Understanding the Incentives of Commissions Motivated Agents: Theory and Evidence from Indian Life Insurance

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Abstract

We conduct a series of field experiments to evaluate two competing views of the role of financial intermediaries in providing product recommendations to potentially uninformed consumers. The first argues that financial intermediaries may provide valuable product education, helping consumers decide which of many complicated products is right for them. Even if commissions influence intermediary recommendations, consumers are sufficiently sophisticated to discount advice. The second, more sinister, view, argues that intermediaries recommend and sell products that maximize the agents well-being, with little regard to the need of the customer. Audit studies in the Indian insurance market find evidence consistent with the second view: agents recommend a product that provides them high commissions, though it is strictly dominated by alternative products. Consumers demonstrating lower levels of sophistication are more likely to be offered the wrong product. Agents also appear to cater to the initial preferences of consumers even those initial preferences are for products that are not suitable for the consumer. Finally, we exploit a natural experiment that occurred during our audits to test how disclosure requirements affect product recommendations. We find that requiring disclosure of commission levels makes agents less likely to recommend the product for which disclosure is required.

1 Introduction

This paper examines the market for life insurance in India. We study how commissions motivate agents to provide advice and to reveal information about financial products, and how consumers use (or misuse) this information in making financial decisions. This topic is timely given the financial crisis and related proposals for strong regulation of agent behavior in retail finance. Mortgage brokers, for example, have been widely blamed for making loans that were too large for low income borrowers during the height of the recent housing boom.

We focus on the market for life insurance in India for the following reasons. First, given the complexity of life insurance, consumers likely require help in making purchasing decisions. Second, popular press accounts suggest that life insurance agents in India engage in unethical business practices. Agents are often accused of promising unrealistic returns or suggesting only high commission products.[1] Third, the industry is large, with approximately 44 billion dollars of premiums collected in the 2007-2008 financial year, 2.7 million insurance sales agents who collected approximately 3.73 billion dollars in commissions in 2007-2008, and a total of 105 million insurance customers. Approximately 20 percent of household savings in India is invested in whole life insurance plans (IRDA 2009). Fourth, approximately 90 percent of insurance purchasers buy through agents, thus agent behavior in this market has large ramifications. And lastly, the policy environment for household financial products is changing rapidly in India, and better information on how these markets work is crucial for making optimal policy.

Commissions motivated sales agents are of particular importance in emerging economies where a large fraction of the population currently does not have access to household financial services such as life insurance, mutual funds, and bank accounts. Supporters of commission-based distribution often argue that commissions give brokers the incentive to educate households. Emerging markets, in particular, have a large number of newly middle-class households without any prior experience with such financial products. Systematic empirical evidence is needed to inform the policy debate about whether commissions motivated agents are suitable for encouraging the adoption of complicated household financial products.

This project consists of three related experiments. All of these experiments use an audit

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[1] See for example, "LIC agents promise 200% return on '0-investment' plan," Economic Times, 22 February 2008.

study methodology, in which we hired and trained individuals to visit life insurance agents, express interest in life insurance policies, and seek recommendations. The goal of the first set of audits was to test whether, and under what circumstances, agents recommend products suitable for consumers. In particular, we focused on two common life insurance products: whole life and term life. We chose these two products because, in the Indian context, consumers are always better off purchasing a term life insurance product than whole life. In section II, we detail how a consumer can combine a savings account with a term insurance policy, providing four times more investment value over their life. In the first part of the study, our auditors would visit agents, explaining that they are primarily interested in risk coverage, not investment, and ask for a suitable product.

A range of evidence suggests that individuals with low levels of financial literacy make poor investment decisions (Lusardi and Mitchell, 2007). One of the most frequently advocated policy responses is to provide individuals with financial advice. This solution makes sense only if those with limited literacy receive good advice. In this first set of audits, we tested whether advice provided by agents varies by the level of sophistication her clients demonstrate. In fact, we find that less sophisticated agents are more likely to receive a suggestion for whole insurance, suggesting that agents discriminate in the types of advice they provide. We also tested whether agents provided better advice to prospective buyers who signaled that they were "shopping around"; Overall, the evidence from the first set of 229 audits suggests that life insurance agents provide bad advice.

In a second set of audits we test whether agents will recommend products contrary to the initial preferences of the customer. We are interested in testing whether life insurance salesmen will attempt to de-bias customers to increase the probability of making a sale. We randomize both the auditor's initial preference over whole versus term and a characteristic about the auditor that makes whole or term the more suitable product.[2] Thus, we have some treatments where the customer has an initial preference for term insurance but where insurance is actually the more suitable product (and vice versa). We find that in these treatments agents cater approximately equally to both the initial preferences of the customer and the actual needs of the customer; this is true even when the agent has an incentive to de-bias the customer because the commission on the more suitable product is *higher*. We view this result as important because it suggests that agents have a strong

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[2]Specifically, one set of auditors states that they are looking for insurance that will help them to save because they have a commitment savings problem. For these customers, whole insurance may be a good option. Another set of audits state that they are primarily looking for risk coverage and are not interested in saving through insurance.

incentive to cater to the initial preferences of customers in order to make sales; contradicting the initial preference of customers, even when they are wrong, does not seem to be a good sales strategy. Thus, salesmen are unlikely to de-bias customers if they have strong initial preferences to products that may be unsuitable for them.

In the third set of audits we test how disclosure regulation affects the quality of advice provided by life insurance agents. Mandating that agents disclose commissions has been a popular policy response to perceived mis-selling. In theory, once consumers understand the incentives faced by agents, they will be able to filter the advice and recommendations, improving the chance they choose the product best suited for them, rather than the product that maximizes the agents commissions. We take advantage of a natural experiment: as of July 1, 2010, the Indian insurance regulator mandated that insurance agents disclose the commissions they earned on equity linked life insurance products. We have data on 140 audits conducted before July 1, and 118 audits conducted after July 1.

This paper speaks directly to the small, but growing, literature on the role of brokers and financial advisors in selling financial products. This literature is based on the premise that, in contrast to the market for consumption goods such as pizza, buyers of financial products need advice and guidance both to determine which product or products are suitable for them, and to select the best-valued product from the set of products that are suitable.

The theoretical literature can be, in some sense, divided into two strands: one posits that consumers are perfectly rational, understand that incentives such as commissions may motivate agents to recommend particular products, and therefore discount such advice. A second set of literature argues that consumers are subject to behavioral biases, and may not be able to process all available information and make informed conclusions.

Bolton at al. (2005) develops a model in which two intermediaries compete, each offering two products, one suitable for one type of clients, the other for the other type of clients. While intermediaries have an incentive to mis-sell, competition may eliminate misbehavior. Indeed, while one might presume that in a world with competition, in which consumers can rationally discount biased advice, commissions to agents would not play an important role in consumer decisions, this is not necessarily so. Inderst and Ottaviani (2010) show that even in a fully rational world, producers of financial products will pay financial advisors commissions to promote their products.

Del Guerico and Reuter (2010) argue that sellers of mutual fund products in the US that charge high fees may provide intangible financial services which investors value.

A second, more pessimistic, view, argues that consumers are irrational, and market equilibria in which consumers make poorly informed decisions may persist, even in the face of competition. Gabaix and Laibson (2005), develop a market equilibrium model in which myopic consumers systematically make bad decisions, and firms do not have an incentive to debias consumers. Carlin (2009) explores how markets for financial products work in which being informed is an endogenous decision. Firms have an incentive to increase the complexity of products, as it reduces the number of informed consumers, increasing rents earned by firms. Inderst and Ottaviani (2011) present a model where naive consumers, where naivete is defined as ignoring the negative incentive effects of commissions, receive less suitable product recommendations.

