Viewing Value Chain and Household Finance From a Demand Perspective

Presentation

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Facilitator: Good morning, everybody. How are you doing? Thank you for coming for this morning's seminar. We have this After Hours seminar taking place in the morning because we have Jason Eggar joining us today from U.K. So he will be presenting remotely alongside with Geoff Chalmers. And today's presentation is dedicated to Viewing Value Chain and Household Finance from a Demand-Side Perspective. So the presentation is already available in Microlinks along with the full paper that Geoff and Jason will be referring to. And if you have questions about where to get the resources please talk to me after the presentation.

So before we get started I would like to introduce Geoff Chalmers, who is a senior technical advisor with ACDI VOCA. And Geoff has many years of experience linking rural and agriculture value chain with the value chain and finance. And he's a graduate of Science School at Johns Hopkins University.

And we also have Jason Eggar joining us from U.K. Jason is a director of Kigali Consultants in Malawi and he has 22 years of developing experience in developing countries. And he previously worked in marketing large U.K.-like businesses and he was involved in microfinance in Kenya with JTZ, funded an informal sector lending program.

So before we get started I would like to have Jason say hello to the room, if possible.

Agar: Yes. Good morning, everybody.

Facilitator: Good morning, Jason.

And so throughout the presentation Geoff and Jason will switch as they speak. Thank you and enjoy.

Chalmers: Okay, thanks, Dasha. So first, yeah, to just say good morning and welcome to everybody, and a welcome to the webinar participants as well. As Dasha said, this is named the After Hours seminar, we're doing it in the morning, but just to reassure the webinar participants that there's nothing true about the rumors that we have cocktails here, so you're not missing out on mimosas or anything, which to me, maybe I'm the only one that After Hours seminar conjures up cocktails.

And also a welcome to Jason, who is joining me. And I think in addition to all of his great insights, his English accent will make us feel smarter at least, so.

Agar: Thank you, Geoff. I have got a cocktail in front of me as well, since it's evening time here.

Chalmers: Right, it's after – maybe not after 5:00, but close.

Agar: Not quite.

Chalmers: So I feel a little bit like this past year has been a year of reminiscing and kind of looking back at things. First of all, working on this paper that Jason led that had as its kind of core goal to be looking back at the previous five years of innovations in this field of kind of rural agricultural value chain finance. And then even just last week, at the conference here in Washington on the AMAP closeout, where we had similarly kind of a chance to look back at even more the last ten years of the value chain field and where we've come and what some of the broader trends are.

So, you know, in that AMAP conference actually there was a comment from Bianca Jansen from USAID that she thought that we, when looking at this field of rural and agricultural finance, that it's a bit like the *Wizard of Oz* line where Dorothy says that we're, you know, everything we ever needed we had all along, 'cause she's making the point that, you know, a lot of the financial products certainly and a lot of the problems that we see are nothing new, you know, they've been around for sometimes thousands of years essentially. But if that's the case I kind of thought, "All right, so, you know, why are we here discussing this with the word 'innovations' in the title if that's the case?" And in the paper that we'll be referencing throughout this presentation, you know, what do we actually mean by innovations, 'cause it's a pretty loaded word? I mean are we really talking about what we all think of when we first hear the word 'innovations,' of Steve Jobs and, you know, Post-It notes and wireless and, you know, these things that kind of are truly new in many senses of the word?

But really I think when we started looking at innovations we started looking much more at ways of addressing these sometimes ancient problems in ways that were slightly different than what has been tried before. So it's these ancient problems that essentially the standard business models have fallen short over the years, decades, and centuries. And that I think does make it pretty interesting, 'cause we start to look at these last five, ten years and see essentially people that are reassessing these problems, taking a step back and saying, "Okay, let's look at this from a slightly different angle. Let's bring in a couple new people, new perspectives." And it may not be something that's completely brand new that nobody ever heard about or nobody ever, you know, thought of. A lot of times it is just these different angles, it's these new multidisciplinary approaches, and it's an improved understanding of how many of these different layers are kind of interlinked.

