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Financial (Dis-)Information

Evidence from a Multi-Country Audit Study

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Abstract

An audit study was conducted in Ghana, Mexico and Peru to understand the quality of financial information and products offered to low-income customers. Trained auditors visited multiple financial institutions, seeking credit and savings products. Consistent with Gabaix and Laibson (2006), staff only provides information about the cost when asked, disclosing less than a third of the total cost voluntarily. In fact, the cost disclosed voluntarily is uncorrelated with the expensiveness of the product. In addition, clients are rarely offered the cheapest product, most likely because staff is incentivized to offer more expensive and thus more profitable products to the institution. This suggests that clients are not provided enough information to be able to compare among products, and that disclosure and transparency policies may be ineffective because they undermine the commercial interest of financial institutions.

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Financial (Dis-)Information: Evidence from a Multi-Country Audit Study*

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1. Introduction

Many financial decisions are made infrequently and without immediate feedback that can be used to improve decision-making (Thaler and Sunstein, 2008). In addition, these decisions may involve unfamiliar concepts especially to individuals with limited financial capabilities (Lusardi and Mitchell, 2011, 2014) and as a result, financial consumers may not necessarily choose the most cost-effective product or the one most suitable to their needs (see for example, Gross and Souleles, 2002; Choi et al., 2011; Duarte and Hastings, 2011; Hastings et al. 2012; Agarwal et al. 2013; 2015 and Campbell et al. 2011 and DellaVigna 2007 for reviews).[1]

More generally, mistakes in financial decision-making would be less of a concern if market forces led to a set of relatively cheap financial products. However, this is rarely the case. Table 1 reports summary statistics for estimated costs and yields for all credit and savings products, respectively, offered to low-income households by financial institutions in Mexico, Peru and Ghana that were part of the study. The total annual cost of credit including usage fees ranges from 22.1 percent in Peru to over 225 percent in Mexico. The total annual yield of a savings product ranges from -22.2 percent in Ghana to 5.5 percent in Peru for an investment account and from -28.2 percent in Ghana to 0.8 percent in Mexico for a transaction account.

While these high costs may be driven by riskiness or the high transaction costs involved in servicing low-income households, the price and yield dispersion for similar products within any country is large and points to an information asymmetry between less informed customers and better informed financial institutions. Many governments around the world have tried to reduce this information gap by introducing legislation to improve disclosure and transparency, and in some cases have mandated that low-cost savings products be offered in the marketplace or have imposed usury laws capping the interest rate that can be charged on credit products (Benmelech and Moskowitz, 2010). From a political economy perspective, mandated disclosure laws are easy to enact because they only require the provision of information leaving the actual products unregulated.

An early example of mandated financial disclosure is the Truth in Lending Act of 1968 which required that consumers in the U.S. be presented with key financial terms for credit products, and standardized the calculation of certain key product terms and disclosure formats. Other countries have introduced in recent years similar disclosure laws.

The crisis of 2008 that originated in the U.S. mortgage markets, however, is a painful reminder that these efforts may not have been successful in improving financial outcomes of the population (see for

[1] Agarwal et al. (2013) find that if feedback is fast enough, then financial learning can occur, albeit the hard way: credit card fees paid by new card holders fall during the first three years after account opening because after paying a fee, consumers adjusted their behavior to avoid paying it in the future.

example Lowenstein, Sunstein and Golman, 2014). Indeed, the reason why consumers may remain misinformed and prone to making mistakes is because financial institutions shroud prices, even in competitive environments, in order to maximize profits (Ausubel, 1999; Gabaix and Laibson, 2006; Bordalo, Gennaioli and Shleifer, 2012; Heidhues, Koszegi and Murooka, 2013; Stango and Zinman, 2011). Firms will therefore adjust their behavior to undermine transparency initiatives (Duarte and Hastings, 2011) and may not actively market mandated products.

This discussion brings to the fore two interrelated questions that are the focus of this paper. First, what is the *quality of information* provided by financial institutions to low-income prospective customers when choosing among financial products? Second, do financial institutions *offer the product that best meets the customer needs*, in particular as it relates to cost and intended usage?

To answer these questions, we implemented an audit study in peri-urban areas near the capital of Peru, Mexico and Ghana and two provincial cities in Peru and Ghana.[2] These countries were chosen because they all have similar levels of financial inclusion but have regulations with different transparency requirements. According to the market conduct index published by the Economist Intelligence Unit's 2014 Global Microscope Index and Report, Peru is ranked second, Mexico is ranked 25th (middle of the sample of countries) and Ghana is ranked 51st (second from the bottom).[3]

In this study, auditors visited the branches of financial institutions seeking to acquire a loan or a savings product. Since the goal was to capture all the information given to the auditor until the product was contracted (or the auditor was rejected in the case of credit), several follow-up visits were required. Indeed, follow-up visits at the house of credit auditors were common and for this reason we recruited and trained local residents to serve as credit auditors instead of relying on professional auditors.[4]

The scripts used by auditors differed along four dimensions. First, we introduced product specific variation. Savings auditors expressed a preference for either a transaction or an investment account where funds would be deposited for a minimum duration of one year. To study whether lenders issued credit responsibly, credit auditors requested a loan amount of either 20 percent or 70 percent of their household's annual income, thus creating exogenous variation in the level of household indebtedness when requesting the loan. Second, to study whether the staff provided information to customers according to their perceived ability to absorb it, we varied the financial sophistication (experience) of the auditor made salient by the language used and the level of engagement during the visits. Third, to study the degree to which the staff

[2] The two provincial cities in Peru, Puno and Piura and in Ghana are Kumasi and Takoradi.
[3] Market conduct includes indicators of the capacity to protect the financial consumer, the content of disclosure rules, the disclosure of product terms, pricing information and non-discrimination in the financial service provision.
[4] Audit studies have been used in other contexts to study hold-up in contracts (Iyer and Schoar, 2012), discrimination (Gneezy et al., 2012; Bertrand and Mullainathan, 2004), police performance (Banerjee et al. 2014) and quality of drugs (Bennett and Yin, 2014), among others.

was able to tailor the terms of products offered, we varied the level of competition among experienced auditors by stating that a competing institution had offered them better terms. Finally, we created variation in the dress code used during the visit. Each auditor was given a randomized list of branches to visit and was randomly assigned to a script.

Using the actual terms of the products offered to auditors, we develop a transparency index that reports the percentage of the total cost of a product that is disclosed to the client by the staff, either voluntarily or after being prompted. The model of Gabaix and Laibson (2006) provides a useful framework to make sense of the results. In the presence of enough uninformed customers, the model predicts that firms in equilibrium will fail to advertise fees and charges that uninformed customers will end up paying and informed customers will try to avoid. Thus, advertising will be deceptive rather than informative and firms will have no incentive to de-bias customers (see also Gurun, Matvos and Seru, forthcoming).[5]

Consistent with these predictions we find that the staff provided enough information to allow auditors to apply for the loan or to open the savings account, but that very little voluntary information about the costs of the product was provided. The transparency index with voluntary disclosure of information is 29 percent for transaction accounts and 18 percent for credit products.[6] In addition, the correlation between the cost disclosed voluntarily and the total cost of the product is zero. The transparency index of printed materials given to auditors is 35 percent for transaction accounts and 20 percent for credit products, while the correlation between the cost advertised and the real cost is 0.27. In sum, auditors are provided with too little information to make meaningful comparisons across products. What is remarkable about this finding is that despite the diversity in the quality of financial disclosure regulation across the three countries studied, the staff of financial institutions behave rather similarly.

Related, while savings auditors were offered products that matched their preference for maturity, they were rarely offered the cheapest product. For example in Mexico, the only country with a mandated basic savings account, auditors were offered the basic account in only 2 of the 54 visits in which they expressed a preference for a transaction account.[7] By contrast, when faced with credit auditors requesting

[5] We note that if consumers were rational, then shrouding would actually hurt the financial institution, as consumers faced with impartial disclosure of fees and commissions would assume they are high and purchase from banks that disclose more information. Shrouding behavior by banks would thus unravel, forcing banks to disclose all the information (Grossman, 1981; Jovanovic, 1982; Milgrom, 1981). There is evidence however suggesting that consumers tend to ignore not only information that is not disclosed (see Nisbett and Ross, 1980 for an early review), but also disclosed information that is not made salient (Finkelstein, 2009 and Chetty, Looney and Kroft, 2009).

[6] The transparency index for investment accounts is 29 when costless products are excluded and 69 percent when they are included. We consider that a costless product has a transparency index of 100 percent even if no information is disclosed about the fact that there are no costs associated with the product.

[7] As part of the Law on Credit Institutions of 2007 the Bank of Mexico requires that all deposit-taking institutions offer a "basic account" without account opening, deposits, withdrawals, balance enquiry fees, or debit card fees. According to Banco de México (SISPAGOS), however, only 5 percent of the transaction accounts to the general public in Mexico are mandated basic accounts.

large amounts relative to household income (assigned to the high indebtedness script), financial institutions significantly reduced the amount granted if the application was finally approved.

Thus, firms seem to follow their own self-interest, which may explain why recent policy initiatives around product transparency and basic savings accounts have been met with little success. The limited impact of policies to promote transparency and mandated products is not new, and in this sense the paper contributes to the recent literature that uses audit studies to assess financial advice for financial investment (Mullainathan et al, 2012) and life insurance (Anagol et al, 2012).

The remainder of the paper is organized as follows. Section 2 describes the regulatory environment and financial market for low-income households in Mexico, Peru and Ghana. Section 3 reviews the predictions of Gabaix and Laibson (2006). Section 4 describes the experimental design while Section 5 describes the data and empirical strategy. Section 6 reports the results and Section 7 concludes.

2. Context

Financial markets in Mexico, Peru and Ghana have recently been transformed by the appearance of new providers like the consumer goods chains Elektra, Wal-Mart and Coppel in Mexico and new intermediation channels such as agent and mobile banking. This increase in the supply of financial services has coincided with a rapid expansion of household debt to GDP from 8.7 percent in 2000 to 14.3 percent in 2011 in Mexico and from 3 percent in 2005 to 6.5 percent in 2014 in Peru (SBS, 2014). Microfinance institutions in Ghana have expanded the customer base from 1.1 million in 2001 to 8 million as of 2013 (GHAMFIN, 2014). This expansion of credit in Ghana has been fueled by the emergence of Microfinance Companies, new smaller providers that mobilize deposits and provide credit. By 2014, many of these Microfinance Companies had become insolvent. As of November 2015 there were still a total of 468 microfinance institutions registered with Bank of Ghana.[8]

Among the components of household debt, consumer debt has been a key driver of this increase, rising in Mexico from 7.7 percent in 1994 as a share of banking sector debt to 23 percent in 2011. Consumer credit in Mexico in 2011 represented 40 percent of all bank earnings in interest and fees and charges.

Much of this growth in consumer credit comes from bringing low-income individuals that relied on informal sources into the formal financial system for the first time. These individuals tend to have lower levels of education and may thus be worse equipped when deciding among financial products (Lusardi and Mitchell, 2011).

The irregular (and sometimes unpredictable) income flows of many low-income individuals suggest

[8] Bank of Ghana website (accessed April 2016): https://www.bog.gov.gh/privatecontent/Banking_Supervision/LIST%20OF%20LICENCED%20MICROFINANCE%20INSTITUTIONS%20AS%20AT%20NOV%202015.pdf

that more flexible credit and savings products will be more suitable than others with stiff penalties for missed or partial installment payments or high minimum balance fees. In addition, financial products offered to low-income households tend to be relatively more expensive because they entail either smaller loan amounts (or higher risk) or smaller savings balances that are more expensive to administer.[9] For all these reasons, this study focuses on consumer credit and savings products targeted to low-income households.

In recent years, all three countries have seen efforts to develop a regulatory framework to supervise and promote financial services and inclusion.

Mexico enacted a law similar to the U.S. Truth in Lending Act in 2009 that also requires financial providers to disclose the APR and APY. Mexico has also improved the reporting requirements of institutions, the effectiveness of credit bureaus and the strengthening of CONDUSEF, the financial consumer protection agency. Among its services, CONDUSEF publishes comparative cost tables associated to specific credit and savings products by financial institution and location. These services, however, are still difficult and costly to access for low-income clients.

Peru enacted disclosure regulation in 2005, which, similar to the regulatory financial transparency regime in Mexico, it also defines the criteria for the determination and definition of interest rates, fees, charges and yields – including methods for calculating the total effective costs and rates for credit and savings products. Current regulation requires financial institutions to disclose information to consumers through brochures, key fact statements, webpages, ATMs, and verbally at the branches. The Superintendence of Banks (SBS) and INDECOPI, the Peruvian consumer protection agency are entitled to impose administrative sanctions for any violations to the transparency legal framework. In addition, financial institutions in Peru must provide regular and adequate training to their staff, ensuring minimum knowledge of the characteristics of financial products offered.

Bank of Ghana issued Guidelines for Microfinance Institutions (2011), established industry associations with certain oversight responsibilities and also sought to license and oversee all financial service providers by imposing stricter capital requirements to address the large number of small microfinance institutions. However, the central bank has faced challenges in implementing this mandate due to limited regulatory and supervisory capacity. To date, Ghana has no consumer protection regulation similar to that of Mexico or Peru.

All three countries have a mix of financial institutions, including commercial banks, credit cooperatives and microfinance institutions. Despite the diversity of institutions offering financial services,

[9] In the credit card market, Scholnik, Massoud and Saunders (2013) find evidence that poorer consumers are more likely to incur unnecessary late fees and overlimit fees even when funds in their deposit accounts were available.

there are two related indications that there is little competition at least in cost: lack of product information made available to the consumer, and high cost of credit and savings products.