The theoretical work is complemented by a small, but growing, empirical literature on the role of competition and commissions in the market for consumer financial products. In a paper that precedes this one, Koerner, Mullainathan, and Schoar (2010) conduct an audit study in the United States, examining the quality of financial advice provided by advisors. Woodward (2008) demonstrates mortgage buyers in the U.S. make poor decisions while searching for mortgages. A series of papers (e.g. Choi et al 2009) demonstrate that consumers fail to make mean-variance efficient investment decisions, paying substantially more in fees for mutual funds, for example, than they would if they consistently bought the low-cost provider. In work perhaps most closely related to this paper, Bergstresser et al. (2009) look at the role of mutual fund brokers in the United States. They find that funds sold through brokers underperform those sold through other distribution channels, even before you account for substantially higher fees (both management fees and entry/exit fees). Buyers who use brokers are slightly less educated, but by and large similar to those who do not. They do not find that brokers reduce returns-chasing behavior.

In the next section we describe the basic economics of the life insurance industry in India including detailed calculations on why whole insurance policies are dominated by term policies and economic theories of why individuals might still purchase whole policies. In Section III we present a simple model of communication between life insurance agents that motivates the design of our audits. Section IV presents the experimental design and Section V presents our results. Section VI concludes.

2 Term and Whole Life Insurance in India

Life insurance products may be complicated. In this section, we lay out key differences between term and whole life insurance products, and demonstrate that the insurance offerings from the largest insurance company in India violate the law of one price, as long as an individual has access to a bank account. Rajagopalan (2010) conducts a similar calculation and comes to the same conclusion that purchasing term insurance and a savings account typically strongly dominates purchasing whole or endowment insurance plans.

We start by comparing two product offerings from the Life Insurance Corporation of India (LIC). For many years, LIC was the government-run monopoly provider of life insurance. We consider the LIC Whole Life Plan (Policy #2), and LIC Term Plan (Policy #162), for coverage of Rs. 500,000 (approximately USD \$12,000), for a 34 year old male with no adverse health conditions, commencing coverage in 2010.

For the whole life policy, such a customer would make 47 annual payments of Rs. 13,574 each (ca. \$260 at 2010 exchange rates). The policy pays Rs. 500,000 if the client dies before age 80. In case the client survives until age 80, which would be the year 2056, the product pays a maturation benefit equal to the coverage amount (Rs. 500,000). In addition, the client may receive "bonus" payments each year, which the insurance company will declare if profitable. Unlike interest or dividends, these bonus payments are not paid to the client directly. Rather the bonus is added to the notional coverage amount, paid in case of death of the client, or, at maturity. The insurance company does not make any express commitment as to whether, and how much, bonus it will offer, but historically has offered bonuses of approximately 2-3 percent. We assume in our analysis that the bonus will be three percent each year the client is alive.

A critical point to be made here is that the bonus is not compounded.[3] Rather, the bonus added is simply the amount of initial coverage, multiplied by the bonus fraction. For example,

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[3]It is somewhat surprising that an insurance company has not entered this market and won a substantial amount of business by offering a whole insurance product that does pay compounded bonuses. In fact, there are some whole life products that pay a compounded bonus (i.e. the bonus rate is applied to both the sum assured amount plus all previously accumulated bonus); thus, it is not the case that the insurance industry is unaware that consumers might like these products. Rather, it seems that it is not possible for an insurance company to win substantial amounts of business by aggressively selling whole products that pay compounded bonuses. One explanation for this may be that competition really occurs along the margin of selling effort, as opposed to the quality of the product. In this case, the products that have highest sales incentives will sell, and any particular insurance firm will have an incentive to pay the highest commissions on the highest profit products. A formal model of this is beyond the scope of this paper, and we leave it to future research.

if the company declares a 3% bonus each year, the amount of coverage offered by the policy will increase by .03*500,000=Rs. 15,000 each year. Thus, after 47 years, when the policy matures, its face value will be Rs. 500,000 + 47*15,000=Rs. 1,205,000.

In contrast, if the policy premium grew at 3 percent per year (which would happen if the bonus payments were compounded), the policy would have a face value of Rs. 500,000*1.03ˆ47, or Rs. 2,005,947, roughly 2.7 times higher. Stango and Ziman (2009) present evidence from psychology that individuals have difficulty understanding exponential growth, suggesting households may not truly appreciate the economic importance of the fact that the bonus payments are not compounded.

In Table 1, we compare the relative value the term versus life insurance, which costs Rs. 13,574 per year for 25 years, by constructing a "replicating portfolio" which includes bank savings and term life insurance, and provides equivalent coverage to the Rs. 500,000 whole life policy, and costs exactly the same amount as the whole life policy. Specifically, we consider a term life insurance plan that offers coverage of Rs. 500,000, for a twenty-five year term. As of April 2010, such a policy required an annual payment of Rs. 2,507. Compared to purchasing the whole life policy, a term buyer would thus pay Rs. 13,754-2,507=11,067 Rs. less for the first twenty-five years, and 13,754 Rs. less for each year from 26 to 47 years in the future. The replicating portfolio places these savings in term deposits at a government-owned bank, paying an assumed interest rate of 8 percentage points.

By the time term policy expires (2035), both the whole policy and replicating portfolio (by now, containing only the savings account, as the term policy will have expired without value) will have face values of Rs. 875,000 , though of course the savings account will be much more liquid and therefore more valuable. From 2035 until 2056, the term policy will continue to grow at 8% compound interest, while the whole life policy will accrue 3 percent (non-compounded) bonuses.

One commonly made argument for whole life insurance is that it provides protection for the individual's whole life, and thus eliminates the need to purchase new term insurance plans in the future. If there is substantial risk that future term insurance premiums might increase due to increases in the probability of death, then term insurance might be seen as more risky than whole insurance. However, this argument does not affect our replication strategy, because the term plus savings plan does *not* require the individual to purchase another term insurance policy 25 years

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later.[4] The individual has saved up enough in the savings account to provide self-insurance after 25 years, which is equivalent to the amount of insurance that the whole life policy is providing.

How much more expensive is the term policy? Prior to maturity, the comparison is difficult, because the savings account is liquid, while the insurance policy is not. However, on the buyer's 80th birthday, the savings account will have a balance of approximately 5.1 million Rs., which is 4.2 times higher than the maturity value of the life insurance product.

Thus, for an equivalent investment, the buyer receives four times as much benefit if she purchase term plus savings, relative to whole. We are not aware of many violations of the law of one price that are this dramatic. A benchmark might be the mutual fund industry: $1 invested in a minimal fee SP500 fund might earn 8% per annum, and therefore be worth $21 after 47 years. If an investor invested $1 in a "high cost" mutual fund that charged 2% in fees, the value after 47 years would be 10.3, or about half as large. Thus, the markup of life insurance is in some sense twice as large as the mark-up on the highest cost index funds.

It is interesting to note that life insurance agents typically do not conduct the type of calculations we have just discussed to persuade clients towards or away from term insurance policies. They tend to rely on general statements about the differences between products. For example, two agents claimed that term insurance is not for women. Table 10 presents some anecdotes on particularly outlandish claims real life insurance agents made during our audits to persuade clients towards whole policies away from term.

2.1   Whole Life Insurance as a Commitment Device

One potential advantage of the whole life policy over term plus savings is that the whole life policy can serve as a commitment device to save **?**. The structure of whole life plans impose a large cost in the case where premium payments are lapsed, and thus consumers that are sophisticated about their commitment problems may prefer saving in whole life plans versus standard savings accounts where there are no costs imposed when savings are missed. In particular, the LIC Whole Insurance Plan No. 2 discussed in the previous section returns nothing if premiums for less than three years are paid. If premiums for three or more years are paid, the plan guarantees only 30%

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[4]Cochrane (1995) discusses this issue in the context of health insurance proposes an insurance product that also insures against the risk of future premium increases due to changes in risk.

of the total value of the premiums paid (excluding the first year of premiums) will be returned to the customer.[5]

There are other savings products in the Indian context, however, that offer similar commitment device properties without the large first year commissions. Public provident fund accounts require a minimum of 500 rs per year to be contributed and allow the saver no access to the money until 7 years after the account is opened. If a saver does not contribute the 500 rupees in a particular year the account is consider discontinued, and the saver has to pay a 50 rupee fine for each defaulting year plus the 500 rupees that were missed as installments. The public provident fund could be used by a saver to obtain some commitment device features.

