Towards market transparency in smallholder finance

EARLY INSIGHTS FROM SUB-SAHARAN AFRICA
Authors and Acknowledgements

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Over the last four years, IDH The Sustainable Trade Initiative, with support from the Mastercard Foundation Rural and Agricultural Finance Learning Lab (RAFLL) and Dalberg Advisors, has worked to bring greater market transparency to the smallholder financing gap in sub-Saharan Africa. To do this we assessed the service delivery models (SDMs) of seven financial institutions. The initiative’s goal was to understand the true economics of providing finance to rural, mostly smallholder farmer populations and to describe the benefits and costs of these efforts for smallholder farmers, buyers, and providers of capital.

Along the way we discovered a large diversity of Financial Service Provider (FSP)-led models working in partnership with other value chain actors to serve smallholder farmers. This ever wider and increasingly digital set of actors can provide input and trade financing, as well as insurance and other financial services that support agricultural market functions. The seven FSPs analyzed varied in business model, country of operation, and point in time evaluated. This diversity made it difficult to compare the business models or develop a definitive and systematic assessment.

Despite this, our efforts yielded the important—potentially sector-altering—lessons summarized and shared here. The product of hundreds of hours of collective effort by multiple teams, this study also built on an incredibly rich trove of unique data from the seven participating FSPs, their partners, and their customers. The key findings are summarized below and explained in more detail in the full report.

The economics of serving rural smallholder customers are challenging for FSPs, particularly those offering standalone credit solutions, such as input loans, overdrafts, and insurance. Of the seven FSP that were analyzed, only one clearly demonstrated financial sustainability by the time the assessment was completed. Most of the models—especially those using digitalization or fintech to serve rural microentrepreneurs or agricultural SMEs—were not financially self-sufficient and required optimistic assumptions to get to breakeven in the future.

Despite the challenging economics, if we look holistically at the distributed benefits of these SDMs (not just to the FSP but also for farmers and value chain partners) the positive impact on livelihoods is compelling. While input providers and off-takers also benefited in most cases, data suggests the smallholder farmers across the seven SDMs were the biggest beneficiaries through yield and price increases leading to higher incomes and more resilient livelihoods. Women and youth, in particular, have the potential to reap significant benefits in the future.

These results suggest that subsidy—which is most frequently provided directly to the FSPs as grant funding by donors or governments or as reduced transaction/financing costs—can often be necessary to make FSP-led SDMs both viable and impactful. Smart subsidy can ensure greater food security and help realize benefits for rural women and youth, in particular.

This does not mean we should not seek ways to make FSP models more sustainable in themselves; perpetual subsidies are not the answer. One avenue that warrants investigation is the extent to which greater scale can help FSPs overcome profitability challenges. Loan size is a fundamental driver of revenue: the bigger the loan size, the higher the interest and fee revenue. Across the assessed SDMs, loan sizes for individual farmers tended to be relatively small, meaning interest and fee revenues were insufficient to cover the cost of servicing the loans. Bigger loan sizes to customers, despite the challenge this presents, will increase interest and fee revenue. Another way to reach scale is by adding more customers. The more farmers an FSP reaches, the wider it can spread its fixed servicing costs, balancing these out with loan revenue.

The path to scale, though, is often slow. Reaching a critical mass may take years—however, three levers can help improve the economics sooner:

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1 Service delivery models (SDMs) are supply chain structures that provide services to farmers, such as training, access to inputs, and finance.
Towards market transparency in smallholder finance

FSPs can intentionally design holistic value propositions and partnerships to drive product traction and share cost and risk. Holistic value propositions provide comprehensive access to a range of services that help farmers address multiple challenges. A complete package of services may be the only way to overcome the vicious cycle whereby credit is required to invest in on-farm productivity, but increased productivity and income is needed to access credit. From a business model perspective, our assessments suggest that, in some circumstances, overall FSP profitability could markedly increase if providers offer holistic value propositions.

FSPs can seek to grow with the right customers. Understanding differences in smallholder customer economic value by segment is fundamental for sustainable growth. Customer lifetime value—defined as the net present profit an FSP will get from serving a customer over its lifetime—can vary widely across segments. By understanding those differences in lifetime revenues and servicing costs between different farmer segments, providers can identify specific strategies that support overall profitability and determine how much they should spend on customer acquisition. This knowledge can also be used to target high-potential women and youth intentionally and successfully as customers.

Finally, FSPs can optimize their capital structure to maximize returns and long-term resilience. Access to appropriately priced and structured capital is a key constraint of smallholder finance growth. This is particularly true for innovators, such as specialized fintechs; unlike more commercial incumbents, they cannot easily draw from their own balance sheet or cross-subsidize from other profitable business lines. An optimal capital structure can maximize value creation and flexibility, allowing business models to serve smallholder farmers while increasing their own financial sustainability.

Our findings suggest that, while it won’t be easy, FSPs have pathways they can follow to achieve financial sustainability while unlocking social and economic value—for both farmers and the broader ecosystem. In other words, well-designed, commercially viable lending has the potential to improve farmers’ livelihoods and to shape more inclusive, sustainable, viable agricultural markets.
1.0 CLOSING THE SMALLHOLDER FINANCE GAP THROUGH MARKET TRANSPARENCY

1.1 THE SMALLHOLDER OPPORTUNITY

Smallholder farmers represent a huge, underserved market for accomplishing global social and economic development outcomes. An estimated 500 million households—around 2.5 billion people—depend on smallholder farming for their current and future livelihoods, a number that will most likely increase in the future. Although there are variations by age and farmer segment, surveys of smallholder farmers by both CGAP and the RAF Learning Lab reveal that the vast majority of smallholder farmers are proud of their farming activities, aspire to grow their farms, and would like their children to continue in their footsteps. This should be good news. As the global population grows, smallholders—who produce about 30% of the world’s food—will play a key role in meeting rapidly increasing demand for more foods. Furthermore, agriculture development is estimated to be over three times more effective at reducing poverty in low-income countries than investments in other sectors.

Despite the role smallholders play in global food systems and the links between a thriving agricultural sector and the wellbeing of our global population, most smallholder farmers continue to be trapped in a cycle of poverty. They are often unable to access the productive assets and services needed to invest in their farms—whether land, inputs, mechanized equipment, labor, knowledge and training, or market information. Research by the RAF Learning Lab in Kenya shows that most smallholder farmers perceive credit as a key enabler to accessing productive assets and realizing their full economic and livelihood potential. Unfortunately, approximately USD 170 billion per year, or 70%, of the smallholder demand for agricultural and non-agricultural finance goes unmet. This leaves millions of farming households without the critical inputs, technology, and services they need to increase their productivity and improve their livelihoods. Furthermore, without these enablers in place, smallholder households are hugely vulnerable to economic shocks, such as the COVID-19 crisis (90% of smallholder farmers in Kenya reported a worsening in their financial situation.

2 Matt Shakhovskoy, Mikael Clason Höök, Clara Colina, Pathways to prosperity, Rural and Agricultural Finance Learning Lab, 2019.
4 Emilio Hernandez, Jayadeep Akkireddy, Iris van der Velden, Sowing the seeds of innovation for smallholder finance, IDH, CGAP, 2020.
6 Matt Shakhovskoy, Mikael Clason Höök, Clara Colina, Pathways to prosperity, Rural and Agricultural Finance Learning Lab, 2019.
at one point during the first year of the pandemic or climate change (the current trajectory could lead to a 50% drop in yields in Africa alone).