Focus groups conducted with low-income clients recruited from the study areas in all three countries around the time of the audit study revealed that terms advertised in marketing materials and communicated by sales representatives did not accurately reflect the actual costs of the credit products they selected, making it hard to assess the true cost of a product before signing the contract. Participants cited several cases where they had lost a significant fraction of their savings balance due to fees and charges assessed on their accounts that were not known at the time when the savings account was opened.[10]

From a policy perspective, such mistakes in financial decision-making due to limited information would be less of a concern if all financial products offered were relatively cheap. However, despite the recent entry of new players in the market, the cost of financial products varies drastically depending on whether certain product fees are incurred (World Bank, 2008).

Table 1 reports summary statistics for all credit and savings products that could have been offered by all 134 financial institutions to the study auditors. For consumer credit loans, Table 1 reports the total annual cost of a loan to be repaid over 6 months in Mexico and Ghana and 12 months in Peru with monthly installments.[11] For savings products, Table 1 reports the total annual earnings from a deposit in a term account and in a transaction account.[12] The table presents two different costs (or returns) depending on whether or not usage fees are incurred. The reason for presenting costs and returns this way is that information (or lack thereof) on usage fees is relevant since behavior can be adjusted to avoid incurring them. For example, a well-informed borrower could have borrowed from elsewhere to meet the installment payment obligation and avoid a high late payment fee while a well-informed saver could have timed the deposits and withdrawals from the account to prevent the balance from falling below the minimum thus avoiding the minimum balance fee.

Thus, when the total cost (and return) include only fees that must be incurred to acquire the product (i.e. without usage fees) the cost refers essentially to the APR and APY that had to be disclosed in Mexico and Peru, but not in Ghana, at the time of the study. But because usage fees are only incurred if the client engages in certain behavior, the reported cost and returns with usage fees are computed using a hypothetical usage profile suggested by the regulators as typical among low-income consumers. For credit, we assume that the client misses one payment; for fixed term deposit we assume that the client withdraws

[10] The fees responsible for the reductions in savings balances were the monthly maintenance fee and usage fees such as the minimum balance requirement fees, activity fees (charged when a certain number of withdrawals per month is exceeded), and inactivity fees (for not depositing additional funds over a certain period of time).
[11] Loan amounts were on average 10,000 Peso (700 USD) loan in Mexico, 5,000 Sol (2,000 USD) in Peru, and around 2,900 Ghanaian Cedi in Ghana using the exchange rates at the time of the study.
[12] Savings deposits were 350 USD (5,000 Pesos) in Mexico, 780 USD (2,000 Sol) in Peru and around 215 USD (500 Cedi) in Ghana.

part of the money before the maturity while keeping the remainder until the end of the year, and for the transaction account, we assume that the client is charged for two account inquiries and withdrawals per month, debit card replacement, a month long account inactivity and is penalized because the client maintains an average balance below the minimum required for 2 months per year. According to Table 1, the average total cost of credit products varied across countries from 57.1% to almost 100% without usage fees, and 69.6% to 112.2% if usage fees are included. Even within a country, the cost of credit without usage fees varied from 17.2% to 94.4% in Peru, from 30.2% to 219.8% in Mexico and from 32.6% to 89% in Ghana. Annualized yields for savings products exhibit a similar pattern. Investment accounts yield on average between 1% and 22.3% without usage fees, and -5.3% to 3.3% if usage fees are included. Transaction accounts have lower (negative) annualized yields between -4.4% and -0.2% without usage fees, or -28.2% to -3.8% on average if usage fees are taken into account.

Table 1 suggests that small differences in behavior can have large impacts on the cost or return of a product, especially for credit and transaction accounts, and thus, accurate information on overall costs and in particular usage fees can save customers sizeable amounts.

The model of Gabaix and Laibson (2006) to which we now turn can account for the variation in costs and yields reported in the data and thus provides a useful starting point to study the quality of information about financial products offered to prospective clients by the staff of financial institutions.

3. Theory

Recasting the example in Gabaix and Laibson (2006), imagine that a bank can offer a 2 percent deposit rate on a savings account so long as it can also charge a fee whenever the average monthly balance falls below a certain minimum, to break even.[13] If the fee is not assessed, the institution can only offer a 1 percent deposit rate. Suppose that there are two types of customers, naïve and sophisticated. Naïve customers are not informed about the minimum balance fee (or do not ask about it when opening the account) and thus decide which account to open based on the highest deposit interest rate offered. In contrast, sophisticated customers know about the fee. Assume further that if customers do not take action, the timing of their deposits and withdrawals is such that the average balance will fall below the minimum thus resulting in the minimum balance fee being assessed by the bank. Customers however can exert some effort to change the timing so that the balance never falls below the minimum.

In this setup, banks will market accounts with a 2 percent deposit rate, failing to disclose the minimum balance fee, to attract naïve customers. Given the assumptions made, all naïve customers will

[13] Note that this fee will only be assessed to the subset of customers whose average balance falls below the minimum. We assume that the bank knows this fraction of customers in the population and that given the deposit rate offered, it can calibrate the fee to break even.

end up paying the minimum balance fee, unaware of it. Sophisticated customers will also be attracted to the 2 percent deposit rate but will never pay the minimum balance fee as they will take action to avoid it. Banks will therefore make enough money from naïve customers to cover the losses from offering the account to sophisticated consumers: naïve customers will cross subsidize the sophisticated ones.

Note that if a bank decided to price the savings account more transparently, offering savings accounts at 1 percent without the minimum balance fee, no customer would be attracted to the 1 percent account because it offers a lower interest rate. All customers would still demand the 2 percent savings account, naïve customers failing to realize that they will end up paying the minimum balance fee and sophisticated ones realizing that they are better off earning 2 percent and avoiding the minimum balance fee altogether.[14] The equilibrium is thus one in which financial products offered have hidden fees that are only taken into account by sophisticated consumers. More formally, the following testable implications can be derived:

1. The staff of financial institutions are knowledgeable about the financial product but will only provide customers with information to contract it, without disclosing its cost voluntarily. As a result, both naïve and sophisticated customers are aware of all requirements to open a savings account or contract a loan. In addition, sophisticated customers ask about fees such as the minimum balance fee on deposit accounts or the late payment fee in credit products and thus learn about such costs while naïve customers do not ask about them and thus remain uninformed.
2. Banks will not engage in informative marketing. Marketing campaigns, if any, will advertise the deposit rate but not the minimum balance fee for savings. Similarly, marketing campaigns for credit products will not advertise the total cost of the credit nor detailed fees and charges.
3. Naïve and sophisticated customers are offered the same product, but naïve customers will earn less net interest on savings and pay more in total for credit as they also pay fees.

In Section 6 we test these predictions more formally.

4. Experimental Design

The audit study was conducted in collaboration with the regulator and the consumer protection agency in each country. In Mexico four towns near the greater metropolitan region of Mexico City were selected with populations ranging from 30,000 to 1,600,000: Amecameca, Cuernavaca, Ecatepec, and Los Reyes de la Paz. These towns were selected for their high penetration of financial institutions targeting

[14] Alternatively, naïve customers could understand the fee structure but be overoptimistic about the chances of their savings balances falling below the minimum. In either case, they would prefer the 2 percent account over the 1 percent account offer.

low-to middle-income consumers, and for the proportion of low-to middle-income population living in them. In Peru, audits were conducted in San Juan Lurigancho a town of 1,100,000 near Lima and the regional capitals of Puno and Piura, with populations of 140,000 and 400,000. In Ghana the audits were done in the capital Accra and the regional capitals of Kumasi and Takoradi, with population ranging from half a million to over 4 million people. In each study location, a radius of 1.5 Km was drawn from the business center, and a census of every financial institution inside the circle was conducted. We found a total of 134 distinct institutions across 3 countries. For the purposes of the analysis we differentiate between commercial or "traditional" banks and other financial institutions (retail chain banks, microfinance lenders, credit unions) that tend to target low-income households.

Credit auditors requested a 6 month loan in Mexico and Ghana and a 12 month loan in Peru for a household expenditure, preferably with monthly installments. The expenditures included house repairs, medical expenses and children's school supplies, among others. Savings auditors were assigned an amount that they wanted to deposit. These amounts were 5,000 Pesos (350 USD) in Mexico, 2,000 Sol (780 USD) in Peru and 500 Cedi (215 USD) in Ghana.[15]

Since we wanted to capture all the information and materials that staff would provide to prospective clients up until the signing of the credit contract or opening of savings account, a visit by the auditor was deemed completed when either the institution refused to open the account or grant the loan or when the auditor was asked to sign the contract. While all savings auditors needed only one visit to gather all the information and be offered the chance to open the account, credit auditors needed up to 4 follow-up visits, some at their residence, before they were offered the opportunity to sign the credit contract. [16] Because credit auditors had to reside locally, we could not use professional auditors. Instead, we recruited 76 auditors from low-income households living in the study locations. Auditors were trained by a full-time professional from the survey firm hired in each country. [17] Table 2 reports the characteristics of auditors. There were 38 men and 41 women, with ages ranging from 21 to 55. Education levels were average for the low-income population, ranging from primary to undergraduate education. Credit auditors made 500 visits and a total 435 auditor-branch pairs since multiple visits were needed to complete a loan application process. Savings auditors carried out a total of 399 visits. Institutions that by law cannot take deposits, like SOFOMs in Mexico were included in the list to assess whether they complied with the law.

Credit and savings visits took place between the months of March and June 2012 in Mexico, November and March 2012-13 in Peru, and November and March 2013-14 in Ghana. In a given location, a

[15] The loan maturities and savings amounts were suggested by the regulators as the modal loan maturity and a typical balance in a savings account. The local currencies were converted to USD using the prevailing exchange rate during the study period.
[16] There were on average 1.87 visits in Mexico, 1.31 visits in Peru and 1.04 visits in Ghana.
[17] While in Peru and Ghana savings auditors were also recruited from the study locations, savings auditors in Mexico were professionals from low-income households employed by the survey firm that trained credit auditors.

branch was always visited by more than one auditor.[18] In Mexico and Ghana, each visit was recorded with a hidden digital recorder, and after each visit the auditor was required to complete a questionnaire that was validated with the audio recording. In Peru, the recording was deemed unfeasible and so 15 percent of the visits were monitored by the supervisor who was present outside the branch during the visit.

Immediately after recruitment, auditors were randomized into savings and credit scripts, stratifying by gender. Auditors memorized the script and used a uniform language when asking about the products. During the training the auditors and field manager were never told about the purpose of the study nor the specific hypotheses we wanted to test.

The scripts varied along three dimensions: financial sophistication or literacy, the degree of perceived competition and the dress code used in the visit.

Financial Literacy: Auditors were assigned to be either experienced or neophytes. Experienced auditors were trained to mention at the outset of the visit that they were shopping around for the best product and that they had reviewed product offers from other institutions. During the visit, they had to demonstrate knowledge of certain terms and if the staff did not voluntarily provide certain product information they had to ask for it. For savings products they had to ask about, among other things, the interest rate, APY (total annual earnings), fees and other costs and the contract. For credit products, the experienced auditor had to ask about interest rate, APR (total annual cost), fees and other costs and the contract, among other items.[19] Neophyte auditors did not mention that they were shopping around nor that they had received other product offers. For savings products, neophyte auditors only asked about the interest rate. For credit products, while auditors in Mexico did not ask for anything, auditors in Peru and Ghana only asked for the interest rate.

In sum, experienced shoppers explicitly asked for more information regarding the cost terms if the staff did not provide the information voluntarily. The reason for this treatment was to assess whether the staff calibrated the amount of information provided voluntarily to the perceived understanding of the customer, and we can use the difference in prompting among neophyte credit auditors in Mexico compared to those in Peru and Ghana to get a sharper test.

Competition: Experienced auditors were instructed to mention in half of the visits that they were offered a lower interest rate in another institution while in the other half of visits they had to mention that they were offered a higher interest rate while shopping around at other institutions. The goal of this treatment was to assess the degree of flexibility that staff had when offering products to match the competition.

Dress Code: Auditors were also instructed to alternate the way they dressed for each branch. In half of the

[18] On average each branch was visited by 1.71 savings auditors and 2.39 credit auditors.

[19] Appendix Table 1 reports all the product terms and other items of information that auditors had to ask about during the visits.

branches that each shopper visited they would dress formally (the attire for a special event or church) while for the rest they would dress informally. Since credit auditors could have follow-up visits to the same branch, they were instructed to dress formally or informally for *all* the visits to that particular branch.[20]

In addition, scripts differed in a product-based variation related to the savings needs or the level of over-indebtedness.

Specific savings needs: Savings auditors wanted to make a deposit for either one full year, indicating a preference for an investment product, or to make frequent transactions, indicating a preference for a transaction account.[21]

Over-indebtedness: Credit auditors were assigned a loan amount resulting in a total household level of indebtedness of either 20 percent (low indebtedness) or 70 percent (high indebtedness). Auditors assigned to the high indebtedness script asked for a loan ranging between 300 and 2,000 USD. The purpose for this treatment was to assess whether credit officers reduced the approved loan amount or whether they fudged the income numbers in the application to approve the loan (Berg, Puri and Rocholl, 2013). Put differently, whether lenders acted responsibly by lending reasonable amounts relative to actual household incomes.

Except for competition and dress code scripts where auditors alternated, to minimize confusion a given auditor was assigned and trained on the same script that would be used in all of his or her visits.[22] The combination of these variations resulted in 4 different scripts for credit and savings auditors.[23] Appendix Table 2 shows that for the 9 auditor characteristics we collected, there is balance in 15 out of 18 comparisons. In particular, savings auditors with a preference for an investment product are less likely to have a university degree, and among credit auditors, those assigned to ask for 70 percent of their household income are marginally more likely to have a loan already, and those assigned to be experienced are more likely to be self-employed. When we regress all the 9 individual characteristics against a dummy that takes the value of 1 for being assigned to be experienced (or to have a preference for the investment product) among savings auditors, the p-value of the F-test that all individual characteristics are jointly zero is 0.937 (0.319). Among credit auditors, the p-value of the F-test are 0.399 for the dummy of being assigned to be experienced and 0.609 for the dummy of being assigned to ask for 70 percent of household income. We

[20] For cases where shoppers alternated their dress for multiple visits, in the analysis the dressing profile treatment reflected the attire in the first visit.

