



# **Prices or Knowledge? What Drives Demand for Financial Services in Emerging Markets?**

**Shawn Cole  
Thomas Sampson  
Bilal Zia**

**Working Paper**

**09-117**

Copyright © 2009, 2010 by Shawn Cole, Thomas Sampson, and Bilal Zia

Working papers are in draft form. This working paper is distributed for purposes of comment and discussion only. It may not be reproduced without permission of the copyright holder. Copies of working papers are available from the author.

# Prices or Knowledge? What Drives Demand for Financial Services in Emerging Markets?

Shawn Cole, Thomas Sampson, and Bilal Zia\*

## ABSTRACT

Financial development is critical for growth, but its micro-determinants are not well understood. We test leading theories of low demand for financial services in emerging markets, combining novel survey evidence from Indonesia and India with a field experiment. We find a strong correlation between financial literacy and behavior. However, a financial education program has modest effects, increasing demand for bank accounts only for those with low levels of education or financial literacy. In contrast, small subsidies greatly increase demand. A follow-up survey confirms these findings, demonstrating the newly opened accounts remain open and in use two years after the intervention.

---

\*Harvard Business School (scole@hbs.edu), Harvard University (tsampson@fas.harvard.edu) and the World Bank (bzia@worldbank.org), respectively. The authors thank the World Bank Jakarta office for their assistance and support throughout this project. The authors also thank seminar participants at the NBER Corporate Finance meetings, Oxford University, the NEUDC Tufts Conference, the World Bank Global Seminar on Financial Literacy and Consumer Protection, the World Bank Finance Seminar, and the OECD-Bank Indonesia International Conference on Financial Education, and Anna Lusardi, David McKenzie, Jeremy Shapiro and Jeremy Tobacman for helpful comments. Financial support from the World Bank and HBS Division of Research and Faculty Development is greatly appreciated.

Financial development is widely recognized as an important determinant of economic growth, with a large literature examining the determinants of the supply of banking and financial intermediation services (Levine (2005)). Yet, the determinants of the demand for financial services are much less well understood, particularly in emerging market countries.

An important feature of emerging markets is the size of the informal sector. Recent estimates place the size of the informal economy as 14% of GDP in China, 23% in Indonesia and 24% in India, against 8% in the United States (Buehn and Schneider (2009)). In 76 emerging market countries, the average size of the informal sector is almost 36% of GDP.<sup>1</sup> Arguably, drawing these individuals and firms into the formal financial sector would be one of the fastest ways to foster financial development in emerging markets.

Two leading views may explain limited demand for formal financial services. First, because these services are expensive to provide, involving high fixed costs, it may simply be that low income individuals do not demand formal financial services at market prices. Indeed, there is evidence that informal savings, credit, and insurance markets function reasonably well in emerging markets,<sup>2</sup> and the benefits of formal financial market participation may simply not exceed the relatively large fixed transactions costs associated with such products (Beck, Demirguc-Kunt, and Peria (2007)). An alternative view argues that limited financial literacy serves as an important barrier to demand for services: if individuals are not familiar or comfortable with products, they will not demand them.

While not mutually exclusive, these two views have significantly different implications for the development of financial markets around the world, and would suggest quite

different actions for financial institutions, governments, and international organizations seeking to expand financial services use.

This paper aims to test the above theories. To do so, we conduct novel surveys in India and Indonesia, measuring household financial literacy and demand for financial services. The survey in Indonesia represents the first nationally representative household survey on financial literacy in a developing country.

We supplement this survey data with a randomized field experiment among unbanked households in Indonesia, to directly test the role and relative importance of financial literacy and prices in determining demand for banking services. An intervention offering a financial education program on bank accounts is randomly assigned to half of 564 unbanked households identified by our survey team. Orthogonal to this treatment, individuals are randomly offered small subsidies, ranging from U.S. \$3 to \$14, for opening a bank account. The design therefore allows us to directly compare the effect of financial literacy education to price subsidies.

We find that financial literacy education has no effect on the probability of opening a bank savings account for the full population, although it does have an impact among those with low initial levels of education and financial literacy. Modest financial subsidies, in contrast, have large effects, significantly increasing the share of households that open a bank savings account within the subsequent two months. Specifically, an increase in subsidy from \$3 to \$14 increases the share of households that open a bank savings account from 3.5% to 12.7%, an almost three-fold increase.

Follow-up analysis conducted two years after the intervention shows that bank accounts are “sticky”—those who were originally offered high subsidies are, two years later, significantly more likely to have used bank accounts in the past year to deposit, withdraw, send or receive funds. These long run findings confirm our main short-run findings: financial literacy education alone does not lead to greater demand for financial services in the general population, as the share of individuals who opened a bank account in the two years since the intervention is no different in the treatment versus the control group.

The paper proceeds as follows. The next section discusses the motivation for the study, and the context in which the field experiment took place. The subsequent section describes how we measure financial literacy and details the levels of financial literacy in our samples. In Section III, we explore what factors predict financial literacy, and in Section IV, we describe how financial literacy is related to use of, and demand for, financial services. Sections V and VI describe the design and results, respectively, of the experiment, and Section VII discusses our follow-up survey results. We then conclude.

## **I. Motivation and Context**

The role of financial literacy has garnered increasing attention in both the developed and developing world. In January 2008, the U.S. government set up a President’s Advisory Council on Financial Literacy, charged with promoting programs that improve financial education at all levels of the economy and helping increase access to financial

services.<sup>3</sup> In the developing world, the Indonesian government declared 2008 “the year of financial education” with a stated goal of improving access to and use of financial services by increasing financial literacy.<sup>4</sup> Similarly, in India, the Reserve Bank of India launched an initiative in 2007 to establish Financial Literacy and Credit Counseling Centers throughout the country which would offer free financial education and counseling to urban and rural populations.<sup>5</sup>

Much of this attention is motivated by a compelling body of evidence based on household surveys in developed countries, that demonstrates a strong association between financial literacy and household well-being. Households with low levels of financial literacy tend not to plan for retirement (Lusardi and Mitchell (2007a)), borrow at higher interest rates (Lusardi and Tufano (2008), Stango and Zinman (2009)), acquire fewer assets (Lusardi and Mitchell (2007b)), and participate less in the formal financial system relative to their more financially-literate counterparts (van Rooji, Lusardi, and Alessi (2007), Hogarth and O’Donnell (1999)). In response to this evidence, financial literacy programs have been advanced as a low-cost intervention with the potential to improve household financial decision making and ultimately increase savings and welfare.

There is less work in emerging markets; one exception is Cole et al. (2010), who study demand for a rainfall insurance product in India. They find limited demand for the product, which at least theoretically appeared quite attractive. They also find no effect of a very modest, five minute long financial literacy module on demand for the product.

The first substantive contribution of this paper is to measure the level and pre-

dictors of financial literacy, and its relationship to demand for financial services, in two of the most populous countries of the world. We conduct two large household surveys in India and Indonesia, and find strong relationships between financial literacy and financial behavior.

Yet, as with any observational study, it is always possible that other factors explain some or all of the observed relationships. For example, individuals with lower levels of financial literacy may have lower levels of education, be less interested in financial matters, be poorer, or have different discount rates.

To measure causal relationships, we implement a field experiment in Indonesia. We study one of the most basic, but perhaps most valuable financial services: bank savings accounts. We choose to study savings accounts for several reasons. For households, a bank savings account can be an efficient savings technology, secure from theft and often paying interest, as well as a means of sending and receiving payments. A savings account allows customers to build a relationship with the bank, potentially facilitating eventual access to credit and other financial services. This may in turn improve household welfare. Indeed, in the U.S., the federal government and individual states have passed legislation intended to draw individuals into the banking system by establishing “lifeline” savings accounts, and by providing incentives to retail banks to operate in underserved areas (Washington (2006)). Transactions and savings accounts are the first and most obvious way in which household participation in the formal financial sector begins.

We conduct our study in a setting, Indonesia, in which financial literacy may be one

of the most important barriers to access. This may in part be explained by low educational expenditures: measured as a share of GDP, education expenditures in Indonesia are the lowest in the world (UNESCO (2007)). However, and in contrast to many developing countries where access to banking infrastructure is difficult, the Indonesian banking system has a wide geographical reach. Moreover, Indonesian banks have traditionally offered savings accounts with low minimum deposits designed to serve the needs of low income customers. The minimum balance in a savings account with the nation's largest bank, Bank Rakyat Indonesia (BRI) is only 53 U.S. cents, and interest is paid on balances greater than \$1.06.<sup>6</sup> This compares to a per capita income of approximately \$1,918. Yet, only 41% of the total population and 32% of rural Indonesian households have a bank savings account.

To evaluate the importance of financial literacy, we randomly select half of the unbanked households in our sample and offer them a two-hour financial literacy education session on how banks work and the benefits of opening a bank savings account. To understand cost sensitivity, we offer unbanked households subsidies ranging in value from \$3 to \$14 if they open a bank savings account.

While financial literacy has received increasing attention worldwide, our paper is the first to systematically test the impact of a financial literacy training program in the developing world using randomized evaluation. In terms of access to financial services, Indonesia and India are fairly representative. According to recent estimates from Beck, Demirguc-Kunt, and Peria (2007), and Kendall, Mylenko, and Ponce (2010), India ranks



24th (out of 98 countries) in bank branch penetration, with 22.6 branches per 1000 square km, and Indonesia 38th with 10.0 branches per 1000 square km. The U.S. ranks 39th with 9.81 branches per square km. In terms of value of deposits to GDP, India ranks 56th (out of 113 countries) with a 51.0% ratio, Indonesia 72nd with 41.8%, and U.S. 73rd with 39.8%.

In the developed world, the most convincing evidence on the role of financial education using a randomized evaluation comes from Duflo and Saez (2003), who conducted an experiment at a U.S. university. The authors sent letters (at random) to staff, encouraging the staff to attend an employee benefit fair. The authors find that enrollment in retirement plans increased significantly in the departments in which letters were received. The size of the effect, however, is quite small, an increase of approximately 1.25 percentage points. A related paper by Karlan and Valdivia (2010) studies the efficacy of offering a business training program to female microentrepreneur clients of a bank in Peru. While the content of the course falls outside the standard definitions of financial literacy, the spirit was similar: provide education for individuals making household decisions. They find that the treatment resulted in higher repayment and client retention rates but had no impact on business income or assets. Similarly, Bertrand and Morse (2010) look at the effect of financial literacy education intended to suppress demand for payday lending in the U.S.: they find that a treatment that emphasizes the dollar cost of repeated borrowing is effective in reducing the probability an individual renews a payday loan.

This paper is also related to the literature on financial market development, sur-

veyed in great detail by Beck, Demirguc-Kunt, and Honohan (2008). Most closely related to the present study, Beck, Demirguc-Kunt, and Peria (2007) study household and firm use of banking services around the world, finding GDP, institutional quality, and ownership structure as important predictors of the use of financial services.

## **II. Measuring Financial Literacy and Financial Decisions**

In this section we describe the Indonesian and Indian household surveys from which we obtain our measures of financial literacy. We describe how we measure financial literacy and present summary statistics from the surveys. Both surveys focus on households' financial sector participation and were custom-designed by the authors in conjunction with partner organizations. To the best of our knowledge, the Indonesian results are the first nationally representative measure of financial literacy in a developing country.

The Indonesian data were collected as part of the World Bank's Access to Finance survey conducted in collaboration with the World Bank Jakarta office. The Access to Finance survey is a nationally representative household survey designed to measure use of, and attitudes towards, financial services in Indonesia. Stratified sampling was used to select 112 villages, and from each village, 30 households were randomly selected to participate in the survey, for a total sample size of 3,360 households. All Indonesian survey statistics reported in this paper are corrected for appropriate sampling weights.

The survey took place between July and December 2007. Summary statistics are provided in Table IA.I.

We complement the Indonesian survey results with data from India, using questions from a household survey administered in the state of Gujarat in 2006. Because we designed both survey instruments, the questions are comparable across countries. Despite the strikingly different context (India is far poorer than Indonesia), we find notable similarities, both in what predicts financial literacy, and in the relationship between financial literacy and demand for financial products.

The survey in India took place in March and April 2006, as a baseline survey for a study on weather insurance. The survey covers 15 households in each of 100 villages, located in three districts of India around Ahmedabad, the capital of Gujarat,<sup>7</sup> and focused primarily on poor, subsistence agricultural laborers. While the sample was not representative of India or Gujarat, the selected households live in similar circumstances and have comparable educational backgrounds to households throughout much of rural India.

Both surveys use a measure of financial literacy that is very close to the work of Lusardi and Mitchell (2006), which to our knowledge is the first large-scale survey of financial literacy. We ask four questions: (i) “Suppose you borrow Rp. 100,000 from a money lender at an interest rate of 2% per month, with no repayment for three months. After three months, do you owe less than Rp. 102,000, exactly Rp. 102,000, or more than Rp. 102,000?” (ii) “If you have Rp. 100,000 in a savings account earning 1% interest per annum, and prices for goods and services rise 2% over a one-year period, can you

buy more than, less than, or the same amount of goods in one year as you could today, with the money in the account?” (iii) “Is it riskier to plant multiple crops or one crop?” We also added one new question: (iv) “Suppose you need to borrow Rp. 500,000. Two people offer you a loan. One loan requires you to pay back Rp. 600,000 in one month. The second loan requires you to pay back in one month Rp. 500,000 plus 15% interest. Which loan represents a better deal for you?”<sup>8</sup>

Table I presents the financial literacy results. Measured financial literacy is low, especially in India. The mean share of correct answers was 52% in Indonesia, and 34% in India. It should be noted that all questions were multiple choice, two with two possible answers, and two with three possible answers. Thus, random guessing would yield an average score of 42%, which is in fact higher than the average score in India, where many respondents answered “do not know” rather than guess. The percentage of “do not know” answers ranged from 6% to 38% in India and from 4% to 16% in Indonesia. The inflation question elicited the most “do not know” responses in both countries. Looking at individual questions, a majority of people in both surveys responded correctly to the compound interest question (59% correct in India and 78% in Indonesia). Discerning interest rate versus lump sum loan repayments seemed to be most difficult for Indian respondents (only 24% correct), whereas the diversification question was difficult to answer in both settings (31% correct in India and 28% in Indonesia).

Insert

In terms of the distribution of scores, in India, 26% of respondents did not answer a single question correctly, 29% answered one question correctly, 29% answered two questions correctly, and 16% answered three questions correctly. In Indonesia, 16% of respondents did not answer a single question correctly, 29% answered one question correctly, 29% answered two questions correctly, and 26% answered three questions correctly. Table I here.

questions correctly, 13% answered three correctly, and only 3% answered all questions correctly. The comparative figures from the Indonesia survey were 12%, 21%, 32%, 28% and 7%, respectively. In the U.S., the average score on the first three questions was 65%. The corresponding scores for India and Indonesia were 38% and 55%, respectively. Throughout the paper, we use the total score from all four questions as our measure of financial literacy; the variable thus ranges from 0-4.

In addition to financial literacy, the surveys capture other household characteristics that may be important determinants of financial behavior. Cognitive ability was evaluated with a series of eight mathematics questions: the mean share answered correctly was 81% in Indonesia and 62% in India.<sup>9</sup> Almost all respondents could answer the simplest question (“what is  $4+3$ ”) while many more had difficulty with multiplication (“3 times 6”) and division (“one-tenth of 400”). Since respondents were not allowed to ask their friends or neighbors for help, it is reasonable to think that in situations where collaboration is possible, they will perform better when answering these questions. While these exact questions have not been asked in the U.S., Lusardi (2008) finds similar abilities in the U.S.: 84% of U.S. respondents performed a percentage calculation correctly, while 56% could correctly divide proceeds from a lottery among 5 winners.

Household discount rates were proxied by eliciting the minimum amount a household would be willing to accept in one month in lieu of a Rp. 80,000 payment today.<sup>10</sup> Consistent with other evidence, respondents reported relatively high discount rates: the average elicited monthly discount rate was 36% in Indonesia, and 21% in India. To mea-

sure risk aversion, we follow Binswanger (1980) and use actual lotteries, for real amounts of money. In Indonesia, respondents were offered a choice between receiving Rp. 2,000 for certain or playing a lottery that paid Rp. 5,000 with probability  $\frac{1}{2}$  and Rp. 0 with probability  $\frac{1}{2}$ , and 36% of households chose the safe bet. We code these households as being risk averse.<sup>11</sup> In India, respondents are coded as risk averse if they opt to receive Rs. 2 for certain, rather than playing a lottery that paid Rs. 5 with probability  $\frac{1}{2}$  and Rs. 0 with probability  $\frac{1}{2}$ , and 19% of Indian households met this definition of risk aversion.<sup>12</sup>

The surveys also allow us to proxy the extent to which respondents view events as being outside of their control. In Indonesia, fatalism is measured as the proportion of the following statements with which the respondent either agrees or strongly agrees: (i) “I have little control over what will happen to me in my life.” (ii) “Good things tend to happen to other people, not to me or my family.” (iii) “I have a hard time saving money, even though I know I want to save money.” The average value of fatalism is 60%. In India fatalism is measured using the extent to which respondents agreed with the first two of these statements. The average value is 53%.

Finally, the surveys collected standard data on household demographics and expenditure. While household wealth is an important concept, in practice it is difficult to measure using household surveys, particularly among low-income households whose main assets (real estate, livestock) may not be easy to price. We follow the standard convention and focus on measured per capita household expenditure instead. Table IA.I demonstrates that the Indian sample is more rural, less educated and much poorer than the Indone-

sian sample. The average household size in the Indian sample is 5.9, twice as large as in Indonesia. In India, the entire sample is rural, compared to 58% in Indonesia. Though low by developed country standards, the Indonesian sample exhibits substantially higher levels of education than the Indian sample. In Indonesia, 80% of respondents completed primary school compared to 41% in India. In the Indian sample mean monthly per capita household expenditure (which includes consumption, but not investment spending) is less than one-third the Indonesian level, while average annual reported household income is \$674 in India and \$1,315 in Indonesia.

In Table IA.II, we present summary statistics on households' use of financial services. Bank accounts are uncommon in both locations. Only 12% of Indian, and 41% of Indonesian households report having a bank account. In the U.S., approximately 88% of adults have a bank account (FINRA (2009)). However, 29% of Indonesian households that do not currently have a bank account used to have an account at some point in the past. Half (51%) of Indonesian households have savings with a non-bank institution, but only 13% have advanced savings instruments, such as Certificates of Deposit (CDs) or mutual funds. In total, 68% of Indonesian households own a savings product of some form.

On the loan side, 25% of Indonesian households have a formal sector loan, while 13% of the Indian sample did. Informal credit was more common, with 64% of Indian households, and 52% of Indonesian households, having loans from microfinance institutions, moneylenders or other informal sources. The most common source of informal loans

in Indonesia was family and friends.

One surprising result is the familiarity with, and use of, insurance in the Indian sample. Two-thirds of households have some form of insurance policy. This is likely attributable to the fact that SEWA, a local microfinance institution in Gujarat oriented towards helping poor women, makes health insurance policies available to its members. In contrast, crop insurance, which must be separately obtained, is comparatively rare. Even in Indonesia, almost half of the households report having an insurance policy. One-third of the population have health insurance, while 26% have asset or homeowner's insurance.

### **III. What Predicts Financial Literacy?**

A breakdown of financial literacy performance by household expenditure and cognitive ability is given in Table I. Within samples, the share of the population answering each question correctly showed substantial variation by per capita expenditure and cognitive ability. Splitting the samples by household per capita expenditure we see that households with high per capita expenditure did significantly better than households with low per capita expenditure on most questions. Similarly, dividing the samples by cognitive ability, we find that the upper half of the distribution did significantly better on all questions. In fact, the differences between the low and high cognitive ability subsamples are on average more than twice as large as the differences based on per capita expenditure, suggesting that cognitive ability may play an important role in determining financial literacy. This finding is consistent with Cole and Shastry (2009), which finds close relationships between



cognitive ability and financial behavior in the U.S.

While the connection between household expenditure and financial literacy has been long documented, the relationship between cognitive ability and financial literacy, though not surprising, is less well understood. Christelis et al. (2006) describe the relationship between cognitive ability and portfolio choice in European households, finding that higher cognitive ability households are more likely to invest directly in stocks.

In Table II we take a more systematic approach, regressing our measure of financial literacy on a variety of individual characteristics. This confirms that both greater per capita expenditure and higher human capital, as measured by either level of schooling or cognitive ability, are associated with significantly higher levels of financial literacy in Indonesia. We also find that rural households and households with a female head exhibit lower levels of financial literacy, while households that own a non-farm enterprise have higher financial literacy. With respect to age, financial literacy is quadratic and peaks at around 40 years old. Neither discount rates nor risk aversion predict financial literacy. Insert

Household per capita expenditure and cognitive ability are also positively correlated with financial literacy in India, but surprisingly, there is no systematic relationship here. Table II  
between education and financial literacy. As in Indonesia, age is quadratic and peaks at around 45 years old.

One striking result is that households with a more fatalist world view exhibit consistently lower financial literacy, both in India and Indonesia, even after controlling for a host of other characteristics. This result, found as well in the U.S. (Cole and Shastry

(2009)), may suggest that households who believe that outcomes are predetermined feel less motivated to invest in understanding how to make decisions that improve their well-being.

The regressions also allow us to quantify effects, and in particular compare the effects of per capita expenditure and cognitive ability, two of the most important predictors of financial literacy. The estimates from column 2 indicate that in our Indian sample, a one standard deviation increase in household per capita expenditure predicts a 0.05 standard deviation increase in the financial literacy score. In contrast, a one standard deviation increase in cognitive ability is associated with a 0.50 standard deviation increase in the financial literacy score. In Indonesia, the corresponding magnitudes, based on the estimates in column 6, are 0.05 and 0.37 standard deviations, respectively. In both samples, cognitive ability has a substantially stronger association with financial literacy than does household expenditure.

## **IV. What Does Financial Literacy Predict?**

A compelling body of evidence demonstrates a strong association between financial literacy and household well-being in developed countries. Table IA.III shows how use of financial services varies with household characteristics in our Indian and Indonesian samples. Higher household expenditure predicts greater use of bank accounts and formal credit in both countries, but predicts increased use of informal credit and insurance in Indonesia only. The results for human capital are mixed. Education is positively associ-

ated with use of bank accounts and formal credit in both countries and with insurance in Indonesia, but is negatively associated with informal credit use in both countries. Higher cognitive ability predicts greater insurance use in both countries and greater use of formal credit in Indonesia, but is otherwise insignificant.