It would also be easy for a whole life insurance company to offer a commitment savings account that had no insurance component; the fact that this product does not exist suggests that commitment savings demand is likely not the only reason individuals purchase whole life insurance. To determine the important of commitment savings device aspect, we designed some treatments where our auditor explicitly asks for risk coverage to protect his family. We find that even in those interactions approximately 60 percent of agents recommend whole insurance.

3   Theoretical Framework

In this section we present a model of the interaction between a life insurance agent and a potential life insurance customer to guide our empirical work. The model is a simple adaptation of a model in Mullainathan and Shleifer (2000) that describes how newspapers choose to slant news based on the biases of their customers. In our adaptation of the model, life insurance agents choose how to "slant" their advice away from the optimal product based on the potential biases of the buyer, the customer's insurance needs, and the nature of competition amongst life insurance agents.

For each consumer their exists an ideal financial product t. We think of the space of possible insurance products sitting on a real line, where increasing values of t are more "whole insurance type" products. Consumers do not know exactly what the ideal financial product for them is, but they do know that in the population the distribution of ideal financial products is $t \sim N(0, v_t)$. Consumers have biases about what the correct financial product for them is. These beliefs are

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[5]The LIC website, however, does state that it is possible that more than the guaranteed surrender value will be returned to the customer. However, it is not clear on exactly how this amount is determined.

distributed as $N(b, v_t)$. As in Mullainathan and Shleifer (2005), customers know the correct variance of ideal financial products, but are biased in their expectation of what their ideal product is. In the life insurance context, a commonly discussed bias is the idea that "term insurance is throwing money away."

Life insurance agents make recommendations, r, to the consumer after observing some data d about the consumer. For example, a consumer might tell a life insurance agent, "I am married with kids and I want insurance primarily to protect my family in case of my death." The agent's recommendation, however, will be some function both of data d and the chosen amount of slanting s.

Consumers choose whether or not to purchase from an agent. The more satisfied a consumer is with an agent's recommendation, the more likely he is to purchase from the agent. We call the satisfaction a consumer feels about an agent's recommendation U; it takes the functional form:

$$U = \bar{u} - \chi s^2 - \phi(r - b)^2 - p$$

$\bar{u}$ is the base utility the consumer gets from any interaction with a life insurance agent. χ measures the cost to the agent of biasing the customer away from the ideal product. This includes potential reputational, moral, and other costs associated with giving biased advice. ϕ parameterizes how much the consumer dislikes recommendations that differ from his own biases. p is the price the customer pays for the insurance product.

In the first period of the model life insurance agents announce their decisions on how to slant their recommendations. In the second period, agents meet with customers and collect some data d and information about biases b. In the third period consumers receive the life insurance agent's recommendation and choose whether to purchase.

3.1 Unbiased Consumers

We first consider the case where consumers do not have any biases ($b = 0$), and there is a monopolist insurance agent. In this case, the insurance agent has no incentive to slant his recommendation because he must pay costs to slant, and neither the consumer nor the salesman benefit from slanting. Given the agent is a monopolist he can extract all surplus from the transaction. The agent chooses

not to slant, $s = 0$, and sets price equal to $\bar{u}$ which is the customer's full utility from purchasing the non-slanted product.

Now, consider the case of duopolist insurance agents. Again, the main result is that in equilibrium both agents will choose to set slanting equal to zero. The only difference from the monopolist case is that equilibrium prices will also be driven to zero (essentially by Bertrand competition). The intuition for this result is that providing non-slanted advice is a weakly domininant strategy; i.e. independent of what agent j does, agent i maximizes the utility a rational reader gets from a product by providing non-slanted advice. Thus, in equilibrium, both firms will choose not to slant their recommendations to unbiased consumers. The formal proof is the same as the proof of Proposition 1 in Mullainathan and Shleifer (2005).

3.2   Biased Consumers

We first consider the case where there is a monopolist life insurance agent selling to a biased consumer. In the monopoly case the life insurance agent can extract all surplus from the transaction. In this case the agent chooses to slant his recommendation as follows:

$$s = \frac{\phi}{\phi + \chi}(b - d)$$

In our experimental work we empirically test the prediction that biased advice is increasing in a customer's bias and decreasing in the data the customer provides regarding their insurance needs. The proof of this result follows exactly the proof of Proposition 2 in Mullainathan and Shleifer (2005) and appears in the appendix.

The agent's recommendation is equal to:

$$r = \frac{\phi b}{\phi + \chi} + \frac{\chi d}{\phi + \chi}$$

The agent provides a recommendation that caters to both the customer's biases b, as well as their needs based on the data they provided d. The weights on these two features depend on the relative size of ϕ and χ. If the customer prefers that an agent's recommendation conforms with his own biases (large ϕ), then the recommendation will reflect the customer's biases more. If biasing the agent is costly, (χ), then the agent puts more weight on the customer's true data (d).

The equilibrium price charged by the insurance firm is equal to the consumer's total expected utility[6]

$$P^* = \bar{u} - \frac{\chi\phi}{\chi + \phi}[b^2 + v_d]$$

3.3 Competition and Biased Recommendations

We now introduce competition. A large literature in economics addresses whether competition amongst rational, profit maximizing firms will eliminate the impact of consumer biases on market outcomes (Mullainathan and Shleifer (2005)). In this model we show that there is an equilibrium where biases can have important impacts on insurance recommendations even in competitive circumstances. In other words, competition does not lead to a complete elimination of slanted biases. The proof of this result exactly follows the argument in Mullainathan and Shleifer (2005) which shows that competition amongst newspapers will not necessarily eliminate bias in the news, if consumers have a preference for biased news.

Suppose there are two life insurance agents competing for business. The primary result of this section is that there is an equilibrium where both agents provide biased advice; competition does not *necessarily* eliminate the impact of biases. Competition, however, does lead to lower prices. The recommendations made are the same as those made in the monopolist case studied above. The intuition for this result is that, in this model, catering to the customer's bias is profit maximizing independent of the recommendation that your competitor is providing. The preferences of the customers make it such that it is not possible to win business by correcting a customer's misunderstanding. Fundamentally, this results because the customer's bias cannot be changed by the agent. The formal proof for this result directly follows Mullainathan and Shleifer (2005).

In the context of our audit study, it is clearly not possible to change the whole nature of the market such that the agents in our experiment are monopolists. What is possible, however, is to see how agents respond to out of equilibrium behavior by other agents; i.e., to test a prediction about

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[6]One thing to note about the equilibrium price charged by the monopolist is that it is decreasing in the consumer's bias b. This appears at odds with prices in the Indian life insurance market, where whole insurance products have higher prices than term insurance products. One possible explanation for this is that whole consumers are also less likely to understand the prices they are paying; in that case, whole consumers will pay higher prices because the effective competition for their business is lower than the effective competition for term insurance buyer business (because term insurance buyers are more likely to shop around). Again, because our focus is on the process of financial advice we leave exploration of the equilibrium price mechanism for these products for future work.

what the best response function looks like outside of equilibrium. The best response functions in our model make the strong prediction that even if agent j chooses not to slant his recommendation, it would still be in the interest of agent i to slant his recommendation. Providing slanted advice is a weakly dominant strategy in this model. We test that prediction by having our auditor signal to the agent that another agent had recommended a slanted whole insurance product. The model predicts that the agent will respond to this by also recommending a slanted product.

3.4   Model Where Consumers Observe Commissions

Above we assumed that consumers ignore how commissions affect agent's recommendations. In this section we update the model to allow consumers to observe commissions. We assume that agents earn greater commissions for selling products that are higher along the number line. In particular, let the commissions function be $c(r)$, where r is the product that was recommended. We assume $c'(r) > 0$. In the insurance case, more whole insurance type products are associated with higher values of t. When commissions are observed, consumers are skeptical of advice; in particular, positive slanting now has an additional cost. This commissions function implies that consumers will have an additional distaste for slanting as they realize it is commissions motivated. For our purposes, adding an additional cost factor illustrates consumer skepticism associated with higher commissions. For a more detailed analysis, see Milgrom (2008), who describes how in a variety of persuasion games rational consumers will be skeptical of the persuasive attempts of product sellers.