1.2 THE POWER OF PROOF POINTS

In the last 40 years, the smallholder finance industry has rapidly evolved. Deployment of capital that was originally led by donors, governments, and community-based institutions has now broadened to a spectrum of investor classes. Traditional commercial banks, microfinance institutions, multinational organizations, large agricultural corporations, and even tech startups have all shown a growing interest in filling the smallholder finance gap—often backed by a mix of donor, impact, and commercial capital.

While these investment trends show a healthy interest, private capital is not entering the market fast enough to close the smallholder finance gap at the pace that is needed. A majority of private investors and financial service providers continue to perceive smallholder finance as a high-risk, high-cost endeavor. It’s true that most smallholder farmers lack credit history or collateral, produce relatively small amounts of crops, have limited access to markets, are vulnerable to climate and economic shocks, and tend to be located in hard-to-reach areas. While these challenges are real, there is limited evidence that puts them in perspective with the potential financial and impact returns. Without the data to fully understand the investment opportunity, most players will prefer to deploy their capital in sectors where they know they are likely to get higher risk-adjusted returns.

But proof points can change this. In most developed markets, investors can access a wealth of data and information to make informed investment decisions. However, the lack of market- and business-level data in smallholder finance means that there is little visibility on either risk or expected financial and impact returns. The sector also lacks clear data on what support from donors and other public or private actors is most effective at catalyzing private capital. This is particularly true for segments that have traditionally been less commercially attractive, such as women or very remote subsistence farmers.

This learning brief aims to start building those proof points by shedding light on the commercial viability of a handful of financial service providers. We seek to understand the extent and conditions under which financial service providers can attain profitability, while also delivering economic and social value for farmers and the wider ecosystem in which they operate. In doing so, we hope this brief will contribute to a larger evidence base that can be used by financial service providers, investors, and donors to make better-informed decisions around smallholder finance.

1.3 DIVERSE SERVICE DELIVERY MODELS

As noted in Pathways to Prosperity, the last 10 years have seen the emergence of a new generation of financial service providers (FSPs). There are different types of institutions: commercial banks, microfinance institutions, multinational organizations, agribusinesses, social enterprises, NGOs, and community and informal financial institutions. There are also variations in FSPs’ primary objective for service delivery. Some (often NGOs and social enterprises) are trying to optimize for client outcomes, others (such as financial and microfinance institutions or fintechs) aim for service profitability itself, while agribusinesses tend to offer finance or other services to farmers to strengthen supply security. Across all these objectives, we also see diversity in scope of services, with FSPs providing finance-only services, finance along with productivity-enhancing services, or a full bundle or menu of services that include finance, productivity-enhancing services, and market linkages.

This diversity in service delivery models (SDMs) is driven by a series of market dynamics in smallholder finance. First and foremost, there has been increasing recognition of smallholder farmers as clients, rather than beneficiaries. Farmers are no longer perceived as a homogenous group; rather, they are seen through the lens of diverse and dynamic sub-segments with different livelihood strategies and needs that require different SDMs. For example, subsistence farmers require a higher-touch model that may need to be subsidized until they can transition to commercialized farming or a non-farming livelihood strategy (e.g., rural labor). More commercial farmers, meanwhile, require larger loan sizes and access to markets. The second dynamic driving this diversification is a shift toward market-based approaches in service delivery, increasingly focused on sustainability, investability, and cost-efficiency. Finally, a new wave of technology-driven innovation has enabled the sector to streamline operations and design more customer-centric models to better meet the needs of rural households.

In turn, this increasing diversity of service delivery models has helped push the innovation frontier further than ever before. More varied and sophisticated service delivery means new ways of thinking about customer value.
proposition to fill previously unmet needs, as well as new conceptions of financial sustainability and farmer impact. Yet this business model diversity comes with its own set of challenges. Perhaps the biggest one is the difficulty of developing a systematic assessment of SDM types that would allow for cross-sector comparability (see callout box “A note on the methodology of this report and its limitations” for more details). The wide variation in how smallholder finance providers design and operate their service delivery models and the nascent stage of many providers means that, while individual stories can offer significant lessons, these can’t always be compared across models or extrapolated to sector-level conclusions. The three-year partnership between IDH The Sustainable Trade Initiative and the Rural and Agricultural Finance Learning Lab is a first step in addressing these challenges through a more systematic assessment of financial service provider delivery models.

In this section, we attempt to bring clarity to the financial sustainability of direct-to-farmer smallholder finance portfolios by sharing some of the emerging insights from our work over the past three years. We start with an overview of what the range of returns look like, given the available evidence. Then, we delve into key strategic approaches to optimizing profitability, including developing holistic value propositions and partnering with value chain actors; deepening the understanding of customer lifetime value; and landing on the right capital structure.

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**FIGURE 1: HISTORICAL EVOLUTION OF SMALLHOLDER FINANCE**

9 Matt Shakhovskoy, Mikael Clason Höök, Clara Colina, Pathways to prosperity, Rural and Agricultural Finance Learning Lab, 2019.
A NOTE ON THE METHODOLOGY OF THIS REPORT AND ITS LIMITATIONS

The findings of this report draw primarily from an assessment of the smallholder finance portfolio of seven service delivery models. SDMs are supply chain structures that provide services to farmers, such as training, access to inputs, or finance. They can be operated by a range of organizations, including input providers, traders, processors, farmer organizations, NGOs, and public extension schemes. SDM assessments examine the performance of an operator’s business and delivery model from the perspective of the operator itself, farmers, and other intermediaries or providers involved in the SDM, where relevant.

The seven financial SDMs assessed in this brief include a mix of operators—commercial banks, microfinance institutions, fintechs, and multinational organizations—operating in a range of countries, including Kenya, Ghana, and Côte d’Ivoire. Findings from these assessments are complemented by more than 30 analyses of agribusiness SDMs providing customer financing either directly off their own balance sheet or in partnership with a financial institution. The brief also draws on external evidence related to the business and impact case of direct-to-farmer lending.

The SDM assessment methodology is a practical tool to understand the performance of different actors within a service delivery model; identify key levers to improve profitability for the SDM operator, farmers, and other stakeholders; and collect consistent and comparable data through which operators can benchmark themselves against peers. These are not rigorous academic studies that causally determine whether and how an FSP can reach sustainability, nor are they audits that verify loan-level data or farmer impact. Rather, this analysis draws from a mix of primary data (e.g., financial statements, projections, loan-level data, farmer surveys and focus groups, value chain actor interviews) and secondary data (e.g., agronomist assumptions, external research). The balance between primary and secondary data, or between historical data and future projections, varies across studies; this balance largely depends on the primary data collected by the SDM operator or their value chain partners, as well as how long the business has been in the market.

