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PROFESSOR: While people trickle in-- This slide is my attempt to summarize what we said last time, or you said last time, mostly. So it's basically, the movie is making a case for microfinance. And the case is all these different points. They're building a case for a particular version of microfinance.

And they're making this set of points. They start with the point that poor have poor access to credit. That they're reliable borrowers. That maybe group lending has something to do with the reliability. That microfinance can lift people out of poverty. The way it does it is through new businesses. And the fact that these new business generate increased earnings of women.

Has the implication that there is then greater investment in human capital. And finally, there is a implied but also, I think, important claim that there's no conflict between the commercialization of microcredit and an emphasis on its social role. So those are the claims being made.

So what I want to do today is mostly go through the thinking behind what's the argument behind each of these. And then try to look at the data a bit. So I'm going to now tell you a little bit about an evaluation we did of a program, of an organization called Spandana. It's a very traditional program. Their group liability, mostly weekly payment. Starting loan is about 10,000 rupees.

Interest rate was about 12%, 24% per year, really. The way they calculate is funny. So it's 24% per year. It was a very large MFI already, but it had not entered the city called Hyderabad. So the deal we had with them was, they were going to enter the city of Hyderabad, but not everywhere. Out of 104 poor neighborhoods we selected, they could enter 52. And they'll keep the other 52 for 18 months untouched. That

was the deal.

So that's the Spandana group. So this data is from 7,200 people who we surveyed. 7,200 households. These households were selected based on the fact that they will be eligible for a loan. It's not interesting to compare people-- you could have also have done something else. But it makes sense to select people. Now, we didn't select them just in the places which got microcredit. Because we wanted to compare the places which got microcredit and which didn't.

So we had equal numbers of people. 3,600 people with these characteristics where they got the loan, and 3,600 with these characteristics who didn't get the loan. Basic idea is to compare people who could have got a loan if there had been a microfinance organization in their neighborhood with people who did get a loan.

These people are relatively poor. They have about a family of five monthly expenditure of \$125. Most of their children are going to school, though. They do borrow. Many of them have loans. When they borrow, 69% of the households have loans. But a lot of the households that have loans from moneylenders pay about 4% per month.

So Spandana charges 24% percent per year, which is less than 2% a month. Because that's simple interest. 2% a month simple interest, which is substantially less than half of that. There's no MFI borrowing at the beginning. Lots of them run businesses, 31%.

That's a number to note. Because you take the rich country average. The rich country average is something like 12%. 9% run more than one business. But these businesses are extremely basic. Like, I have a shop. In the shop, I have bottles. In the big bottles with cookies, matchboxes, cigarettes, and candy in them. That's my shop.

I sell that. Or I have a little push cart and I sell vegetables on it. So these businesses and not high skilled, they have very little capital, and they have no employees. Their profits are about \$75 a month, so very small businesses. Like those.

When we asked them in the beginning, why do you want to get a loan? A lot of them said what you had already anticipated. You might want to get a loan, not just to start a business, but also to repay a loan. To do something for your household. To buy a fridge or a TV. So they were quite candid about the fact that they didn't necessarily want to start a business.

So, skip that. So before we get into the results, it's worth thinking a little bit about what we should expect to see. And in particular, should we expect people on average to be consuming more when they get a lot?

Yes, no? Answers, answers. There, yes. Go ahead, explain.

AUDIENCE: If they intend to start businesses [INAUDIBLE], then you might expect that they would tighten their belts, or consumption in the first two weeks of running it. Therefore, their consumption would go down.

PROFESSOR: You might think their consumption would go down as a result of starting a business, because right now I'm starting a business. I don't want to start it on the smallest possible scale. I might want to buy some inputs for my business, expand it. So when I start a business, I might actually want to cut back on consumption for a while before I go back to. Over time, it should go back up. But at the beginning, I might very well see a fall in consumption.

So that's an important thing to keep in mind. That if people are starting businesses, they may actually cut back. So you may not see a big net increase. You'll see an increase. If they start the business and business is successful, then two years later you'll see an increase. But not right away.

So here's the first problem we had in this evaluation, which is that despite the fact that Spandana said they would not enter these neighborhoods that were put into control, the loan officers did. Why? Because they thought, well, that looks like a nice neighborhood. We could lend more to people and make more money.

So they went in. And we had to kind of fight a lot to stop them. And so in the end, the difference in Spandana loans was only 13%. It should have been bigger. Now,

because that happens-- so some of the control neighborhoods got the loans-- we're not going to be using the actual fact of who got a loan and who didn't get a loan. We're going to use the intention to treat.