The new consumer satisfaction function is:

$$U = \bar{u} - (\chi + c)s^2 - \phi(r - b)^2$$

The parameter c represents the additional cost of slanting to consumers who observe commissions. The solution to the problem above is exactly the same, except the parameter cost of slanting parameter is now larger. The main prediction is that when commissions are revealed to consumers, we expect less slanting both under the monopolist and duopolist solutions. In our empirical work we exploit a natural experiment where, for a particular type of whole insurance product, agents were forced to disclose the commissions levels.

4 Experimental Design

4.1 Setting

Our experimental setup relies on sending auditors to insurance agents in India. The vast majority of audits were conducted by eight auditors between the ages of 20 and 40. They are high school graduates and thus completed introductory training sessions on the life insurance industry and its semantics; they learned for example the meaning of words such as "sum assured","term", "maturity", and "premium". Afterwards, the auditors were trained in the specific scripts they were to follow when meeting with the agents. Within the script, there was flexibility, but there were specific prompts/statements that the auditors were instructed to always include (such as the inquiry of whether any rebates or discounts were available, and stating the desire to maximize risk coverage to allude to term insurance). The specific script requirements differed slightly between the term vs. whole life experiment and the ULIP disclosure experiment (which we discuss in detail below). Auditors memorized the script, particularly the key prompts, as they would be unable to use notes in their meetings with the agents. An exit interview form was created for data collection, whereby immediately after an audit was completed, the auditor would complete an exit interview form.

The agents were identified via a number of different sources, most of which were websites. While these websites are national in scope, we filtered our search to life insurance agents in the study city, thus obtaining a list of possible agents to audit. We also included a small number of life insurance agents in our initial audits which our auditors physically identified in passing, as well as a partial list of LIC agents serving the our study city. In total, we identified 930 agents for whom we had the name and the address and/or phone number.

Auditors were instructed not to lie during any of the sessions, and all will be given a cash bonus which they may use to purchase a life insurance policy from the agent of their choice upon the completion of the experiment.

4.2 Sample Selection

Treatments were randomly assigned to auditors, and auditors to agents. The randomization was two tiered. First we randomly assigned treatments to agents. We used a total of thirteen different scripts over the period of the experiment. For the term vs. whole life experiment, we used four different

scripts, which we denote script $1 - 4$. For the disclosure policy, we utilize a single script, numbered 5. Within each of these scripts, there was at least one variable/treatment for randomization. In scripts 1 and 2, we randomized the level of sophisticate the auditor demonstrated. For scripts 3 and 4, we randomized sophistication, and the level of "shopping around" the auditor reported doing. These two treatments were orthogonal. In script 5, we randomized whether the agent reported knowledge of the change in disclosure requirements.

Finally, auditors were randomly assigned to agents. Note that because the randomizations were done orthogonally/independently, this means that each auditor did not necessarily do an equivalent number of treatment and control audits for a given variable of interest (i.e. sophistication and/or competition).

Since we were acquiring agents as we were conducting information, we randomized in batches as we proceeded. The auditors were given discretion to visit the agents in the order they felt would be more convenient. As they completed a batch, our research manager would give them new prospective agents to contact.

The listings of life insurance agents were not particularly high quality. Of the 930 agents for whom we obtained information, we were able to actually physically/telephonically contact 333 unique agents. That this low success rate does not harm our ability to test the effects of our various treatments, as our contact procedures were identical across treatments. While some agents were visited more than once, care was taken to ensure no auditor visited the same agent twice. Any repeat visits were spaced at least four weeks apart, both to minimize the burden on the agents, and to reduce the chance the agent would learn of the study.

As July 1st approached, we discontinued the competition treatments, in order to focus on the regulatory reform. Hence, we have insufficient observations (23) to analyze that treatment in this version of the paper. Thus, the subsequent analysis analyzes 454 audits for two basic experiments. Of these 454 audits, 196 audits test how sophistication affects the term recommendation and/or kickbacks, and 258 audits test how disclosure policy knowledge affects commission disclosure and/or kickbacks. Of these last 258, 140 occurred pre-disclosure and 118 represent our preliminary post-disclosure audits.

4.3 Experimental Treatments: Sophistication

In the first experiment, our basic script required the auditor to express his/her interest in the life insurance policy, provide personal details (if prompted by the agent), and then express an interest in risk coverage, explicitly bringing up the idea of a term plan, and then waiting for a recommendation from the agent. After the recommendation was made, the auditor would inquire as to the policy details, and then inquire as to whether the agent would be willing to provide a discount or rebate.

Within this script we initially randomized the sophistication of the auditor.

Sophisticated auditors say:

"In the past, I have spent time shopping for the policies, and am perhaps surprisingly somewhat familiar with the different types of policies: ULIPs, term, whole life insurance. However, I am less familiar with the specific policies that your firm offers, so I was hoping you can walk me through them and recommend a policy specific for my situation."

Unsophisticated agents, on the other hand, state:

"I am aware of the complexities of Life Insurance Products and I don't understand them very much; however I am interested in purchasing a policy. Would you help me with this?"

As mentioned earlier, endowment/whole life policies usually have larger commissions and thus are a more lucrative recommendation for the agent. Initial pilots yielded very few term recommendations. We therefore built into the auditors script several statements that suggest a term policy is a better fit for the client. Specifically, the agent expressed a desire to maximize risk coverage, and stated that they did not want to use life insurance as an investment vehicle.

We look at two outcome variables to test the impact of sophistication. The first is whether or not the agent recommended an endowment/whole life policy (or a combination plan that included an endowment/whole life policy); the second is whether the agent offered a kickback, and the amount. Because the kickback discussion was not systematically prompted by the auditor, but rather volunteered by the agent, our outcome of interest is whether or not the agent explicitly made mention of a specific kickback amount.

4.4 Experimental Treatment 2: Catering to Initial Preferences Vs. Needs

In this experiment we test the sensitivity of agents' recommendations to the initial preferences of consumers (potentially incorrect), and the actual needs of consumers. In each audit the auditor was randomly assigned to demonstrate an initial preference for whole or term insurance. We randomized how the auditor demonstrated this preference. In a low competition treatment where the auditor has a preference for whole insurance the auditor says "I have heard from friends that whole insurance is a really good product. I think it may be suitable for me. Maybe we can explore that further?" In the high competition treatment the auditor says "I have heard from another agent who I am considering purchasing from that whole insurance is a really good product. I think it may be suitable for me. Maybe we can explore that further?" Note that the only change in language is the source of preference; in the low competition treatment the source comes from friends whereas in the high competition treatment it comes from another agent. We include the language "who I am considering purchasing from" to signal that the other agent is not just providing information but is also a threat to the sale of the current agent. In addition, there are low competition and high competition treatments with exactly the same language as above except the auditor demonstrates a preference for term insurance. This gives a total of four treatments.

We were primarily interested in understanding how the threat of competition interacts with the quality of advice provided by the agent. To examine this, for each of the four treatments above, we added two possible sub-treatments (for a total of 8 treatments total). In one sub-treatment, the agent states "I want to save and invest money for the future, and I also want to make sure my wife and children will be taken care of if I die. I do not have the discipline to save on my own." We designed this treatment to signal that the consumer has a real need for the whole insurance plan. In other words, good advice under this treatment would constitute the agent recommending whole insurance. In the second sub-case, the auditor says "I am worried that if I die early, my wife and kids will not be able to live comfortably or meet our financial obligations. I want to cover that risk at an affordable cost." In this sub-case the auditor demonstrates a real need for term insurance. Good advice in this case constitutes the agent recommending a term product.

4.5 Treatment 3: Disclosure

In the third experiment, we were interested in the effects of the mandatory ULIP commission disclosure policy and its effects on the price of the product via kickbacks. This was a similar but shorter script that focused on a popular product in India, the Unit Linked Insurance Plan. The policies, like whole life insurance, provide both insurance coverage and investment value. However, the underlying value is linked to a market index, rather than bonuses announced by the life insurance company. We randomly assigned whether our auditors would allude to the new policy that requires disclosure or not. We did not explicitly mention the regulatory policy change, since we thought it unlikely the "average person" would be familiar with regulatory reform. Rather, we alluded to it by asking for information about commissions. This will also allow us to test compliance of the law:

"Can you give me more information about the commission charges I'll be paying? I have heard that there are discounts offered in the market in life insurance. How much of a discount would you be able to give me?"

