on a 1-5 scale. We combine three questions on financial decision making power and find small positive impacts for women, and a negative impact on decision making for men in the in-kind grant group.

Column 5 reports impacts on consumption which is generally positive but noisy. Our total consumption measure suffers from combining several questions which many individuals reporting that they "didn't know" how much they consumed of the good in the previous period, leading to losing about a quarter of the sample from our "total consumption" measure. Appendix Tables A16 & A17 break consumption up into separate categories, improving our ability to include people from the sample if they answered one consumption question and not others. Overall we see increases in consumption of leisure for both genders, and an increase in health spending for men. Overall the increase is in line with the increase in income, but given that consumption for women is many times larger than their income it is difficult to pick up significant differences.

3.4 Heterogeneous Treatment E□ects

We next turn to exploring heterogeneous treatment effects by baseline characteristics. Table 8 considers the impacts on total income by each treatment split for women, and Table 9 repeats this analysis for men. Each column corresponds to a baseline characteristics that is then interacted with treatment. Hence Column 1 uses whether or not the individual had a

business at baseline. It shows that for women without a business at baseline the impacts of the treatments are still positive, but those that also had a business at baseline had additional positive impacts from the funds, implying that individuals with business experience are better able to utilize the funds to improve outcomes. Unfortunately breaking the sample apart by gender and baseline characteristics decreases the precision of our estimates, and the interaction effects are not statistically significant. For men we see a similar pattern, with increases in total income for those that had a business at baseline, except for those with in-kind grants.

The remaining columns consider people who expressed a preference for self-employment relative to wage work, people who save regularly, individuals with kids, people who have borrowed before, individuals who experience pressure from their families to share money, and a combined index of broad family pressure (taken from (Fafchamps et al., 2014)). There are three notable take aways for women: first, having children has a negative effect on being able to use the funds to increase income, particularly for those who got a loan. Second, having a family that expects them to share profits leads to lower impacts for the more flexible funds like loans and cash but not for the in-kind grant. Third, most interaction effects are not statistically significant, implying that there are no simple and strong stories that predict the effectiveness of treatment on increasing total income. For men there is even less evidence that any of the baseline characteristics we collected are predictive of performance.

We have also implemented the machine learning methods outlined in (Chernozhukov et al., 2018) that provide a more flexible strategy for detecting subgroups with high returns to the interventions. These methods were also unable to find significant evidence of heterogeneity using the baseline data we collected (results available upon request).

This inability to find striking examples of predictive baseline characteristics is consistent with the literature on identifying high return entrepreneurs and the heterogeneous returns to capital as in McKenzie and Sansone (2019) and Hussam et al. (2020)[12].

[12]McKenzie and Sansone (2019) tests different methods to predict entrepreneur success using data from a business plan competition that provided large grants in Nigeria. They find that that the predictive power of expert opinion, theory driven characteristics and machine learning techniques are all low. Hussam et al. (2020) also find limited predictive power of standard economic data in a field experiment in India where they elicit peer perceptions of returns to capital and find local knowledge to be informative above and beyond the predictive power of baseline characteristics.

3.5 Discussion of Average Treatment E□ect Analyses

Taken together these estimates show that capital assistance is successful in increasing business creation and business profits for both men and women. The implications of this depends on the outside option of each gender. Women shift away from uncompensated household work into work that is compensated by the labor market and hence increase their total income. Men on the other hand shift their time away from working for others into self-employment which has a minimal impact on their overall income since they are replacing one type of paid activity with another.

There is some evidence of heterogeneity in impacts across the three treatment arms and across genders but none that clearly stand out as extremely predictive of impacts. We expected to find differences between the in-kind grant and cash grant based on variables like family pressure and internal discipline, but while there are some suggestive results more often than not the average differences between the three treatments are minimal. We move beyond averages in the next section.

4 Distributional Tests

The impacts reported in Section 3 allow us to assess the differences in the average outcomes for each treatment group. Yet it is possible that individuals who received a cash grant and those that received an in-kind grant have the same average impact but that this is driven, for instance, by an increase at the top of the distribution for cash, while being driven by a more equal increase across the whole group who got the in-kind grant. In this section we turn to testing if the distributions of outcomes differ across the randomized groups.

We do this in two ways, first by utilizing ranksum and Kolmogorov-Smirnov tests to compare the distributions of each group directly. We then also consider quantile regressions of the following form.

$$Q_q(Y) = \quad_q + \quad_{q;L} Loan_i + \quad_{q;I\,K} In\,Kind_i + \quad_{q;C} Cash_i \tag{2}$$

Our main outcome of interest is total monthly income since the goal of the program was to increase economic activity and total monthly income takes into account all of the choices

that individuals make about how to use the funds while providing a good summary measure for how it affects their bottom lines.

4.1 Equality of Distributions

To assess if the distributions of the outcomes are equal across groups we start in Table 10 where we utilize a Wilcoxon Rank-Sum test and report the results[13]. Panel A compares the distributions of total income. Each cell in this table provides the p-value on a test of equality of distributions between the associated groups. The distribution of income for women who received capital assistance is significantly different than control (with p-values that are uniformly below the 1% level), no matter the type of assistance they receive. On the other hand there is no difference in the income distribution for men relative to control.

We then consider if there are differences in the distribution between the three pairs of treatments: Loan vs. In-Kind; In-Kind vs. Cash; and Cash vs. Loan. Interestingly when we compare the treatments to each other we cannot reject the null hypotheses that the distributions of total income are equal across treatments for either gender.

For completeness we also include panel B in Table 10 which shows how the distribution of business profits is significantly different for the each treatment group relative to the control group for both genders. When we compare the different capital treatments to each other we find a significant difference between the loan & in-kind treatments for women but not in any of the other cases.

Hence, while providing some type of capital clearly leads to differences in the distribution of income for women in treatment relative to control the differences by type of capital are less stark. Similarly the distributions of profits are clearly affected for both genders, but the differences between treatments are small.

4.2 Quantile Treatment E□ects

Next we consider quantile treatment effects. Quantile treatment effects allow us to better visualize where in the distribution the impacts are located with appropriate assumptions. We can first begin by plotting the treatment effects on income for men and women in Figure

[13]We also implement a similar exercise but using the Kolmogorov-Smirnov and find the same qualitative results, reported in Appendix Table A18

1. We see that the grants lead to positive impacts for women from the 30th quantile up, while the impacts were similar but a bit noisier for the loan. For men we have much noisier impacts that bounce around zero and only seem to be positive and significant at the highest quantiles in the cash grant treatment.

Next we report the results of 5 explicit tests of equality in quantile treatment effects in Table 11. First we test whether the quantile treatment effects at 9 points in the distribution (the 25, 37.5, 50, 62.5, 75, 87.5, 90, 95 and 97.5 quantiles) are equal between men and women across treatments [14]. This test allows us to assess whether the impacts across the distribution are different by gender. We can reject this equality with p-value=0.021.

The second tests considers whether the quantile treatment effects are equivalent within a treatment over all three treatments. In other words, is there variation in quantile treatment effects within the loan group, within the in-kind grant group and within the cash grant group? In this case we can reject equality of quantile treatment effects for women with a p-value less than 0.001, showcasing that there is important heterogeneity *within* treatments.

Third, we test whether or not the treatment effects at different quantiles are equal *across* the three treatments for women, i.e. is the 95th quantile treatment effect for loans equal to the 95th quantile treatment effect for in-kind grants and for cash grants? In this case we cannot reject the null, meaning that conditional on the quantile the effect of the three different interventions are statistically equivalent (p-value=0.571).

Next we repeat the second and third tests but for men. We find that we we cannot reject equality of quantiles within a treatment for men nor can we reject the null hypotheses that the quantile treatment effects are equivalent across treatments conditional on quantile.

4.3 Implications of Distributional Analyses

Given these results we can conclude that the average treatment effects were being driven by individuals at the top of the distribution. Across all three capital interventions those at the bottom of the distribution have no discernable impact while those at the top of the distribution are finding large increases in their total incomes, especially for women. This difference is statistically significant. Importantly we see that the impacts of those at the top of the distribution across the three treatments are statistically equivalent, as is the difference

[14] Results are quantitatively and qualitatively similar when using fewer points in the distribution

in impacts across genders.

Taken together we interpret this as strong evidence that *who you are* if more important that *what you get* when considering capital assistance for encouraging higher levels of labor income. All three types of capital assistance have been shown to have the potential for very different impacts across many different studies, but in this context we are able to hold sampling variation constant and showcase that the impact of individual heterogeneity is larger than the impact of providing a cash grant or forcing people to repay those funds. This implies that it is more important for policymakers who want to increase the return from transfers to focus on identifying individuals with high returns.

5 Marginal Returns and Cost E□ectiveness

We can use our data to compute and compare the marginal return of capital. Our experiment is not tailored to exogenously vary the intensity of capital assistance, however it is possible to define a Wald like estimate for the relation of a variable X to a variable Y using an instrument Z, when suitable exogeneity assumptions hold (i.e. $Wald(Y/X) = (\overline{Y}^{Z=1} - \overline{Y}^{Z=0}) \ (\overline{X}^{Z=1} - \overline{X}^{Z=0})$). In this case we simply consider

$$Y = {}_0 + {}^L_Y Loan + {}^{IK}_Y In\,Kind + {}^C_Y Cash + u_Y$$
$$X = {}_0 + {}^L_X Loan + {}^{IK}_X In\,Kind + {}^C_X Cash + u_X$$

where we compute the marginal impact of X on Y when X increases through a specific capital channel C as ${}^C_{Y=X} = {}^L_Y / {}^L_X$. We do this to look at the relation between different income sources and the amount of the capital assistance received. Results appear in table 12. The first column shows the marginal return of the capital assistance received on labor income. The marginal return is large and significant in all three cases for women. It is the largest for cash grants (5.4%) but also very large for loans (4.9%) and in-kind grants (5.3%) and all three estimates are statistically equivalent. On the other hand, as we expected from the previous tables, impacts for men are far lower and not significantly different from zero. These estimates for women are in line with other estimates in the literature including what was reported in (De Mel et al., 2008), with the main difference being that the effects are observed for women, while they find results only significant for men.

In Appendix Table ?? we separate total income into income from non-business sources (column 2) and income from business sources (column 3). We round out the table with a partial derivative showcasing how business profits respond to assets (column 4) and how assets respond to the capital assistance (column 5) :

$$\frac{@Profit}{@Capital} = \frac{@Profit}{@Asset} \times \frac{@Asset}{@Capital}$$

Column 4 shows that the impact of a marginal increase in assets has a very large impact on profits, ranging from 13% for the cash grant to 23% for the in-kind grant. Although the differences are not statistically significant, this might suggest that the type of businesses launched after receiving the different intervention might be different. The last important result in the table is the weak relationship between the amount of capital assistance received and the amount of productive assets held by the participant. While the in-kind treatment arm for women is highest it is still only 26% despite having the funds provided to them directly as assets. This is unsurprising at this point since we have seen that the majority of women in treatment end up without a business after 12 months.