In other words, while the assessments conducted to date have allowed us to define fundamental hypotheses and uncover key insights into the profitability of smallholder finance activities, more research is needed. With a much larger number of case assessments and a greater quantity of time-series data, we can more fully understand the expected range of returns, as well as the why and how of key profitability levers. In Section 5 of this brief, we share some learning questions we believe should be covered in upcoming research.
2.0 UNDERSTANDING THE INVESTABILITY OF SMALLHOLDER FINANCE PORTFOLIOS

2.1 THE ECONOMICS OF SMALLHOLDER LENDING

For any lending opportunity to make commercial sense, the costs and benefits must balance out. And they must do so in a way that makes the opportunity competitive relative to other opportunities the lender might pursue.

Generally speaking, balancing the costs and revenues of agricultural lending is difficult. The sector is inherently risky, as farming is exposed to external and unpredictable events, including extreme weather, pests and crop disease, commodity and currency exchange fluctuations, and market-level shocks such as political instability and the COVID-19 pandemic. It is also dominated by highly fragmented, informal farms and small- or medium-sized enterprises (SMEs) with poor financial management, opaque information and data, and poor collateral—all operating in often weak enabling environments. Agriculture is also highly seasonal, leading to irregular cash flows. From an operational standpoint, lending to rural borrowers is also expensive due to their remote nature.

These constraints are magnified when it comes to smallholder agricultural finance. With tiny plots of land and weak links to markets, smallholder farmers have limited finance capacity. They are also even more vulnerable to external shocks, given their low incomes and savings and lower access to risk-management services (e.g., insurance or climate-smart agricultural practices). Smallholder farmers tend to be highly remote and have low levels of financial and digital literacy.

As a result, the economics of standalone credit directly to smallholder farmers appear to be particularly challenging and well below the expected returns of other investment opportunities both inside and outside of agriculture. Only one of the seven financial SDMs assessed for this report was profitable without subsidy, and the SDM that reached profitability was lending to farmer groups rather than individual farmers. Competition for commercial banks in Africa is typically limited, meaning that banks on the continent can earn relatively high margins on non-agricultural loans. When compared to lending to smallholder farmers directly, commercial banks in Africa average 2-5% higher return on assets (ROA) in other sectors.10

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**Costs**
- How risky is this borrower and market sector? What is the expected loss on a typical loan like this - and how uncertain is this?
- What are the operating costs to find the borrower and then service this loan?
- How much does it cost to fund this loan?

**Revenues**
- How much interest and fees are borrowers willing and able to pay for this financing?
- How long will the lender’s capital be “working”?

**Impact**
- Is the lender able to capture any of the social & environmental impact value created by this loan?

For a lending opportunity to make sense, the costs and benefits must balance out:
On balance, are the revenues from an agri-SME loan greater than the costs?
How do the economics compare to other opportunities the lender may have?
What if impact is added to the equation?

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**FIGURE 2 THE BALANCING ACT OF SMALLHOLDER FINANCING**

“The primary underlying reason for [low levels of bank lending to agriculture] is that the risk-adjusted returns to capital are too low to justify commercial lending to agriculture when other opportunities exist,”

Kenya Bankers Association

**FIGURE 3 AVERAGE PRE-TAX PRE GRANT NET MARGIN BY SDM**


12 To better illustrate profitability in a full operating year, a ‘ramp-up’ year of data has been excluded from several assessments where revenue generating activity was exceptionally low and investment in building infrastructure was exceptionally high.
A NOTE ON SUBSIDY

Among the SDMs assessed, grant funding comprises up to 41% of revenues. As a result, subsidies can have a considerable impact on pre-tax net margin.

FIGURE 4 COMPARISON OF AVERAGE PRE-TAX PRE GRANT NET MARGIN AND PRE-TAX POST GRANT NET MARGIN BY SDM

While subsidy has become a much-maligned term—often associated with market distortion and wasteful expenditure—government and donor support continue to play a central role in global agricultural markets for both developing and developed economies. This support is critical for transitioning less developed agricultural finance markets into more mature ones. As markets develop, higher levels of agricultural productivity, more sophisticated banking systems, and larger farm sizes will naturally build up the commercial business case for agricultural lending. However, this process can take decades and often neglects to reach certain sub-segments that remain commercially unattractive to serve.

13 As per Figure 4, a year of data has been excluded from several assessments in this calculation.

14 The role of government in rural and agricultural finance, ISF Advisors, 2020
Even in the most developed agricultural markets, public sector support or direct subsidy persists. For example, in the US, the Guaranteed Farm Loan Program supports farmers in obtaining loans from USDA-approved commercial lenders to buy farmland or finance agricultural production. The government guarantees these loans up to $1,776,000 and up to 95% of principal and interest. Brazil, where the agricultural sector has benefited from public support since the 1970s, published a provisional measure in October 2019 that facilitates the creation of collective funds to finance rural credit guarantees and expands the list of financial institutions eligible for interest rate subsidies paid by the treasury.

As discussed in Section 1, smallholder agricultural markets are particularly underdeveloped and challenging for private actors. Subsidy is, therefore, a fundamental tool for incentivizing and supporting FSPs. By helping offset the cost and risk of service delivery to smallholder farmers, subsidy can catalyze new market solutions that address persistent challenges and facilitate the transition to financial sustainability. We cover types of subsidies, its uses, and its role within a broader capital structure in Section 3.

2.2 SUB-SCALE OPERATIONS AND SMALL LOAN SIZES

The biggest factors driving down profitability in the assessed SDMs are sub-scale operations and small loan sizes, alongside high cost of funds. The economics significantly improve as FSPs increase their reach and scale, grow their balance sheets, and manage the cost of their funds. Credit losses varied significantly across FSPs but can also represent an important financial expense.\(^{17}\)

The FSPs covered in our SDM assessments varied widely in scale, serving just a couple hundred smallholder farmers up to over sixty thousand. Growth ambitions are considerable, with future projected farmers in several SDM assessments above 250,000 farmers. Nonetheless, these numbers are not considerable when compared to the number of smallholder farmers or the size of retail customer bases in the countries of the assessed SDMs. For instance, the retail arm of commercial banks, such as Equity Bank Kenya or Kenya Commercial Bank, serve more than 9 million and 22.8 million customers, respectively.\(^{18,19}\)

Reaching a critical mass of customers is crucial for FSPs to increase overall revenue and trigger efficiency gains—both important levers for financial sustainability. While the scale journey varies widely across providers, all of the SDMs assessed would be able to attain operational self-sufficiency by increasing the number of customers, all else being equal (see Figure 5). This is, in part, due to economies of scale. All SDMs assessed showed high fixed costs relative to the size of the FSP’s portfolio. These fixed costs are often driven by field staff cost, headquarter and administrative expenses, and tech-related expenses, which can be very high in the earlier years of operation. As providers grow their portfolios, their average cost to serve tends to fall significantly. But time is also a factor: as FSP field staff gain more knowledge about their customers, increase awareness of their products, and secure partnerships with local actors, many are able to move to a relatively lower-touch model. This allows field agents to reach increasing numbers of smallholder farmers without compromising the relationship and reputation developed in its nascent stages.

\(^{17}\) While we are confident that these are the key drivers impacting profitability—and that improving them would result in significant economic value—the analyses that follow on how the business case would change as FSPs improve these drivers is based primarily on projections. As such, these analyses convey a relative sense of magnitude, rather than a definitive answer on expected returns.