And an example of that is just sort of some of the agricultural microfinance that we're seeing that essentially just pulled many of the positive aspects of agricultural credit over the decades and centuries, but tried to address some of the weaknesses and similarly tried to bring in the innovations from microfinance, but in a new way and trying to take it a step forward. And just essentially a lot of what we'll be looking at are different ways of melding these two approaches and simply figuring out, you know, how to bring these respective perspectives together without sort of throwing away any of the babies as we let all this bathwater kind of slowly drain away.

So in terms of this paper that we're referring to, the framework is essentially what we'll be focusing on in the first couple of slides, which was really a challenge to categorize a series of challenges that we see from this demand perspective, and then to organize the types of innovations that we're seeing around these challenges, and that's what we're calling these innovations, "frontiers". And one challenge that I just referred to in the introduction was this definition of innovations.

And there's one case, I'll sort of read one line from the paper, because it was a challenge that we recognized and Jason was clear about saying, "Let's think very broadly about the term 'innovations,' let's not focus only on things that will completely blow somebody's mind, but try to find those types of innovations that are stepped improvements and even subtle differences." So we had defined it essentially as something that is new and/or being newly applied, and we related it to things, ideas, methods, systems, and even other things. So it was a very broad definition so we asked sort of your patience in dealing with that.

So when we talk about the demand-side approach, this was sort of the core principle that Jason led in terms of this framework that we then tried to categorize these innovations within that framework. And we, you know, we focused here this focusing on firm and household finance needs and uses, rather than products and providers, we felt was the best way to have a different look at what these innovative financial products, innovations, initiates, etc. were doing, but not in the traditional way of saying sort of financial products first, but rather say there are these various demand perspectives that are essentially the first three of these; there's the perspective of the agricultural value chain as a whole, there's the perspective of an enterprise, and there's the perspective of the household, and as we'll see in a minute, they're very closely interlinked.

And we recognize that there are lots of different semantics, different ways of framing these different elements. I mean sometimes I feel like working on this kind of stuff, it's like living in one giant Venn diagram that's sort of constantly, you know, overlapping partially with the other parts of the Venn diagram. But it is a challenge because there are lots of subtle nuanced ways that you can cut this, and I think we recognize we're never going to get it exactly right, but we tried to get it at least close enough to let us make our points.

And then the fourth area wasn't so much a perspective, but rather something that we couldn't ignore because it influenced these perspectives so much, which is the enabling environment, but here, crucially, we tried to include this last point under there, which is the hard and soft infrastructure. So not just the policies and legal framework, but rather things like technology platforms. It's not specific to one financial product, it's not specific to one targeted value chain, it cuts across everything, and it's been crucial in a lot of these areas of innovation. And really all of this kind of approach is really crucial to understanding risk, which is essentially the core concept that we're fighting with and how risk influences decision-making at each of these levels. And of course, when we get to the innovations themselves that are financial supply side products we realize that the risk is also influencing the supply side, of course, in terms of how financial service providers make their decisions.

So if we look at the challenges at these three levels of the enterprise, the value chain, and the household, we realize that many of the challenges are shared. And the two that kind of pop out most at us in that sense are cash flow, which we'll be hitting on again and again in this presentation, and what I just mentioned, risk. So when we look at challenges, constraints, whatever we want to call them, one individual constraint or challenge may primarily face one set of actors or one actor, but often it has a closely related impact on other actors and even on entire market systems.

So, you know, I won't spend too much time on these because they're often, they are some of the same types of constraints and challenges we often face – we often see, especially in the rural, when we look at rural finance and rural development. But, you know, the infrastructure of remote and disbursed populations and poor infrastructure, you've got the seasonality question that's particularly important where you've got rain-fed agriculture, you've got the perception of risk in rural areas on the part of financial institutions that it's high, but more importantly it's generalized, so it's often they sometimes don't have as nuanced a sense of where risk is, so they try to – they take a risk minimizing approach that says rural areas in general are high-risk.

So some of the innovations we've seen is trying to get more nuance into that and realize that sometimes, yes, the risk is in fact quite high, but in other cases the perception is higher than the reality. The products and services that we see are often evolved from the urban and they're not always particularly well adapted. And then, of course, we've got the age-old question of unequal access and sort of equity of everything from services to infrastructure that hit small and sort of more vulnerable groups, populations, enterprises, etc. compared to their larger and more connected counterparts.