In both countries, none of the household preference indicators consistently predicts use of financial services. In Indonesia, a high discount factor is associated with lower use of both formal and informal credit, while risk averse households are more likely to have a bank account or a formal loan. Fatalism is associated with lower use of bank accounts in Indonesia, but higher use of insurance in India.

Higher financial literacy is significantly associated with greater use of bank accounts in Indonesia and insurance in India, even after including a host of controls. The coefficients on the borrowing regressions are positive but insignificant. Although financial literacy is a significant predictor of use of bank accounts in Indonesia, the magnitude of the estimates suggest it is a less important predictor than expenditure levels. The estimates from column 2 indicate that a one standard deviation increase in financial literacy is associated with a 2.2 percentage point increase in the probability of having a bank account, while a one standard deviation increase in household expenditure is associated with a 14.9 percentage point increase.

## A. *Demand for Financial Products*

While much has been written on the impact of financial repression on financial development (e.g., La Porta et al. (1998)), many countries around the world are liberalizing financial markets. However, mere entry may not be sufficient to spur financial development if demand for the products is very limited. In this section, we present some of the first survey evidence ever on demand for a range of financial products.

In Table III, we explore demand for financial products. Data for this section and the remainder of the paper is available for the Indonesian sample only. Respondents were asked if they were interested in three financial products that have been identified as potentially beneficial in increasing household savings. First, we asked about a commitment savings product, similar to the one described in Ashraf, Karlan, and Yin (2006a). This product allows clients to deposit money at any time, but to withdraw only after a certain savings target has been met, or a specified time period has passed. Christmas savings clubs in the U.S. are one example of this product. Approximately 43% of households expressed interest in such a product.

Insert

Second, we asked about whether the household would be interested in deposit collection services. Deposit collection services have been shown to increase savings in the Philippines (Ashraf, Karlan, and Yin (2006b)). Interest in this product was lower, at 25%. Finally, we asked if households were interested in retirement savings accounts: 50% of households said yes.

Table III here.

To better understand barriers to use of bank accounts, respondents were asked

whether they would open a bank account if account fees were reduced. Of the unbanked, 37% reported that they would open a bank account if fees were halved; that figure rose to 58% if fees were eliminated. These responses are particularly striking given that the basic account (described in Section V.A. below) offered by a government-owned bank charges no fees, suggesting households have limited understanding of banking services.

Panel B of Table III explores which household characteristics predict interest in the three financial products. Interest in all three products is increasing in financial literacy and household expenditure, even after including a range of household controls, and village fixed effects. Financial literacy is therefore a strong and consistent predictor of demand for financial services.

There is no evidence of a robust effect of human capital on interest levels for any of the products. Households that have a bank account are less interested in deposit collection services and more interested in retirement savings, but their interest in the commitment savings product is not significantly different. Demand for the commitment savings and deposit collector products are higher among households that are more patient and are not risk averse. Demand for all three products is higher from households that have a fatalistic outlook, are interested in financial matters, and report saving enough for the future.

Table IA.IV examines self-reported attitudes towards use of financial services. The most common reasons cited for having a bank account are: security (53%); for predicted future needs (42%); to transfer money (37%); and, for emergency needs (31%). Only 17% of respondents see having a transactions account as a step towards borrowing from the

bank.

When asked their reasons for not having a bank account, 92% of unbanked households report that they do not have enough money. The second most common answer, not knowing how a bank operates, was only cited by 32% of households. Interestingly, 29% of currently unbanked households did have an account at some point in the past. Among these households, 71% report that they stopped using the account because they did not have enough money.

Just over half of households (54%) reported they were saving enough for the future. Of those who answered “no,” lack of money was the most frequently cited reason for insufficient savings (76%), with irregular income (31%) and failure to control spending (23%) the second and third most common reasons.

We also asked about household demand for insurance. Among those without insurance, not enough money was again the most frequent reason given (59%), followed by not knowing about any insurance products (38%). Only 6% of households said that they did not have insurance because premiums were too expensive.

Finally, households were asked to describe the three most important financial risks they faced. Illness was the most common risk (79%), followed by loss of employment (56%), and loss of dwelling (33%). Conditional on owning a non-farm enterprise, 52% of households reported concern about business risk. Interestingly, many of the risks (health, property loss, death, and vehicle damage) were insurable, though most households chose not to insure them.

The data in Table III and Table IA.IV provides support for the notion that a financial literacy training intervention could increase the share of households possessing a bank account. Lack of knowledge of how a bank works is the second most common reason for not having a bank account and is cited by approximately one-third of households. The fact that only 31% of the population reports knowing the requirements to open a bank account suggests that knowledge may be a barrier to opening an account. Finally, 74% of households without a bank account expressed interest in attending a free financial literacy training session.

A challenge in interpreting observational regressions is that variables may be collinear, and causal links are not clear. This important caveat applies to much of the literature on financial literacy. To draw out causal relationships, we design a field experiment.

## V. Experiment Design

This section describes the intervention we conducted in Indonesia to test whether financial literacy acts as a barrier to opening a bank account. The results of the experiment are analyzed in Section VI.

### A. *Financial Literacy Intervention*

To study whether financial literacy training could stimulate demand for financial services, we worked with an international non-profit organization in Jakarta, Microfinance

Innovation Center for Resources and Alternatives (MICRA). MICRA provides consulting and training programs to banks and microfinance organizations in Indonesia.

MICRA developed a customized training session on bank accounts, using material adapted from a curriculum developed by a consortium of Microfinance Opportunities, Citigroup Foundation, and Freedom from Hunger. The curriculum was designed for unbanked individuals, with the specific goal of teaching households about bank accounts.

A challenge with financial education is that household preferences and circumstances vary, and not everyone may benefit from a particular financial behavior, making prescriptive education difficult (Lyons and Neelakantan (2008)). To address this concern, our intervention focused on a behavior which carried almost no cost: Bank Rakyat Indonesia, the country's largest bank, offers a "SIMPEDES" account which, at the time of our intervention, required a minimum deposit of only Rp. 5,000 (\$0.53), and charged no fees, as long as an individual deposited or withdrew money no more than 4 times per month. This account paid no interest for deposit levels below Rp. 10,000 (\$1.06), and increasing interest rates for balances higher than this amount. Indonesian depositors enjoy deposit insurance from the government.

Of course, if households have highly productive investment opportunities, they may be loathe to save. Work by Rampini and Viswanathan (2010) suggests those who are capital constrained may in fact have less of an incentive to manage risk than those who are somewhat wealthier. However, the value of a buffer stock savings would certainly be high to extremely poor individuals (as consumption approaches zero), particularly given the



high cost of moneylender credit. Recall as well from the baseline that 58% of households reported they would open a bank account if there were no fees.

Moreover, while evidence suggests that some poor households have access to high-return projects, it is also true that many poor households, and even poor entrepreneurs, demonstrate quite low returns to capital (de Mel, McKenzie, and Woodruff (2008)). Finally, we note that even in a setting with high returns to capital, access to savings technology could facilitate making lumpy investments. In related work, Dupas and Robinson (2009) report a randomized evaluation of savings accounts among a much poorer sample of individuals in Kenya. Despite the fact that the terms offered in the Kenyan bank were much less favorable than those found in Indonesia (e.g., withdrawal fees), Dupas and Robinson (2009) find that savings accounts improved investment levels of self-employed individuals.

Working with MICRA, we identified individuals to serve as trainers who had previous experience in financial sector work or education. The trainers were given two days of specialized training relating to the curriculum prior to the start of the experiment. MICRA provided the training of the trainers. The salary offered for the trainers was relatively high (200,000 Rp./hour); thus, the quality of delivery of this intervention is likely to be as good or better than any other large-scale intervention.

The financial literacy experiment took place in the 64 Access to Finance survey villages that were on the island of Java. Thirty households were sampled in each village, for a total of  $64 \times 30 = 1,920$  households. Of these, 1,173 households did not have a bank

account at the time of the survey. After completing the Access to Finance survey, each of these unbanked households was offered the opportunity to participate in the experiment. Once a respondent agreed to participate, he or she was subsequently randomly assigned a financial incentive level, and a financial literacy training invitation status. The financial incentives offered were Rp. 25,000, Rp. 75,000, and Rp. 125,000, with equal probability, for opening a bank account within two months of the intervention. To receive the incentive, the household was required to fill out a postage-paid mail-in form, indicating the participant's name and bank account number. Upon receipt of this card, the survey firm transferred the appropriate incentive amount to the respondent's account.

Independent of the incentive level, households were assigned to either treatment or control for the financial literacy training program. Treatment households received from the surveyor a written invitation to attend a two-hour financial literacy training session, to be held in the village on a weekend. Households that did not agree to participate in the experiment were eligible to receive invitations to the financial literacy training, but since we do not know if these households decided to open a bank account they do not form part of our experimental sample. Half of the households (again randomly assigned) receiving a financial literacy invitation were allowed to invite a friend to accompany them to the session.<sup>13</sup>

In each of the 64 villages a financial literacy training session was held within one month of the date the survey was conducted. Invited households were reminded about the training the day before it occurred.

Unfortunately, 23 villages had to be dropped from the sample because of evidence that the surveyors were collaborating with households to ensure households received high incentives.<sup>14</sup> This left a sample of 1,230 households, of which 736 did not have bank accounts.

The outcome of interest is whether a household opened a bank account. We measure this based on financial incentive claims. After verifying the identity of the claimant and the existence of a bank account, we were left with 49 claims that came from eligible households which had indeed opened a bank account.

### *B. Summary Statistics and Checks of Randomization*

Summary statistics for the experimental group are presented in Table IA.VII. Column 1 gives the mean value for all unbanked households who agreed to participate in our experiment; column 2 presents summary statistics for unbanked households who declined to participate. We of course could not compel participation. Fortunately, the take-up rate was relatively high, at 77%: 564 out of 736 households without bank accounts chose to participate in the experiment. Households made this decision prior to learning the precise details of the survey, including the size of the incentive and whether they would receive a literacy invitation. We find that rural households, older and unmarried respondents are less likely to participate in the experiment, whereas more educated, more financially literate respondents, and those more interested in financial matters are more likely to participate.

Turning to summary statistics, slightly more than half of our experiment sample households are rural, half are female headed, respondents are on average in their early 40s, are overwhelmingly married, are Muslim, and have attended some school. About 70% are employed and 70% own their homes. The average financial literacy score, as measured by questions asked in the Access to Finance Survey, is 50%, though 70% of the sample claim they are interested in financial matters.

Panel B of Table IV provides a test of the randomization. We first present mean differences between those invited to financial literacy training (274 out of 564) and those who were not (290 out of 564), and then for those who were offered the low (170), middle (190), or high (204) incentive. Column 3 tests the hypothesis of equality of means between the invited and non-invited group, while column 7 tests for equality of means across the assigned incentives. By and large, the randomization appears successful, as baseline characteristics do not vary systematically by treatment status.

Insert

Table

IV here.

## VI. Experimental Results

The main experimental results are presented in Table V. Since the assignment of incentives and invitations to financial literacy training were randomly determined, unbiased estimates of the causal impact of each can be obtained by estimating the following simple equation:<sup>15</sup>

$$Open_i = \alpha + \beta * LitInvite_i + \varepsilon_i, \tag{1}$$

where  $Open_i$  is a dummy variable indicating whether a household has opened a bank account, and  $LitInvite_i$  a dummy variable for whether the household was invited to attend the training session. We focus initially on the reduced-form relationship because it is difficult to compel people to attend a training session; thus, the intention-to-treat estimate may be of greatest interest. Equation 1 is therefore the reduced form. Insert

The point estimate on  $LitInvite_i$  in equation 1 is -0.02, with a standard error of Table V 0.027. Thus, the financial literacy program we offered appears to have no effect on the here. likelihood a client opens a bank account. Column 2 presents the same results, but includes a set of household controls available from our survey.<sup>16</sup>

Similarly, to determine the effect of incentives on opening an account, we estimate

$$Open_i = \alpha + \gamma_M * MidPay_i + \gamma_H * HiPay_i + \varepsilon_i, \quad (2)$$

where  $MidPay_i$  indicates whether the household received an incentive of Rp. 75,000, and  $HiPay_i$  indicates whether the household received an incentive of Rp. 125,000. The omitted category is the small incentive of Rp. 25,000. Standard errors in all specifications are clustered at the village level.

The point estimates on  $MidPay_i$  and  $HiPay_i$  in equation 2 are large and statistically significant. These estimates suggest that incentives have a large effect on households opening a bank account. A household receiving the middle incentive is 5.4 percentage points more likely to open a bank account than a household receiving a low incentive. This represents a 150% increase over the group offered the low incentive, of whom 3.5%

opened accounts. The effect of *HiPay* is even greater: the point estimate of 9.2 percentage points represents a 260% increase in probability of opening a bank account compared to the group receiving Rp. 25,000.

This effect is large. For example, we saw in Table V that a one standard deviation increase in log household expenditure is associated with a 14.9 percentage point increase in the likelihood of having a bank account. Moving from the low to the high incentive has an effect equivalent to increasing household expenditure by two-thirds of a standard deviation.

Finally, we explore the possibility that there is an interaction between financial literacy training and financial incentives, with the following regression:

$$\begin{aligned}
 Open_i = & \alpha + \beta * LitInvite_i + \gamma_M * MidPay_i + \gamma_H * HiPay_i + \\
 & + \theta_M * (MidPay_i * LitInvite_i) + \theta_H * (HiPay_i * LitInvite_i) + \varepsilon_i.
 \end{aligned}
 \tag{3}$$

Columns 5 and 6 of Table V report results. We find no interaction effect: the interaction point estimates are relatively imprecisely estimated, but statistically indistinguishable from zero. The main effect of incentives is unchanged.

Although our experiment results are quite strong when comparing low to high incentives, the overall take-up of bank accounts was fairly low—among all households who were offered an incentive, fewer than 10% opened a bank account. Hence, other

constraints, possibly social and behavioral barriers, may be present. Cole et al. (2010), for example, find that lack of trust in financial service providers acts as a barrier to take-up for insurance. However, there are several reasons we feel trust may not be as important in this setting: the survey company was well-known, and the initial survey itself involved small payments to participants. Moreover, the intervention was conducted in cooperation with the local government.

#### *A. Heterogeneous Treatment Effects*

While there is no effect on the general population, it is possible that financial literacy training is effective for particular subsets of the population. Because the experiment was conducted in conjunction with the survey, we did not stratify by education or levels of financial literacy when assigning treatment levels. There is, however, strong reason to believe that the effects of financial education may vary based on individuals' characteristics. Limited financial literacy is likely a larger constraint for households with low levels of formal or financial education, as information acquisition may be costlier or more difficult for those who cannot read. Similarly, because the program was designed for individuals with low levels of financial literacy, it may have been most effective among this group. As seen in Table IA.III, both financial literacy and education levels are positive predictors of having a bank account, hence an empirical prediction would be that financial literacy training may have greater effects on individuals who are less educated and less financially literate.

In Table VI, we therefore split the sample, exploring the possibility of heterogenous treatment effects. In columns 1 and 2, we interact  $LitInvite_i$ ,  $MidPay_i$ , and  $HiPay_i$  with a dummy variable indicating whether the respondent reports having no formal schooling:

$$\begin{aligned}
Open_i = & \alpha + \delta * NoSchool_i + \beta * LitInvite_i + \theta * (NoSchool_i * LitInvite_i) + \quad (4) \\
& \gamma_M * MidPay_i + \gamma_H * HiPay_i + \\
& \kappa_M * (NoSchool_i * MidPay_i) + \kappa_H * (NoSchool_i * HiPay_i) + \varepsilon_i.
\end{aligned}$$

We find, as before, that for literate households, the invitation has no effect: the point estimate of  $\gamma$  is -.032, indistinguishable from zero. However, for households that report having received no schooling, we find that the financial literacy training program has a substantial effect: the sum  $(\beta + \theta)$  is equal to 12.3 percentage points (column 1); an  $F$ -test for the joint significance of  $(\beta + \theta)$  yields a  $p$ -value of 0.07. Approximately one-tenth of the sample is illiterate. The coefficients  $\kappa_M$  and  $\kappa_H$  are negative, with  $\kappa_M$  weakly statistically significant. Testing the hypotheses  $(\gamma_M + \kappa_M) = 0$  and  $(\gamma_H + \kappa_H) = 0$  cannot be rejected at standard levels of significance, suggesting that for this subgroup, the financial incentives were not important determinants of behavior. Insert

As a second way of cutting the data, we test whether the effect varies with initial Table  
levels of financial literacy. Columns 3 and 4 estimate equation 4 with a main effect and VI here.  
interactions for whether or not an individual obtained a score below the median score in



the baseline financial literacy test replacing the schooling terms. The point estimate of the effect of an invitation on those with above average financial literacy is negative but statistically indistinguishable from zero, at -4.9 percentage points. The estimate of the effect of the program on low financial literacy households ( $\beta + \theta$ ) is 5.1%. The hypothesis that this sum is zero can only be rejected at the 15% significance level. The incentives have an effect for both subgroups: the point estimate of the sum  $\gamma_H + \kappa_H$  is 7.6 percentage points, significant at the 10% level.

These results suggest that the intervention delivered to the general population will not produce significant effects. However, a training program targeted at individuals with low levels of education and financial literacy can increase demand for financial services.

### *B. Treatment on Treated*

Approximately 69% of respondents invited to attend the program in fact attended the training. An alternative method of estimating equation 1 is to use the invitation for the program as an instrument for the endogenous indicator of whether the individual attended.<sup>17</sup> Under reasonable assumptions, this provides the effect of treatment on the treated, also known as the local average treatment effect (Imbens and Angrist (1994)).

These results are reported in Table VII.

Insert

Given that there was no reduced-form relationship between the training invitation and opening a bank account (Table V), it is not surprising that the IV estimate of the effect of training is also zero (columns 1 and 2). The size of the standard error increases here.

somewhat, but we can still comfortably rule out an effect size equivalent to the large incentive. Columns 3 and 4 examine heterogeneous treatment effects, using invited as an instrument for attending, and  $(Invited * Unschooled)$  as an instrument for  $(Attended * Unschooled)$ . The treatment effect for unschooled is still positive, though no longer statistically significant. In columns 5 and 6, we repeat this exercise for respondents below the median level of financial literacy. Here, we continue to find that the financial literacy intervention had a large effect on households with low initial financial literacy. Respondents with below median financial literacy are 20 percentage points more likely to open a bank account within two months if they attended the financial literacy training session.

## VII. Follow-Up Results

In January 2010, approximately two years after our intervention, we conducted a brief follow-up survey to investigate whether households still had their bank accounts open, and whether households had improved their savings habits. Importantly, we were interested in studying whether these behaviors were correlated with any of our treatments.

### A. *Follow-Up Sample Characteristics*

Our primary purpose of conducting a follow-up survey was to verify whether households who opened bank accounts immediately following our initial intervention were still using them two years later, or whether they had simply allowed them to lapse after col-

lecting the subsidy. While it would have been preferable to visit all households, budget constraints prevented this. As a compromise, we chose to conduct brief interviews of all households in villages in which at least one household had opened a bank account in response to our initial study. Thus, from the baseline sample of 564 households in 40 villages, our follow-up sample comprises 394 households from 27 of the 40 villages.<sup>18</sup> Since the initial treatments were randomly assigned within the village, we are assured (and we confirm) that we achieve a balanced sample in the follow-up: treatment status is not correlated with observable socio-economic or demographic characteristics.<sup>19</sup>

In the 27 follow-up villages, we were able to re-interview 349 out of the 394 households. The attrition is not correlated with any of the treatments or with whether a bank account was opened previously. No attrition was due to household refusal to answer: 85% occurred because the household had moved permanently, while the remainder was due to death or debilitating illness. It is unlikely that our intervention affected mortality rates.

### *B. Long-Run Effects*

Regression results from the follow-up survey are reported in Tables VIII through X. Table VIII investigates whether those household that reported opening a bank account following our intervention still have their accounts open, two years later. The results confirm households that received the highest incentive are significantly more likely to have their accounts open, when compared to those which received the lowest incentive. These results are statistically indistinguishable from the short-run results. Further, survey questions

reveal that of the households which have their accounts still open, 62% have used their account in the last year to deposit, withdraw, send or receive money.

Insert

A necessary feature of our study was that the subsidy payment offered for opening a bank account following the study be time-limited. In a separate set of regressions, we use as a dependent variable whether the household opened a bank account at any point in the two years between the initial treatment, and the follow-up survey. The point estimates on financial literacy invitation range from 1 percentage point to 7.6 percentage points, but are not statistically significant (results available in Table IA.VIII).

Table VIII here.

Table IX next measures whether the heterogeneous effects of bank account opening are present in the long run. We find that the impact of financial literacy training invitation remains significant for households below the median level of initial financial literacy.<sup>20</sup> The results based on schooling status are no longer significant, though the point estimates are for the most part similar to the short-run estimates. In this regression, the coefficient on (*Unschool* \* *HighPay*) is negative and statistically significant even with household controls,<sup>21</sup> suggesting that uneducated households simply took advantage of the financial incentive and subsequently closed their bank accounts. This result has important implications for the desirability of subsidies as a tool to expand financial access: financial incentives alone may not be sufficient to draw uneducated households into the financial system as these households may simply claim the incentives without actually using the financial services.

Insert

Table

IX here.

### *C. Effect on Savings Decision*

An advantage of examining banking status is that it is easy to measure. However, financial education often promotes asset accumulation as well. In fact, one of the key messages in our financial literacy seminars was to highlight the importance of savings for future expected and unexpected needs.

Our follow-up analysis examines household savings behavior, which was elicited by the question “Do you currently have any savings?” We also asked households to report the level of savings, however, this variable is reported with significantly more noise (and refusals to answer) than the simple question of whether the household has any savings.