[21] In all study countries, some financial institutions offer payroll accounts. Savings auditors never visited an institution with whom they had a payroll account.

[22] Savings auditors in Mexico were professionals and thus alternated between different scripts.

[23] The 4 scripts assigned to auditors combine financial literacy with indebtedness for credit auditors and with a preference for a given product among savings auditors. Since the same auditor alternates between the high and low competition script, there are 6 distinct scripts used for credit auditors, namely (Experienced, High Competition and High Indebtedness), (Experienced, High Competition and Low Indebtedness), (Experienced, Low Competition and High Indebtedness), (Experienced, Low Competition and Low Indebtedness), (Neophyte and High Indebtedness) and (Neophyte and Low Indebtedness). The 6 scripts used for savings auditors are similar, replacing High Indebtedness by Preference for Investment account and Low Indebtedness by Preference for Transaction account.

conclude therefore that the profiles are assigned randomly and that the samples of auditors in each script is balanced.

5. Data

We use data from 4 different sources. First, the questionnaire filled by auditors after each visit which covers various aspects of the visit, including its length, the products offered and their features. Second, the printed materials that the staff handed to the auditor, consisting of either brochures about the product or, less frequently, personalized amortization tables when credit was requested. The third data source comes from a survey of a sample of credit officers that serviced the auditors. The survey was conducted in Peru and Ghana after the audit study was completed and asked about basic socio-economic characteristics, financial literacy, the marketing of financial products and bonus schemes offered by their employers. The fourth and final data source is what we refer to as the market products dataset containing the terms of all the savings and credit products offered by the institutions in the study at the time of the visits. This dataset is assembled using various sources including the web, market surveys and conversations with the regulatory authorities and staff of the financial institutions. The dataset only includes credit products with loan sizes in the range requested by the auditors, and savings products that can be contracted with the initial deposit amount mentioned. The construction of this dataset proved challenging, especially in Ghana and to a lesser extent in Mexico, for two reasons. First, the authorities in charge of collecting market information only require the average of certain terms for the institutions they supervise. As a result, they did not have detailed data on all the terms for all credit and savings products of supervised institutions and they lacked all product data for unsupervised institutions. The web was therefore used to fill in missing information but since many of the terms were not available online either, they had to be requested directly from the institutions. The other problem was that financial institutions were not always willing to disclose their product portfolio.[24] This resulted in a product dataset with 451 saving and 281 credit products of which 365 and 240 had complete information, respectively.[25] Data for products with complete information are used to generate Table 1 and to assess the total costs of the products offered to the auditors.

We use data from the questionnaire, and market products dataset to construct variables related to the amount of information provided by the institutions.[26] We first matched the product offered to the

[24] This was particularly true in Ghana where the collection of the market products dataset was completed 10 months after the study. For Peru and Mexico the dataset was completed three and four weeks after the study, respectively.

[25] If a transaction account has up to 2 missing cost terms is considered to have complete information and is used in the analysis. The rest of products (investment account and credit) are considered to have complete information if they have up to one missing cost term.

[26] For savings products, the fees include (1) opening fee; (2) management / administration fee; (3) membership fee; (4) debit card fee; (5) the interest rate offered; (6) the total annual earnings (APY); (7) inactivity penalty; (8) account inquiry cost; (9) cash withdrawal cost; (10) debit card replacement fee; (11) penalty for not maintaining a minimum balance and (12) early withdrawal fee for investment accounts. For credit products, the fees include (1) interest cost; (2) insurance (e.g. life, default);

auditor during the visit to the actual product in the market product dataset using the commercial name of the product when available. Although auditors were instructed to gather the commercial name during their visits, the staff failed to provide it in more than half of the visits. For visits without recorded product commercial name matching was done based on other product attributes like the type of savings account (transaction vs. investment), the interest rate quoted, and the presence of several fees. Even when a product offered was found in the market products dataset, the match could not sometimes be used because the market products dataset contained missing terms for the product. The resulting sample of matched products consists of 215 savings and 261 credit products.[27]

From the different product terms collected (see Footnote 26) not all are equally relevant or important, because they may not apply or may not be charged. For this reason we develop a "transparency index" that reflects the disclosed cost as a percentage of the total (annual) cost of the product. The index ranges between 0 and 100 percent, where 0 percent indicates that no information about the cost of the product is disclosed and 100 percent means that the full cost of the product is disclosed. The index is thus a ratio where the numerator is the sum of product-relevant costs disclosed by the staff and the denominator is the total cost of the product. For example, if a savings product has a monthly management fee, then the annualized cost will be included in the denominator and will appear in the numerator if the staff mentioned it.[28] Because the total cost may include usage fees, we compute the transparency index with the usage profile suggested by the regulator and already used in Table 1. The transparency index is reported for all costs disclosed orally as well as the costs disclosed voluntarily by the staff, that is, those costs that were not prompted by the auditor. The transparency index is also computed for the printed materials, such as brochures and amortization tables given to the auditors during the visit.

In addition to the information provided we assess the cost of the product offered and compare it to other similar products offered by the same institution. We compute the total costs and earnings without usage fees, using the formulas for total annual cost and total annual earnings (APR and APY), and with usage fees under the profiles of Table 1.

6. Empirical Strategy and Results

(3) membership cost; (4) credit acquisition costs; (5) management / administration fee; (6) late payment and (7) early payment fee.

[27] Because the same product could be matched to that offered to different auditors visiting the same institution, the number of matched credit products is larger than the number of products with complete information. By country, 88.4 percent of savings products and all the credit products in Peru were matched, 69.6 percent of the savings and 48.7 percent of the credit products in Mexico were matched and 18.1 percent of the savings and 33.5 percent of the credit products in Ghana were matched.

[28] In this example, if there was no management fee, then it would not appear in the numerator or denominator although the staff could have mentioned that such a fee was not assessed.

Because the assignment of scripts to auditors was random, we can run the following OLS regression for savings visits:

$$y_{ij} = \beta_1 HL_i * HI_{ij} + \beta_2 HL_i * LI_{ij} + \beta_3 INV_i + \beta_4 F_{ij} + \beta_5 L_j + \beta_6 C_j + \gamma G_i + \varepsilon_{ij} \qquad (1)$$

where y_{ij} is the outcome of interest for auditor *i* visiting institution *j*, HL_i is an indicator for high literacy or experience, HI_{ij} takes value 1 if auditor *i* visiting institution *j* quotes a high interest rate (high competition in case of savings), while LI_{ij} is an indicator for a low interest rate quote (low competition). In addition, INV_i is a dummy that takes the value of 1 if auditor *i* has a preference for an investment account or fix term deposit (0 if transaction account) and the dummy F_{ij} takes value 1 if auditor *i* visiting institution *j* was dressed formally. The variable ε_{ij} is a mean-zero error term. The regression specification includes a dummy for commercial financial institutions (L_j) and another dummy for whether the institution is located in or near the capital (C_j). The variable G_i denotes the gender of the auditor, the only stratification variable used when assigning auditors to scripts. Standard errors are clustered at the auditor level.

For credit auditor-branch pairs, a similar specification is used. Note that if the pair involved more than one visit, the outcomes are aggregated up to the pair level. Instead of INV_i dummy, we include the dummy HD_i that takes the value of 1 if the auditor asked for a loan amounting to 70 percent of its household income (0 if asked for a loan of 20 percent of its household income). In the credit specification, the indicator for high interest rate HI_i (low interest rate LI_i) denotes low (high) competition because a credit at lower cost is more attractive.

Tables 3-6 report in each column the coefficients in regression (1) above for different outcomes y_{ij} related to the visit, the transparency index, interest rate disclosure and the relative costs of the financial products offered compared to the cheapest alternative that was not offered. In all of the tables, the first 5 rows show the coefficients associated with the script indicators. To conserve space, the coefficients on L_j, C_j, G_i and country fixed effects are omitted. The tables then report the number of observations in total and by country and the mean of the dependent variable for auditors for whom all script indicators take value zero. These "control" auditors are neophytes. In addition, savings control auditors have a preference for a transaction account while credit control auditors ask for a loan of 20 percent of household income. Tables 3-6 then test for induced competition by reporting the p-value of a t-test that quoting a high interest rate is the same as quoting a low interest rate for auditors with experience ($HI_{ij} = LI_{ij}$). They also report the p-value of an F-test that both experienced coefficients ($HL_i * HI_{ij}$ and $HL_i * LI_{ij}$) are jointly zero ($HL_i = 0$).

Panel A of the tables report the mean of the dependent variable by type of financial institution (commercial banks and others).[29] Panel B of the tables report the p-value of t-tests of equal means.

Columns 1-3 and 4-8 of Table 3 report characteristics of savings and credit visits, respectively. Columns 1 and 4 of Table 3 report the average wait time by credit and savings auditors, respectively, before talking to the staff. Because auditors had to wait in line to inquire about any product, the wait times are comparable across products.[30] Columns 2 and 5 report the average face to face time with the staff. Control savings auditors spent on average 15.4 minutes talking with the staff (column 2), while credit auditors spend 19.8 minutes across the different visits (column 5).

In column 2, savings auditors visiting commercial banks had a face to face time of 17.6 minutes, comparable to the face to face time in other institutions. Mexico had the shortest face to face time (approximately 11.7 minutes with commercial banks and 14.3 minutes with the rest of institutions) while Peru had the longest (roughly 20 minutes in any institution). Experienced savings auditors reported significantly longer interview times relative to neophyte auditors by 5.6 and 4 additional minutes depending on the interest rate quoted from other institutions, although this difference is however not significant.[31] This longer interview time with experienced auditors simply reflects the fact that they were instructed to ask more questions about the cost of the product if the staff did not provide such information voluntarily.

Column 3 reports if the auditor was offered the savings product he or she was looking for. Control auditors were offered the type of savings account they requested 77 percent of the time and there are no differences by auditor experience. By country, Ghana has the lowest percentage of clients with met demand at only 64 percent. While the preference for a transaction or investment account was satisfied, virtually none of the savings auditors looking for a transaction account in Mexico was offered the mandated simplified account, which was cheaper for the customer.[32] In all countries, a few savings auditors visited financial institutions that by law could not collect deposits. Without exception, in all of these visits the auditors were turned away unable to open an account.

Column 6 reports the number of visits in each auditor-branch pair. Control credit auditors across the 3 countries had on average 1.4 visits, with most of the multiple visits happening in Mexico. In Ghana

[29] Appendix Table 3 classifies the financial institutions that participated in the study into commercial banks and other financial institutions and provides further details.

[30] When credit auditors had more than one visit with the same institution, typically one was at the institution while the rest happened at home or the place of work, where there was no wait time.

[31] It is not clear a priori whether the extent of competition should play a role in the length of the interview because when faced with an auditor that has an alternative offer with a lower interest rate, say, the staff could spend more (or less) time convincing the auditor about the better product offered in the institution.

[32] While all institutions in Mexico must offer the simplified account, they are free to set a minimum balance requirement. Of the 26 Mexican institutions, 13 set this minimum above the notional amount that auditors wanted to deposit in savings, making these no longer accessible.

almost all credit interactions were settled in one visit. None of the treatment conditions impact the number of visits, although in Mexico auditors in commercial banks had significantly fewer visits.

In column 4, auditors visiting commercial banks had to wait on average 9 minutes while the wait time in the other institutions was approximately 4.3 minutes. In column 5, and analogous to the savings audits, experienced auditors had more face to face time with the staff because they asked more questions.

Column 7 reports the probability that the loan application was accepted by the lender. Across all countries, 62.4 percent of the control credit auditors were told they qualified for a loan. This figure masks important country heterogeneity, from 34.2 percent approval rate in Peru to 90 percent in Ghana. Interestingly, none of the treatment dummies are significant, suggesting that experience or indebtedness play no role in the likelihood of loan rejection. Commercial banks tend to reject more applications, perhaps to attract fewer riskier potential customers.[33] More importantly, among auditors that were offered a loan, those with the high indebtedness profile were approved amounts significantly smaller than those requested (column 8). Commercial banks provided on average larger loan sizes compared to other institutions. In sum, lenders appear to mitigate their risk exposure by adjusting their approval decisions and loan amounts in response to the risk profile of prospective clients.

Table 4 explores whether the information about costs provided to auditors conforms with the predictions of the Gabaix and Laibson (2006) model reviewed in Section 2. Prediction 1 states that customers will only be provided with the required information to contract the product, without voluntarily disclosure of cost information. Columns 1 and 6 confirm this prediction by reporting whether the staff asked for documentation required to open an account and take out a loan, respectively. Control savings and credit auditors were asked for this information in 87 and 75 percent of the visits, respectively. In addition, the treatment dummies are not significant suggesting that the staff requested the same information from all auditors, irrespective of their experience. Columns 2-3 and 5 report the transparency index for savings products. Column 2 includes in the numerator all the cost information disclosed to the auditor orally, regardless of whether it was provided voluntarily or prompted by the auditor when the staff failed to disclose it voluntarily. Column 3 includes in the numerator only cost information disclosed voluntarily by the staff. Columns 2 and 3 confirm Prediction 1 of the model, as the staff discloses little cost information voluntarily, and only experienced customers that ask about costs learn about them, while neophyte auditors remain uninformed. Since control savings auditors do not prompt for cost information, the transparency index for control auditors in columns 2 and 3 is similar and low around 30 percent, across all 3 countries. In column 3, none of the treatment indicators are statistically significant, indicating that staff does not

[33] In specifications that exploit non-experimental variation in auditor characteristics, we find that female and educated auditors as well as those with a loan were less likely to be rejected, while auditors with a business were more likely to be rejected.

voluntarily disclose more information to experienced auditors. In contrast, the results in column 2 suggest that experienced savings auditors managed to acquire significantly more cost information, an increase of 25 and 14 percent depending on the interest rate quoted, compared to neophytes. While the coefficient on $HL_i * LI_{ij}$ is not statistically significant, a test that $HL_i * LH_{ij} = HL_i * LI_{ij}$ cannot be rejected, and a joint test that $HL_i = 0$ can be rejected with a p-value of 0.025. This underscores the vulnerability of low-income poorly educated consumers who are less likely to ask relevant questions about the cost of the products. Control auditors are provided about 33, 29 and 27 percent of the cost of the product in Peru, Mexico and Ghana respectively. The staff in Peru provides significantly more information than in either Mexico or Ghana, perhaps due to the existing better financial disclosure regulation.[34] Disclosing only 33 percent of the cost, however, is still low and more importantly, the disclosed cost voluntarily is uncorrelated with the total cost of the product. In contrast, the cost disclosed to experienced auditors in column 2 has a correlation of 80 percent with the total cost of the product. Thus, staff are informative when auditors know what to ask (Robert and Stahl, 1993).