For men on the other hand, we see that the return to assets are not nearly as high as for women, but more of the capital is turned into assets leading to similar rates of return for the capital intervention, but less precisely estimated.

5.1 Cost-E□ectiveness

In this section we present and discuss the result from our cost-benefit analysis. The details of our framework are presented in Appendix 1. There are several plausible ways to analyze cost effectiveness, depending on the assumptions made about how to estimate costs and how to estimate benefits.

Costs can be split into capital costs and implementation costs. For grants, the cost of capital is equal to the total amount of capital provided, whereas for loans, the cost of capital is equal to the net present value of the effective subsidy provided by the donor (the Sawiris Foundation) relative to the market interest rate and the costs of any potential default.[15]

[15]There was no loan default in our sample. Default is extremely rare in this context because Egypt's legal system allows creditors to send debtors who are unable to pay back their debt to prison. Before the start of this project we included in the agreement with the implementing partners that anyone who defaults on

Implementation costs include the estimated costs of administering and delivering the grants including screening, and disbursement of the cash and in-kind capital.The implementation costs of the loans include screening, delivering the funds and monitoring repayment of the loans. The costs also include the simple training course that was provided to all three groups since most of the sample had no business experience before. Based on our calculations the total costs for providing a grant was 3.5-4x larger than the total costs for providing a loan. In contexts where there would be no training the cost ratio would be closer to 4-5x. We will use the conservative estimate of 3.5x.

Benefits can be defined in several ways but we focus on the total amount of additional *earned income* in each group relative to the control group. Since we only see this difference at 12 months post treatment, after they have completed repayment of the loan, we need to make assumptions about the dynamics of earned income during that 12 month period. One assumption is that due to the need to repay the loan, the profits of the loan group were lower than those in the grant group by the amount of the repayment. Another option could be to assume that the profits of the loan group were stable over the 12 months, and instead revenue and expenditures increased in a way to offset the repayment burden of the loan. These two assumptions would lead to significantly different estimates of the accrued benefits of the loan group. We will focus on the first assumption which is more conservative.

We compute three main parameters, the first is the time needed for the gains from the participants to equal the cost of the program. The second is ratio of the total benefits to the total cost assuming that the impact total income are sustained over a given period of time. The third is a simplified analysis of the benefit/cost ratio assuming that our 12-month estimates are sustained over time.

Results are presented in table 12 which presents analysis separated for males and females (appendix table ?? present the results for all participants together). Column (1) simply recalls the marginal income gain of each of the three interventions. Column (2) then presents the duration needed for the summed benefits to equal the cost of the program. As can be seen from the table, for women, this duration is very short ranging from 18 months for the in-Kind grant to 27 months for the loan. For men, the duration is far larger and is not computable for those that got the cash grant, since the point estimate of the impact on their

the loan would have their debt automatically forgiven. This was not communicated with the participants to avoid issues of moral hazard. In the end this clause did not have to be used.

labor income is negative . This is due to the poor performance of all our interventions on males. Column (3) and (4) assume that the impact that we see in our data is sustained over 30 months (column (3)) or 36 months (column (4)) and present the ratio of total benefits to total costs as discussed in the appendix. For women the ratio ranges from 0.99 (loan) to 1.11 (cash). Interestingly, in the next column the largest benefit to cost ratio is observed for the loan. This happens due to the assumption that the first twelve months of the loan led to lower levels of earned income.

If, on the other hand, we assume that the increase in earned income estimated during the 12-month survey are representative of the average profits during the preceding year, then a simplified benefit/cost ratio could simply be to compare the estimated impacts on loans and multiply it by 3.5 (the difference in cost) and compare that to the impacts from grants. For women the point estimate for loans is 25% lower than for grants. When adjusted for the lower cost then the benefit/cost ratio for loans is 2.6x larger than for grants. For men, the point estimate for grants is 12% larger for loans relative to in-kind grants, and the estimate for the impact of cash is negative. Hence the benefit/cost ratio for loans is 4.9x larger than for in-grants.

6 Conclusion

We implemented a large randomized experiment where we provided young existing and would-be entrepreneurs with either a loan, an in-kind grant or a cash grant and compared them to a control group that received no assistance. One year later we found large positive impacts of capital assistance on business performance, with larger impacts for women relative to men. We found a shift towards self-employment for both genders, coming at the extensive margin for women (i.e. more women working) leading to a increase in total income. For men the increase in self-employment came at the intensive margin (i.e. men shifting from working for others to self-employment), leading to no significant impact on total income.

There are three main takeaways: (1) The impact of capital assistance will depend on who you are at least as much as the type of capital assistance received. Individuals at the top of the distribution are able to utilize capital assistance to increase their income no matter if it is a loan or a grant, while those on the bottom of the distribution cannot. (2) In-kind grants

are the most effective way to induce an increase in micro-enterprise development relative to cash grants and loans, but the impacts here are also concentrated on those at the top of the distribution. (3) From a cost-effectiveness perspective, subsidized loans are the preferred vehicle for increasing total earned income in this context. Since the cost of providing a grant is 3-4 times larger than the cost of providing a loan, and the impacts of the loan are only slightly lower than the impacts of the grants, providing more loans that lead to somewhat smaller increases in earned income will be a more effective strategy than fewer grants that lead to slightly larger increases.

These results lend themselves to several avenues for future research. When considering the impacts of capital assistance, testing different methods to ex-ante identify individuals with the highest returns to capital remains an important yet challenging task (e.g. (McKenzie and Sansone, 2019; Hussam et al., 2020)). Implementing a similar set of tests of the impacts of different types of capital provision on large and more mature businesses would help tackle one important dimension of generalizability. Returning to these businesses in the longer term will allow us to see how these results evolve over time. Finally, a deeper delve into the impacts of the "repayment burden" on business outcomes could shed light on the importance of interest rates and the benefits of microfinance (Karlan and Zinman, 2009).

References

Amer, M. and M. Atallah (2019): "The School to Work Transition and Youth Economic Vulnerability in Egypt," in Economic Research Forum Working Paper Series (Forthcoming).

Angelucci, M., D. Karlan, and J. Zinman (2015): "Microcredit impacts: Evidence from a randomized microcredit program placement experiment by Compartamos Banco," American Economic Journal: Applied Economics, 7, 151–82.

Armendáriz, B. and J. Morduch (2010): The economics of microfinance, MIT press.

Assaad, R., C. Krafft, et al. (2016): "Labor market dynamics and youth unemployment in the Middle East and North Africa: evidence from Egypt, Jordan and Tunisia," in Economic Research Forum Working Paper Series, vol. 993, 1–27.

Attanasio, O., B. Augsburg, R. De Haas, E. Fitzsimons, and H. Harmgart (2015): "The impacts of microfinance: Evidence from joint-liability lending in Mongolia," American Economic Journal: Applied Economics, 7, 90–122.

Augsburg, B., R. De Haas, H. Harmgart, and C. Meghir (2015): "The impacts of microcredit: Evidence from Bosnia and Herzegovina," American Economic Journal: Applied Economics, 7, 183–203.

Baird, S., D. McKenzie, and B. Özler (2018): "The effects of cash transfers on adult labor market outcomes," IZA Journal of Development and Migration, 8, 22.

Banerjee, A., E. Breza, E. Duflo, and C. Kinnan (2019a): "Can Microfinance Unlock a Poverty Trap for Some Entrepreneurs?" Tech. rep., National Bureau of Economic Research.

Banerjee, A., E. Duflo, R. Glennerster, and C. Kinnan (2015a): "The miracle of microfinance? Evidence from a randomized evaluation," American Economic Journal: Applied Economics, 7, 22–53.

Banerjee, A., D. Karlan, and J. Zinman (2015b): "Six randomized evaluations

of microcredit: Introduction and further steps," American Economic Journal: Applied Economics, 7, 1–21.

Banerjee, A., P. Niehaus, and T. Suri (2019b): "Universal basic income in the developing world," Annual Review of Economics, 11, 959–983.

Barboni, G. and P. Agarwal (2018): "Knowing what's good for you: Can a repayment flexibility option in microfinance contracts improve repayment rates and business outcomes?" Tech. rep., Working paper.

Beaman, L., D. Karlan, B. Thuysbaert, and C. Udry (2020): "Selection into Credit Markets: Evidence from Agriculture in Mali," Tech. rep., National Bureau of Economic Research.

Berge, L. I. O., K. Bjorvatn, and B. Tungodden (2015): "Human and financial capital for microenterprise development: Evidence from a field and lab experiment," Management Science, 61, 707–722.

Bernhardt, A., E. Field, R. Pande, and N. Rigol (2017): "Household matters: Revisiting the returns to capital among female micro-entrepreneurs," Tech. rep., National Bureau of Economic Research.

Blattman, C., S. Dercon, and S. Franklin (2019): "Impacts of industrial and entrepreneurial jobs on youth: 5-year experimental evidence on factory job offers and cash grants in Ethiopia," Tech. rep., National Bureau of Economic Research.

Blattman, C., N. Fiala, and S. Martinez (2013): "Generating skilled self-employment in developing countries: Experimental evidence from Uganda," The Quarterly Journal of Economics, 129, 697–752.

——— (2018): "The long term impacts of grants on poverty: 9-year evidence from Uganda's Youth Opportunities Program," Tech. rep., National Bureau of Economic Research.

Brudevold-Newman, A., M. Honorati, P. Jakiela, and O. Ozier (2017): A firm of one's own: experimental evidence on credit constraints and occupational choice, The World Bank.

Card, D., J. Kluve, and A. Weber (2018): "What works? A meta analysis of recent active labor market program evaluations," Journal of the European Economic Association, 16, 894–931.

Chernozhukov, V., M. Demirer, E. Duflo, and I. Fernandez-Val (2018): "Generic machine learning inference on heterogenous treatment effects in randomized experiments," Tech. rep., National Bureau of Economic Research.

Crépon, B., F. Devoto, E. Duflo, and W. Parienté (2015): "Estimating the impact of microcredit on those who take it up: Evidence from a randomized experiment in Morocco," American Economic Journal: Applied Economics, 7, 123–50.

Czura, K., A. John, and L. Spantig (2019): "Flexible Microcredit: Effects on Loan Repayment and Social Pressure," .

Dahal, M. and N. Fiala (2020): "What do we know about the impact of microfinance? The problems of statistical power and precision," World Development, 128, 104773.

De Mel, S., D. McKenzie, and C. Woodruff (2008): "Returns to capital in microenterprises: evidence from a field experiment," The quarterly journal of Economics, 123, 1329–1372.

De Mel, S., D. J. McKenzie, and C. Woodruff (2009): "Measuring microenterprise profits: Must we ask how the sausage is made?" Journal of Development Economics, 88, 19–31.

Fafchamps, M., D. McKenzie, S. Quinn, and C. Woodruff (2014): "Microenterprise growth and the flypaper effect: Evidence from a randomized experiment in Ghana," Journal of development Economics, 106, 211–226.

Fiala, N. (2018): "Returns to microcredit, cash grants and training for male and female microentrepreneurs in Uganda," World Development, 105, 189–200.