Regression results in Table X show that while there is no direct effect of the financial literacy invitation, interestingly, there is also no direct effect of the subsidies, suggesting that (relatively small) “high subsidies” were dissaved by households over the two years between the experiment and the follow-up survey. However, the interaction of high incentive with financial literacy invitation is large and statistically significant. Compared to households that received the low incentive and no financial literacy invitation, households receiving both a high incentive and a financial literacy invitation are more than 20 percentage points more likely to report having savings. However, summing the relevant coefficients (on invitation, high incentive, and the interaction) yields a reported fraction of households saving of 38.5%, only 2.2 percentage points higher than the mean for the households who received no invitation and the low incentive (36.2%). An  $F$ -test of this sum cannot reject the hypothesis that it is zero.<sup>22</sup> While this result shows some

promise for our financial literacy program, we do not have sufficient statistical power to detect an overall net effect on savings. Specifically, the sum of all relevant coefficients, although positive, is not statistically significant.

Insert

Of the households that reported savings, 61% reported that they were saving for emergencies, 34% for school fees and 12% for business investment.

Table X  
here.

## VIII. Conclusion

Using two new surveys from two of the most populous countries in the world, this paper presents compelling new evidence that financial literacy is an important predictor of financial behavior in emerging market countries. These correlations, well-documented in developed countries, have spurred governments, non-profits, and firms to promote financial literacy as a means of expanding the depth and breadth of the financial system.

The benefits of better financial literacy may be great. On a personal level, individuals may save more, and better manage risk, by purchasing insurance contracts. There may even be general equilibrium effects: increased demand by households for financial services may improve risk-sharing, reduce economic volatility, improve intermediation, and speed overall financial development. This in turn could facilitate competition in the financial services sector and, ultimately, more efficient allocation of capital within society.

Despite the potential benefits of financial literacy, there is to date no credible evidence on the effects of financial literacy programs. This paper reports the first randomized evaluation of a carefully-designed and delivered financial literacy training program. We

find that the education program has modest effects, stimulating demand for bank accounts among uneducated and less financially literate households. A second intervention providing small subsidies for opening an account demonstrates that, given proper incentives, many individuals could open accounts, even without financial literacy training. A follow-up study conducted two years after the initial intervention shows that those who were originally offered the high incentives are significantly more likely to have used bank accounts in the past year to deposit, withdraw, send or receive funds.

Where does this study leave us? On the one hand, the survey data from Indonesia and India demonstrate that financial literacy is an important correlate of household financial behavior, and household well-being. It is one of the strongest and most consistent predictors of demand for financial services. These results provide evidence that financial literacy is important, and that educated consumers will make better financial decisions. Finally, demand for financial education is quite high: 69% of those invited choose to attend the course.

Yet, our experimental results show that this financial education program is not an effective tool for promoting the use of bank accounts. It is useful to think about a simple cost-benefit analysis. Even if targeted to those for whom the intervention is most effective, the program is not cost effective. The literacy training cost approximately US \$17 per head to deliver. Among those with low levels of initial financial literacy (i.e. below median score on baseline financial literacy assessment), the training program increased the share opening a bank savings account by approximately 5 percentage points. Thus,

inducing the opening of one bank account cost  $\$17/.05 = \$340$ . In contrast, for this same sub-sample, increasing the subsidy from \$3 to \$14 led to an increase in probability of opening a bank savings account of 7.6 percentage points, suggesting a cost per bank savings account opened of  $\$11/0.076 = \$145$ . Thus, subsidies are almost two and one-half times more cost effective than financial literacy education.

Of course, financial literacy may have additional value if it promotes asset accumulation; a buffer stock of savings may be far more important than simply having a bank account. Nevertheless, our evidence does not support the view that low financial literacy is a severe impediment to demand for formal financial services. Our study clearly demonstrates that prices matter for both opening of bank accounts and for savings, and that individuals who open bank accounts in response to incentives do keep them open for the long term. This finding is consistent with the common practice in U.S. banks, whereby banks offer cash incentives or other gifts to those opening a new account.

The financial literacy program we evaluated was based on global best practices, using experienced, highly educated facilitators, and likely represents a higher quality intervention than could be delivered on a mass scale. Nevertheless, we acknowledge that this was a short program, and that many respondents reported in the baseline that they did not previously open a bank account because they had insufficient funds. The point estimate on the impact of financial literacy on savings decisions is positive, though statistically insignificant. We of course cannot rule out the possibility that a more intense, more comprehensive and better targeted education program could have positive, measurable



impacts on individuals' lives.

Ultimately, however, our results suggest that financial deepening may be more easily achieved through measures designed to reduce the price of financial services, such as promoting competition or low-cost technological solutions like mobile banking, than through large-scale financial literacy education. A carefully designed, focused and targeted financial literacy program, one that is more cost effective than a large-scale effort, may serve as a valuable complement to such financial reform.

## REFERENCES

Ashraf, Nava, Dean Karlan, and Wesley Yin, 2006a, Tying odysseus to the mast: Evidence from a commitment savings product in the Philippines, *Quarterly Journal of Economics* 121, 635–672.

———, 2006b, Deposit collectors, *Advances in Economic Analysis & Policy* 6, 1–22.

Beck, Thorsten, Asli Demirguc-Kunt, and Maria Soledad Martinez Peria, 2007, Reaching out: Access to and use of banking services across countries, *Journal of Financial Economics* 85, 234–266.

Beck, Thorsten, Asli Demirguc-Kunt, and Patrick Honohan, 2008, *Finance for All? Policies and Pitfalls in Expanding Access* (World Bank, Washington, DC).

Bertrand, Marianne and Adair Morse, 2010, Information disclosure, cognitive biases and payday borrowing, Working paper, University of Chicago Booth School of Business.

Besley, Timothy, Stephen Coate, and Glenn Loury, 1993, The economics of rotating savings and credit associations, *American Economic Review* 83, 792–810.

Binswanger, Hans P., 1980, Attitudes toward risk: Experimental measurement in rural

India, *American Journal of Agricultural Economics* 62, 395–407.

Binswanger, Hans, Dayanatha Jha, T. Balaramaiah, and Donald Sillers, 1980, The impacts of risk aversion on agricultural decisions in semi-arid India, Mimeo, ICRISAT, Hyderabad, India.

Buehn, Andreas, and Friedrich Schneider, 2009, Shadow economies and corruption all over the world: Revised estimates for 120 countries, *Economics: The Open-Access, Open-Assessment E-Journal* 1, 1–53.

Chabris, Christopher F., David Laibson, Carrie L. Morris, Jonathon P. Schuldt, and Dmitry Taubinsky, 2008, Individual laboratory-measured discount rates predict field behavior, *Journal of Risk and Uncertainty* 37, 237–269.

Christelis, Dimitris, Tullio Jappelli, and Mario Padula, 2006, Cognitive abilities and portfolio choice, Discussion paper no. 5735, CEPR.

Cole, Shawn, Xavier Giné, Jeremy Tobacman, Petia Topalova, Robert Townsend, and James Vickery, 2010, Barriers to household risk management: Evidence from India, Working paper, Harvard Business School.

Cole, Shawn, and Kartini Shastry, 2009, Smart money: The effect of education, cognitive ability, and financial literacy on financial market participation, Working paper no. 09-071, Harvard Business School.

Dohmen, Thomas, Armin Falk, David Huffman, and Uwe Sunde, 2010, Are risk aversion and impatience related to cognitive ability?, *American Economic Review* 100, 1238–1260.

Duflo, Esther, and Emmanuel Saez, 2003, The role of information and social interactions in retirement plan decisions: Evidence from a randomized experiment, *Quarterly Journal of Economics* 118, 815–842.

Dupas, Pascaline, and Jonathan Robinson, Savings constraints and microenterprise development: Evidence from a field experiment in Kenya, NBER Working paper no. 14693, University of California.

FINRA Investor Education Foundation, 2009, *Financial Capability in the United States*, <http://www.finrafoundation.org/resources/research/p120478>, accessed April 1, 2010.

Gerardi, Kristopher, Lorenz Goette, and Stephan Meier, 2010, Financial literacy and subprime mortgage delinquency: Evidence from a survey matched to administrative data, Working paper no. 2010-10, Federal Reserve Bank of Atlanta.

Hogarth, Jeanne M., and Kevin H. O'Donnell, 1999, Banking relationships of lower-income families and the governmental trend toward electronic payment, *Federal Reserve Bulletin* 86, 459–473.

Imbens, Guido W., and Joshua D. Angrist, 1994, Identification and estimation of local average treatment effects, *Econometrica* 62, 467–475.

Karlan, Dean, and Martin Valdivia, 2010, Teaching entrepreneurship: Impact of business training on microfinance clients and institutions, *Review of Economics and Statistics*, forthcoming.

Kendall, Jake, Nataliya Mylenko, and Alejandro Ponce, 2010, Measuring financial access around the world, Policy research working paper no. 5253, World Bank.

Lang, Frieder R., Dorothee Hahne, Stefanie Gymbel, Stefan Schroepper, and Katharina Lutsch, Erfassung des kognitiven leistungspotenzials und der “Big Five” mit computer-assisted-personal-interviewing (CAPI): Zur reliabilitaet und validitaet zweier ultrakurzer tests und des BFI-S, DIW Research Note, German Institute for Economic Research.

Levine, Ross, 2005, Finance and growth: Theory and evidence, in Philippe Aghion and Steven Durlauf, eds.: *Handbook of Economic Growth* (Elsevier Science, The Netherlands).

Lusardi, Annamaria, 2008, Financial literacy: An essential tool for informed consumer choice?, Working paper, Dartmouth College.

Lusardi, Annamaria, and Olivia S. Mitchell, 2006, Financial literacy and planning: Implications for retirement well-being, Working paper no. 1, Pension Research Council.

Lusardi, Annamaria, and Olivia S. Mitchell, 2007a, Financial literacy and retirement preparedness: Evidence and implications for financial education, *Business Economics* 42, 35–44.

Lusardi, Annamaria, and Olivia S. Mitchell, 2007b, Baby boomer retirement security: The roles of planning, financial literacy, and housing wealth, *Journal of Monetary Economics* 54, 205–224.

Lusardi, Annamaria, and Peter Tufano, 2008, Debt literacy, financial experience and over-indebtedness, Working paper, Dartmouth College and Harvard Business School.

Lyons, Angela, and Urvi Neelakantan, 2008, Potential and pitfalls of applying theory to the practice of financial education, *Journal of Consumer Affairs* 42: 106–112.

de Mel, Suresh, David McKenzie, and Christopher Woodruff, 2008, Returns to capital in microenterprises: Evidence from a field experiment, *Quarterly Journal of Economics* 123, 1329–1372.

Osili, Una Okonkwo, and Anna Paulson, 2008, Institutions and financial development: Evidence from international migrants in the United States, *Review of Economics and Statistics* 90, 498–517.

la Porta, Rafael, Florencio Lopez-de-Silanes, Andrei Shleifer, and Robert Vishny, 1998, Law and finance, *Journal of Political Economy* 106, 1113–1155.

Rabin, Matthew, and Richard Thaler, 2001, Anomalies: Risk aversion, *Journal of Economic Perspectives* 15, 219–232.

Rampini, Adriano, and S. Viswanathan, 2010, Collateral, risk management, and the distribution of debt capacity, *Journal of Finance*, forthcoming.

van Rooij, Maarten, Annamaria Lusardi, and Rob Alessie, 2007, Financial literacy and stock market participation, NBER Working paper no. 13565, Dartmouth College.

Stango, Victor, and Jonathan Zinman, 2009, Exponential growth bias and household fi-

nance, *Journal of Finance* 64, 2807–2849.

Townsend, Robert, 1994, Risk and insurance in village India, *Econometrica* 62, 539–591.

UNESCO, 2007, *Global Education Digest*, <http://www.uis.unesco.org>, accessed May 1, 2009.

Washington, Ebonya Lia, 2006, The impact of banking and fringe banking regulation on the number of unbanked Americans, *Journal of Human Resources* 41, 106–137.



## Notes

<sup>1</sup>Our baseline surveys find that 55% of the rural sample from India has savings in a non-bank institution and 64% borrow from informal sources. Similarly, nationally representative figures from Indonesia show that 51% of the population saves in non-bank institutions and 52% borrows informally; nearly 20% of households in Indonesia borrow and save exclusively in the informal sector.

<sup>2</sup>See, for example, Besley, Coate, and Loury (1993), and Townsend (1994).

<sup>3</sup>See: <http://www.treasury.gov/offices/domestic-finance/financial-institution/fin-education/council/index.shtml> [accessed February 11, 2009]. As an indication of the United States government's resolve to improve financial literacy, it named April 2008 Financial Literacy Month.

<sup>4</sup>See: [http://www.oecd.org/document/3/0,3343,en\\_2649\\_34853\\_40660803\\_1\\_1\\_1\\_1,00.html](http://www.oecd.org/document/3/0,3343,en_2649_34853_40660803_1_1_1_1,00.html) [accessed February 11, 2009].

<sup>5</sup>See: <http://www.rbi.org.in/scripts/PublicationDraftReports.aspx?ID=526> [accessed February 11, 2009].

<sup>6</sup>See: <http://www.bri.co.id/english/layanan/simpanan.aspx?id=12> for terms of the savings product [accessed February 11, 2009].

<sup>7</sup>The survey served as a baseline for Cole et al. (2010), which studies a weather

insurance intervention. The survey was conducted prior to any intervention.

<sup>8</sup>For the Indian survey, the amounts used were Rs. 100 for questions (i) and (ii) and Rs. 500 for question (iv).

<sup>9</sup>We do not distinguish between cognitive ability and numeracy skills in our analysis. See Lang et al. (2005), Dohmen et al. (2010), and Gerardi, Goette, and Meier (2010), for survey questions that can separate the two measures.

<sup>10</sup>Discount rates were calculated using answers to hypothetical questions of the form: “Would you prefer to receive Rp. 80,000 today, or Rp. X in one month.” For India, the ordering was reversed and respondents were asked to choose between Rs. X today and Rs. 10 in one month.

<sup>11</sup>This test is also a test of a behavioral anomaly, “small-stakes risk aversion,” described by Rabin and Thaler (2001).

<sup>12</sup>These methods of eliciting time and risk preferences have received some validation: Chabris et al. (2008), for example, find that elicited time preferences weakly predict individual behaviors such as exercising and smoking. Binswanger et al. (1980) report that elicited measures of risk aversion correlate well with agricultural risk-taking in a sample quite similar to our Indian sample. However, it must be acknowledged that these measures are not perfect, and that in particular, limited financial literacy may confound the measure, if individuals do not, for example, have a firm understanding of probability.

<sup>13</sup>The experimental plan initially called for a range of invitations designed to elicit the importance of peer effects. Operational limitations precluded any peer invitations in the first 14 villages surveyed. In the subsequent villages, half of the treatment sample was offered an invitation for a friend.

<sup>14</sup>The survey was conducted in two waves. During wave one, which covered 48 villages, the size of the incentive for participating households was chosen by the surveyor drawing one of three colored balls from a bag. For four surveyors a *Pearson Chi-squared* test rejects the hypothesis that the allocation of incentives was random. The 23 villages visited by these surveyors have been dropped from the sample. During wave two incentive amounts were pre-assigned to households. There is no evidence that the incentive amount affected households' participation decisions.

<sup>15</sup>We chose a linear probability model because the coefficients are simple to interpret. We obtain very similar results from a marginal effects probit model.

<sup>16</sup>The controls include household/respondent location, gender, age, marital status, religion, family size, schooling, consumption, employment status, financial literacy score, cognitive ability and expressed interest in financial matters.

<sup>17</sup>There is no need to instrument the incentives offered, as there was no endogenous take-up of the incentives.

<sup>18</sup>Much of the cost of surveying is the fixed travel and accommodation of visiting a

village, hence it made sense to interview all study households in villages that were visited.

<sup>19</sup>In an estimation model of bank accounts with village fixed effects, the omitted 13 villages would not contribute to the identification of any parameters of interest.

<sup>20</sup>The  $F$ -test of the sum of *LitInvite* and (*Below Median Financial Literacy* \* *LitInvite*) is significant at the 10% level for the specification without household controls.

<sup>21</sup>The  $F$ -test of the sum of *HighPay* and (*Unschoolled* \* *HighPay*) is not statistically significant.

<sup>22</sup>The  $F$ -test of joint significance has a  $p$ -value of 0.79.

**Table I**  
**Financial Literacy, Cognitive Ability and Discount Rates**

This table reports levels of financial literacy among household survey respondents in India and Indonesia. The Indonesian sample is nationally representative. The means are given for households above and below median per capita expenditure, and for households above and below median cognitive ability. The column to the right of the comparison columns indicates whether the difference in means is statistically significant. \*\*\* indicates that the difference is statistically significant at the 1% level, \*\* at the 5% level, and \* at the 10% level.

		India						Indonesia								
		All	Per Capita Expenditure		Cognitive Ability		All	Per Capita Expenditure		Cognitive Ability		All	Per Capita Expenditure		Cognitive Ability	
			Below Median	Above Median	Below Median	Above Median		Below Median	Above Median	Below Median	Above Median		Below Median	Above Median	Below Median	Above Median
Compound interest	% Correct % Do not know	59% 30%	55% 63% ***	33% 80% ***	78% 15%	69% 86% ***	56% 89% ***									
If savings earns 1% and inflation is 2%, after one year is buying power greater, less, or the same?	% Correct % Do not know	25% 38%	21% 28% ***	14% 33% ***	61% 16%	51% 70% ***	37% 74% ***									
Is one crop safer than multiple crops?	% Correct % Do not know	31% 6%	30% 32%	26% 34% ***	28% 4%	24% 31% ***	23% 30% ***									
Borrowing 500,000, repaying 600,000 versus paying 1.5 % interest	% Correct % Do not know	24% 24%	24% 23%	11% 34% ***	44% 14%	39% 49% ***	30% 52% ***									
All questions taken together	% Correct	34%	33%	21% 45% ***	52% 61% ***	46% 59% ***	37% 61% ***									
All questions taken together	Avg. Score (out of 4)	1.38	1.31	0.83	2.10	1.83	1.46									
N		1,496	749	747	622	843	3,360	1,680	1,680	1,680	1,412	1,948				

**Table II**  
**Predictors of Financial Literacy**

This table reports the results from OLS regressions predicting measured financial literacy among household survey respondents in India and Indonesia. Financial literacy is measured by a series of questions about compounding, interest rates, and risk diversification. The Indonesian sample is nationally representative, and weighted by sampling weights. The Indian regressions are unweighted. Only select coefficients are shown here; full regression results are available in the internet appendix. Standard errors, clustered at the village level, are given in parentheses beneath each point estimate. \*\*\* indicates statistical significance at the 1% level, \*\* at the 5% level, and \* at the 10% level.

Dependent variable:	Financial Literacy Score							
	India				Indonesia			
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
Per capita expenditure	0.073 * (0.040)	0.079 * (0.041)	0.080 * (0.041)	0.051 (0.043)	0.074 * (0.040)	0.087 ** (0.042)	0.071 * (0.042)	0.100 ** (0.047)
Rural household					-0.152 *** (0.051)	-0.195 *** (0.053)	-0.196 *** (0.053)	
Female	-0.077 (0.059)	-0.090 (0.061)	-0.096 (0.061)	-0.074 (0.061)	-0.110 ** (0.050)	-0.123 ** (0.052)	-0.130 ** (0.051)	-0.135 *** (0.051)
Age	0.022 ** (0.011)	0.027 ** (0.011)	0.027 ** (0.011)	0.020 * (0.011)	0.021 ** (0.010)	0.020 ** (0.010)	0.022 ** (0.010)	0.012 (0.010)
HH has non-farm enterprise	-0.065 (0.105)	-0.040 (0.108)	-0.041 (0.107)	-0.096 (0.108)	0.112 ** (0.051)	0.129 ** (0.052)	0.136 *** (0.050)	0.114 ** (0.054)
Married	-0.030 (0.080)	-0.040 (0.082)	-0.046 (0.083)	-0.032 (0.080)	-0.079 (0.076)	-0.111 (0.079)	-0.094 (0.076)	-0.075 (0.077)
Muslim	0.048 (0.094)	0.076 (0.096)	0.074 (0.097)	0.187 * (0.104)	-0.073 (0.102)	0.010 (0.109)	0.010 (0.106)	-0.104 (0.155)
Completed primary school	-0.007 (0.063)	-0.034 (0.064)	-0.035 (0.064)	0.143 ** (0.068)	0.165 ** (0.067)	0.127 * (0.068)	0.128 * (0.068)	0.070 (0.071)
Completed high school	0.201 (0.228)	0.254 (0.243)	0.253 (0.239)	0.148 (0.196)	0.022 (0.066)	-0.019 (0.071)	-0.020 (0.069)	-0.072 (0.071)
Cognitive ability	0.223 *** (0.013)	0.226 *** (0.013)	0.225 *** (0.013)	0.187 *** (0.014)	0.234 *** (0.017)	0.233 *** (0.018)	0.224 *** (0.018)	0.191 *** (0.019)
Risk averse			-0.037 (0.068)	0.026 (0.065)			-0.075 (0.055)	-0.062 (0.056)
Interested in financial matters							0.022 (0.062)	0.050 (0.062)
Saves enough (self-reported)							-0.057 (0.050)	-0.101 * (0.052)
Village fixed effects	No	No	No	Yes	No	No	No	Yes
N	1450	1369	1369	1369	3057	2818	2818	2818

**Table III**  
**Demand for Financial Products, Indonesia**

This table reports demand for financial products by household survey respondents in Indonesia. The sample is nationally representative. Panel A gives average reported demand for each service, while Panel B reports OLS regressions relating individual characteristics to product demand. Only select coefficients are shown here; full regression results are available in the internet appendix. Standard errors, clustered at the village level, are given in parentheses beneath each point estimate. \*\*\* indicates statistical significance at the 1% level, \*\* at the 5% level, and \* at the 10% level.