\(^{18}\) Equity Bank website. Accessed 1st of February 2022

\(^{19}\) KCB website. Accessed 1st of February 2022

FIGURE 5 COMPARISON OF CHANGES IN OPERATING SELF-SUFFICIENCY AS SCALE INCREASES\(^{20}\)

\(^{20}\) Operating self-sufficiency looks at the ratio between operating revenues and operating costs, excluding subsidies. An operating self-sufficiency ratio of above 100% means that a company is able to cover its operating costs through operating revenues. The current position of each FSP along the curve is represented by the diamond marker.
Greater scale can also help FSPs overcome the challenges posed by small loan sizes. Loan size is a fundamental driver of revenue, the bigger the loan size, the higher the interest and fee revenue. Across the assessed SDMs, loan sizes for individual farmers tended to be relatively small (though this varied across providers from USD 70 to USD 905 and was heavily influenced by loan type, crop, and land size). Small loan sizes often mean interest and fee revenues are insufficient to cover the cost of servicing the loans.

One way to get out of this loop is to increase interest and fee revenue by providing bigger loan sizes to customers. From the demand side, farmer interviews and focus groups reveal that the majority of farmers would like to access bigger loan sizes and that a significant portion of farmers are unable to buy enough inputs for their entire farmland. The average loan size of FSPs assessed for this report is equivalent to only 54% of the average agricultural finance need for farmers in sub-Saharan Africa. Farmers have even more difficulty accessing longer-term loans for capital investments, such as tractors or irrigation. From the supply side, bigger loan sizes are more profitable. Across the portfolio, a doubling of loan size results in a 36% average uplift in net income, assuming there is sufficient market absorption capacity. However, many FSPs are reluctant to increase average loan sizes in the absence of collateral, due to the increased risk, or may lack sufficient capital for on-lending.

Another way to overcome the challenging economics associated with small loan sizes is reaching more customers. As they reach more farmers, and assuming they are able to trigger economies of scale, FSPs can spread fixed servicing costs over a larger number of loans, enabling loan revenue and costs to balance out.

**FIGURE 6 COMPARISON OF CHANGES IN OPERATING SELF-SUFFICIENCY AS LOAN SIZE INCREASES**

Operating self-sufficiency looks at the ratio between operating revenues and operating costs, excluding subsidies. An operating self-sufficiency ratio of above 100% means that a company is able to cover its operating costs through operating revenues. The current position of each FSP along the curve is represented by the diamond marker.
Gaining scale is easier said than done, of course. Within the sample of financial SDMs assessed, reaching a critical mass that enables financing to break even can take anywhere from 1.5 to 4 years and depends heavily on a range of factors, including:

1. **The point of departure.** Organizations with an existing farmer client base are able to scale relatively quickly if their value proposition is compelling. For example, organizations in adjacent industries (such as multinational organizations or agribusinesses) that embark on financial service provision or financial institutions that enter into the agricultural sector. These players are able to leverage their existing brand, infrastructure, and capital to scale quickly and at a lower cost. One fintech in East Africa, for instance, was able to leverage its existing relationship with farmers through a prominent mobile money transfer service to reach over 200K farmers in just six weeks. For some innovators building a portfolio from scratch, reaching this same scale would take many years.

2. **Customer relationship model and degree of digitization.** Higher-touch, less-digitized models involving multiple interactions with farmers tend to scale more slowly, since these SDMs require more capital-intensive investment in infrastructure and in-field networks.

3. **Access to capital, particularly for on-lending.** Fintechs that rely on ongoing fundraising to cover both operational expenses and on-lending tend to find scale more challenging because the growth of their balance sheet is limited by their ability to raise debt and equity capital. Many find themselves trying to solve a chicken-and-egg problem: to raise capital, they must demonstrate to investors that they’ve reached critical mass, but to reach critical mass they need capital to invest in their teams, service delivery infrastructure, and on-lending.

“We are continuously thinking about ways to get out of the debt cap that constrains our growth. We’ve proven the product market fit, we have the team in place and we’re actually able to get the debt but we also need equity to keep the debt-to-equity ratio in line, so unless we get investors onboard we cannot grow,”

CEO & Founder, Fintech
2.3 CREDIT LOSSES

Credit losses vary widely across the FSPs assessed and are often hard to compare due to different loan structures and definitions of non-performing loans (see Figure 7). Some providers are surprisingly strict in defining credit losses—for example, one fintech provider defined losses as “any one payment being missed by five days or more.” Others take a more flexible approach before considering it a loan loss or restructuring the loan. In the face of COVID-19, such flexibility has been particularly important—one microfinance institution in East Africa has restructured up to 30% of its portfolio. Furthermore, many of the assessed FSPs are not able to easily calculate non-performing loans at different time intervals (i.e., 90 day, 180 days). Standardization across different FSPs would enable improved comparison and collective learning.

Despite these differences, our assessment revealed some interesting lessons. Average credit losses or portfolio-at-risk seem to be higher than those within consumer lending in other sectors. This is primarily due to a higher variance, with credit losses spiking when smallholder farmers are hit by market or climate shocks, particularly in unstructured value chains. For example, the default rate of one mission-driven bank in West Africa spiked multi-fold during a bad season with widespread crop disease and floods. In some cases, credit losses were driven by FSP operational failures—for example, delayed loan disbursements meant farmers could not buy inputs in time for planting, and therefore did not feel they had an obligation to pay back.

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**FIGURE 7 RANGE OF SELF-REPORTED CREDIT RISKS AND LOSSES BY SDM**

<table>
<thead>
<tr>
<th>FSP 2</th>
<th>FSP 3</th>
<th>FSP 6</th>
<th>FSP 7</th>
<th>FSP 4</th>
<th>FSP 5</th>
</tr>
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<td>1.1%</td>
<td>35.0%</td>
<td>9.3%</td>
<td>0.4%</td>
<td>5.7%</td>
<td>6.8%</td>
</tr>
</tbody>
</table>

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Lower credit losses tend to correlate with certain SDM characteristics, including:

1. **Holistic, high-touch models that specialize in agriculture.** These SDMs address multiple challenges faced by smallholder farmers, including access to markets, and involve recurring (often human) touchpoints along the customer journey. Access to markets can increase farmer income by enabling them to time their sales and secure better prices. From a risk management standpoint, it is particularly effective when repayments are discounted from produce off-take, although this is highly dependent on farmer loyalty.

2. **Flexible amortization and repayment schemes.** The income of smallholder farmers is highly seasonal and irregular; farmers tend to receive the majority of their income after harvest, with some complementing this with informal labor throughout the year. Traditional cash loan products with strict repayment rates and amortization schemes, while in theory less risky for FSPs, do not address farmer cash flow needs. Farmers may repay by selling assets (which reduces their future income potential) or may miss payments, leading to loan losses or restructuring. An increasing number of FSPs offer balloon loans whereby the farmer repays only interest during the season and principal at harvest, or both interest and principal is paid at harvest. A minority are offering fully flexible input loans, with promising results. One nonprofit lender allows its farmers to pay what they can, when they can through the season and has a historical repayment rate of 98%.