But the last point is that really this is changing, and when we do get this chance to look back in a little bit longer-term perspective we see that there's increasing recognition of the commercial motivation to change some of these things. So it may not be, you know, strictly speaking kind of base of the pyramid, but it does kind of – it shares some of the same principles of the base of the pyramid stuff, where there is increasing recognition that there are business models that involve integrating the poor better. These technological means are improving everything from cellular mobile technology to, you know, increased use of Internet, as well as better use of older technologies, radio and the like and more creative uses of those.

And then finally, this point of increased collaboration, which really gets to this multiple perspectives, kind of multidisciplinary approaches to these things, bringing in the aggie and the finance people into the same room and just sort of letting them work it out, as opposed to kind of having them come up with their own separate issues.

And so here is our diagram that we kind of came up with that, again, you know, you're not going to get it exactly right in terms of the – we went back and forth probably 100 times in terms of the which terminology to use in these three parts of the household. We maybe didn't get it perfect, but you get the main idea, which is you may think you're dealing with one aspect, you may think you're dealing with a particular value chain or a particular enterprise or a particular household, but when it comes to the cash flow it's all one bag. So it's something we all recognize, I think; it's something that Stuart Rutherford, you know, brought up 20 years ago or 15 years ago. But especially bringing it into the value chain field is something that I think we sometimes forget a little bit; we forget that once you trace everything back to particularly a farmer, you've got to trace it back to his or her entire household, and not just because that's the right thing to do, but rather because that's going to influence things beyond that household; it's going to influence things related to the supply chain; it's going to influence how and when those actors make decisions that will then have follow-on effects.

And I think this diagram is particularly important as we think through some of these pathways out of poverty, how to reach the more vulnerable populations and bring them into the fold. Because, of course, as you do come down the socioeconomic ladder I think you see this being more of a reality as you do that.

So that understanding of how decisions are made and recognizing that they're not sort of one-dimensional decisions is particularly important.

So I'm going to hand over to Jason at this point.

Agar: Okay. Thank you very much, Geoff. I just wanted to quickly explain that from my perspective, one of the ways that I came into this whole subject of how these things were interrelated was talking to a buyer who had a very good outgrowing scheme, but he said that he kept losing farmers. Some of the farmers were very good growers, they'd been very good at repaying their loans, there had been no problems, they'd been increasing production, everything was going well. And then suddenly these farmers would disappear. And when you started to look at it in a little bit more depth it really began to appear that it's things that are happening in the farmers' lives that will drive where they place their cash. And they were quite ready to take cash away from non-farm enterprises and their farm enterprises because they had an issue in their lives, in their household to do with a medical emergency, a funeral, school fees, or they got themselves into some sort of debt.

And that's really where for me the thing is all very much interlinked. We're going to look just now at the four areas that we've talked about and just going to very quickly go through some of the challenges. Then we're going to look at a couple of examples, which will be the first two on that list there, the side selling and then the production price and market risks. So I'll skate over those two very quickly.

In terms of the value chain finance, then really these first two issues I think are really, really crucial. The issue of side selling really undermines the willingness of different buyers and processors to engage with farmers at all different scales, from commercial right down to small holder. So getting the issue of side selling resolved seemed to be one of the main drivers from the point of view of the buyers and the processors for investing.

The second issue there was that of how enterprises and households face these production price and market risks. I think we could probably list other risks as well, but these seem to be the most pertinent ones in relation to the value chain.

The third issue around which we were able to group a set of problems, and of course responses that people are making to those was around fixed asset finance. And as we won't be covering it later on, then just very quickly, there are some very interesting responses in and around different forms of leasing. Clearly if a farmer wants to get into a step change in his agricultural production then he needs to invest, but rarely are they able to access the kind of finance that they're going to need for that.

The fourth issue there is farmers losing value through forced early sale. And I think we're all very aware of issues around delayed sale of crop and improving prices as the season moves on. Obviously there's a degree of risk in making choices; prices may not always increase as the time goes on. But what we have seen is there are definitely opportunities for improving returns just through delaying the period at which crop is sold.

The fifth issue relates to poorer farmers, and here we can look at a spectrum. I mean clearly for a buyer it's easier to deal with a relatively small number of large commercial players. It's less easy, but still potentially very interesting for them to work with small holders. And a lot of kind of developments have been in and around how to engage small holder farmers more. But there have also been a number of initiatives in and around trying to graduate very poor farmers from subsistence into semi-subsistence, semi-commercial activities.