**Panel A: Summary Statistics**

	Indonesia		
	Sample	Mean	N
Demand for savings products			
Interested in commitment savings product	All	43%	3360
Interested in using deposit collector	All	25%	3359
Interested in retirement savings product	All	50%	3360
Open account if fees cut 50%	No bank account	37%	2153
Open account if fees cut 100%	No bank account	58%	2153
Would attend financial literacy training	No bank account	74%	2153

**Panel B: Determinants of Demand for Financial Products**

Demand for:	Commitment savings		Deposit Collector		Retirement savings		Literacy training	
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
Financial literacy score	0.028 *** (.010)	0.025 ** (.010)	0.024 *** (.009)	0.026 *** (.010)	0.037 *** (.010)	0.033 *** (.011)	0.019 * (.010)	0.014 (.011)
HH has bank account	-0.012 (.026)	-0.018 (.026)	-0.051 ** (.020)	-0.065 *** (.021)	0.087 *** (.025)	0.074 ** (.029)		
Per capita expenditure	0.058 *** (.015)	0.043 *** (.016)	0.030 ** (.014)	0.025 (.015)	0.073 *** (.017)	0.067 *** (.019)	0.061 *** (.021)	0.051 ** (.021)
Female	0.007 (.019)	0.009 (.021)	-0.021 (.018)	-0.013 (.017)	0.031 (.020)	0.030 (.019)	-0.022 (.019)	-0.025 (.020)
Age	0.005 (.004)	0.005 (.004)	0.003 (.003)	0.004 (.003)	0.003 (.004)	0.002 (.004)	0.010 ** (.004)	0.007 * (.004)
HH has non-farm enterprise	0.012 (.020)	0.010 (.020)	0.025 (.018)	0.021 (.019)	-0.044 ** (.018)	-0.048 ** (.02)	-0.022 (.022)	-0.025 (.021)
Married	0.091 *** (.024)	0.085 *** (.024)	-0.014 (.026)	-0.034 (.028)	0.005 (.025)	-0.008 (.024)	0.029 (.034)	0.021 (.035)
Muslim	0.025 (.049)	0.021 (.047)	-0.020 (.036)	-0.008 (.036)	0.038 (.046)	0.049 (.046)	-0.042 (.059)	-0.050 (.052)
Completed primary school	0.027 (.025)	0.029 (.025)	0.015 (.024)	0.011 (.025)	0.021 (.028)	0.022 (.027)	0.024 (.025)	0.017 (.025)
Completed high school	-0.017 (.024)	-0.023 (.025)	-0.057 ** (.026)	-0.066 ** (.026)	0.008 (.026)	-0.006 (.026)	0.028 (.030)	0.015 (.032)
Cognitive ability	0.007 (.006)	0.002 (.007)	-0.007 (.007)	-0.010 (.008)	-0.006 (.007)	-0.012 * (.007)	0.005 (.007)	0.003 (.007)
Risk averse		-0.037 * (.020)		-0.027 * (.016)		-0.030 (.023)		-0.038 (.024)
Interested in financial matters		0.121 *** (.026)		0.096 *** (.023)		0.154 *** (.024)		0.070 ** (.033)
Saves enough (self-reported)		0.097 *** (.022)		0.102 *** (.020)		0.108 *** (.024)		0.092 *** (.021)
Village fixed effects	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
N	3057	2818	3057	2818	3057	2818	1876	1737

**Table IV**  
**Experimental Sample, Indonesia**

This table reports sample summary statistics and tests of random treatment assignment for an experiment testing the effect of offering financial literacy training and financial incentives on respondents' decision to open a bank account. Panel A gives sample size and the mean of the outcome group by treatment status. Panel B provides tests of random assignment. The  $p$ -values column (3) reports the statistical significance of a test for difference between the mean of invited and non-invited individuals; the  $p$ -values column (7) corresponds to a joint test of significant differences between medium and low, and high and low, incentive categories. Standard errors are adjusted for clustering at the village level. \*\*\* indicates statistical significance at the 1% level, \*\* at the 5% level, and \* at the 10% level.

**Panel A: Summary Statistics**

	N	Percent	Opened Bank Account	
			N	Percent
	(1)	(2)	(3)	(4)
Surveyed Individuals	1230			
Of whom, No Bank Account	736	60%		
Of whom, participated in experiment	564	77%	49	9%
Incentive Treatment				
Low Incentive (\$3)	170	30%	6	4%
Medium Incentive (\$8)	190	34%	17	9%
High Incentive (\$14)	204	36%	26	13%
Literacy Treatment				
Invited to Financial Literacy Training	274	49%	21	8%
Not Invited to Financial Literacy Training	290	51%	28	10%

**Panel B: Test of Random Assignment**

	Invited	Not Invited	$p$ -value	Low	Medium	High	$p$ -value
	(1)	(2)	(3)	(4)	(5)	(6)	(7)
Rural Household	0.58	0.53	0.053 *	0.57	0.53	0.55	0.591
Female	0.55	0.50	0.287	0.54	0.50	0.53	0.681
Age	41.84	40.55	0.302	40.76	40.72	41.95	0.554
Married	0.87	0.85	0.529	0.88	0.86	0.85	0.710
Muslim	0.97	0.99	0.102	0.99	0.98	0.98	0.662
Family Size	2.73	2.82	0.446	2.73	2.76	2.82	0.756
Attended School	0.90	0.90	0.916	0.89	0.93	0.88	0.134
Log of Consumption Expenditure	17.26	17.32	0.332	17.18	17.33	17.35	0.213
Employed	0.68	0.69	0.792	0.65	0.67	0.72	0.367
Financial Literacy Score	0.46	0.51	0.039 **	0.49	0.49	0.48	0.821
Cognitive / Math Skills Score	0.79	0.80	0.408	0.78	0.80	0.79	0.727
Believe Household Saves Enough	0.43	0.49	0.101	0.45	0.47	0.47	0.846
Interested in Financial Matters	0.72	0.72	0.867	0.69	0.73	0.73	0.626



**Table V**  
**Experimental Results: The Effect of Financial Literacy Education and Incentives on Bank Account Opening**

This table reports the results from a randomized experiment measuring the effect of offering financial literacy training and financial incentives on respondents' decision to open a bank account. The dependent variable is an indicator for whether the respondent opened a bank account. A linear probability model is used. Standard errors, clustered at the village level, are given in parentheses beneath each point estimate. \*\*\*, \*\* indicates statistical significance at the 1% level, \*\* at the 5% level, and \* at the 10% level.

	(1)	(2)	(3)	(4)	(5)	(6)
Financial Literacy Invitation?	-0.020 (0.027)	-0.022 (0.028)			0.022 (0.028)	0.029 (0.034)
Incentive==75000			0.054 ** (0.024)	0.048 * (0.026)	0.065 * (0.036)	0.066 * (0.037)
Incentive==125000			0.092 *** (0.026)	0.088 *** (0.029)	0.136 *** (0.036)	0.137 *** (0.033)
(Incentive==75000) * Financial Literacy Invitation					-0.021 (0.047)	-0.036 (0.052)
(Incentive==125000) * Financial Literacy Invitation					-0.090 (0.057)	-0.101 (0.062)
Constant	0.097 *** (0.017)	-0.444 (0.306)	0.035 ** (0.014)	-0.447 (0.308)	0.024 (0.017)	-0.455 (0.303)
Household Controls		YES		YES		YES
Observations	564	564	564	564	564	564
R-squared	0.001	0.068	0.018	0.082	0.023	0.089

Table VI

**Experimental Results: Heterogeneous Effects of Financial Literacy Education and Incentives on Opening of Bank Accounts**

This table reports the results from a randomized experiment measuring the effect of offering financial literacy training and financial incentives on respondents' decision to open a bank account. The dependent variable is an indicator for whether the respondent opened a bank account. Columns (1) and (2) include main effects and interaction terms for households with no formal schooling. Columns (3) and (4) include main effects and interaction terms for households who initially scored below the median level of financial literacy. A linear probability model is used. Standard errors, clustered at the village level, are given in parentheses beneath each point estimate. \*\*\* indicates statistical significance at the 1% level, \*\* at the 5% level, and \* at the 10% level.

	(1)	(2)	(3)	(4)
Financial Literacy Invitation?	-0.032 (0.029)	-0.031 (0.030)	-0.049 (0.034)	-0.048 (0.036)
Incentive==75000	0.061 ** (0.028)	0.057 ** (0.029)	0.06 (0.039)	0.051 (0.040)
Incentive==125000	0.099 *** (0.027)	0.091 *** (0.030)	0.1 *** (0.030)	0.098 *** (0.034)
Unschoolled	-0.055 (0.050)	-0.067 (0.068)		
Unschoolled * Financial Literacy Invitation	0.155 ** (0.068)	0.139 * (0.071)		
Unschoolled * Incentive==75000	-0.135 * (0.071)	-0.131 * (0.072)		
Unschoolled * Incentive==125000	-0.062 (0.084)	-0.036 (0.093)		
Below Median Financial Literacy			-0.076 ** (0.037)	-0.056 (0.050)
Below Median Financial Literacy * Financial Literacy Invitation			0.100 ** (0.044)	0.087 ** (0.043)
Below Median Financial Literacy * Incentive==75000			-0.016 (0.060)	-0.008 (0.058)
Below Median Financial Literacy * Incentive==125000			-0.024 (0.049)	-0.031 (0.055)
Constant	0.05 ** (0.020)	-0.377 (0.325)	0.067 ** (0.027)	-0.377 (0.331)
Household Controls		YES		YES
Observations	564	564	564	564
R-squared	0.029	0.09	0.03	0.089

**Table VII**  
**Instrumental Variable Estimates of Experiment and Heterogeneous Treatment Effects**

This table reports instrumental variable estimates of the effect of offering financial literacy training and financial incentives on respondents' decision to open a bank account. The dependent variable is an indicator for whether the respondent opened a bank account. Financial Literacy Attendance is instrumented for with assignment of a financial literacy invitation. Columns (1) and (2) include main effects. Columns (3) and (4) include main effects and interaction terms for households with no formal schooling. Columns (5) and (6) include main effects and interaction terms for households who initially scored below the median level of financial literacy. A linear probability model is used. Standard errors, clustered at the village level, are given in parentheses beneath each point estimate. \*\*\*, \*\* indicates statistical significance at the 1% level, \*\* at the 5% level, and \* at the 10% level.

	(1)	(2)	(3)	(4)	(5)	(6)
Attended Financial Literacy Program	-0.033 (0.049)	-0.036 (0.051)	-0.056 (0.050)	-0.059 (0.053)	-0.081 (0.056)	-0.078 (0.057)
Incentive==75000	0.053 ** (0.024)	0.047 * (0.025)	0.06 ** (0.027)	0.051 * (0.029)	0.057 (0.039)	0.049 (0.038)
Incentive==125000	0.092 *** (0.026)	0.088 *** (0.027)	0.099 *** (0.026)	0.089 *** (0.029)	0.103 *** (0.030)	0.101 *** (0.034)
Unschooling			-0.159 (0.154)	-0.166 (0.153)		
Unschooling * Attended Financial Literacy Program			0.544 (0.468)	0.489 (0.403)		
Unschooling * Incentive==75000			-0.168 (0.113)	-0.149 (0.103)		
Unschooling * Incentive==125000			-0.199 (0.125)	-0.149 (0.107)		
Below Median Financial Literacy					-0.115 ** (0.058)	-0.084 (0.060)
Below Median Financial Literacy * Attended Financial Literacy Program					0.206 ** (0.104)	0.172 * (0.094)
Below Median Financial Literacy * Incentive==75000					-0.013 (0.059)	-0.006 (0.056)
Below Median Financial Literacy * Incentive==125000					-0.027 (0.053)	-0.032 (0.056)
Constant	0.05 ** (0.024)	-0.404 (0.312)	0.058 ** (0.026)	-0.426 (0.331)	0.077 ** (0.032)	-0.391 (0.317)
Household Controls		YES		YES		YES
Observations	564	564	564	564	564	564

**Table VIII**  
**Follow-Up Results: The Long-Run Persistence of Financial Literacy Education and Incentives on Bank Account Opening**

This table reports results from a follow-up survey two years after the financial literacy education and incentives intervention, conducted among participants in villages where a household opened a bank account immediately after the intervention. The dependent variable is an indicator for whether a respondent opened a bank account immediately after the intervention and still has the bank account two years later. The sample includes all households which were successfully interviewed in the follow-up survey. A linear probability model is used. Standard errors, clustered at the village level, are given in parentheses beneath each point estimate. \*\*\* indicates statistical significance at the 1% level, \*\* at the 5% level, and \* at the 10% level.

	(1)	(2)	(3)	(4)	(5)	(6)
Financial Literacy Invitation?	-0.041 (0.028)	-0.044 (0.029)			0.011 (0.032)	0.019 (0.041)
Incentive==75000			0.043 (0.031)	0.058 * (0.034)	0.063 (0.048)	0.09 * (0.048)
Incentive==125000			0.092 *** (0.032)	0.088 ** (0.035)	0.127 *** (0.046)	0.123 *** (0.047)
(Incentive==75000) * Financial Literacy Invitation					-0.041 (0.069)	-0.068 (0.074)
(Incentive==125000) * Financial Literacy Invitation					-0.083 (0.061)	-0.086 (0.068)
Constant	0.094 *** (0.019)	-0.831 ** (0.319)	0.028 * (0.015)	-0.872 *** (0.300)	0.021 (0.021)	-0.866 *** (0.300)
Household Controls		YES		YES		YES
Observations	349	349	349	349	349	349
R-squared	0.006	0.1	0.02	0.111	0.028	0.119

Table IX

**Long-Run Persistence: Heterogenous Effects of Incentives and Financial Literacy Education on Bank Account Opening**

This table reports results from a follow-up survey two years after the financial literacy education and incentives intervention, conducted among participants in villages where a household opened a bank account immediately after the intervention. The dependent variable is an indicator for whether a respondent opened a bank account immediately after the intervention and still has the bank account two years later. Columns (1) and (2) include main effects and interaction terms for households with no formal schooling. Columns (3) and (4) include main effects and interaction terms for households who initially scored below the median level of financial literacy. The sample includes all households which were successfully interviewed in the follow-up survey. A linear probability model is used. Standard errors, clustered at the village level, are given in parentheses beneath each point estimate. \*\*\* indicates statistical significance at the 1% level, \*\* at the 5% level, and \* at the 10% level.

	(1)	(2)	(3)	(4)
Financial Literacy Invitation?	-0.042 (0.03)	-0.038 (0.03)	-0.076 * (0.04)	-0.071 * (0.04)
Incentive==75000	0.05 (0.04)	0.065 * (0.04)	0.055 (0.05)	0.058 (0.05)
Incentive==125000	0.103 *** (0.03)	0.096 *** (0.04)	0.082 ** (0.04)	0.073 * (0.04)
Unschoolled	-0.006 (0.05)	0.003 (0.06)		
Unschoolled * Financial Literacy Invitation	0.1 (0.07)	0.058 (0.07)		
Unschoolled * Incentive==75000	-0.125 (0.08)	-0.101 (0.09)		
Unschoolled * Incentive==125000	-0.158 ** (0.06)	-0.122 * (0.07)		
Below Median Financial Literacy			-0.081 * (0.04)	-0.106 * (0.06)
Below Median Financial Literacy * Financial Literacy Invitation			0.14 ** (0.06)	0.114 * (0.06)
Below Median Financial Literacy * Incentive==75000			-0.056 (0.06)	-0.018 (0.06)
Below Median Financial Literacy * Incentive==125000			-0.003 (0.06)	0.009 (0.07)
Constant	0.045 * (0.02)	-0.793 *** (0.31)	0.072 ** (0.03)	-0.733 *** (0.32)
Household Controls		YES		YES
Observations	349	349	349	349
R-squared	0.037	0.119	0.044	0.126

**Table X**  
**Long-Run Effects of Financial Literacy Education and Incentives on Savings**

This table reports results from a follow-up survey two years after the financial literacy education and incentives intervention, conducted among participants in villages where a household opened a bank account immediately after the intervention. The dependent variable is an indicator for whether the household currently has any savings. The sample includes all households which were successfully interviewed in the follow-up survey. A linear probability model is used. Standard errors, clustered at the village level, are given in parentheses beneath each point estimate. \*\*\* indicates statistical significance at the 1% level, \*\* at the 5% level, and \* at the 10% level.

	(1)	(2)	(3)	(4)	(5)	(6)
Financial Literacy Invitation?	0.008 (0.040)	0.041 (0.044)			-0.104 (0.064)	-0.037 (0.061)
Incentive==75000			0.031 (0.060)	-0.011 (0.059)	-0.023 (0.068)	-0.016 (0.069)
Incentive==125000			0.007 (0.057)	-0.03 (0.061)	-0.105 (0.083)	-0.116 (0.078)
(Incentive==75000) * Financial Literacy Invitation					0.092 (0.094)	0.013 (0.100)
(Incentive==125000) * Financial Literacy Invitation					0.231 ** (0.116)	0.205 ** (0.105)
Constant	0.311 *** (0.047)	-0.888 (0.590)	0.303 *** (0.053)	-0.851 (0.586)	0.362 *** (0.070)	-0.92 (0.612)
Household Controls		YES		YES		YES
Observations	349	349	349	349	349	349
R-squared	0.000	0.177	0.001	0.176	0.011	0.188

**Internet Appendix to "Prices or Knowledge? What Drives Demand for  
Financial Services in Emerging Markets?"**

This internet appendix contains Tables IA.I through IA.VIII that are referenced in the journal article. In addition, the internet appendix contains the survey questionnaire used for our household surveys.

Citation format: [Authors], [year], Internet Appendix to "Prices or Knowledge? What Drives Demand for Financial Services in Emerging Markets?" Journal of Finance [vol #], [pages], [http://www.afajof.org/IA/\[year\].asp](http://www.afajof.org/IA/[year].asp). Please note: Wiley-Blackwell is not responsible for the content or functionality of any supporting information supplied by the authors. Any queries (other than missing material) should be directed to the authors of the article.

**Table IA.I**  
**Summary Statistics**

This table reports summary statistics on demographics and wealth for participants in two household surveys conducted by the authors, one in India, one in Indonesia. The Indonesian sample is nationally representative, while the Indian survey consists of a study of rural farmers in the state of Gujarat.

	Indonesia									
	India					Indonesia				
	Median	Mean	Sd	N	Median	Unweighted Mean	Sd	N	Weighted Mean	Sd
<b>Household Characteristics</b>										
Household Size	6.0	5.9	2.5	1,500	3.0	3.0	1.4	3,360	2.9	1.3
Household Rural		100%		1,500		59%		3,360	58%	
Household head years of schooling	3.0	3.7	4.0	1,492						
Household has phone		14%		1,497		70%		3,360	81%	
Household has non-farm enterprise		6%		1,499		39%		3,360	39%	
<b>Respondent Characteristics</b>										
Bahasa speaker						79%		3,360	74%	
Female		54%		1,498		51%		3,360	50%	
Married		88%		1,499		83%		3,360	83%	
Muslim		9%		1,499		87%		3,360	93%	
Age	40.0	41.2	11.7	1,497	40.0	42.2	14.3	3,360	43.3	14.3
Attended school		58%		1,497		91%		3,360	89%	
Completed primary school		41%		1,493		79%		3,057	80%	
Completed high school		3%		1,493		33%		3,057	33%	
Beyond high school education		2%		1,493		9%		3,057	10%	
Employed		61%		1,498		75%		3,360	73%	
Discount factor	0.73	0.79	0.14	1,486	0.80	0.64	0.32	3,076	0.64	0.31
Risk averse		19%		1,493		35%		3,360	36%	
Fatalist	0.50	0.53	0.25	1,433	0.67	0.62	0.29	3,360	0.60	0.30
Interested in financial matters						78%		3,360	74%	
Saves enough (self-reported)						53%		3,360	54%	
Mean cognitive ability score (out of 8)	5.0	4.9	2.4	1,468		6.3	1.8	3,360	6.5	1.8
<b>Household Wealth and Income</b>										
Monthly per capita Expenditure (USD, 2007)	\$21	\$30	\$39	1,499	\$58	\$89	\$103	3,360	\$90	\$106
Main income from agriculture		64%		1,500		40%		2,504	36%	
Main income from wage labor		23%		1,500		43%		2,504	49%	
Main income from own enterprise		4%		1,500						
Total Annual Household Income (USD, 2007)	\$484	\$674	\$698	1,499	\$399	\$1,282	\$3,700	3,359	\$ 1,315	\$3,798
Household owns land		48%		1,499		84%		3,360	84%	
Household has electricity		72%		1,491		94%		3,360	98%	
Household has tap water		47%		1,499		19%		3,360	23%	
Household has livestock, cattle, birds etc.		62%		1,497		94%		3,360	42%	



**Table IA.II**

**Household Financial Situation**

This table reports data on use of financial services and household assets and liabilities for household survey respondents in India and Indonesia. The Indonesian sample is nationally representative. For each country, the table gives the mean response to each question, as well as the mean for households who exhibit below median financial literacy, and the mean for households who exhibit above median level of financial literacy. Figures in parentheses indicate standard deviation. The final column gives the difference between the two groups. \*\*\* indicates that the difference is statistically significant at the 1% level, \*\* at the 5% level, and \* at the 10% level.

	India			Indonesia			
	All	Financial Literacy		All	Financial Literacy		
		Below Median	Above Median		Difference	Below Median	Above Median
Household has a bank account	12%	5%	15%	41%	24%	47%	23% ***
Household has advanced savings instruments (e.g. CDs, mutual fund)				13%	5%	20%	15% ***
Household has savings with non-bank institution	55%	51%	60%	51%	38%	62%	25% ***
Total household savings (USD, 2007)	31 (151)	15 (40)	41 (213)	26 **			
Household has a formal sector loan	13%	10%	15%	25%	13%	29%	16% ***
Household has an informal loan	64%	62%	66%	52%	45%	56%	11% ***
Total household indebtedness (USD, 2007)	906 (8,899)	448 (818)	1303 (13,154)	875 (5,761)	310 (2,599)	1177 (6,328)	867 ***
Mean Household Indebtedness/Annual Income	1.7 (10.2)	1.3 (2.7)	2.1 (14.8)	4.0 (90.9)	1.9 (48.0)	3.7 (58.0)	1.8
Household has any insurance program	64%	60%	69%	49%	37%	53%	16% ***
Household has health insurance	61%	59%	65%	34%	26%	37%	11% ***
Household has crop insurance	3%	1%	5%	26%	14%	31%	17% ***
Household has asset/homeowner's insurance	57%	56%	59%	26%	14%	31%	17% ***
N	1,496	384	679	3,360	1,104	1,170	

**Table IA.III**  
**Predictors of Financial Participation**

This table reports the results from OLS regressions estimating which household characteristics predict use of financial services by household survey respondents in India and Indonesia. The Indonesian sample is nationally representative. Standard errors, clustered at the village level, are given in parentheses beneath each point estimate. \*\*\* indicates statistical significance at the 1% level, \*\* at the 5% level, and \* at the 10% level.

