

# Microcredit Made to Measure. Experimental Evidence from Rural Morocco

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## Abstract

We use a randomized controlled trial (RCT) in rural Morocco to test whether matching loan repayments closely with expected entrepreneurial cash flows increases the take-up and poverty impact of microcredit. We introduce two new forms of individual-liability microcredit: a contract with a five-month grace period and, second, a 'tailored' contract where the repayment schedule is split into three equal periods (with varying installments). We first randomize an estimated 3,600 participants (all interested in and eligible for a standard loan) into either of the two new loan contracts or a control loan with the standard contract. We measure the effect on individuals' repayment behavior, entrepreneurial activities and household consumption. We then use information campaigns to randomize the available information about the different treatments (the two new loan types and the standard loan) across 320 villages. We measure the impact on loan take-up and repayment quality at the village level.

**Keywords:** Microcredit, tailored loans, grace period, loan take-up, RCT, poverty alleviation

**JEL codes:** D14, G21, O12

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## 1. Introduction

Recent experimental evidence has cast doubt about claims that giving poor households access to microcredit systematically improves their living standards (Banerjee, Karlan, and Zinman, 2015). Two salient facts emerge from this literature. First, relatively few people take up microcredit when it is offered to them.<sup>1</sup> Second, conditional on loan take up, treatment effects are small (Meager, 2019) and concentrated among sub-populations such as existing entrepreneurs (Banerjee, Breza, Duflo, and Kinnan, 2019).

Low take-up may reflect a lack of creditworthy borrowers and profitable projects (Beaman, Karlan, Thuysbaert, and Udry, 2015). Low-quality potential borrowers may then rationally self-select out of the credit market. Another possibility is that credit constraints are simply not binding for a significant part of the population. A third explanation, however, is that the specific structure of microcredit contracts may discourage households from borrowing, even if their projects are potentially profitable and they could therefore in principle service debt (Johnston and Morduch, 2008).

Recognizing this, a recent literature has started to explore how different types of microcredit contracts impact loan take-up. The goal is to find out whether and how microcredit can become a more attractive and hence more effective tool to increase entrepreneurship and to improve living standards. This is particularly relevant for rural areas in low-income countries, where large parts of the population remain excluded from the formal labor market and do not have access to financial services.

The limited evidence so far suggests that design changes – such as introducing grace periods (Field, Pande, Papp, and Rigol, 2013) or varying the liability structure (Attanasio, Augsburg, and De Haas, 2019) – can indeed influence take-up rates and the way people use microcredit. Likewise, Barboni and Agarwal (2018) and Battaglia, Gulesci, and Madestam (2018) study microcredit contracts that allow borrowers to delay repayment by three or two months, respectively, during the loan cycle. In the latter two studies – set in India and Bangladesh, respectively – *ex post* repayment flexibility increased both borrowing and business activity at the intensive margin.

These studies suggest that the canonical microcredit product, characterized by a rigid and linear repayment schedule that starts immediately after loan disbursement, may not align well with the needs of poor households, especially those in volatile rural environments and with cyclical incomes. We therefore intend to measure the impact of two distinct product changes that relax the repayment rigidity of microcredit within the same context (rural Morocco). Specifically, we test the following:<sup>2</sup>

1. Standard microcredit contracts lack a sufficiently long grace period. Entrepreneurs may have difficulties repaying loans immediately after disbursement because it takes time for investments to generate revenue.

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<sup>1</sup> In previous RCTs, the take-up of microcredit in treatment areas was 31 percent in Ethiopia (Tarozzi, Desai, and Johnson, 2015); 18 percent in India (Banerjee, Duflo, Glennerster, and Kinnan, 2015); 19 percent in Mexico (Angelucci, Karlan, and Zinman, 2015); and 17 percent in Morocco (Crépon, Devoto, Duflo, and Parienté, 2015). Take-up was higher in Mongolia (57 percent for group loans and 50 percent for individual loans) where credit was rolled out among women who had indicated an interest in borrowing (Attanasio, Augsburg, De Haas, Fitzsimons, and Harmgart, 2015).

<sup>2</sup> See Section 3.3 for more details on our hypotheses and main outcomes of interest.

2. The rigid and linear repayment schedule of the standard microcredit contract is not (sufficiently) relaxed by a generic grace period that is identical for all borrowers and that reduces liquidity demands early in the loan cycle. Instead, a tailored repayment schedule is required that matches the expected revenue flows of individual borrowers more closely throughout the loan cycle as a whole.

We have partnered with a leading Moroccan microfinance institution (Al Amana) to test these two hypotheses. We do so by randomly relaxing either of two constraints in individual-liability microcredit contracts.

We test the first hypothesis by offering microcredit with a significantly longer grace period (five months instead of one). The availability of such a longer grace period may make projects with a high expected return, but that are initially illiquid, more attractive to borrowers. Prior evidence (Field, Pande, Papp, and Rigol, 2013) shows that the introduction of grace periods (of two months) may change the type of investments that borrowers select. We propose here a much longer grace period: five months compared to two. This may significantly affect the nature of client investments if borrowers chose projects with longer-term returns (that may also be riskier). Moreover, the grace period treatment arm plays the role of a benchmark compared to a tailor-made arm that allows loan repayments to be matched with seasonal income flows (see below).

We test the second hypothesis by offering microcredit with a tailored repayment schedule that is designed *ex ante* to more closely match the expected revenues of individual borrowers throughout the repayment period. The availability of such tailored loans may make projects with a high expected return, but with highly seasonal revenues (for instance due to natural or religious cycles), more attractive to borrowers. Unlike Barboni and Agarwal (2018) and Battaglia, Gulesci, and Madestam (2018), who both test the impact of *ex-post* repayment flexibility, in which borrowers are allowed to waive certain repayments during the loan cycle, our loans do not provide repayment flexibility *after* disbursement. Instead, we provide microcredit that is 'made to measure' by matching repayments more closely with future (expected) revenue streams *before* disbursement. We view these loans not primarily as a means to help borrowers deal with uncertainty or unexpected income variability *per se*. For that, some *ex post* flexibility to deal with unexpected idiosyncratic shocks could be a superior contracting solution in theory (albeit that our implementing partner, with some justification, fears that *ex post* repayment flexibility may erode repayment standards). Instead, our made-to-measure loan products are an answer to an almost universal complaint from (potential) microcredit clients during the focus groups we held, namely that the cookie cutter linear repayment schedule of the standard microcredit contract does not fit well with expected but variable (seasonal) entrepreneurial income.<sup>3</sup> In short, our approach is to create and evaluate loan contracts that are made-to-measure and therefore *ex ante* provide a better fit with the expected cash flows of the borrower rather than creating loan contracts that provide insurance against unexpected idiosyncratic income shocks *ex post*.

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<sup>3</sup> For example, a client who wants to buy lambs to fatten them and then sell them before the Eid festival, knows quite well when this entrepreneurial activity will generate income. The problem is that while she invests in her lambs, she will not be able to start repaying her loan. A microcredit contract with a one-month grace period is then a bad fit, especially for households without savings and with tight financial constraints.

A first part of our design (Part A) intends to estimate the impact of relaxing these constraints on borrower welfare by randomizing individuals who willingly demonstrate a desire to take out a standard microcredit loan (by visiting a branch and applying for such a loan) and who are eligible for a standard loan. We randomize these individuals into either of the two new loan types or into the standard loan offer (the control group). By restricting our experiment to individuals willing to take a standard loan, we can evaluate the impact of the new loan contracts on borrower welfare while netting out potential selection effects. If the new loan offers were instead made available to everyone, then the characteristics of the client pool would likely vary across the different loan offers. In this part of our analysis, we go beyond measuring the effects on project selection and repayment performance of made-to-measure loans, but also provide important evidence on the broader impacts on borrowers and their households.

A second part of our design (Part B) focuses on changes in borrower selection and repayment performance once those new loans become available to the entire population (and not only to individuals visiting a branch to apply for a standard loan). For that, we randomize loan-type specific information campaigns to stimulate take up at the village level. We aim to understand whether offering grace period loans and tailored loans influences take-up and whether the pool of clients selected into these two new contract types is different from those who select into a standard loan.

Overall, this integrated approach helps us to clarify the causal link from offering new loan contracts to borrowing and repayment behavior and to evaluate the effect of these new contracts on borrower welfare in the population that was initially interested in the standard loan offer.

## 2. Proposed timeline

The main milestones of the study are as follows:

<b>Milestone</b>	<b>Dates</b>
<i>Focus group analysis, product design, reconfiguration of management information system, mini-pilot</i>	January 2015 – May 2018
<i>Part A. Effect on borrowers' welfare: Individual-level randomization</i>	
Baseline survey	April 2018 – November 2021 <sup>4</sup>
Intervention roll-out	April 2018 – November 2021
Interim Covid-19 telephone survey	May 2020 – August 2020
End-line survey	July 2021 – June 2023
<i>Part B. Effect on loan demand: Village-level randomization</i>	
Selection of villages and randomization	January 2022
Roll-out of the promotional visits	February 2022 – September 2022
Collection of administrative data	January 2022 – February 2023

<sup>4</sup> If needed, we will expand the baseline survey and intervention roll-out by another three months.

Preparatory work for the design of the new products started with detailed qualitative work, including several focus groups, to gain a better understanding of the possible constraints that currently limit loan take-up in rural Morocco. We organized focus group discussions in cooperation with five Al Amana branches in the north of Morocco, the Middle Atlas, and the High Atlas regions around Marrakech. Fourteen focus groups, consisting of on average 6.7 participants, took place across eight villages in these rural regions. We organized separate sessions for participants without any entrepreneurial activity; participants with an existing entrepreneurial activity but without microcredit; and participants with both an existing micro-enterprise and a microloan. Previous research in this setting (Crépon, Devoto, Duflo, and Parienté, 2015) has shown that the take-up of microcredit is low, at around 17 percent, even several years after its introduction.

We structured the discussions around a question guide that focused on three themes: entrepreneurial activities, borrowing, and household decision-making. Questions on activities asked about past and present activities, their profitability and evolution, commercialization, constraints and financing sources. Questions in the credit section asked about familiarity and opinions on microcredit and microcredit institutions, direct or indirect experience with credit, the microcredit characteristics most important to participants, and repayment sources.

The most frequently and spontaneously mentioned shortcoming of microcredit loans during the focus groups was a too short grace period. Both clients and non-clients viewed the existing microcredit repayment structure as incompatible with livestock rearing in particular. A second concern was that microcredit repayment schedules were of a one-size-fits-all nature. Based on these focus groups, we worked with our implementing partner Al Amana on designing two new loan products. Importantly, we also had to reprogram Al Amana's management information system (which uses SAP Business Intelligence software) so that it could process the new loan products that would be offered as part of the experiment. We launched a mini pilot in January 2017 to test all operational aspects as well as clients' interest in the new loan offers. Credit agents and staff at participating branches were trained extensively ahead of the experimental roll-out to ensure the research protocol is strictly followed.

The rollout of individual-level interventions (Part A) started in April 2018 and is currently ongoing. Branches are joining the experimental protocol progressively (phase-in design). We initially expected the roll-out to last six months in each branch, including three months to ensure the research protocol and monitoring mechanisms are well in place and three months for the actual individual-level intervention. The baseline survey is being administered at the branches as the intervention roll-out takes place through computer assisted personal interviews (CAPI) using IBM SPSS Data Collection software.

We originally planned to complete the baseline survey by December 2019. However, due to a few months' delay in its implementation and the outbreak of Covid-19 we had to pause the intervention-cum-baseline survey as of March 23, 2020. We successfully resumed the intervention and the associated baseline survey in March 2021. We plan the end-line survey to take place on average 18-months after the individual-level intervention (following the staggered phasing-in of the intervention).

The currently ongoing phase (Part A) will be followed by village-level interventions (Part B) at each branch for a period of six months, starting in February 2022. Weekly reports using administrative data (from Al Amana's adjusted management information system) will be prepared to follow the evolution of key village-level outcomes of the experiment.

### 3. Research design

#### 3.1. Interventions

In order to test the hypotheses described in Section 1, we designed and offered two alternative loan products, which we call the grace period loan and the tailored loan. We designed these products to provide a better fit with the expected incoming cash flows of households in a way that kept the repayment schedule actuarially neutral:

1. Grace period loan: A loan product is offered where borrowers only pay monthly interest during a five-month grace period and both interest and capital thereafter. There were several considerations behind this choice. First, we organized structured focus groups with microfinance clients as well as non-clients. Almost all participants spontaneously mentioned the short existing grace period (typically one month) as the main problem with microcredit. Both clients and non-clients explained that a short grace period is incompatible with livestock activities, which need several months to begin generating revenue. Respondents in rural areas therefore expressed an interest in loans with grace periods of six to twelve months. Second, we consulted a Moroccan agricultural expert to get a better understanding of the production cycle of smallholders. According to the expert, even if smallholders are involved in multiple agricultural activities, there still is a clear cycle with a low season during the months of November and January. The expert advised that a multi-month grace period could be beneficial to both horticultural and animal farmers. Third, we conducted a market scan to see what other MFIs in similar countries were offering in terms of grace periods. The most similar MFI to Al Amana, Enda Arabe in Tunisia, offered a Mawsem loan with a six-month grace period. Finally, we had discussions with Al Amana management. They were keen on experimenting with a significantly longer grace period but worried about too long grace periods during which loan officers would not interact with the clients. We therefore settled on five months as a grace period that was significantly (5x) longer than the current one and still in line with the risk appetite of Al Amana management.
2. Tailored loan: A loan product is offered where the repayment schedule is split into three periods of equal length. The borrower and loan officer jointly decide on the monthly amount that the borrower has to repay in each of the three periods. This allows for a closer match between these repayment amounts and the borrower's expected cash flows (which may vary significantly over time). The repayment schedule can thus be decomposed into 'low' – 'medium' – 'high' repayment brackets (not necessarily in that order) with potentially substantial variation in the monthly repayment amount across these three brackets. The research team developed an Apache OpenOffice spreadsheet to help loan officers determine the cyclicity of participants' expected cash flows.<sup>5</sup>

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<sup>5</sup> If a borrower refuses the made-to-measure contract (that is, depending on the treatment arm, the grace period loan or the tailored loan) then she still has the opportunity to opt for the standard contract or to refuse to take any loan. If we would have opted for a design in which people who refuse the new loan would not be able to borrow from the institution at all, then the treatment arms would include borrowers of the made-to-measure loans and non-borrowers (i.e. those willing to take a standard loan but not a made-to-measure loan) while the standard arm would include borrowers of the standard loans. Identifying the population of compliers (to the made-to-measure loans) in the standard arm would be challenging in such a setting.

We make three additional observations about our treatments. First, contrasting the grace period treatment with the made-to-measure treatment is of interest because they pose very different requirements on loan officers. A universal grace period of fixed length is easy to implement across the board. In contrast, a tailored repayment schedule devised by the loan officer and the client together is more onerous. It requires loan officers to be adequately trained (which we did as part of the experimental preparation) and involves more time and effort during the loan appraisal process. In a way, we are interested to see whether the problem of repayment standardization – as identified by (potential) borrowers during the focus groups – can be solved by a cheap and straightforward solution (a universal five-month grace period) or requires a more laborious approach. Moreover, it is important to highlight that as part of the tailored loan, loan officers and clients together could decide that repayments in the first of the three periods will be very low. That is, the tailored loan provides loan officers and borrowers with the opportunity to jointly to create a repayment schedule that gets in fact very close to a loan with a longer grace period.

Second, there are two reasons why we opted for making loans ‘made-to-measure’ ex-ante rather than for introducing ex-post repayment flexibility. First, our focus group participants almost universally brought up issues related to inadequate grace periods and repayment schedules that did not match well with agricultural cycles. We did not get feedback on a lack of ex post flexibility in response to unexpected shocks. This suggest that the main problem with the current standard loan is a structural mismatch between incoming cash flows and repayment obligations, rather than a lack of flexibility to deal with unexpected negative shocks. The research team nevertheless wanted to test the ‘penalty free missed payments’ approach as well, if only to be able to benchmark our findings with some of the related experimental literature. Here, however, our implementing partner was less keen. First, because of the results of the focus groups which very clearly pointed towards problems related to a structural mismatch between borrowers’ incoming cash flows and the one-size-fits-all repayment schedules of regular microcredit contracts. Second, and more importantly, Al Amana’s management was very worried that introducing ex post flexibility by allowing people to skip payments “at will” would undermine repayment discipline and might have negative spillovers in terms of strategic default. This cautious approach is a legacy of the microcredit repayment crisis that hit Morocco a decade ago when loan performance deteriorated significantly (though for a relatively short period). In response to this crisis, Moroccan MFIs have scaled up their efforts to increase repayment discipline. They have done so by dedicated units to recover overdue loans and putting in place guidelines that prescribe specific actions at each stage of delinquency. Our implementing partner Al Amana saw the introduction of ex post repayment flexibility as being at odds with their efforts to instill better repayment discipline. We therefore focused on ensuring that repayment schedules dovetail better with expected generated income, to prevent repayment problems in the first place.

Third, the two types of made-to-measure loans were designed in such a way that they were ‘actuarially neutral’ in the sense that the expected net present value of a loan of a given size was the same in case it was granted as a standard loan, a grace period loan, or a tailored loan. The main cost difference for the lender therefore reflects cost differences related to the time a loan officer spent on disbursing any of these loan types. We track these timing differences during the experiment and they are so far relatively small in absolute terms. They reflect the additional time needed to explain the longer maturity of the grace period loan and to discuss the tailor-made repayment schedule of the tailored loan. In particular, while so far the average time spent by a loan officer on the loan



documentation is 12 minutes for a regular loan, it is 16 (17) minutes for the grace period (tailored) loans. As expected, the standard deviation of the processing time is also higher for tailored loans than for grace period loans. Additional cost differences may emerge during the experiment in the form of differential repayment rates and, possibly, differences in collection efforts. We will monitor these costs during the experiment and report them in the paper.

### *3.2. Basic methodological framework / Identification strategy*

The impact of both new loan products on loan demand, repayment quality, and poverty impacts will be evaluated using a two-pronged RCT. Figure 1 below provides a schematic overview of the RCT in its entirety. The study is currently under way and the interventions are being implemented in close cooperation with our implementing partner, microfinance institution (MFI) Al Amana. Al Amana operates the largest MFI branch network across Morocco: 560 branches of which 301 branches are in rural areas. Each rural branch serves on average 800 clients who live in the villages (*douars*) that surround the branch. Forty shortlisted rural branches participate in the study.

#### Part A: Impact of grace period loans and tailored loans on borrower welfare (individual-level randomization)

In Part A, we assess how grace period loans and tailored loans affect borrower welfare.<sup>6</sup> This intervention is currently taking place in 40 of Al Amana's rural branches. It is being rolled out in a staggered fashion in three waves. The intervention is expected to last 12 weeks in each branch. Based on Al Amana's administrative data, we estimate that 3,600 eligible potential borrowers will visit the participating branches to apply for a loan during this period.

Part A is restricted to individuals (either renewing or first-time loan applicants) who demonstrate a desire to take out standard microcredit by visiting one of the participating branches to apply for such a loan.<sup>7</sup> Participating individuals are randomly assigned to receive one of three loan offers: a tailored loan (here shortly labeled as treatment, I1), a grace period loan (treatment, I2), or the standard loan as currently offered by Al Amana (control, I0). We thus evaluate the effect of the new loans on the welfare of the self-selected population of individuals who are willing to take out a standard loan.

Importantly, households that are offered a made-to-measure microcredit (either the grace period loan or the tailored loan, depending on the treatment arm) have the possibility to opt out and instead take either no loan or the regular loan with a fixed repayment schedule. We consider as take-up the fact that households decide to take a loan irrespective of the type of the loan.

We will consider intention-to-treat estimates that we then interpret as the impact of being offered different sets of loan products. However, we designed this experiment to learn about the impact of the different innovative loan products on outcomes. This, however, requires some assumptions about the general take-up and about the take-up of our innovative, made-to-measure loan products.