The sixth one is about power relationships. I think generally speaking there's a positive welcome for outgrower arrangements, but sometimes these can become exploitative and farmers can become very dependent deliberately on the part of the buyers or inadvertently. And so there are issues around trying to promote competition.

The seventh issue there is the classic one of working capital; that's clearly a major issue for many farmers as well, and timing of payments is crucial to that.

So a number of initiatives in and around fracturing, purchase order finance, and so on. Next slide, please.

Thank you. The household finance is very much interlinked with the way a rural household will respond in and around its farm activities and farm finance. We were looking at different ways of trying to sort of group the issues facing households, and really there are a set of urgent, immediate, and perhaps unpredictable shocks that households face, and these can be in terms of major disasters that are affecting a whole set of households in a particular area; so it could be flood, it could be some sort of pest problem, and so on.

There are also those more predictable needs which are part of everyday life for the rural person, so how to educate their kids, how to look after their health, weddings, funerals, and so on, and perhaps even retirement in this case. So we try to categorize them into these kind of two broad splits. In terms of vulnerability to shocks, there's been quite a lot of innovation in and around disaster responses, trying to bring together finance with disaster and relief activities. And then there are also more straightforward things, like helping people to buy into insurance. Obviously that's a really difficult concept for many farmers to understand, and so it's been dealt with in quite a number of different ways.

There's also the issue of promoting and encouraging savings and interesting mechanisms to engage with farmers. One that particularly struck me was the Tigo initiative in Ghana, which is a mobile phone company that gives anybody who buys their air time an amount of life insurance proportional to the amount of air time that they buy, and that covers them for the next month. So there's some quite interesting things being done there.

In terms of the kind of unmet predictable needs, a lot of work has been done in and around health insurance and also access to health and there's a reasonable amount of work being done around education, trying to encourage people to save for education. All of these are effectively social investments which enable a household to maintain itself and improve its situation, and these will take precedence over their farming activities, at least in my experience.

The third point there is that we're clear that rural households are much harder to reach, including with promotional activities. So there have been some initiatives to promote access and to reach these households. I quite like some of the things in South Africa, where people would board many buses and treat the passengers as a captive audience. And in South Africa they also have these ideas of whiz kid sales – sorry, wizard sales kids, picking people who are similar to the likely target audience and sending them in and about marketplaces and other places where they could find customers.

And the final one is about literacy and education. This is still a very – an area where there's still a lot more to be done, and I guess ultimately the question is is who's going to pay for it, and that's probably what's deterring a degree of private sector engagement with it. But certainly trying to integrate financial education with services is a clear way forward. Next slide, please.

This slide is about this area from what we've called non-farm enterprises, so basically anything that's not to do with the farming activity itself. It could involve trading a farm produced, but more likely it's going to be involved in investments into other activities. So typically for rural households that might be some sort of small retail or trading business, maybe providing some basic services, be it brewing, whatever. But there's a whole set of enterprises that people can invest in. Of course, it's not as dominant and significant as the farming activities, but it's still nevertheless important, and I think probably a relatively neglected area. There is kind of an assumption that rural equals agriculture, which it does, but it's agriculture plus other things.

The three main areas that we kind of grouped innovations around were these; the first one is around reducing the lender's risk. And it's quite clear from the literature that there's a lot of inappropriate collateral approaches and requirements, and these are the kind of fallback for the former financial institution; when they can't be met by a rural person then effectively no deal is done. And yet that's a real missed opportunity for business. And I think the innovations have come around thinking about how do we list and summarize what collateral people have, where it's being pledged, but also thinking more about moveable collateral and really importantly about soft collateral, so linking peoples' involvement in outgrowing schemes or other contracts that they have as means of collateral.

The second issue there is around determining the borrowing capacity. This is an area where there has been work in and around credit bureaus and there has been work in and around methods of scoring. I think there's an awful lot still to be done in this field and I think it's become – it's an area where there are still many challenges left, shall we say?