Household has:	Bank account		Formal Loan		Informal Loan		Insurance	
	India (1)	Indonesia (2)	India (3)	Indonesia (4)	India (5)	Indonesia (6)	India (7)	Indonesia (8)
Financial literacy score	0.000 (.011)	0.020 ** (.008)	0.019 (.012)	0.002 (.006)	0.012 (.016)	0.014 (.009)	0.032 ** (.016)	0.000 (.009)
Per capita expenditure	0.027 * (.015)	0.187 *** (.018)	0.066 *** (.017)	0.096 *** (.012)	0.018 (.025)	0.064 *** (.016)	0.031 (.024)	0.093 *** (.015)
Bahasa		0.049 ** (.023)		0.017 (.021)		0.009 (.031)		0.028 (.030)
Female	0.014 (.021)	0.047 *** (.017)	0.032 (.025)	0.025 * (.014)	-0.008 (.034)	-0.016 (.022)	0.031 (.032)	0.005 (.021)
Age	0.002 (.004)	0.001 (.003)	0.014 *** (.005)	0.002 (.002)	0.006 (.006)	-0.006 * (.003)	0.005 (.007)	-0.006 (.004)
Age squared	0.0000 (0.0000)	0.0000 (0.0000)	-0.0001 ** (0.0000)	0.0000 (0.0000)	-0.0001 (0.0000)	0.0000 (0.0000)	0.0000 (0.0000)	0.0001 * (0.0000)
Non-farm enterprise	0.006 (.035)	0.050 *** (.019)	0.019 (.046)	0.042 *** (.015)	-0.045 (.060)	0.022 (.022)	0.058 (.058)	0.018 (.020)
Married	0.055 ** (.022)	-0.001 (.022)	0.014 (.034)	0.027 (.018)	-0.045 (.045)	0.071 ** (.029)	-0.009 (.048)	0.005 (.026)
Muslim	-0.055 * (.031)	0.053 (.050)	0.084 (.053)	0.068 * (.040)	-0.156 *** (.060)	0.028 (.052)	-0.052 (.064)	0.030 (.060)
Household size	0.007 (.005)	0.060 *** (.007)	0.022 *** (.005)	0.033 *** (.006)	0.007 (.006)	0.019 ** (.008)	0.000 (.007)	0.054 *** (.007)
Completed primary school	0.070 *** (.026)	0.038 ** (.019)	0.043 * (.023)	0.026 * (.015)	-0.065 * (.037)	-0.044 (.027)	0.018 (.038)	0.031 (.026)
Completed high school	0.063 (.102)	0.161 *** (.024)	0.173 (.108)	0.049 *** (.017)	-0.289 *** (.106)	-0.025 (.024)	0.276 *** (.080)	0.107 *** (.021)
Beyond high school education	0.093 (.137)	0.145 *** (.032)	-0.032 (.129)	0.161 *** (.033)	0.050 (.140)	-0.064 * (.035)	-0.156 * (.094)	0.151 *** (.037)
Cognitive ability	0.005 (.006)	0.006 (.005)	0.004 (.005)	0.011 *** (.004)	0.000 (.008)	-0.004 (.007)	0.016 * (.008)	0.011 * (.006)
Discount factor	-0.048 (.064)	0.011 (.026)	-0.044 (.070)	-0.046 ** (.022)	-0.064 (.104)	-0.055 * (.029)	0.081 (.104)	0.025 (.024)
Risk averse	0.011 (.023)	0.032 * (.016)	-0.013 (.021)	0.028 * (.015)	0.031 (.034)	0.007 (.020)	0.007 (.037)	0.021 (.017)
Fatalist	0.035 (.044)	-0.083 *** (.029)	0.029 (.042)	-0.010 (.022)	0.014 (.059)	0.051 (.034)	0.093 * (.052)	-0.041 (.032)
Interested in financial matters		0.015 (.019)		0.012 (.016)		0.092 *** (.027)		0.010 (.022)
Village fixed effects	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
N	1365	2818	1369	2818	1369	2818	1363	2818

**Table IA.IV**  
**Attitudes towards Bank Accounts and Use of Financial Services, Indonesia**

This table reports attitudes towards use of financial services, and how these attitudes are correlated with financial literacy levels, among household survey respondents in Indonesia. The sample is nationally representative. \*\*\* indicates statistical significance at the 1% level, \*\* at the 5% level, and \* at the 10% level.

	Sample	Mean	Correlation with Financial Literacy
Reasons for having bank account	Has bank account (N=1207)		
Security		53%	0.06 **
For predicted future needs		42%	0.02
Transfer money		37%	0.02
For emergency needs		31%	0
Access other financial services		26%	0.15 ***
To be able to borrow money		17%	-0.05 *
Reasons for not having bank account	No bank account (N=2153)		
Not enough money		92%	0
Do not know how bank operates		32%	-0.07 ***
Do not have a job		20%	-0.04 *
No advantage to having bank account		16%	0.1 ***
Bank staff rude or unhelpful		15%	0.1 ***
Household used to have bank account	No bank account (N=2153)	29%	0.23 ***
Reason stopped using bank account	Used to have account (N=544)		
Not enough money		71%	0.05
Became unemployed		10%	-0.13 ***
No advantage to having bank account		4%	0.03
Know location of nearest bank branch	No bank account (N=2152)	76%	0.31 ***
Know requirements to open bank account	No bank account (N=2153)	31%	0.24 ***
Does household save enough for the future?	All (N=3360)	54%	0.15 ***
Limits on household's ability to save	Not save enough (N=1574)		
Claims of relatives		0%	0.01
Failure to control spending		23%	0.14 ***
Debts to pay		10%	0.07 ***
No money to save		76%	-0.1 ***
Prefer to purchase assets		2%	0.05 *
Irregular income		31%	0.02 *
Reasons for not having any insurance	No insurance (N=1460)		
Insurance term too long		1%	0.06 **
Premium too expensive		6%	0.08 ***
Do not know about any insurance product		38%	-0.09 ***
Do not think need it		23%	0.02
Not enough money		59%	-0.04 *
Most important risks to financial well being	All (N=3360)		
Illness		79%	-0.07 ***
Loss of formal/informal employment		56%	0.06 ***
Loss of/damage to dwelling		33%	-0.01
Business perform poorly		30%	0.08 ***
Death		28%	0.01
Harvest fails		26%	-0.17 ***
Natural disaster		24%	0.11 ***
Loss of/damage to vehicle		12%	0.05 ***
Loss of/damage to cattle		6%	-0.11 ***

**Table IA.V**  
**Predictors of Financial Literacy (Full Regression Results)**

This table reports the results from OLS regressions predicting measured financial literacy among household survey respondents in India and Indonesia. Financial literacy is measured by a series of questions about compounding, interest rates, and risk diversification. The Indonesian sample is nationally representative, and weighted by sampling weights. The Indian regressions are unweighted. Standard errors, clustered at the village level, are given in parentheses beneath each point estimate. \*\*\*, \*\* indicates statistical significance at the 1% level, \*\* at the 5% level, and \* at the 10% level.

Dependent variable:	Financial Literacy Score							
	India				Indonesia			
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
Per capita expenditure	0.073 * (0.040)	0.079 * (0.041)	0.080 * (0.041)	0.051 (0.043)	0.074 * (0.040)	0.087 ** (0.042)	0.071 * (0.042)	0.100 ** (0.047)
Bahasa					0.073 (0.055)	0.075 (0.057)	0.080 (0.057)	0.033 (0.067)
Rural household					-0.152 *** (0.051)	-0.195 *** (0.053)	-0.196 *** (0.053)	
Female	-0.077 (0.059)	-0.090 (0.061)	-0.096 (0.061)	-0.074 (0.061)	-0.110 ** (0.050)	-0.123 ** (0.052)	-0.130 ** (0.051)	-0.135 *** (0.051)
Age	0.022 ** (0.011)	0.027 ** (0.011)	0.027 ** (0.011)	0.020 * (0.011)	0.021 ** (0.010)	0.020 ** (0.010)	0.022 ** (0.010)	0.012 (0.010)
Age squared	-0.0002 ** (0.0000)	-0.0003 ** (0.0000)	-0.0003 ** (0.0000)	-0.0002 * (0.0000)	-0.0002 ** (0.0000)	-0.0002 ** (0.0000)	-0.0003 ** (0.0000)	-0.0002 * (0.0000)
HH has non-farm enterprise	-0.065 (0.105)	-0.040 (0.108)	-0.041 (0.107)	-0.096 (0.108)	0.112 ** (0.051)	0.129 ** (0.052)	0.136 *** (0.050)	0.114 ** (0.054)
Married	-0.030 (0.080)	-0.040 (0.082)	-0.046 (0.083)	-0.032 (0.080)	-0.079 (0.076)	-0.111 (0.079)	-0.094 (0.076)	-0.075 (0.077)
Muslim	0.048 (0.094)	0.076 (0.096)	0.074 (0.097)	0.187 * (0.104)	0.102 (0.102)	0.101 (0.109)	0.010 (0.106)	-0.104 (0.155)
Household size	0.013 (0.010)	0.014 (0.011)	0.013 (0.011)	0.013 (0.011)	-0.016 (0.018)	-0.020 (0.018)	-0.024 (0.018)	-0.001 (0.019)
Completed primary school	-0.007 (0.063)	-0.034 (0.064)	-0.035 (0.064)	0.143 ** (0.068)	0.165 ** (0.067)	0.127 * (0.068)	0.128 * (0.068)	0.070 (0.071)
Completed high school	0.201 (0.228)	0.254 (0.243)	0.253 (0.239)	0.148 (0.196)	0.022 (0.066)	-0.019 (0.071)	-0.020 (0.069)	-0.072 (0.071)
Beyond high school education	-0.230 (0.267)	-0.291 (0.283)	-0.301 (0.275)	-0.059 (0.243)	0.352 *** (0.101)	0.370 *** (0.106)	0.329 *** (0.103)	0.264 ** (0.106)
Cognitive ability	0.223 *** (0.013)	0.226 *** (0.013)	0.225 *** (0.013)	0.187 *** (0.014)	0.234 *** (0.017)	0.233 *** (0.018)	0.224 *** (0.018)	0.191 *** (0.019)
Discount factor			-0.146 (0.185)	-0.034 (0.184)			0.002 (0.076)	0.012 (0.077)
Risk averse			-0.037 (0.068)	0.026 (0.065)			-0.075 (0.055)	-0.062 (0.056)
Fatalist			-0.268 *** (0.100)	-0.232 ** (0.099)			-0.398 *** (0.084)	-0.377 *** (0.084)
Interested in financial matters							0.022 (0.062)	0.050 (0.062)
Saves enough (self-reported)							-0.057 (0.050)	-0.101 * (0.052)
Village fixed effects	No	No	No	Yes	No	No	No	Yes
N	1450	1369	1369	1369	3057	2818	2818	2818

Table IA.VI

**Demand for Financial Products, Indonesia (Full Regression Results)**

This table reports demand for financial products by household survey respondents in Indonesia. The sample is nationally representative. Panel A gives average reported demand for each service, while Panel B reports OLS regressions relating individual characteristics to product demand. Standard errors, clustered at the village level, are given in parentheses beneath each point estimate. \*\*\* indicates statistical significance at the 1% level, \*\* at the 5% level, and \* at the 10% level.

**Panel A: Summary Statistics**

	Indonesia		
	Sample	Mean	N
Demand for savings products			
Interested in commitment savings product	All	43%	3360
Interested in using deposit collector	All	25%	3359
Interested in retirement savings product	All	50%	3360
Open account if fees cut 50%	No bank account	37%	2153
Open account if fees cut 100%	No bank account	58%	2153
Would attend financial literacy training	No bank account	74%	2153

**Panel B: Determinants of Demand for Financial Products**

Demand for:	Commitment savings		Deposit Collector		Retirement savings		Literacy training	
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
Financial literacy score	0.028 *** (.010)	0.025 ** (.010)	0.024 *** (.009)	0.026 *** (.010)	0.037 *** (.010)	0.033 *** (.011)	0.019 * (.010)	0.014 (.011)
Has bank account	-0.012 (.026)	-0.018 (.026)	-0.051 ** (.020)	-0.065 *** (.021)	0.087 *** (.025)	0.074 ** (.029)		
Per capita expenditure	0.058 *** (.015)	0.043 *** (.016)	0.030 ** (.014)	0.025 (.015)	0.073 *** (.017)	0.067 *** (.019)	0.061 *** (.021)	0.051 ** (.021)
Bahasa	0.072 ** (.034)	0.078 ** (.037)	0.001 (.030)	0.000 (.030)	0.027 (.036)	0.012 (.040)	0.040 (.036)	0.017 (.038)
Female	0.007 (.019)	0.009 (.021)	-0.021 (.018)	-0.013 (.017)	0.031 (.020)	0.030 (.019)	-0.022 (.019)	-0.025 (.020)
Age	0.005 (.004)	0.005 (.004)	0.003 (.003)	0.004 (.003)	0.003 (.004)	0.002 (.004)	0.010 ** (.004)	0.007 * (.004)
Age squared	-0.0001 ** (0.0000)	-0.0001 *** (0.0000)	-0.0001 (0.0000)	-0.0001 (0.0000)	-0.0001 * (0.0000)	-0.0001 (0.0000)	-0.0002 *** (0.0000)	-0.0001 *** (0.0000)
HH has non-farm enterprise	0.012 (.020)	0.010 (.020)	0.025 (.018)	0.021 (.019)	-0.044 ** (.018)	-0.048 ** (.02)	-0.022 (.022)	-0.025 (.021)
Married	0.091 *** (.024)	0.085 *** (.024)	-0.014 (.026)	-0.034 (.028)	0.005 (.025)	-0.008 (.024)	0.029 (.034)	0.021 (.035)
Muslim	0.025 (.049)	0.021 (.047)	-0.020 (.036)	-0.008 (.036)	0.038 (.046)	0.049 (.046)	-0.042 (.059)	-0.050 (.052)
Household size	0.017 ** (.007)	0.017 *** (.007)	0.011 (.007)	0.012 (.007)	0.013 * (.007)	0.013 * (.007)	0.015 (.010)	0.015 (.010)
Completed primary school	0.027 (.025)	0.029 (.025)	0.015 (.024)	0.011 (.025)	0.021 (.028)	0.022 (.027)	0.024 (.025)	0.017 (.025)
Completed high school	-0.017 (.024)	-0.023 (.025)	-0.057 ** (.026)	-0.066 ** (.026)	0.008 (.026)	-0.006 (.026)	0.028 (.030)	0.015 (.032)
Beyond high school education	0.026 (.032)	0.030 (.034)	-0.016 (.031)	-0.010 (.034)	0.053 * (.032)	0.048 (.033)	0.036 (.075)	0.030 (.082)
Cognitive ability	0.007 (.006)	0.002 (.007)	-0.007 (.007)	-0.010 (.008)	-0.006 (.007)	-0.012 * (.007)	0.005 (.007)	0.003 (.007)
Discount factor		0.076 ** (.030)		0.076 *** (.026)		0.030 (.033)		0.054 * (.032)
Risk averse		-0.037 * (.020)		-0.027 * (.016)		-0.030 (.023)		-0.038 (.024)
Fatalist		0.082 ** (.038)		0.113 *** (.033)		0.065 * (.040)		0.095 ** (.037)
Interested in financial matters		0.121 *** (.026)		0.096 *** (.023)		0.154 *** (.024)		0.070 ** (.033)
Saves enough (self-reported)		0.097 *** (.022)		0.102 *** (.020)		0.108 *** (.024)		0.092 *** (.021)
Village fixed effects	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
N	3057	2818	3057	2818	3057	2818	1876	1737

**Table IA.VII****Determinants of Participation in Field Experiment**

This table reports the characteristics of households which elected to participate in the randomized experiment, and those which chose not to participate. Household characteristics are from the household survey that was offered prior to the invitation to participate in the study. \*\*\* indicates that the difference is statistically significant at the 1% level, \*\* at the 5% level, and \* at the 10% level.

	<b>Participants</b>	<b>Non-Participants</b>	<b>Difference</b>
Rural Household	0.55	0.73	0.17 **
Female	0.52	0.53	0.01
Age	41.19	44.85	3.66 **
Married	0.86	0.76	-0.10 ***
Household Size	2.77	2.82	0.05
Attended School	0.90	0.78	-0.12 ***
Log of Consumption Expenditure	17.29	17.15	-0.14
Employed	0.68	0.70	0.02
Own House	0.72	0.77	0.05
Financial Literacy Score	0.48	0.39	-0.09 ***
Cognitive / Math Skills Score	0.79	0.67	-0.12 ***
Consistent Preferences	0.73	0.71	-0.02
Believe Household Saves Enough	0.47	0.35	-0.11 **
Interested in Financial Matters	0.72	0.62	-0.09 **

**Table IA.VIII**  
**Long-Run Effects of Financial Literacy Education and Incentives on Bank Account Opening**

This table reports results from a follow-up survey two years after the financial literacy education and incentives intervention, conducted among participants in villages where a household opened a bank account immediately after the intervention. The dependent variable is an indicator for whether the respondent opened a bank account within two years of the intervention. The sample includes all households which were successfully interviewed in the follow-up survey. A linear probability model is used. Standard errors, clustered at the village level, are given in parentheses beneath each point estimate. \*\*\* indicates statistical significance at the 1% level, \*\* at the 5% level, and \* at the 10% level.

	(1)	(2)	(3)	(4)	(5)	(6)
Financial Literacy Invitation?	0.009 (0.044)	0.021 (0.048)			0.066 (0.074)	0.076 (0.085)
Incentive==75000			0.054 (0.052)	0.06 (0.042)	0.093 (0.068)	0.103 (0.069)
Incentive==125000			0.121 *** (0.046)	0.102 ** (0.043)	0.156 ** (0.061)	0.134 ** (0.065)
(Incentive==75000) * Financial Literacy Invitation					-0.068 (0.111)	-0.074 (0.110)
(Incentive==125000) * Financial Literacy Invitation					-0.061 (0.096)	-0.046 (0.100)
Constant	0.222 *** (0.030)	-1.297 ** (0.519)	0.165 *** (0.033)	-1.25 ** (0.517)	0.128 *** (0.044)	-1.335 ** (0.553)
Household Controls		YES		YES		YES
Observations	349	349	349	349	349	349
R-squared	0.000	0.13	0.014	0.139	0.016	0.142

SUPERVISOR _____ EDITOR _____	<b>CONFIDENTIAL</b>
IDRT _____	

INTERVIEWER \_\_\_\_\_

## INDONESIA ACCESS TO FINANCE SURVEY

SECTIONS : A, B, C, D, E, F, G, H, I, J, K, L, M, N, O

NAME OF HEAD OF HOUSEHOLD \_\_\_\_\_

NAME OF RESPONDENT \_\_\_\_\_

Number of visit : \_\_\_\_\_

	INTERVIEW I	INTERVIEW II	INTERVIEW III
DATE:	____/____/____ DAY/MONTH/YEAR	____/____/____ DAY/MONTH/YEAR	____/____/____ DAY/MONTH/YEAR
TIME AT START OF INTERVIEW:	____/____ HOUR/MINUTE AM/PM	____/____ HOUR/MINUTE AM/PM	____/____ HOUR/MINUTE AM/PM
TIME AT END OF INTERVIEW:	____/____ HOUR/MINUTE AM/PM	____/____ HOUR/MINUTE AM/PM	____/____ HOUR/MINUTE AM/PM
INTERVIEW STATUS:	____	____	____

	4. MONITORING BY SUPERVISOR	5. EDIT STATUS BY EDITOR	6. STATUS DATA ENTRI
3. INTERVIEW STATUS CODE			
1. Completed	Yes	No	1. Entered, no correction necessary
2. Partially Completed _____	1	3	2. Entered and corrected
3. Refused _____	1	3	

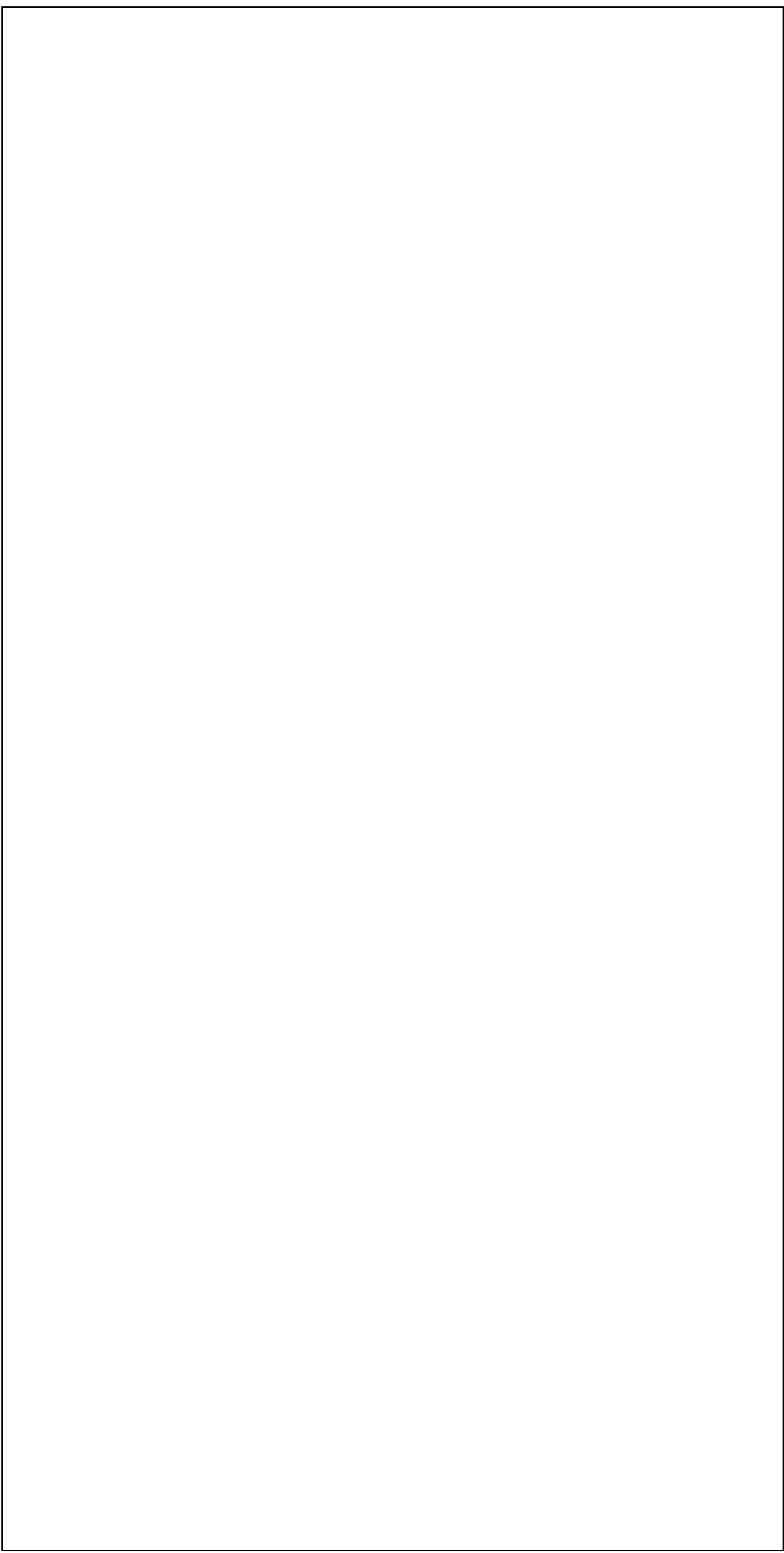


We are conducting a survey on how households operate and on people's monetary habits. The purpose of this survey is to understand different levels of household financial access and the constraints households face in accessing financial services. Any information you give us is strictly confidential and we will not share your individual answers with anyone outside of our research program. I would now like to speak to someone who can answer questions on behalf of everyone living in this household and about money related matters of your family. This might be the head of the household, or someone who knows most about everyone who lives here. Could I please speak to that person now?