Fiala, N. et al. (2017): "Business is tough, but family is worse: Household bargaining and investment in microenterprises in Uganda," University of Connecticut Department of Economics Working Paper Series, 5.

Field, E., R. Pande, J. Papp, and N. Rigol (2013): "Does the classic microfinance model discourage entrepreneurship among the poor? Experimental evidence from India," American Economic Review, 103, 2196–2226.

Field, E., R. Pande, N. Rigol, S. Schaner, and C. T. Moore (2016): "On Her Account: Can Strengthening Women's Financial Control Boost Female Labor Supply?" Tech. rep., Working paper.

Ghafar, A. A. (2016): "Educated but unemployed: The challenge facing Egypt's youth," Brookings Doha Center, 1–16.

Gulesci, S. and A. Madestam (2018): "Repayment flexibility and risk taking: Experimental Evidence from Credit Contracts," .

Haushofer, J. and J. Shapiro (2016): "The short-term impact of unconditional cash transfers to the poor: experimental evidence from Kenya," The Quarterly Journal of Economics, 131, 1973–2042.

Hussam, R., N. Rigol, and B. N. Roth (2020): "Targeting High Ability Entrepreneurs Using Community Information: Mechanism Design in the Field," .

Jayachandran, S. (2019): "Social Norms as a Barrier to Women's Employment in Developing Countries," Northwestern Working Paper.

Karlan, D. and J. Zinman (2009): "Observing unobservables: Identifying information asymmetries with a consumer credit field experiment," Econometrica, 77, 1993–2008.

McKenzie, D. (2015): Identifying and spurring high-growth entrepreneurship: Experimental evidence from a business plan competition, The World Bank.

——— (2017): "How effective are active labor market policies in developing countries? a critical review of recent evidence," The World Bank Research Observer, 32, 127–154.

McKenzie, D. and D. Sansone (2019): "Predicting entrepreneurial success is hard: Evidence from a business plan competition in Nigeria," Journal of Development Economics, 141, 102369.

Meager, R. (2016): "Aggregating distributional treatment effects: A Bayesian hierarchical analysis of the microcredit literature," Manuscript: MIT.

Osman, A. (2014): "Occupational choice under credit and information constraints," Working Paper.

Samir, N. (2019): "32.5% of Egypt population live in poverty," Daily News Egypt.

Tarozzi, A., J. Desai, and K. Johnson (2015): "The impacts of microcredit: Evidence from Ethiopia," American Economic Journal: Applied Economics, 7, 54–89.

Table 1: Baseline Balance

	Treatment Status			
	Control	Microcredit	In-Kind Grant	Cash Grant
	(1)	(2)	(3)	(4)
Age	28.91	-0.39	-0.38	-0.32
	{0.168}	(0.233)	(0.260)	(0.262)
Male	0.39	0.02	0.02	-0.01
	{0.015}	(0.021)	(0.025)	(0.024)
College Education	0.09	-0.00	0.02	-0.02
	{0.009}	(0.013)	(0.016)	(0.014)
High School Education	0.59	0.02	-0.03	0.01
	{0.014}	(0.021)	(0.024)	(0.024)
Less than High School	0.27	-0.01	0.01	0.01
	{0.013}	(0.019)	(0.022)	(0.022)
Worked Before	0.28	0.01	0.15	-0.04
	{0.014}	(0.019)	(0.152)	(0.023)
Has a Business	0.11	0.01	-0.02	-0.01
	{0.009}	(0.013)	(0.014)	(0.014)
Single	0.38	-0.01	0.02	-0.02
	{0.014}	(0.021)	(0.024)	(0.024)
Married	0.57	0.02	-0.02	0.02
	{0.015}	(0.022)	(0.025)	(0.025)
Has Kids	0.50	0.03	-0.00	0.01
	{0.50}	(0.021)	(0.024)	(0.024)
Low Family Income	0.31	-0.02	-0.02	-0.03
	{0.011}	(0.016)	(0.018)	(0.019)
Has Previous Borrowing	0.11	-0.01	0.00	-0.01
	{0.009}	(0.012)	(0.015)	(0.014)
Broad External Pressure	-0.08	0.06	0.07	0.07
	{1.10}	(0.042)	(0.050)	(0.048)
Received Training		80.68	0.01	-0.00
		{0.394}	(0.010)	(0.009)
Joint		0.216	0.353	0.073
N	1020	994	604	618

Notes: Control group means are listed in column 1, with standard deviations in brackets. Differences between the control group and each individual group are found in subsequent columns. The joint p-value comes from a regression of a treatment indicator on all of the variables used to check balance, restricting the sample to just that treatment arm and the control group. The number of observations reflect the size of the sample in that particular treatment arm. Robust standard errors in parentheses. Regressions include cohort fixed effects. Significance * .10; ** .05; *** .01.

Table 2: Compliance with the experimental protocol by gender

	Amount Received	Received			Conditional Amount
		Microcredit	In-Kind Grant	Cash Grant	
	(1)	(2)	(3)	(4)	(5)
Panel A: Female Participants					
Micro credit	2030.104	0.882	0.000	0.000	2300.784
In kind grant	2368.436	0.000	0.992	0.000	2388.451
Cash grant	2337.306	0.000	0.000	0.972	2405.867
Control	0.000	0.000	0.000	0.000	0.000
Observations	1944	1944	1944	1944	1252
Panel B: Male Participants					
Micro credit	2044.131	0.862	0.000	0.000	2372.752
In kind grant	2410.811	0.000	0.985	0.000	2448.627
Cash grant	2365.966	0.000	0.000	0.979	2416.738
Control	0.000	0.000	0.000	0.000	0.000
Observations	1349	1349	1349	1349	864

Notes: The table uses administrative data received from implementing NGOs based on actual amounts disbursed to each individual in the study. Column 5 reports the amount of capital received conditional on receiving the loan/grant.

Table 3: Access to other financial instruments

	Formal Loan (1)	Informal Loan (2)	Total Loans (3)	Rosca Savings (4)	Rosca Credit (5)	Savings (6)	Finance Index (7)
Panel A: Female Participants							
Micro credit	67.252	6.071	241.865	38.190	43.846	33.403	0.106
	(190.939)	(87.255)	(208.645)	(37.802)	(41.025)	(24.681)	(0.064)
In kind grant	349.020	219.232	726.211	209.445	-34.946	78.977	0.311
	(257.391)	(133.840)	(313.791)	(81.492)	(29.688)	(33.741)	(0.102)
Cash grant	104.848	249.513	518.938	83.133	-63.723	70.647	0.171
	(236.897)	(125.282)	(275.727)	(54.978)	(27.063)	(29.215)	(0.081)
Mean	1088.146	457.959	1384.786	97.237	108.449	55.927	0.000
Joint	0.604	0.098	0.063	0.054	0.006	0.025	0.010
Same	0.561	0.087	0.288	0.108	0.009	0.344	0.153
N	1835	1835	1835	1835	1835	1834	1835
Panel B: Male Participants							
Micro credit	-698.101	-365.252	-962.890	-53.414	-150.627	201.524	-0.116
	(365.255)	(240.210)	(436.094)	(100.296)	(63.950)	(205.702)	(0.067)
In kind grant	-616.104	178.587	-346.170	-101.385	-8.029	258.544	-0.016
	(377.328)	(346.094)	(500.743)	(85.756)	(74.538)	(261.106)	(0.072)
Cash grant	-465.138	-448.213	-815.638	6.944	-45.383	337.228	-0.031
	(427.923)	(258.286)	(505.182)	(115.085)	(99.885)	(339.285)	(0.092)
Mean	2151.639	1239.809	3298.552	256.967	206.448	676.621	0.000
Joint	0.272	0.096	0.116	0.554	0.008	0.616	0.274
Same	0.815	0.130	0.337	0.526	0.014	0.916	0.273
N	1240	1240	1240	1240	1240	1230	1240

Notes: Column 1 and 2 are business loans taken from formal entities or from family. Rosca savings is the amount paid towards the rosca for those who haven't received it yet. Rosca credit is the amount still left to be paid after receiving the rosca. Finance index is a standardized index of columns 1,2,4,5,6. Amounts are winsorized at the 99th percentile. The "Joint" row reports the p-value for the test for joint significance of the three treatment coefficients. The "Same" row reports the p-value for testing the hypotheses that there is no difference in the treatment coefficients. Robust standard errors in parentheses. Regressions include cohort fixed effects. Significance * .10; ** .05; *** .01.

Table 4: Business activity

	Has Business (1)	New Asset (2)	Revenue (3)	Expenditure (4)	Profit (5)	Business Index (6)
Panel A: Female Participants						
Micro credit	0.135	362.522	205.101	152.669	63.010	0.342
	(0.024)	(106.210)	(77.271)	(63.759)	(19.042)	(0.082)
In kind grant	0.237	514.781	490.507	374.264	133.237	0.660
	(0.028)	(141.346)	(114.415)	(88.787)	(28.547)	(0.113)
Cash grant	0.218	470.709	272.608	202.575	60.115	0.452
	(0.028)	(142.833)	(79.047)	(66.725)	(16.314)	(0.085)
Mean	0.150	232.246	248.160	204.340	58.856	-0.000
Joint	0.000	0.000	0.000	0.000	0.000	0.000
Same	0.001	0.613	0.065	0.063	0.037	0.038
N	1835	1835	1834	1833	1834	1835
Panel B: Male Participants						
Micro credit	0.137	1832.618	1101.989	707.915	135.687	0.199
	(0.034)	(1084.290)	(708.533)	(633.822)	(102.971)	(0.085)
In kind grant	0.156	-493.888	-117.735	-136.108	94.760	0.088
	(0.038)	(914.807)	(523.582)	(475.835)	(111.353)	(0.077)
Cash grant	0.122	1560.658	163.055	-292.725	63.632	0.103
	(0.038)	(1365.539)	(550.227)	(476.543)	(102.075)	(0.080)
Mean	0.268	3325.956	2234.180	1861.986	511.066	-0.000
Joint	0.000	0.083	0.368	0.418	0.593	0.132
Same	0.734	0.041	0.226	0.245	0.799	0.422
N	1240	1240	1237	1230	1236	1240

Notes: Column 2 are assets bought during the year after randomization. Assets include business premises, land, furniture, equipment, and vehicles. Column 6 is an index of columns 1,2,3,4,5. Amounts are winsorized at the 99th percentile. The "Joint" row reports the p-value for the test for joint significance of the three treatment coefficients. The "Same" row reports the p-value for testing the hypotheses that there is no difference in the treatment coefficients. Robust standard errors in parentheses. Regressions include cohort fixed effects. Significance * .10; ** .05; *** .01.