The third one is around product design, and that's clearly very important. A lot of the products I think tend to be designed either with an urban bias or with an ag finance bias, but not thought about in relation to the particular capital needs, both fixed and working capital needs of a non-farm enterprise. And focusing very much in on what people are actually doing and needing in their business surely has to be the driver for designing of the products. Again, I think that there's been a response here, but it's probably an area where more response could be beneficial. Next slide, please.

Okay, the fourth area, which is the kind of overarching and in many ways creates the sort of platform for which innovations can take place is around the enabling environment. We've talked already about the cost of access, and of course there's the physical access, the difficulty of getting in and out, of moving around, of relatively high transport costs. But also there's been a kind of mindset that says financial services are delivered in a certain way, and the idea of a fixed place of work, probably quite a formal branch, and because those are relatively high-cost methods of delivery they've tended to be relatively restricted in terms of reaching out to places where rural people can actually physically access them.

So there's been a kind of a bit of a shift in thinking and we've seen a lot more innovation around improving the physical presence of financial institutions. Obviously there are things like mobile banking facilities, so these are banks on wheels or branches on wheels, but also using a range of different players, and this is where technology has really helped. So the use of point-of-sale devices combined with cellular access has really opened up the possibilities of where people can transact, where they can get money from, where they can send money, where they can save money. And so this has been a really big change and really has opened up rural areas. I think these are really, really important changes that have taken place. And I think we've all seen the impacts and we know of the impacts of M-Pesa and G-Cash and all of these other kind of mobile cellular phone-based services, and those clearly have still got a long way to go and I think we're still only beginning to see some of the results that they can bring about.

The second area there is abbreviated to regs and legs, regulation and legislation. And very much central bank thinking or regulator thinking is tended to be predicated on the idea of a formal banking system with formal outlets operating in a very formal manner. Yet the kind of audience that they're dealing with are people who are very dispersed, relatively immobile in terms of traveling large distances, relatively uneducated or literate, and there's a need to sort of engage in quite different ways. So we have seen willingness of central banks and regulators to open up models such as agency models, and I think the way the central bank in Kenya handled the M-Pesa is one of those really positive stories of where it was willing to allow things to happen and then keep a close eye on it and make decisions once it had seen how things were working, but keeping a good eye on the matter. And the issue here is also of how do we deal with peoples' identity, because many of those rural people are relatively identityless.

And then the fourth issue is of – sorry, the third issue, can't even read – is of the MFI capacity. Of course this is a difficult point because it's a general point, but I think we can see that there are difficulties with good MFIs that cannot access capital. So I don't really mean the poor quality MFIs that can't access capital. So there have been a number of initiatives to try to strengthen MFIs, and those are set out in the paper. But some of the interesting ones are to do with developing partnerships with former financial institutions and sharing platforms for technology, software, and systems. And that kind of integration of the MFIs with FIs I think is a very interesting outcome and potentially can allow full institutions to reach much, much further in ways that they're not traditionally used to.

Next slide, and I think it's back to you, Geoff.

Chalmers: Great, thanks. So the idea here, so Jason kind of walked us through these kind of four parts of this paper that laid out this framework and at least gives us the general ideas of these anywhere from three to seven sort of sub-themes within each of the four areas that laid out the challenge and the ways that we're seeing some of the innovations out in the field. And the idea of this presentation was to lay that out broadly and then take the rest of the presentation to really zoom in a little on two that are kind of illustrative. So it's within that first area of the value chain finance, which is really the essentially agricultural value chain finance that we're looking at, and to sort of, again, zoom in and really essentially follow the framework and the thinking of the framework as it plays out in two of these challenges that we saw. And again, they're just illustrative of how we approached it in the paper for all of them. So the first of them was reducing side selling and the second was reducing these risks.

So on the side selling part essentially we're looking at two different ways of defining what is essentially the same problem. So from the perspective of, and it sounds a little funny to say from the value chain perspective, because there's obviously no one actor, it's a system, but if you kind of allow yourself to think of a system of having a viewpoint or a perspective, essentially you look at the problem of side selling from this system perspective and you see underinvestment that comes as a result of the side selling. Right? The buyers that can't depend on the sourcing essentially in one way or another end up underinvesting, they end up doing less than they could.