SECTION A: SURVEY INFORMATION		SAMPLING INFORMATION		CODE
A1.1 Province				____
A1.2 Kabupaten (Regency) / Kotamadya (Municipality)				____
A1.3 Kecamatan (Subdistrict)				____
A1.4 Village/Urban Township				____
A1.5 Region: 1. Urban 3. Rural				____
A1.6 Sensus Block Number	_____	A1.7 GPS code	_____	_____
		a. Latitude : S/N* : _____	_____	_____
		b. Longitude : E/W* : _____	_____	_____
		c. Elevation : _____	_____	_____
		d. Accuracy : _____	_____	_____
		* Circle the appropriate one		
A1.8 a. Address	_____			
	RT : _____	RW : _____		
b. Description of Location	_____			
c. Postal Code	_____			
A1.9 Telephone number	a. 1. Landlines	_____	3. Not Available	
	b. 1. Mobile phone	_____	3. Not Available	

**HOUSEHOLD LOCATION SKETCH**

INTERVIEWER POINTER: MAKE A SIMPLE SKETCH/MAP OF THE HOUSEHOLD LOCATION WITH MARKERS OF ROAD NAMES, PLACES AND/OR BUILDINGS OR SUCH WHICH ARE EASY TO RECOGNIZE AND ARE ESTIMATED TO LAST LONG (NOT EASILY DAMAGED, ALTERED OR DESTROYED). DESCRIBE THE PLACES OR BUILDINGS WHICH ARE EASY TO RECOGNIZE AND SHALL LAST LONG (SUCH AS VILLAGE OFFICE, LARGE MOSQUE, BRIDGE, SCHOOL, CEMETERY, ETC) AS MARKERS WHICH SHALL BECOME THE "CENTER POINTS" IN THE SKETCH. PROVIDE EXPLANATION AND INFORMATION (SUCH AS LEGEND IN MAP) IF NECESSARY.



**SECTION B: DEMOGRAPHIC INFORMATION**  
 FOR ALL INDIVIDUALS LIVING IN THE HOUSEHOLD

ID CODE	MAKE A COMPLETE LIST OF ALL INDIVIDUALS LIVING IN THE HOUSEHOLD STARTING FROM THE HEAD OF HOUSEHOLD, FOLLOWED BY PARTNER, CHILDREN, GRAND CHILDREN, PARENT/PARENT IN LAW, CHILDREN IN LAW, ETC.	
	B1.1 NAME	B1.2 AGE
01		
02		
03		
04		
05		
06		
07		
08		
09		
10		
11		
12		
13		
14		
15		
16		

**SECTION B : DEMOGRAPHIC INFORMATION**  
**FOR ALL INDIVIDUALS LIVING IN THE HOUSEHOLD WHO ARE AGED 15 YEARS AND OLDER**

COPY ID	NAME	B2.1 Age [...]	B2.2 Sex [...]	B2.3 What is the relationship of [...] to the head of household?	B2.4 What is [...]’s present marital status?
		LLLL	1 3	LLL _____	LL _____
		LLLL	1 3	LLL _____	LL _____
		LLLL	1 3	LLL _____	LL _____
		LLLL	1 3	LLL _____	LL _____
		LLLL	1 3	LLL _____	LL _____
		LLLL	1 3	LLL _____	LL _____
		LLLL	1 3	LLL _____	LL _____
		LLLL	1 3	LLL _____	LL _____
		LLLL	1 3	LLL _____	LL _____
		LLLL	1 3	LLL _____	LL _____

B2.2 1. Male 3. Female	B2.3 1. Head 2. Spouse (wife/husband) 3. Child (son/daughter) 4. Grandchild 5. Parent/Parent-in-law 6. Son/Daughter-in-law 7. Sibling 8. Other relative 9. Adopted/foster step child 10. Maid / Servant 11. Non-relative 95. Other (Specify)	B2.4 1. Married 2. Separated → B2.7 4. Divorced → B2.7 5. Widowed → B2.7 6. Never Married → B2.7

B2.5 Does [...]’s spouse live in the household?	B2.6 COPY THE ID CODE OF THE SPOUSE	B2.7 Has [...] ever attended school?	B2.8 What is the highest grade completed?	B2.9 What is [...]’s religious affiliation?
1 3 → B2.7	____	1 3 → B2.9	____	____
1 3 → B2.7	____	1 3 → B2.9	____	____
1 3 → B2.7	____	1 3 → B2.9	____	____
1 3 → B2.7	____	1 3 → B2.9	____	____
1 3 → B2.7	____	1 3 → B2.9	____	____
1 3 → B2.7	____	1 3 → B2.9	____	____
1 3 → B2.7	____	1 3 → B2.9	____	____
1 3 → B2.7	____	1 3 → B2.9	____	____
1 3 → B2.7	____	1 3 → B2.9	____	____
1 3 → B2.7	____	1 3 → B2.9	____	____
1 3 → B2.7	____	1 3 → B2.9	____	____
1 3 → B2.7	____	1 3 → B2.9	____	____
B2.5 1. Yes 3. No		B2.7 1. Yes 3. No	B2.8 1. Did not complete Primary school 2. Primary school/equivalent 3. Secondary school/equivalent 4. Senior High school/equivalent 5. D1/D2/D3 6. S1/S2 95. Other (Specify)	B2.9 1. Muslim 2. Protestant 3. Catholic 4. Hindu 5. Buddhist 95. Other (Specify)

**INTERVIEWER READOUT:**

People get income from many sources. We would now like to ask some questions on the sources of income for you and all other members of your household in the past 12 months

B2.10	B2.11	B2.12	B2.13	B 2.14
Did [...] do any work or received some payment in the past 12 months?	How is [...]’s main job classified?	Which industry does [...]’s main job fall under?	Is [...]’s work located in your village/ town?	Is [...]’s work based in a rural or urban area?
1 3 → B 2.21	____	____	1 3	1 3
1 3 → B 2.21	____	____	1 3	1 3
1 3 → B 2.21	____	____	1 3	1 3
1 3 → B 2.21	____	____	1 3	1 3
1 3 → B 2.21	____	____	1 3	1 3
1 3 → B 2.21	____	____	1 3	1 3
1 3 → B 2.21	____	____	1 3	1 3
1 3 → B 2.21	____	____	1 3	1 3
1 3 → B 2.21	____	____	1 3	1 3
1 3 → B 2.21	____	____	1 3	1 3

B2.10	B2.11	B2.12	B2.13	B 2.14	
1. Yes 3. No	01. Government employed 02. Private employed 03. Self-employed 04. Freelance worker/ Casual labor 95. Lainnya _____	01. Farming 02. Fisheries 03. Mining 04. Industry 05. Electricity, gas and water	06. Trade 07. Construction 08. Transportation, communication 09. Financial 10. Service 95. Other (specify)	1. Yes 3. No	1. Urban 3. Rural

B2.15 How is [...]’s main work compensation been provided?	B 2.16 Over the past 12 months, has [...] received <u>wage/salary</u> from working with an institution or other people?	B2.17 Over the past 12 months, what form of non-monetary compensation has [...] received?	B2.18 What is the total amount of wage/salary received in the past 12 months (including in-kind goods and service)?
_____	1 3 → B 2.19	_____	_____
_____	1 3 → B 2.19	_____	_____
_____	1 3 → B 2.19	_____	_____
_____	1 3 → B 2.19	_____	_____
_____	1 3 → B 2.19	_____	_____
_____	1 3 → B 2.19	_____	_____
_____	1 3 → B 2.19	_____	_____
_____	1 3 → B 2.19	_____	_____
_____	1 3 → B 2.19	_____	_____
_____	1 3 → B 2.19	_____	_____
_____	1 3 → B 2.19	_____	_____

B 2.15 01. Daily 02. Weekly 03. 2 weeks 04. Monthly 05. One off payment only 06. Irregular basis 95. Other (Specify)	B 2.16 1. Yes 3. No	B2.17 01. Goods 02. Services 03. Both 04. Nothing 95. Other (specify)
---	---------------------------	--

<p><b>B 2.19</b> Over the past 12 months, has [...] owned an <u>independent business</u> (agriculture/non agriculture) which produce income?  1. Yes      3. No</p>	<p><b>B 2.20</b> What is the total amount received from all the business (agriculture/non agriculture) in the past 12 months</p>	<p><b>B 2.21</b> Over the past 12 months has [...] received any additional money from <u>non-working</u>, such from pension, grant/transfer, rent, interest, etc?  1. Yes      3. No</p>	<p><b>B 2.22</b> What is the total amount or value of the additional money from non-working in the past 12 months?</p>	<p><b>B. 2.23</b> <b>TOTAL INCOME RECEIVED IN THE PAST 12 MONTHS (B2.18+b.20 + B2.22)</b></p>
<p>1      3 → <b>B 2.21</b></p>	<p>_____.</p>	<p>1      3 → <b>B 2.23</b></p>	<p>_____.</p>	<p>_____.</p>
<p>1      3 → <b>B 2.21</b></p>	<p>_____.</p>	<p>1      3 → <b>B 2.23</b></p>	<p>_____.</p>	<p>_____.</p>
<p>1      3 → <b>B 2.21</b></p>	<p>_____.</p>	<p>1      3 → <b>B 2.23</b></p>	<p>_____.</p>	<p>_____.</p>
<p>1      3 → <b>B 2.21</b></p>	<p>_____.</p>	<p>1      3 → <b>B 2.23</b></p>	<p>_____.</p>	<p>_____.</p>
<p>1      3 → <b>B 2.21</b></p>	<p>_____.</p>	<p>1      3 → <b>B 2.23</b></p>	<p>_____.</p>	<p>_____.</p>
<p>1      3 → <b>B 2.21</b></p>	<p>_____.</p>	<p>1      3 → <b>B 2.23</b></p>	<p>_____.</p>	<p>_____.</p>
<p>1      3 → <b>B 2.21</b></p>	<p>_____.</p>	<p>1      3 → <b>B 2.23</b></p>	<p>_____.</p>	<p>_____.</p>



**SECTION C: SOCIO-ECONOMIC CHARACTERISTICS**

C1.1	RECORD THE MAIN MATERIAL USED FOR THE WIDEST PART OF WALL IN THIS HOUSE	<ol style="list-style-type: none"> <li>1. Bamboo</li> <li>2. Wood</li> <li>3. Brick</li> <li>95. Other (Specify) _____</li> </ol>
C1.2	RECORD THE WIDEST ROOF TYPE IN THIS HOUSE MADE OF	<ol style="list-style-type: none"> <li>1. Thatch</li> <li>2. Tin</li> <li>3. Tile</li> <li>4. Concrete</li> <li>5. Wood</li> <li>6. Asbestos</li> <li>95. Other (Specify) _____</li> </ol>
C1.3	RECORD THE WIDEST TYPE OF FLOOR OF THE HOUSE	<ol style="list-style-type: none"> <li>1. Tile</li> <li>2. Cement</li> <li>3. Soil</li> <li>95. Other (specify) _____</li> </ol>
C1.4	How many rooms does your house have (excluding toilet)?	<p style="text-align: center;"> _ _ </p>
C1.5	Does your house have electricity?	<ol style="list-style-type: none"> <li>1. Yes</li> <li>3. No</li> </ol>
C1.6	What is this household's primary source of drinking water?	<ol style="list-style-type: none"> <li>1. Government water company (PDAM/PAM)</li> <li>2. Public hydrant</li> <li>3. Mineral water/Aqua</li> <li>4. Well</li> <li>5. River/canal/pond</li> <li>6. Lake/stream</li> <li>95. Other (specify) _____</li> </ol>

C1.7	Does the household own or rent this dwelling?	<p>1. Own → C1.10</p> <p>2. Rent</p> <p>3. Resident without rent → C1.12</p> <p>98. DO NOT KNOW</p>
C1.8	What is the frequency of rent payments?	<p>1. Weekly</p> <p>2. Monthly</p> <p>3. Yearly</p> <p>95. Other (Specify)_____</p>
C1.9	What is the amount of rent payments?	<p>Rp. _____, _____, _____, _____ → C1.12</p>
C1.10	Was this house purchased using credit?	<p>1. Yes</p> <p>3. No → C1.12</p> <p>98. DO NOT KNOW → C1.12</p>
C1.11	Is the housing loan paid off?	<p>1. Yes</p> <p>3. No</p> <p>98. DO NOT KNOW</p>
C1.8	What is the frequency of rent payments?	<p>1. Weekly</p> <p>2. Monthly</p> <p>3. Yearly</p> <p>95. Other (Specify)_____</p>
C1.9	What is the amount of rent payments?	<p>Rp. _____, _____, _____, _____ → C1.12</p>
C1.10	Was this house purchased using credit?	<p>1. Yes</p> <p>3. No → C1.12</p> <p>98. DO NOT KNOW → C1.12</p>
C1.11	Is the housing loan paid off?	<p>1. Yes</p> <p>3. No</p> <p>98. DO NOT KNOW</p>

TYPE	C1.12 Does the household own [...]? 1. Yes 3. No	C1.13 Quantity?
a. Telephone (landline)	1      3 ↓	[ ]
b. Telephone (mobile)	1      3 ↓	[ ]
c. TV	1      3 ↓	[ ]
d. Jewelry	1      3 ↓	
e. Sewing machine	1      3 ↓	[ ]
f. Car	1      3 ↓	[ ]
g. Motorcycle or scooter	1      3 ↓	[ ]
h. Bicycle	1      3 ↓	[ ]
i. Fridge/freezer	1      3 ↓	[ ]
j. Land	1      3 ↓	[ ]
k. Cow	1      3 ↓	[ ]
l. Buffalo	1      3 ↓	[ ]
m. Pig	1      3 ↓	[ ]
n. Poultry	1      3 ↓	[ ]
v. Other (specify) _____	1      3 ↓	[ ]

**SECTION D: FINANCIAL SERVICES ( Bank and Saving Accounts)**

Now I would like to ask you some questions about financial services that you and your household use. By financial service I mean methods for saving and transferring money, etc.

D1.1	Do you or anyone in your household <b>currently</b> have a savings/deposit account? (NOTE TO SURVEYOR: BPR should be counted as bank accounts)	1. Yes → D1.4 3. No
D1.2	Have you or anyone in your household <b>ever</b> had a bank savings/deposit account?	1. Yes 3. No → D2.1
D1.3	What was the main reason you stopped using a bank account?	[ ] [ ] [ ] → D2.1
D1.3 (JANGAN DISEBUTKAN)	<p>06. INTEREST RATE OFFERED ON BANK ACCOUNT WAS TOO LOW</p> <p>07. DID NOT SEE THE ADVANTAGE OF HAVING A BANK ACCOUNT</p> <p>08. BANK STAFF WERE RUDE OR UNHELPFUL</p> <p>09. AVAILABILITY OF ALTERNATIVE INVESTMENT OPPORTUNITIES (SAVING CLUB, VILLAGE CREDIT UNION, ETC.)</p> <p>95. OTHER (SPECIFY) _____</p>	
D1.4	What are the names of the banks where you or other members of your household have an account?	1. 2. 3.
D1.5	What are the three main reasons you have a bank account? Please list them in order of importance.	[ ] [ ] [ ] [ ] [ ] [ ] [ ] [ ] [ ]
D1.5 (DO NOT PROMPT)	<p>01. SECURITY REASONS. KEEP MONEY SAFE</p> <p>02. GAIN ACCESS TO OTHER FINANCIAL SERVICES (E.G. WRITING CHECKS, SENDING OR RECEIVING PAYMENTS, ETC)</p> <p>03. EARN INTEREST/RETURN ON SAVING</p> <p>04. SAVE MONEY FOR A SPECIFIC PURCHASE (E.G. CAR)</p> <p>05. TO ABLE TO BORROW MONEY</p> <p>06. FOR PREDICTED FUTURE NEEDS (EDUCATION OF CHILDREN, RETIREMENT, ETC)</p> <p>07. FOR EMERGENCY NEEDS (DEATH, ACCIDENT)</p> <p>08. PAY BILLS OR DEBTS USING CHECKBOOK OR CARD.</p>	<p>09. TRANSFER MONEY</p> <p>10. PREVENT SPOUSE FROM SPENDING MONEY</p> <p>11. PREVENT FRIENDS/RELATIVES FROM ASKING FOR IT</p> <p>12. TO WIN LOTTERY/OTHER NON-INTERSET FOR OPENING BANK ACCOUNT</p> <p>95. OTHER (SPECIFY)</p>

D1.6	What type of bank account do you have?	1. Saving Account 2. Deposit Account 3. Both Saving and Deposit Account	1. Yes 3. No
D1.7	Do you have an ATM or Debit card?		1. Yes 3. No
D1.8	Do you have a credit card?		1. Yes 3. No
D 1.9	Do you ever use mobile phone to make bank transactions?		1. Yes 3. No → D 1.11
D 1.10	What kind of mobile banking services do you use?	A. Checking Balance B. Making Payment C. Purchasing good D. Remittance V. Other _____ → D1.12	
D 1.11	Why not you use mobile phone to make bank transactions?	A. Cost B. Security C. Difficulty D. Reliability E. Don't know how to make bank transaction using mobile phone (note: means have heard about mobile banking but still don't know how to use it) F. Never hear about this service V. Other _____	
D1.12	Do you have access to an overdraft facility or line of credit?		1. Yes 3. No

<p><b>INTERVIEWER READOUT:</b> IF THE RESPONDENT OR ANY OF THEIR HOUSEHOLD MEMBERS HAVE AN ACCOUNT IN DIFFERENT BANK, THEN QUESTIONS BELOW REFER TO THE MAIN BANK WHICH THEY HAVE MORE MONEY, OR USED MOST, OR CLOSER TO THEIR HOME. RECORD THE NAME OF THE MAIN BANK : _____</p>	
D1.13	<p>Would you say that the location of your main bank branch is:</p> <p>1. Very Convenient 2. Convenient 3. Inconvenient</p>
D1.14	<p>What mode of transportation do you use to go to your main bank?</p> <p>A. Walking B. Bicycle/Motorbike C. Personal Car D. Public transportation V. Other (specify) _____</p>
D1.15	<p>What is the average time you spend traveling to the bank (one way)?</p> <p>_____ Minutes</p>
D1.13	<p>How much does it cost to travel to the bank?</p> <p>Rp _____</p>
D1.14	<p>What is the average time you wait to be served at the bank?</p> <p>_____ Minutes</p>

**INTERVIEWER READOUT:**

Now think of all the ways that you and members of your household save money outside of the formal banking sector. We are not talking about investing in a business or buying land, but only about where you or other household members put their money to use later.