We'll compare places that we thought should not have a loan with places which we thought should have a loan. That's something that is determined by randomizing. Whereas who actually got a loan was not random. When the people went into control neighborhoods, they went into the best, in the most attractive ones. So we can't do that. We need to compare ones which actually got the loan.

And even worse than that, where Spandana didn't go, other MFIs went. Because they wanted to fill up the market. So this difference is small. So when you see-- why is that relevant? Well, when you see the difference, I'm going to show you the average difference between places that were intended to get microfinance with places that were not intended to get microfinance.

Notice that that difference is only 8%. The places that were intended to get microfinance were only 8% percent. People there are only 8% more likely to have a loan than places that were intended not to get microfinance. So when I look at the average of those places, what will happen to the magnitude of the effect?

It will be very small. Because only 8% difference-- in either, both places, a lot of people got loans. So the difference was small. So to get the real sense of the magnitude of the effect, I need to multiply by-- since it's 8% of the people generated this difference, to get the full effect of this, what should I do? To get a sense of the magnitude, what would I need to do? If 8% generated an effect of 5, what would the effect have been if the difference was 100%?

AUDIENCE: You multiply by 100, divide by 8.

PROFESSOR: You'd multiply by 100, divide by 12. You would multiply by 12.

AUDIENCE: Isn't it the case that you could look up what is the average-- if there is no microfinance, then it's 100% of the people that [INAUDIBLE].

PROFESSOR: So you'll do something that. So when you look at the numbers, they look small. But you have to realize that that's a difference generated by-- the difference is generated by a very small difference in take up. So these results are look much smaller than they really are.

So here's what happened in the business space. There was some increase in new businesses, which was significant. Some increase in profits, which was not significant. Some increase in revenues, which was not significant. But the new businesses was significant.

So think of it this way. This is the number of businesses set up in 1 and 1/2 years. So basically, 31% already had a business. Another 7% set up businesses in the treatment. And 5.3% set up business in the control. So that's a 30% increase in the number of new businesses. So it's not small. It looks small numbers, but it's in fact a significant increase.

In any case, people don't start that many new business. So is there was some effect. Consumption. Blue is always control, yellow is treatment. So consumption didn't really go up significantly. But we discussed why that might happen. You do see more durable purchases, more business durable purchases. And I won't say what temptation goods are right now. So less temptation goods. But you do see more business.

Here's what didn't happen. Despite the gender nature of spending, apparently nothing changed. So schooling is hard to change, because everybody goes to school. So let's say that's difficult to change. But nothing else changed either. Children were just as unhealthy. Women were no more likely to have decision power on spending in the household. And health expenditures didn't go up.

So if you think that women spend differently, we didn't find any evidence of it. So the gender effect that we had discussed doesn't seem to be in this data.

The next thing we did is go back to that story we were telling. Me were telling a story where some people would invest, start a new business, and they would cut their

consumption. Others will not start their business. And now they have no reason to cut their consumption. So imagine that the two kinds of people, one kind of people are going to start a new business and the other kind wont.

So what we want to do is we want to predict who those people are. If we went to the treatment areas and we looked at who started a new business. And we went to the control area and we looked at who started a new business, and we compared them, would that be a valid comparison? Let me repeat the question.

Suppose I went to the treatment areas-- the treatment area and the control area were randomly chosen. I went to the treatment areas, I found people there who had started a business. I went to the control areas, and I found people who had already newly started a business. And I compared them. Would that be a valid comparison?

AUDIENCE: May I ask a question? In the first example, when you went to the treatment areas did you study the people newly started a business, or people that had a business?

PROFESSOR: So when I say newly started a business, these are people who started a business in the 18 months when we were observing these areas.

AUDIENCE: No, it wouldn't be valid [INAUDIBLE].

PROFESSOR: Why?

AUDIENCE: And the reason why is because, while you are comparing new businesses started, in the treatment area, without more precise information, it's hard to understand who started the business due to the fact that they got the loan versus just due to the fact that they were starting it anyway. And yeah, you could compare a control area. But even your control versus your treatment area, it's not necessarily indicative that they had the same sort of basis, [INAUDIBLE] difference or differences of the treatment area before and after they got the loans.

PROFESSOR: You were nodding your head. Do you have a different answer than that?

AUDIENCE: [INAUDIBLE].

PROFESSOR: So basically, I think that's not quite right. I think you don't ever want to do it. The reason you never want to do it is because you don't actually-- think of people who start a business when I can't offer them a loan. Versus people who start a business when no loans were available or less loans were available.

They're different kinds of people. When a loan is easy to get, I might start a business. But if loans are difficult to get, I'm lazy, I won't start a business. Whereas somebody who starts a loan when loans are not easily available is probably much more committed to starting a business. Is much one incentivized. So you don't want to compare them.