The transparency indices for credit products are reported in columns 7-8 and 10. The results are similar to those for savings and confirm Prediction 1. According to column 7, experienced credit auditors are given 26 and 29 percent more cost information, depending on the interest rate quoted, from a base of 44 percent of cost information provided to control auditors. The results on cost disclosure for credit and savings products suggest that the staff only provides information when prompted, instead of calibrating the amount of information provided voluntarily to the perceived capacity of the client to absorb it.

Columns 4 and 9 report whether auditors were given any printed materials (generic brochures or personalized information) during the visit. Only about 52 percent of savings auditors and 47.5 percent of credit auditors were given any material and among those who were, the mode was one brochure for both products. There are again stark country differences, from 42 (33) to 89 (58) percent of savings (credit) auditors in Ghana and Peru, respectively, were given some printed material. Although experienced auditors asked for a summary sheet and the contract to review prior to signing, no auditor was ever given these documents.

As a result, the information content of these printed materials was limited. Columns 5 and 10 report their transparency index. The numerator includes the cost information disclosed in brochures, amortization tables, and other materials provided to the auditors. About 35 percent for savings products and 20 percent

[34] Alternatively, the higher average transparency index in Peru could have been driven by cheaper savings products. Table 1 suggests that this is not the case since savings products are comparable across countries. In addition, institutions in all countries tend to charge similar fees. In Peru, 47.6 percent of the transaction accounts have a debit card replacement fee, 40.5 percent have a management fee, 19 percent an inquiry fee and 7 percent a withdrawal fee. In Mexico, 89.5 percent have a debit card replacement fee, 13.2 percent have a management fee, 36.8 percent have an inactivity fee and 26.7 percent have a minimum balance penalty. In Ghana, less than 10 percent of the savings products are assessed any given fee, although information is missing for 43 percent of the products.

of cost information for credit products was disclosed through printed materials.[35] Column 5 confirms Hypothesis 1 which states that financial institutions do not engage in informative marketing. Indeed, the printed materials did not provide factual and detailed information to help customers choose among different financial products. An example of such material for a credit product in each country is shown in Appendix Figure 1. We note that by law all printed brochures in Mexico and Peru must contain the APR and APY, as the examples from Mexico and Peru (but not Ghana) show. Only 70 percent of credit auditors with printed materials, however, were given a brochure. In addition, the formulas for computing the APR and APY do not take into account usage fees which should also be considered when choosing among products. Finally, the APR and APY are never made salient as they are typically buried in a paragraph with other required disclosures printed in small font.

To underscore the point that the staff only provided cost information when prompted, Table 5 reports the voluntary and eventual disclosure of the interest rate and APY / APR. The dependent variable is a dummy that takes value 1 if the rate was disclosed.[36] Columns 2, 4, 6 and 8 report the voluntary disclosure of the interest rate and APY/APR for savings and credit products, respectively. In line with the results from Table 4, voluntary disclosure is low, especially for APY and APR. The staff disclosed the interest rate for savings products voluntarily in 33 percent of the visits, almost double that of interest rate for credit products, disclosed in 15.8 percent of visits. In column 1, virtually all of the auditors were eventually provided information about the interest rate, although in two thirds of the visits it was provided because the auditor asked about it directly. In column 5, auditors in Peru and Ghana were provided with the interest rate in 74 and 83 percent of the visits, significantly higher than that of column 6 because credit auditors had to inquire about the interest rate. In contrast, control credit auditors in Mexico did not ask about the interest rate and as a result, the percentage of visits where the interest rate was disclosed in columns 5 and 6 is comparable at 18 and 15 percent, respectively. (See Appendix Table 1 for a list of terms that each type of auditor asked about). If one feels that comparing disclosure rate between the interest rate and APR/APY is problematic because APR/APY are concepts that are more difficult to explain, then this result provides a sharper test about the behavior of the staff of only providing information when the client asks about it: control credit auditors in Mexico were purposefully told not to ask about the interest rate and were significantly more likely to remain unaware of it. In addition, columns 3 and 7 make again clear that experienced auditors received information about the APY and APR, respectively because they were instructed to ask about them.

[35] Data are missing for savings products in Mexico because control auditors that were offered a product that could be matched to the database were not given printed materials.
[36] Because disclosure of APY in Ghana was not mandated, the survey did not record information on its actual disclosure.

Table 6 can be used to test Prediction 3 of the model, which states that all costumers are offered similar products. Columns 1 and 2 of Table 6 report the total yield after one year that would accrue in the savings account under the assumption of "no usage" (column 1) and "usage" (column 2). "No usage" refers to an activity level without deposits to or withdrawals from the account for one year. In this case, if inactivity fees are not assessed, then the formula to calculate total yield coincides with the APY. In column 2, "usage" assumes an activity level of 2 account inquiries and 2 cash withdrawals per month, penalty for a month long account inactivity, and a penalty if the average balance in the account is below the minimum allowed. As expected, auditors with a preference for investment accounts are offered higher yields as they are more profitable for the institution, but we also find that experienced auditors are given slightly higher yielding savings accounts, especially among those that quoted a low interest rate. Columns 5 and 6 report the total cost of credit products with and without a late payment, respectively. In the case of credit products Prediction 3 is confirmed, because all auditors are offered similar products.[37]

Columns 3 and 4 report the difference in total yields between the cheapest savings product that the institution could have offered while meeting the needs of the auditor and the actual product offered. While all auditors were offered more expensive products, experienced auditors appear to receive a cheaper savings product. Columns 7 and 8 report the difference in total costs between the cheapest credit product offered by the institution and the actual loan offered to the auditor. None of the treatment dummies are statistically significant, suggesting that neither financially literacy nor the degree of indebtedness affects the product offered. Auditors are nonetheless offered relatively more expensive products: without late payments, the average difference in the total cost of credit for control auditors is 11.7 percent and 17.4 percent once late payment costs are included. We conclude that Prediction 3 is supported for the matched credit products but not for matched savings products. Appendix tables 4 and 5 include products offered that could not be matched in the market products database by matching them to either the cheapest product or the most expensive product that the institution could have offered. Since every product offered is matched, the number of products in Appendix tables 4 and 5 coincides with the number of auditor-institution interactions. When we use all products, Prediction 3 is supported for both credit and savings products. Overall, the results seem to conform well with the predictions of the Gabaix and Laibson (2006) model.

Why do staff provide little information voluntarily and offer relatively more expensive products? Table 7 tries to address this question by reporting results from the staff survey conducted in Peru and Ghana. About 70 percent of the staff in each country have university degrees. In Peru there are no

[37] When the total cost of credit and savings products are regressed against the 9 auditor characteristics and the treatment dummies, the p-value associated with the F-test that all auditor characteristics are jointly zero is 0.992 for credit and 0.172 for savings. This suggests that staff has limited ability to tailor the terms and cost of the product to the characteristics of the client.

differences in the percentage of staff with college degrees across financial institutions, but in Ghana, all the staff from commercial banks do have a college degree but only 64 percent of the staff from other financial institutions do. This difference in percentages is significant at the 1 percent level. In addition, they are comfortable with the concept of interest rate. We asked the same interest rate question as in Lusardi and Mitchell (2014) and Atkinson and Messy (2012) and found that 63 and 57 percent in Peru and Ghana, respectively answer the question correctly. Atkinson and Messy (2012) reports that only 40 percent of the population answers this question correctly in Peru.[38] While they service many clients per day (34 in Peru and 10 in Ghana), about three-quarters of the staff in Peru claims to provide voluntarily all the information related to the product offered. In Ghana, this percentage drops to about a quarter, and about half of the staff claims to gauge the amount of information to the understanding of the client. This contrasts with the practice we have documented of just providing information when asked. The reason why information disclosure is limited comes from the incentive to see as many clients as possible in order to meet their sales quota.[39] Indeed, their income is subject to incentive schemes that reward the number of sales of certain products. About 70 percent of the staff in Peru and about a third of the staff in Ghana report being influenced by the incentive scheme when deciding with credit products to offer. These percentage are lower for savings products but still significant. This explains why clients are rarely offered the cheapest product that met their needs.

7. Conclusions

This study provides evidence of the quality of information that financial institutions provide to potential customers seeking savings and credit products as well as the adequacy of products that are offered.

Consistent with the predictions of Gabaix and Laibson (2006) this study finds that consumers who do not actively engage the staff, are provided enough information to acquire the product but very little information about its costs. In contrast, experienced auditors who were instructed to ask specific questions about the product if the staff did not disclose the information voluntarily end up better informed.

The first key finding is thus that despite being subject to different regulatory frameworks in the three countries studied, the staff across countries behave remarkably similar by not disclosing information unless prompted, resulting in too little voluntary provision of cost information.

This finding also underscores the gap between enacted regulation and its enforcement and how this gap may persist as financial institutions have strong incentives to undermine disclosure initiatives.

[38] No data from Ghana are available.
[39] Anagol et al. (2012) show, in contrast, that insurance brokers in India tailor financial advice depending on the financial sophistication of the client.

Lowenstein, Sunstein and Golman (2014) argue that disclosure policy implemented successfully may have little effect on consumers but large effects on financial institutions. Financial disclosure regulation in the countries we study could however be improved. For example, basic guidance could be provided to consumers on the key questions to ask when looking for a credit or savings product. In addition, information could be provided more transparently as tested in a follow-up to this study in Mexico (Giné, Martinez and Mazer, In process). Of course, lenders may choose in equilibrium to spend little time with low-income customers because they are expensive to service, but aggregate terms such as the APR and APY should be adequately disclosed voluntarily as required by law. The correlation between the disclosed cost in printed materials and the total cost of credit and savings products is 0.34 and 0.81, respectively, in Peru and Mexico but only 0.28 and 0.24 in Ghana where the APR/APY do not have to be disclosed. In addition to disclosing the APR and APY to enhance comparability across similar products, staff should also disclose usage fees (not reflected in the APR and APY) because they can significantly impact the total yield and cost of products.

One may think that clients will anticipate the motives of self-interested staff and therefore discount their advice, but empirical research has shown that clients follow financial advice blindly (Engelmann et al. 2009) not aware of the strategic aspects in the advice relationship.

The second key finding is that staff responds to incentives by limiting the offer of basic savings accounts in Mexico and by reducing the loan amounts approved in applications from over-indebted auditors. This finding suggests that by lending responsibly in the context of consumer lending, financial institutions are not contributing to financial instability.

This study covers consumer credit and savings products contracted at the branch and may therefore be expensive to offer, especially to low-income populations. A promising avenue is the take-up of low-cost mobile or online savings accounts, or access to financial products as a byproduct of government-to-person payment programs.

Finally, this study focuses on the disclosure of information during the period until the product is contracted (pre-sale period). While the terms of the credit products studied cannot be changed, those of savings products could and as a result, assessing post-sale disclosure may also be important in future research.

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Table 1. Cost and Return of Financial Products

	Mexico				Peru				Ghana			
	N	Mean	p10	p90	N	Mean	p10	p90	N	Mean	p10	p90
Credit Product												
Total Annualized Cost without usage fees	41	96.9%	30.2%	219.8%	56	57.1%	17.2%	94.4%	143	60.4%	32.6%	89.0%
Total Annualized Cost with usage fees	41	112.2%	32.0%	225.4%	56	69.6%	22.1%	111.9%	143	111.3%	39.3%	185.4%
Number of Products per institution		2.9				1.8				2.3		
Investment Account												
Total Annualized Yield without usage fees	35	1.0%	0.4%	5.1%	40	4.1%	2.0%	5.5%	45	22.3%	7.8%	31.3%
Total Annualized Yield with usage fees	35	0.5%	-1.2%	4.5%	40	3.3%	1.3%	5.5%	45	-5.3%	-22.2%	3.4%
Number of Products per institution		1.9				1.7				0.7		
Transaction Account												
Total Annualized Yield without usage fees	90	-4.4%	-12.0%	1.5%	85	-0.2%	-4.2%	2.0%	70	-0.8%	-12.1%	6.2%
Total Annualized Yield with usage fees	90	-6.6%	-14.5%	0.4%	85	-3.8%	-8.0%	0.8%	70	-28.2%	-40.7%	-20.2%
Number of Products per institution		5.0				3.5				1.1		

This table reports estimated total annualized costs and yields for credit and savings products, respectively, offered by institutions in the study. Costs and returns are presented in two different ways depending on whether or not usage fees are incurred. For savings products, the table reports the total annual earnings from a deposit in a term account (investment) and in a transaction account. Credit products refer to a 6 months loan in Mexico and Ghana and 12 months loan in Peru with monthly instalments. Credit cost is calculated on a 700 USD (10,000 Peso) loan in Mexico, 2000 USD (5000 Sol) in Peru, and 1200 USD (2900 Ghanaian Cedi) in Ghana. All savings accounts (investment and transaction) refer to an initial deposit amount proposed by the shopper. Savings deposit amounts are 350 USD (5000 Pesos) in Mexico, 780 USD (2000 Sol) in Peru and 215 USD (500 Ghanaian Cedi) in Ghana. USD rates are converted using the average exchange rates at the time of the study. The total annualized cost without usage fees for credit include the premium for compulsory unemployment or life insurance, administrative fees, membership and credit acquisition fees. The total annualized yield without usage fees include the opening fee, administrative / management fees. Usage fees include a late instalment payment for credit products; a withdrawal of part of the initial deposit before maturity for the investment account and 2 monthly account inquiries, 2 monthly cash withdrawals, a one month long account inactivity, debit card replacement and the penalty for maintaining an average balance below the minimum required for 2 months for the transaction account. Information on product terms was collected during the period when audit visits were made, with an exception of Ghana where it was completed 10 months after the study visits.