Table 5: Income

	Has Work (1)	Self Employment (2)	Wage Employment (3)	Labor Income (4)	Family Transfers (5)	Gov. Transfers (6)	Total Income (7)
Panel A: Female Participants							
Micro credit	0.142	63.010	30.561	93.711	-9.183	9.989	102.765
	(0.027)	(19.042)	(17.959)	(25.836)	(24.624)	(13.561)	(37.426)
In kind grant	0.205	133.237	-14.632	118.466	48.000	10.141	170.820
	(0.031)	(28.547)	(15.790)	(33.060)	(33.076)	(15.544)	(46.261)
Cash grant	0.214	60.115	58.665	119.070	-8.665	15.195	122.743
	(0.030)	(16.314)	(24.525)	(29.320)	(27.064)	(14.540)	(40.049)
Mean	0.241	58.856	67.647	126.592	176.988	145.408	459.148
Joint	0.000	0.000	0.006	0.000	0.335	0.742	0.000
Same	0.044	0.037	0.003	0.689	0.184	0.933	0.381
N	1835	1834	1835	1834	1835	1835	1834
Panel B: Male Participants							
Micro credit	-0.006	135.687	-103.223	53.123	0.938	6.189	81.266
	(0.022)	(102.971)	(76.493)	(106.889)	(6.403)	(6.778)	(107.489)
In kind grant	0.019	94.760	-46.684	46.791	-11.904	1.143	43.611
	(0.025)	(111.353)	(89.697)	(120.944)	(4.403)	(7.132)	(120.092)
Cash grant	-0.000	63.632	-85.438	-20.709	7.748	10.494	7.931
	(0.025)	(102.075)	(90.166)	(114.267)	(8.059)	(9.174)	(113.304)
Mean	0.896	511.066	1140.150	1652.855	11.475	44.522	1715.779
Joint	0.787	0.593	0.568	0.911	0.000	0.607	0.881
Same	0.595	0.799	0.824	0.808	0.001	0.632	0.833
N	1240	1236	1239	1235	1240	1240	1235

Notes: Column 4 is the total of columns 2 and 3. Column 7 is the total of columns 2, 3, 5 and 6. Amounts are winsorized the 99th percentile. The "Joint" row reports the p-value for the test for joint significance of the three treatment coefficient The "Same" row reports the p-value for testing the hypotheses that there is no difference in the treatment coefficient Robust standard errors in parentheses. Regressions include cohort fixed effects. Significance * .10; ** .05; *** .01.

Table 6: Time Use

	Hours Spent on:					
	Employee	Self-employee	Home Agri.	Childcare	Household Chores	Econ Time -Use Index
	(1)	(2)	(3)	(4)	(5)	(6)
Panel A: Female Participants						
Micro credit	0.947	5.012	0.165	-2.184	-3.899	0.243
	(0.705)	(1.166)	(0.439)	(1.373)	(1.745)	(0.062)
In kind grant	0.110	8.606	0.327	-3.074	-6.350	0.342
	(0.843)	(1.419)	(0.564)	(1.492)	(1.935)	(0.076)
Cash grant	1.481	7.797	0.089	-3.245	-4.651	0.365
	(0.843)	(1.348)	(0.501)	(1.463)	(1.894)	(0.073)
Mean	3.381	5.615	2.969	15.821	32.367	0.000
Joint	0.237	0.000	0.948	0.097	0.007	0.000
Same	0.363	0.039	0.919	0.734	0.420	0.204
N	1835	1835	1366	1366	1835	1835
Panel B: Male Participants						
Micro credit	-5.269	6.085	0.903	0.689	-0.587	0.161
	(1.976)	(2.028)	(0.429)	(0.710)	(0.386)	(0.088)
In kind grant	-4.184	5.745	1.168	2.028	-0.005	0.225
	(2.250)	(2.184)	(0.633)	(1.083)	(0.511)	(0.116)
Cash grant	-5.400	5.730	1.133	0.572	-0.544	0.179
	(2.258)	(2.305)	(0.614)	(0.809)	(0.448)	(0.116)
Mean	33.773	13.962	1.147	2.814	2.011	-0.000
Joint	0.027	0.007	0.047	0.316	0.285	0.101
Same	0.861	0.984	0.890	0.359	0.394	0.876
N	1240	1240	892	894	1240	1240

Notes: This table reports weekly hours spent on each activity. Column 5 includes hours spent in the household on cleaning, maintenance and gathering water or fuel. Column 6 is an index of columns 1,2,3. Hours are winsorized at the 99th percentile. The "Joint" row reports the p-value for the test for joint significance of the three treatment coefficients. The "Same" row reports the p-value for testing the hypotheses that there is no difference in the treatment coefficients. Robust standard errors in parentheses. Regressions include cohort fixed effects. Significance * .10; ** .05; *** .01.

Table 7: Additional Outcomes

	Quality Life (1)	Mental Health (2)	Physical Health (3)	Decision Power (4)	Consump--tion (5)
Panel A: Female Participants					
Micro credit	0.334	-0.028	0.063	0.037	-29.462
	(0.141)	(0.060)	(0.063)	(0.054)	(153.693)
In kind grant	0.449	-0.040	0.187	0.089	62.464
	(0.157)	(0.067)	(0.070)	(0.061)	(169.380)
Cash grant	0.014	0.053	0.184	0.068	-102.074
	(0.151)	(0.068)	(0.071)	(0.064)	(174.235)
Mean	3.38	-0.00	3.06	2.08	3348.20
Joint	0.007	0.590	0.014	0.492	0.838
Same	0.029	0.390	0.111	0.680	0.664
N	1835	1835	1835	1835	1415
Panel B: Male Participants					
Micro credit	0.135	0.101	-0.022	0.025	320.306
	(0.158)	(0.070)	(0.074)	(0.056)	(287.769)
In kind grant	0.139	0.093	0.148	-0.130	917.001
	(0.179)	(0.080)	(0.088)	(0.065)	(400.452)
Cash grant	0.215	0.109	-0.034	0.078	83.407
	(0.177)	(0.077)	(0.089)	(0.065)	(319.541)
Mean	3.402	0.000	2.779	2.347	4233.068
Joint	0.648	0.424	0.220	0.025	0.135
Same	0.888	0.981	0.116	0.009	0.176
N	1240	1240	1240	1240	954

Notes: Column 1 is measured by asking participants to report on a scale, or "ladder steps", from 1 to 10 which step they think they stand in terms of happiness with their current achievements in life, ten being the best. Column 2 is an index of questions on how often participants felt worried, tense, anxious or depressed. Column 3 is a self-reported score on physical health from 1 to 5 with 1 being poor health and 5 excellent health. Column 4 is an index using three separate questions about participants' ability to take decision to work outside of home, ability to take decision on household purchases and ability to take financial decisions. Column 5 combines all reported consumption from a detailed consumption module. The number of observations are low because many people didn't know their total consumption on at least one item. A disaggregated consumption analysis can be found in the appendix. The "Joint" row reports the p-value for the test for joint significance of the three treatment coefficients. The "Same" row reports the p-value for testing the hypotheses that there is no difference in the treatment coefficients. Robust standard errors in parentheses. Regressions include cohort fixed effects. Significance * .10; ** .05; *** .01.

Table 8: Heterogeneity Effect on Total Income (Women)

Treatment Interacted With:		Has Business (1)	Wants Business (2)	Saves Regulrarly (3)	Has Children (4)	Borrowed Before (5)	Share Extra Profit (6)	Broad Pressure (7)
Panel A: Female Participants								
Loan	Main	74	137	107	247	94	147	125
		(42)	(62)	(58)	(68)	(42)	(45)	(42.17)
	Interaction	168	-29	6	-184	332	-111	-33.4
		(122)	(87)	(81)	(83)	(181)	(45)	(41.65)
In kind	Main	112	92	214	207	175	154	166
		(51)	(66)	(86)	(75)	(52)	(50)	(48.59)
	Interaction	170	14	-79	-36	62	-29	23.75
		(124)	(34)	(107)	(98)	(153)	(50)	(46.09)
Cash	Main	107	101	135	199	135	133	118
		(46)	(63)	(65)	(71)	(44)	(43)	(41.34)
	Interaction	34	22	-24	23	-89	-94	19.14
		(106)	(87)	(87)	(122)	(124)	(45)	(45.10)
Mean		542	557	553	512	568	462	471
Proportion with Interaction Variable		0.09	0.55	0.65	0.66	0.11	0.44	
P-value of Main effect		0.009	0.012	0.002	0.000	0.000	0.000	0.000
P-value of Interaction effect		0.139	0.747	0.691	0.096	0.265	0.212	0.994
N		1810	1810	1810	1810	1810	1670	1810

Notes: Table reports the impact on total income for each of the three treatment arms interacted with the varliable listed at the top of the column. Column 7 is an index of questions on whether the individual says there is pressure to share extra profits with others, that whenever there is money on hand others request it, that people who do well in business receive additional request for money, that machines and equipment are a good way to save money so others don't take it, household size and marital status. Reported p-values comes from testing if the main effect estimates are jointly equal to 0, and from testing if the interaction effects are jointly equal to 0. Total income is winsorized at the 99th percentile. Robust standard errors in parentheses. Regressions include cohort fixed effects. Significance * .10; ** .05; *** .01.

Table 9: Heterogeneity Effect on Total Income (Men)

Treatment Interacted With:		Has Business (1)	Wants Business (2)	Saves Regulrarly (3)	Has Children (4)	Borrowed Before (5)	Share Extra Profit (6)	Broad Pressure (7)
Panel B: Male Participants								
Loan	Main	-35.20	-55.40	36.60	15.36	62.62	22	36.75
		(112)	(148)	(182)	(130)	(117)	(133)	(115)
	Interaction	169	121	-22.30	107	34.53	26	97.07
		(251)	(226)	(238)	(258)	(434)	(120)	(114)
In Kind	Main	46.25	160	186	145	20.02	-50	19.31
		(138)	(197)	(225)	(162)	(134)	(127)	(130)
	Interaction	-70.90	259.00	-341	-358	152	-87	40.16
		(289)	(181)	(264)	(248)	(370)	(122)	(148)
Cash	Main	-112	115	12.98	-14.50	3.47	-47	-39.2
		(117)	(179)	(228)	(145)	(126)	(130)	(120)
	Interaction	209	-290	-97.80	136	-247	12	-16.6
		(269)	(251)	(269)	(309)	(365)	(124)	(121)
Mean		1955	1800	1841	1865	1979	1800	1770
Proportion with Interaction Variable		0.14	0.51	0.64	0.33	0.10	0.50	
P-value of Main effect		0.610	0.734	0.602	0.860	0.869	0.867	0.912
P-value of Interaction effect		0.562	0.615	0.460	0.886	0.999	0.214	0.596
N		1214	1214	1214	1214	1214	1148	1214

Notes: Table reports the impact on total income for each of the three treatment arms interacted with the varliable listed at the top of the column. Column 7 is an index of questions on whether the individual says there is pressure to share extra profits with others, that whenever there is money on hand others request it, that people who do well in business receive additional request for money, that machines and equipment are a good way to save money so others don't take it, household size and marital status. Reported p-values comes from testing if the main effect estimates are jointly equal to 0, and from testing if the interaction effects are jointly equal to 0. Total income is winsorized at the 99th percentile. Robust standard errors in parentheses. Regressions include cohort fixed effects. Significance * .10; ** .05; *** .01.