The control setting is the auditor without disclosure knowledge who never directly inquires about commissions but simply asks:

"I have heard that there are discounts offered in the market in life insurance. How much of a discount would you be able to give me?"

Agents typically fund kickbacks from their commission. We are again interested in testing the effect of knowledge on two specific outcomes: whether or not the agent disclosed a commission, and whether a kickback was offered.

5 Results

5.1 Summary Statistics on Audits

Table 4 presents summary statistics on the proportion of audits that result in the various possible policy recommendations. Columns 1 and 2 show that in the first experiment that whole and

endowment insurance products, despite being dominated by term products, constitute more than 50 percent of the recommendations given by life insurance agents. Fifteen percent of audits resulted in term insurance recommendations.

Columns 3 - 6 present the proportion of recommendations in the various products in the second experiment on the effect of disclosure. Columns 3 and 4 present the proportion of product type recommendations in the data before the required commissions disclosure came into effect, and columns 5 and 6 present the product type recommendations after the commission disclosure came into effect. There are two key points to note about these summary statistics. First, in Columns 4 and 6 we see that the majority (83% pre-disclosure and 53% post-disclosure) of product recommendations are for ULIPs, which is substantially higher than the fraction of audits where ULIPs were recommended in the first experiment (Column 2). This results because in the second experiment our auditors specifically asked for ULIP products in the script. In fact, it is somewhat surprising that more agents did not recommend ULIPs in the second experiment.

The second interesting summary statistic is that the fraction of agents who recommend ULIPs is 30 percentage points lower during the post-disclosure period than during the pre-disclosure period. This is consistent with the idea that agents believe that the ULIP will ultimately be a harder sell in the post-disclosure period because they are now forced to disclose the level of commissions they earn. Given the number of observations in the post-disclosure period is relatively small (118) we cannot infer too much from these results, but they do suggest that disclosure requirements may have powerful effects. We statistically test this hypothesis in the next section of the paper.

One potential risk in conducting audit studies such as ours is that brokers will somehow become aware that they are being audited and change their behavior or refuse to participate. Our data suggests, however, that the life insurance agents were largely receptive to our auditors. The auditors were asked to rate the overall attitude of the agents as positive, indifferent, or negative. Agents unwilling to engage were automatically classified as negative. Of the 309 non-post disclosure audits analyzed herein, 274 (89%) had agents with positive attitude, 25 (8%) were classified as indifferent, and 10 (3%) were classified as negative.

As mentioned earlier, the audit venues were somewhat dependent on the agent's preference, though the agent's office was prioritized. Some agents for example either lacked physical space or expressed interest in traveling to the auditor's home. Meeting a prospective client at their home is

a relatively common practice; by doing this the agent intends to build trust with the client. Table 6 offers a breakdown of the audit venues, with 66% taking place in the agent's office. Male agents conducted the vast majority (408, or 89.5%) of audits.

Lastly, the major life insurer in India is a partially state owned enterprise known as the Life Insurance Corporation (LIC). Of our 454 audits, 277 (61%) were done with LIC agents. This is consistent with LIC's market share, 66 percent of total premiums collected.[7]

6   Sophistication Effects on Product Recommendations

We predict that individuals that are sophisticated about life insurance products will be more likely to receive truthful information from life insurance agents; agents internalize that sophisticated agents are not swayed by dishonest information, and thus presenting dishonest information to sophisticated agents is wasted persuasive effort. In the specific context of our audits this prediction suggests that life insurance agents should be more likely to recommend the term policy to sophisticated agents. Note that we designed our scripts so sophistication here only means that the potential customer is knowledgeable about life insurance products; both sophisticated and unsophisticated agents state that they have the same objective needs in terms of life insurance.

The results from the first experiment, reported in 6, provide evidence in support of this prediction. Column (1) examines whole life insurance, which has particularly high costs (fees and commission) for the consumer. We find that agents who present themselves as sophisticated are much less likely to receive a recommendation for this product. The point estimate, -14%, is large, and significant at the five percent level. Approximately 32% of the non-sophisticated sample receives a recommendation for whole life only.

In column (2), we examine whether demonstrating sophistication affects the probability that an agent recommends only an endowment policy. We find a negative point estimate, which is small and not statistically significant, although the confidence interval comfortably includes an effect size of -10%. Finally, in column (3) we regress a dummy for whether the agents final recommendation includes any whole or endowment policy: the coefficient is economically meaningful, but not statistically significant.

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[7]"LIC Market share rises to 66 per cent." <http://www.mydigitalfc.com/insurance/lic-market-share-rises-66-cent-890> Oct. 25, 1999.

In columns (4)-(6) we repeat this analysis, including a dummy variable for whether the agent represents the Life Insurance Corporation of India, by far India's largest life insurance corporation. We find that LIC agents are much more likely to recommend endowment and whole life insurance policies. As expected, including this control does not affect the coefficients on the sophisticated dummy. We view the LIC result as important: LIC enjoys a reputation as a very trustworthy firm, as it enjoys government backing. The fact that agents representing it were much less likely to recommend a suitable product seems inconsistent with the view that a government owned-firm includes social welfare in its objective function.

In Table 7, we examine whether the level of sophistication affects the likelihood an agent offers a kickback. LIC agents seem more likely than non-LIC agents to recommend a kickback. This may be viewed as surprising, as one might have expected a government-owned firm to be more likely to comply with regulations. Overall, of all the 309 audits across both experiments, 100 (32%) agents agreed to kickbacks and specified amounts.[8]

7 Catering Recommendations to Needs Vs. Biases of Consumers

We are interested in how the agent uses information on the initial preferences consumers bring to the meeting versus the consumer's needs in determining what products get recommended. We analyze this data using the following regression model:

$$\text{Term Rec}_{ij} = \beta + \beta_1 T_{ij} + \beta_2 TN_{ij} + \lambda_j + \epsilon_{ij}$$

Term Rec takes a value of 1 if a term insurance product was recommended in audit i conducted by auditor j. T_{ij} takes a value of 1 if the auditor stated that they have heard term insurance would be good for them and 0 if the auditor stated the term product would be good for them (regardless of competition status). TN_{ij} takes a value of 1 if the auditor demonstrated a need for term insurance (i.e. they were really looking for risk coverage) and zero if they stated a need for whole insurance (i.e. they have a commitment problem). λ_j represents auditor fixed effects, which we include in case certain auditors are more likely to get different types of product recommendations.

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[8]One thing to note that is the popularity of a particular endowment/whole life products recommended by LIC. These products include *Jeevan Anand* and *Jeevan Saral.* Advertisements throughout India highlight this product, and it seems that agents are particularly keen to recommend it.

Because each of these treatments is randomly assigned to auditors and to agents, we can interpret the coefficients as the causal effect of these treatments on the advice provided by an agent. Suppose agents are motivated by (1) commissions (2) the probability of making a sale. In this case, agents may prefer to recommend products according to the consumers initial preferences in addition to what product earns them the highest commission, or which product is the most suitable. Then we predict:

- $\beta_1 > 0$: Customers who have an initial preference for term insurance based on a friend's or competing agent's recommendation are more likely to be recommended term.

- $\beta_2 > 0$: Customers who state they want their insurance to provide risk coverage are more likely to be recommended term. Customers with a preference for a product that helps with their commitment savings problem are more likely to be recommended whole insurance.

Table 8 presents the results where the dependent variable represents whether the agent recommended a term policy. The dependent variable in Column (1) is whether the agent's ultimate recommendation included the purchase of a term policy (as well as other possible policies). The coefficient on the variable "Initial Preference for Term" is large and statistically significant. Note that this effect holds independently of whether the agent stated that they need risk coverage or whether they are using for a savings device; in other words, agents cater to the desires of their customers regardless of whether those desires are consistent with what the customer says the purpose of the product should be. This result is important because it suggests that in-built biases amongst the population, such as "term insurance is throwing away money," will not necessarily be corrected by salesmen of those products.