The first monotonicity assumption we make is that all households who take a regular loan when they are offered such a loan, only would take a loan, either regular or made-to-measure, if they would be

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<sup>6</sup> In the remainder of this Proposal, we sometimes refer to both treatments as made-to-measure loans.

<sup>7</sup> Al Amana mainly provides individual-liability loans to rural borrowers and joint-liability lending is therefore not part of this experiment.

offered one in either of our two treatment arms. However, for our comparison between treatment arms and the control group, to identify the impact of the made-to-measure loans, we need an additional assumption. This assumption is that all households who take a loan (either made-to-measure or regular) in a given treatment arm would have taken a regular loan. This assumption might be seen at first glance as going against the idea that the demand for microloans is low because regular loans are too constraining. This is indeed the focus of our study in Part B. Yet, in Part A, we select households who showed an interest in a regular loan. This means that we selected the sample so as to have a large take-up for any type of loan in any group. Of course, there might be households who will not take a loan, but we expect this proportion to be low in each treatment group. Moreover, we expect that the reason why households decide to opt out are exogenous to the differences in the three contracts that are offered to them.

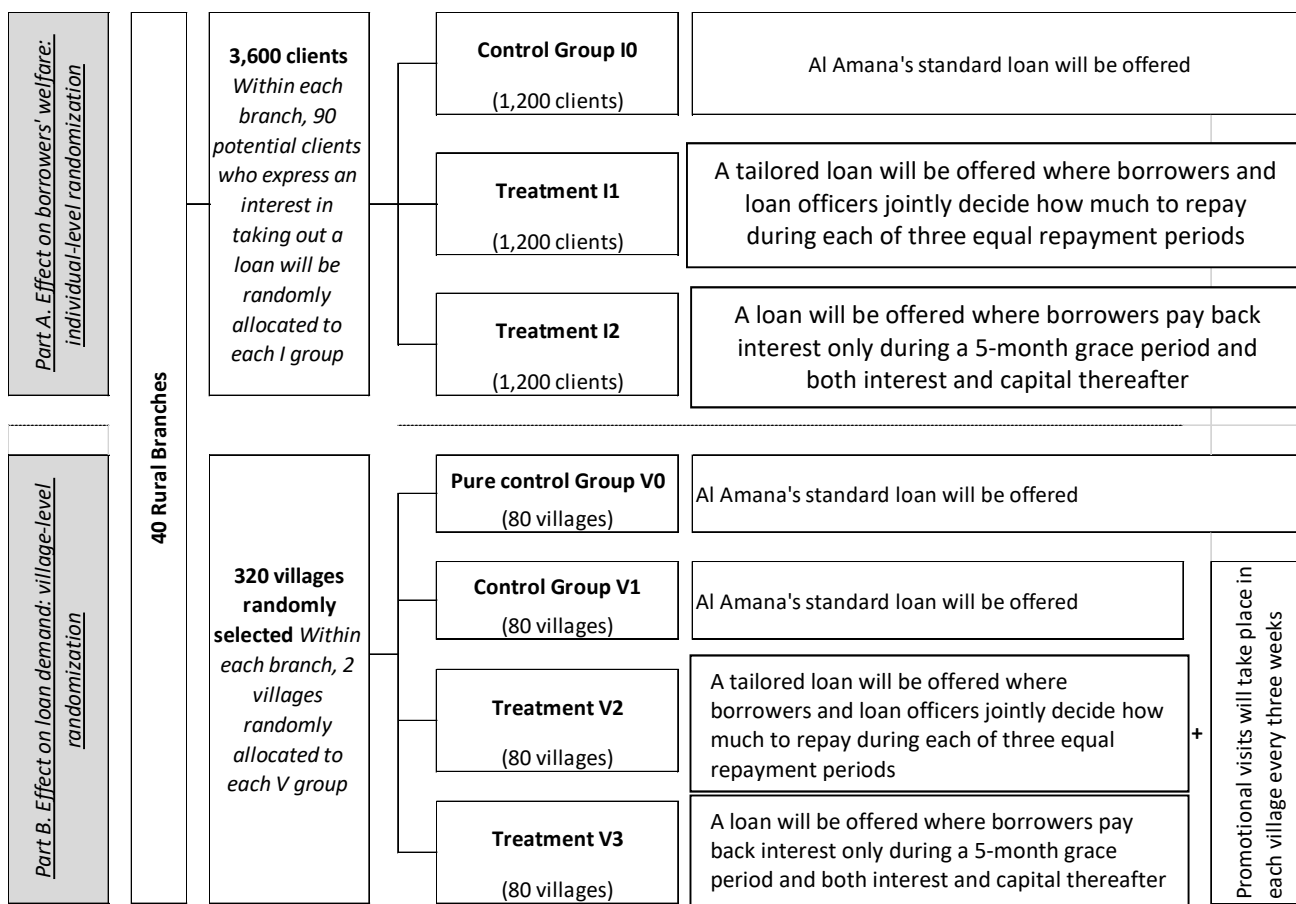
The second assumption is therefore that conditional on being selected for experiment A, households that comply with the made-to-measure loans are included in the set of households who comply with the regular loans.

These are assumptions that we will be able to test in several ways:

- First, we will examine the take-up of any loan type in each treatment arm. We will test this take-up is large and the same. This can already be tested using administrative data.
- Second, we can compare the population of those who did not take any loan in each treatment arm. We can compare their baseline characteristics and test whether they are the same. This can also be tested using administrative data and baseline data.
- We will also be able to do this for a set of key outcome variables measured during our follow-up surveys.

We will make several comparisons which we describe in more detail in Section 5. We will examine the standard ITT estimate as well as the “constrained ITT” that will only compare households who took any form of loan (assuming the previous tests on take-up are accepted). This might lead to an increase in the power of the experiment. We will also consider the LATE corresponding to the impacts of made-to-measure loans. These can be estimated based on both the full sample and the sample of those who took a loan.

**Figure 1: Overview of research design**



Account managers at each of the 40 participating branches are obliged to use a pre-programmed randomization tool that indicates the type of loan product (tailored, grace period, or standard) that should be offered to each individual applicant.<sup>8</sup> Validation checks have been included in this tool so that loan officers cannot overrule the randomization allocation. For each loan application, the research team can observe the outcome of the randomization tool, the loan type that was offered to the client, and therefore any discrepancies that may exist between both. We have implemented stringent ex post checks to guarantee that credit officers fully respect the randomization rule. Loan officers have been trained and instructed to promote the (randomly) assigned loan type to each potential borrower with the aim of convincing them to take out a loan of that type. Appendix A provides the experimental protocol of Part A and more information about the loan offers.

We believe the potential for spillovers between individual (potential) borrowers to be very limited in Part A of the project. Branches typically only receive two or three loan applicants a day, so applicants do not meet and interact in the branch. Moreover, during the experiment, we instructed loan officers to keep track of whether loan applicants would proactively ask about either the grace period or the

<sup>8</sup> Account managers (*chargés de clientèle*) are charged with most administrative tasks in the branch, including registering borrowers in the IT system. Unlike branch managers (*chefs d'agence*) they are typically always present in the branch, which is why we tasked them with conducting the randomization.

tailored loan. So far, this never happened, suggested that spontaneous information dissemination about these new loan types was very limited if not absent.

#### Part B: Impact of grace period loans and tailored loans on the demand for microcredit (village-level randomization)

In Part B, we evaluate the demand for the grace-period loans and tailored loans in a separate set of villages (within the catchment area of the same branches as in Part A). This allows us to measure the relative intensity of each constraint on microcredit take up. The entire population of these villages will be targeted. This intervention takes place in the same 40 branches participating in the individual research design (Part A) and will happen after that initial intervention. In each branch's catchment area, we have identified – using AI Amana's administrative data – 8 villages with a significant number of potential borrowers (see Section 4.1 for more details).

These villages will randomly receive one of the following information campaigns on each loan offer: a tailored loan (treatment, V2), a grace period loan (treatment, V3) or a standard loan as currently offered by AI Amana (control, V1). An AI Amana promotional team will visit each of the participating villages and conduct door-to-door discussions to provide information about the assigned loan type to the village inhabitants. Such a promotional visit will take place every two weeks<sup>9</sup> in each participating village (the total number of visits per village will be four). Because the interventions include both access to a new loan offer *and* regular promotional campaigns, the remaining two villages will receive the current standard loans as per the usual promotional activities carried out by AI Amana (pure control, V0). This will allow us to disentangle the effect of the new loan offer from that of the associated marketing activities. It is important to note that what is randomized here is only the information about the different loans. Clients who come spontaneously to the branch can ask for any type of loan.

This research design will measure the effects of the new loans on microcredit take-up and repayment behavior by capturing the effects of the new loan offer on the existing pool of clients as well as on the new pool of clients the new loans may attract. We expect that the interventions increase take-up at the village level in part by attracting different pools of new clients. For example, the intervention on loans with a grace period may attract riskier borrowers that have seasonal income flows (but that may generate higher returns).

Following the promotional campaigns, we will monitor the loan disbursements at the participating branches for a period of 24 weeks (6 months) to determine the effect on demand for each of these three types of microcredit. A total of 320 (40x8) villages participate in Part B.

For Part B of the analysis, our main final outcomes will be measured at both the village and the individual level. At the village level, we will measure the number of loans disbursed, the average loan size, the proportion of loans taken by women, the average repayment ratio, portfolio at risk, and client retention. At the individual level, we will use administrative data from AI Amana to describe the characteristics of borrowers in terms of age, type and size of activities, and repayment history (if any), that select into both types of new made-to-measure loans. We will also compare them to the characteristics of clients in villages where we offer the standard loan product. To this end, we carefully match AI Amana's administrative data to each study participant. This is also important because the

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<sup>9</sup> A pilot will be conducted to determine the optimal frequency of the promotional visits.

pool of loan applicants from treatment villages V2 and V3 that approach AI Amana branches during Part B of the study may differ from those coming from control villages where AI Amana's regular loan product is on offer. We intend to use AI Amana's administrative data on key characteristics of loan applicants (age, gender, marital status, income, borrowing history, and type of entrepreneurial activity) to describe this population and compare it to the applicant pool coming from the control villages.

Moreover, to help understand the mechanisms at play, we will collect data on the characteristics of the participants in the information sessions and collect qualitative data four months after the village-level interventions start. Our goal is to understand changes in intermediary outcomes such as perceptions about credit, knowledge about AI Amana's offer and the use of borrowed funds. We will do this through focus groups with randomly selected participants in the village-level interventions. These focus groups will take place about two months after the start of the village-level intervention.

Lastly, we will make sure that the experimental villages (*douars*) are sufficiently distant to make information spillovers unlikely. In general, in the rural Moroccan context, travel between villages is extremely limited as distances are long and travel slow. Social interaction (and possible information exchange) does take place, however, at local markets (*souks*), which are visited by traders from several villages. During the piloting phase of Part B we will measure whether information spill-overs occur in a *souk* setting and adjust the design if necessary (for instance, by randomizing and timing the treatments in such a way that different treatments do not occur within the same *souk* catchment area at the same time).

### Connecting Parts A and B

There will be four distinct populations in the villages where we offer made-to-measure loans. These are: (1) people who would have taken a standard loan (under the pure control or with the information campaign about the standard loan) and remain users of a standard loan; (2) people who would have taken a standard loan and now switch to a made-to-measure loan; (3) people who would not have taken a standard loan but now take a made-to-measure loan (given the new conditions); and (4) people who do not borrow whatever type of loan is available.

An interesting back-of-the-envelope calculation will be to extrapolate the potential returns we find for the compliers in Part A (those who take the made-to-measure loan when it is offered to them when they visit a branch to apply for a standard loan) to sub-population 2 of Part B (as described above). For this, we need to know the proportion of all respondents in the made-to-measure treatment villages that belong to population 2. This proportion is not directly observable, but we can back it out by comparing the two types of treatment villages. In particular, in the villages where we roll out the standard loan, we will observe the total proportion of people who take a standard loan. This total proportion is the sum of the proportion of people belonging to groups 1 and 2. We can then take from the villages where we roll out the made-to-measure loan, the (observed) proportion of people who nevertheless take a standard loan. This proportion equals group 1. Because of the village-level randomization, the proportion of people in group 1 will on average be the same across the different types of villages. This means that we can now back out the proportion of people in group 2 by subtracting the proportion of people in group 1 (observed in the made-to-measure treatment villages) from the sum of group 1 and 2 (observed in the standard treatment villages).

This approach gives us an estimate of the proportion of people belonging to group 2. This group is the closest we can get to the compliers in Part A: they would take a standard loan if that is on offer but will switch to a made-to-measure loan if they get the opportunity to do so. We can therefore apply the estimated treatment effects from Part A to this group to arrive at a back-of-the-envelope estimate of the aggregate impact of introducing made-to-measure loans on those borrowers who are amenable to a “product upgrade”. Of course, this type of calculation comes with important caveats. First, the population of Part A is not exactly the same as group 2 in Part B. For example, the borrowers in Part A all visited an Al Amana branch without being prompted whereas at least some borrowers in group 2 of Part B may only have visited a branch after being exposed to a marketing campaign.<sup>10</sup> Second, the timing will be different as Part A started in 2018 and Part B will be implemented as of 2022.

### 3.3. Hypotheses

Our research aims to test four main hypotheses:

- **H1:** Tailored loans and/or grace-period loans have more beneficial poverty impacts as compared with standard individual-liability microcredit. This is because:
  - **H1: 1** Making repayment schedules made-to-measure (either through longer grace periods or matching repayment schedules) allows borrowers to undertake more profitable investment opportunities.
  - **H1: 2** Making repayment schedules made-to-measure (either through longer grace periods or matching repayment schedules) allows households to better smooth consumption over the repayment period.
  - **H1: 3** Making repayment schedules made-to-measure (either through longer grace periods or matching repayment schedules) affects the nature and increases the level of risk of investments undertaken by borrowers.
- **H2:** Making repayment schedules made-to-measure (either through longer grace periods or matching repayment schedules) increases the take-up of microcredit.
- **H3:** The characteristics of borrowers taking up loans only when they are tailored or have a longer grace period are different from the characteristics of the borrowers taking up the standard loan.
- **H4:** Making repayment schedules made-to-measure has either a positive impact on repayment performance (through H1:1 and H1:2) or a negative impact on repayment performance (through H1:3).

Note that our experiment is not set up to test H1 (the impact of the made-to-measure loan offers on borrower welfare) on the borrowers that only take up microcredit when the made-to-measure offer is available (Part B).

We define the primary outcomes as those needed to test our main hypotheses and based on which we will measure the success of the intervention. The primary outcomes vary across the two parts of the experiment. In Part A, we focus on the profits and revenues derived from the economic activities of the clients as well as on their consumption and income. In Part B, we focus on the number of loans

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<sup>10</sup> Note that, in the same way we estimate the proportion of population 2 in Part B, we can also back out their average characteristics and compare them to the characteristics of compliers in Part A.

disbursed, repayment rates, and the portfolio at risk. Below we set out in more detail how we measure our primary outcomes. Appendix B contains the baseline survey instrument.

Outcomes	Definition	Source	Measurement
Revenues (sales) and profits	Total revenues (sales) and profits of the existing businesses over the 12 months before the survey	Survey	Direct question on revenues (sales) and profits. Individual level and household level. Business profits will be measured using the anchoring, aggregating, adjusting approach of Anderson et al. (2021).
Income	Total income of the household over the 12 months before the survey	Survey	Include individual-level outcomes: <ul style="list-style-type: none"> <li>○ Transfers</li> <li>○ Wage labor</li> <li>○ Salaried contracts</li> <li>○ Profits of businesses</li> </ul>
Subjective income expectations	Expected profits from entrepreneurial activities over the next 12 months	Survey	Expected profits in positive and negative scenario as well as likelihood that profits will be above/below average expectation
Consumption	Per capita consumption of the household over the 12 months before survey	Survey	Include individual-level outcomes <ul style="list-style-type: none"> <li>○ Food consumption (short term)</li> <li>○ Durables</li> </ul>
Credit take-up	Take-up of tailored loans or standard loan	Administrative	Individual (Part A) Per village (Part B)
Repayment rate	Repayment status of the loan 30 days after the due date	Administrative	Individual (Part A) Per village (Part B)

In an appendix to the paper, we will show the full distribution of our preferred household income and business profit measures as indicated in the above table. We will measure household income by aggregating (i) transfers; (ii) income from wage labor; (iii) income from salaried contracts and (iv) profits of businesses. We will measure these income components over the 12 months before the date of the survey. Income from transfers, wage labor, and salaried contracts are measured using direct questions to the respondents. To measure business profits, we build on the AAA approach (anchoring, aggregating, adjusting) as developed by Anderson et al. (2021). The main idea of this method is to get different estimates of the sales, expenses and profits through different channels (intuition, recall, computations), and then pick the "best" estimate. Note that, to save on scarce survey time, we use a light version of the tool. The methodology consists in using a five-step approach to measure the profits from each sector of activity in the last 12 months (for agriculture and breeding) or in the last 30 days (for non-agricultural activities). These five steps are the following: (1) elicit the intuition of the respondents about the level of sales and expenses; (2) a detailed computation of sales and expenses item by item (e.g. vegetables, fruit, livestock for sale; transportation costs, wages, etc.); (3) based on the two previous estimates of sales and expenses, the respondents are asked which final amount they would choose. They can pick one of the two estimates, or report another amount; (4) elicit the first intuition of the respondents on profits; and (5) show the respondents the two estimates for profits (that is, the first intuition and the difference between the final estimate for sales

and the final estimate for expenses). The respondents then give their final estimate of profits based on these two values.

Our secondary outcomes are variables that may also be affected by the intervention but are not the core variables that determine whether the interventions have been successful. These include loan use, type and level of investments, time allocation (Part A), and reimbursement length and frequency, amount borrowed, characteristics of the pool of clients taking up loans, and client retention (Part B).

<b>Outcomes</b>	<b>Definition</b>	<b>Source of measurement</b>	<b>Measurement</b>
Type of investments	Type of investments since baseline survey (chosen from a pre-specified set)	Survey	The respondent provides the amount spent since baseline for each type of investment listed
Level of investments	Total value of new investments since the baseline survey	Survey	Sum of all investments undertaken
Time allocation	Allocation of household time across self-employment, wage labor, and domestic activities in last seven days before the survey	Survey	Time spent on each activity over the last week for each member of the household
Loan amount	Take-up of tailored loan or standard loan	Administrative	Per village (Part B)
Repayment rate	Repayment status of the loan 30 days after the due date	Administrative	Per village (Part B)
Client characteristics	Gender, age, type of activity, repayment history (if any)	Administrative	Per village (Part B)

## **4. Data**

### *4.1 Sampling*

Al Amana currently operates 560 branches across Morocco, of which 301 are located in rural areas. Out of the latter, we selected 40 to participate in Part A and B of the study based on three selection criteria. First, we relied on Al Amana’s administrative data to select branches with at least two permanent staff members (excluding the account manager) and a minimum standard in meeting monthly disbursement objectives (at least 65 percent over the last two years). Those two criteria ensured that we include branches that are large enough and disburse enough loans to meet our requirements in term of sample size. We only included branches without excessive portfolio at risk (less than 10 percent over the last two years). Third, we piloted the experimental protocol in these branches for a few months to identify the ones with a satisfactory level of performance in terms of adhering to the study protocol. These then became the 40 study branches. The objective of the pilot was also to test and fine-tune the experimental protocol and to verify whether we obtained sufficient sample and take-up in order to detect reasonable minimum effects.

Next, we will select the villages that will participate in Part B. For each of the 40 rural branches of Part A, we will pick eight surrounding villages with a large number of potential clients in the catchment area (based on Al Amana administrative data and in consultation with the staff of the branches). For



each branch, two villages will be then randomly allocated to treatment group 1; two villages to treatment group 2; two villages to the control group; and a final two villages to the “pure control” group. Hence, a total of 320 (40x8) villages will participate in Part B.