Table 2. Auditor characteristics

	Total		Peru	Mexico	Ghana
	Mean	St. dev		Mean	
Male (1 = Yes)	0.48	0.50	0.48	0.41	0.53
Age	31.91	8.54	31.57	32.50	31.76
Single / Divorced (1 = Yes)	0.56	0.50	0.74	0.36	0.56
Number of adults in household	2.99	1.54	2.96	3.00	3.00
Completed a university degree (1 = Yes)	0.44	0.50	0.48	0.32	0.50
Has an active loan (1 = Yes)	0.42	0.50	0.57	0.41	0.32
Has a savings account (1 = Yes)	0.73	0.44	0.61	0.50	0.97
Owns business / self-employed (1 = Yes)	0.39	0.49	0.30	0.32	0.50
Household monthly income (USD)	702.94	425.37	984.33	610.09	572.67
Number of auditors	79		23	22	34

This table reports summary statistics for auditor characteristics. One auditor in Peru completed visits for both savings and credit products. Four savings auditors in Mexico were professionals from low-income households employed by the survey firm that trained credit auditors.

Table 3. Visit characteristics

	Savings			Credit				
	Total wait time (minutes)	Total Interview time (minutes)	Product offered aligned with needs	Total wait time (minutes)	Total interview time (mintues)	Total visits	Approved credit	Amount offered - requested (USD)
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
HL * HI	-0.823	5.616**	-0.009	0.007	5.875**	-0.006	-0.004	-7.939
	(1.220)	(2.493)	(0.077)	(1.438)	(2.528)	(0.087)	(0.064)	(70.678)
HL * LI	-0.919	3.977*	0.012	1.578	4.178**	-0.040	0.003	-46.016
	(1.013)	(2.190)	(0.073)	(1.174)	(2.017)	(0.076)	(0.056)	(54.230)
Investment	0.548	1.683	0.036					
	(0.750)	(2.048)	(0.066)					
High indebtedness				0.713	2.264	-0.033	-0.021	-194.393***
				(1.240)	(2.048)	(0.085)	(0.056)	(55.355)
Formal dress	-0.213	0.394	-0.080**	1.441*	0.677	0.010	0.007	-49.061
	(0.870)	(1.150)	(0.030)	(0.838)	(1.460)	(0.046)	(0.031)	(60.263)
R-squared	0.124	0.144	0.115	0.096	0.189	0.302	0.265	0.091
Observations	392	392	392	435	435	435	435	308
Peru	121	121	121	150	150	150	150	80
Mexico	105	105	105	115	115	115	115	88
Ghana	166	166	166	170	170	170	170	140
Means for control auditors								
Dep. Variable	6.773	15.371	0.773	6.327	19.782	1.406	0.624	-11.297
Peru	6.389	14.222	0.944	7.368	14.895	1.211	0.342	-70.571
Mexico	10.462	9.308	0.923	8.303	30.576	1.970	0.697	-73.750
Ghana	5.094	18.736	0.642	2.833	14.100	1.033	0.900	99.031
P-value of test								
*HL * HI = HL * LI*	0.935	0.255	0.698	0.100	0.396	0.591	0.903	0.619
HL = 0	0.640	0.095	0.925	0.129	0.060	0.794	0.992	0.694
Panel A: Means								
Commercial Banks	9.414	17.562	0.805	8.989	18.194	1.151	0.495	-0.937
Peru	8.460	20.800	0.900	10.500	20.479	1.208	0.417	-5.237
Mexico	15.909	11.667	0.818	11.895	16.158	1.158	0.263	97.500
Ghana	5.711	18.289	0.689	4.077	15.462	1.038	0.808	-27.060
Other Financial Inst.	5.439	18.220	0.792	4.277	20.482	1.337	0.713	-106.612
Peru	7.028	19.690	0.887	6.529	15.951	1.363	0.392	42.787
Mexico	7.153	14.292	0.958	4.456	37.544	2.018	0.807	-200.306
Ghana	3.488	19.694	0.636	2.611	16.938	1.049	0.903	-132.660
Panel B: P-values of difference in means								
Mexico-Peru	0.080	0.000	0.585	0.624	0.000	0.000	0.000	0.003
Mexico-Ghana	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.441
Peru-Ghana	0.000	0.553	0.000	0.000	0.574	0.000	0.000	0.023
Commercial Banks - Other Fin. Inst.	0.000	0.596	0.765	0.000	0.070	0.000	0.000	0.096
Commercial Banks								
Mexico-Peru	0.004	0.000	0.288	0.646	0.269	0.644	0.248	0.026
Mexico-Ghana	0.000	0.002	0.201	0.018	0.853	0.172	0.000	0.012
Peru-Ghana	0.117	0.267	0.010	0.008	0.092	0.051	0.001	0.371
Other Financial Inst.								
Mexico-Peru	0.927	0.011	0.113	0.835	0.000	0.000	0.000	0.005
Mexico-Ghana	0.000	0.001	0.000	0.001	0.000	0.000	0.026	0.433
Peru-Ghana	0.003	0.998	0.000	0.000	0.467	0.000	0.000	0.037

This table reports the estimation of the following specification: $y_{ij} = \beta_1 HL_i * HI_{ij} + \beta_2 HL_i * LI_{ij} + \beta_3 INV_i + \beta_4 F_{ij} + \beta_5 L_i + \beta_6 C_i + \gamma G_i + \varepsilon_{ij}$, where i indexes the auditor, j indexes the visiting institution, HL_i is an indicator for high literacy or experience, HI_{ij} takes value 1 if auditor i visiting institution j quotes a high interest rate (high competition in case of savings), while LI_{ij} is an indicator for a low interest rate quote (low competition). In addition, INV_i is a dummy that takes the value of 1 if auditor i has a preference for an investment account or fixed term deposit (0 if transaction account), for credit auditor-branch pairs it is replaced with the dummy HD_i that takes the value of 1 if the auditor asked for a loan amounting to 70 percent of its household income (0 if asked for a loan of 20 percent of its household income). The dummy F_{ij} takes value 1 if auditor i visiting institution j was dressed formally. Total wait time in columns (1) and (4) report the average wait time in minutes for savings and credit auditors, respectively. Total interview time in columns (2) and (5) is the average face to face time with staff in minutes. Dependent variable in column (3) is a dummy variable indicating whether an auditor was offered the type of savings product he or she was looking for (investment/fixed term or transaction). Total visits in column (6) is the number of visits in each auditor-branch pair. Approved credit in column (7) is a dummy variable that takes the value of 1 if auditor qualified for credit. Column (8) reports the difference between the loan amount offered by the institution and the amount requested by auditor, converted to USD using the prevailing exchange rate at the time of the visit. All regressions include country fixed effects, auditor's gender, dummies for visits to commercial institutions and provincial areas. Control auditors were assigned the script without experience (neophyte) and had preference for a transaction account for savings audits or a loan size of 20 percent of household income (low indebtedness) for credit audits. Standard errors are clustered at the auditor level and are reported in parenthesis under coefficient estimates. Levels of significance * p<0.10 ** p<0.05 *** p<0.01.

Table 4. Transparency Index

	Savings					Credit				
	Oral			Printed material		Oral			Printed material	
	Documentation required	TI		Provided (1=yes)	TI	Documentation required	TI		Provided (1=yes)	TI
		All	Voluntary				All	Voluntary		
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)
HL * HI	0.007	0.247***	-0.049	0.065	-0.080	-0.023	0.255***	-0.074	-0.025	0.104
	(0.048)	(0.085)	(0.077)	(0.068)	(0.087)	(0.065)	(0.079)	(0.057)	(0.067)	(0.070)
HL * LI	0.037	0.143	-0.054	0.022	-0.054	0.034	0.289***	-0.018	0.049	0.122*
	(0.043)	(0.101)	(0.084)	(0.065)	(0.077)	(0.065)	(0.060)	(0.060)	(0.063)	(0.065)
Investment	0.001	0.325***	0.402***	0.031	0.076					
	(0.039)	(0.080)	(0.082)	(0.058)	(0.076)					
High indebtedness						-0.094*	-0.064	-0.014	-0.071	0.086
						(0.053)	(0.054)	(0.052)	(0.057)	(0.064)
Formal dress	-0.009	-0.001	-0.051	-0.053	0.091	0.022	0.084	-0.020	0.045	-0.016
	(0.024)	(0.069)	(0.072)	(0.044)	(0.079)	(0.045)	(0.052)	(0.039)	(0.059)	(0.059)
R-squared	0.083	0.229	0.291	0.173	0.136	0.041	0.190	0.238	0.049	0.180
Observations	392	215	215	392	104	435	261	261	435	116
Peru	121	107	107	121	88	150	150	150	150	67
Mexico	105	78	78	105	4	115	54	54	115	22
Ghana	166	30	30	166	12	170	57	57	170	27
Means for control auditors										
Dep. Variable	0.866	0.302	0.292	0.515	0.345	0.752	0.439	0.182	0.475	0.202
Peru	0.944	0.329	0.329	0.889	0.424	0.763	0.347	0.000	0.579	0.192
Mexico	0.962	0.289	0.268	0.462	.	0.697	0.468	0.468	0.485	0.319
Ghana	0.792	0.273	0.273	0.415	.	0.800	0.655	0.330	0.333	0.104
P-value of test										
*HL * HI = HL * LI*	0.306	0.304	0.925	0.535	0.793	0.432	0.697	0.396	0.312	0.803
HL = 0	0.461	0.025	0.805	0.633	0.590	0.729	0.000	0.435	0.574	0.138
Panel A: Means										
Commercial Banks	0.922	0.571	0.407	0.602	0.532	0.548	0.569	0.112	0.376	0.343
Peru	1.000	0.537	0.322	0.880	0.571	0.667	0.555	0.092	0.479	0.396
Mexico	0.939	0.654	0.569	0.515	1.000	0.211	0.470	0.220	0.368	0.439
Ghana	0.822	0.559	0.453	0.356	0.000	0.577	0.692	0.176	0.192	0.000
Other Financial Inst.	0.913	0.720	0.615	0.598	0.470	0.683	0.585	0.184	0.488	0.293
Peru	0.986	0.603	0.470	0.859	0.347	0.657	0.428	0.013	0.598	0.231
Mexico	0.972	0.800	0.695	0.625	1.000	0.807	0.830	0.543	0.474	0.715
Ghana	0.835	0.845	0.833	0.430	0.974	0.653	0.759	0.314	0.417	0.142
Panel B: P-values of difference in means										
Mexico-Peru	0.129	0.005	0.000	0.000	0.025	0.220	0.003	0.000	0.110	0.005
Mexico-Ghana	0.001	0.752	0.825	0.004	0.178	0.115	0.338	0.092	0.188	0.000
Peru-Ghana	0.000	0.100	0.006	0.000	0.186	0.726	0.000	0.000	0.001	0.029
Commercial Banks - Other Fin. Inst.	0.764	0.018	0.002	0.954	0.512	0.004	0.934	0.109	0.055	0.466
Commercial Banks										
Mexico-Peru	0.080	0.320	0.037	0.000	.	0.001	0.729	0.372	0.419	0.878
Mexico-Ghana	0.130	0.576	0.507	0.163	.	0.013	0.421	0.831	0.195	0.178
Peru-Ghana	0.002	0.886	0.400	0.000	0.020	0.451	0.409	0.381	0.015	0.040
Other Financial Inst.										
Mexico-Peru	0.571	0.015	0.012	0.001	0.019	0.004	0.001	0.000	0.094	0.002
Mexico-Ghana	0.003	0.668	0.243	0.009	0.568	0.002	0.404	0.135	0.342	0.001
Peru-Ghana	0.001	0.044	0.005	0.000	0.000	0.947	0.000	0.000	0.005	0.275

This table reports the estimation of the following specificaiton: $y_{ij} = \beta_1 HL_i * HI_{ij} + \beta_2 HL_i * LI_{ij} + \beta_3 INV_i + \beta_4 F_{ij} + \beta_5 L_i + \beta_6 C_i + \gamma G_i + \varepsilon_{ij}$, where i indexes the auditor, j indexes the visiting institution, HL_i is an indicator for high literacy or experience, HI_{ij} takes value 1 if auditor i visiting institution j quotes a high interest rate (high competition in case of savings), while LI_{ij} is an indicator for a low interest rate quote (low competition). In addition, INV_i is a dummy that takes the value of 1 if auditor i has a preference for an investment account or fixed term deposit (0 if transaction account), for credit auditor-branch pairs it is replaced with the dummy HD_i that takes the value of 1 if the auditor asked for a loan amounting to 70 percent of its household income (0 if asked for a loan of 20 percent of its household income). The dummy F_{ij} takes value 1 if auditor i visiting institution j was dressed formally. An observation in the regression is an auditor-branch pair, each pair during credit audits could have multiple visits. Dependant variable in columns (1) and (6) is a dummy indicating whether the staff asked for auditor's official ID to open an account and take out a loan, respectively. Columns (2), (3), (5) report the transparency index for savings products; columns (7), (8), and (10) for credit products. Transparency index (TI) indicates the percentage of total product cost that is disclosed to the auditor by staff, either voluntarily or after being prompted by the auditor when the staff failed to disclose it. Dependent variable in columns (4) and (9) is a dummy that takes the value of 1 if auditor was provided with any printed material related to the product offered (brochure, key fact statement, etc). Columns (5) and (10) report the transparency index, based on cost information disclosed in printed materials. Costs for savings accounts include: opening fee, management fee, debit card fee, membership fee, fees for 2 monthly account inquiries and 2 monthly withdrawals either at the branch or ATM, debit card replacement fee, account inactivity penalty and penalty for falling below the required minimum account balance. Costs for investment accounts include, in addition, an early withdrawal fee for withdrawal before contracted date. Costs for credit products include: life and default insurance, administration fee, credit acquisition fee, membership fee, interest rate and a penalty for late payment. All regressions include country fixed effects, auditor's gender, dummies for visits to commercial institutions and provincial areas. Control auditors were assigned the script without experience (neophyte) and had preference for a transaction account for savings audits or a loan size of 20 percent of household income (low indebtedness) for credit audits. Standard errors are clustered at the auditor level and are reported in parenthesis under coefficient estimates. Levels of significance * p<0.10 ** p<0.05 *** p<0.01.