The coefficient on the variable "Needs Term" is also large and statistically significant. This result shows that agents also do not completely cater to the initial preferences of the customers they service. Conditional on the customer's initial preference, agents are more likely to recommend term insurance to customers who say they need risk coverage. Thus, while the customer's stated needs are not the only determinant of the agent's recommendation, agents do use this information.

The dependent variable in Column (2) takes the value of one if only a term policy was recommended, and zero otherwise. The results here are similar to those in Column (1), although the size of coefficients is smaller. Both the initial preference and need variables are positive and

cannot be statistically distinguished from each other. While the coefficient on the need variable in Column (2) is not statistically significant at the 10 percent level, the p-value is .105 which is quite close.

In Columns (3) and (4) we examine this result closer by restricting the sample to those audits where the auditor had an initial preference for whole insurance. We wish to test whether amongst these customers, whether having an actual need for term insurance would change the agent's recommendation, or whether the agents did not cater to the needs of customers. In Column (3) we find that amongst those agents who had an initial preference for term, stating a desire for risk coverage makes it approximately 10 percentage points more likely that the agent will mention a term policy as part of his recommendation. So, agents do respond somewhat to the needs of the customer. However, Column (4) appears blank because there are no agents who *only* recommended term insurance when the customer stated an initial preference for whole insurance.[9] Thus, overall, these results suggest that agents do not completely de-bias customers in the case where the customer has a preference for the (higher commission) whole insurance product. They make some effort to cater to the risk coverage demand by suggesting term insurance as a part of their total recommendation.

Table 9 presents analogous results where the dependent variable is whether the agent recommended a whole policy. Overall, the results are similar. Agents cater both to the initial preferences of customers as well as their stated needs. In Column (1) we see that independent of the customer's stated needs, the agents strongly cater to the initial preferences of the customer. Conditional on a customer's needs, an agent is 12 percentage points more likely to recommend a whole plan if the customer has an initial preference towards whole. We also find that agents are more likely to recommend whole insurance when the agent states they have a commitment savings problem (although this result is only significant in Column (2) where the dependent variable equals one if agent recommended a whole plan). Columns (3) and (4) show that within the sample of audits where the customer had an initial preference for term insurance, stating a need for a commitment savings device did lead to a greater probability of receiving a whole recommendation. This result is less surprising because agents receive higher commissions for selling whole products; agents

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[9]As of May 13, 2011 we are currently conducting additional audits and thus expect to be able to estimate this equation in the future when there is variation in the dependent variable.

will optimally will attempt to de-bias customers when they are de-biasing them towards a higher commission product.

8   The Effects of Disclosure Requirements

In response to concern that individuals may choose unsuitable financial products, governments around the world have increased disclosure requirements. However, there is only limited evidence on whether disclosure requirements are effective, particularly in emerging markets. There are several reasons disclosure requirements may not be effective. In India, for example, the sheer number of agents (over 2.5 million) makes monitoring quite difficult. Moreover, even if a customer is harmed, the slow speed of the legal system may dissuade consumers from filing a lawsuit. Finally, even if agents comply with disclosure requirements, they may alter the mix of products they sell (for example, shifting towards less regulated products) in response to changes in disclosure requirements.

In this section, we describe the effect of an important change in disclosure requirements: as of July 1st, 2010, agents were required to disclose the commissions earn from sales of products. There are two specific features of this policy we emphasize before discussing our empirical results. First, it is important to note that the disclosure of commissions required on July 1st is in addition to a disclosure requirement on total charges that came into effect earlier in 2010. In other words, prior to July 1 agents were required to disclose the total charges (i.e. the total costs) of the policies they sell, but they were *not* required to disclose how much of those charges went to commissions versus how much went to the life insurance company. Thus, the new legislation requiring the specific disclosure of commissions gives the potential life insurance customer more information on the agency problem between himself and the agent, but does not change the amount of information on total costs. This allows us to interpret our results mainly as the effect of better information about agency versus just information about costs more generally.

Second, there are two primary ways information on commissions can be disclosed. The first way, which is what our auditors have measured so far, is a verbal disclosure of commission, i.e. the agent verbally saying the commission he would receive on a sale. The second way is to disclose the commission in writing. In many cases the agents will create an "illustration" sheet that provides written details on the policy they recommend. After July 1st, it was common for this illustration

sheet to explicitly state the commission level that agents would earn on a particular product.

By comparing our results before and after the policy change we will be able to (1) test whether agents reduce their tendency to recommend products where there are more stringent disclosure requirements (2) test whether this disclosure requirement actually changed the information agents provide to sophisticated and unsophisticated customers (3) estimate whether disclosure requirements actually lead to greater kickbacks because they force commission levels to be public knowledge.

8.1 Did the Disclosure Requirement Change Products Recommended?

We first test whether audits conducted after the disclosure requirements were made public were less likely to result in the agent recommending a ULIP policy. Table 10 presents these results. Each column represents the results of a regression where the dependent variable equals 1 if a ULIP was recommended and 0 otherwise. The independent variable *Post* indicates whether or not the audit transpired after the legislation went into effect, July 1st (our earliest post-disclosure audits occurred on July 2nd). *Disclosure Knowledge* equals one where the client expresses awareness that agents receive commissions. Finally, we control for whether the agent is from LIC in some regressions, with a dummy variable *LIC* as well as auditor venue dummy variables. The only difference between Columns (1) and (2) is that Column (2) includes an interaction between the Post variable and the Disclosure Knowledge treatment.

In both Columns (1) and (2) we see that the Post variable has a statistically and economically large and negative relationship on whether a ULIP product was recommended. This result is consistent with the idea that requiring greater disclosure requirements for a specific product, in this case ULIPs, leads to greater recommendations of other products (primarily whole and endowment policies). In Column (1) the result is significant at the 1 percent level, and in Column (2) the result is significant at the 1 percent level. In terms of magnitudes, given the overall percentage of ULIP recommendations in this sample was 71 percent, the approximately 20 percent decrease in ULIP recommendations once disclosure commission became mandatory is an economically large effect. Overall, these results suggest that the disclosure requirements reduced agents' willingness to recommend ULIP products.

However, we do not find that audits where our agents showed knowledge of the new disclo-

sure requirements are associated with lower levels of ULIP recommendations. The coefficient on the "Disclosure Knowledge" variable is small and statistically insignificant. In the "Disclosure Knowledge" treatment the auditor explicitly asked for more information about the commission levels; it is possible that asking about these commission levels had no effect because agents realized that commissions would have to be disclosed when they provided the illustration sheet of the policy. We also find no evidence that asking for commission information had a differential effect on whether a ULIP policy was recommended before and after July 1st. Overall, however, the evidence does suggest that the disclosure requirement lead to substantially fewer ULIP recommendations.

8.2 Did the Disclosure Requirements Lead to Greater Verbal Disclosure?

Table 11 analyzes the effect of the disclosure requirement on whether agents were more likely to verbally disclose the commission level of the product they recommended and whether the disclosure requirement led to a higher chance of the agent offering a kickback.

The dependent variable in Columns (1) - (3) of this table equal one if the agent verbally disclosed the level of commissions and zero otherwise. We see that the disclosure legislation does not seem to have made any significant impact on verbal disclosures. Theoretically, it is not clear whether we should expect a greater level of verbal disclosure after the requirement comes into force, as it is difficult for the regulator to verify whether a verbal disclosure was made. It is easier to verify whether an illustration sheet was given to the client and whether that sheet disclosed the correct level of commissions. We are currently updating our data to include whether a written disclosure was made, as the policy might have been more effective in encouraging written disclosures versus verbal disclosures.

The dependent variable in Columns (4)-(6) equals one if the agent agreed to a kickback. In theory, greater disclosure could lead to more price competition via kickbacks because the disclosure gives the client a better idea of how much the agent is receiving for the sale. We find, however, no change in whether kickbacks were offered in the post disclosure period. We also find no effect of our auditor asking about commissions on whether they ultimately received a kickback offer.