#### *4.2 Survey instruments and administrative data*

Part A exploits both Al Amana’s in-house administrative data and household surveys. We started the baseline household survey in April 2018 (wave 1). Wave 3 of this survey is expected to be completed by November 2021 (this third and final wave of the baseline survey restarted in March 2021 after a break due to Covid-19). The baseline survey takes place at the premises of the branch where a participant applies for a loan. The survey includes modules on household characteristics, the self-employment activities of the client, aggregate production and sales, dependent employment, assets, sources of household income, subjective income expectations, and the number and amount of current loans. Appendix A provides a more detailed description of the experimental protocol related to Part A of the study while Appendix B provides the baseline survey in full.<sup>11</sup> During this first contact with the client, we also elicit their contact information so that 18 months later the survey teams can visit the clients at home to administer the end-line survey. This end-line survey will be a more comprehensive household survey where we will collect detailed data on production, income, time allocation, consumption, and financial services usage.

All survey data are collected using CAPI. Standard survey back-checks and surveyor supervision have been put in place in accordance with J-PAL’s recommended best practices. The subcontractor is required to monitor the performance of surveyors, supervisors, and managers in the field to ensure that the survey’s technical requirements are carefully followed. The subcontractor has also established procedures to check the quality of the interviews. In particular, 25 percent of all surveys will be administered in the presence of a field supervisor and 10 percent in the presence of a field manager. Moreover, 15 percent of surveys will be randomly verified (back-checked) by the subcontractor using a brief follow-up phone interview.

In Part B, we rely on administrative data from Al Amana’s management information system. This allows us to measure the effects of the introduction of new loans on demand at the village level (take-up rate, amounts borrowed, reimbursement length and frequency, client retention, portfolio at risk and other indicators for short intervals of time during the evaluation timeframe). We will also use administrative data from Al Amana’s information system on individual characteristics to determine the type of borrowers drawn to each loan type. Al Amana has a reliable information system that it uses to monitor operations and performance, with every transaction recorded on a daily basis.

#### *4.3 Covid-19 mid-line survey*

The global Covid-19 pandemic also affected Morocco and its microcredit industry. The introduction of social distancing meant Al Amana temporarily closed its offices. We therefore had to pause the roll-

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<sup>11</sup> We provide an English translation of the baseline survey, which was originally programmed in French for the CAPI. The actual questions are administered by the interviewers in the Moroccan Arabic dialect (Darija) or in one of the local Berber / Amazigh dialects (Tashelhit, Tamazight, and Tarafit), depending on the mother tongue of the respondent. Surveyors are all fluent in French, Darija, and the local dialect of the region of the branch to which they were assigned.

out of our Part A interventions as well as the accompanying baseline survey. The interventions and baseline surveys of Part A restarted in March 2021.

We swiftly responded to the outbreak of Covid-19 by fielding interim surveys via telephone (as travel was not permitted) during the period May 27–August 18, 2020. The goal was to collect information on how Covid-19 was affecting the participants of the experiment and, second, to have a first measurement of short-term impacts of both the made-to-measure loan products on this group (which represents only one third of the total sample we envision to include in the experiment). Out of the 1,247 respondents that had participated in Part A so far (and who had therefore been interviewed at baseline), we managed to interview 1,029. Attrition, at a rate of 17 percent, is balanced between the control and both treatment arms.

The survey team used SurveyCTO software and made up to nine attempts to reach each respondent, calling at different days and times of the day. If the available information at that point suggested that the telephone number was faulty, attempts to reach a respondent were terminated. If the telephone number was valid in principle (but was simply not being answered), than another nine attempts were made to reach the respondent. Respondents were compensated for their time in the form of a top-up phone credit of 20 dirhams (around 2.2 dollars).

The median (average) interview length was 30.5 (11.8) minutes. The survey instrument included questions about basic respondent characteristics; activities and revenues of the household; the household's investment in small-scale business activity (if any); borrowing; consumption; stress levels; and financial risk. The survey also contained a short module with basic questions about the impact so far of the Covid-19 pandemic. We asked whether households received any Covid-19 related financial or other government aid; which challenges they faced because of Covid-19; and the impact of Covid-19 on household spending.

It is important to note that at the time of writing this report we had not analyzed any of the data collected during this phone survey. Our pre-registered report is therefore blind to any information on potential short-term effects of the made-to-measure loans on borrowers' welfare. In the very last iteration of the report, and at the request of a referee, we had a preliminary look at the main results of the Covid mid-line survey for the control group. In line with informal feedback from Al Amana loan officers, these data indicate that the impact of Covid-19 on rural Moroccan households has been relatively limited, at least three to six months after the beginning of the crisis. In particular, we find that nearly 78% of the control sample had their business still open and that the vast majority of those that closed declared that it was temporary (with almost no permanent closures). Having said that, many respondents declared that demand had declined (88%) and this was caused mainly by the mobility restrictions (68%) that were enacted by the government at the time. We also find that clients declare to have used part of their savings to weather the temporary Covid shock.

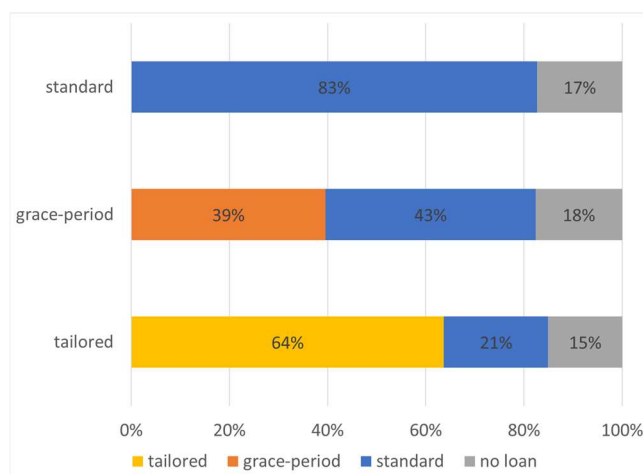
#### *4.4 Statistical power*

In this section, we present power calculations for both parts of the experiment:

##### *4.4.1 Part A: Individual-level randomization*

At the time of writing this Registered Report, we already have access to the first and second wave (out of three waves in total) of the baseline data of Part A of the experiment. These data have been matched with Al Amana administrative data (Figure 2)<sup>12</sup>. This allows us to calculate the take-up rate for both treatment arms and to use variable means and variances of the outcomes associated with our hypotheses. This information is crucial to undertake meaningful statistical power calculations.

**Figure 2. Take-up of the different loan offers**



Source: Household baseline survey (wave 1 and 2).

Figure 2 shows that 64 per cent of the individuals assigned to the tailored loan offer are actually taking it while 21 prefer the standard loan and 15 per cent decide not to take any loan at all. For the grace-period treatment arm, 39 per cent take the offer of the grace-period loan, 43 percent prefer the standard loan, and 18 percent decide to not take a loan after all. In the control group (where clients are only offered the standard loan), 83 percent of the participants take the standard loan and 17 percent take no loan after all.

Although the effect of the treatment on the probability of taking a loan is not significant at this stage, we will closely monitor this during the scale-up of the experiment. Our experiment was designed to minimize the proportion of applicants who do not take any loan by randomizing as late as possible in the chain, that is, when prospective clients or renewing clients actually come to a branch to apply for a (standard) loan. However, it was not possible to randomize *after* the applicants would have already signed the credit contract for the standard loan. As a result, the data show that take-up is not 100 percent in our different treatment arms. This reflects, for instance, that some potential borrowers change their mind about applying for a loan when they receive information about the exact loan terms (including interest rates) and the logistics involved.<sup>13</sup> One potential issue when we compare the outcomes for individuals in the made-to-measure offer groups and the standard loan group, is that we

<sup>12</sup> At the time of preparing this report, we had collected data on 563 households belonging to the first two waves of the baseline survey.

<sup>13</sup> In collaboration with Al Amana, we decided to strengthen the enforcement of the experimental protocol for the scale-up of the experiment by making sure to include in the randomization file only clients or potential clients who are eligible and during the conversation with the loan officer indicate that they are indeed interested in the standard loan. In this way, we expect to significantly reduce the proportion of non take-up.

might capture some selection effect coming from the additional people taking a loan only when a made-to-measure loan is offered to them. However, for the time being the proportion of clients not taking a loan at all is quite similar across the three groups.

To calculate the minimum detectable effect (MDE) we use the following formula:

$$MDE = (t_{\frac{\alpha}{2}} + t_{1-\kappa}) \sigma_{\mu} \sqrt{\frac{1}{D(1-D)} \frac{1}{N} \frac{1}{(\pi_1 - \pi_0)^2}}$$

Where  $D$  is the mean of treatment dummy,  $N$  the sample size,  $t_{\frac{\alpha}{2}}$  and  $t_{1-\kappa}$  depends on the significance level (5 percent) and on the power (80 percent), respectively,  $\sigma_{\mu}$  is the variance of the outcome of interest and  $\pi_1 - \pi_0$  is take-up differential between the treatment and control groups. We detail below our assumptions on the main parameters of the experimental design that affect power.

$N$  (the sample size): the first two waves of the baseline survey provide us with preliminary estimates of the daily number of eligible clients that visit the branches and that consent to participate in the study. Since the variation across branches is substantial, we present power calculations for three scenarios where we assume total sample sizes of either 3,600; 3,000; or 2,400 clients.

$\sigma_{\mu}$  (the variance): we retrieved the mean and variance of our main variables from the baseline survey we recently conducted (columns 2 and 3 of Table 1)

$\pi_1 - \pi_0$  (take-up differential): based on the take-up information (Figure 2) and on the baseline data, we present MDEs for loan take-up rates of 0.6 and 0.4 (Columns 6 to 9 of Table 1 below).

Panel A of Table 1 (Column 4) shows that for a total sample of 3,600 clients (1,200 being offered the standard loans; 1,200 the tailored loans; and 1,200 the grace-period loans), we will be able to detect increases of 4.2 percentage points (5 percent) in the share of households with a self-employment activity and of 5.3 pp (17 percent) in the share of households where at least one household member does day work.

**Table 1. Power calculations and minimum detectable effects (individual randomization)**

**Part A. Individual Randomization**

Control vs 1 treatment arm

Alpha = 0.05, Power = 0.80

	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)
	Obs	Mean	St dev	<b>Take-up rate of:</b>					
				ITT		0.6		0.4	
				mde	% change	mde	% change	mde	% change
	nobs	mean1	stdev1						
<b>Panel A. Total sample size : N = 3600. MDEs for N0 = 1200, N1 = 1200</b>									
Standardized MDE				0.11		0.19		0.29	
<i>Binary Variables</i>									
Self-employment activity	556	0.836	0.370	0.042	5%	0.071	8%	0.106	13%
Day work	546	0.302	0.460	0.053	17%	0.088	29%	0.131	43%
<i>Continuous variables</i>									
Profits	427	19,239	29,199	3338	17%	5,563	29%	8,344	43%
Sales	477	51,242	81,681	9337	18%	15,561	30%	23,342	46%
Consumption*	2,298	3,669	4,469	511	14%	851	23%	1,277	35%
<b>Panel B. Total sample size : N = 3000. MDEs for N0 = 1000, N1 = 1000</b>									
Standardized MDE				0.13		0.21		0.31	
<i>Binary Variables</i>									
Self-employment activity	556	0.836	0.370	0.0464	6%	0.077	9%	0.116	14%
Day work	546	0.302	0.460	0.0576	19%	0.096	32%	0.144	48%
<i>Continuous variables</i>									
Profits	427	19,239	29,199	3656	19%	6,094	32%	9,141	48%
Sales	477	51,242	81,681	10,228	20%	17,047	33%	25,570	50%
Consumption*	2,298	3,669	4,469	560	15%	933	25%	1,399	38%
<b>Panel C. Total sample size : N = 2400. MDEs for N0 = 800, N1 = 800</b>									
Standardized MDE				0.14		0.23		0.35	
<i>Binary Variables</i>									
Self-employment activity	556	0.836	0.370	0.052	6%	0.086	10%	0.130	15%
Day work	546	0.302	0.460	0.064	21%	0.107	35%	0.161	53%
<i>Continuous variables</i>									
Profits	427	19,239	29,199	4088	21%	6,813	35%	10,220	53%
Sales	477	51,242	81,681	11,435	22%	19,059	37%	28,588	56%
Consumption*	2,298	3,669	4,469	626	17%	1,043	28%	1,564	43%

Data source: on-going Baseline Survey. The top 1% of the distribution of continuous variables has been winsorized.

\* Since we do not collect data on consumption in the current baseline survey (but we will do so at endline) we use consumption data from a previous household survey conducted in 2014 as part of a study where we measure the medium-term effect of access to microcredit in rural Morocco.

As expected, with imperfect compliance, effects among clients that will take up the new loan offers will need to be much larger in order to detect them. For example, for a total sample size of 3,000, standardized MDEs increase to 0.21 for a take-up rate of 0.6 and to 0.31 for a take-up rate of a 0.4. This compares to 0.13 in the ITT scenario. Given the observed take-up rates during the beginning of the experiment implementation, it is important to generate a large enough sample. Our goal is therefore to achieve a total sample size of 3,600 clients (1,200 in each arm).

For continuous outcomes, we can detect increases of 17 percent for profits, 18 percent for sales, and 14 percent for consumption (Panel A, Column 5). These magnitudes of the minimum detectable effects are equivalent to 0.11 of a standard deviation.<sup>14</sup> Panels B and C show how minimum detectable effects increase as the sample size decreases: standardized effects increase to 0.13 and 0.14 of a standard deviation for sample sizes of 3,000 clients (1,000 in each group) and 2,400 clients (800 in each group), respectively. We thus see that standardized detectable effects do not change

<sup>14</sup> As mentioned before, most data we use to perform these calculations is from the on-going baseline survey. Since we do not collect data on consumption at baseline (but plan to do so at end-line) we use consumption data from a previous survey across rural Morocco. This survey was conducted in 2014 and used to measure the medium-term effect of providing access to microcredit.

significantly for this range of sample sizes. Given the large standard deviation of continuous outcomes, a standardized effect of 0.14 (Panel C) translates, however, into larger minimum detectable effects of 21 percent for profits, 22 percent for sales, and 17 percent for consumption.

#### 4.4.2 Part B: Village-level randomization

Part B will take place in eight villages in the catchment area of each of the 40 participating branches. This part thus involves 320 villages. A sample size of 80 villages per treatment group will allow for the detection of impacts on village-level take-up of at least 6.3 percentage points. We calculate these MDE using data from a related study in rural Morocco (Crépon, Devoto, Duflo, and Parienté, 2015) where the standard deviation of this outcome is 0.14. Since Al Amana’s administrative data currently cannot easily be extracted at the village level, we cannot provide *ex-ante* power calculations for other administrative outcomes. We are currently putting in place a system that will allow us to use village-level data from Al Amana’s management information system.

## 5. Empirical analysis

### 5.1 Model specifications

We plan to estimate intention-to-treat (ITT) effects of offering made-to-measure loans for the two parts of the study. We start by evaluating the effect of the two new microcredit contracts at the individual level (with individual randomization), using the following regression specification:

$$Y_{ib} = \alpha + \beta_1 T_1 + \beta_2 T_2 + X_{ib} \delta + \mu_b + \varepsilon_{ib} \quad (1)$$

$Y_{ib}$  is one of our outcomes of interest in Part A (income, investment, consumption, etc.) for individual  $i$  in branch  $b$ ;  $T_1$  is a dummy variable for the tailored loan treatment;  $T_2$  is a dummy variable for the grace period loan treatment;  $X_{ib}$  is a vector of baseline individual controls; and  $\mu_b$  is a branch fixed effect. Randomization occurs at the individual level and standard errors will not be clustered.

We will use a structured procedure (Belloni, Chernozhukov, and Hansen, 2014) based on machine learning to select the set of baseline (individual, village, or branch) control covariates that will enter our main regression. This method uses LASSO to select the relevant control variables, that is, those that are unbalanced between the treatment and control groups and those that are correlated with the outcome variable.

As shown in Figure 2, we expect imperfect compliance with randomization for this part of the study. Depending on what the data tell us about externalities (given that we randomize individuals coming from the whole catchment area of the branch, we expect this to be fairly limited), we will also estimate the LATE on the complier group.

Next, Part B evaluates the impact of the new microcredit contracts at the village level (with village randomization):

$$Y_{jb} = \alpha + \beta_1 T_1 + \beta_2 T_2 + X_{jb} \delta + \mu_b + \varepsilon_{jb} \quad (2)$$

$Y_{jb}$  is our outcome of interest for this part (loan take-up, repayment, etc.) for village  $j$  in the catchment area of branch  $b$ ;  $T_1$  is a dummy variable for the tailored loan treatment;  $T_2$  is a dummy variable for the grace period loan treatment;  $X_{jb}$  is a vector of baseline village controls; (we explain below how they will be selected) and  $\mu_b$  is a branch fixed-effect. Randomization is at the village level and standard errors will not be clustered.

### 5.2 Inference and multiple outcome/multiple hypothesis testing

We will use both standard OLS inference (t-test) and randomization inference (Young, 2019) to estimate the  $p$ -values associated with our main effects of interest. Randomization inference is based on permutation tests and does not rely on the shape of the distribution of our outcomes of interest. This is particularly useful in the case of small samples or for outcomes with fat tails (such as income and profit) where the assumption of a normal distribution may not hold. Where relevant, we will present standard  $p$ -values as well as adjusted  $p$ -values following Hochberg (1988) to control for familywise error rates. Following Young (2019) we will provide joint tests of significance for the key outcomes of interest using randomization inference.

### 5.3 Heterogeneous effects

Based on earlier work in Morocco (Crépon, Devoto, Duflo, and Parienté, 2015) and India (Banerjee, Breza, Duflo, and Kinnan, 2017), we expect impacts to be larger among ‘gung ho’ households that already have a small-scale entrepreneurial activity and, in particular, for businesses at the top end of the profit distribution. We will perform quantile regressions to analyze potential distributional effects and impact heterogeneity. In addition, we will also evaluate the effect on individuals who could benefit the most from the made-to-measure products, in particular:

- Households that self-report higher uncertainty about their expected incomes. Our primary measure of income uncertainty will use baseline survey questions G.39–G.46 about respondents’ expectations about entrepreneurial profits in a very good and a very bad year, as well as the subjective probabilities associated with these different entrepreneurial returns. We thus elicit information about the cumulative distribution function of the respondent’s future returns. By making assumptions about the functional form of the distribution, these data can be used to construct moments of the expected return distribution, including the means and – most important for our purposes – the coefficient of variation. Without distributional assumptions, we can also use the difference between the minimum and maximum expected return as a measure of uncertainty. We will use both the coefficient of variation and the range of expected returns as our uncertainty measures.

- Households with entrepreneurial activities, in particular agricultural ones, where incoming cash flows are typically limited or absent for several months after loan disbursement. This should increase the take up and the impact of the grace-period loan in particular. Our main measures here are a dummy for whether the household engages in at least one entrepreneurial activity and a dummy for whether the household engages in at least one agricultural income-generating activity.
- Households with incomes that are less evenly spread across the year (based on baseline survey question E.75.), i.e. are more seasonal. This should increase the take up and the impact of the tailored loan in particular. In our baseline survey, we asked a number of questions (section E) that allows us to approximate the household's income level during the last year before the survey. In question E74.3, we asked respondents to allocate this income to the four quarters of the year before the survey (a respondent with regular income flow will report the same amount in each quarter). Our income seasonality measure will simply be the variance of these four observations per household. We will divide our sample in below-median and above-median value of the variance.

We will also evaluate the effect on clients that have the same levels of observables than the new clients in Part B to simulate the impact on living conditions on those marginal borrowers.