3. **In-kind lending.** Unlike cash-based loans that can be used for any purpose, in-kind loans can only be taken for a specific use (e.g., buying inputs). Knowing that the loan will be used for a productive investment that will hopefully yield positive future returns lowers FSP’s risk threshold and need for collateral. This type of lending also allows FSPs to provide tailored training that can further enhance productivity and lower the risk of default. Default rates for SDMs that deliver inputs on credit were up to four times lower than those delivering cash loans.

4. **Product and service sequencing.** This is a regular practice by lenders, in both agriculture and other sectors. For example, most consumer borrowers are unlikely to get a credit card without first having a savings account. In smallholder agriculture, where the lending risk is magnified, sequencing financial and non-financial services can be particularly effective. An East African fintech started its product roadmap by focusing on e-learning and access to inputs, which ensured farmers understood and trusted the platform, and laid the groundwork for future productivity gains. It then incorporated credit, leveraging the data accessed through earlier transactions to create a credit scorecard, and broadened the product roadmap to incorporate risk management tools, including soil testing, precision agronomic services, guaranteed off-take, and crop insurance. Similarly, one global agribusiness’ service journey starts with a productivity package of training and inputs, then progresses to mobilizing savings followed by short-term loans and, ultimately, long-term loans as farmers’ professionalization increases.

Credit losses also seem to significantly improve with time, as FSPs build a deeper understanding of their customers and fine-tune their credit models. This is particularly true for tech providers serving farmers for the first time, whose credit predictions rely heavily on combining know-your-customer and transaction data with big data from multiple sources (e.g., satellite, psychometric data, etc.). One fintech assessed for this report has reached a repayment rate of 94%, but it has taken three years of hard-won lessons to get there. Another effective way to reduce risk of credit losses is to bundle credit with agricultural insurance; however, for most FSPs, this is still out of reach. As discussed by ISF Advisors, the economics of insurance tend to be even more challenging than those of credit, making it too expensive for many providers or smallholder farmers to assume.

“We wish we could [bundle insurance] but there is no willingness to pay from the farmer and we cannot afford it.”

CEO & Founder, Fintech

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IS GROUP LENDING LOWER RISK?

Group lending has been characteristic of microfinance models for decades; this model allows individuals with no assets to replace physical collateral with the joint liability of a group. Joint liability and peer monitoring are often associated with reduced defaults due to peer pressure and social ties.\(^{24}\) A study evaluating microfinance data in Kenya found that group loans were three times less likely to default than individual loans.\(^{25}\)

Attracted by the opportunity to manage risk, many smallholder finance players—particularly microfinance institutions, NGOs, and social enterprises—have designed group lending products. But is group lending lower risk?

For some FSPs in our assessment, group lending does seem to correlate with lower default rates. For example, one microfinance institution’s write-offs for individual loans are 25% higher than for group loans. However, the evidence for whether individual smallholder lending is riskier than group lending is mixed. Recent data from microfinance institutions offering individual loans has shown promising results. For instance, Vision Fund International’s Most Missing Middle program in Ghana and Myanmar recently introduced larger-scale individual loans to small and growing businesses, along with business coaching and close portfolio monitoring. Borrowers reported an average increase of 54% and 79% in business turnover in Myanmar and Ghana, respectively, increasing their likelihood of repayment.

Within our assessment, another microfinance institution in East Africa recently introduced individual loans to its dairy farmers and is seeing no significant difference between its traditional group loans and its individual loan. It was encouraged by research from Poverty in Action suggesting loan uptake can actually increase if collateral requirements, including joining liability, are relaxed—something that seemed to be confirmed by farmer interviews. These examples suggest that defaults may be driven more by the individual characteristics of the borrower, loan structure and terms, supporting services, and the form of monitoring.

“From a strategic standpoint, we aim to diversify our portfolio by increasing the individual lending portfolio from 3% to 10% by 2022. When the opportunity to consider an individual loan for the Climate Smart Daily Loan came up, we were thrilled to test this new model. It has turned out great with positive impact in the lives of our customers,”

Head of Credit & Marketing, MFI

But group lending, or informal saving groups, can bring additional benefits beyond risk management. Groups usually meet for disbursements and repayments, but can also play a key role in building trust, sharing knowledge and providing training support. Nonprofit lender’s farmer groups agree to work together on the farms of all group members, improving the group’s productivity and strengthening their bonds with each other. For another credit and input provider in West Africa, the farmer group structure—led by a farmer group leader—has also helped increase trust among farmers often wary of financial institutions. Trust is particularly important for women; after months of customer research, one fintech assessed for this report is exploring new group lending structures to increase uptake by women farmers.

As providers evolve their service delivery models, the question will be when and how to balance more relaxed joint liability requirements with the solidarity benefits that characterize group structures.


\(^{25}\) Ibid.
2.4 HIGH COST OF FUNDS

Cost of funds accounted for 20-63% of interest and fee income across the SDMs assessed and is often a considerable drag on gross lending income.

Providers’ high cost of funds is largely driven by a sub-optimal capital structure. All but one of the FSPs assessed had no access to deposits. Many—particularly the early-stage tech models—rely heavily on equity for lending. Even for those accessing debt, it was often structured as a fixed line of credit with interest rates as high as 19% and denominated in foreign currency, which introduces currency risk. Optimizing capital structure is a key lever to improve the profitability of FSPs serving smallholder farmers. Small changes, such as shifting the debt-to-equity ratio or accessing debt in local currency, could yield up to 20% income uplifts. We discuss types of capital and key learning in optimizing the capital structure in Section 3.

2.5 LEVELING THE DIGITAL HYPE

2.5.1 THE DIGITAL PROMISE

Digitalization, of both lending and operations, offers a potential solution to many of the challenges faced by smallholder FSPs. According to a recent study by the European Central Bank, digital-only banks have an average cost-to-income ratio of 47%, substantially lower than the 73% average among traditional banks.26 In the smallholder market, remote service delivery and improved operational efficiencies enabled by digitalization can lower customer acquisition and service costs; reduce risk through data-driven credit assessments and portfolio monitoring;27 and open the door for novel product design that can deepen customer engagement, loyalty, and retention.

In East Africa, one microfinance institution’s low-touch, digital-only lending product achieved more than 200% growth in loan count from 2017 to 2019 in rural areas, with the majority of customers citing the simple digital loan application process and ease of disbursal and repayment as key factors in the loan’s attractiveness.

Fueled by the business and impact opportunity presented by the growing ubiquity of mobile phones, digital financial services have grown substantially over the last few years. As of January 2020, the GSMA AgriTech program has tracked more than 150 digital financial services related to agriculture globally—111 of which are in sub-Saharan Africa.28 This growth has been driven both by traditional lending organizations investing more heavily in digitalizing operations, and by digital-first lending organizations entering the market. Across both model types, FSP digitalization takes many forms and can be implemented across different elements of the business, as illustrated on the next page.