D2.1	<p>Have you or anyone in your household used a credit union or a formal savings association (for instance one run by an NGO) to save money in the past 12 months?</p> <p>1. Yes                      3. No → D3.1</p>
D2.2	<p>What are the names of the credit unions or formal savings associations that you or other members of your household used to save money in the past 12 months?</p> <p>1. _____ 2. _____ 3. _____</p>
D2.3	<p>Do you earn interest from keeping money in this savings account?</p> <p>1. Yes                      3. No</p>

D2.4	What are the three main reasons that you have this savings account?	<p>_____          _____          _____</p>
D2.5 (DO NOT PROMPT)	<p>01. SECURITY REASONS: KEEP MONEY SAFE          02. GAIN ACCESS TO OTHER FINANCIAL SERVICES (E.G. WRITING CHECKS, SENDING OR RECEIVING PAYMENTS, ETC)          03. EARN INTEREST/RETURN ON SAVING          04. SAVE MONEY FOR A SPECIFIC PURCHASE (E.G. CAR)</p>	<p>05. TO ABLE TO BORROW MONEY          06. FOR PREDICTED FUTURE NEEDS (EDUCATION OF CHILDREN, RETIREMENT, ETC)          07. FOR EMERGENCY NEEDS (DEATH, ACCIDENT)          08. PAY BILLS OR DEBTS USING CHECKBOOK OR CARD.</p>
		<p>09. TRANSFER MONEY          10. PREVENT SPOUSE FROM SPENDING MONEY          11. PREVENT FRIENDS/RELATIVES FROM ASKING FOR IT          12. TO WIN LOTTERY/OTHER NON-INTERSET FOR OPENING BANK ACCOUNT          95. OTHER (SPECIFY)</p>

D3.1	Have you or anyone in your household used a community welfare scheme or informal saving clubs (such as a neighborhood rotating savings group) to save money in the past 12 months?	<p>1. Yes      3. No → D3.6</p>
D3.2	Can you borrow money from your welfare scheme or savings club?	<p>2. Yes      3. No → D3.5</p>
D3.3	Can you borrow more than your contributions to this welfare scheme or savings club?	<p>1. Yes      3. No</p>
D3.4	Has the amount that you can borrow from your welfare scheme or savings club increased over time?	<p>1. Yes      3. No</p>
D3.5	How often do you make contributions to your welfare scheme or savings club?	<p>1. Daily      4. Monthly          2. Weekly      5. Quarterly          3. Half-Monthly      6. Annually          95. Other (specify)_____</p>

TYPE	D3.6 Do you ever had any form of these savings?	D3.7 Do you or other members of your household currently have [---]?
a. Short term investments such as Bank of Indonesia certificate, certificates of deposits or other money market instruments.	1. Yes      3. No ↓	1. Yes      3. No
b. Shares in a company, or in an investment fund including mutual funds? (e.g. Telecom)	1. Yes      3. No ↓	1. Yes      3. No
c. Pension fund (or any collective savings program that will provide you with income upon retirement)	1. Yes      3. No ↓	1. Yes      3. No
d. Access to the use of a bank for transactions without need to hold any account (including through someone else's account) (e.g. for money transfer, etc.)	1. Yes      3. No ↓	1. Yes      3. No
e. Access to the use of payments or receipt services by informal channels	1. Yes      3. No ↓	1. Yes      3. No



**INTERVIEWER CHECK:** IF D1.1 = 1 → SECTION E; IF D1.1 = 3 → D4.1

**INTERVIEWER READOUT:** You mentioned that you do not have a formal saving/deposit account. We would now like to ask you a few questions on this issue.

D4.1	Although you do not have your own bank account, do you or other members of your household perform banking transactions using someone else's account?	<p>1. Yes                      3. No → D 4.3</p>
D4.2	What is your relationship with the person whose account you or other members of your household use to perform banking transactions?	<p>1. Friend 2. Relative 95. Other (specify) _____</p>
D4.3	There are many reasons why people do not have a bank account. Please tell me, in the order of importance, the three main reasons why you do not have a bank account.	<p>_____ _____ _____</p>
D4:3 (DO NOT PROMT) 01. DO NOT HAVE A JOB 02. DO NOT HAVE ENOUGH MONEY I.E ALL SPENT FOR CONSUMPTION 03. BANK FEES ARE TO HIGH 04. BANK LOCATION IS NOT CONVENIENT	05. FINANCIAL PRODUCT ARE NOT SUITABLE 06. INTEREST RATE OFFERED ON BANK ACCOUNT IS TOO LOW 07. DO NOT SEE THE ADVANTAGE OF HAVING A BANK ACCOUNT	08. DO NOT TRUST BANKS 09. BANK STAFF ARE RUDE OR UNHELPFUL 10. DON'T KNOW HOW THE BANK OPERATE/NOT FAMILIAR 95. OTHER (SPECIFY), _____
D4.4	Do you know where the nearest bank branch from your house is located?	<p>1. Yes, Specify name of bank _____ 3. No → D4.9</p>
D4.5	Would you say the location of this bank branch is:	<p>1. Very Convenient 2. Convenient 3. Inconvenient</p>
D4.6	What mode of transportation would you use to go to this bank branch?	<p>A. Walking B. Bicycle/Motorbike C. Personal Car D. Public transportation V. Other (specify) _____</p>

D4.7	What is the approximate time that it would take you to travel to this bank branch (one way)?	_____ Minutes
D4.8	Approximately how much would it cost to travel to this bank branch (one way)?	Rp. _____.
D4.9	Do you know what is required to open a bank account? (Do not prompt. Circle all that apply.)	A. NO REQUIREMENTS B. PROOF OF IDENTITY (I.E. KTP ) C. MINIMUM BALANCE D. REGULAR DEPOSITS V. OTHER (SPECIFY) _____ Y. DO NOT KNOW
D 4.10	Are you interested with the banking services which can use mobile phone to make bank transactions? (i.e. storing fund, making payment, purchasing goods, remittance, etc)	1. Yes → D 5.1      3. No
D 4.11	If not, why?	A. Cost B. Security C. Difficulty D. Reliability V. Other _____

**INTERVIEWER READOUT:** You have mentioned that you do not have a saving / deposit account. We would now like to ask you some questions on whether certain types of financial products and services would appeal to you.

Bank usually charges for transaction cost, opening cost, penalty etc.

D5.1	Would you be likely to open a bank account if these fees were cut by one half (50%)?	1. Yes → D5.3      3. No
------	--	--------------------------

D5.2	Would you be likely to open a bank account if these fees were cut by 100%--that is to say, if there were no fees to having a bank account?	<p>1. Yes                      3. No</p>
D5.3	<p>If you are not familiar with or might be familiar with the process of opening a bank account: how to do it, what is required, etc.</p> <p>Would you be likely to attend a "training session" offered near your home for one or two hours at a convenient time, where the benefits and procedures of opening a bank account are explained in very simple terms?</p>	<p>1. Yes                      3. No</p>
D5.4	Suppose you win a small lottery tomorrow worth Rupiah 1,000,000 (one million). What do you think you would do with that money?	<p>A. Spend on daily consumer needs</p> <p>B. Store in home as cash</p> <p>C. Store in bank or saving organization</p> <p>D. Invest in fixed assets</p> <p>E. Share with friends/family</p> <p>F. Repay other debt</p> <p>G. For working capital</p> <p>V. Others (specify) _____</p>

## SECTION E: FINANCIAL SERVICES (Loans)

Now I would like to ask you some questions about loan services that you and your household members use. By loan services I mean methods for borrowing money, buying on credit, etc.

	E1.1 Have you or any other member of your household ever used [...] to borrow money? 1. Yes 3. No	E1.2 Do you or any other member of your household currently use [...] to borrow money? 1. Yes 3. No	E1.3 What was the main reason you stopped borrowing money from [...]? 1. Became unemployed 2. Did not have enough money 3. Loan interest rate was too high 4. Loan term was not suitable (too long/short) 5. Institution location was not convenient 6. Repayment schedule was not suitable 7. Institution refused to lend more money 8. Institution staff were rude or unhelpful 9. Decided to use alternative source of loans 95. Other (Specify) _____	E1.4 What are the names of the institutions that you or other members of your household have used to borrow money in the past 12 months?
a. Formal institution such as a bank, credit union or savings association	1 3 → E 1.15	1 → E 1.4 3	1 2 3 4 5 6 7 8 9 95 _____	1. 2.
b. Micro-finance institution	1 3 → E 1.15	1 → E 1.4 3	1 2 3 4 5 6 7 8 9 95 _____	1. 2.
c. Employer	1 3 → E 1.15	1 → E 1.4 3	1 2 3 4 5 6 7 8 9 95 _____	1. 2.
d. Pawn shop (e.g. Pagadaian)	1 3 → E 1.15	1 → E 1.4 3	1 2 3 4 5 6 7 8 9 95 _____	1. 2.
e. Daily bank	1 3 → E 1.15	1 → E 1.4 3	1 2 3 4 5 6 7 8 9 95 _____	1. 2.
f. Community welfare schemes	1 3 → E 1.15	1 → E 1.4 3	1 2 3 4 5 6 7 8 9 95 _____	1. 2.
g. Neighborhood community, family and friends	1 3 → E 1.15	1 → E 1.4 3	1 2 3 4 5 6 7 8 9 95 _____	
h. On credit from a shop (e.g. take home now and pay later)	1 3 → E 1.15	1 → E 1.4 3	1 2 3 4 5 6 7 8 9 95 _____	1. 2.

	E1.5 What was the main purpose for your most recent loan from [...]?	E1.6 What guarantees were required by the [...] for this loan?	E1.7 Do you know what interest rate charges on loans?	E1.8 What interest rate does [...] charge on loans?
a. Formal institution such as a bank, credit union or savings association	1 2 3 4 5 6 95	1 2 3 4 5 6 95	1 3 → E 1.10	, percent per
b. Micro-finance institution	1 2 3 4 5 6 95	1 2 3 4 5 6 95	1 3 → E 1.10	, percent per
c. Employer	1 2 3 4 5 6 95	1 2 3 4 5 6 95	1 3 → E 1.10 96 → E 1.10	, percent per
d. Pawn shop (e.g. Pagadaian)	1 2 3 4 5 6 95	1 2 3 4 5 6 95		
e. Daily bank	1 2 3 4 5 6 95	1 2 3 4 5 6 95	1 3 → E 1.10	, percent per
f. Community welfare schemes	1 2 3 4 5 6 95	1 2 3 4 5 6 95	1 3 → E 1.10	, percent per
g. Neighborhood community, family and friends	1 2 3 4 5 6 95	1 2 3 4 5 6 95	1 3 → E 1.10 96 → E 1.10	, percent per
h. On credit from a shop (e.g. take home now and pay later)	1 2 3 4 5 6 95	1 2 3 4 5 6 95	1 3 → E 1.10	, percent per

	E1.9 How is the interest calculated? 1. Daily 2. Weekly 3. Monthly 4. Yearly 95. Other (Specify) _____ 98. DO NOT KNOW	E 1.10 How much did your borrow?	E 1.11 How much do you pay?
a. Formal institution such as a bank, credit union or savings association	1      2      3      4      5 95. _____ 98	Rp _____ . _____ . _____	Rp _____ . _____ . _____
b. Micro-finance institution	1      2      3      4      5 95. _____ 98	Rp _____ . _____ . _____	Rp _____ . _____ . _____
c. Employer	1      2      3      4      5 95. _____ 98	Rp _____ . _____ . _____	Rp _____ . _____ . _____
d. Pawn shop (e.g. Pagadaian)		Rp _____ . _____ . _____	Rp _____ . _____ . _____
e. Daily bank	1      2      3      4      5 95. _____ 98	Rp _____ . _____ . _____	Rp _____ . _____ . _____
f. Community welfare schemes	1      2      3      4      5 95. _____ 98	Rp _____ . _____ . _____	Rp _____ . _____ . _____
g. Neighborhood community, family and friends	1      2      3      4      5 95. _____ 98	Rp _____ . _____ . _____	Rp _____ . _____ . _____
h. On credit from a shop (e.g. take home now and pay later)	1      2      3      4      5 95. _____ 98	Rp _____ . _____ . _____	Rp _____ . _____ . _____

	E1.12 What was the term period of the loan? 1. One Week 2. One Month 3. Three Months 4. Six Months 5. One Year 95. Other (specify) _____	E 1.13 Does [...] charge any other fees on loans? 1. Yes 3. No → E 1.15 98. DON'T KNOW	E1.14 What other fee does [...] charge on loans? 1. Fixed fee for arranging and making loan 2. Fixed monthly fee until the loan is repaid 3. Fixed annual fee until the loan is repaid 4. Late payment fee 95. Other (Specify)
a. Formal institution such as a bank, credit union or savings association	1 2 3 4 5 6 95. _____	1 3 → E 1.15 98	1 2 3 4 95. _____
b. Micro-finance institution	1 2 3 4 5 6 95. _____	1 3 → E 1.15 98	1 2 3 4 95. _____
c. Employer	1 2 3 4 5 6 95. _____	1 3 → E 1.15 98	1 2 3 4 95. _____
d. Pawn shop (e.g. Pagadaian)	1 2 3 4 5 6 95. _____	1 3 → E 1.15 98	1 2 3 4 95. _____
e. Daily bank	1 2 3 4 5 6 95. _____	1 3 → E 1.15 98	1 2 3 4 95. _____
f. Community welfare schemes	1 2 3 4 5 6 95. _____	1 3 → E 1.15 98	1 2 3 4 95. _____
g. Neighborhood community, family and friends	1 2 3 4 5 6 95. _____	1 3 → E 1.15 98	1 2 3 4 95. _____
h. On credit from a shop (e.g. take home now and pay later)	1 2 3 4 5 6 95. _____	1 3 → E 1.15 98	1 2 3 4 95. _____

	E1.15 In the past 12 months have you or any other member of your household applied for a loan with [...]? 1. Yes 3. No	E1.16 Was your loan application accepted or rejected? (If more than one application, refer to the most recent.) 1. Accepted 2. Rejected 3. Still in process	E1.17 Why was it rejected? 1. Bad credit record 2. Have too many debts 3. No credit history 4. Insufficient income 5. No collateral 6. No account held with bank 7. Lack of formal paperwork (e.g. identity, documents, proof of permanent address, etc.) 8. No co-signer (group or individual) 9. No reason given 95. Other (Specify)
a. Formal institution such as a bank, credit union or savings association	1    3 → E1.1b	1 ↓ E1.1b    2    3 ↓ E1.1b	1    2    3    4    5    6    7    8    9 95. _____
b. Micro-finance institution	1    3 → E1.1c	1 ↓ E1.1c    2    3 ↓ E1.1c	1    2    3    4    5    6    7    8    9 95. _____
c. Employer	1    3 → E1.1d	1 ↓ E1.1d    2    3 ↓ E1.1d	1    2    3    4    5    6    7    8    9 95. _____
d. Pawn shop (e.g. Pagadaian)	1    3 → E1.1e	1 ↓ E1.1e    2    3 ↓ E1.1e	1    2    3    4    5    6    7    8    9 95. _____
e. Daily bank	1    3 → E1.1f	1 ↓ E1.1f    2    3 ↓ E1.1f	1    2    3    4    5    6    7    8    9 95. _____
f. Community welfare schemes	1    3 → E1.1g	1 ↓ E1.1g    2    3 ↓ E1.1g	1    2    3    4    5    6    7    8    9 95. _____
g. Neighborhood community, family and friends	1    3 → E1.1h	1 ↓ E1.1h    2    3 ↓ E1.1h	1    2    3    4    5    6    7    8    9 95. _____
h. On credit from a shop (e.g. take home now and pay later)	1    3 → F	1 → F    2    3 → F	1    2    3    4    5    6    7    8    9 95. _____



## SECTION F: OTHER FINANCIAL SERVICES

We are now going to ask you about other types of financial services: what experiences have you had with them, what are your attitudes towards them. One of the goals of this survey is to understand household demand for financial services.

### F1. Insurance

Type	F1.1 Have you ever had this type of insurance?	F1.2 Do you or other members of your household currently have it?	F1.3 If it is available: could you get it if you wanted it?	F1.4 Would you be willing to pay for this insurance?
a. Health/Medical Insurance (government program)	1. Yes 3. No ↓ b	1. Yes 3. No		
b. Health/Medical Insurance (private)	1. Yes 3. No → F1.3	1. Yes ↓ 3. No	1. Yes 3. No 98. DO NOT KNOW	1. Yes 3. No
c. Home owners' insurance (insurance on building)	1. Yes 3. No → F1.3	1. Yes ↓ 3. No	1. Yes 3. No 98. DO NOT KNOW	1. Yes 3. No
d. Education Insurance	1. Yes 3. No → F1.3	1. Yes ↓ 3. No	1. Yes 3. No 98. DO NOT KNOW	1. Yes 3. No
e. Travel/Accident insurance	1. Yes 3. No → F1.3	1. Yes ↓ 3. No	1. Yes 3. No 98. DO NOT KNOW	1. Yes 3. No
f. Vehicle/asset Insurance	1. Yes 3. No → F1.3	1. Yes ↓ 3. No	1. Yes 3. No 98. DO NOT KNOW	1. Yes 3. No
g. Life insurance policy (a payment to your heirs upon your death)	1. Yes 3. No → F1.3	1. Yes ↓ 3. No	1. Yes 3. No 98. DO NOT KNOW	1. Yes 3. No

INTERVIEW CHECK: IF ALL F1.1 = 3 → F1.5 IF ANY OF THE ANSWER IN F1.1=1 → F1.6

<p>F1.5 You said, you do not have any insurance. Why you do not have any?</p>	<p>A. Insurance term is too long B. Premium is too expensive C. I don't know about the any insurance product D. I don't think I will need it E. Don't have money V. Other (specify) _____</p>
<p>F1.6 If you have a choice to get insurance for the only one person in the household to reduce the risk / impact to be affected to your household, who you think is the most important person in your household to be insured?</p>	<p>1. Head of Household 2. Spouse 3. Children under 15 years old 4. Children more than 15 years old 5. Parent/Parent-in law 95 Other (specify) _____</p>

<p>F1.7</p>	<p>What are the most important risks to your financial well-being faced by your household? Please tell us the three most important risks</p> <p>01. Illness 02. Business perform poorly 03. Loss of formal/informal employment 04. Fail in harvest 05. Death 06. Loss of / Damage to Dwelling 07. Loss of / Damage to Vehicle 08. Loss of / Damage to cattle 09. Natural disaster 95. Other (specify) _____</p>	<p>a. Risk 1: L L L L _____ b. Risk 2: L L L L _____ c. Risk 3: L L L L _____</p>
-------------	---	---

**SECTION G: HOUSEHOLD FINANCIAL MANAGEMENT**

G1.1	Do you believe your household saves enough for the future?	1. Yes → G 1.3      3. No
G1.2	Which of the following limit your household's ability to save in any financial institutions? (CIRCLE ALL THAT APPLY)	<p>A. Relatives make a claim on cash or bank balances</p> <p>B. Want to save, but have difficulty controlling my spending habits</p> <p>C. We must pay off debts before we can save</p> <p>D. No remaining money to save</p> <p>E. I prefer to purchase some valuable goods i.e jewelry/gold, land</p> <p>F. Unregular income</p> <p>V. Other (specify)</p>
G1.3	Would you be interested in participating in a savings program that required a commitment? For example, you contribute money for a child's education, but you can only withdraw it once you have reached your savings target?	1. Yes      3. No
G1.4	Would you be interested in a savings product that involved a deposit collector: for a small fee, someone would come to your household on a weekly basis to collect money for deposit in your own bank account?	1. Yes      3. No
G1.5	Would you be interested in a savings product that allowed you to save money for retirement?	1. Yes      3. No

**SECTION H: ESTABLISHING THE EXISTENCE OF NON FARM ENTERPRISES**

<p>H1.1 Over the past 12 months, has anyone in your household operated any non-agricultural enterprise which produces goods or services (for example, artisan, metalworking, tailoring, repair work; also include processing and selling your outputs from your own crops if done regularly) or has anyone in your household owned a shop or operated a trading business?</p> <p>1. Yes 3. No → <b>SECTION I</b></p>	<p>H 1.2 What kind of enterprise does your household operate?</p> <p><b>PROBE TO DETERMINE INDUSTRIAL SECTOR IN WHICH ENTERPRISE OPERATES.</b></p>
	Enterprise ID
1	Description
2	
3	
4.	
5.	

H2.1	I would now like to ask you about <b>the most important</b> enterprise you operate. Please identify the enterprise that is most important to your household. (ENTER Enterprise ID FROM H 1.2)	_____
H2.2	<b>We are only asking the questions for the enterprise that you have identify as the most important in H 2.1</b> For how long has the enterprise been in operation?	Years _____ months _____
H2.3	What share of the profits is kept by this household, rather than the other owners? If your household owns the entire enterprise, answer with 100%.	_____ percent
H2.4	During the past 12 months, how many months was this enterprise in operation?	_____ months
H2.5	During the past 12 months, how many people did this enterprise employ who are not members of this household?	_____ people
H2.6	The next questions are about the revenue you earn from your business. Please include all revenues in your answers (that is, the total cash and in-kind value of goods and services that you receive from the sale of goods and services) before subtracting any business expenditures and any expenses for your household. . In an 'average sales' month, what is your level of sales per month?	Rp _____
H2.7	After making purchases for the business is there usually any money left as income for the household for the purpose of expenditure or saving?	1 Yes 3. No → <b>H2.9</b>
H2.8	How much money is usually left?	Rp _____

H2.9	I would now like to ask you questions about the assets (that is, equipment, buildings, vehicles, tools, etc.) that you use in your business. At present, does this enterprise own this [ITEM]?	<ul style="list-style-type: none"> <li>A. Land</li> <li>B. Buildings</li> <li>C. Machinery</li> <li>D. Furniture</li> <li>E. Tools</li> <li>F. Vehicle</li> <li>G. Other durable goods _____</li> <li>H. Inventory that may be used as collateral _____</li> <li>I. Do not have any asset</li> </ul>
H2.10	Many small enterprises require financing. <b>Apart from the Household loan sources we asked about in previous sections</b> , does your business independently receive financing from any outside source, such as friends, a bank, family that do not live with you, or from your suppliers?	<ul style="list-style-type: none"> <li>1. Yes</li> <li>3. No → I</li> </ul>
H2.11	From which of the following sources does this enterprise receive financing?	<ul style="list-style-type: none"> <li>A. Bank or formal financial institution</li> <li>B. Friends or Family that do not live in the household</li> <li>C. Daily bank or Money Lender</li> <li>D. Micro-Credit Loan</li> <li>E. Credit from suppliers</li> <li>V. Others, specify _____</li> </ul>
H2.12	What is the total amount of debt your enterprise holds? If you do not know the exact figure, please estimate.	Rp. _____

**SECTION I: MIGRANT WORKER REMITTANCES**

I1.1	Are there any members of your family currently living abroad as migrant workers? Or Any other household members have been worked abroad in the last 3 year?		1. Yes 3. No → <b>SEKSI J</b>	
I1.2 Please tell us the names of your family members currently living abroad as migrant workers?	I1.3 What is his / her relation with the family head? 1. Husband/Wife 2. Son/Daughter 3. Grand children 4. Parent 5. Sibling 95. Other relatives	I1.4 Gender 1. Male 3. Female	I.1.5 What is his / her education level? 1. Did not complete Primary school 2. Primary school/equivalent 3. Secondary school/equivalent 4. Senior High school/equivalent 5. D1/D2/D3 6. S1/S2 95. Other (Specify)	I1.6 How many times has he / she been abroad for work assignments?
a.	1 _____ 2 _____ 3 _____ 4 _____ 5 _____ 95 _____	1 _____ 3 _____	1 _____ 2 _____ 3 _____ 4 _____ 5 _____ 6 _____ 95. _____	____ times
b.	1 _____ 2 _____ 3 _____ 4 _____ 5 _____ 95 _____	1 _____ 3 _____	1 _____ 2 _____ 3 _____ 4 _____ 5 _____ 6 _____ 95. _____	____ times
c.	1 _____ 2 _____ 3 _____ 4 _____ 5 _____ 95 _____	1 _____ 3 _____	1 _____ 2 _____ 3 _____ 4 _____ 5 _____ 6 _____ 95. _____	____ times
d.	1 _____ 2 _____ 3 _____ 4 _____ 5 _____ 95 _____	1 _____ 3 _____	1 _____ 2 _____ 3 _____ 4 _____ 5 _____ 6 _____ 95. _____	____ times
e.	1 _____ 2 _____ 3 _____ 4 _____ 5 _____ 95 _____	1 _____ 3 _____	1 _____ 2 _____ 3 _____ 4 _____ 5 _____ 6 _____ 95. _____	____ times