#### *5.4 Missing values and outliers*

In order to understand any possible outlier problems, we will first try to assess whether outlying observations are due to measurement error or due to true heterogeneity. We will select our primary outcomes and rank them in descending order. We will then check whether observations at the top of the distribution (for example at the 99<sup>th</sup> percentile) are the same for all primary outcomes. In case they are similar, we will winsorize those observations (for example at the 99<sup>th</sup> percentile). In case they are not, trimming could be another solution. In any case we will report results with untrimmed and unwinsorized variables in the appendix of our paper. Lastly, as mentioned above, we will also perform quantile regressions that are robust to outliers.

#### *5.5 Exploratory analysis on pre- versus post-Covid samples of applicants*

As explained in section 4.3, our experiment and data collection has been “interrupted” during the Covid-19 crisis. It means that the total baseline survey will consist of individuals who visited an AI Amana branch before Covid as well as individuals who visited an AI Amana branch in the aftermath of the height of the Covid pandemic (the experiment was on hold during the peak of the pandemic). Our standard approach will be to pool observations from pre and post-Covid applicants for our main analysis. We then also intend to include a section in the final paper in which we focus on sub-samples of observations from clients that were included in our experimental design before and after the Covid pandemic, even if the two sub-samples may each be limiting us in terms of power. We will document whether the characteristics of applicants and the type of sector they invest in appear different before and after Covid. This analysis will provide suggestive evidence on how the unexpected pandemic may have changed household demand for specific types of microcredits and their potential impacts. We will also compare the results from Part B to the pooled sample of Part A as well as, in the



exploratory section, to the post-Covid subsample of Part A. This way, we aim to predict the returns to tailored loans on those who only borrow when they get access to this particular type of loans. While this section will be purely exploratory, it may nevertheless provide interesting leads for follow-up research by us or by others.

### **Administrative information**

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**Institutional Review Board (ethics approval):** The project team obtained approval from the Innovations for Poverty Action Institutional Review Board on July 28, 2017 under IPA IRB Protocol number 13891. In addition, approval was obtained from Morocco's CNDP (Commission Nationale de Contrôle de la Protection des Données à Caractère Personnel) on March 27, 2018 under number A-RS-81/2018.

**Declaration of interest:** Ralph De Haas is the Director of Research at EBRD, an International Financial Institution that lends to and invests in microfinance institutions (MFIs) in its countries of operation, including Morocco. However, the partner institution for this research project – MFI Al Amana – is not an EBRD client. There are no other interests to report.

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## **Appendix A: Detailed experimental protocol for Part A of the study**

Part A of the study assesses the impact of made-to-measure microcredit on borrower welfare and the experimental treatment uses randomization at the individual level. Below we present the experimental protocol that is being implemented and has been communicated to branch staff.

### **I. Recruitment of participants**

The first intervention targets individuals who willingly demonstrate a desire to take out a standard microcredit loan by visiting one of the participating Al Amana branches and inquiring about an individual enterprise loan application. Those individuals can either be new or existing clients of Al Amana. For this part of the study, no efforts will be made to recruit participants beyond the ones who visit the branches at their own initiative. The intervention will take place in 40 selected branches and is expected to last between 12 and 18 weeks in each branch. We expect around 3,600 total participants to visit the branches during that period.

### **II. Eligibility criteria**

Among the individuals who visit participating branches and inquire about a new loan, only those who meet all of the following criteria will be eligible to participate in the study. The account manager, who is the first point of contact at the branch, will be responsible for verifying whether a loan applicant fits these criteria or not.

*Individual Enterprise Loan:* Al Amana offers 3 types of loans: (a) group loans, (b) individual housing loans, and (c) individual enterprise loans. The made-to-measure loans being launched by Al Amana – and which are the topic of our impact evaluation – are a new form of individual enterprise loans. As such, only individuals interested in taking out an individual enterprise loan are eligible for a flexible loan and hence can participate in our study. No efforts will be made to convince individuals interested in group loans or individual housing loans to instead take out an individual enterprise loan.

*Eligible for a Standard Al Amana Loan:* Among those individuals who are interested in taking out an individual enterprise loan, only those who demonstrate a genuine interest in taking out a loan and an ability to meet the loan's financial obligations will be eligible to participate in the study. These are individuals who, in the absence of our study, would be expected to end up applying for and likely receiving a standard Al Amana loan. This would therefore exclude individuals who are simply inquiring about Al Amana's loan terms with no intention to apply for a loan, as well as those who are ineligible to take out a loan (e.g. no existing enterprise, no assets, etc.).

*New Loan:* Only new loans are eligible for the study meaning that applicants should not have an outstanding debt with Al Amana at the time of the application. This rules out the refinancing of existing loans in the form of borrowing an additional amount to be added to a current outstanding loan balance.

### **III. Baseline survey**

Once the account manager has identified that an applicant is eligible to participate in the study, he or she will inform them that they are invited to participate in a study about microcredit and will guide them to meet an independently hired surveyor who will be embedded in the branch for the duration of the study.

The surveyor will then greet the visitor and read them the consent form, explaining the objective of the study and the implications of participation. The stated purpose of the study is generic and does not touch on the theme of loan flexibility (see Appendix B for the exact text). If the applicant agrees to participate by giving their written consent, the surveyor proceeds to administer the baseline survey. The survey takes place in the branch itself. Data from the first wave indicate that the average duration of the baseline survey is 46 minutes. If an applicant refuses to participate, they will not partake in any of the following steps and instead proceed to discuss a loan application with a loan officer, as they had intended when visiting the branch.

#### **IV. Random allocation**

Once the baseline survey is completed, study participants proceed to meet the account officer in charge of using the randomization device that determines the treatment to be assigned:

Treatment 1 – Tailored Loan: A tailored loan product will be offered where the repayment schedule is split into three equal periods. The borrower and loan officer will jointly decide on the monthly amount that the borrower has to repay in each of the three periods in order to more closely match the borrower's expected cash flows (which may vary significantly over time). This decision is based on a joint discussion of the applicant's expected incoming cash flow schedule during the duration of the loan. A specific tool has been developed on an Apache OpenOffice spreadsheet to help loan officers determine the cyclical nature of participants' expected cash flows.

Treatment 2 – Grace Period Loan: A loan product will be offered where borrowers will pay monthly interests during a 5-month grace period before paying both monthly interest and loan installments thereafter.

Control – Standard Loan: A standard individual enterprise loan will be offered, with constant monthly installments for the duration of the loan.

The random allocation is conducted at the individual level using a randomization tool that was developed on an Apache OpenOffice spreadsheet which will be installed on the account manager's computer. To proceed with the random allocation, the account manager asks for each participant's national identification card, enters into the file the participant's first name, last name, national identification number, and checks 3 boxes – one for each eligibility criteria – to confirm that the participant's eligibility in the study has indeed been verified. The file then randomly indicates which treatment group to allocate each participant to. There are a number of safety and control features on the randomization file to make sure the random allocation is saved automatically and cannot be modified after each new participant registration.

#### **V. Loan officer meeting**

Once the experimental treatment has been randomly allocated, the account manager guides the participant to meet a loan officer, who is discretely informed of the treatment received by each participant. The meeting then proceeds differently depending on the experimental allocation received. If participants are selected for one of the tailored contracts, the loan officer will inform them that they are eligible for a new loan type being launched by AI Amana for its rural clients. The loan officer will then proceed to explain the new loan type to which the participant is eligible.

### Treatment 1 – Tailored loan:

Below are the guidelines given to the loan officer on how to present this loan type:

- The tailored loan consists of three reimbursement periods, with a corresponding monthly installment due within each period.
- The periods are of equal duration, each corresponding to a third of the loan duration.
- The installment amount in each of the three periods is jointly determined by the loan officer and the client as a function of the client's cash flow cycle. As such, the client will have different installments during each period, as follows: a low installment amount during periods of low income, a medium installment amount during periods of medium income, and a high installment amount during periods of high income. Installments can also be equal across more than one period.
- The minimum installment amount during each period cannot be less than the monthly interest due on the borrowed capital.
- The loan officer and client jointly select the installment amount during the first two periods, with Al Amana's IT system automatically calculating the remaining installments due during the 3<sup>rd</sup> period.
- Tailored loans are a new form of individual enterprise loans and they maintain all the existing terms and conditions of such loans, with the exception of the changes outlined above.

The loan officer will be expected to present the tailored loan by demonstrating its suitability to the client's needs, using as evidence the cyclicity of their prospective cash flows.

The loan officer will have access to a simulation tool developed on an Apache OpenOffice spreadsheet which will allow them to run a few simulations on the possible repayment schedules in order to find one that is particularly suited to the client's needs and repayment ability.

Once the new product has been presented, the client has the right to choose between the proposed tailored loan and a standard individual enterprise loan with a constant repayment schedule.

Once the participant has made up their mind and chosen a loan type, amount and duration, the loan officer follows the standard procedures to complete the loan application and eventually disburse the loan (such as paperwork, credit checks, etc.). This procedure remains consistent with Al Amana's current practices for individual enterprise loans.

When the loan contract and procedure is finally completed a few days later, the borrower is given a paper copy of their detailed loan repayment schedule specifying all the associated installments and due dates for the duration of the loan. The loan contract, covering all the credit terms and details, is then signed before the loan is disbursed.

The experimental treatment is now complete and the outcome is either a client who (i) chooses the proposed tailored loan and takes out a loan of this type, (ii) chooses to take out a standard loan instead, (iii) chooses a different type of loan from the two mentioned above (indicating that the study protocol has not been respected), or (iv) chooses not to take a loan in the end. Since the participating branches will have already demonstrated a good ability to follow the study protocol during the pilot

and the target population consists of individuals who willingly visit a microcredit branch with the intention of taking out a standard loan, very few participants will be expected to end up in the last two outcome groups.

### Treatment 2 – Grace-period loan:

Similar to treatment 1, the loan officer will inform the participant that they are eligible for a new loan type being launched by Al Amana for its rural clients. Before presenting the specificities of the new tailored loan, the loan officer will proceed to verify the participant's financial situation, inquiring about their household's main economic activities, sources of income, expenses, assets, etc. This is a standard procedure to assess a potential borrower's risk profile and loan repayment ability. For this treatment group, however, the loan officer will specifically inquire about the cyclical nature of the household's economic activities, noting the expected cash flows at different periods of the year.

The loan officer will then proceed to explain the new loan type to which the participant is eligible, once more mentioning that only a few select clients will have access to it at this stage. Below are the guidelines given to the loan officer on how to present this loan type:

- The grace period loan begins with a five-month period with a low monthly installment due (corresponding to the monthly interest amount due on the borrowed capital).
- Starting from the 6<sup>th</sup> month until the final monthly installment's due date, the borrower is expected to pay a constant monthly installment that will cover both interest and capital.
- After the 5<sup>th</sup> month, the loan resembles a standard loan with constant monthly installments due.
- The grace period loan consists of two reimbursement periods, with a corresponding monthly installment due throughout each period.
- During the 1<sup>st</sup> period, which always corresponds to the first five months, the borrower pays a small constant monthly installment, equal to the monthly interest amount due on the loan.
- During the 2<sup>nd</sup> period, which begins in the 6<sup>th</sup> month and lasts until the end of the loan, the borrower pays a larger constant monthly installment that covers both the capital and interests due on the loan.
- This cycle of low initial installments followed by higher later installments is potentially suitable for clients with a corresponding cash flow cycle – an initial period of low income followed by a period of greater income (activities with a mid- to long-term return on investment typically).
- For a given borrowed amount, the installments due during the first five months are predetermined – corresponding to the monthly interest amount due on the borrowed capital. For the 2<sup>nd</sup> period, the installment amount will depend on the duration of the loan as well – a constant monthly payment covering the totality of the capital and interests due will be calculated.
- Grace period loans are a new form of individual enterprise loans and as such, they maintain all the existing terms and conditions of such loans, with the exception of the changes outlined above.

The loan officer will be expected to present the grace period loan by demonstrating its suitability to the client's needs, using as evidence the cyclical nature of their cash flows.

The loan officer is encouraged to run a few simulations on the possible payment schedules – with the main variable of choice the length of the 2<sup>nd</sup> period – in order to find one that is particularly suited to the client's needs and repayment ability.

Once the new product has been presented, the client has the right to choose between the proposed grace period loan and a standard loan with a constant repayment schedule.

Once the participant has made up their mind and chosen a loan type, amount and duration, the loan officer follows the standard procedures to complete the loan application and eventually disburse the loan (i.e. paperwork, credit checks, etc.). This procedure remains consistent with Al Amana's current practices for individual loans.

When the loan contract and procedure is finally completed a few days later, the borrower is given a detailed loan repayment schedule specifying all the associated installments and due dates for the duration of the loan. The loan contract, covering all the credit terms and details, is then signed before the loan is disbursed.

The experimental treatment is now complete and the outcome is either a client who (i) chooses the proposed grace period loan and takes out a loan of this type, (ii) chooses to take out a standard loan instead, (iii) chooses a different type of loan from the two mentioned above (indicating that the study protocol has not been respected), or (iv) chooses not to take a loan in the end. Since the participating branches will have already demonstrated a good ability to follow the study protocol during the pilot and the target population consists of individuals who willingly visit a microcredit branch with the intention of taking out a standard loan, very few participants will be expected to end up in the last two outcome groups.

#### Control – Standard loan:

For participants in the control group, the loan officer will conduct the client visit by offering the standard Al Amana individual enterprise loan, without ever mentioning the availability of the new tailored loans. Loan officers in participating branches successfully disburse 20-40 of such loans each month and are therefore familiar with how to conduct visits with clients interested in these loans. We will not interfere with this routine process – it will be as if the client never participated in the study.

The outcome for this treatment group is expected to be either a client who (i) chooses to take out a standard loan, (ii) chooses a different type of loan from the standard one (indicating that the study protocol has not been respected), or (iii) chooses not to take a loan in the end. Since the participating branches will have already demonstrated a good ability to follow the study protocol during the pilot and the target population consists of individuals who willingly visit a microcredit branch with the intention of taking out a standard loan, very few participants will be expected to end up in the last two outcome groups.

## Appendix B: Baseline Survey Instrument

### Branch ID information

<b>A.1</b>	Province	.....	Code:  _ _
<b>A.2</b>	Branch Commune	.....	Code:  _ _ _
<b>A.3</b>	Branch ID	_ _	

### Respondent ID information

<b>A.4</b>	Commune <i>(of respondent's home)</i>	.....	Code:  _ _
<b>A.5</b>	Douar <i>(of respondent's home)</i>	.....	Code:  _ _ _
<b>A.6</b>	Household number	_ _ _	
<b>A.7</b>	Household ID	_ _   _ _ _  A.3      A.6	
<b>A.8</b>	Respondent last name	.....	
<b>A.9</b>	Respondent first name	.....	

### Surveyor ID information

<b>A.10</b>	Surveyor name	.....	Code:  _ _
<b>A.11</b>	Supervisor name	.....	Code:  _ _

Special Codes	
<b>-77</b>	<i>Not Applicable</i>
<b>-88</b>	<i>Does not want to answer</i>
<b>-99</b>	<i>Does not know</i>



## B. SURVEY CONSENT

*READ CONSENT FORM TO RESPONDENT AND MAKE SURE THEY GIVE THEIR ORAL CONSENT BEFORE PROCEEDING WITH THE SURVEY*

Hello, my name is \_\_\_\_\_.

I am a surveyor for Axétudes, a survey company hired by IPA, a non-profit organization dedicated to finding innovative solutions to development issues in various countries. I am visiting you today because we are conducting a study about the impact of microcredit in a rural setting. This study is conducted in partnership with Al Amana Microfinance. You are invited to participate in this study. Participation is completely voluntary.

If you choose to participate, you will be asked a brief survey that will require between an hour and two. The survey will cover your personal characteristics, the composition of your household, the major economic activities you engage in, your income and assets, and your use of financial products and services. A member of the research team will need to return in 12 months to conduct a second survey, but you can choose not to participate in the follow-up interview if you wish.

This research will help us better understand the needs of the community in order to improve the types of microcredit loans directed toward rural clients in Morocco. We do not anticipate any risks to you from participating in this study, but you are free to skip any question that makes you feel uncomfortable.

No names will be stored with survey responses and no names will be published from the study. Only research staff will have access to any data that could potentially identify you. Your responses will be numbered and the code linking your number with your name will be stored in a secure, password-protected computer. *No one from Al Amana will be able to identify your response.*

*Confidentiality Disclaimer: "Researchers will keep your information confidential to the extent possible and allowable by law."*

*Declining will not in any way affect your chances of receiving a loan or your status with Al Amana.* Ending participation at any time for any reason will not have any negative consequences. Refusal to answer any individual questions will not have any negative consequences.

Through this survey, IPA will be collecting your personal data to be used strictly for the aforementioned study about the impact of microcredit in a rural setting. The processing of the data collected has been approved by the Commission Nationale de Contrôle de la Protection des Données à Caractère Personnel (CNDP) under authorization number A-RS-81/2018. The personal data collected may be transferred to the research center Abdul Latif Jameel Poverty Action Lab Europe (J-PAL Europe) in France in accordance with the data transfer request filed with the CNDP.

Please contact Florencia Devoto at 06 75 36 73 02 or Salim Benhachmi at 06 54 87 74 01 with any questions or concerns you may have or to exercise your rights of access, rectification and opposition in accordance with the law 09-08 in Morocco.

This research has also been reviewed by the Institutional Review Board at Innovations for Poverty Action. If you have any questions about your rights as a research participant, you can reach them at [humansubjects@poverty-action.org](mailto:humansubjects@poverty-action.org).

*Do you have any further questions?* If I have answered all your questions, do you agree to participate in this study?