Table 5. Interest rate and APY / APR disclosure

	Savings				Credit			
	Interest rate		APY		Interest rate		APR	
	All	Voluntary	All	Voluntary	All	Voluntary	All	Voluntary
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
HL * HI	-0.089	0.052	0.700***	0.076	0.107	-0.026	0.322***	-0.029
	(0.056)	(0.099)	(0.081)	(0.045)	(0.064)	(0.055)	(0.073)	(0.033)
HL * LI	-0.071	0.052	0.634***	0.003	0.129*	-0.023	0.368***	0.010
	(0.043)	(0.103)	(0.112)	(0.031)	(0.066)	(0.055)	(0.062)	(0.036)
Investment	0.006	0.115	-0.046	0.003				
	(0.044)	(0.085)	(0.090)	(0.033)				
High indebtedness					0.023	0.013	-0.028	-0.016
					(0.056)	(0.049)	(0.058)	(0.031)
Formal dress	0.037	0.031	-0.073*	-0.012	0.041	-0.055	-0.002	0.010
	(0.024)	(0.048)	(0.041)	(0.032)	(0.042)	(0.041)	(0.034)	(0.016)
R-squared	0.167	0.036	0.650	0.034	0.138	0.078	0.291	0.107
Observations	392	392	226	226	435	435	435	435
Peru	121	121	121	121	150	150	150	150
Mexico	105	105	105	105	115	115	115	115
Ghana	166	166	0	0	170	170	170	170
Means for control auditors								
Dep. Variable	0.918	0.330	0.023	0.023	0.584	0.158	0.089	0.079
Peru	1.000	0.278	0.056	0.056	0.737	0.000	0.000	0.000
Mexico	1.000	0.346	0.000	0.000	0.182	0.152	0.212	0.212
Ghana	0.849	0.340			0.833	0.367	0.067	0.033
P-value of test								
*HL * HI = HL * LI*	0.708	0.998	0.456	0.030	0.725	0.954	0.469	0.277
HL = 0	0.208	0.856	0.000	0.087	0.125	0.873	0.000	0.500
Panel A: Means								
Commercial Banks	0.906	0.352	0.410	0.036	0.613	0.108	0.204	0.022
Peru	1.000	0.300	0.540	0.040	0.667	0.083	0.333	0.021
Mexico	0.939	0.394	0.212	0.030	0.211	0.053	0.105	0.053
Ghana	0.778	0.378			0.808	0.192	0.038	0.000
Other Financial Inst.	0.894	0.424	0.364	0.056	0.762	0.211	0.228	0.059
Peru	1.000	0.380	0.563	0.056	0.676	0.029	0.324	0.000
Mexico	1.000	0.389	0.167	0.056	0.614	0.333	0.474	0.246
Ghana	0.769	0.471			0.882	0.292	0.062	0.028
Panel B: P-values of difference in means								
Mexico-Peru	0.128	0.502	0.000	0.946	0.008	0.000	0.277	0.000
Mexico-Ghana	0.000	0.371			0.000	0.262	0.000	0.000
Peru-Ghana	0.000	0.093			0.000	0.000	0.000	0.226
Commercial Banks - Other Fin. Inst.	0.707	0.169	0.494	0.507	0.023	0.037	0.376	0.079
Commercial Banks								
Mexico-Peru	0.080	0.382	0.003	0.820	0.001	0.672	0.059	0.498
Mexico-Ghana	0.052	0.887			0.000	0.181	0.386	0.247
Peru-Ghana	0.000	0.429			0.204	0.176	0.004	0.466
Other Financial Inst.								
Mexico-Peru	.	0.916	0.000	0.984	0.134	0.000	0.073	0.000
Mexico-Ghana	0.000	0.268			0.000	0.481	0.000	0.000
Peru-Ghana	0.000	0.223			0.000	0.000	0.000	0.090

This table reports the estimation of the following specificaiton: $y_{ij} = \beta_1 HL_i * HI_{ij} + \beta_2 HL_i * LI_{ij} + \beta_3 INV_i + \beta_4 F_{ij} + \beta_5 L_i + \beta_6 C_i + \gamma G_i + \varepsilon_{ij}$, where i indexes the auditor, j indexes the visiting institution, HL_i is an indicator for high literacy or experience, HI_{ij} takes value 1 if auditor i visiting institution j quotes a high interest rate (high competition in case of savings), while LI_{ij} is an indicator for a low interest rate quote (low competition). In addition, INV_i is a dummy that takes the value of 1 if auditor i has a preference for an investment account or fixed term deposit (0 if transaction account), for credit auditor-branch pairs it is replaced with the dummy HD_i that takes the value of 1 if the auditor asked for a loan amounting to 70 percent of its household income (0 if asked for a loan of 20 percent of its household income). The dummy F_{ij} takes value 1 if auditor i visiting institution j was dressed formally. An observation in the regression is an auditor-branch pair, each pair during credit audits could have multiple visits. We report the voluntary and eventual disclosure of the interest rate and APY / APR. The dependent variable is a dummy that takes value 1 if the rate was disclosed. All auditors were instructed to ask for interest rate if staff failed to provide it, with the exception of control (neophyte) auditors in Mexico. Only experienced auditors asked about APY / APR. Because disclosure of APY in Ghana was not mandated, the survey did not record information on its actual disclosure by the staff. All regressions include country fixed effects, auditor's gender, dummies for visits to commercial institutions and provincial areas. Control auditors were assigned the script without experience (neophyte) and had preference for a transaction account for savings audits or a loan size of 20 percent of household income (low indebtedness) for credit audits. Standard errors are clustered at the auditor level and are reported in parenthesis under coefficient estimates. Levels of significance * p<0.10 ** p<0.05 *** p<0.01.

Table 6. Cost and Return of Financial Products offered

	Savings				Credit			
	Total Yield		Difference in Total Yield		Total Cost		Difference in Total Cost	
	No Usage	Usage	No Usage	Usage	On-time repayment	One late payment	On-time repayment	One late payment
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
HL * HI	-0.011	-0.002	0.001	-0.001	-0.068	-0.097	-0.008	-0.020
	(0.011)	(0.011)	(0.003)	(0.006)	(0.052)	(0.071)	(0.029)	(0.040)
HL * LI	0.010	0.019**	-0.004	-0.008	0.043	0.093	0.006	0.069
	(0.009)	(0.009)	(0.003)	(0.006)	(0.063)	(0.110)	(0.022)	(0.066)
Investment	0.045***	0.068***	-0.004*	-0.015***				
	(0.007)	(0.007)	(0.002)	(0.005)				
High indebtedness					-0.038	-0.123	0.013	-0.034
					(0.040)	(0.074)	(0.018)	(0.044)
Formal dress	-0.008	-0.007	-0.001	0.000	-0.005	0.003	0.027	0.055
	(0.005)	(0.006)	(0.002)	(0.003)	(0.071)	(0.105)	(0.028)	(0.054)
R-squared	0.632	0.552	0.133	0.313	0.109	0.093	0.038	0.019
Observations	215	215	215	215	261	261	261	261
Peru	107	107	107	107	150	150	150	150
Mexico	78	78	78	78	54	54	54	54
Ghana	30	30	30	30	57	57	57	57
Means for control auditors								
Dep. Variable	0.002	-0.068	0.016	0.035	0.748	0.958	0.117	0.174
Peru	0.012	-0.036	0.003	0.012	0.663	0.803	0.161	0.195
Mexico	-0.014	-0.050	0.029	0.061	0.983	1.142	0.091	0.125
Ghana	0.030	-0.233	0.003	0.003	0.692	1.154	0.027	0.176
P-value of test								
*HL * HI = HL * LI*	0.063	0.058	0.021	0.092	0.173	0.116	0.675	0.195
HL = 0	0.158	0.059	0.056	0.201	0.333	0.217	0.913	0.427
Panel A: Means								
Commercial Banks	0.016	-0.045	0.015	0.027	0.487	0.605	0.152	0.181
Peru	0.017	-0.008	0.010	0.016	0.513	0.628	0.168	0.201
Mexico	-0.011	-0.046	0.035	0.064	0.309	0.327	0.000	0.000
Ghana	0.064	-0.198	0.001	0.004	0.427	0.608	0.130	0.156
Other Financial Inst.	0.057	0.006	0.005	0.008	0.823	1.025	0.129	0.206
Peru	0.028	0.004	0.004	0.005	0.725	0.880	0.143	0.177
Mexico	0.030	0.022	0.006	0.012	1.323	1.527	0.208	0.317
Ghana	0.233	-0.039	0.004	0.004	0.708	1.008	0.047	0.196
Panel B: P-values of difference in means								
Mexico-Peru	0.312	0.575	0.021	0.000	0.001	0.004	0.414	0.966
Mexico-Ghana	0.000	0.000	0.077	0.004	0.003	0.191	0.138	0.926
Peru-Ghana	0.000	0.000	0.200	0.051	0.927	0.134	0.006	0.914
Commercial Banks - Other Fin. Inst.	0.000	0.000	0.000	0.000	0.000	0.000	0.289	0.923
Commercial Banks								
Mexico-Peru	0.002	0.005	0.003	0.000	0.281	0.189	0.049	0.053
Mexico-Ghana	0.003	0.000	0.045	0.004	0.120	0.078	0.239	0.244
Peru-Ghana	0.001	0.000	0.086	0.040	0.498	0.902	0.545	0.552
Other Financial Inst.								
Mexico-Peru	0.667	0.027	0.178	0.002	0.006	0.018	0.758	0.776
Mexico-Ghana	0.000	0.001	0.606	0.037	0.004	0.227	0.058	0.998
Peru-Ghana	0.000	0.023	0.850	0.706	0.840	0.275	0.015	0.754

This table reports the estimation of the following specificaiton: $y_{ij} = \beta_1 HL_i * HI_{ij} + \beta_2 HL_i * LI_{ij} + \beta_3 INV_i + \beta_4 F_{ij} + \beta_5 L_i + \beta_6 C_i + \gamma G_i + \varepsilon_{ij}$, where i indexes the auditor, j indexes the visiting institution, HL_i is an indicator for high literacy or experience, HI_{ij} takes value 1 if auditor i visiting institution j quotes a high interest rate (high competition in case of savings), while LI_{ij} is an indicator for a low interest rate quote (low competition). In addition, INV_i is a dummy that takes the value of 1 if auditor i has a preference for an investment account or fix term deposit (0 if transaction account), for credit auditor-branch pairs it is replaced with the dummy HD_i that takes the value of 1 if the auditor asked for a loan amounting to 70 percent of its household income (0 if asked for a loan of 20 percent of its household income). The dummy F_{ij} takes value 1 if auditor i visiting institution j was dressed formally. An observation in the regression is an auditor-branch pair, each pair during credit audits could have multiple visits. This table estimates returns and costs for financial products offered during savings and credit audit visits, respectively. Column (1) and (2) report the total yield after one year that would accrue in the savings account under the assumption of "no usage" (column 1) and "usage" (column 2). "No usage" refers to an activity level without deposits or withdrawals for one year. In column 2, "usage" assumes an activity level of 2 account inquiries and 2 cash withdrawals per month, one month inactivity fee and a penalty if the average balance in the account is below the minimum allowed. Columns (5) and (6) report the total cost of credit products with and without a late payment, respectively. Columns (3)-(4) and (7)-(8) report differences in rates between the best (cheapest) product that the institution could have offered and the actual product offered to the auditor. All regressions include country fixed effects, auditor's gender, dummies for visits to commercial institutions and provincial areas. Control auditors were assigned the script without experience (neophyte) and had preference for a transaction account for savings audits or a loan size of 20 percent of household income (low indebtedness) for credit audits. Standard errors are clustered at the auditor level and are reported in parenthesis under coefficient estimates. Levels of significance * p<0.10 ** p<0.05 *** p<0.01.

Table 7 Staff Survey

	All			Peru			Ghana		
	Peru	Ghana	P-value	Commercial banks	Other FIs	P-value	Commercial banks	Other FIs	P-value
Demographic Characteristics									
Male (1 = Yes)	0.24	0.56	0.00	0.26	0.23	0.78	0.62	0.55	0.67
Age	30.05	30.96	0.24	31.6	28.9	0.02	32.8	30.6	0.12
Single (1 = Yes)	0.48	0.55	0.43	0.48	0.49	0.97	0.46	0.56	0.50
Number of household members	3.73	1.68	0.00	3.78	3.69	0.80	1.85	1.65	0.34
Completed a university degree (1 = Yes)	0.68	0.69	0.85	0.70	0.66	0.70	1.00	0.64	0.01
Household income (USD)	1881.1	747.2	0.00	2390.3	1488.4	0.03	1082.8	688.3	0.03
Financial Knowledge									
Contacted INDECOPI / ICRO to solve a problem with a financial product (1 = Yes)	0.18	0.03	0.00	0.19	0.17	0.89	0.00	0.04	0.48
Knowledge of interest rate (1 = Yes) *	0.63	0.57	0.48	0.63	0.63	0.99	0.54	0.58	0.80
Income									
Reported income (USD)	790.8	485.3	0.00	958.3	661.5	0.00	757.9	437.4	0.00
Employer gives bonuses (1 = Yes)	1.00	0.84	0.00	1.00	1.00	.	0.85	0.83	0.91
Staff Decision Making									
Bonus considered when offering […] product (1 = Yes)									
Credit	0.69	0.29	0.00	0.67	0.71	0.69	0.23	0.29	0.64
Savings	0.28	0.24	0.62	0.31	0.25	0.66	0.38	0.22	0.20
Investment	0.40	0.13	0.00	0.41	0.38	0.87	0.08	0.14	0.53
Client Interaction									
Number of clients per day	34.2	10.3	0.00	29.41	37.94	0.13	10.4	10.3	0.75
Information provision (1 = Yes)									
Just reply to questions	0.02	0.21	0.00	0.00	0.03	0.38	0.00	0.24	0.05
Voluntarily give information that they can understand	0.24	0.48	0.00	0.26	0.23	0.78	0.46	0.49	0.87
Voluntarily give information concerning the product	0.74	0.24	0.00	0.74	0.74	0.99	0.46	0.21	0.05
Number of staff interviewed	62	91		27	35		13	78	

This table reports means of staff characteristics from a sample of financial institutions that were part of the study. USD values for income were calculated using the prevailing exchange rate during the time of study. INDECOPI (The National Institute for the Defence of Free Competition and the Protection of Intellectual Property) and ICRO (Investigation and Consumer Reporting Office) refer to the consumer protection agencies in Peru and Ghana, respectively. * Knowledge of interest rate is tested with the following multiple choice question: "If you deposit 100 GHc (in Ghana) / Soles (in Peru) in a bank account that charges you nothing and guarantees you a yield of 2% per year, how much would there be in the account by the end of the year, if no deposits or withdrawals are made?". Possible answers are: (1) Over 102. (2) Exactly 102. (3) Less than 102. (4) I don't know. (5) I prefer not to answer.