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27 Michael Tsan, Swetha Totapally, Piya Baptista, Beth Jenkins, Learning brief 5: Big data could mean big opportunity: Why we should stay excited for data analytics in smallholder finance, Rural and Agricultural Finance Learning Lab, Dalberg Advisors, 2018.
<table>
<thead>
<tr>
<th>Use case</th>
<th>Value proposition</th>
<th>Examples</th>
</tr>
</thead>
<tbody>
<tr>
<td>Digital lending via mobile phone</td>
<td>Disintermediates the origination, disbursement, and repayment touchpoints, which reduces travel, staff, and fixed costs associated with customer transactions.</td>
<td>Musoni, FarmDrive, SME Corner</td>
</tr>
<tr>
<td>Digitized holistic services</td>
<td>Provides a high-touch channel for deeper engagement with clients—both for loan extension and the provision of other services. A single platform for multiple services can reduce costs of delivery, drive uptake, and enhance customer loyalty. It also creates data footprints for each borrower based on the services availed, allowing for more customized and relevant service delivery in future loan cycles.</td>
<td>Pula, iProcure, DigiFarm, TechnoServe, kuza</td>
</tr>
<tr>
<td>Digitally enabled field force</td>
<td>Enables on-boarding more farmers to achieve greater scale, the collection and analysis of data with ease, and the addition of value and revenues needed to cover substantial related costs in digitalization. Also allows FSPs to overcome challenges related to digital literacy at the last mile by transferring the onus of digital interactions with the FSP from the farmers to the field force.</td>
<td>TechnoServe, kuza, DigiFarm</td>
</tr>
<tr>
<td>Digitized administrative operations, as well as data analytics and AI for customer segmentation, credit scoring, and portfolio monitoring</td>
<td>Generates cost savings (assuming IT investment can be offset by staff efficiency improvements), reduces the risk of human error, and opens product and partnership opportunities that require robust data management capabilities, such as supporting value chain partnerships. The use case also: increases revenues through improved customer acquisition and customer lifetime value; improves design of yield-enhancing support services; lowers operating costs and default rates; enhances risk management and pricing efficiency by facilitating data-driven farmer segmentation; and leads to transparency in operations, hence reducing the possibility of fraud or economic leakages.</td>
<td>FarmDrive, Babban Gona, semp!-i</td>
</tr>
<tr>
<td>Digital extension services</td>
<td>Facilitates the dissemination of information that can improve farmers’ knowledge on agricultural practices, financial literacy, and other topics. Such extension services often lead to better productivity, cost-of-production efficiency, and improved sales realization, which consequently increases the ability of farmers to pay back loans.</td>
<td>Arifu, Digital Green</td>
</tr>
</tbody>
</table>
2.5.2 THE REALITIES OF DIGITAL MODELS

At the same time, digital models pose important operational and customer-related risks. From an operations perspective, the process of rural digitalization can be costly and complex due to artificially inflated hardware costs, poor connectivity infrastructure, regulatory restrictions, and data security, ownership, and protection requirements. Data migration can be particularly challenging due to outdated systems, organizational change management, and a lack of affordable tech/platform providers. From a customer perspective, digital disintermediation can undermine valuable relationships and trust, a key ingredient in customer acquisition and loyalty.

“It soon became clear that the digital platform would not work on its own. There is a wall that you hit when it comes to behaviour change. Then you definitely need a trusted human interface and that often means building your own field force,” Donor, Digital Platform

Due, in part, to these challenges, most FSPs continue to balance digital tools with human interaction. This dynamic is unlikely to change in the future. Retaining or building valuable elements of human intermediation can help build customer trust, ameliorate customer-related risks, and enhance service offerings in a way that improves farmer yields as well as FSP revenue. As providers increasingly incorporate climate-smart agricultural practices into their offerings, trusted agents will likely become even more important to drive behavioral change. Agents are still required to geotag locations and understand what farmers plant and when, the data from which is then used to assess creditworthiness, monitor the portfolio, and provide tailored extension services.

Our FSP assessments offered a few examples of models originally conceived as fully digital that, over time, have had to significantly balance technology with human interaction. One East Africa fintech had to grow its field presence to incorporate high-touch channels that could build trust, drive customer uptake, and increase product stickiness. Another FSP, a completely cashless microfinance institution, was a pioneer in the digital lending space—yet the organization continues to have a heavy staff cost burden, as its customers continue to value in-person trainings and personal loan officer relationships. Finally, one fintech assessed for this brief aimed to provide farmers with automated end-to-end agricultural services, but its high-touch model requires a significant pool of staff for farmer registration and service delivery.

Ensuring the right balance between digital technologies and a human touch is particularly important when it comes to serving women. As discussed in Section 3, women face unique challenges when it comes to accessing financial services, including lower levels of digital literacy, limited access and control over mobile phones and other digital assets, higher levels of distrust toward financial institutions, and higher reliance on family and community members to learn about, and adopt, new technologies and services. A gender lens approach to designing and implementing SDMs is, therefore, a vital part of ensuring digitalization leads to an inclusive user experience and narrows, rather than broadens, the gender gap in smallholder finance.

Women make strong agents; evidence shows that their deliberate inclusion directly correlates with higher rates of female farmer recruitment. One of the assessed FSPs used a female digital field force to achieve parity on registration and usage. This involved on-boarding a trusted woman-led cooperative to support customer sign-ups and engagement, particularly on market linkages.

2.5.3 DIGITIZING THE FIELD FORCE

While the need for a human element is clear, setting up and running a network of field agents severely constrains providers’ ability to fully capture the efficiency gains that could be unlocked by digital tools. In light of all these dynamics, a blended model that anchors digitization on FSPs’ field workforce itself could help optimize both service delivery and cost. Digitally enabled agent networks could help build customer trust while increasing agent productivity—supporting their efforts to recruit and serve a greater number of smallholder farmers. Digitization can also help agents with data collection, which can then be used to undertake digital credit scoring, portfolio monitoring, and efficient design of better products and services. By having a high touch agent network to complement digital tools for lending, FSPs can also overcome challenges related to poor digital literacy amongst consumers and limited penetration of mobile phones. COVID-19 has reinforced the value of agent touchpoints and digital tools. Both are important conduits for the dissemination of critical information and learning.


continued provision of extension services, especially in a time of crisis.\textsuperscript{31}

One of the microfinance institutions in our assessment has recognized the importance of having a robust field force, but staff costs constitute more than 50\% of total costs, making it difficult for the organization to achieve profitability. The organization is equipping field staff with tablets and loan application software to make farmer recruitment and loan applications more efficient. It believes this investment will improve its borrower-to-loan-officer ratio from ~250 to more than 350, without undermining key human interaction points. Loan officers will be able to spend less time entering information and more time engaging borrowers and addressing challenging cases.

In one form or another, digitalization is inevitable for FSPs looking to remain relevant and competitive in today’s economy. It also offers many opportunities for enhancing impact and scale. However, careful design and implementation requires significant investment of both time and money. FSPs will benefit from building robust theories of change, clearly mapping technical needs and costs to see where digital tools can add the most value and demonstrating careful consideration of both user and financial sustainability. While further research is needed to fully understand the value proposition of digitalization, the promise remains alluring—and, as technology and digital adoption accelerate, increasingly realizable.

**FIGURE 9** ENHANCING SERVICE PROVISION THROUGH A DIGITALLY ENABLED FIELD FORCE

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\textsuperscript{31} Leesa Shrdler, Elena Holtkotte, Emmanuel Makau, Naoko Koyama, Charlie Habershon, What it Takes to Develop and Manage a Digitally-enabled Field Force, Mercy Corps Agrifin 2020.