<b>B.1</b>	Oral consent: 1 = Yes 2 = No <b>If 1 → section C</b> <b>If 2 → section H</b>	_
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**C. INTERVIEW DETAILS AND CONTACT INFORMATION**

		Date of survey (DD / MM / YYYY)	Survey Start Time (HH:MM)	Survey Result Code 1. Survey started 2. Appointment obtained 3. Survey postponed 4. Does not want to answer <b>If 4 → Section H</b>
<b>C.1</b>	1 <sup>st</sup> Interview	_ _  /  _ _  /  _ _ _ _	_ _  :  _ _	_
<b>C.2</b>	2 <sup>nd</sup> Interview	_ _  /  _ _  /  _ _ _ _	_ _  :  _ _	_
<b>C.3</b>	3 <sup>rd</sup> Interview	_ _  /  _ _  /  _ _ _ _	_ _  :  _ _	_

<b>C.4</b>	Comments:	<p>.....</p> <p>.....</p> <p>.....</p> <p>.....</p> <p>.....</p>
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*REMIND RESPONDENT THAT YOU ARE ONLY COLLECTING THEIR PHONE NUMBER AND ADDRESS IN ORDER TO BE ABLE TO VISIT THEM FOR A FOLLOW-UP INTERVIEW IN 12 MONTHS*

<b>C.5</b>	Respondent phone number	_ _   _ _   _ _   _ _   _ _
<b>C.6</b>	Written directions to the respondent's home	<p>.....</p> <p>.....</p> <p>.....</p> <p>.....</p>

## D. HOUSEHOLD CHARACTERISTICS

1. START WITH QUESTION D.1 BY WRITING DOWN THE NAMES OF ALL HOUSEHOLD MEMBERS (A HOUSEHOLD IS DEFINED AS A GROUP OF INDIVIDUALS WHO LIVE TOGETHER IN A SHARED DWELLING FOR AT LEAST 6 MONTHS PER YEAR AND WHO SHARE AT LEAST ONE MEAL PER DAY; THE HOUSEHOLD HEAD IS THE HOUSEHOLD MEMBER RESPONSIBLE FOR MAKING ALL MAJOR DECISIONS IN THE HOUSEHOLD).
2. PROCEED TO ASK QUESTIONS D.2 – D.9 FOR EACH IDENTIFIED HOUSEHOLD MEMBER AT A TIME

	D.1	D.2	D.3	D.4	D.5	D.6	D.7	D.8	D.9
Individual ID	First Name	Surveyed Person 1 = Yes 2 = No	Sex 1 = Male 2 = Female	Age in Years	Situation in Household 1 = Permanent Resident 2 = Temporary Resident 3 = Non-Resident 4 = Other  If 1 → D.6 If 2, 3, 4, -77, -88, -99 → next individual ID	Link to Household Head 1 = Household Head 2 = Spouse 3 = Child 4 = Parent 5 = Grandchild 6 = Sibling 7 = Grandparent 8 = Stepchild 9 = Son- / Daughter-in-law 10 = Other	Educational Attainment: 1 = None 2 = Kouteb / Quranic School 3 = 1 <sup>st</sup> Grade 4 = 2 <sup>nd</sup> Grade 5 = 3 <sup>rd</sup> Grade 6 = 4 <sup>th</sup> Grade 7 = 5 <sup>th</sup> Grade 8 = 6 <sup>th</sup> Grade 9 = 7 <sup>th</sup> Grade 10 = 8 <sup>th</sup> Grade 11 = 9 <sup>th</sup> Grade 12 = 10 <sup>th</sup> Grade 13 = 11 <sup>th</sup> Grade 14 = 12 <sup>th</sup> Grade 15 = Professional Degree 16 = Higher Education	Mother Tongue 1 = Darija 2 = Tashelhit 3 = Tamazight 4 = Tarifit 5 = Hassania 6 = Other	Can read and write in at least one language: 1 = Yes 2 = No
1	.....	_	_	_ _	_ _	_ _	_ _	_ _	_ _
2	.....	_	_	_ _	_ _	_ _	_ _	_ _	_ _
3	.....	_	_	_ _	_ _	_ _	_ _	_ _	_ _
4	.....	_	_	_ _	_ _	_ _	_ _	_ _	_ _
5	.....	_	_	_ _	_ _	_ _	_ _	_ _	_ _
6	.....	_	_	_ _	_ _	_ _	_ _	_ _	_ _
7	.....	_	_	_ _	_ _	_ _	_ _	_ _	_ _

8	.....	_	_	_ _ _	_ _ _	_ _ _	_ _ _	_ _ _	_ _ _
9	.....	_	_	_ _ _	_ _ _	_ _ _	_ _ _	_ _ _	_ _ _
10	.....	_	_	_ _ _	_ _ _	_ _ _	_ _ _	_ _ _	_ _ _
11	.....	_	_	_ _ _	_ _ _	_ _ _	_ _ _	_ _ _	_ _ _
12	.....	_	_	_ _ _	_ _ _	_ _ _	_ _ _	_ _ _	_ _ _
13	.....	_	_	_ _ _	_ _ _	_ _ _	_ _ _	_ _ _	_ _ _
14	.....	_	_	_ _ _	_ _ _	_ _ _	_ _ _	_ _ _	_ _ _
15	.....	_	_	_ _ _	_ _ _	_ _ _	_ _ _	_ _ _	_ _ _

**E. HOUSEHOLD ACTIVITIES**

**E.I Self-Employment Activities:**

IN THIS TABLE INCLUDE ONLY ACTIVITIES PERFORMED INDEPENDENTLY BY A MEMBER OF THE HOUSEHOLD ON THEIR OWN BEHALF. DO NOT INCLUDE SALARIED OR DAY LABOR ACTIVITIES OR ACTIVITIES WHO'S OUTPUTS ARE USED FOR CONSUMPTION OR AS INPUTS FOR OTHER ACTIVITIES

		E.1	E.2	E.3		E.4	E.5		E.6
		Did you or a member of the household participate in any of the following <b>self-employment</b> activities during the past 12 months? 1 = Yes 2 = No <b>If 1 → E.2</b> <b>If 2 → next activity</b>	Which household member manages this activity most of the time? <i>Insert Individual ID from D.1</i>	What was the total revenue/sales generated by this activity during the past 12 months?  <i>Enter the amount and corresponding unit as declared by the respondent: dirhams or riyals</i>		Convert <b>to dirhams</b> or rewrite the amount declared in E.3  <b>If E.3 in dirhams →</b> <b>E.4 = E.3</b>  <b>If E.3 in riyals →</b> <b>E.4 = E.3 / 20</b>	What was the total revenue/sales generated by this activity during the past 30 days?  <i>Enter the amount and corresponding unit as declared by the respondent: dirhams or riyals</i>		Convert <b>to dirhams</b> or rewrite the amount declared in E.5  <b>If E.5 in dirhams →</b> <b>E.6 = E.5</b>  <b>If E.5 in riyals →</b> <b>E.6 = E.5 / 20</b>
				<b>Amount</b>	<b>Unit</b> 1 = Dirhams 2 = Riyals		<b>Amount</b>	<b>Unit</b> 1 = Dirhams 2 = Riyals	
Agricul	1. Cereal production	_ _ _	_ _ _	_ _ _ _ _ _ _	_	_ _ _ _ _ _ _	_ _ _ _ _ _ _	_	_ _ _ _ _ _ _
	2. Arboriculture	_ _ _	_ _ _	_ _ _ _ _ _ _	_	_ _ _ _ _ _ _	_ _ _ _ _ _ _	_	_ _ _ _ _ _ _

3. Market gardening (tomatoes, onions, etc.)	_ _ _	_ _ _	_ _ _ _ _ _ _	_	_ _ _ _ _ _ _	_ _ _ _ _ _ _	_	_ _ _ _ _ _ _
4. Animal husbandry (cattle, sheep, goat)	_ _ _	_ _ _	_ _ _ _ _ _ _	_	_ _ _ _ _ _ _	_ _ _ _ _ _ _	_	_ _ _ _ _ _ _
5. Animal husbandry (poultry, rabbits, other)	_ _ _	_ _ _	_ _ _ _ _ _ _	_	_ _ _ _ _ _ _	_ _ _ _ _ _ _	_	_ _ _ _ _ _ _
6. Animal husbandry derivatives (milk, butter, cheese, eggs, wool, honey, other)	_ _ _	_ _ _	_ _ _ _ _ _ _	_	_ _ _ _ _ _ _	_ _ _ _ _ _ _	_	_ _ _ _ _ _ _

<b>CONTINUED...</b>		<b>E.1</b>	<b>E.2</b>	<b>E.3</b>		<b>E.4</b>	<b>E.5</b>		<b>E.6</b>
		Did you or a member of the household participate in any of the following <b>self-employment</b> activities during the past 12 months? <i>1 = Yes</i> <i>2 = No</i> <b>If 1 → E.2</b> <b>If 2 → next activity</b>	Which household member manages this activity most of the time? <i>Insert Individual ID from D.1</i>	What was the total revenue generated by this activity during the past 12 months?  <i>Enter the amount and corresponding unit as declared by the respondent: <b>dirhams</b> or <b>riyals</b></i>		Convert <b>to dirhams</b> or rewrite the amount declared in E.3  <b>If E.3 in dirhams →</b> <b>E.4 = E.3</b>  <b>If E.3 in riyals →</b> <b>E.4 = E.3 / 20</b>	What was the total revenue generated by this activity during the past 30 days?  <i>Enter the amount and corresponding unit as declared by the respondent: <b>dirhams</b> or <b>riyals</b></i>		Convert <b>to dirhams</b> or rewrite the amount declared in E.5  <b>If E.5 in dirhams →</b> <b>E.6 = E.5</b>  <b>If E.5 in riyals →</b> <b>E.6 = E.5 / 20</b>
				<b>Amount</b>	<b>Unit</b> 1 = Dirhams 2 = Riyals		<b>Amount</b>	<b>Unit</b> 1 = Dirhams 2 = Riyals	
<b>Non-</b>	7. Commerce	_ _ _	_ _ _	_ _ _ _ _ _ _	_	_ _ _ _ _ _ _	_ _ _ _ _ _ _	_	_ _ _ _ _ _ _
	8. Transportation	_ _ _	_ _ _	_ _ _ _ _ _ _	_	_ _ _ _ _ _ _	_ _ _ _ _ _ _	_	_ _ _ _ _ _ _

9. Handcraft	_ _ _	_ _ _	_ _ _ _ _ _ _	_	_ _ _ _ _ _ _	_ _ _ _ _ _ _	_	_ _ _ _ _ _ _
10. Services	_ _ _	_ _ _	_ _ _ _ _ _ _	_	_ _ _ _ _ _ _	_ _ _ _ _ _ _	_	_ _ _ _ _ _ _
11. Fishing	_ _ _	_ _ _	_ _ _ _ _ _ _	_	_ _ _ _ _ _ _	_ _ _ _ _ _ _	_	_ _ _ _ _ _ _
12. Construction	_ _ _	_ _ _	_ _ _ _ _ _ _	_	_ _ _ _ _ _ _	_ _ _ _ _ _ _	_	_ _ _ _ _ _ _
13. Other (specify): .....	_ _ _	_ _ _	_ _ _ _ _ _ _	_	_ _ _ _ _ _ _	_ _ _ _ _ _ _	_	_ _ _ _ _ _ _

<b>E.7</b>	What were the <b>total revenues/sales</b> generated by your household's self-employment activities during the past <b>12 months</b> ? <i>Enter the amount and corresponding unit as declared by the respondent: <b>dirhams or riyals</b></i>	<b>Amount</b>  _ _ _ _ _ _ _	<b>Unit:</b> 1 = Dirhams; 2 = Riyals  _
<b>E.8</b>	Convert to <b>dirhams</b> or rewrite the amount declared in E.7 <b>If E.7 in dirhams → E.8 = E.7</b> <b>If E.7 in riyals → E.8 = E.7 / 20</b>	_ _ _ _ _ _ _	
<b>E.9</b>	What were the <b>total revenues/sales</b> generated by your household's self-employment activities during the past <b>30 days</b> ? <i>Enter the amount and corresponding unit as declared by the respondent: <b>dirhams or riyals</b></i>	<b>Amount</b>  _ _ _ _ _ _ _	<b>Unit:</b> 1 = Dirhams; 2 = Riyals  _
<b>E.10</b>	Convert to <b>dirhams</b> or rewrite the amount declared in E.9 <b>If E.9 in dirhams → E.10 = E.9</b> <b>If E.9 in riyals → E.10 = E.9 / 20</b>	_ _ _ _ _ _ _	
<b>E.11</b>	What were the <b>total profits</b> generated by your household's self-employment activities during the past <b>12 months</b> ? <i>Enter the amount and corresponding unit as declared by the respondent: <b>dirhams or riyals</b></i> <b>DEFINITION OF PROFITS:</b> <i>this is the difference between all the revenues of your self-employment activities and all of their related expenses (inputs, wages, rents, etc.).</i>	<b>Amount</b>  _ _ _ _ _ _ _	<b>Unit:</b> 1 = Dirhams; 2 = Riyals  _
<b>E.12</b>	Convert to <b>dirhams</b> or rewrite the amount declared in E.11 <b>If E.11 in dirhams → E.12 = E.11</b> <b>If E.11 in riyals → E.12 = E.11 / 20</b>	_ _ _ _ _ _ _	
<b>E.13</b>	What were the <b>total profits</b> generated by your household's self-employment activities during the past <b>30 days</b> ? <i>Enter the amount and corresponding unit as declared by the respondent: <b>dirhams or riyals</b></i>	<b>Amount</b>  _ _ _ _ _ _ _	<b>Unit:</b> 1 = Dirhams; 2 = Riyals  _

	<b>DEFINITION OF PROFITS:</b> <i>this is the difference between all the revenues of your self-employment activities and all of their related expenses (inputs, wages, rents, etc.).</i>	
<b>E.14</b>	Convert to dirhams or rewrite the amount declared in E.13 If E.13 in dirhams → E.14 = E.13 If E.13 in riyals → E.14 = E.13 / 20	_ _ _ _ _ _ _

<b>E.15</b>	For your household's self-employment activities, do you keep a register or written records of any sort? 1 = Yes 2 = No If 1 → E.16 If 2 → E.18	_ _ _
<b>E.16</b>	Do you record all sales / revenues and expenses that are related to your household's self-employment activities? 1 = Yes 2 = No	_ _ _
<b>E.17</b>	Do you keep a budget in which you record monthly operating expenses such as rent, electricity, equipment maintenance, purchase of materials, transportation, labor costs, etc.? 1 = Yes 2 = No	_ _ _

<b>E.18</b>	In the past 12 months, did your household have any permanent employees? <b>DEFINITION:</b> <i>include employees who work or have worked for an indefinite period, through a written contract or verbal agreement</i> 1 = Yes 2 = No If 1 → E.19 If 2 → E.21	_ _ _
<b>E.19</b>	How many permanent employees did your household have <b>during the past 12 months?</b>	_ _ _
<b>E.20</b>	How many permanent employees did your household have <b>during the past 30 days?</b>	_ _ _

<b>E.21</b>	In the past 12 months, did your household have any part-time or casual employees?	_ _ _
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	<p><b>DEFINITION:</b> include employees who work or have worked occasionally or seasonally (for employees with verbal agreements who do not work throughout the year) or for a limited duration (for salaried workers with a written contract)</p> <p>1 = Yes 2 = No</p> <p>If 1 → E.22 If 2 → E.24</p>	
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	E.22	E.23
<i>List the past 12 months, starting with the month preceding the month of the interview</i>	How many <b>total work days</b> did the part-time or casual employees collectively work during <b>[MENTION THE CORRESPONDING MONTH]</b> ?	How many part-time or casual employees did you have during <b>[MENTION THE CORRESPONDING MONTH]</b> ?
<b>1.</b> Last month: .....	_ _ _	_ _ _
<b>2.</b> 2 months ago: .....	_ _ _	_ _ _
<b>3.</b> 3 months ago: .....	_ _ _	_ _ _
<b>4.</b> 4 months ago: .....	_ _ _	_ _ _
<b>5.</b> 5 months ago: .....	_ _ _	_ _ _
<b>6.</b> 6 months ago: .....	_ _ _	_ _ _
<b>7.</b> 7 months ago: .....	_ _ _	_ _ _
<b>8.</b> 8 months ago: .....	_ _ _	_ _ _
<b>9.</b> 9 months ago: .....	_ _ _	_ _ _
<b>10.</b> 10 months ago: .....	_ _ _	_ _ _
<b>11.</b> 11 months ago: .....	_ _ _	_ _ _
<b>12.</b> 12 months ago: .....	_ _ _	_ _ _

		E.24	E.25	E.26	E.27	E.28	E.29	E.30	E.31
Individual ID	<b><u>Insert corresponding individual name from D.1</u></b>	Is the individual aged 6 years or older? 1 = Yes 2 = No <b>If 1 → E.25</b> <b>If 2 → next individual ID</b>	During the past 7 days, has <b>[NAME]</b> worked on any of the household self-employment activities ( <i>with or without remuneration</i> )? 1 = Yes 2 = No <b>If 1 → E.26</b> <b>If 2 → next individual ID</b>	In which type of household self-employment activity did <b>[NAME]</b> work? <b>Select all that apply</b> 1 = Agriculture 2 = Animal Husbandry 3 = Non-agricultural activities	How many <b>DAYS</b> did <b>[NAME]</b> work on <b>[ACTIVITY]</b> over the past 7 days?  <b>Max: 7 days</b>	How many <b>HOURS on average per working day</b> did <b>[NAME]</b> work on <b>[ACTIVITY]</b> over the past 7 days?  <b>Max: 16 hours per days</b>	During the past 7 days, did <b>[NAME]</b> contribute to household chores (ex. cleaning, cooking, fetching water, etc.)? 1 = Yes 2 = No <b>If 1 → E.30</b> <b>If 2 → next individual ID</b>	How many <b>DAYS</b> did <b>[NAME]</b> pursue these household chores over the past 7 days?  <b>Max: 7 days</b>	How many <b>HOURS on average per working day</b> did <b>[NAME]</b> pursue these household chores over the past 7 days?  <b>Max: 16 hours per days</b>
<b>1</b>	.....	_ _ _	_ _ _	_   _   _	_ _ _   _ _ _   _ _ _	_ _ _   _ _ _   _ _ _	_ _ _   _ _ _   _ _ _	_ _ _   _ _ _   _ _ _	_ _ _   _ _ _   _ _ _
<b>2</b>	.....	_ _ _	_ _ _	_   _   _	_ _ _   _ _ _   _ _ _	_ _ _   _ _ _   _ _ _	_ _ _   _ _ _   _ _ _	_ _ _   _ _ _   _ _ _	_ _ _   _ _ _   _ _ _
<b>3</b>	.....	_ _ _	_ _ _	_   _   _	_ _ _   _ _ _   _ _ _	_ _ _   _ _ _   _ _ _	_ _ _   _ _ _   _ _ _	_ _ _   _ _ _   _ _ _	_ _ _   _ _ _   _ _ _
<b>4</b>	.....	_ _ _	_ _ _	_	_ _ _	_ _ _	_ _ _	_ _ _	_ _ _

				<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
				<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
5	.....	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
				<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
				<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
6	.....	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
				<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
				<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
7	.....	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
				<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
				<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
8	.....	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
				<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
				<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

<b>CONTINUED...</b>		<b>E.24</b>	<b>E.25</b>	<b>E.26</b>	<b>E.27</b>	<b>E.28</b>	<b>E.29</b>	<b>E.30</b>	<b>E.31</b>
Individual ID	<b>Insert corresponding individual name from D.1</b>	Is the individual aged 6 years or older? 1 = Yes 2 = No <b>If 1 → E.25</b> <b>If 2 → next individual ID</b>	During the past 7 days, has <b>[NAME]</b> worked on any of the household self-employment activities ( <i>with or without remuneration</i> )? 1 = Yes 2 = No <b>If 1 → E.26</b> <b>If 2 → next individual ID</b>	In which type of household self-employment activity did <b>[NAME]</b> work? <b>Select all that apply</b> 1 = Agriculture 2 = Animal Husbandry 3 = Non-agricultural activities	How many <b>DAYS</b> did <b>[NAME]</b> work on <b>[ACTIVITY]</b> over the past 7 days?  <b>Max: 7 days</b>	How many <b>HOURS on average per working day</b> did <b>[NAME]</b> work on <b>[ACTIVITY]</b> over the past 7 days?  <b>Max: 16 hours per days</b>	During the past 7 days, did <b>[NAME]</b> contribute to household chores (ex. cleaning, cooking, fletching water, etc.)? 1 = Yes 2 = No <b>If 1 → E.30</b> <b>If 2 → next individual ID</b>	How many <b>DAYS</b> did <b>[NAME]</b> pursue these household chores over the past 7 days?  <b>Max: 7 days</b>	How many <b>HOURS on average per working day</b> did <b>[NAME]</b> pursue this these household chores over the past 7 days?  <b>Max: 16 hours per days</b>
9	.....	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

				<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
				<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
10	.....	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
				<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
				<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
11	.....	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
				<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
				<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
12	.....	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
				<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
				<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
13	.....	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
				<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
				<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
14	.....	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
				<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
				<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
15	.....	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
				<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
				<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

<b>E.32</b>	<p>Did the respondent participate in any of the household's self-employment activities (<i>with or without remuneration</i>) during the past 12 months?</p> <p>1 = Yes 2 = No</p> <p><b>If 1 → E.33</b> <b>If 2 → section E.II Salaried Employment</b></p>	<input type="checkbox"/>
<b>E.33</b>	<p>Overall, how satisfied are you <b>with your self-employment activities</b>?</p> <p>1 = Very unsatisfied 2 = Unsatisfied</p>	<input type="checkbox"/>

	<i>3 = Neither satisfied nor unsatisfied</i> <i>4 = Satisfied</i> <i>5 = Very satisfied</i>	
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## E.II Salaried Employment

**DEFINITION OF SALARIED EMPLOYMENT:** *Include work performed by members of the household for an **indeterminate duration**, with a written contract or verbal agreement, **as part of an activity that is not owned or operated by the household itself.***