Appendix Figure 1: Sample printed materials given to credit auditors

Sample of printed materials from Mexico, Peru and Ghana. *CAT* is the equivalent of APR in Mexico. *TCEA* is the APR equivalent in Peru.

Figure A1: Mexico

Figure 1B: Peru

Appendix Figure 1. Sample printed materials given to credit auditors (continued)

Figure 1C: Ghana

'Loan' Products

Group Loans
Loan for groups of micro entrepreneurs for business expansion.
- No collateral required
- Access to free training in financial literacy, leadership and community development etc.
- Group guarantee required.

Adehye Group Loans
Loan for loyal group loan clients in 5th cycle and beyond who want to maintain their group

Adehye Individual Loans
Loan for loyal group loan clients migrating to individual loans
- Maximum loan of GH¢5,000.00
- No collateral and guarantor required

Individual Loans
Working capital for individual business expansion.
- Minimum Loan of GH¢500.00
- Maximum repayment period of 12 months
- Guarantor is required

Susu Loans
Loan for susu deposit clients after a required period of contribution
- Repay with small amount on daily basis

Small and Medium Enterprise (SME) Loans
Working capital for Small and Medium Scale entrepreneurs
- Minimum Loan of GH¢ 10,000.00
- Maximum repayment period of 36 months

Edu Finance
Short and medium term finance for private schools.
- Maximum repayment period of **36 months**

Education Loans
Loans for payment of ward's school fees and related expenses. Clients in 5th cycle and above do not need guarantor(s) if the amount is not more than **GH¢1000.00**

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BUSINESS LOANS

For fixed Assets or Working Capital. Access requirement: should have a Permanent business and resident location. Should have been in business for 6 month and above **collatoral:** Stocks, Guarantor, Household Chattel and other Asset as required. Processing time for the loan is 48 hours.(After clients has meet all the requirements) repayment frequency is Daily, Weekly, Fortnightly and monthly depending on the borrowers business

CONSUMER LOANS

For salary workers. Access requirement: **1.**Salary payment from employers to **FASLL. 2.** Submission of 3 months pay-slip. **3.** Deduction from source or 4.Written Assurance of bulk payment of salary loan deduction from employer's Account Department to FASLL. on behalf of staff. **5.**Post dated cheques **collateral: 1.** Personal Guarantor. **2.** Employer's willingness to channel monthly Salary to FASLL. **3.** Application to decision making 24 hours. Repayment frequency monthly.

Branches:
Accra • Kumasi • Sekondi
Merchant Bank •Rural Banks in all Regions
Head Office:
124 Kwame Nkrumah Avenue,
P. O. Box AN 11337, Accra North
Tel: + 233 302 221111
Fax: + 233 302 221471
Email: 1stafrican@internetghana.com
First African Savings & Loans Ltd
1st Floor SSNIT Office Complex Harper Road Adum
P.O.Box KS 7288 Kumasi

Appendix Table 1. Summary of Prompted Questions

	Experienced			Neophyte		
	Peru	Mexico	Ghana	Peru	Mexico	Ghana
Panel A: Savings Audits						
Costs						
Interest rate	✓	✓	✓	✓	✓	✓
APY Explanation	✓	✓				
Other costs and penalties	✓	✓	✓			
Other items						
Name of staff	✓	✓	✓	✓	✓	✓
Commercial product name	✓	✓	✓	✓	✓	✓
Minimum account balance	✓	✓	✓	✓	✓	✓
Locations to withdraw cash	✓	✓	✓	✓		
Debit card		✓	✓			
Contract	✓	✓	✓			
Panel B: Credit Audits						
Costs						
Payment amount	✓	✓	✓	✓	✓	✓
Interest rate	✓	✓	✓	✓		✓
APR explanation	✓	✓	✓			
Other costs and penalties	✓	✓	✓			
Other items						
Name of staff	✓	✓	✓	✓	✓	✓
Commercial product name	✓	✓	✓	✓	✓	✓
Available terms	✓	✓	✓	✓	✓	✓
Available payment frequencies	✓	✓	✓	✓	✓	✓
Loan amount	✓	✓	✓	✓	✓	✓
Amount to be received	✓	✓	✓		✓	✓
Summary sheet / payment plan	✓	✓	✓	✓	✓	✓
Contract	✓	✓	✓			

This table provides a summary of questions that neophytes and experienced auditors had to asked if the staff did not provide the information voluntarily. In Peru, auditors specifically asked for opening, management and consultation fees, and for penalties due to account inactivity and falling below the minimum allowed balance. In other countries a general question about fees and penalties was asked.

Appendix Table 2. Orthogonality checks

	Male	Age	Single / Divorced	Adults in HH	Completed a university degree	Has active credit	Has savings account	Owns business / Self employed	HH monthly salary (USD)
Panel A: Savings auditors									
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)
High experience	-0.168	-0.653	-0.040	-0.028	0.051	0.031	-0.185	0.110	190.285
	(0.187)	(2.934)	(0.183)	(0.560)	(0.133)	(0.175)	(0.133)	(0.166)	(153.402)
Investment	0.116	-1.890	0.076	0.790	-0.308**	-0.084	0.018	-0.138	164.670
	(0.188)	(2.984)	(0.185)	(0.566)	(0.139)	(0.172)	(0.133)	(0.170)	(142.295)
R-squared	0.036	0.037	0.026	0.135	0.323	0.054	0.340	0.145	0.166
N	33	33	33	33	33	33	33	33	33
Means									
Peru	0.495	33.000	0.667	2.833	0.417	0.500	0.583	0.250	906.750
Mexico	0.513	31.000	0.500	4.000	0.500	0.250	0.500	0.000	862.400
Ghana	0.534	30.471	0.529	3.529	0.412	0.294	1.000	0.471	660.824
Panel B: Credit auditors									
High experience	0.150	0.070	-0.155	-0.332	-0.152	0.087	0.093	0.310**	-94.287
	(0.152)	(2.708)	(0.142)	(0.438)	(0.144)	(0.144)	(0.129)	(0.143)	(99.918)
High indebtedness	0.032	1.839	-0.027	-0.214	-0.030	0.276*	0.089	-0.128	43.535
	(0.152)	(2.708)	(0.143)	(0.434)	(0.145)	(0.143)	(0.130)	(0.143)	(100.256)
R-squared	0.032	0.013	0.138	0.044	0.097	0.142	0.194	0.147	0.342
N	47	47	47	47	47	47	47	47	47
Means	0.484	32.596	0.532	2.745	0.447	0.468	0.702	0.426	651.721
Peru	0.493	31.917	0.750	3.083	0.583	0.667	0.667	0.333	1035.125
Mexico	0.536	32.611	0.333	2.778	0.278	0.444	0.500	0.389	554.027
Ghana	0.425	33.059	0.588	2.471	0.529	0.353	0.941	0.529	484.524

This table reports results of regressing each auditor characteristic against different treatment dummies. Panels A and B reports results for savings and credit auditors, respectively. All regressions include country fixed effects. Robust standard errors in parenthesis. Levels of significance * p<0.10 ** p<0.05 *** p<0.01

Appendix Table 3. Financial Institutions in Study

	FI Type I	FI Type II	Products Offered
Mexico			
APOYO ECONOMICO	Other FI	SOFOM	Credit
BANAMEX	Commercial Bank	Commercial Bank	Both
BANCO AHORRO FAMSA	Other FI	Retailer Bank	Both
BANCO AUTOFIN	Commercial Bank	Commercial Bank	Both
BANCO AZTECA	Other FI	Retailer Bank	Both
BANCO WALMART	Other FI	Retailer Bank	Both
BANCOPPEL	Other FI	Retailer Bank	Both
BANORTE	Commercial Bank	Commercial Bank	Both
BATOAMIGO, S.A. DE C.V.,	Other FI	SOFIPO	Credit
BBVA BANCOMER	Commercial Bank	Commercial Bank	Both
CAJA POPULAR JESUS MEZA SANCHEZ	Other FI	SCAP	Savings
CAJA POPULAR MEXICANA	Other FI	SCAP	Savings
COMPARTAMOS	Other FI	Retailer Bank	Credit
CRÉDITO FAMILIAR	Other FI	SOFOM	Credit
DIMEX	Other FI	SOFIPO	Credit
FINAMIGO	Other FI	SOFIPO	Credit
FINANCIERA A EMPRENDER	Other FI	SOFOM	Credit
FINANCIERA COMUN	Other FI	SOFIPO	Both
FINANCIERA AYUDAMOS	Other FI	SOFOM	Both
FINANCIERA EQUIPA-T	Other FI	SOFOM	Both
FINANCIERA INDEPENDENCIA	Other FI	SOFOM	Credit
HSBC	Commercial Bank	Commercial Bank	Both
INBURSA	Commercial Bank	Commercial Bank	Both
LIBERTAD SERVICIOS FINANCIEROS	Other FI	SOFIPO	Both
SANTANDER	Commercial Bank	Commercial Bank	Both
SCOTIABANK	Commercial Bank	Commercial Bank	Both
Peru			
BANBIF	Commercial Bank	Commercial Bank	Both
BANCO AZTECA	Commercial Bank	Commercial Bank	Both
BANCO CONTINENTAL	Commercial Bank	Commercial Bank	Both
BANCO DE CREDITO	Commercial Bank	Commercial Bank	Both
BANCO DE COMERCIO	Commercial Bank	Commercial Bank	Credit
BANCO FINANCIERO	Commercial Bank	Commercial Bank	Both
BANCO RIPLEY	Commercial Bank	Commercial Bank	Both
CAJA METROPOLITANA	Other FI	Caja	Savings
CM CUSCO	Other FI	Caja	Both
CMAC AREQUIPA	Other FI	Caja	Both
CMAC CREDINKA	Other FI	Caja	Savings
CMAC PAITA	Other FI	Caja	Both
CMAC PIURA	Other FI	Caja	Both
CMAC SULLANA	Other FI	Caja	Both
CMAC TACNA	Other FI	Caja	Both
CMAC TRUJILLO	Other FI	Caja	Both
CRAC CREDINKA	Other FI	Caja	Credit
CRAC LOS ANDES	Other FI	Caja	Both
CRAC PRYMERA	Other FI	Caja	Both
CREDISCOTIA	Other FI	Financiera	Both
EDPYME ALTERNATIVA	Other FI	EDPYME	Credit
EDPYME RAIZ	Other FI	EDPYME	Credit
FINANCIERA COMPARTAMOS	Other FI	Financiera	Credit
FINANCIERA CONFIANZA	Other FI	Financiera	Both
FINANCIERA EDYFICAR	Other FI	Financiera	Both
FINANCIERA EFECTIVA	Other FI	Financiera	Credit
FINANCIERA NUEVA VISION	Other FI	Financiera	Credit
FINANCIERA UNIVERSAL	Other FI	Financiera	Both
HSBC BANK PERU	Commercial Bank	Commercial Bank	Both
INTERBANK	Commercial Bank	Commercial Bank	Both
INVERSIONES LA CRUZ	Other FI	EDPYME	Credit
MIBANCO	Commercial Bank	Commercial Bank	Both
SCOTIABANK PERU	Commercial Bank	Commercial Bank	Both
Ghana			
A STAR MICROFINANCE	Other FI	Microfinance Company	Both
ACCESS BANK	Commercial Bank	Universal Bank	Savings
ADEHYEMAN SAVING AND LOANS	Other FI	Savings & Loans	Both
AFRICA FINANCE SERVICES	Other FI	Microfinance Company	Credit
AGRICULTURAL DEVELOPMENT BANK	Commercial Bank	Universal Bank	Savings
AHANTAMAN RURAL BANK	Other FI	Rural Bank	Savings
AME ZION CO-OPERATIVE. CREDIT UNION	Other FI	Credit Union	Both
ASOMDWE CREDIT UNION	Other FI	Credit Union	Both
BANK OF AFRICA	Commercial Bank	Universal Bank	Both
BARCLAYS BANK	Commercial Bank	Universal Bank	Both
BAY PORT	Other FI	Finance House	Credit
BOSOME FREHO RURAL BANK	Other FI	Rural Bank	Both
BOSOMTWE RURAL BANK LTD	Other FI	Rural Bank	Both
BSCI BANK (SAHEL SAHARA BANK)	Commercial Bank	Universal Bank	Both
CAL BANK	Commercial Bank	Universal Bank	Both
CENTRAL MICROFINANCE	Other FI	Microfinance Company	Both
CHRISTIAN COMMUNITY MICROFIANANCE	Other FI	Microfinance Company	Both
CONSUMER FINANCE COMPANY(CFC)	Other FI	Microfinance Company	Both
DCI MICROFINANCE	Other FI	Microfinance Company	Both
DONEWEALTH MICROFINANCE	Other FI	Microfinance Company	Both