Table 10: Ranksum tests

	Treatment Groups vs Control			Within Treatment Groups		
	Loan	In-Kind	Cash	Loan/In-Kind	In-Kind/Cash	Cash/Loan
	(1)	(2)	(3)	(4)	(5)	(6)
Panel A: Monthly Income						
All participants	0.008	0.009	0.170	0.731	0.233	0.290
Female participants	0.002	0.000	0.002	0.327	0.493	0.813
Male participants	0.983	0.969	0.666	0.947	0.726	0.604
Panel B: Monthly Profit						
All participants	0.000	0.000	0.000	0.037	0.150	0.571
Female participants	0.000	0.000	0.000	0.003	0.148	0.137
Male participants	0.004	0.006	0.021	0.931	0.742	0.788

Notes: Table reports the p-value from ranksum distributional tests of monthly income in panel A and monthly profits in panel B. Columns 1, 2, and 3 compare the distribution of income in each treatment arm to control. Column 4 compares the loan group to the in-kind group, Column 5 compares the in-kind group to the cash group and Column 6 compares the cash group to the loan group.

Table 11: Testing restrictions among quantile treatment effects of total labor income

Hypothesis	p-value
Same effect for Male and Female across quantiles and across treatments For all q, $\overset{F}{q;L} = \overset{M}{q;L}$ & $\overset{F}{q;IK} = \overset{M}{q;IK}$ & $\overset{F}{q;IK} = \overset{M}{q;IK}$	0.021
Same quantile treatment effect across quantiles within treatment for all three treatments for women For each treatment T $\overset{}{:25;T} = \overset{}{:375;T} = \overset{}{:5;T} = \overset{}{:625;T} = \overset{}{:75;T} = \overset{}{:875;T} = \overset{}{:90;T} = \overset{}{:95;T}$	$<$0.001
Same quantile treatment effect across treatment within each quantile joint over all five quantiles for women For each quantile value $q \in \{:25;:375;:50;:625;:75;:875;:90;:95;:975\}$, $\overset{F}{q;L} = \overset{F}{q;IK} = \overset{F}{q;C}$	0.571
Same quantile treatment effect across quantiles within treatment joint over all three treatments for men For each treatment T $\overset{}{:25;T} = \overset{}{:375;T} = \overset{}{:5;T} = \overset{}{:625;T} = \overset{}{:75;T} = \overset{}{:875;T} = \overset{}{:90;T} = \overset{}{:95;T}$	0.221
Same quantile treatment effect across treatment within each quantile joint over all five quantiles for men For each quantile value $q \in \{:25;:375;:50;:625;:75;:875;:90;:95;:975\}$, $\overset{M}{q;L} = \overset{M}{q;IK} = \overset{M}{q;C}$	0.174

The table presents different restrictions based on quantile treatment effects of each treatment jointly estimated for quantiles of order 0.25, 0.375, 0.50, 0.625 0.75, 0.875, 0.90, 0.95, 0.975 separately for male and female participants

$$Q_q(y|G,Loan,InKind,Cash) = \alpha_q + (\beta_{q,L} Loan + \beta_{q,IK} In\,Kind + \beta_{q,C} Cash)$$

Joint variance matrix computed using 5000 bootstrap replications

Table 12: Elements of Cost Benefit Analysis

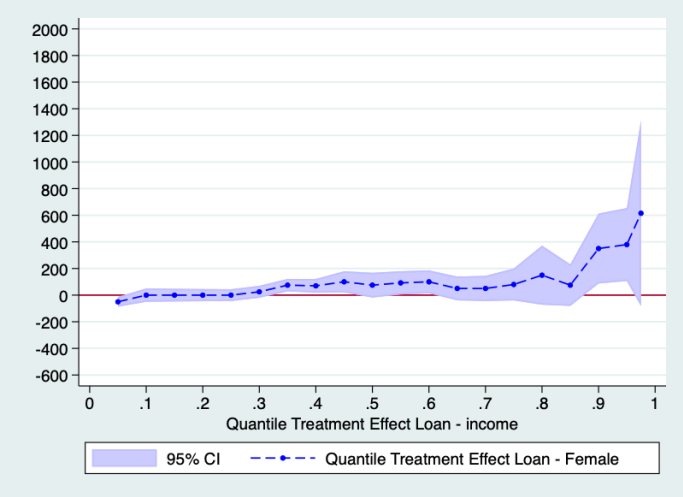
	$\frac{@Labor\,Income}{@Capital}$	Months to cover cost	Benefit/Cost Ratio 30 months	Benefit/Cost Ratio 36 months
	(1)	(2)	(3)	(4)
Panel A: Female Participants				
Loan	0.0488	30.07	0.990	1.808
	(0.0132)	(9.767)	(1.374)	(1.596)
In Kind	0.0534	27.04	1.092	1.268
	(0.0147)	(8.748)	(0.301)	(0.349)
Cash	0.0542	26.55	1.109	1.287
	(0.0132)	(7.582)	(0.270)	(0.314)
Same	0.936	0.942	0.995	0.940
Joint	0.000	0.000	0.000	0.000
N	1835	1835	1835	1835
Panel B: Male Participants				
Loan	0.0261	69.16	-1.369	-0.932
	(0.0511)	(208.5)	(5.307)	(6.164)
In Kind	0.0203	106.7	0.415	0.481
	(0.0511)	(533.4)	(1.045)	(1.214)
Cash	-0.00909	-	-0.186	-0.216
	(0.0490)	-	(1.001)	(1.163)
Same	0.790	-	0.844	0.865
Joint	0.905	-	0.943	0.956
N	1240	1240	1240	1240

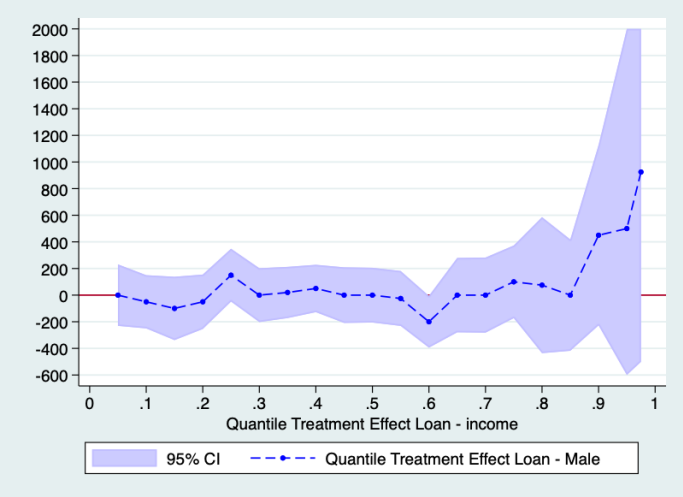
Notes: Column 1 reports the marginal impact of additional capital on labor income. Column 2 reports the months needed for additional earned income to equal cost of implementation. Columns 3 & 4 provide the benefit cost ratio assuming the impacts are sustained for 30 & 36 months respectively. The "Joint" row reports the p-value for the test for joint significance of the three treatment coefficients. The "Same" row reports the p-value for testing the hypotheses that there is no difference in the treatment coefficients. Robust standard errors in parentheses. Regressions include cohort fixed effects. Significance * .10; ** .05; *** .01.

Figure 1: Quantile Treatment Effects for Total Income

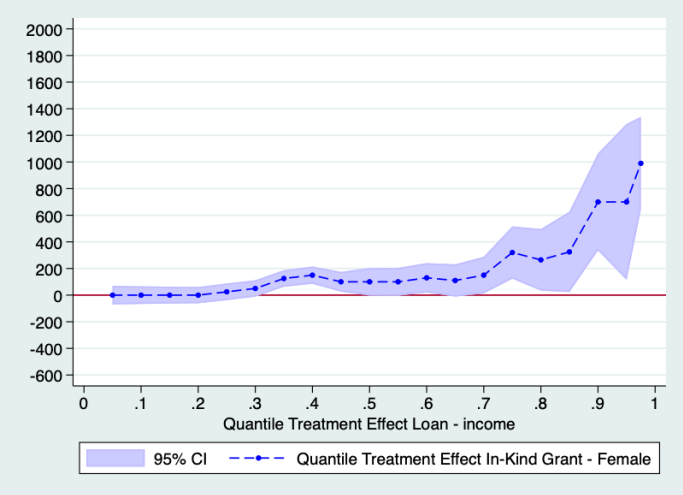
Female	Male

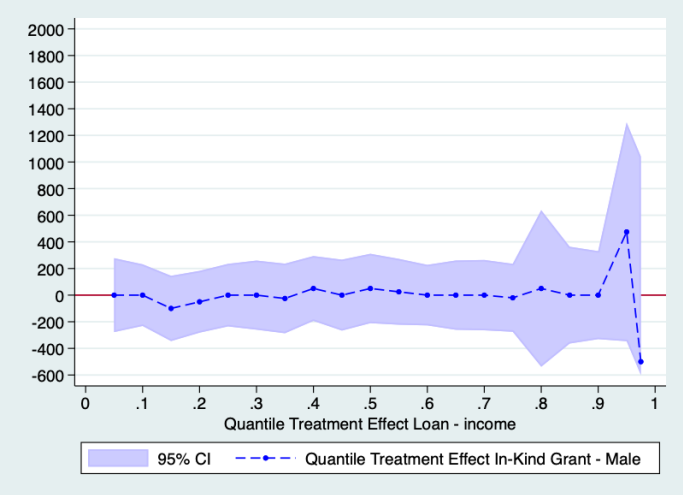
Loan



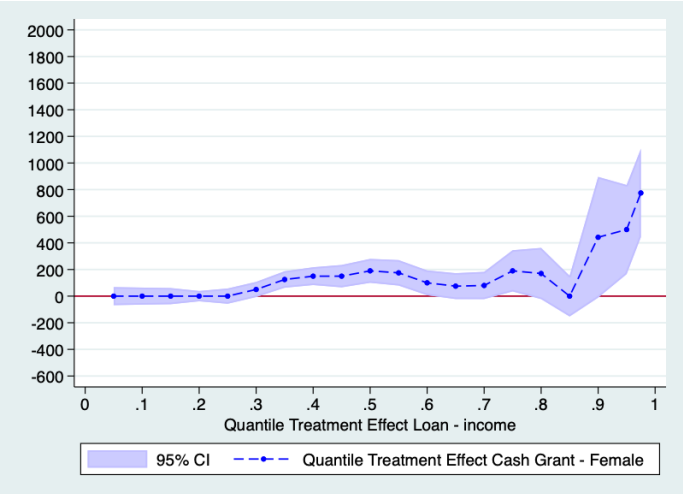


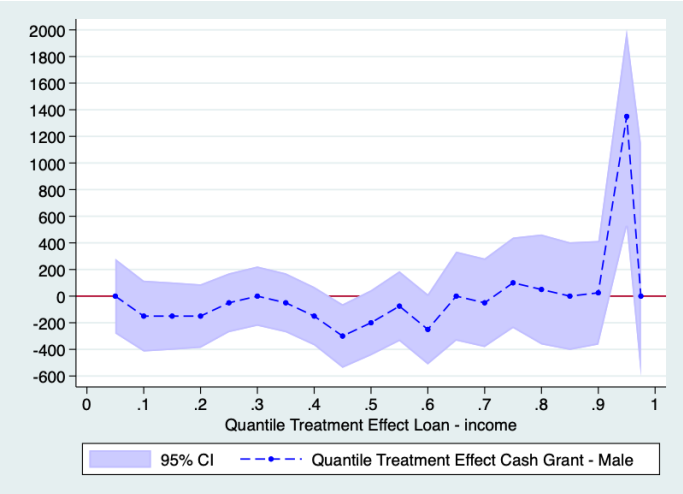
In Kind Grant





Cash Grant





Appendix 1: Comparing Loans and Grants from a Cost benefit perspective

We consider a loan of size C generates a flow of additional income $^{L}_{k}(C)$. It also requires from the participant to pay back the loan. This leads to reimbursement flows $R_k(C)$ which stops after the duration of the loan T_L. We consider that the actualization rate i and make the assumption that it is the same for the NGO and the borrower. If we consider T periods, the net value of the project for the participant over these T period is

$$V_T^L(C) = \sum_{k=1} {}^{k} {}^{L}_{k}(C) - \sum_{k=1} {}^{k} R_k(C) \tag{A1}$$