		E.34	E.35	E.36	E.37		E.38	E.39		E.40	E.41	E.42
Individual ID	<b>Insert corresponding individual name from D.1</b>	Is the individual aged 6 years or older? 1 = Yes 2 = No If 1 → E.35 If 2 → next individual ID	During the past 12 months, did <b>[NAME]</b> work as a salaried employee? 1 = Yes 2 = No If 1 → E.36 If 2 → next individual ID	In which sector did <b>[NAME]</b> work over the past 12 months? 1 = Agriculture 2 = Animal husbandry 3 = Commerce 4 = Transport 5 = Handicraft 6 = Services 7 = Fishing 8 = Other: .....	What was the total income generated by <b>[NAME]</b> during the past 12 months?  <i>Enter the amount and corresponding unit as declared by the respondent:</i> <b>dirhams or riyals</b>		Convert to <b>dirhams</b> or rewrite the amount declared in E.37  If E.37 in dirhams → E.38 = E.37  If E.37 in riyals → E.38 = E.37 / 20	What was the total income generated by <b>[NAME]</b> during the past 30 days?  <i>Enter the amount and corresponding unit as declared by the respondent:</i> <b>dirhams or riyals</b>		Convert to <b>dirhams</b> or rewrite the amount declared in E.39  If E.39 in dirhams → E.40 = E.39  If E.39 in riyals → E.40 = E.39 / 20	How many <b>DAYS</b> did <b>[NAME]</b> work over the past 7 days?  <b>Max: 7 days</b>	Over the <b>past 7 days</b> , how many <b>HOURS</b> on average per working did <b>[NAME]</b> work on this activity?  <b>Max = 16</b>
		<b>Amount</b>	<b>Unit</b> 1 = Dirhams 2 = Riyals	<b>Amount</b>	<b>Unit</b> 1 = Dirhams 2 = Riyals							
1	.....	_ _ _	_ _ _	_ _ _	_ _ _ _ _ _ _	_	_ _ _ _ _ _ _	_ _ _ _ _ _ _	_	_ _ _ _ _ _ _	_ _ _	_ _ _
2	.....	_ _ _	_ _ _	_ _ _	_ _ _ _ _ _ _	_	_ _ _ _ _ _ _	_ _ _ _ _ _ _	_	_ _ _ _ _ _ _	_ _ _	_ _ _
3	.....	_ _ _	_ _ _	_ _ _	_ _ _ _ _ _ _	_	_ _ _ _ _ _ _	_ _ _ _ _ _ _	_	_ _ _ _ _ _ _	_ _ _	_ _ _
4	.....	_ _ _	_ _ _	_ _ _	_ _ _ _ _ _ _	_	_ _ _ _ _ _ _	_ _ _ _ _ _ _	_	_ _ _ _ _ _ _	_ _ _	_ _ _
5	.....	_ _ _	_ _ _	_ _ _	_ _ _ _ _ _ _	_	_ _ _ _ _ _ _	_ _ _ _ _ _ _	_	_ _ _ _ _ _ _	_ _ _	_ _ _
6	.....	_ _ _	_ _ _	_ _ _	_ _ _ _ _ _ _	_	_ _ _ _ _ _ _	_ _ _ _ _ _ _	_	_ _ _ _ _ _ _	_ _ _	_ _ _
7	.....	_ _ _	_ _ _	_ _ _	_ _ _ _ _ _ _	_	_ _ _ _ _ _ _	_ _ _ _ _ _ _	_	_ _ _ _ _ _ _	_ _ _	_ _ _
8	.....	_ _ _	_ _ _	_ _ _	_ _ _ _ _ _ _	_	_ _ _ _ _ _ _	_ _ _ _ _ _ _	_	_ _ _ _ _ _ _	_ _ _	_ _ _
9	.....	_ _ _	_ _ _	_ _ _	_ _ _ _ _ _ _	_	_ _ _ _ _ _ _	_ _ _ _ _ _ _	_	_ _ _ _ _ _ _	_ _ _	_ _ _
10	.....	_ _ _	_ _ _	_ _ _	_ _ _ _ _ _ _	_	_ _ _ _ _ _ _	_ _ _ _ _ _ _	_	_ _ _ _ _ _ _	_ _ _	_ _ _
11	.....	_ _ _	_ _ _	_ _ _	_ _ _ _ _ _ _	_	_ _ _ _ _ _ _	_ _ _ _ _ _ _	_	_ _ _ _ _ _ _	_ _ _	_ _ _
12	.....	_ _ _	_ _ _	_ _ _	_ _ _ _ _ _ _	_	_ _ _ _ _ _ _	_ _ _ _ _ _ _	_	_ _ _ _ _ _ _	_ _ _	_ _ _
13	.....	_ _ _	_ _ _	_ _ _	_ _ _ _ _ _ _	_	_ _ _ _ _ _ _	_ _ _ _ _ _ _	_	_ _ _ _ _ _ _	_ _ _	_ _ _

14	.....	_ _ _	_ _ _	_ _ _	_ _ _ _ _ _ _	_	_ _ _ _ _ _ _	_ _ _ _ _ _ _	_	_ _ _ _ _ _ _	_ _ _	_ _ _
15	.....	_ _ _	_ _ _	_ _ _	_ _ _ _ _ _ _	_	_ _ _ _ _ _ _	_ _ _ _ _ _ _	_	_ _ _ _ _ _ _	_ _ _	_ _ _

<b>E.43</b>	<p>Did the respondent work as a salaried employee during the past 12 months?</p> <p>1 = <i>Yes</i></p> <p>2 = <i>No</i></p> <p><b>If 1 → E.44</b></p> <p><b>If 2 → section E.II Casual Work</b></p>	_ _ _
<b>E.44</b>	<p>Overall, how satisfied are you with <b><u>your salaried employment?</u></b></p> <p>1 = <i>Very unsatisfied</i></p> <p>2 = <i>Unsatisfied</i></p> <p>3 = <i>Neither satisfied nor unsatisfied</i></p> <p>4 = <i>Satisfied</i></p> <p>5 = <i>Very satisfied</i></p>	_ _ _

### E.III Casual work

**DEFINITION:** Include work performed by members of the household that is **occasional or seasonal** (for members with verbal agreements when they do not work for the whole) or for a **fixed duration** (for members with a written contract), **as part of an activity that is not owned or operated by the household itself.**

		E.45	E.46	E.47	E.48		E.49	E.50		E.51	E.52	E.53	E.54	E.55
Individual ID	<b>Insert correct ponding individual name from D.1</b>	Is the individual aged 6 years or older? 1 = Yes 2 = No If 1 → E.46 If 2 → next individual ID	During the past 12 months, did [NAME] perform any casual work? If 1 → E.47 If 2 → next individual ID	In which sector did [NAME] mainly work over the past 12 months? 1 = Agriculture 2 = Animal husbandry 3 = Commerce 4 = Transport 5 = Handicraft 6 = Services 7 = Fishing 8 = Other: .....	What was the <b>minimum</b> daily wage typically earned by [NAME]?  <i>Enter the amount and corresponding unit as declared by the respondent: dirhams or riyals</i>		Convert to dirhams or rewrite the amount declared in E.48  If E.48 in dirhams → E.49 = E.48 If E.48 in riyals → E.49 = E.48 / 20	What was the <b>maximum</b> daily wage typically earned by [NAME]?  <i>Enter the amount and corresponding unit as declared by the respondent: dirhams or riyals</i>		Convert to dirhams or rewrite the amount declared in E.50  If E.50 in dirhams → E.51 = E.50 If E.50 in riyals → E.51 = E.50 / 20	How many days did [NAME] work during the past 12 months?  Max: 365 days	How many days did [NAME] work during the past 30 days?  Max: 30 days	How many DAYS did [NAME] work over the past 7 days?  Max: 7 days	Over the past 7 days, how many HOURS on average per working day did [NAME] work on this activity?  Max = 16
					Amount	Unit 1 = Dirhams 2 = Riyals		Amount	Unit 1 = Dirhams 2 = Riyals					
1	.....	_ _ _	_ _ _	_ _ _	_ _ _ _ _ _ _	_	_ _ _ _ _ _ _	_ _ _ _ _ _ _	_	_ _ _ _ _ _ _	_ _ _	_ _ _	_ _ _	_ _ _
2	.....	_ _ _	_ _ _	_ _ _	_ _ _ _ _ _ _	_	_ _ _ _ _ _ _	_ _ _ _ _ _ _	_	_ _ _ _ _ _ _	_ _ _	_ _ _	_ _ _	_ _ _
3	.....	_ _ _	_ _ _	_ _ _	_ _ _ _ _ _ _	_	_ _ _ _ _ _ _	_ _ _ _ _ _ _	_	_ _ _ _ _ _ _	_ _ _	_ _ _	_ _ _	_ _ _
4	.....	_ _ _	_ _ _	_ _ _	_ _ _ _ _ _ _	_	_ _ _ _ _ _ _	_ _ _ _ _ _ _	_	_ _ _ _ _ _ _	_ _ _	_ _ _	_ _ _	_ _ _
5	.....	_ _ _	_ _ _	_ _ _	_ _ _ _ _ _ _	_	_ _ _ _ _ _ _	_ _ _ _ _ _ _	_	_ _ _ _ _ _ _	_ _ _	_ _ _	_ _ _	_ _ _
6	.....	_ _ _	_ _ _	_ _ _	_ _ _ _ _ _ _	_	_ _ _ _ _ _ _	_ _ _ _ _ _ _	_	_ _ _ _ _ _ _	_ _ _	_ _ _	_ _ _	_ _ _
7	.....	_ _ _	_ _ _	_ _ _	_ _ _ _ _ _ _	_	_ _ _ _ _ _ _	_ _ _ _ _ _ _	_	_ _ _ _ _ _ _	_ _ _	_ _ _	_ _ _	_ _ _
8	.....	_ _ _	_ _ _	_ _ _	_ _ _ _ _ _ _	_	_ _ _ _ _ _ _	_ _ _ _ _ _ _	_	_ _ _ _ _ _ _	_ _ _	_ _ _	_ _ _	_ _ _
9	.....	_ _ _	_ _ _	_ _ _	_ _ _ _ _ _ _	_	_ _ _ _ _ _ _	_ _ _ _ _ _ _	_	_ _ _ _ _ _ _	_ _ _	_ _ _	_ _ _	_ _ _
10	.....	_ _ _	_ _ _	_ _ _	_ _ _ _ _ _ _	_	_ _ _ _ _ _ _	_ _ _ _ _ _ _	_	_ _ _ _ _ _ _	_ _ _	_ _ _	_ _ _	_ _ _
11	.....	_ _ _	_ _ _	_ _ _	_ _ _ _ _ _ _	_	_ _ _ _ _ _ _	_ _ _ _ _ _ _	_	_ _ _ _ _ _ _	_ _ _	_ _ _	_ _ _	_ _ _
12	.....	_ _ _	_ _ _	_ _ _	_ _ _ _ _ _ _	_	_ _ _ _ _ _ _	_ _ _ _ _ _ _	_	_ _ _ _ _ _ _	_ _ _	_ _ _	_ _ _	_ _ _



13	.....	_ _ _	_ _ _	_ _	_ _ _ _ _ _	_	_ _ _ _ _ _	_ _ _ _ _ _	_	_ _ _ _ _ _	_ _	_ _	_ _ _	_ _
14	.....	_ _ _	_ _ _	_ _	_ _ _ _ _ _	_	_ _ _ _ _ _	_ _ _ _ _ _	_	_ _ _ _ _ _	_ _	_ _	_ _ _	_ _
15	.....	_ _ _	_ _ _	_ _	_ _ _ _ _ _	_	_ _ _ _ _ _	_ _ _ _ _ _	_	_ _ _ _ _ _	_ _	_ _	_ _ _	_ _

<b>E.56</b>	<p>Did the respondent perform any casual work during the past 12 months?</p> <p>1 = <i>Yes</i></p> <p>2 = <i>No</i></p> <p><b>If 1 → E.57</b></p> <p><b>If 2 → section E.IV Other Sources of Income</b></p>	
<b>E.57</b>	<p>Overall, how satisfied are you with <u>your casual work</u>?</p> <p>1 = <i>Very unsatisfied</i></p> <p>2 = <i>Unsatisfied</i></p> <p>3 = <i>Neither satisfied nor unsatisfied</i></p> <p>4 = <i>Satisfied</i></p> <p>5 = <i>Very satisfied</i></p>	_ _ _

**E.IV Other Sources of Income:**

*Pension or Retirement*

Individual ID	Insert corresponding individual name from D.1	E.58	E.59	E.60		E.61	E.62		E.63
		Is the individual aged <b>16 years or older</b> ? <i>1 = Yes</i> <i>2 = No</i> <b>If 1 → E.59</b> <b>If 2 → next individual ID</b>	During the past 12 months, did <b>[NAME]</b> receive a <b>pension or retirement</b> ? <i>1 = Yes</i> <i>2 = No</i> <b>If 1 → E.60</b> <b>If 2 → next individual ID</b>	What was the total amount received by <b>[NAME]</b> from a pension or retirement during the <b>past 12 months</b> ?  <i>Enter the amount and corresponding unit as declared by the respondent: <b>dirhams or riyals</b></i>	Amount	Unit <i>1 = Dirhams</i> <i>2 = Riyals</i>	Convert <b>to dirhams</b> or rewrite the amount declared in E.60  <b>If E.60 in dirhams →</b> <b>E.61 = E.60</b>  <b>If E.60 in riyals →</b> <b>E.61 = E.60 / 20</b>	What was the total amount received by <b>[NAME]</b> from a pension or retirement during the <b>past 30 days</b> ?  <i>Enter the amount and corresponding unit as declared by the respondent: <b>dirhams or riyals</b></i>	Amount
1	.....								
2	.....								
3	.....								
4	.....								
5	.....								
6	.....								
7	.....								
8	.....								
9	.....								
10	.....								
11	.....								
12	.....								
13	.....								

14	.....	_ _	_ _ _	_ _ _ _ _ _ _	_	_ _ _ _ _ _ _	_ _ _ _ _ _ _	_	_ _ _ _ _ _ _
15	.....	_ _	_ _ _	_ _ _ _ _ _ _	_	_ _ _ _ _ _ _	_ _ _ _ _ _ _	_	_ _ _ _ _ _ _

**Public Subsidies or Social Security**

		<b>E.64</b>	<b>E.65</b>	<b>E.66</b>		<b>E.67</b>	<b>E.68</b>		<b>E.69</b>
<b>Individual ID</b>	<b>Insert corresponding individual name from D.1</b>	Is the individual aged 6 years or older? <i>1 = Yes</i> <i>2 = No</i> <b>If 1 → E.65</b> <b>If 2 → next individual ID</b>	During the past 12 months, did <b>[NAME]</b> receive a <b>public subsidies / social security</b> ? <i>1 = Yes</i> <i>2 = No</i> <b>If 1 → E.66</b> <b>If 2 → next individual ID</b>	What was the total amount received by <b>[NAME]</b> from public subsidies / social security during the <b>past 12 months</b> ?  <i>Enter the amount and corresponding unit as declared by the respondent: <b>dirhams</b> or <b>riyals</b></i>		Convert <b>to dirhams</b> or rewrite the amount declared in E.66  <b>If E.66 in dirhams →</b> <b>E.67 = E.66</b>  <b>If E.66 in riyals →</b> <b>E.67 = E.66 / 20</b>	What was the total amount received by <b>[NAME]</b> from public subsidies / social security during the <b>past 30 days</b> ?  <i>Enter the amount and corresponding unit as declared by the respondent: <b>dirhams</b> or <b>riyals</b></i>		Convert <b>to dirhams</b> or rewrite the amount declared in E.65  <b>If E.68 in dirhams →</b> <b>E.69 = E.68</b>  <b>If E.68 in riyals →</b> <b>E.69 = E.68 / 20</b>
				<b>Amount</b>	<b>Unit</b> <i>1 = Dirhams</i> <i>2 = Riyals</i>		<b>Amount</b>	<b>Unit</b> <i>1 = Dirhams</i> <i>2 = Riyals</i>	
<b>1</b>	.....	_ _	_ _ _	_ _ _ _ _ _ _	_	_ _ _ _ _ _ _	_ _ _ _ _ _ _	_	_ _ _ _ _ _ _
<b>2</b>	.....	_ _	_ _ _	_ _ _ _ _ _ _	_	_ _ _ _ _ _ _	_ _ _ _ _ _ _	_	_ _ _ _ _ _ _
<b>3</b>	.....	_ _	_ _ _	_ _ _ _ _ _ _	_	_ _ _ _ _ _ _	_ _ _ _ _ _ _	_	_ _ _ _ _ _ _
<b>4</b>	.....	_ _	_ _ _	_ _ _ _ _ _ _	_	_ _ _ _ _ _ _	_ _ _ _ _ _ _	_	_ _ _ _ _ _ _
<b>5</b>	.....	_ _	_ _ _	_ _ _ _ _ _ _	_	_ _ _ _ _ _ _	_ _ _ _ _ _ _	_	_ _ _ _ _ _ _

<b>6</b>	.....	_ _	_ _ _	_ _ _ _ _ _	_	_ _ _ _ _ _	_ _ _ _ _ _	_	_ _ _ _ _ _
<b>7</b>	.....	_ _	_ _ _	_ _ _ _ _ _	_	_ _ _ _ _ _	_ _ _ _ _ _	_	_ _ _ _ _ _
<b>8</b>	.....	_ _	_ _ _	_ _ _ _ _ _	_	_ _ _ _ _ _	_ _ _ _ _ _	_	_ _ _ _ _ _
<b>9</b>	.....	_ _	_ _ _	_ _ _ _ _ _	_	_ _ _ _ _ _	_ _ _ _ _ _	_	_ _ _ _ _ _
<b>10</b>	.....	_ _	_ _ _	_ _ _ _ _ _	_	_ _ _ _ _ _	_ _ _ _ _ _	_	_ _ _ _ _ _
<b>11</b>	.....	_ _	_ _ _	_ _ _ _ _ _	_	_ _ _ _ _ _	_ _ _ _ _ _	_	_ _ _ _ _ _
<b>12</b>	.....	_ _	_ _ _	_ _ _ _ _ _	_	_ _ _ _ _ _	_ _ _ _ _ _	_	_ _ _ _ _ _
<b>13</b>	.....	_ _	_ _ _	_ _ _ _ _ _	_	_ _ _ _ _ _	_ _ _ _ _ _	_	_ _ _ _ _ _
<b>14</b>	.....	_ _	_ _ _	_ _ _ _ _ _	_	_ _ _ _ _ _	_ _ _ _ _ _	_	_ _ _ _ _ _
<b>15</b>	.....	_ _	_ _ _	_ _ _ _ _ _	_	_ _ _ _ _ _	_ _ _ _ _ _	_	_ _ _ _ _ _

**Other Income**

	<b>E.70</b>	<b>E.71</b>		<b>E.72</b>	<b>E.73</b>		<b>E.74</b>
	During the past 12 months, did you or any member of your household receive / obtain income from the following sources? 1 = Yes 2 = No <b>If 1 → E.71</b> <b>If 2 → next income source</b>	What was the total income received by the household from these sources during the <b>past 12 months</b> ?  <u>Enter the amount and corresponding unit as declared by the respondent:</u> <b>dirhams or riyals</b>		Convert <b>to dirhams</b> or rewrite the amount declared in E.71  <b>If E.71 in dirhams →</b> $E.72 = E.71$  <b>If E.71 in riyals →</b> $E.72 = E.71 / 20$	What was the total income received by the household from these sources during the <b>past 30 days</b> ?  <u>Enter the amount and corresponding unit as declared by the respondent:</u> <b>dirhams or riyals</b>		Convert <b>to dirhams</b> or rewrite the amount declared in E.73  <b>If E.73 in dirhams →</b> $E.74 = E.73$  <b>If E.73 in riyals →</b> $E.74 = E.73 / 20$
		<b>Amount</b>	<b>Unit</b> 1 = Dirhams 2 = Riyals		<b>Amount</b>	<b>Unit</b> 1 = Dirhams 2 = Riyals	
1. Remittance from family, relatives, neighbors or acquaintances (cash or goods)	_ _ _ _	_ _ _ _ _ _ _	_	_ _ _ _ _ _ _	_ _ _ _ _ _ _	_	_ _ _ _ _ _ _
2. Donations from Charities, NGOs, etc. (cash or goods)	_ _ _ _	_ _ _ _ _ _ _	_	_ _ _ _ _ _ _	_ _ _ _ _ _ _	_	_ _ _ _ _ _ _
3. Sale of assets (land, real estate, jewelry, equipment, car, etc.)	_ _ _ _	_ _ _ _ _ _ _	_	_ _ _ _ _ _ _	_ _ _ _ _ _ _	_	_ _ _ _ _ _ _
4. Other Source: .....	_ _ _ _	_ _ _ _ _ _ _	_	_ _ _ _ _ _ _	_ _ _ _ _ _ _	_	_ _ _ _ _ _ _

THIS QUESTION ALLOWS TO ESTIMATE THE SEASONALITY OF THE HOUSEHOLD'S TOTAL INCOME

We will now conduct an exercise together in order to obtain an estimate of the distribution of your household's total income throughout the year. Imagine that your household's total income (i.e. the sum of the income generated by all household members through different activities – self-employment, salaried work, casual work, pension or retirement, public subsidies or social security, and other income. For self-employment activities, you should only include income that is net of expenses related to such activities) is equal to 100 units (of some imaginary currency). Below is an annual calendar organized in 4 trimesters:

- The first rectangle on the left represents the period of January, February, March.
- The second rectangle represents the period of April, May, June.
- The third rectangle represents the period of July, August, September.
- The fourth rectangle on the right represents the period of October, November, December.