Appendix Table 3. Financial Institutions in Study (continued)

	FI Type I	FI Type II	Products
ECOBANK	Commercial Bank	Universal Bank	Both
EDEN MICROFINANCE	Other FI	Microfinance Company	Both
ENERGY BANK	Commercial Bank	Universal Bank	Savings
EXPRESS SAVINGS	Other FI	Savings & Loans	Both
FAMILY TRUST MICROFINANCE	Other FI	Microfinance Company	Both
FIDELITY BANK	Commercial Bank	Universal Bank	Both
FIRST AFRICAN SAVINGS AND LOANS	Other FI	Savings & Loans	Both
FIRST ALLIED	Other FI	Savings & Loans	Both
FIRST ATLANTIC MERCHANT BANK	Commercial Bank	Universal Bank	Credit
FIRST CAPITAL PLUS	Other FI	Savings & Loans	Both
FIRST NATIONAL	Other FI	Savings & Loans	Both
FIRST RATE MICROFINANCE	Other FI	Microfinance Company	Both
GHANA COMMERCIAL BANK	Commercial Bank	Universal Bank	Credit
GLOBAL ACCESS	Other FI	Savings & Loans	Both
GRACE CAPITAL MONEY LENDING	Other FI	Money Lender	Credit
GT BANK	Commercial Bank	Universal Bank	Both
HAPPY FOUNDATION CREDIT UNION	Other FI	Credit Union	Both
HFC	Commercial Bank	Universal Bank	Savings
INTERNATIONAL COMMERCIAL BANK	Commercial Bank	Universal Bank	Savings
JISLAH FINANCIAL SERVICES	Other FI	Finance House	Credit
KUMASI POLYTECHNIC STAFF CO-OPERATIVE CREDIT	Other FI	Credit Union	Both
LENWHITE MONEY LENDING SERVICES	Other FI	Money Lender	Credit
LOWER PRA RURAL BANK	Other FI	Rural Bank	Both
MELBOND FINANCE	Other FI	Microfinance Company	Both
MERCHANT BANK	Commercial Bank	Universal Bank	Savings
MIZPA CO-OPERATIVE CREDIT UNION	Other FI	Credit Union	Both
MULTI TRUST FINANCIAL SERVICES	Other FI	Microfinance Company	Credit
NATIONAL INVESTMENT BANK	Other FI	Finance House	Credit
NEW WAYS MICROFINANCE	Other FI	Microfinance Company	Both
NO 1 MICROFINANCE	Other FI	Microfinance Company	Both
OKOMFO ANOKYE RURAL BANK	Other FI	Rural Bank	Both
OPPORTUNITY INTERNATIONAL	Other FI	Savings & Loans	Both
P. MAG INVESTMENTS	Other FI	Microfinance Company	Both
PROCREDIT	Other FI	Savings & Loans	Both
PRONTO MICROFINANCE	Other FI	Microfinance Company	Both
PRUDENTIAL BANK	Commercial Bank	Universal Bank	Both
RESTORE	Other FI	Microfinance Company	Credit
SG-SSB	Commercial Bank	Universal Bank	Both
SIKAPRESS FINANCIAL SERVICES LTD	Other FI	Finance House	Credit
SINAPI ABA TRUST	Other FI	Savings & Loans	Savings
STANBIC BANK	Commercial Bank	Universal Bank	Savings
STANDARD CHARTERED BANK	Commercial Bank	Universal Bank	Both
TALENT MICROFINANCE	Other FI	Microfinance Company	Both
UBA	Commercial Bank	Universal Bank	Both
UNIBANK	Commercial Bank	Universal Bank	Both
UNICORN HAPPY INVESTMENT	Other FI	Microfinance Company	Both
UNICREDIT	Other FI	Savings & Loans	Both
UNIFOCUS INVESTMENT & MONEY LENDING LTD	Other FI	Microfinance Company	Credit
UNION SAVINGS AND LOANS	Other FI	Savings & Loans	Savings
UNIVERSAL IMPACT FINANCIAL SERVICES LIMITED	Other FI	Microfinance Company	Credit
UT BANK	Commercial Bank	Universal Bank	Savings
WALLSTREET MICROFIANANCE	Other FI	Microfinance Company	Both
WESTERN MICROFINANCE	Other FI	Microfinance Company	Both
WOMENS WORLD BANKING	Other FI	Savings & Loans	Both
ZENITH BANK	Commercial Bank	Universal Bank	Credit

This table reports the names and type of institutions that were part of the study. FI Type I is the broadest classification and the one used in the paper. FI Type II provides a finer classification of institutions. In Mexico, **SOFOM** stands for Sociedades Financieras de Objeto Multiple and only offer credit products as they are not permitted to collect deposits. Sociedades Cooperativas de Ahorro y Préstamo **(SCAP,** more commonly known as Cajas de Ahorro) are non-profit, cooperative-based institutions and offer both credit and savings services. Sociedades Financieras Populares **(SOFIPOS)** also offer both credit and savings products, typically serving low-income consumer segments, but unlike Cajas de Ahorro they are not considered non-profit institutions. **Retailer banks** are those established by large retail chains, such as Banco Walmart, Banco Azteca (part of the Elektra Group, affiliated with the Elektra retail chain), Banco Coppel and Banco Ahorro Famsa, as well as credit providers that have obtained banking licenses, such as Banco Compartamos. In Peru, **EDPYME** stands for Entidad de Desarrollo para la Pequeña y Microempresa and focus on credit for microenterprises and do no collect deposits. **Cajas** (also known as cajas de ahorro) are non-profit, cooperative-based local institutions that offer both credit and savings products. **Financieras** are institutions that also offer both types of products but with a greater focus on low-income clients. In Ghana, **rural banks** refer to institutions that provide banking services to the rural population, providing credit to small-scale farmers and businesses and supporting development projects. **Savings and Loans** companies are non-bank financial institutions. **Commercial banking** includes "traditional" banks in the countries of study and include large institutions such as HSBC, Banorte, BBVA Bancomer, Banamex in Mexico, Banco Azteca, Banco Ripley, Scotiabank in Peru and Universal banks in Ghana.

Appendix Table 4. Transparency Index with Alternative Matching

	Matched to cheapest product				*Matched to most expensive product*			
	Savings		**Credit**		**Savings**		**Credit**	
	TI		TI		TI		TI	
	All costs		All costs		All costs		All costs	
	All	Voluntary	All	Voluntary	All	Voluntary	All	Voluntary
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
HL * HI	0.139**	-0.082	0.182***	-0.027	0.149**	-0.081	0.186***	0.009
	(0.066)	(0.059)	(0.060)	(0.052)	(0.072)	(0.069)	(0.061)	(0.058)
HL * LI	0.086	-0.100	0.230***	0.000	0.104	-0.099	0.230***	-0.015
	(0.076)	(0.062)	(0.060)	(0.065)	(0.089)	(0.076)	(0.059)	(0.066)
Investment	0.102*	0.216***			0.130**	0.236***		
	(0.054)	(0.053)			(0.063)	(0.065)		
High indebtedness			-0.042	-0.045			-0.042	-0.044
			(0.051)	(0.048)			(0.051)	(0.052)
Formal dress	-0.003	-0.017	0.056	0.020	-0.011	-0.020	0.046	-0.011
	(0.044)	(0.048)	(0.044)	(0.043)	(0.052)	(0.053)	(0.045)	(0.031)
R-squared	0.124	0.217	0.177	0.198	0.150	0.246	0.185	0.217
Observations	349	349	377	377	349	349	377	377
Peru	121	121	150	150	121	121	150	150
Mexico	98	98	83	83	98	98	83	83
Ghana	130	130	144	144	130	130	144	144
Means for control auditors								
Dep. Variable	0.658	0.654	0.467	0.228	0.610	0.605	0.466	0.237
Peru	0.441	0.441	0.347	0.000	0.380	0.380	0.347	0.000
Mexico	0.463	0.447	0.398	0.398	0.343	0.327	0.398	0.398
Ghana	0.868	0.868	0.707	0.398	0.868	0.868	0.705	0.427
P-value of test								
*HL * HI = HL * LI*	0.495	0.736	0.443	0.680	0.583	0.720	0.482	0.717
HL = 0	0.127	0.257	0.001	0.853	0.135	0.419	0.001	0.936

This table reports the results in Table 4 using all products offered. Products offered to auditors that could not be matched in the product market database, are matched to either the cheapest product offered by the institution (columns 1-4) or the most expensive product (columns 5-8). The table focuses on information disclosed verbally only. An observation in the regression is an auditor-branch pair, each pair during credit audits could have multiple visits. All regressions include country fixed effects, auditor's gender, dummies for visits to commercial institutions and provincial areas. Control auditors were assigned the script without experience (neophyte) and had preference for a transaction account for savings audits or a loan size of 20 percent of household income (low indebtedness) for credit audits. Standard errors are clustered at the auditor level and are reported in parenthesis under coefficient estimates. Levels of significance * p<0.10 ** p<0.05 *** p<0.01.

Appendix Table 5. Cost and Return of Financial Products Offered with Alternative Matching

	Savings				Credit			
	Total Yield		Difference in Total Yield		Total Cost		Difference in Total Cost	
	No Usage	Usage	No Usage	Usage	On-time repayment	One late payment	On-time repayment	One late payment
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
Panel A: Unmatched offered products matched to cheapest product offered by institution								
HL * HI	-0.000	0.001	-0.000	0.001	-0.069*	-0.077	-0.019	-0.041
	(0.014)	(0.012)	(0.002)	(0.004)	(0.037)	(0.060)	(0.018)	(0.027)
HL * LI	0.008	0.015	0.001	0.004	0.025	0.042	0.017	0.057
	(0.015)	(0.014)	(0.002)	(0.004)	(0.048)	(0.080)	(0.019)	(0.048)
Investment	0.057***	0.065***	0.005**	0.010***				
	(0.011)	(0.010)	(0.002)	(0.004)				
High indebtedness					-0.036	-0.084	0.013	-0.010
					(0.031)	(0.051)	(0.014)	(0.030)
Formal dress	0.005	0.004	0.001	-0.000	0.009	0.025	0.018	0.032
	(0.009)	(0.008)	(0.002)	(0.002)	(0.055)	(0.077)	(0.021)	(0.037)
R-squared	0.448	0.444	0.057	0.143	0.139	0.087	0.113	0.060
Observations	349	349	349	349	377	377	377	377
Peru	121	121	121	121	150	150	150	150
Mexico	98	98	98	98	83	83	83	83
Ghana	130	130	130	130	144	144	144	144
Means for control auditors								
Dep. Variable	0.050	-0.098	-0.010	-0.019	0.768	0.949	0.087	0.127
Peru	0.012	-0.030	-0.000	-0.002	0.663	0.803	0.161	0.195
Mexico	-0.008	-0.036	-0.022	-0.046	1.073	1.188	0.062	0.085
Ghana	0.102	-0.163	-0.007	-0.010	0.628	0.931	0.003	0.069
P-value of test								
*HL * HI = HL * LI*	0.660	0.432	0.481	0.387	0.112	0.222	0.102	0.040
HL = 0	0.863	0.568	0.753	0.555	0.152	0.370	0.256	0.071
Panel B: Unmatched offered products matched to most expensive product offered by institution								
HL * HI	-0.001	-0.002	-0.001	-0.002	-0.054	-0.045	-0.004	-0.008
	(0.017)	(0.015)	(0.009)	(0.009)	(0.044)	(0.065)	(0.023)	(0.035)
HL * LI	0.007	0.009	-0.000	-0.001	0.011	0.047	0.003	0.062
	(0.019)	(0.017)	(0.010)	(0.010)	(0.049)	(0.078)	(0.018)	(0.047)
Investment	0.079***	0.088***	0.028***	0.034***				
	(0.014)	(0.012)	(0.007)	(0.007)				
High indebtedness					-0.051	-0.115**	-0.002	-0.042
					(0.036)	(0.055)	(0.018)	(0.033)
Formal dress	0.003	0.005	-0.000	0.001	0.005	0.042	0.014	0.050
	(0.012)	(0.011)	(0.007)	(0.007)	(0.057)	(0.075)	(0.023)	(0.039)
R-squared	0.306	0.397	0.083	0.107	0.151	0.093	0.098	0.044
Observations	349	349	349	349	377	377	377	377
Peru	121	121	121	121	150	150	150	150
Mexico	98	98	98	98	83	83	83	83
Ghana	130	130	130	130	144	144	144	144
Means for control auditors								
Dep. Variable	0.025	-0.123	-0.036	-0.044	0.798	0.979	0.117	0.158
Peru	0.010	-0.041	-0.003	-0.013	0.663	0.803	0.161	0.195
Mexico	-0.042	-0.060	-0.056	-0.070	1.178	1.293	0.166	0.189
Ghana	0.071	-0.195	-0.038	-0.042	0.631	0.934	0.005	0.073
P-value of test								
*HL * HI = HL * LI*	0.676	0.479	0.939	0.965	0.305	0.324	0.773	0.160
HL = 0	0.907	0.761	0.991	0.986	0.448	0.603	0.958	0.340

This table reports the results in Table 6 using all products offered. Products offered to auditors that could not be matched in the product market database, are matched to either the cheapest product offered by the institution (Panel A) or the most expensive product (Panel B). An observation in the regression is an auditor-branch pair, each pair during credit audits could have multiple visits. All regressions include country fixed effects, auditor's gender, dummies for visits to commercial institutions and provincial areas. Control auditors were assigned the script without experience (neophyte) and had preference for a transaction account for savings audits or a loan size of 20 percent of household income (low indebtedness) for credit audits. Standard errors are clustered at the auditor level and are reported in parenthesis under coefficient estimates. Levels of significance * p<0.10 ** p<0.05 *** p<0.01.