From the NGO side the loan is subsidized so that it has a cost S

$$S(C) = C - \sum_{k=1} {}^{k} R_k(C) \tag{A2}$$

moreover there is a management cost $M^L(C)$, corresponding to all the steps related to all interactions with participants, from delivering the loan, to explaining the rules, efforts to get the loan repaid and losses in case of default. Thus the total cost of the loan is

$$Cost^L(C) = S(C) + M^L(C) \tag{A3}$$

the value of the project for the participant :

$$V_T^L(C) = \sum_{k=1} {}^{k} {}^{L}_{k}(C) - (C - S(C)) \tag{A4}$$

and the net value, adding NGO and participant's values:

$$\begin{aligned} NV_T^L(C) &= V_T^L(C) - Cost^L(C) \\ &= \sum_{k=1}^{T} {}^{k} {}^{L}_{k}(C) - (C - S(C)) - (S(C) + M^L(C)) \\ &= \sum_{k=1}^{T} {}^{k} {}^{L}_{k}(C) - C - M^L(C) \end{aligned} \tag{A5}$$

For the grants we have exactly the same types of equations except there is no reimburse-

ment and there is full subsidy:

$$V_T^G(C) = \sum_{k=1}^{\bar{K}} \quad {}^{k} \quad {}_{k}^{G}(C) \tag{A6}$$

and

$$Cost^G(C) = C + M^L(C) \tag{A7}$$

The net value has however the same expression:

$$NV_T^L(C) = \sum_{k=1}^{\bar{K}} \quad {}^{k} \quad {}_{k}^{L}(C) - C - M^L(C) \tag{A8}$$

We only have information about the flow of additional income for one single year. We can use it to compare grants and loans in two ways:

a. We compute the duration impacts on income have to be sustained for the intervention to pay for itself. The corresponding equation for an intervention I is

$$\frac{1 - \quad {}^{T}}{1 - } \quad {}^{I}(C) - \quad C + M^I(C) \quad = 0 \tag{A9}$$

Assuming linearity: ${}^{I}(C) = \quad {}^{I}C$ and $M^I(C) = m^I(C)$the duration can be simply computed as

$${}^{T} = 1 - \frac{1 + m^I}{I}(1 - \quad) \tag{A10}$$

b. Assuming impacts can be sustained over a period T, for example $T = 30$ months and then are zero, the participant benefit to NGO cost ratio $B{=}Cost$ is

$$B{=}Cost = \frac{\frac{1}{1} \quad {}^{T} \quad - (1 - s)}{s + m} \tag{A11}$$

where s is the subsidized part of the capital assistance: $s = 1$ for the grant and $s = 0$ for the loan.

The cost data we collected show that, aggregated over the three NGO providing the capital assistance that the management cost, including salaries of loan officer administrative cost, assets and staff training is $m = 0{:}2454$. We consider $\quad = 1{=}(1 + r)$ with r chosen so that the implied annual rate is 15% which leads to r= 1.17%. The results from the previous cost

benefit computations appear in table 12 and are discussed in section 5.1.

Appendix 2: Additional Tables and Figures

Table A1: Baseline Balance (Women)

	Treatment Status			
	Control	Micro Loan	In-Kind Grant	Cash Grant
	(1)	(2)	(3)	(4)
Age	29.29	-0.07	-0.21	-0.09
	{0.235}	(0.326)	(0.364)	(0.353)
College Education	0.09	-0.01	0.02	-0.02
	{0.011}	(0.015)	(0.021)	(0.017)
High School Education	0.55	0.03	-0.02	-0.01
	{0.018}	(0.027)	(0.031)	(0.030)
Less than High School	0.32	-0.01	0.01	0.02
	{0.017}	(0.025)	(0.029)	(0.028)
Worked Before	0.17	0.03	-0.01	0.01
	{0.014}	(0.021)	(0.023)	(0.022)
Has a Business	0.08	0.02	0.00	0.00
	{0.010}	(0.015)	(0.017)	(0.017)
Single	0.25	-0.04	0.02	-0.02
	{0.016}	(0.024)	(0.028)	(0.026)
Married	0.68	0.06	-0.01	0.01
	{0.018}	(0.026)	(0.031)	(0.029)
Has Kids	0.64	0.04	0.00	0.01
	{0.48}	(0.026)	(0.030)	(0.029)
Low Family Income	0.34	-0.01	-0.03	-0.04
	{0.014}	(0.021)	(0.024)	(0.024)
Has Previous Borrowing	0.12	-0.03	0.00	-0.02
	{0.012}	(0.016)	(0.020)	(0.018)
Broad External Pressure	0.00	0.05	0.06	0.02
	{1.00}	(0.052)	(0.062)	(0.061)
Received Training		84.05	0.01	-0.00
		{0.366}	(0.012)	(0.011)
Joint		0.145	0.526	0.415
N	615	577	355	386

Notes: Control group means are listed in column 1, with standard deviations in brackets. Differences between the control group and each individual group are found in subsequent columns. The joint p-value comes from a regression of a treatment indicator on all of the variables used to check balance, restricting the sample to just that treatment arm and the control group. The number of observations reflect the size of the sample in that particular treatment arm. Robust standard errors in parentheses. Regressions include cohort fixed effects. Significance * .10; ** .05; *** .01.

Table A2: Baseline Balance (Men)

	Treatment Status			
	Control	Micro Loan	In-Kind Grant	Cash Grant
	(1)	(2)	(3)	(4)
Age	28.30	-0.72	-0.48	-0.71
	{0.209}	(0.296)	(0.332)	(0.349)
College Education	0.11	0.01	0.02	-0.02
	{0.016}	(0.023)	(0.026)	(0.024)
High School Education	0.63	0.00	-0.03	0.06
	{0.023}	(0.033)	(0.039)	(0.038)
Less than High School	0.22	-0.02	0.00	-0.03
	{0.020}	(0.028)	(0.032)	(0.033)
Worked Before	0.52	0.20	0.37	-0.11
	{0.041}	(0.243)	(0.363)	(0.085)
Has a Business	0.17	-0.03	-0.05	-0.02
	{0.017}	(0.024)	(0.026)	(0.027)
Single	0.60	0.00	0.00	-0.00
	{0.023}	(0.034)	(0.038)	(0.038)
Married	0.38	0.00	0.00	0.00
	{0.023}	(0.034)	(0.038)	(0.038)
Has Kids	0.32	0.00	0.00	-0.03
	{0.47}	(0.033)	(0.037)	(0.037)
Low Family Income	0.26	-0.01	-0.01	-0.03
	{0.017}	(0.023)	(0.025)	(0.028)
Has Previous Borrowing	0.10	-0.00	-0.02	-0.00
	{0.014}	(0.020)	(0.023)	(0.024)
Broad External Pressure	0.00	-0.06	0.05	0.03
	{1.00}	(0.062)	(0.073)	(0.072)
Received Training		76.01	0.01	-0.01
		{0.427}	(0.018)	(0.017)
Joint		0.184	0.452	0.069
N	405	417	249	232

Notes: Control group means are listed in column 1, with standard deviations in brackets. Differences between the control group and each individual group are found in subsequent columns. The joint p-value comes from a regression of a treatment indicator on all of the variables used to check balance, restricting the sample to just that treatment arm and the control group. The number of observations reflect the size of the sample in that particular treatment arm. Robust standard errors in parentheses. Regressions include cohort fixed effects. Significance * .10; ** .05; *** .01.

Table A3: Attrition Rates by Treatment Status

	(1)	(2)
Micro credit	-0.065	0.000
	(0.012)	(.)
In kind grant	-0.076	-0.013
	(0.012)	(0.010)
Cash grant	-0.081	-0.017
	(0.012)	(0.010)
Mean	0.116	0.052
N	3293	2245

Notes: Column 1 compares attrition rates in treatment groups to attrition rates in the control group. Column 2 compares attrition rates in the in-kind and cash grant treatment groups to attrition in the micro credit treatment group.

Table A4: Baseline difference in variables between attriters and non-attriters

	Non-Attriters (1)	Attrition (2)
Age	28.70	-0.30
	{5.17}	(0.37)
Male	0.40	0.06
	{0.49}	(0.04)
College Education	0.10	0.04
	{0.30}	(0.02)
High School Education	0.59	-0.07
	{0.49}	(0.04)
Less than High School Education	0.28	0.02
	{0.45}	(0.03)
Worked Before	0.31	0.00
	{0.46}	(0.03)
Single	0.59	-0.09
	{0.49}	(0.04)
Married	0.38	0.10
	{0.49}	(0.04)
Low Family Income	0.30	0.04
	{0.46}	(0.03)
Has Business	0.11	0.00
	{0.32}	(0.02)
Borrowed Before	0.11	-0.01
	{0.31}	(0.02)
Broad External Pressure	0.02	-0.04
	{0.99}	(0.06)
Has Kids	0.54	-0.14
	{0.50}	(0.03)
Joint		0.023
N		3236

Notes: Table reports the difference in baseline characteristics between those who attrited from the sample in Column 1 and those that did not in Column 2. Robust standard errors in parentheses. Regressions include cohort fixed effects. Significance * .10; ** .05; *** .01.