9   Conclusion

A critical question facing emerging markets with large swathes of the population entering the formal financial system is how these new clients will receive good information on how to make financial decisions. Clearly, the private sector will be important in educating new investors and providing suitable products. Recent events in developed economies suggest that regulation may be necessary to ensure that the private sector's own incentives do not compromise the quality of financial decisions made by private individuals. This issue is of particular importance emerging markets where new investors have little experience with formal financial products to begin with.

We conduct an audit study on life insurance agents to evaluate the quality of advice they provide, test theories on who gets good advice, and evaluate the potential for disclosure requirements to improve the quality of advice. We present four major findings.

First, we show that whole life insurance is economically inferior to a combination of investing in savings accounts and purchasing term insurance. Despite the large economic losses associated with investing in whole insurance we find that life insurance agents overwhelmingly encourage the purchase of whole insurance. This is likely due to the larger commissions offered to agents for selling whole insurance.

Second, we find that agents who demonstrate some knowledge of insurance products get better advice. Auditors that stated they had a deep understanding of insurance products were fourteen percentage points less likely to receive a recommendation of whole life insurance, a financially inferior product. This result suggests that the poor or ill-educated might be the most harmed by financial product agents.

Third, we find that requiring disclosure of commissions on one particular product led to that product being recommended less but did not increase verbal disclosure of commission levels. This result is interesting in that it suggests that hiding information is an important part of life insurance agents' business, and that disclosure requirements can change the optimal strategy of agents. However, in this case it appears that the disclosure requirement on one product simply had the effect of pushing agents to recommend more opaque products. These results suggest that the disclosure requirements for financial products need to be consistent across the menu of substitutable products.

Fourth, we find that agents cater to agents pre-conceptions of what the right product is for them as much (if not more) than to objective information about what the right product is. This suggests that, at least in our sample, agents do not actively try to de-bias customers away from their initial beliefs completely. This result holds even in the case where an agent has an incentive to de-bias the customer because a de-biased customer would purchase a higher commission product. These results suggest that de-biasing by commissions motivated agents may be an unfeasible policy option for getting individuals to make better financial decisions.

Overall, our results suggest that for life insurance, which is a large and important savings cum insurance product in India, that agents primarily work to maximize their commissions and play little role in educating the public about optimal decisions.

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Table 1: Comparing Whole and Term Life Insurance Policies

Panel A: Financial Products			
	LIC WHOLE LIFE	**LIC Term Life**	**Savings Account**
Policy Description	An individual purchases a policy for a pre-specified term, which promises a pre-specified benefit in case of death until the buyer turns 80. If the respondent lives until the age of 80, the policy matures, and the agent can obtain the coverage amount in cash. The coverage amount increases by Rs. 15,000 per year via bonuses.	An individual purchases a policy for a pre-specified term, which promises a pre-specified benefit in case of death during the term only. Once the policy expires, it has no residual value. The coverage amount is constant.	Fixed term deposit for five years or longer, State Bank of India
Plan Name	The Whole Life Plan	Anmol Jeevan - I	SBI Fixed Deposit
LIC Plan Number	Plan # 2	Plan # 164	
	POLICY TERMS	POLICY TERMS	Terms
Annual Rate	8%		
Bonus Percentage	3%		
Coverage Amount	500,000	500,000	
Interest Rate			8%
Age	34	34	
Payment Term (years)	47	25	
Yearly	13574	2507	
Total Nominal Payments	637,978	62,675	

Table 2: Comparing Whole and Term Life Insurance Policies

Panel B: Replicating Portfolio

Calendar Year	Age	Policy Year	Premium Paid	Coverage	Premium Paid	Savings Deposit	Savings Balance
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
2010	34	1	13574	515000	2507	11067	11952.36
2011	35	2	13574	530000	2507	11067	24860.9088
2012	36	3	13574	545000	2507	11067	38802.1415
2013	37	4	13574	560000	2507	11067	53858.67282
2014	38	5	13574	575000	2507	11067	70119.72665
2015	39	6	13574	590000	2507	11067	87681.66478
2016	40	7	13574	605000	2507	11067	106648.558
2017	41	8	13574	620000	2507	11067	127132.8026
2018	42	9	13574	635000	2507	11067	149255.7868
2019	43	10	13574	650000	2507	11067	173148.6098
2020	44	11	13574	665000	2507	11067	198952.8585
2021	45	12	13574	680000	2507	11067	226821.4472
2022	46	13	13574	695000	2507	11067	256919.523
2023	47	14	13574	710000	2507	11067	289425.4448
2024	48	15	13574	725000	2507	11067	324531.8404
2025	49	16	13574	740000	2507	11067	362446.7477
2026	50	17	13574	755000	2507	11067	403394.8475
2027	51	18	13574	770000	2507	11067	447618.7953
2028	52	19	13574	785000	2507	11067	495380.6589
2029	53	20	13574	800000	2507	11067	546963.4716
2030	54	21	13574	815000	2507	11067	602672.9093
2031	55	22	13574	830000	2507	11067	662839.1021
2032	56	23	13574	845000	2507	11067	727818.5902
2033	57	24	13574	860000	2507	11067	797996.4375
2034	58	25	13574	875000	2507	11067	873788.5125
2035	59	26	13574	890000		13574	958351.5134
2036	60	27	13574	905000		13574	1049679.555
2037	61	28	13574	920000		13574	1148313.839
2038	62	29	13574	935000		13574	1254838.866
2039	63	30	13574	950000		13574	1369885.895
2040	64	31	13574	965000		13574	1494136.687
2041	65	32	13574	980000		13574	1628327.542
2042	66	33	13574	995000		13574	1773253.665
2043	67	34	13574	1010000		13574	1929773.878
2044	68	35	13574	1025000		13574	2098815.709
2045	69	36	13574	1040000		13574	2281380.885
2046	70	37	13574	1055000		13574	2478551.276
2047	71	38	13574	1070000		13574	2691495.298
2048	72	39	13574	1085000		13574	2921474.842
2049	73	40	13574	1100000		13574	3169852.75
2050	74	41	13574	1115000		13574	3438100.89
2051	75	42	13574	1130000		13574	3727808.881
2052	76	43	13574	1145000		13574	4040693.511
2053	77	44	13574	1160000		13574	4378608.912
2054	78	45	13574	1175000		13574	4743557.545
2055	79	46	13574	1190000		13574	5137702.069
2056	80	47	13574	1205000		13574	5563378.154
Final Value, 2056 in 2056 Rs.:				1205000			5563378.154

Notes: Panel A of this table gives the policy details for two standard life insurance policies, one whole and one term, providing Rs. 500,000 coverage to a 34-year old man. Panel B represents the flow of payments from the household to the insurance agency if she or he buys whole life, or if she or he buys term life and saves the difference between the higher whole premium and the term premium. The whole life insurance policy is replicated using a term policy and a savings account. The final line of the table indicates a households net asset position after paying Rs. 13,574 per annum, for a whole left policy (Column (5)), and for a term policy plus savings account (column (8)).

Table 3: Examples of False and Misleading Statements

The auditor cannot buy insurance because her husband is diabetic. No insurer will insure him.

The auditor, who is a muslim, should invest in a ULIP because his religion doesn't allow receiving interest income.

"Term insurance is not for Women."

"There is no such thing as a free look period. The agent should purchase insurance and then forget about it."

The agent, when asked for a term policy, offered an endowment life policy, describing it as term.

"Term plan is for people with high income and people who wants to hide their income."

"Term is not for people from middle class."

"Term is for people with high risk."

"Term is worthless."

"Term has low premium, so it is not a good product."

"Term is not for middle class."

"Term is only good for businessman."

"Term is difficult for women."

When asked about the "free look" period: "Once the policy is entered in the system, nothing can be done."

"Women don't get insurance more than 300000 Rs."

When asked about the "free look" period: "Policy can be cancelled only if one provided good reason for it."

"Jeevan Anand [an Endowment/Whole policy]' is a ULIP."

"Term is offered to women who has government jobs."