\textsuperscript{32} Ibid.
3.0 PULLING THE RIGHT LEVERS TO OPTIMIZE PROFITABILITY

While the economics of smallholder lending are challenging, our SDM assessments suggest that the overall business case can be significantly improved—and even turned into a profitable business opportunity—when the right levers are pulled. This section shares findings on three potential pathways:

1. **Designing holistic value propositions and partnerships**, to drive product traction and share cost and risk;

2. **Understanding and driving customer value**, to guide more targeted growth strategies; and

3. **Optimizing the capital structure**, to maximize returns and long-term resilience.

While we remain confident about the potential of these pathways to improve probability, the analyses that follow are not meant to provide a definitive answer on the returns that can be expected from following them. Rather, they aim to put these investments into perspective by highlighting what would need to be achieved, based on a combination of historical data, management and staff interviews, projections, and scenario analysis.

3.1 THE IMPORTANCE OF HOLISTIC VALUE PROPOSITIONS AND PARTNERSHIPS

Over the last decade, holistic value propositions have seen a surge in popularity. In contrast to the more traditional credit-only service propositions, **holistic value propositions are those that provide or facilitate access to a variety of financial and non-financial services**. The latter may include agronomic advisory and technology services, access to inputs, or market linkages. These financial and non-financial services can be offered in a bundled format or through a menu of services from which a farmer can choose. Furthermore, these services can be offered by a single actor or a coalition of different actors. Figure 10 shows an example of a holistic value proposition carried out by a coalition of different actors.
From the perspective of farmers, holistic value propositions are often more attractive than finance-only products. Most smallholder farmers face significant challenges beyond just access to finance. **Holistic value propositions provide comprehensive access to a range of services that help farmers address multiple challenges.** For many, a complete package of services may be the only way to overcome the vicious cycle whereby credit is required to invest in on-farm productivity, but increased productivity and income is needed in order to access credit. From a business model perspective, our assessments suggest that, in some circumstances, FSP profitability could markedly increase if providers offer holistic value propositions.

“It is really hard to become profitable running one product only. Its hard to manage risk and a lot harder to engage farmers,”

Donor, Digital Platform
While it varies by institution, holistic value propositions’ relatively higher margin can be explained by the following underlying dynamics:

1. **Holistic value propositions can improve the economies of smallholder credit itself by enabling FSPs to increase average loan size while managing risk.** For example, in the full IDH Farm-fit portfolio of FSP and non-FSP SDMs, those offering agricultural advisory services and access to inputs saw an average increase in farmer incomes of around 60%. Adding market access and finance into a holistic service package increases farmer incomes by more than 120%, on average (see Section 4). This increase in farmer income can, in turn, boost demand for bigger loan sizes and reduce farmer risk. Additionally, as farmers increase their incomes and become consumers of more sophisticated financial services, providers can cross-sell non-agricultural loans (e.g., education or consumer loans).

2. **By meeting a greater range of farmer needs, holistic value propositions can strengthen FSP differentiation, thereby nurturing customer loyalty.** As the market for smallholder finance becomes more saturated and competition increases, borrowers’ decisions may be driven more by accessibility and pricing than other factors. This is particularly true in highly digital ecosystems where credit is available at the touch of a button. Holistic value propositions enable access to a wider range of more tailored services, and this can be a powerful differentiator for customers. One fintech’s active usage rate increased to 98% when the product offering expanded to include holistic financial and non-financial services. Active and repeat customers—regardless of the type of services—tend to have bigger loan sizes, on average. However, bundles can also be a double-edged sword. If the bundles include products that clients don’t fully understand, value, or wish to purchase, this can negatively impact uptake and loyalty.\(^33\) More research is required to determine the right balance between fully bundled propositions and a menu of services.

3. **Holistic value propositions can enable cross-selling of (potentially) higher-margin services to smallholder farmers, such as market linkages.** New research from RAF Learning Lab reveals that a majority of smallholder farmers perceive market access as a key enabler for growing their farms\(^34\). Primary data collected as part of our SDM assessments also highlighted farmers’ need for aggregation services, including transport and storage. Over 50% of one microfinance institution’s surveyed farmers stated that they primarily sell directly to the public; nearly 60% have no option for contract market linkages with off-takers or aggregators. From a provider's standpoint, market linkage services can be up to 10.5 times more profitable than credit, although they are subject to price fluctuation risks—particularly in looser value chains. FSPs can either provide access to markets directly (e.g., brokering produce while managing price volatility through contracts with price agreements) or, more often, share revenue or charge a fee to buyers for farmer referral.

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“Volatility is so big that it can eat all the margins. When you get the market right you do huge margins, when you get it wrong you lose massively. You either hedge [if you want to broker transactions] or you’re better off charging a referral fee [to buyers].”

CEO & Founder, Fintech

35 This visual only includes a subset of non-FSP SDMs where both sourcing was present and information on commercial margins was made available.
3.1.1 UNLOCKING VALUE CREATION THROUGH VALUE CHAIN PARTNERSHIPS

Despite the potential of holistic value propositions, most FSPs have been discouraged from engaging in, or even facilitating, non-financial services. Designing and delivering more comprehensive service offerings takes meaningful upfront investment, increases operational complexity, and requires specialized expertise that many FSPs don’t have.

To address these challenges, some FSPs enter into partnerships with other value chain actors—strengthening their value proposition while sharing cost and risk. At the same time, an increasing number of agribusinesses are now including finance in their services to farmers, lending directly from their own balance sheet or seeking partnerships with FSPs. More than 60% of the agribusinesses assessed to date by IDH provided finance; almost two-thirds of them do so by partnering with a financial institution.

**FIGURE 12 SUMMARY GRAPHIC OF SOURCES OF VALUE FOR FSP - VCP PARTNERSHIPS**

<table>
<thead>
<tr>
<th>Financial Service Providers (FSPs)</th>
<th>Value Chain Partners (VCPs)</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Reduced costs</strong></td>
<td></td>
</tr>
<tr>
<td>Lower customer acquisition costs through gaining direct access to VCP’s farmer base</td>
<td>Removed costs of business skills and financial training that are often carried out by VCP</td>
</tr>
<tr>
<td>Higher efficiency through shared costs of last mile delivery such as through combination of extension services and debt collection</td>
<td></td>
</tr>
<tr>
<td><strong>Lower risks</strong></td>
<td></td>
</tr>
<tr>
<td>Guaranteed off-take for farmers’ produce and the ability to deduct loan payments from sale of produce reduces risks faced by FSPs</td>
<td>Minimized repayment risk from previously providing inputs on credit to farmers</td>
</tr>
<tr>
<td>More visibility on farmer creditworthiness and production risks through sharing of data between FSPs and VCPs</td>
<td></td>
</tr>
<tr>
<td><strong>Higher revenues</strong></td>
<td></td>
</tr>
<tr>
<td>Increased opportunities for FSPs to provide and profit from financing throughout the value chain</td>
<td>Freed up working capital for VCPs to off-take greater amounts of produce from farmers</td>
</tr>
<tr>
<td>Larger attainable customer base through access to each other’s farmers</td>
<td></td>
</tr>
<tr>
<td><strong>Greater impact</strong></td>
<td></td>
</tr>
<tr>
<td>Increased likelihood of farmers’ accessing credit</td>
<td>Greater ability of farmers to invest in their farming enterprises</td>
</tr>
<tr>
<td>Broader range of needs of farmers are met enabling a greater number of farmers to professionalize</td>
<td></td>
</tr>
</tbody>
</table>
3.1.2 BENEFITS AND CONSIDERATIONS FOR FSPs

For FSPs, partnerships with value chain actors can unlock a range of benefits, including technical expertise, cost- and risk-sharing, access to new data, and the possibility of new revenue streams.