Table A5: Baseline difference in variables between treated and non treated attriters

	Non-treated (1)	Treatment (2)
Age	28.95	-1.04
	{6.36}	(0.65)
Male	0.47	0.03
	{0.50}	(0.08)
College Education	0.13	0.05
	{0.33}	(0.05)
High School Education	0.58	-0.03
	{0.49}	(0.08)
Less than High School Education	0.25	-0.02
	{0.43}	(0.07)
Worked Before	0.31	0.02
	{0.46}	(0.07)
Single	0.47	-0.04
	{0.50}	(0.08)
Married	0.52	0.03
	{0.50}	(0.07)
Low Family Income	0.27	70.03
	{0.45}	(0.05)
Has Business	0.13	-0.04
	{0.33}	(0.05)
Borrowed Before	0.10	-0.04
	{0.30}	(0.04)
Broad External Pressure	-0.02	-0.07
	{0.94}	(0.14)
Has Kids	0.35	-0.03
	{0.48}	(0.07)
Joint		0.825
N		215

Notes: Table reports the difference in baseline characteristics for those who attrited in control relative to treatment. Robust standard errors in parentheses. Regressions include cohort fixed effects. Significance * .10; ** .05; *** .01.

Table A6: Comparison to ELMPS Sample

	ELMPS 2018 (1)	Baseline (2)	Difference (3)
Panel A: Female Participants			
Age	27.56	27.98	0.04
	(4.42)	(4.20)	
Less than High School	0.42	0.30	-0.12
	(0.42)	(0.49)	
High School Education	0.41	0.57	0.16
	(0.41)	(0.49)	
Some College Education	0.03	0.03	0.00
	(0.17)	(0.18)	
College Education	0.14	0.10	-0.04
	(0.34)	(0.30)	
Married	0.78	0.70	-0.09
	(0.41)	(0.46)	
Has Kids	0.66	0.64	-0.02
	(0.47)	(0.48)	
Works at All	0.04	0.16	0.10
	(0.22)	(0.36)	
Has a Business	0.01	0.10	0.08
	(0.11)	(0.30)	
Has Previously Borrowed	0.10	0.09	-0.01
	(0.31)	(0.29)	
N	632	1740	
Panel B: Male Participants			
Age	27.50	27.63	0.13
	(4.60)	(3.98)	
Less than High School	0.19	0.21	0.01
	(0.40)	(0.40)	
High School Education	0.61	0.64	0.02
	(0.49)	(0.48)	
Some College Education	0.02	0.03	0.00
	(0.16)	(0.17)	
College Education	0.14	0.12	-0.02
	(0.36)	(0.33)	
Married	0.47	0.38	-0.09
	(0.50)	(0.49)	
Works at All	0.77	0.47	-0.31
	(0.42)	(0.50)	
Has a Business	0.09	0.15	0.05
	(0.30)	(0.36)	
Has Previously Borrowed	0.19	0.10	-0.08
	(0.39)	(0.30)	
N	578	1275	

Notes: Column 1 represents the average young person in Qena using the Egypt Labor Market Panel Survey. We restrict the sample from the ELMPS to individuals between the ages of 21-35 and Column 2 reproduces our summary statistics while also restricting to this age threshold.Column 3 reports the difference between the two samples. Robust standard errors in parentheses. Significance * .10; ** .05; *** .01.

Table A7: Compliance with the experimental protocol

	Amount Received	Received			Conditional Amount
		Micro Loan	In-Kind Grant	Cash Grant	
	(1)	(2)	(3)	(4)	(5)
Micro credit	2036.056	0.874	0.000	0.000	2330.901
In kind grant	2386.224	0.000	0.989	0.000	2413.607
Cash grant	2348.237	0.000	0.000	0.974	2410.033
Control	0.000	0.000	0.000	0.000	0.000
Observations	3293	3293	3293	3293	2116

Notes: The table uses administrative data received from implementing NGOs based on actual amounts disbursed to each individual in the study. Column 5 reports the amount of capital received conditional on receiving the loan/grant.

Table A8: Access to other financial instruments

	Formal Loan	Informal Loan	Total Loans	Roscas Savings	Roscas Credit	Savings	Other Finance Index
	(1)	(2)	(3)	(4)	(5)	(6)	(7)
All Participants							
Micro credit	-224.123	-128.944	-211.261	6.248	-39.204	108.091	0.018
	(181.764)	(110.920)	(213.472)	(45.828)	(34.862)	(87.332)	(0.046)
In kind grant	-44.227	176.584	265.308	89.305	-25.240	153.683	0.180
	(214.343)	(158.360)	(274.051)	(59.424)	(35.178)	(104.992)	(0.067)
Cash grant	-140.456	-44.409	-50.906	49.579	-51.390	178.672	0.088
	(218.997)	(126.966)	(259.057)	(56.970)	(41.353)	(131.840)	(0.061)
Mean	1508.037	766.650	2140.383	160.302	147.141	300.178	0.000
Joint	0.619	0.176	0.311	0.406	0.594	0.314	0.040
Same	0.659	0.102	0.180	0.341	0.777	0.842	0.052
N	3075	3075	3075	3075	3075	3064	3075

Notes: Column 1 and 2 are business loans taken from formal entities or from family. Rosca savings is the amount paid towards the rosca for those who haven't received it yet. Rosca credit is the amount still left to be paid after receiving the rosca. Finance index is a standardized index of columns 1,2,4,5,6. Amounts are winsorized at the 99th percentile. The "Joint" row reports the p-value for the test for joint significance of the three treatment coefficients. The "Same" row reports the p-value for testing the hypotheses that there is no difference in the treatment coefficients. Robust standard errors in parentheses. Regressions include cohort fixed effects. Significance * .10; ** .05; *** .01.

Table A9: Business activity

	Has Business (1)	New Asset (2)	Revenue (3)	Expenditure (4)	Profit (5)	Business Index (6)
All Participants						
Micro credit	0.140	935.821	660.043	451.618	110.837	0.286
	(0.020)	(462.009)	(304.772)	(271.227)	(45.036)	(0.059)
In kind grant	0.204	150.839	306.340	222.350	125.952	0.423
	(0.023)	(381.376)	(219.814)	(197.400)	(48.835)	(0.074)
Cash grant	0.180	921.872	225.217	6.495	60.327	0.310
	(0.023)	(541.899)	(218.066)	(184.910)	(42.219)	(0.061)
Mean	0.196	1453.711	1032.285	857.732	237.398	-0.000
Joint	0.000	0.092	0.165	0.233	0.025	0.000
Same	0.023	0.104	0.356	0.169	0.368	0.233
N	3075	3075	3071	3063	3070	3075

Notes: Column 2 are assets bought during the year after randomization. Assets include business premises, land, furniture, equipment, and vehicles. Column 6 is an index of columns 1,2,3,4,5. Amounts are winsorized at the 99th percentile. The "Joint" row reports the p-value for the test for joint significance of the three treatment coefficients. The "Same" row reports the p-value for testing the hypotheses that there is no difference in the treatment coefficients. Robust standard errors in parentheses. Regressions include cohort fixed effects. Significance * .10; ** .05; *** .01.

Table A10: Why No Project was Implemented

	Failed Business (1)	Other Use of Funds (2)	Insufficient Funds (3)
All Participants			
Micro credit	0.15	0.18	-0.32
	(0.02)	(0.02)	(0.02)
In kind grant	0.22	0.17	-0.40
	(0.02)	(0.02)	(0.03)
Cash grant	0.16	0.20	-0.36
	(0.02)	(0.02)	(0.03)
Mean	0.04	0.00	0.76
Joint	0.00	0.00	0.00
Same	0.03	0.61	0.09
N	2081	2081	2081

Notes: This table is restricted to the participants who did not have a business at baseline. The "Joint" row reports the p-value for the test for joint significance of the three treatment coefficients. The "Same" row reports the p-value for testing the hypotheses that there is no difference in the treatment coefficients. Robust standard errors in parentheses. Regressions include cohort fixed effects. Significance * .10; ** .05; *** .01.

Table A11: Why No Project was Implemented

	Failed Business	Other Use of Funds	Insufficient Funds
	(1)	(2)	(3)
Panel A: Female Participants			
Micro credit	0.20	0.17	-0.36
	(0.02)	(0.02)	(0.03)
In kind grant	0.31	0.20	-0.51
	(0.03)	(0.03)	(0.03)
Cash grant	0.21	0.18	-0.40
	(0.03)	(0.03)	(0.03)
Mean	0.03	0.01	0.81
Joint	0.00	0.00	0.00
Same	0.01	0.61	0.00
N	1299	1299	1299
Panel B: Male Participants			
Micro credit	0.07	0.19	-0.26
	(0.03)	(0.03)	(0.04)
In kind grant	0.09	0.14	-0.23
	(0.03)	(0.03)	(0.04)
Cash grant	0.08	0.23	-0.31
	(0.03)	(0.04)	(0.04)
Mean	0.05	0.00	0.68
Joint	0.01	0.00	0.00
Same	0.86	0.13	0.36
N	782	782	782

Notes: This table is restricted to the participants who did not have a business at baseline. The "Joint" row reports the p-value for the test for joint significance of the three treatment coefficients. The "Same" row reports the p-value for testing the hypotheses that there is no difference in the treatment coefficients. Robust standard errors in parentheses. Regressions include cohort fixed effects. Significance * .10; ** .05; *** .01.

Table A12: Different Types of Work

	Neither Wage nor Self Employment		Just Self Employment		Just Wage Employment		Both Wage and Self Employment	
	Female (1)	Male (2)	Female (3)	Male (4)	Female (5)	Male (6)	Female (7)	Male (8)
Micro credit	-0.139	0.006	0.121	0.075	0.007	-0.144	0.011	0.063
	(0.027)	(0.022)	(0.023)	(0.031)	(0.017)	(0.036)	(0.006)	(0.022)
In kind grant	-0.202	-0.015	0.217	0.087	-0.029	-0.136	0.014	0.065
	(0.031)	(0.025)	(0.028)	(0.035)	(0.018)	(0.041)	(0.008)	(0.026)
Cash grant	-0.214	0.000	0.193	0.075	-0.004	-0.114	0.025	0.039
	(0.030)	(0.025)	(0.027)	(0.036)	(0.019)	(0.041)	(0.009)	(0.025)
Mean	0.759	0.104	0.144	0.197	0.091	0.628	0.005	0.071
Joint	0.000	0.867	0.000	0.023	0.210	0.000	0.016	0.014
Same	0.035	0.699	0.003	0.941	0.121	0.765	0.377	0.593
N	1835	1240	1835	1240	1835	1240	1835	1240

Notes: This table reports the different type of working arrangements for participants in the sample split by gender. Each outcome is a binary indicator for if the person works in wage or self-employment, both, or neither. The "Joint" row reports the p-value for the test for joint significance of the three treatment coefficients. The "Same" row reports the p-value for testing the hypotheses that there is no difference in the treatment coefficients. Robust standard errors in parentheses. Regressions include cohort fixed effects. Significance * .10; ** .05; *** .01.