IF I1.6 > 1 THEN I1.8, I1.9, I1.10 BELOW WILL REFER TO THE MOST RECENT ONE					
I 1.7 How many years in total he/she has been abroad for work assignment?	I 1.8 In which country does he / she work in? 1. Malaysia 2. Brunei 3. Singapore 4. Hongkong 5. Taiwan 6. Saudi Arabia 7. Kuwait 95. Other (specify)	I 1.9 How did he / she get the job abroad? 1. Through the hiring company (PJTKI) by the help of a mediator 2. Through the hiring company without the help of a sponsor 3. Through the hiring company staffs 4. Through a mediator without the company 5. Calling visa through hiring company 6. Own initiative using tourist visa 95. Other (Specify) 98. DON'T KNOW	I 1.10 What kind of job is he / she doing? A. Domestic worker B. Industry worker C. Factory worker D. Plantation worker E. Construction worker F. Service i.e. servant, care taker, shop assistant V. Other (Specify) Y. DON'T KNOW		
a. Years    _ _  Months    _ _	1   2   3   4   5   6   7 95. _____	1   2   3   4   5   6 95. _____	A   B   C   D   E   F V. _____		
b. Years    _ _  Months    _ _	1   2   3   4   5   6   7 95. _____	1   2   3   4   5   6 95. _____	A   B   C   D   E   F V. _____		
c. Years    _ _  Months    _ _	1   2   3   4   5   6   7 95. _____	1   2   3   4   5   6 95. _____	A   B   C   D   E   F V. _____		
d. Years    _ _  Months    _ _	1   2   3   4   5   6   7 95. _____	1   2   3   4   5   6 95. _____	A   B   C   D   E   F V. _____		
e. Years    _ _  Months    _ _	1   2   3   4   5   6   7 95. _____	1   2   3   4   5   6 95. _____	A   B   C   D   E   F V. _____		



**Pre Departure:** If he / she has been abroad more than once for work, refer to the most recent trip in answering the following questions

	<p>I 2.1 Before departure, how were the costs of going abroad financed? (Multiple answers are acceptable. Please circle all applied)</p> <p>A. Sale of assets B. Use of personal savings C. Borrowing from other family members D. Borrowing from friends, or neighbors E. Borrowing from a work sponsor F. Borrowing from a bank or other formal lending institution G. Borrowing from employer V. Other (Specify) Y. DON'T KNOW</p>	<p>I 2.2 What was the total cost associated with this trip?</p>	<p>If any of the answer in I 2.1 are C, D, E, F, G go to I 2.3 - I 2.6 <u>If not any go to I 2.7</u></p> <p>I 2.3 What proportion of the total cost was financed through borrowing (from any source)?</p>
a.	<p>A    B    C    D    E    F    G</p> <p>V. _____ Y</p>	<p>1. Rp. _____</p> <p>98. DON'T KNOW</p>	<p>1. _____ %</p> <p>98. DON'T KNOW</p>
b.	<p>A    B    C    D    E    F    G</p> <p>V. _____ Y</p>	<p>1. Rp. _____</p> <p>98. DON'T KNOW</p>	<p>1. _____ %</p> <p>98. DON'T KNOW</p>
c.	<p>A    B    C    D    E    F    G</p> <p>V. _____ Y</p>	<p>1. Rp. _____</p> <p>98. DON'T KNOW</p>	<p>1. _____ %</p> <p>98. DON'T KNOW</p>
d.	<p>A    B    C    D    E    F    G</p> <p>V. _____ Y</p>	<p>1. Rp. _____</p> <p>98. DON'T KNOW</p>	<p>1. _____ %</p> <p>98. DON'T KNOW</p>
e.	<p>A    B    C    D    E    F    G</p> <p>V. _____ Y</p>	<p>1. Rp. _____</p> <p>98. DON'T KNOW</p>	<p>1. _____ %</p> <p>98. DON'T KNOW</p>

	I 2.4 How much did you borrow from the other party?	I 2.5 How much do you have to pay back?	I 2.6 How long do you need to by back all amounts?	I 2.7 Does he/she have any insurance in case any unexpected events happen to him/her? (i.e. sickness, hospitalization, death etc)  1. Yes, specified _____ 3. No 98. DON'T KNOW
a.	1. Rp. _____, _____, _____, _____, _____ 98. DON'T KNOW	1. Rp _____, _____, _____, _____, _____ 98. DON'T KNOW	1. _____ months 2. Payback after the completion of the contract 3. Anytime 95. Other _____	1. _____ 3. 98
b.	1. Rp. _____, _____, _____, _____, _____ 98. DON'T KNOW	1. Rp _____, _____, _____, _____, _____ 98. DON'T KNOW	1. _____ months 2. Payback after the completion of the contract 3. Anytime 95. Other _____	1. _____ 3. 98
c.	1. Rp. _____, _____, _____, _____, _____ 98. DON'T KNOW	1. Rp _____, _____, _____, _____, _____ 98. DON'T KNOW	1. _____ months 2. Payback after the completion of the contract 3. Anytime 95. Other _____	1. _____ 3. 98
d.	1. Rp. _____, _____, _____, _____, _____ 98. DON'T KNOW	1. Rp _____, _____, _____, _____, _____ 98. DON'T KNOW	1. _____ months 2. Payback after the completion of the contract 3. Anytime 95. Other _____	1. _____ 3. 98
e.	1. Rp. _____, _____, _____, _____, _____ 98. DON'T KNOW	1. Rp _____, _____, _____, _____, _____ 98. DON'T KNOW	1. _____ months 2. Payback after the completion of the contract 3. Anytime 95. Other _____	1. _____ 3. 98

**Remitting Money**

Check I 1.6 if the migrant worker has worked abroad so many times, these questions below refer to the most recent one

	I 3.1 How long the process for working abroad takes? (since registered to the sponsor for legal migrant worker)	I 3.2 Does he / she ever send money back to the household? 1. Yes 3. No	I 3.3 How many months that you or any household members received the money for the first time since he/she went abroad?	I 3.4 How often does he / she send money back? 1. Every month 2. Every 2 months 3. Once every 3-4 months 4. Only on special occasions (e.g. celebrations, illness) 95. Other _____ (specify) _____	I 3.5 How much in average the amount of the remitting money?
a.	1. Months _____ weeks _____ 98. DON'T KNOW	1      3 ↓	1. Years _____ months _____ 98. DON'T KNOW	1      2      3      4 95. _____	1. Rp _____ . _____ . _____ . _____ . _____ . _____ 98. TIDAK TAHU
b.	1. Months _____ weeks _____ 98. DON'T KNOW	1      3 ↓	1. Years _____ months _____ 98. DON'T KNOW	1      2      3      4 95. _____	1. Rp _____ . _____ . _____ . _____ . _____ . _____ 98. TIDAK TAHU
c.	1. Months _____ weeks _____ 98. DON'T KNOW	1      3 ↓	1. Years _____ months _____ 98. DON'T KNOW	1      2      3      4 95. _____	1. Rp _____ . _____ . _____ . _____ . _____ . _____ 98. TIDAK TAHU
d.	1. Months _____ weeks _____ 98. DON'T KNOW	1      3 ↓	1. Years _____ months _____ 98. DON'T KNOW	1      2      3      4 95. _____	1. Rp _____ . _____ . _____ . _____ . _____ . _____ 98. TIDAK TAHU
e.	1. Months _____ weeks _____ 98. DON'T KNOW	1      3 → 1 4.1	1. Years _____ months _____ 98. DON'T KNOW	1      2      3      4 95. _____	1. Rp _____ . _____ . _____ . _____ . _____ . _____ 98. TIDAK TAHU

**After Receiving Money  
INTERVIEWER CHECK IF I 1.6=1 AND I 3.2=3 SKIP TO SECTION J**

I 4.1	Which method do you used to receive money?	<p>A. Through a Post Office service</p> <p>B. Bank check sent via airmail</p> <p>C. Western Union</p> <p>D. Bank wire transfer/bank account</p> <p>E. Informal money travel agent (e.g. Indonesia shop)</p> <p>F. Through relatives/friends</p> <p>G. Carries own money on return trips</p> <p>V. Other (Specify) _____</p>
I 4.2	What is the main reason for choosing this method?	<p>A. Speed</p> <p>B. Cost (i.e. Exchange commission, transfer fee tax)</p> <p>C. Convenience for sender</p> <p>D. Convenience for the recipient</p> <p>E. Security</p> <p>F. Reliability</p> <p>G. Flexibility</p> <p>V. Other, _____</p>
I 4.3	Who decide on what method to send money?	<p>1. Employer</p> <p>2. Hiring company (PJTKI)</p> <p>3. Sponsor</p> <p>4. Family in Indonesia</p> <p>5. The migrant him/herself</p> <p>95. Others _____</p> <p>98. DON'T KNOW</p>
I 4.4	Once the money is sent, who is going to the financial institutions to pick up the money?	<p>1. Family member</p> <p>2. Neighbor</p> <p>3. Village head</p> <p>4. Sponsor</p>

		5. Account Mediator 95. Other (specify) _____
I 4.5	Are you and other household member having difficulties to receiving/taking from bank or any other financial institutions?	1. Yes 3. No → I 4.7
I 4.6	What kind of difficulties do you face to go to financial institutions to receive the money from abroad?	A. Cost B. Time C. Distance D. Service are not good/slow E. Legal Documents i.e KTP F. Don't understand the financial/banking services V. Other (specify) _____
I 4.7	What are the three most common usages of the money remitted from abroad?	1. L L L _____ 2. L L L _____ 3. L L L _____
I 4.7	01. DAILY NEED I.E. CONSUMPTION 02. BUILT/BUYRENOVATE HOUSE 03. REPAYMENT OF LOANS I.E. TO PAY MIGRATION LOAN 04. PAYMENT OF SCHOOL FEE 05. PAYMENT OF HEALTH AND MEDICAL EXPENSES 06. INVESTMENT IN BUSINESS 07. SPECIAL OCCASIONS (E.G. WEDDINGS, BIRTHDAYS, FUNERALS, ETC) 08. BUYING ASSET I.E. LAND /GOLD/OTHER LIVESTOCK 09. BUYING MOTORBIKE 95. OTHER (SPECIFY) _____	
I 4.8	Who decide for what purpose the money will be used?	a. Sender b. Household head c. Other household/family member, Specify _____ d. Other person out of the family, Specify _____

I 4.9	Do you or any household member save the money sent from abroad?	1. Yes 3. No → I 4.11
I 4.10	If yes. Where do you save the money?	1. Bank 2. Cooperation 3. Other, _____ → Section J
I 4.11	If, no. Why?	A. All money is spent for consumption B. Don't know how to save C. Don't know how to use financial institutions D. Don't want anyone to ask me for borrowing the money V. Other (specify) _____

**SECTION J: EVALUATING PREFERENCES 1**

**INTERVIEWER READOUT:** We are now going to ask you some questions about whether you would prefer to receive sum of money today, or in a month's time. This is only the questions to find out your preference, please relax and answer which one you prefer.

J1.1	Would you prefer to receive Rupiah 80,000 today or Rupiah 80,000 one month from today?	<p>1. Rupiah 80,000 today</p> <p>3. Rupiah 80,000 next month → <b>SEKSI K</b></p> <p>98. DO NOT KNOW</p>
J1.2	Would you prefer to receive Rupiah 80,000 today or Rupiah 90,000 one month from today?	<p>1. Rupiah 80,000 today</p> <p>3. Rupiah 90,000 next month → <b>SEKSI K</b></p> <p>98. DO NOT KNOW</p>
J1.3	Would you prefer to receive Rupiah 80,000 today or Rupiah 100,000 one month from today?	<p>1. Rupiah 80,000 today</p> <p>3. Rupiah 100,000 next month → <b>SEKSI K</b></p> <p>98. DO NOT KNOW</p>
J1.4	Would you prefer to receive Rupiah 80,000 today or Rupiah 110,000 one month from today?	<p>1. Rupiah 80,000 today</p> <p>3. Rupiah 110,000 next month → <b>SEKSI K</b></p> <p>98. DO NOT KNOW</p>
J1.5	How much would we have to give you in one month for you to choose to wait instead of receiving Rupiah 80,000 today?	<p>Rp _____, _____</p> <p>98. DO NOT KNOW</p>

**SECTION K: FINANCIAL LITERACY**

K1.1	Generally how interested are you in financial matters?	<ol style="list-style-type: none"> <li>1. Not interested</li> <li>2. Interested</li> <li>3. Very interested</li> </ol>
K1.2	How closely do you follow what is written or said about financial matters ?	<ol style="list-style-type: none"> <li>1. Never → <b>K2.1</b></li> <li>2. Rarely</li> <li>3. Sometimes</li> <li>4. Often</li> <li>5. Always</li> </ol>
K 1.3	What is the source of information about the financial matters?	<ol style="list-style-type: none"> <li>A. Newspaper</li> <li>B. Advertisement</li> <li>C. Radio/TV</li> <li>D. Friend or relatives</li> <li>V. Other (specify) _____</li> </ol>

**INTERVIEWER CHECKPOINT: GIVE RESPONDENT A PIECE OF PAPER AND A PEN OR PENCIL**

**INTERVIEWER READPOINT:** Now we would like to ask you a few math questions to help us better understand how you make decisions.

K2.1	How much is $4 + 3$ ?	1. _____ 98. DON'T KNOW
K2.2	If you have 2,000 Rupiah and friend gives you 5,000 Rupiah, how many Rupiah do you have?	1. _____ 98. DON'T KNOW
K2.3	Hoe much is $35 + 82$	1. _____ 98. DON'T KNOW
K2.4	If you have 4,800 Rupiah and friend gives you 5,800 Rupiah, how many Rupiah do you have?	1. _____ 98. DON'T KNOW
K2.5	What is 3 multiplied by 6?	1. _____ 98. DON'T KNOW
K2.6	If you have four friends and would like to give each friend four sweets, how many sweets in total must you have to give away?	1. _____ 98. DON'T KNOW



K2.7	What is one-tenth of 400?	1. _____ 98. DON'T KNOW
K2.8	Suppose you want to buy a bag of rice that costs 37,000 Rupiah. You only have one 100,000 Rupiah note. How much change will you get?	1. _____ 98. DON'T KNOW
K2.9	Suppose you borrowed Rupiah 100,000 from a moneylender, and the rate of interest was 2% per month. If you made no repayment for three months, how much would you owe: Less than Rupiah 102,000, exactly Rupiah 102,000, or more than Rupiah 102,000	1. Less than Rupiah 102,000 2. Exactly Rupiah 102,000 3. More than Rupiah 102,000 98. DO NOT KNOW
K2.10	Suppose you need to borrow Rupiah 500,000. Two people offer you a loan. One loan requires you pay back Rupiah 600,000 in one month. The second loan also requires you pay back in one month, Rupiah 500,000 plus 15 percent interest. Which loan would you prefer?	1. Rupiah 600,000 in one month 2. Rp 500,000 + 15% interest 98. DO NOT KNOW
K2.11	Imagine that you saved Rupiah 100,000 in a saving account, and were earning an interest rate of 1% per year. If prices were increasing at a rate of 2% per year, after one year, would you be able to buy more than, less than, or exactly the same amount as today with the money in the account?	1. Less than today 2. Exactly as much as today 3. More than today 98. DO NOT KNOW
K2.12	Do you think the following statement is true or false? For farmer, planting one crop is usually safer than planting multiple crops.	1. True 3. False 98. DO NOT KNOW

**SECTION L: EVALUATING PREFERENCES II**

<p><b>INTERVIEWER READOUT:</b> We will now ask you some questions that are questions about what you would do in certain circumstances. To compensate you for participating, and to further understand your decisions, we will also pay some “games” in which you will have chance to earn a small amount of money. Please pay careful attention, and ask if a question is not clear.</p>	
L1.1	<p>Consider a game of chance, in which one white marble and one black marble are placed in a bag. One marble is drawn by chance. If a white marble is drawn, you will be paid Rupiah 5,000. If a black marble is drawn, you will not be paid anything. You have a choice. You can receive Rupiah 2,000 or you may play this game. If you decide to play this game, you will get Rupiah 5,000 if a white marble is drawn and 0 if a black marble is drawn. We will pay you immediately. Which action do you prefer?</p> <p>1. Rupiah 2,000 with certainty → L1.3 3. Play the game 97. REFUSE TO PLAY THE GAME</p>
L1.2	<p><b>INTERVIEWER CHECKPOINT:</b> DRAW MARBLE AND RECORD COLOR. IF WHITE BALL IS DRAWN, GIVE RESPONDEN RUPIAH 5,000.</p> <p>1. Black 3. White</p>
L1.3	<p>How much do you agree with the following statement: "I have little control over what will happen to me in my life."</p> <p>1. Strongly agree 2. Agree 3. Disagree 4. Strongly Disagree</p>
L1.4	<p>How much do you agree with the following statement: "Good things tend to happen to other people, not to me or my family."</p> <p>1. Strongly agree 2. Agree 3. Disagree 4. Strongly Disagree</p>
L1.5	<p>How much do you agree with the following statement: "I have a hard time saving money, even though I know I want to save money."</p> <p>1. Strongly agree 2. Agree 3. Disagree 4. Strongly Disagree</p>

L2.1	Would you prefer to receive Rupiah 80.000 six months from today or Rupiah 80.000 seven months from today?	1. Rupiah 80,000 six months today 3. Rupiah 80,000 seven months from today → <b>SECTION K</b> 98. DO NOT KNOW
L2.2	Would you prefer to receive Rupiah 80.000 six months from today or Rupiah 90.000 seven months from today?	1. Rupiah 80,000 six months today 3. Rupiah 90,000 seven months from today → <b>SECTION K</b> 98. DO NOT KNOW
L2.3	Would you prefer to receive Rupiah 80.000 six months from today or Rupiah 100.000 seven months from today?	1. Rupiah 80,000 six months today 3. Rupiah 100,000 seven months from today → <b>SECTION K</b> 98. DO NOT KNOW
L2.4	Would you prefer to receive Rupiah 80.000 six months from today or Rupiah 110.000 seven months from today?	1. Rupiah 80,000 six months today 3. Rupiah 110,000 seven months from today → <b>SECTION K</b> 98. DO NOT KNOW
L2.5	How much would we have to give you in seven months for you to choose to wait instead of receiving Rupiah 80,000 in six month from today?	Rp _____, _____ 98. TIDAK TAHU

**SECTION M: EXPENDITURE INTERVIEWER CHECKPOINT: COLLECT DATA ON CONSUMPTION FOR EACH THE FOLLOWING ITEMS.**

**How much does your household spend in a normal week on:**

TYPE	M1.1
Item	Value
a. Groceries and food consumer at home i.e.: cereals, prepared foods, pulses, vegetables, etc	Rp _____.
b. Food consumed outside the home	Rp _____.
c. All non food consumptions include: cigarette, tobacco, battle nut, alcohol	Rp _____.

**During the last 1 months, how much did your household spend on:**

TYPE	M1.2
Item	Value
a. Housing : i.e.: rent, maintenance, water bills, etc.	Rp _____.
b. Fuel and light : i.e.: electricity, kerosene, wood, gas, match, candles, batteries, etc	Rp _____.
c. Non-durable household goods : i.e.: personal care product, soaps, cleaning materials.	Rp _____.
d. Health Expenses: i.e.: fees to doctor, hospitals, and cost of medicine	Rp _____.
e. Education expenses: Monthly fee, courses fee, stationeries, books	Rp _____.
f. Transport i.e.: train/bus, school transport fees, etc.	Rp _____.
g. Communication i.e.: telephon and postal	Rp _____.
h. Recreation and entertainment i.e.: cinema, books, travel, lottery, pets	Rp _____.
i. Household service i.e.: laundry, servants	Rp _____.
v. Others _____	Rp _____.

During the last 12 months, how much did your household spend on:

TYPE Item	M1.3 Value
a. Clothing and textiles	Rp _____.
b. Footwear	Rp _____.
c. Electronic goods i.e.: TV, DVD/VCD, radio, etc	Rp _____.
d. Household furnishing i.e.: furniture, dishes, rugs, etc	Rp _____.
e. Household appliance i.e. washing machines, refrigerators, sewing machines	Rp _____.
f. House repair and maintenance	Rp _____.
g. Education expenses : registration money, initial money, building money, uniform money, etc	Rp _____.
h. Party and ceremony i.e.: marriage ceremony, death ceremony, circumcision, lebaran, cristmas	Rp _____.
i. Tax : Building and Land Tax, vehicle tax, income tax	Rp _____.
v. Others _____	Rp _____.



**Section O : INTERVIEWER CHECK**

O 1.1	Did the respondent answer the questions himself or herself?	1. Yes → <b>O 1.4</b> 3. No
O 1.2	Is the person who helped answer questions a member of the household?	1. Yes    3. No, specify _____ → <b>O 1.4</b>
O 1.3	Write down his/her ID CODE	L L L
O 1.4	Does this household have a bank account?	1. Yes    3. No

INTERVIEWER NOTE :

INTERVIEWER NOTE:



**LIST OF THE QUESTIONER CORRECTION**

Fill by the Editor / Supervisor dan corrected by the Interviewer

Page	Question Number (Code)	Description (Things need to be confirmed to Interviewer)	Suppose to be (Correction by Interviewer)	Editor sign (Fill if the correction is already right)	Sign and date (if data have been modified by Editor)