So what we had to do, we had to think of what could predict who would start a business? Then what we could do is we could split-- we could look for the kind of people would start a business in treatment. And look for the same kind of people in control. So we could have a predictive model of who would start a business. We could compare the things that predict whether you start a business or not.

So we want to divide the population based on fixed characteristics. And the fixed characteristic that worked very well is, if you own land and if you have a, typically a wife, a woman in the household who is literate and doesn't work. So if you have some assets, there's a woman in the household who is currently not working. But she has skills, skills she's literate. She's actually a prime candidate for starting a business.

So it turns out that if you look for families with these characteristics in treatment and control, there were equal numbers of families in treatment and control. Not accidentally. That's how you'd expect. You'd expect randomly chosen. So they are about the same.

So you take these kinds of families, which are available in treatment and control. They're identical-- yeah.

AUDIENCE: [INAUDIBLE] instrumental variable?

PROFESSOR: This is not an instrumental variable. It's just predicting who are going to start a

business. Then what I'm going to do is I'm going to create-- this is like baseline characteristics. They're just different people. I can estimate the treatment effect for any subset of people. I could say what's the effect on tall people? This is just take a subset of the population who are with these characteristics that predict a business.

Those people's consumption, does it do behave differently from the consumption of everyone else? That's the question I'm asking. If these are people whose characteristics predict that they will start a business, do they behave differently from everybody else whose characteristics predict that they won't start a business?

So there are three groups I'm going to look at. People whose characteristics predict they will start a business, people who already have a business, and people neither have a business nor will start a business. So that's what I'm trying to. And if you do it, you do see the difference.

In the treatment, the people who are who we predict should start a business are much more likely to start a business. The people who predict shouldn't start a businesses are actually slightly less likely to start a business. So that's sort of what you'd expect.

And now you start to see much bigger differences. So the people who start a business and people who already had a business, expand their businesses. Or they buy durables. The people who didn't have a business and don't are not planning a business-- so durables can include, for example, business assets. They can repair the house where they're going to have a shop. So all those things are durable.

So they seem to do stuff that could be related to the business. The people who we predict should not start a business, don't start a business. And they don't make any durable expenditures. They increase non durable expenditures a lot. So the bottom group increases non durable expenditures. That's like spending on food, and things like that. The middle group, basically nothing changes.

And the top group cuts non durables. They're eating less. These people are spending less on food, they're buying more durables. The durables are what they

want for the future. So they seem to be behaving in very different ways.

So finally, this thing of temptation goods. What are temptation goods? Well we asked people. This is a beetle leaf cellar. So people in South Asia and Southeast Asia chew these leaves and these nuts, which are called beetle nuts and beetle leaves. They have slightly narcotic effects, mild narcotic effects, and a lot of people chew them. And this guy's a vendor. He's a small business owner.

So we asked people in the baseline to tell us, what are things you want to give up on spending? So we asked them to give us a list of things they said they want to give up. And that was basically very simple. They want to give up on tea, coffee, snacks, beetle nuts, cigarettes, and alcohol. That's all they wanted to. These were the things they wanted to give up.

Now we go back two years later, and we look at the data. And we classify spending on these things versus everything else. These things we called "temptation," because they're things that they say they don't want to do, but they end up spending on. And what you see quite dramatically is that that's where you see a big difference. The people who are starting a business cut back massively in their spending on temptation goods. The people who will never start a business seem to be having a party. They go out and they start spending more on those things.

So basically what's going on for many of these people is they're turning their temptation expenditures, they're using that money to pay the loan payment. And then with the money, they're buying something else. So when they get the money, they either buy a durable or a business durable. They expand their consumption, their durable ownership, and then they pay down by cutting back on their temptation goods. So they're drinking less tea and they're owning more TVs, if you like. Yeah.

AUDIENCE: [INAUDIBLE] less on temptation goods than those who were taking loans?

PROFESSOR: Because these people are starting a business. They need the money.

AUDIENCE: No, but in the control group also they are starting new businesses?

PROFESSOR: No, they're much less likely. Remember, these people have high propensity to start a business. Nevertheless, in control, they're much less likely to. They're only half as likely to start a business in control as in treatment. So these people are much more likely to be people who started businesses in treatment.

OK, so that's sort of the-- now, this is a story which is-- it depends on the-- So when we published these results, the reaction from microfinance industry was very negative, largely. They thought these results were showing that they had failed. And it really went ballistic. There was lots and lots of blogs which explained how we don't understand how to analyze microcredit. On the World Bank's website there were dismissive statements, and all that. So there were lots of these things basically claiming that microcredit is too subtle to be analyzed by us.