Table A13: Income

	Has Work (1)	Self Employment (2)	Wage Employment (3)	Labor Income (4)	Family Transfers (5)	Gov. Transfers (6)	Total Income (7)
All Participants							
Micro credit	0.098	110.837	-7.393	110.542	-7.777	9.163	125.679
	(0.022)	(45.036)	(39.742)	(57.261)	(15.300)	(8.729)	(56.414)
In kind grant	0.141	125.952	-8.510	116.793	22.069	6.238	144.649
	(0.025)	(48.835)	(45.997)	(64.079)	(20.564)	(10.058)	(62.573)
Cash grant	0.125	60.327	-6.121	55.644	-3.108	13.890	69.367
	(0.025)	(42.219)	(45.079)	(59.489)	(17.719)	(9.949)	(57.979)
Mean	0.499	237.398	491.095	729.194	111.640	105.576	955.293
Joint	0.000	0.025	0.997	0.161	0.532	0.524	0.057
Same	0.190	0.368	0.999	0.602	0.333	0.793	0.495
N	3075	3070	3074	3069	3075	3075	3069

Notes: Column 4 is the total of columns 2 and 3. Column 7 is the total of columns 2, 3, 5 and 6. Amounts are winsorized at the 99th percentile. The "Joint" row reports the p-value for the test for joint significance of the three treatment coefficients. The "Same" row reports the p-value for testing the hypotheses that there is no difference in the treatment coefficients. Robust standard errors in parentheses. Regressions include cohort fixed effects. Significance * .10; ** .05; *** .01.

Table A14: Time Use

	Hours as					
	Employee	Self-employee	Home Agri.	Childcare	Household Chores	Econ Time -use Index
	(1)	(2)	(3)	(4)	(5)	(6)
All Participants						
Micro credit	-1.014	5.859	0.412	-1.496	-3.531	0.209
	(1.090)	(1.083)	(0.320)	(0.914)	(1.225)	(0.051)
In kind grant	-0.947	7.549	0.592	-1.566	-4.729	0.295
	(1.250)	(1.218)	(0.415)	(1.037)	(1.354)	(0.064)
Cash grant	-1.416	6.986	0.546	-1.697	-2.614	0.288
	(1.206)	(1.220)	(0.382)	(1.015)	(1.377)	(0.062)
Mean	15.381	8.910	2.269	10.822	20.382	0.000
Joint	0.659	0.000	0.350	0.260	0.003	0.000
Same	0.926	0.402	0.880	0.979	0.334	0.305
N	3075	3075	2258	2260	3075	3075

Notes: This table reports weekly hours spent on each activity. Column 5 includes hours spent in the household on cleaning, maintenance and gathering water or fuel. Column 6 is an index of columns 1,2,3. Hours are winsorized at the 99th percentile. The "Joint" row reports the p-value for the test for joint significance of the three treatment coefficients. The "Same" row reports the p-value for testing the hypotheses that there is no difference in the treatment coefficients. Robust standard errors in parentheses. Regressions include cohort fixed effects. Significance * .10; ** .05; *** .01.

Table A15: Additional Outcomes

	Quality Life (1)	Mental Health (2)	Physical Health (3)	Decision Power (4)	Consump--tion (5)
All Participants					
Micro credit	0.244	0.024	0.029	0.041	77.984
	(0.104)	(0.045)	(0.049)	(0.040)	(144.129)
In kind grant	0.327	0.006	0.160	0.010	360.543
	(0.117)	(0.050)	(0.055)	(0.045)	(186.920)
Cash grant	0.107	0.070	0.106	0.069	-51.988
	(0.115)	(0.051)	(0.056)	(0.046)	(166.039)
Mean	3.388	-0.000	2.948	2.183	3707.915
Joint	0.021	0.553	0.016	0.437	0.206
Same	0.219	0.490	0.054	0.491	0.141
N	3075	3075	3075	3075	2369

Notes: Column 1 is measured by asking participants to report on a scale, or "ladder steps", from 1 to 10 which step they think they stand in terms of happiness with their current achievements in life, ten being the best. Column 2 is an index of questions on how often participants felt worried, tense, anxious or depressed. Column 3 is a self-reported score on physical health from 1 to 5 with 1 being poor health and 5 excellent health. Column 4 is an index using three separate questions about participants' ability to take decision to work outside of home, ability to take decision on household purchases and ability to take financial decisions. Column 5 combines all reported consumption from a detailed consumption module. The number of observations are low because many people didn't know their total consumption on at least one item. A disaggregated consumption analysis can be found in the appendix. The "Joint" row reports the p-value for the test for joint significance of the three treatment coefficients. The "Same" row reports the p-value for testing the hypotheses that there is no difference in the treatment coefficients. Robust standard errors in parentheses. Regressions include cohort fixed effects. Significance * .10; ** .05; *** .01.

Table A16: Detailed Household Consumption (Women)

	Treatment Status			
	Control	Micro Loan	In-Kind Grant	Cash Grant
	(1)	(2)	(3)	(4)
Assets	110.00	-26.90	-47.80	-50.70
	{12.91}	(17.66)	(16.98)	(15.79)
Leisure	105.00	29.31	28.91	36.72
	{14.68}	(20.86)	(22.63)	(24.89)
Food	1437.00	10.70	66.21	-82.40
	{51.02}	(70.70)	(77.86)	(72.50)
Personal	95.70	-7.91	-1.63	-2.23
	{3.94}	(5.41)	(5.93)	(6.08)
Clothing	116.00	4.11	-1.89	-1.03
	{4.70}	(7.05)	(7.36)	(7.37)
Footwear	31.30	0.59	1.70	-0.73
	{1.70}	(2.19)	(2.33)	(2.61)
Health	424.00	-10.30	4.76	-49.40
	{32.86}	(46.46)	(47.80)	(44.75)
Education	130.00	4.71	13.45	4.28
	{10.57}	(14.11)	(17.06)	(17.25)
Water Bills	327.00	10.91	32.59	-6.78
	{16.45}	(22.32)	(26.52)	(24.05)
Cleaning Supplies	94.90	2.69	8.58	2.40
	{3.99}	(5.58)	(7.28)	(6.37)
Transportation	130.00	-8.00	-0.37	0.70
	{7.95}	(10.88)	(11.52)	(12.27)
Phone/Internet Bills	32.50	5.21	5.87	3.02
	{2.45}	(3.90)	(4.05)	(3.90)
Services for the House	56.90	-2.43	-13.40	24.50
	{8.84}	(12.67)	(11.90)	(15.80)
Other	157.00	84.35	39.54	58.50
	{14.02}	(33.12)	(31.95)	(31.43)
N	1835	1835	1835	1835

Notes: This table presents a breakdown of monthly household consumption items. Amounts are winsorized at the 99th percentile. The "Joint" row reports the p-value for the test for joint significance of the three treatment coefficients. The "Same" row reports the p-value for testing the hypotheses that there is no difference in the treatment coefficients. Robust standard errors in parentheses. Regressions include cohort fixed effects. Significance * .10; ** .05; *** .01.

Table A17: Detailed Household Consumption (Men)

	Treatment Status			
	Control	Micro Loan	In-Kind Grant	Cash Grant
	(1)	(2)	(3)	(4)
Assets	107.00	66.70	94.18	-19.80
	{16.59}	(28.48)	(41.23)	(24.17)
Leisure	362.00	195.00	120.00	150.00
	{51.98}	(108.00)	(97.76)	(142.00)
Food	1867.00	-66.20	200.00	-187.00
	{65.42}	(94.12)	(145.00)	(102.00)
Personal	124.00	17.28	29.93	-1.60
	{5.85}	(8.62)	(10.79)	(9.18)
Clothing	186.00	-14.30	7.83	-28.50
	{8.94}	(12.32)	(15.38)	(14.08)
Footwear	50.10	-4.12	3.83	-6.58
	{2.68}	(3.68)	(4.55)	(3.87)
Health	393.00	95.93	58.32	72.12
	{34.23}	(65.81)	(66.35)	(64.33)
Education	77.00	18.78	15.10	14.92
	{9.73}	(15.90)	(18.21)	(20.82)
Utilities Bills	350.00	17.46	71.91	-1.93
	{17.24}	(27.17)	(32.13)	(29.59)
Cleaning Supplies	104.00	12.18	17.35	-2.40
	{5.41}	(7.98)	(10.26)	(8.55)
Transportation	137.00	8.45	32.30	5.38
	{10.07}	(15.06)	(18.97)	(16.38)
Phone/Internet Bills	52.10	5.75	16.45	3.03
	{4.00}	(5.88)	(7.81)	(7.23)
Services for the House	64.80	-9.03	-11.10	7.62
	{11.90}	(14.68)	(18.46)	(30.95)
Other	323.00	54.87	127.00	14.67
	{56.91}	(86.87)	(129.00)	(82.59)
N	1240	1240	1240	1240

Notes: This table presents a breakdown of monthly household consumption items. Amounts are winsorized at the 99th percentile. The "Joint" row reports the p-value for the test for joint significance of the three treatment coefficients. The "Same" row reports the p-value for testing the hypotheses that there is no difference in the treatment coefficients. Robust standard errors in parentheses. Regressions include cohort fixed effects. Significance * .10; ** .05; *** .01.

Table A18: Kolmogorov Smirnov tests

	Test groups vs Control			Among test groups		
	Loan	In-Kind	Cash	Loan/In-Kind	In-Kind/Cash	Cash/Loan
	(1)	(2)	(3)	(4)	(5)	(6)
Panel A: Monthly Income						
All participants	0.023	0.035	0.083	0.791	0.114	0.171
Female participants	0.008	0.006	0.001	0.578	0.313	0.978
Male participants	0.750	0.966	0.857	0.719	0.547	0.389
Panel B: Monthly Profit						
All participants	0.000	0.000	0.000	0.116	0.278	0.886
Female participants	0.000	0.000	0.000	0.040	0.355	0.523
Male participants	0.017	0.014	0.080	0.972	1.000	1.000

Table reports the p-value from Kolmogorov Smirnov distributional tests of monthly income in panel A and monthly profits in panel B. Columns 1, 2, and 3 compare the distribution of income in each treatment arm to control. Column 4 compares the loan group to the in-kind group, Column 5 compares the in-kind group to the cash group and Column 6 compares the cash group to the loan group.

Table A19: Marginal effects

	$\frac{@Income}{@Capital}$	$\frac{@OtherIncome}{@Capital}$	$\frac{@Profit}{@Capital}$	$\frac{@Profit}{@Asset}$	$\frac{@Asset}{@Capital}$
	(1)	(2)	(3)	(4)	(5)
Panel A: All Participants					
Loan	0.0639	0.0562	0.0564	0.118	0.476
	(0.0284)	(0.0288)	(0.0226)	(0.0555)	(0.232)
In Kind	0.0641	0.0518	0.0558	0.835	0.0669
	(0.0274)	(0.0281)	(0.0214)	(1.959)	(0.167)
Cash	0.0311	0.0250	0.0271	0.0654	0.413
	(0.0257)	(0.0264)	(0.0187)	(0.0441)	(0.240)
Same	0.431	0.529	0.853	0.651	0.0777
N	3075	3075	3075	3075	3075

Table reports the marginal effects listed at the top of each column by regressing the change in the numerator on the change in the demoninator. Robust standard errors in parentheses. Regressions include cohort fixed effects. Significance * .10; ** .05; *** .01.

Figure A1: Quantile Treatment Effects for Total Income (All Participants)

Loan	In Kind Grant	Cash Grant
Loan