"If you take a ULIP, you may take a loan against the value." In fact, it is prohibited to borrow against ULIPS.

"Term is for Government Employees."

"Term is for big businessman and people who invest in capital markets."

The above statements were noted by our auditors in the course of their meetings with Life Insurance agents.

Table 4: Summary Statistics on Products Recommended

Plan	Experiment 1		Experiment 2 - Pre-Data		Experiment 2 - Post-Data	
	Number	Percentage	Number	Percentage	Number	Percentage
Endowment Plan	54	27.6	11	7.9	40	33.9
Whole Life Plan	50	25.5	8	5.7	9	7.6
Term Plan	29	14.8	2	1.4	0	0
ULIP	28	14.3	117	83.6	63	53.4
Combination Plan	19	9.7	1	.7	4	3.4
Other	11	5.6	1	.7	1	.9
No Product Recommendation	5	2.6	0	0	1	.9
Total	196	100	140	100	118	100

This table presents the number and percentage of audits that led to the product type recommended in Experiment 1, the pre-disclosure part of Experiment 2, and the post-disclosure part of Experiment 2.

Table 5: Summary Statistics on Audit Venue

Venue	Number	Percentage
Agent's Home	52	13.0
Auditor's Home	16	4.9
Agent's Office	252	65.5
Auditor's Office	39	12.7
Other	18	3.9
Total	**377**	**100**

Note: The presence of "combo" means that the categories are in some sense not mutually exclusive. A "combo" means that the agent recommended two or more products, which could represent a combination of the remaining categories.

	(1)	(2)	(3)	(4)	(5)	(6)
Dependent Variable:	Wholelife	Endowment	Endow/Whole	Wholelife	Endowment	Endow/Whole
Sophisticated	-0.141**	-0.0221	-0.0827	-0.134**	-0.0123	-0.0622
	(0.0618)	(0.0633)	(0.0671)	(0.0606)	(0.0608)	(0.0564)
LIC				0.213***	0.285***	0.590***
				(0.0578)	(0.0520)	(0.0635)
Constant	0.0565	0.00886	0.0331	-0.117*	-0.223***	-0.447***
	(0.0398)	(0.0258)	(0.0325)	(0.0657)	(0.0723)	(0.125)
Observations	196	196	196	196	196	196
R-squared	0.048	0.051	0.107	0.093	0.128	0.377

Table 6: Determinants of Product Recommendations

Robust standard errors in parentheses

*** p<0.01, ** p<0.05, * p<0.1

Table 7: Determinants of "Kickbacks"

VARIABLES	(1) Kickback	(2) Kickback	(3) Kickback
Sophisticated	-0.0882	-0.0824	-0.0551
	(0.0673)	(0.0667)	(0.113)
LIC		0.166**	0.185*
		(0.0726)	(0.104)
LIC*Sophisticated			-0.0373
			(0.140)
Constant	0.635***	0.500**	0.489**
	(0.239)	(0.229)	(0.232)
Observations	196	196	196
R-squared	0.053	0.076	0.076

Robust standard errors in parentheses
*** p<0.01, ** p<0.05, * p<0.1

Table 8: Catering and Term Product Recommendations

Dependent Variable	Any Term	Only Term	Any Term	Only Term
	(1)	(2)	(3)	(4)
Initial Preference to Term	0.19***	0.09***		
	[0.06]	[0.03]		.
States Need for Term	0.14***	0.05	0.11*	.
	[0.05]	[0.03]	[.06]	
Constant	0.20	0.07	-0.05	
	[0.13]	[0.15]	[.05]	
Auditor Fixed Effects	Y	Y	Y	Y
N	166	166	87	87
Mean of Dep Var	0.16	0.05	0.07	0.00

*** Significant at the 1% level. ** Significant at the 5% level. * Significant at the 10% level. Robust standard errors included in brackets. The dependent variable in Columns (1) and (3) is whether the agent recommended any term insurance policy. The dependent variable in Column (2) is whether the agent recommended only a term insurance policy. Columns (1) and (2) include the full sample. Columns (3) and (4) include only those audits where the customer had an initial preference for whole insurance.

Table 9: Catering and Whole Product Recommendations

Dependent Variable	Any Whole	Only Whole	Any Whole	Only Whole
	(1)	(2)	(3)	(4)
Initial Preference to Whole	0.12***	0.12*		
	[0.09]	[0.11]		
States Need for Whole	0.05	0.13*	0.12	0.19*
	[0.04]	[0.07]	[0.08]	[0.10]
Constant	0.70***	0.36***		
	[0.13]	[0.15]		
Auditor Fixed Effects	Y	Y	Y	Y
N	166	166	79	79
Mean of Dep Var	0.92	0.70	0.85	0.63

*** Significant at the 1% level. ** Significant at the 5% level. * Significant at the 10% level. Robust standard errors included in brackets. The dependent variable in Columns (1) and (3) is whether the agent recommended any whole policy. The dependent variables in Column (2) and (4) are whether the agent recommended only a whole policy. The sample in Columns (1) and (2) is the full set of audits run in Experiment 3. The sample in Columns (3) and (4) is the set of audits where treatment dictated an initial preference for term insurance.

Table 10: Effect of Disclosure on Product Recommendations

Dep Var = Ulip Recommended	(1)	(2)
Post Disclosure Regulation	-0.217***	-0.206***
	(0.0514)	(0.0751)
Disclosure Knowledge	-0.0131	-0.00443
	(0.0491)	(0.0666)
Agent Home	-0.0608	-0.0612
	(0.112)	(0.113)
Auditor Home	-0.133	-0.131
	(0.171)	(0.172)
Agent Office	-0.0522	-0.0528
	(0.101)	(0.101)
Auditor Office	-0.0426	-0.0436
	(0.197)	(0.198)
LIC	-0.438***	-0.437***
	(0.0509)	(0.0510)
Post Disclosure Regulation * Disclosure Knowledge		-0.0189
		(0.0978)
Observations	258	258
R-squared	0.347	0.347

* Significant at the 1% level. ** Significant at the 5% level. *** Significant at the 1% level. Robust standard errors included in

brackets. The dependent variable equals 1 if a ulip product was recommended and 0 if a non-ulip product was recommended.

Table 11: Effect of Disclosure on Information Conveyed and Kickbacks

Dependent Variable:	(1) Disclosure	(2) Disclosure	(3) Disclosure	(4) Kickback	(5) Kickback	(6) Kickback
Post Disclosure Regulation	-0.0352	-0.0418	0.00207		-0.0146	-0.00863
	(0.0681)	(0.0729)	(0.104)		(0.0632)	(0.0934)
Disclosure Knowledge		-0.0381	-0.00611	0.0242	0.0235	0.0284
		(0.0684)	(0.0871)	(0.0614)	(0.0616)	(0.0835)
Agent Home	-0.124	-0.126	-0.129	-0.0402	-0.0408	-0.0410
	(0.156)	(0.156)	(0.156)	(0.142)	(0.142)	(0.142)
Auditor Home	0.564**	0.569**	0.578**	0.358	0.362	0.363
	(0.246)	(0.246)	(0.247)	(0.234)	(0.235)	(0.235)
Agent Office	-0.145	-0.158	-0.165	-0.158	-0.162	-0.162
	(0.135)	(0.137)	(0.138)	(0.126)	(0.127)	(0.127)
Auditor Office	0.0798	0.0602	0.0519	0.301	0.294	0.293
	(0.252)	(0.255)	(0.256)	(0.243)	(0.246)	(0.246)
Post Disclosure Regulation*Disclosure Knowledge			-0.0827			-0.0107
			(0.139)			(0.122)
Constant	0.227	0.224	0.204	0.0343	0.0306	0.0281
	(0.267)	(0.268)	(0.270)	(0.276)	(0.277)	(0.279)
Observations	219	219	219	256	256	256
R-squared	0.081	0.082	0.084	0.115	0.115	0.115

* Significant at the 1% level. Robust standard errors clustered at the auditor level included in brackets. The dependent variable in the first three columns is whether the commission was verbally disclosed to our auditor. The dependent variable in the second three columns is whether the agent offered a kickback.