So why was the reaction? We actually didn't think this was so negative, in fact. We thought this was fine. New businesses went up. The people we thought would do better were doing better. Some people were doing worse. That's normal. If you give people a loan, not everybody is going to use it well.

Some people are going to use it in ways that will get them into trouble. Others are going to use it very well and do well out of it. And you're always creating some risk when you create financial products. But people really hated these results, and so we got some push back.

[INAUDIBLE] went away for a sad way. What happened next was that-- so this was going on through 2009. When the results came out, there was lots of push back. And then side-by-side with that, something else started happening. And that's sort of unfortunate.

So the next thing that happened was that in 2009-- I guess both in 2009, once in an organization called Compartamos in Mexico had an IPO. You know what an IPO is? An initial public offering. They sold their stock.

And they made a ton of money. And an organization called SKS in India, which we actually worked with on something else, not microcredit, then went ahead and they

had another IPO. These IPOs raised a lot of money, like hundreds of millions of dollars. And the reaction to that was correctly, this means these organizations are very profitable.

Suddenly, everybody got upset with them. Because they realized that if these companies can be sold for \$300 million, then they must be making a lot of money. Now that's a bit unfair. Because they were making a lot of money, but they also had lots of clients. And if you have three million clients, then making \$300 million over the next 20 years, or something, is not so much after all. It's not that much money.

If you think, I have 3 million clients, I'm making \$300 million, that's \$100 per client over the next, let's say, ten years. So that's \$10 per year per client, which is not nearly as profitable as it sounds when you say it's \$300 million. Because these are big organizations, many of them are.

So in any case, that got them into lots of trouble. So first thing that happened was that a lot of microfinance people started getting very upset. Mohammad Yunus, who started Grameen Bank, was really vehement. He called them the new users. And basically said that this commercialization of microfinance goes against the spirit of microfinance. So that was already trouble. Because there was divide in the community.

What happened after that was even-- so they said. We have a minute. So they said what we're trying to do, we're doing an IPO because this is the best way to raise capital. When we raise capital, we have a lot of equity, we can now go and borrow a lot based on our equity, and then we can expand lending. So instead of 10 million people, 100 million people can get loans.

So they were making the case, like in the movie, that we really need to go in this direction. So this was a fight going on. Then what happened, this goes into the beginning of 2010 now. So there is two fights going on through 2009. One is basically against us. And another set of results by Dean [INAUDIBLE], who's at Yale, also showing small positive results. But microfinance companies didn't like the small positive results and they didn't like these IPOs.

Then what happened is that a number of people committed suicide. A number of people in India, in one state of India, which is called Andhra Pradesh, committed suicide. Some of them claiming that it is because their loan burden was too high. It turned out that they had borrowed from six or seven different microfinance organizations. And they couldn't repay, and they committed suicide.

And at that point, all these forces kind of lined up in exactly the worst possible way for the industry. First, there were these suicides, second there was a fight within the industry, and third there were these results showing that they hadn't done something so great. And the net result was that there was an attempt to basically, there was a political attempt, to shut down microcredit. And that's still continuing, in the sense.

And what I want to end on is showing you a video, which is-- so BBC, as you saw a video that was very pro microcredit. I want to show you a video that's more recent and much less pro microcredit. Where is it?

So you can see that you can have unfair views on any side you want. You can make, that's a hatchet job, if you've ever seen one. So main point being that I think that-- I only want to end on this one point. Which is that if you look at this study, it does exactly almost the same job of very similar. The [INAUDIBLE] strategy is very similar.

I go to some person in some village, something bad happened. That means that this thing is bad. You just look for the people. And in some ways, I think this has been the industry's problem. And the reason why that guy got nailed so badly is because, instead of saying that this is something that's useful, and we should find out how useful it is, this started by over selling. And then they're easy target. Everybody now is-- it's like, if you oversell, people have high expectations. Then you don't deliver, they get very upset with you.

And so that's what they're paying for now. And this is like exactly what you'd expect. It's the reason why we were trying to persuade them for at least seven, eight years

that they should have a randomized evaluation. I remember going to an MFI and explaining that they should have a randomized evaluation. They should show that they have evidence of the impact.

And the guy told me, he was an interesting character. He was a Canadian who had started an MFI in rural India. And he was clearly not doing this because he was making more money. He was dedicated to the cause. He was living in rural India, lending people who were buying cows.

But he basically got so upset with the idea. He said, when you buy an apple, you don't look at the evaluation of that. People are buying credit, we are selling it. What's wrong with that? And so he just threw us out of his office, basically. But I think that's their problem.

Their problem came from the beginning. They just pushed back on any possibility that you want to make a reasoned view of these things. And then, in some ways, that creates the problem. Yeah.