I would like to ask you to allocate the 100 units among the four rectangles that represent the 4 trimesters of the year in such a way as to reflect the periods of the year during which your household receives the most income and those during which it receives the least. For example, if your household's total income is stable and regular throughout the year, you may allocate 25 units to each rectangle. However, if your household receives all of its income during the harvest of some activity during the month of November, you may allocate all 100 units to the last rectangle.

Think about the variation of your household's total income throughout the year.

<b>E.75</b>	Could you tell me how many units you would like to allocate to each trimester (rectangle)? <b>(make sure the sum of answers I – IV is equal to 100)</b>	I. 1 <sup>st</sup> trimester  __ __ __  II. 2 <sup>nd</sup> trimester  __ __ __  III. 3 <sup>rd</sup> trimester  __ __ __  IV. 4 <sup>th</sup> trimester  __ __ __
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## E.V Work Type Preference

<p><b>E.76</b></p>	<p>Suppose you were working and could choose between different types of jobs. How would you rank the following types of jobs in terms of your personal preference? <b>(choose and rank up to top 3 only)</b></p> <p>1 = <i>Self-employed</i>          2 = <i>Employee in a small private activity</i>          3 = <i>Employee in a large private enterprise</i>          4 = <i>Casual work / day labor</i>          5 = <i>Government employee / employee in a state-owned enterprise</i></p> <p><b>If 1, 2, 3, 4 → E.77</b>  <b>If 1 = 5, -77, -88, -99 and the rest of the answers I and II are empty → E.78</b></p>	<p>I.  _ _ _ _           II.  _ _ _ _           III.  _ _ _ _ </p>
<p><b>E.77</b></p>	<p>In which activity sector would you like to exercise this type of job? <b>(ask question for first ranked type of job only)</b></p> <p>1 = <i>Agriculture</i>          2 = <i>Animal husbandry</i>          3 = <i>Commerce</i>          4 = <i>Transport</i>          5 = <i>Handicraft</i>          6 = <i>Services</i>          7 = <i>Fishing</i>          8 = <i>Other: .....</i></p>	<p> _ _ _ _ </p>

## E.VI Subjective Wellbeing

**READ:** “I will now read you a list of situation that you may have lived or known during the past 30 days. For each situation, you will please tell me – if you have lived the situation – how frequently: never, rarely, sometimes, often, or always. Describe to me how you are right now, and not how you wish to be. There is not right or wrong answer, we are simply interested in knowing your situation.”

	During the past 30 days...	1 = <i>Never</i> 2 = <i>Rarely</i> 3 = <i>Sometimes</i> 4 = <i>Often</i> 5 = <i>Always</i>
<b>E.78</b>	Did you feel stressed by your job or economic activity?	_ _ _ _
<b>E.79</b>	Did you find your job or economic activity prevented you from giving time to your partner or family?	_ _ _ _
<b>E.80</b>	Did you feel too tired after work to enjoy the things you would like to do at home?	_ _ _ _

**READ:** “I will now read you a list of statements in relation to your and your household’s situation. For each statement, you will please tell me your agreement level with each statement: strongly agree (as in the statement perfectly describes the situation), agree, neither disagree nor agree, disagree, or strongly disagree. There is not right or wrong answer, we are simply interested in knowing your situation.”

	To what extent do you agree with the following statements?	1 = <i>Strongly disagree</i> 2 = <i>Disagree</i> 3 = <i>Neither disagree nor agree</i> 4 = <i>Agree</i> 5 = <i>Strongly agree</i>
<b>E.81</b>	My household lives better nowadays than around 4 years ago	_ _ _ _
<b>E.82</b>	All things considered, I am satisfied with my life now	_ _ _ _
<b>E.83</b>	All things considered, I am satisfied with my financial situation as a whole	_ _ _ _



## F. HOUSEHOLD ASSETS

1. RECORD IN THIS SECTION ASSETS WHOSE USAGE IS MAINLY PERSONAL. IF AN ASSET IS MAINLY USED IN A PRODUCTIVE ACTIVITY, INCLUDE IT IN THE NEXT TABLE (QUESTION F3).
2. ASK BOTH F.1 AND F.2 (IF APPLICABLE) FOR EACH ASSET BEFORE MOVING TO THE NEXT ASSET

	<b>F.1</b>
	Do you own this household asset? 1 = Yes 2 = No
1. Car (personal use mainly)	_ _ _
2. Pickup truck (personal use mainly)	_ _ _
3. Motorbike (personal use mainly)	_ _ _
4. Bicycle	_ _ _
5. TV	_ _ _
6. Satellite dish	_ _ _
7. DVD or VCD	_ _ _
8. Computer	_ _ _
9. Tablet	_ _ _
10. Cell phone (excluding smartphones)	_ _ _
11. Smartphone	_ _ _
12. Radio or tape player	_ _ _
13. Air conditioner	_ _ _
14. Fan	_ _ _
15. Washing machine	_ _ _
16. Refrigerator	_ _ _
17. Stove	_ _ _
18. Gas oven	_ _ _
19. Blender	_ _ _
20. Pressure cooker	_ _ _
21. Cooking pot	_ _ _
22. Saucepan	_ _ _
23. Cabinet	_ _ _
24. Moroccan lounge	_ _ _
25. Wool rug	_ _ _
26. Fiber mat	_ _ _
27. Bedroom mattress	_ _ _
28. Other property besides main residence	_ _ _
29. Other valuable household asset: .....	_ _ _
30. Other valuable household asset: .....	_ _ _

	<b>F.2</b>
	Do you own this activity asset? 1 = Yes 2 = No
1. Car (non-personal use mainly)	_ _ _
2. Pickup truck (non-personal use mainly)	_ _ _
3. Motorbike (non-personal use mainly)	_ _ _
4. Tricycle	_ _ _
5. Horse carriage / cart	_ _ _
6. Truck	_ _ _
7. Tractor	_ _ _
8. Reaper	_ _ _
9. Plough	_ _ _
10. Rake	_ _ _
11. Shovel	_ _ _
12. Ax	_ _ _
13. Wheelbarrow	_ _ _
14. Sickle	_ _ _
15. Oil mill	_ _ _
16. Milk jars	_ _ _
17. Pen (enclosure)	_ _ _
18. Barn	_ _ _
19. Honey Hives	_ _ _
20. Sewing machine	_ _ _
21. Weaving machine	_ _ _
22. Clay turner	_ _ _
23. Soldering iron	_ _ _
24. Saw	_ _ _
25. Hand Plane	_ _ _
26. Balance	_ _ _
27. Other asset that you use in your agriculture activities: .....	_ _ _
28. Other asset that you use in your agriculture activities: .....	_ _ _

29. Other asset that you use in your animal husbandry and production activities: .....	_ _ _
30. Other asset that you use in your animal husbandry and production activities: .....	_ _ _
31. Other asset that you use in your non-agricultural activities: .....	_ _ _
32. Other asset that you use in your non-agricultural activities: .....	_ _ _

<b>F.3</b>	Do you own any land? 1 = Yes 2 = No <b>If 1 → F.4</b> <b>If 2, -77, -88, -99 → F.19</b>	_ _ _ _	
<b>F.4</b>	What is the total surface of the land you own?  <u>Enter the amount and corresponding unit as declared by the respondent: <b>hectares, square meters or khedams</b></u>	<b>Amount:</b>   _ _ _ _ _ _ _	<b>Unit:</b> 1. Hectares 2. Square Meters 3. Khedams   _ _
<b>F.5</b>	Do you use the land you own for farming activities? 1 = Yes 2 = No <b>If 1 → F.6</b> <b>If 2, -77, -88, -99 → F.7</b>	_ _ _ _ _	
<b>F.6</b>	What surface of the land you own is used for farming activities?  <u>Enter the amount and corresponding unit as declared by the respondent: <b>hectares, square meters or khedams</b></u>	<b>Amount:</b>   _ _ _ _ _ _ _	<b>Unit:</b> 1. Hectares 2. Square Meters 3. Khedams   _ _
<b>F.7</b>	Do you rent a portion of your land <u>to others</u> for farming use? 1 = Yes 2 = No <b>If 1 → F.8</b> <b>If 2, -77, -88, -99 → F.9</b>	_ _ _ _ _	
<b>F.8</b>	What is the total surface of the land that you are renting <u>to others</u> ?  <u>Enter the amount and corresponding unit as declared by the respondent: <b>hectares, square meters or khedams</b></u>	<b>Amount:</b>   _ _ _ _ _ _ _	<b>Unit:</b> 1. Hectares 2. Square Meters 3. Khedams   _ _
<b>F.9</b>	Do you rent land <u>from others</u> for farming use? 1 = Yes 2 = No <b>If 1 → F.10</b> <b>If 2, -77, -88, -99 → F.12</b>	_ _ _ _ _	
<b>F.10</b>	What is the total surface of the land that you are renting <u>from others</u> ?  <u>Enter the amount and corresponding unit as declared by the respondent: <b>hectares, square meters or khedams</b></u>	<b>Amount:</b>   _ _ _ _ _ _ _	<b>Unit:</b> 1. Hectares 2. Square Meters 3. Khedams   _ _

<b>F.11</b>	What is the rental arrangement you agreed upon to rent the land from others? 1 = Free rental with nothing in return 2 = Annual rental fee 3 = Revenue-splitting or crop-sharing 4 = Other: .....	_ _ _
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<b>F.12</b>	Do you <b>currently</b> own any farm animals? 1 = Yes 2 = No <b>If 1 → F.13</b> <b>If 2, -77, -88, -99 → F.14</b>	_ _ _																														
<b>F.13</b>	Number of animals you <b>currently</b> own	<table style="width: 100%; border-collapse: collapse;"> <tr><td style="width: 80%;">1. Cattle, imported species</td><td style="text-align: right;"> _ _ _ </td></tr> <tr><td>2. Cattle, domestic species</td><td style="text-align: right;"> _ _ _ </td></tr> <tr><td>3. Sheep</td><td style="text-align: right;"> _ _ _ </td></tr> <tr><td>4. Goats</td><td style="text-align: right;"> _ _ _ </td></tr> <tr><td>5. Poultry</td><td style="text-align: right;"> _ _ _ </td></tr> <tr><td>6. Rabbits</td><td style="text-align: right;"> _ _ _ </td></tr> <tr><td>7. Horses</td><td style="text-align: right;"> _ _ _ </td></tr> <tr><td>8. Others: .....</td><td style="text-align: right;"> _ _ _ </td></tr> </table>	1. Cattle, imported species	_ _ _	2. Cattle, domestic species	_ _ _	3. Sheep	_ _ _	4. Goats	_ _ _	5. Poultry	_ _ _	6. Rabbits	_ _ _	7. Horses	_ _ _	8. Others: .....	_ _ _														
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7. Horses	_ _ _																															
8. Others: .....	_ _ _																															
<b>F.14</b>	Do you <b>currently</b> own any farm trees? 1 = Yes 2 = No <b>If 1 → F.15</b> <b>If 2, -77, -88, -99 → Section G</b>	_ _ _																														
<b>F.15</b>	Number of trees you <b>currently</b> own	<table style="width: 100%; border-collapse: collapse;"> <tr><td style="width: 80%;">1. Date palm</td><td style="text-align: right;"> _ _ _ </td></tr> <tr><td>2. Olive trees</td><td style="text-align: right;"> _ _ _ </td></tr> <tr><td>3. Argan trees</td><td style="text-align: right;"> _ _ _ </td></tr> <tr><td>4. Almond / Walnut trees</td><td style="text-align: right;"> _ _ _ </td></tr> <tr><td>5. Fig trees</td><td style="text-align: right;"> _ _ _ </td></tr> <tr><td>6. Apple trees</td><td style="text-align: right;"> _ _ _ </td></tr> <tr><td>7. Pear trees</td><td style="text-align: right;"> _ _ _ </td></tr> <tr><td>8. Pomegranate trees</td><td style="text-align: right;"> _ _ _ </td></tr> <tr><td>9. Citrus trees</td><td style="text-align: right;"> _ _ _ </td></tr> <tr><td>10. Peach / Nectarine trees</td><td style="text-align: right;"> _ _ _ </td></tr> <tr><td>11. Prune trees</td><td style="text-align: right;"> _ _ _ </td></tr> <tr><td>12. Cherry trees</td><td style="text-align: right;"> _ _ _ </td></tr> <tr><td>13. Vines</td><td style="text-align: right;"> _ _ _ </td></tr> <tr><td>14. Prickly pears trees</td><td style="text-align: right;"> _ _ _ </td></tr> <tr><td>15. Other fruit trees: .....</td><td style="text-align: right;"> _ _ _ </td></tr> </table>	1. Date palm	_ _ _	2. Olive trees	_ _ _	3. Argan trees	_ _ _	4. Almond / Walnut trees	_ _ _	5. Fig trees	_ _ _	6. Apple trees	_ _ _	7. Pear trees	_ _ _	8. Pomegranate trees	_ _ _	9. Citrus trees	_ _ _	10. Peach / Nectarine trees	_ _ _	11. Prune trees	_ _ _	12. Cherry trees	_ _ _	13. Vines	_ _ _	14. Prickly pears trees	_ _ _	15. Other fruit trees: .....	_ _ _
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15. Other fruit trees: .....	_ _ _																															

## G. USE OF FINANCIAL PRODUCTS AND SERVICES

1. READ TO RESPONDENT: “WE WILL NOW ASK YOU QUESTIONS ABOUT YOUR HOUSEHOLD’S LOANS”
2. EXPLAIN TO RESPONDENT WHAT A CURRENT LOAN IS – I.E. HASN’T REACHED ITS MATURITY DATE YET – AND WHAT THE DIFFERENCE BETWEEN FORMAL & INFORMAL LOANS
3. FOR QUESTIONS G.4-9, SPECIFY TO RESPONDENT THAT YOU ARE ASKING ABOUT THE INITIAL LOAN TERMS

	G.1	G.2	G.3		G.4	G.5	G.6	
	Do you or members of your household currently have a loan with one of the following financial institutions? 1 = Yes 2 = No If 1 → G.2 If 2, -77, -88, -99 → next institution	How many members have a loan with <u>[INSTITUTION]</u> ?	Insert member ID	<u>Insert corresponding individual name from D.1</u>	What is the amount <u>[NAME]</u> initially borrowed?  <i>Enter the amount and corresponding unit as declared by the respondent:</i> <u>dirhams or riyals</u>	Convert to dirhams or rewrite the amount declared in G.3  If G.3 in dirhams → G.4 = G.3  If G.3 in riyals → G.4 = G.3 / 20	What was the total loan duration in months when <u>[NAME]</u> initially took out the loan?	
					Amount	Unit 1 = Dirhams 2 = Riyals		
1. Al Amana	_ _ _	_ _ _	_ _	_ _ _ _ _ _ _	_ _ _ _ _ _ _	_	_ _ _ _ _ _ _	_ _ _
			_ _	_ _ _ _ _ _ _	_ _ _ _ _ _ _	_	_ _ _ _ _ _ _	_ _ _
			_ _	_ _ _ _ _ _ _	_ _ _ _ _ _ _	_	_ _ _ _ _ _ _	_ _ _
2. Banque Populaire (Attawfiq)	_ _ _	_ _ _	_ _	_ _ _ _ _ _ _	_ _ _ _ _ _ _	_	_ _ _ _ _ _ _	_ _ _
			_ _	_ _ _ _ _ _ _	_ _ _ _ _ _ _	_	_ _ _ _ _ _ _	_ _ _
			_ _	_ _ _ _ _ _ _	_ _ _ _ _ _ _	_	_ _ _ _ _ _ _	_ _ _
3. Fondép (Al Baraka)	_ _ _	_ _ _	_ _	_ _ _ _ _ _ _	_ _ _ _ _ _ _	_	_ _ _ _ _ _ _	_ _ _
			_ _	_ _ _ _ _ _ _	_ _ _ _ _ _ _	_	_ _ _ _ _ _ _	_ _ _
			_ _	_ _ _ _ _ _ _	_ _ _ _ _ _ _	_	_ _ _ _ _ _ _	_ _ _
4. Al Karama	_ _ _	_ _ _	_ _	_ _ _ _ _ _ _	_ _ _ _ _ _ _	_	_ _ _ _ _ _ _	_ _ _
			_ _	_ _ _ _ _ _ _	_ _ _ _ _ _ _	_	_ _ _ _ _ _ _	_ _ _
			_ _	_ _ _ _ _ _ _	_ _ _ _ _ _ _	_	_ _ _ _ _ _ _	_ _ _
5. Ardi	_ _ _	_ _ _	_ _	_ _ _ _ _ _ _	_ _ _ _ _ _ _	_	_ _ _ _ _ _ _	_ _ _
			_ _	_ _ _ _ _ _ _	_ _ _ _ _ _ _	_	_ _ _ _ _ _ _	_ _ _
			_ _	_ _ _ _ _ _ _	_ _ _ _ _ _ _	_	_ _ _ _ _ _ _	_ _ _

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6. Attadamoun e	_ _ _	_ _ _	_ _	.....	_ _ _ _ _ _	_	_ _ _ _ _ _	_ _ _
			_ _	.....	_ _ _ _ _ _	_	_ _ _ _ _ _	_ _ _
			_ _	.....	_ _ _ _ _ _	_	_ _ _ _ _ _	_ _ _
7. Atil	_ _ _	_ _ _	_ _	.....	_ _ _ _ _ _	_	_ _ _ _ _ _	_ _ _
			_ _	.....	_ _ _ _ _ _	_	_ _ _ _ _ _	_ _ _
			_ _	.....	_ _ _ _ _ _	_	_ _ _ _ _ _	_ _ _
8. Crédit Agricole du Maroc	_ _ _	_ _ _	_ _	.....	_ _ _ _ _ _	_	_ _ _ _ _ _	_ _ _
			_ _	.....	_ _ _ _ _ _	_	_ _ _ _ _ _	_ _ _
			_ _	.....	_ _ _ _ _ _	_	_ _ _ _ _ _	_ _ _