And again, from this broad systems perspective you could say that it's caused by breakdown of trust in one way or another. There's the bonds of trust between buyer and seller have broken down, the buyer can't trust the fact that the producer is going to deliver what they say they will. And this in turn stems from a focus on the short-term. So from this broader perspective you're saying the individual farmer is making a short-term determination, saying, "I'd rather get more money right now, because the spot market happens to be higher, and I'm giving up essentially the longer-term benefit of having a trust-based relationship that I can depend on, that I can plan on. So they're making a short-term decision over the long-term.

But then if you flip it and look at it from the household perspective, it's essentially what Jason referred to, it's the urgent outweighing the important. So it is the short-term outweighing the long-term, but for a very good reason, which is it might be that my kids are sick that week, it may be that, you know, whole range of household or enterprise-related investments or costs that need to be made and that have to take priority because of their urgency. And that essentially takes us to cash flow constraints. So from the household perspective you have this cash flow constraint and it's leading to some form of suboptimal decision-making; it's not bad decisions, you know, you and I would probably make the exact same decision, but it's suboptimal in a broader sense and certainly in a long-term kind of a way.

And then when we get to the solutions and these innovations that we see, they tend to be multidimensional, they're not just a financial product. So I think that's a key point. And these solutions can come from within the value chain or they can come from outside, essentially some form of a financial provider. But either way, they require some kind of an understanding of this more integrated cash flow model. And we'll see in these two examples, we'll see the within the value chain and the from without or from outside.

So in the first case, and I might ask Jason to jump in here, 'cause he knows the Malawi case quite well, but I'll take a shot at it, and he was more closely involved in some of the specific tracking of the innovations. But the key point in this case in Malawi focusing on side selling was that since the household needs tend to take precedence unless the contractor, you know, helped the farmers to find cash, they would take the only option, which is to really sell their crop in advance. So there's sort of this inevitability there. And essentially the prevalence, what Jason found in Malawi was that the prevalence of the side selling really depended on this issue of value chain governance. And so if you tended to look at two different types of value chain, one that's more open, market-based sort of spot market types of crops and compare that to a more closed, directed value chain that has very tight relationships, it's not surprising to find that the latter tends to have less problems with the side selling than the former. The more open market-based system is harder to get those really tight relationships that can engender the lack of side selling. But essentially there's a clearer path to solving it in these closed, directed value chain governance, but the cash flow pressure is hitting both of them.

So the case that he was looking at in Malawi of this more open market-based value chains, some of the examples were paprika and ground nuts, these were essentially, again, harder to make the close relationships work. And in some of these value chains making that close relationship work was just too hard; there wasn't enough to tie the farmers in. So often the value chain buyers sort of said, "Well, we can't afford to have any kind of integrated support package or any of these things. We're just going to go with the open market, go with the spot market and forgo any attempt to kind of tie farmers in one way or another."

But in others, you know, for example, in tobacco there was an issue of traceability that started to sort of enforce some of that more close relationships. So they did start to have these more integrated support packages, have a more close tie between the buyer and the seller. This was sort of in some ways forced upon the value chain by the requirements on traceability, but for one way or another it did start to happen. Whereas in the closed, kind of more directed value chains, such as they were looking at tea, green tea, and sugarcane as well, where you've got perishable, bulky types of crops that are difficult to move it fast, that sort of forced them into the closer relationship.

And what was interesting in some of the innovations there, again, entirely within the value chain, so not involving financial institutions, were actual profit-sharing arrangements and the equivalent of sort of dividends. So trying to put in some transparency and accountability into these types of relationships, where the short-term cash flow constraint was still there, but at least in the long-term the buyers were sort of helping the farmers to get through the shortage of cash. So the long-term benefit was there; there was more of a win-win type of a viewpoint from the farmers, who started to appreciate that, okay, "if the buyer does well I do well" type of a thought. And they also, the buyers started to see a benefit, a mutual incentive there for them to start doing things like timing the payment across a whole season and not all at once. So because they could depend on that close relationship they developed the kind of trust necessary to say, "We'll pay, rather than one lump payment, we'll pay in a way that helps kind of fit better with your household model."

And then innovations such as the hungry season payments is this idea very similar to what I just described, of saying, "Okay, the buyer recognizing, okay, there are a couple months here that essentially you're asking farmers to hold on and say, you know, "We know there's not much income coming in during those months and you're sort of waiting for the sale of the harvest time, and we recognize that that may lead to side selling, so we're better off making some kind of, you know, essentially what amounts to a loan, but some kind of advanced payment to recognize that.