		G.7	G.8	G.9	G.10	G.11	G.12					
<p style="color: red; font-weight: bold;">CONTINUED FROM PREVIOUS PAGE</p> <p>→</p> <p>→</p> <p>→</p>	<p>What is the frequency of each installment?</p> <p>1 = Weekly 2 = Every 2 weeks 3 = Monthly 4 = Other: .....</p>	<p>What is the amount <b>[NAME]</b> of each installment?</p> <p><i>Enter the amount and corresponding unit as declared by the respondent: <b>dirhams</b> or <b>riyals</b></i></p> <table border="1" style="width: 100%; text-align: center;"> <tr> <td style="width: 50%;"><b>Amount</b></td> <td style="width: 50%;"><b>Unit</b></td> </tr> <tr> <td></td> <td>1 = Dirhams</td> </tr> <tr> <td></td> <td>2 = Riyals</td> </tr> </table>	<b>Amount</b>	<b>Unit</b>		1 = Dirhams		2 = Riyals	<p>Convert to dirhams or rewrite the amount declared in G.8</p> <p><b>If G.8 in dirhams → G.9 = G.8</b></p> <p><b>If G.8 in riyals → G.9 = G.8 / 20</b></p>	<p>How many installments does <b>[NAME]</b> have left to pay?</p>	<p>Has <b>[NAME]</b> ever had a late payment related to this loan?</p> <p>1 = Yes 2 = No</p>	<p>What is the total number of loans <b>[NAME]</b> has borrowed from this institution during the last 5 years?</p>
	<b>Amount</b>	<b>Unit</b>										
		1 = Dirhams										
		2 = Riyals										
	_ _ _	_ _ _ _ _ _	_	_ _ _ _ _ _	_ _ _	_ _ _	_ _ _					
	_ _ _	_ _ _ _ _ _	_	_ _ _ _ _ _	_ _ _	_ _ _	_ _ _					
	_ _ _	_ _ _ _ _ _	_	_ _ _ _ _ _	_ _ _	_ _ _	_ _ _					
	_ _ _	_ _ _ _ _ _	_	_ _ _ _ _ _	_ _ _	_ _ _	_ _ _					
	_ _ _	_ _ _ _ _ _	_	_ _ _ _ _ _	_ _ _	_ _ _	_ _ _					
	_ _ _	_ _ _ _ _ _	_	_ _ _ _ _ _	_ _ _	_ _ _	_ _ _					
	_ _ _	_ _ _ _ _ _	_	_ _ _ _ _ _	_ _ _	_ _ _	_ _ _					
	_ _ _	_ _ _ _ _ _	_	_ _ _ _ _ _	_ _ _	_ _ _	_ _ _					
_ _ _	_ _ _ _ _ _	_	_ _ _ _ _ _	_ _ _	_ _ _	_ _ _						
_ _ _	_ _ _ _ _ _	_	_ _ _ _ _ _	_ _ _	_ _ _	_ _ _						

	_ _ _	_ _ _ _ _ _ _	_	_ _ _ _ _ _ _	_ _ _	_ _ _	_ _ _
	_ _ _	_ _ _ _ _ _ _	_	_ _ _ _ _ _ _	_ _ _	_ _ _	_ _ _
	_ _ _	_ _ _ _ _ _ _	_	_ _ _ _ _ _ _	_ _ _	_ _ _	_ _ _
	_ _ _	_ _ _ _ _ _ _	_	_ _ _ _ _ _ _	_ _ _	_ _ _	_ _ _
	_ _ _	_ _ _ _ _ _ _	_	_ _ _ _ _ _ _	_ _ _	_ _ _	_ _ _
	_ _ _	_ _ _ _ _ _ _	_	_ _ _ _ _ _ _	_ _ _	_ _ _	_ _ _
	_ _ _	_ _ _ _ _ _ _	_	_ _ _ _ _ _ _	_ _ _	_ _ _	_ _ _
	_ _ _	_ _ _ _ _ _ _	_	_ _ _ _ _ _ _	_ _ _	_ _ _	_ _ _
	_ _ _	_ _ _ _ _ _ _	_	_ _ _ _ _ _ _	_ _ _	_ _ _	_ _ _
	_ _ _	_ _ _ _ _ _ _	_	_ _ _ _ _ _ _	_ _ _	_ _ _	_ _ _
	_ _ _	_ _ _ _ _ _ _	_	_ _ _ _ _ _ _	_ _ _	_ _ _	_ _ _
	_ _ _	_ _ _ _ _ _ _	_	_ _ _ _ _ _ _	_ _ _	_ _ _	_ _ _
	_ _ _	_ _ _ _ _ _ _	_	_ _ _ _ _ _ _	_ _ _	_ _ _	_ _ _
	_ _ _	_ _ _ _ _ _ _	_	_ _ _ _ _ _ _	_ _ _	_ _ _	_ _ _
	_ _ _	_ _ _ _ _ _ _	_	_ _ _ _ _ _ _	_ _ _	_ _ _	_ _ _

	<b>G.13</b>	<b>G.14</b>		<b>G.15</b>	<b>G.16</b>		<b>G.17</b>	<b>G.18</b>
	Do you or members of your household <b>currently</b> have a loan with one of the following individuals? <i>1 = Yes</i> <i>2 = No</i> <b>If 1 → G.14</b>	If yes, what is the amount you initially borrowed?  <i>Enter the amount and corresponding unit as declared by the respondent: <b>dirhams or riyals</b></i>		Convert <b>to dirhams</b> or rewrite the amount declared in G.14  <b>If G.14 in dirhams →</b> <b>G.15 = G.14</b>  <b>If G.14 in riyals →</b> <b>G.15 = G.14 / 20</b>	What is the amount you have left to repay?  <i>Enter the amount and corresponding unit as declared by the respondent: <b>dirhams or riyals</b></i>		Convert <b>to dirhams</b> or rewrite the amount declared in G.16  <b>If G.16 in dirhams →</b> <b>G.17 = G.16</b>  <b>If G.16 in riyals →</b> <b>G.17 = G.16 / 20</b>	What is the total number of loans you have borrowed from this individual during the last 5 years?
		<b>Amount</b>	<b>Unit</b> <i>1 = Dirhams</i> <i>2 = Riyals</i>		<b>Amount</b>	<b>Unit</b> <i>1 = Dirhams</i> <i>2 = Riyals</i>		



	<b>If 2, -77, -88, -99 → next individual</b>							
1. Family	_ _ _	_ _ _ _ _ _ _	_	_ _ _ _ _ _ _	_ _ _ _ _ _ _	_	_ _ _ _ _ _ _	_ _ _
2. Neighbors	_ _ _	_ _ _ _ _ _ _	_	_ _ _ _ _ _ _	_ _ _ _ _ _ _	_	_ _ _ _ _ _ _	_ _ _
3. Friends	_ _ _	_ _ _ _ _ _ _	_	_ _ _ _ _ _ _	_ _ _ _ _ _ _	_	_ _ _ _ _ _ _	_ _ _
4. Store	_ _ _	_ _ _ _ _ _ _	_	_ _ _ _ _ _ _	_ _ _ _ _ _ _	_	_ _ _ _ _ _ _	_ _ _
5. Client	_ _ _	_ _ _ _ _ _ _	_	_ _ _ _ _ _ _	_ _ _ _ _ _ _	_	_ _ _ _ _ _ _	_ _ _
6. Supplier	_ _ _	_ _ _ _ _ _ _	_	_ _ _ _ _ _ _	_ _ _ _ _ _ _	_	_ _ _ _ _ _ _	_ _ _
7. Employer	_ _ _	_ _ _ _ _ _ _	_	_ _ _ _ _ _ _	_ _ _ _ _ _ _	_	_ _ _ _ _ _ _	_ _ _
8. Cooperative	_ _ _	_ _ _ _ _ _ _	_	_ _ _ _ _ _ _	_ _ _ _ _ _ _	_	_ _ _ _ _ _ _	_ _ _
9. Other: .....	_ _ _	_ _ _ _ _ _ _	_	_ _ _ _ _ _ _	_ _ _ _ _ _ _	_	_ _ _ _ _ _ _	_ _ _

		Do you or any member of your household: 1 = Yes 2 = No
<b>G.19</b>	1. Hold a bank account?	_ _ _
<b>G.20</b>	2. Hold a postal bank account?	_ _ _
<b>G.21</b>	3. Partake in a tontine?	_ _ _
<b>G.22</b>	4. Have life insurance?	_ _ _
<b>G.23</b>	5. Have health insurance?	_ _ _
<b>G.24</b>	6. Have agricultural insurance?	_ _ _

<b>G.25</b>	Does any one in your household hold any savings (in a bank account or at home) today? 1 = Yes 2 = No If 1 → G.26 If 2, -77, -88, -99 → G.28	_ _ _
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<b>G.26</b>	How much does the household hold in total savings (in a bank account or at home) today? <u>Enter the amount and corresponding unit as declared by the respondent: <b>dirhams</b> or <b>riyals</b></u>	<p style="text-align: center;"><b>Amount</b></p> <p style="text-align: center;"> _ _ _ _ _ _ _ </p>	<p style="text-align: center;"><b>Unit</b></p> <p style="text-align: center;">1 = Dirhams 2 = Riyals</p> <p style="text-align: center;"> _ </p>
<b>G.27</b>	Convert to <b>dirhams</b> or rewrite the amount declared in G.26  <b>If G.26 in dirhams → G.27 = G.26</b>  <b>If G.26 in riyals → G.27 = G.26 / 20</b>	<p style="text-align: center;"> _ _ _ _ _ _ _ </p>	

FOR QUESTIONS G.28-32, YOU SHOULD REMIND RESPONDENT THAT YOU ARE COMPLETELY INDEPENDENT FROM AL AMANA AND THAT THE AMOUNT THEY INDICATE WILL NOT NECESSARILY BE THE ONE THAT AL AMANA WILL APPROVE

<b>G.28</b>	What amount would you like to borrow from Al Amana?  <u>Enter the amount and corresponding unit as declared by the respondent: <b>dirhams</b> or <b>riyals</b></u>	<p style="text-align: center;"><b>Amount</b></p> <p style="text-align: center;"> _ _ _ _ _ _ _ </p>	<p style="text-align: center;"><b>Unit</b></p> <p style="text-align: center;">1 = Dirhams 2 = Riyals</p> <p style="text-align: center;"> _ </p>
<b>G.29</b>	Convert to <b>dirhams</b> or rewrite the amount declared in G.28  <b>If G.28 in dirhams → G.29 = G.28</b>  <b>If G.28 in riyals → G.29 = G.28 / 20</b>	<p style="text-align: center;"> _ _ _ _ _ _ _ </p>	

	<b>G.30</b>	<b>G.31</b>		<b>G.32</b>
	If you were to receive this loan from Al Amana, would you use (part of) it for the following: 1 = Yes 2 = No <b>If 1 → G.31</b> <b>If 2, -77, -88, -99 → next item on the list</b>	What amount of the loan would you dedicate to this activity?  <u>Enter the amount and corresponding unit as declared by the respondent: <b>dirhams</b> or <b>riyals</b></u>		Convert to <b>dirhams</b> or rewrite the amount declared in G.31  <b>If G.31 in dirhams →</b> <b>G.32 = G.31</b>  <b>If G.31 in riyals →</b> <b>G.32 = G.31 / 20</b>
		<b>Amount</b>	<b>Unit</b> 1 = Dirhams 2 = Riyals	
1. Purchase equipment	_ _ _	_ _ _ _ _ _ _	_	_ _ _ _ _ _ _
2. Purchase materials	_ _ _	_ _ _ _ _ _ _	_	_ _ _ _ _ _ _
3. Purchase inventory	_ _ _	_ _ _ _ _ _ _	_	_ _ _ _ _ _ _
4. Hire employees	_ _ _	_ _ _ _ _ _ _	_	_ _ _ _ _ _ _
5. Purchase land / property	_ _ _	_ _ _ _ _ _ _	_	_ _ _ _ _ _ _
6. Rent land / property	_ _ _	_ _ _ _ _ _ _	_	_ _ _ _ _ _ _
7. Set up working capital	_ _ _	_ _ _ _ _ _ _	_	_ _ _ _ _ _ _
8. Purchase consumer goods or household assets	_ _ _	_ _ _ _ _ _ _	_	_ _ _ _ _ _ _
9. Fund consumption	_ _ _	_ _ _ _ _ _ _	_	_ _ _ _ _ _ _
10. Fund education expenses	_ _ _	_ _ _ _ _ _ _	_	_ _ _ _ _ _ _
11. Fund health expenses	_ _ _	_ _ _ _ _ _ _	_	_ _ _ _ _ _ _
12. Fund other general household expenses	_ _ _	_ _ _ _ _ _ _	_	_ _ _ _ _ _ _
13. Pay back outstanding debt	_ _ _	_ _ _ _ _ _ _	_	_ _ _ _ _ _ _
14. Other: .....	_ _ _	_ _ _ _ _ _ _	_	_ _ _ _ _ _ _

<b>G.33</b>	<p>Are you happy with the <b>scale</b> of your current enterprise / self-employment activities?</p> <p>1 = Yes 2 = No</p> <p><b>If 1 → G.36</b> <b>If 2, -77, -88, -99 → G.34</b></p>	<p style="text-align: center;"> _ _ _ </p>
<b>G.34</b>	<p>Would you like to expand the <b>scale</b> of your current enterprise / self-employment activities?</p> <p>1 = Yes 2 = No</p> <p><b>If 1 → G.35</b> <b>If 2, -77, -88, -99 → G.36</b></p>	<p style="text-align: center;"> _ _ _ </p>
<b>G.35</b>	<p>What is the main hurdle holding you back from expanding the <b>scale</b> of your current enterprise / self-employment activities?</p> <p><b>(choose and rank up to top 3 only)</b></p> <p>1 = Lack of internal funds 2 = Lack of access to borrowed funds 3 = Expensive cost of borrowing 4 = Burdensome loan terms / Burden of borrowing / Difficulty to repay debt 5 = Excessive risk involved 6 = Lack of skills 7 = Lack of active household members to support the activities 8 = Lack of business information and know-how</p>	<p style="text-align: center;">I.  _ _ _  II.  _ _ _  III.  _ _ _ </p>

	<p>9 = Lack of sufficient market/lack of clients</p> <p>10 = Lack of available labor (to be hired)</p> <p>11 = High cost of inputs</p> <p>12 = High cost of labor</p> <p>13 = Other: .....</p>	
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<b>G.36</b>	<p>Are you happy with the <b>type</b> of your current enterprise / self-employment activities?</p> <p>1 = Yes</p> <p>2 = No</p> <p>If 1 → G.39</p> <p>If 2, -77, -88, -99 → G.37</p>	_ _ _
<b>G.37</b>	<p>Would you like to expand the <b>type</b> of your current enterprise / self-employment activities?</p> <p>1 = Yes</p> <p>2 = No</p> <p>If 1 → G.38</p> <p>If 2, -77, -88, -99 → G.39</p>	_ _ _

<b>G.38</b>	<p>What is the main hurdle holding you back from expanding the <u>type</u> of your current enterprise / self-employment activities?  <b><u>(choose and rank up to top 3 only)</u></b></p> <p>1 = Lack of internal funds  2 = Lack of access to borrowed funds  3 = Expensive cost of borrowing  4 = Burdensome loan terms / Burden of borrowing / Difficulty to repay debt  5 = Excessive risk involved  6 = Lack of skills  7 = Lack of active household members to support the activities  8 = Lack of business information and know-how  9 = Lack of sufficient market/lack of clients  10 = Lack of available labor (to be hired)  11 = High cost of inputs  12 = High cost of labor  13 = Other: .....</p>	<p>I.  _ _ _   II.  _ _ _   III.  _ _ _ </p>
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<b>G.39</b>	<p>If your enterprise / self-employment activities were to be extremely successful, how much total profits would you expect to make over the <b>next 12 months</b>?</p> <p><i>Enter the amount and corresponding unit as declared by the respondent:</i> <b>dirhams or riyals</b></p>	<p style="text-align: center;"><b>Amount</b></p> <p style="text-align: center;"> _ _ _ _ _ _ _ </p>	<p style="text-align: center;"><b>Unit</b></p> <p style="text-align: center;">1 = Dirhams 2 = Riyals</p> <p style="text-align: center;"> _ </p>
<b>G.40</b>	<p>Convert to <b>dirhams</b> or rewrite the amount declared in G.39</p> <p><b>If G.39 in dirhams → G.40 = G.39</b></p> <p><b>If G.39 in riyals → G.40 = G.39 / 20</b></p>	<p style="text-align: center;"> _ _ _ _ _ _ _ </p>	
<b>G.41</b>	<p>If your enterprise / self-employment activities turned out to be extremely unsuccessful, how much total profits would you expect to make over the <b>next 12 months</b>?</p> <p><i>Enter the amount and corresponding unit as declared by the respondent:</i> <b>dirhams or riyals</b></p>	<p style="text-align: center;"><b>Amount</b></p> <p style="text-align: center;"> _ _ _ _ _ _ _ </p>	<p style="text-align: center;"><b>Unit</b></p> <p style="text-align: center;">1 = Dirhams 2 = Riyals</p> <p style="text-align: center;"> _ </p>
<b>G.42</b>	<p>Convert to <b>dirhams</b> or rewrite the amount declared in G.32</p> <p><b>If G.41 in dirhams → G.42 = G.41</b></p> <p><b>If G.41 in riyals → G.42 = G.41 / 20</b></p>	<p style="text-align: center;"> _ _ _ _ _ _ _ </p>	
<b>G.43</b>	<p>Calculate Average Profits in <b>dirhams</b>: <math>(G.40 + G.42) / 2</math></p>	<p style="text-align: center;"> _ _ _ _ _ _ _ </p>	
<b>G.44</b>	<p>Calculate Average Profits in <b>riyals</b>: <math>G.43 * 20</math></p>	<p style="text-align: center;"> _ _ _ _ _ _ _ </p>	

*THIS EXERCISE IS TO CHECK IF RESPONDENT UNDERSTANDS INSTRUCTIONS OF GAME*

This is a ruler with a scale from 0 to 100. I want you to use this ruler to indicate to me how sure you are about a particular future situation. For example, how sure are you that it will RAIN tomorrow?

1. If you are absolutely sure it will rain tomorrow, point to 100
2. If you are absolutely sure it will not rain tomorrow, point to 0
3. If you do not know, but if you think it is more likely to rain than not, point closer to 100 than to 0
4. If you do not know, but if you think it is more likely that it will not rain, point closer to 0 than to 100

Now please point to me on the ruler how likely it is that it will rain tomorrow.

<b>G.45</b>	How likely do you think it is that in the next 12 months, your enterprise / self-employment activities' total profits will be above <b>[AVERAGE PROFITS IN G.43 IF CLIENT ANSWERED IN DIRHAMS OR IN G.44 IF CLIENT ANSWERED IN RIYALS]</b>	_ _ _ %
<b>G.46</b>	How likely do you think it is that in the next 12 months, your enterprise / self-employment activities' total profits will be below <b>[AVERAGE PROFITS IN G.43 IF CLIENT ANSWERED IN DIRHAMS OR IN G.44 IF CLIENT ANSWERED IN RIYALS]</b>	_ _ _ %



## H. QUALITY CONTROL

<b>H.1</b>	Survey End Time (HH:MM)	_ _  :  _ _
<b>H.2</b>	Was any other household members present at the interview? <i>If 1 → H3</i> <i>If 2 → H4</i>	_
<b>H.3</b>	Note any other household members present at the interview <u>Copy individual number from D.1</u>	M1.  _ _  M2.  _ _  M3.  _ _  M4.  _ _  M5.  _ _
<b>H.4</b>	Is the survey complete? <i>1 = Yes</i> <i>2 = No</i>	_
<b>H.5</b>	Language of the interview: <i>1 = Darija</i> <i>2 = Tashelhit</i> <i>3 = Tamazight</i> <i>4 = Tarifit</i> <i>5 = Hassania</i> <i>6 = Other</i>	_
<b>H.6</b>	Comments or remarks:	..... ..... ..... ..... ..... ..... ..... ..... .....