Jason, did I miss anything on that? Before I move on to the next example.

Agar: No, I think that's very good.

Chalmers: So the next example is actually kind of a two-sided version of the same issue that brings in a financial institution. So here we're looking in Nicaragua and a partnership between a union of six coffee cooperatives and partnering with the Fundales Arroyo Locale, which is a local MFI in Nicaragua who has done some innovative work in the field of agricultural microfinance. So essentially similar problem of having several months where the farmers are essentially not getting much income, at least from the coffee crop, and trying to say, "Hey, if we work something out so that we get you the kind of cash you need you won't be in such dire straits that you need to go – either go to another buyer who's willing to give you the money on the spot or, you know, to some really expensive sort of emergency informal loan."

So the idea here is that that in itself reduces the side selling and that that also reduces the default risk for the financial institution. But it involves additional services, it involves supervising the harvest on the part of the financial institution, so it does require some additional sort of investment from that side. And here, you know, we do get to the question that I think is true in all of these examples, where the question of impact is still I think a big challenge. You know, you can measure it by in this case, in this second case, by sort of the number of loans, and in that case, yeah, there's impact in that sense; it's been successful, there's been good repayment. You can measure it in terms of improved value chain linkages, more sales, etc., and I think that that was positive in this case as well. The impact on the household, very hard to tease out. But at least the hypothesis is I think a little bit different than what we've tended to have, where the hypothesis was either we just want loans to grow or we want something that's very specific to the end borrower. Here we actually have a hypothesis, the implementers had a hypothesis that this will actually impact the value chain, it will actually improve the efficiency and growth potential of the value chain.

And just real quickly, this is just meant to illustrate kind of the interlinked nature of these different challenges and these different innovation frontiers, ‘cause none of them is sort of an entity in and of themselves. In this case, these particular examples link very closely to the other value chain finance challenges that are listed in the paper, such as the last one, of increasing access to working capital. Also related closely to this question of exploitative or not exploitative power relationships. So they’re all kind of tied in closely together.

And just a further example that I thought was interesting that we heard last week at the AMAP conference is this case of agriculture commitment savings that essentially ties the farmer’s hands and gets them to commit upfront to a savings plan that gives them the cash they need right at the moment of planting. I just thought it was particularly interesting because it’s essentially the same goal that we just discussed, but it’s approaching it from the savings side, which I think is pretty interesting. Although I had to mention the finding from Javier from the University of Michigan and World Bank, a study there showed that it actually wasn’t the tying of the hands that helped. It did have the impact that they wanted in terms of improved increased investment in the value chain, but it was more of a behavior change experiment, where the fact that they selected in was what did it. So it was sort of a mental switch that said, “Okay, I’m making a commitment in my mind to make this kind of investment.” Whether they actually had their hands tied or not turned out not to matter.

All right, so I’m going to hand over to Jason for the second of these kind of illustrative zoom-ins.

Agar: Okay. Thank you, Geoff. I think the issue around this set of risks can also be seen from the two dimensions. From the kind of buyer’s and value chain player’s perspective one of the key problems is getting the right volumes from the chain. Obviously quality is also an issue within that as well. Volumes can be impacted by side selling for particular buyers, but really we’ve already dealt with that issue in the previous set of points from Geoff. More here we’re thinking about the impact of poor production, low production, farmers using methods that don’t yield as much as they could do, which impacts on the volumes in the chain, and also the farmer’s willingness to sell at a realistic price; because his volume is low he tries to make it up by getting a higher price.

So there's a set of risks there from the buyer's perspective, and if they can't be assured of the volumes then one of the real problems for a buyer is he needs to be – he doesn't just buy – well, sorry, he may be buying on spec, in other words without firm contracts in place, but very often a lot of the processes in buyers that I spoke to do tend to buy against contracts that they have or strong expectations of contracts. If they can't find the volumes then they can't enter into those contracts, so it's a bit of a chicken and egg for them. So they need to have assurance of the volumes and predictability of that, and ensuring that they are going to get the amount that they have themselves contracted to deliver. If they can't do that then they shift to a much more spot buying, spot selling type of approach, and that's where issues of quality tend to go by the way.

From the household perspective the real challenge is, you know, if you're starting with a very relatively low level of resources and assets and you're faced with a lot of risks, the range of risks that you face tends to appear overwhelming, and it probably is overwhelming, and induces a real risk-averse set of actions. And so farmers end up growing relatively simple crops which tend to be low risk, but low value, and often these are food crops, so if I can't sell it at least I can eat it, or otherwise I'll sell what I – if I produce more than I can eat I will sell that. So what we end up with is farmers really risk minimizing, and they're kind of compounding their vulnerability, because one day something may well happen that pushes them from surviving into destitution. So we do need to find a model that takes people forward. And that's really where if we can think of risk mitigation measures then we can start to take people to a new level. Next slide, please.

So in terms of the way the innovations can be grouped, there are innovations that are driven from within the value chain and very much by the participants to the chain, and there are those that have come from outside. There are probably more that have come by bringing in outside parties, but certainly in terms of from within the chain then a lot of the issues are to do with trying to come up with contract mechanisms, pricing mechanisms that respond to the farmer's need for a degree of price certainty so he can see or she can see what she's going to get at the end of the process.

Of course, one of the challenges is that if the market price is moved out of line with the fixed price that's being set within the contract, farmers will tend to see that as an opportunity to increase short-term returns, and they will offset whether they think they can get away with it or whether they are really being pressed so much that they will say, "Well, let's do it because we're living here and now." So trying to get that kind of price predictability is helpful, but you also need a mechanism that responds to market changes, and that's where we've seen a degree of kind of experimentation and behavior.

I think the other part of this is where buyers have had to become much more involved in the production, and that's where technical assistance, providing the right inputs, doing the research on the inputs to make sure we're getting the right sort of seeds and farming systems and disseminating that to farmers is kind of the bread and butter of outgrowing arrangements. The linking that to finance within the chain has also been a responsibility that many buyers and processors have taken on, and I think one of the challenges has been that that's limited their ability to deliver real change, where they haven't been able to bring in a proper financing partner. Next slide, please.

And in terms of the innovations that have come from outside, then there has been a lot of interesting developments around here. Most of these are addressing production risk, and it's worth pointing that out. And one of the key areas has been in and around the development of insurance products and crop and livestock insurance. And there have been whole, a range of different things brought in here. The biggest challenge from the insurance point of view is the issue of moral hazard and selection bias. Those people who think they're most at risk are the ones who are most likely to buy insurance, and those who are least at risk, or think they're least likely at risk are the ones who will not. And of course, when it becomes a very narrow pool then the cost and the selection bias become greater, and that's reduced the amount of insurance that's available and it's limited the overall development of chains.

So some of the measures that people have been involved are to do with fraud measures. In India there was around about 50-percent of the livestock that died were estimated to be fraudulently claimed for by saying, "This is the animal that was insured, not the other one that's still alive." So the use of microchips inserting into animals is one way of trying to prove the verification. Another one is by partnering with reliable organizations, sometimes development partner organizations who will help and assist with the verification process. And another method is sort of integration of cover as automatic, and that's also being commonly used.

The other way forward has been in and around the development of indexes. And there's a lot of really interesting stuff in this and I really can't spend too long on it. But we've got I4, who have been working with a whole set of organizations around the world and there's been a lot of work around weather indices or indexes, and there's been some work in and around something called "dry day insurance," which focuses more on the number of days between which rain has fallen for a particular crop to thrive. And so there's a set of different opportunities in and around the introduction of these indexes. They become effectively an automatic verification. So if these conditions are met then a payout in full or in part will be paid according to some measure. And that's tended to reduce the cost of verification, reduces the issue of fraud in that respect, and it does allow for a cheaper product and greater coverage to be made. So that's really been quite a lively area of innovation.

And I'm kind of conscious of the time, so, Geoff, I think that's the last content slide. Do you want to take it on to our final and introduce the Q&A, Q&D?

Chalmers: Yes. Great. Thanks, Jason. So yeah, we did go about 10 or 15 minutes over, so I will forgo any real conclusions and say thank you and say here is the link to the actual paper. Right? Yes. Okay. And let's see, so – and open up for questions and answers, yeah.