Partnerships with value chain actors can reduce FSP operating costs by outsourcing certain activities that would otherwise drag down their bottom line if they were to provide both the financial and non-financial services themselves. For example, improving farmers’ agricultural know-how can be expensive. For one microfinance institution assessed for this report, providing agricultural training could increase its client training cost by up to 50%. Another could save up to 35% of its training costs by partnering with a dairy cooperative whose services include agronomic training. The only profitable SDM assessed, a microfinance institution in West Africa, relied on its partner cooperative to provide agricultural training. Market access also comes with related costs. In addition to price volatility risk, providing market access services often involves making complex and expensive capital investments in logistics and other enabling infrastructure to facilitate the physical exchange of goods and produce.

Beyond non-financial services, partnerships with value chain actors are also an opportunity to facilitate disbursements and repayments more efficiently while also lowering risk (particularly if repayments are discounted from produce off-take). For organizations that have not yet digitized transactions, working with value chain partners who already have networks of farmers is particularly attractive. Moreover, value chain partners can be an effective customer acquisition channel, enabling FSPs to grow faster and at lower cost. One fintech in East Africa was able to reach more than 55,000 farmers in less than a year by working first with buyers to provide working capital overdrafts, and then with their farmers to provide input overdrafts.

Well-designed partnerships can also unlock access to new farmer data—for example, on farmer capacity and performance—that can be used to reduce financial risk or design more tailored products and services. In our assessment, one fintech’s credit-scoring model, combining satellite, market transaction, and KYC data, was significantly more predictive than plain KYC data, opening the door for direct-to-farmer lending.

Perhaps more importantly, on the revenue side, these partnerships can open opportunities to provide financing along the entire value chain, not just to farmers. Value chain actors—such as input suppliers, agro-dealers, traders, aggregators, and buyers—often lack the finance needed to optimize growth. In sub-Saharan Africa alone, the agri-SME finance gap is estimated to be over USD 100 billion, including USD 66 billion in working capital.\(^{36}\) Input providers, for example, need working capital to buy inputs to sell to farmers. Buyers need working capital that matches the seasonality of their cash flows and helps them pay farmers on time to reduce the risk of side-selling.

From an FSP perspective, financing value chain actors could substantially change the overall business case for agricultural finance. In the case of one fintech we examined, it could mean earning significantly more interest: not just a four-month input loan, but that plus a three-month agro-dealer line of credit plus a multi-month buyer line of credit with commissions on either side. While the economics for agri-SME lending are also challenging,\(^{37}\) their margins tend to be higher than those of direct-to-farmer lending, due to larger transaction sizes and reduced operating cost burden. This fintech’s margins for buyer overdrafts were six times higher than those of farmers, whereas another fintech in our assessment has margins to agro-dealers that are 24% higher than direct-to-farmer lending.

“We quickly realized the buyers we were working with [to facilitate access to market to our farmers] needed finance to buy more produce. There is an opportunity for us to finance them,”

CEO & Founder, Fintech

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3.1.3 BENEFITS AND CONSIDERATIONS FOR VALUE CHAIN ACTORS

Most value chain actors recognize the enabling role of finance—but, for many, lending to farmers off their own balance sheet is not an option. They may be constrained by regulatory barriers that limit lending by non-financial institutions or prevent them from providing certain financial services, such as insurance or savings accounts. Or they may lack the working capital to finance farmers on a big enough scale.

“Our business model is very credit-intensive as it relies heavily on pre-financing of inputs. Our growth is limited without raising credit through conventional financial service providers.”

CEO, Agribusiness

Those that can raise the capital they need for onward lending to farmers often find it expensive, risky, and complex to manage. For one input provider in Tanzania, repayments from input loans were supposed to be deducted from produce off-take, but widespread side-selling and a weak harvest left a considerable portfolio outstanding, creating significant liquidity challenges.

“One potential strategy for us to mitigate the risk of default would be to partner with a financial institution. Currently, we bear all the risk in case of farmer’s payment defaults and often leads to liquidity challenges,”

CEO, Agribusiness

Our research shows that, by partnering with an FSP to offer a comprehensive package of financial and non-financial services, value chain actors could see material income uplift without having to incur related costs and risks. For example, in two SDM analyses we investigated the uplift of input providers partnering with FSPs to offer input loans. In both cases we saw an uplift in their net income of 18% and 106% through an increase in new and returning customers, as well as larger tickets per sale. Finance broadens farmer access to inputs, enhances customer loyalty, and often enables them to purchase more complete (and often higher margin) input packages (e.g., fertilizer and pesticides). Similarly, aggregators and buyers are also major beneficiaries of these partnerships. In one partnership, aggregators saw an increase in profit margins of 21% through more reliable trades and lower waste, while buyers saw an increase of 26% from higher volumes, more reliable sourcing, and quality premiums.

FIGURE 13 RANGE OF NET INCOME UPLIFT FOR VALUE CHAIN ACTORS AND SOURCES OF VALUE

<table>
<thead>
<tr>
<th>Sources of value</th>
<th>Net income uplifts</th>
</tr>
</thead>
<tbody>
<tr>
<td>Increase in new &amp; returning customers</td>
<td>15% - 105%</td>
</tr>
<tr>
<td>Reliable trade + Less wastage</td>
<td>Up to 20%</td>
</tr>
<tr>
<td>Higher Volumes + More reliable sourcing + Quality premiums</td>
<td>Up to 25%</td>
</tr>
</tbody>
</table>
ARE FSP-VALUE CHAIN ACTOR PARTNERSHIPS HERE TO STAY?

It’s clear that, at least in theory, partnerships between FSPs and value chain actors are a win-win. FSPs have a comparative advantage in designing and delivering financial services but may not have the infrastructure or the capabilities needed to engage in agriculture-specific services. Value chain actors have the expertise, infrastructure, and field presence to effectively deliver agricultural services and enable market access but often lack the capital and financial capabilities required for providing financial services. Crucially, smallholder farmers have significant need for both financial and non-financial services.

In practice, however, the reality of these partnerships is much more complex. FSP and value chain actors often do not speak the same language and these partnerships can be difficult to set up and expensive to manage. Many value chain actors are unaware that FSPs might be interested in engaging with smallholder farmers; some find it challenging to work with financial institutions and may be skeptical of the value the partnership might bring to them.

FSPs tend to offer financing with certain (often rigid) terms, which can reduce the flexibility of conditions that value chain actors can offer their farmers. Access to data could help increase flexibility on the FSP side; however, data sharing rarely happens. Value chain actors usually have a wealth of information on their own farmers, but it may be unstructured, non-digitized, or hard for FSPs to understand. Partners may not be willing to invest in digitizing and managing a database unless the FSP co-invests in it or may be unwilling to give away intellectual property. As a result, lending may turn out to be more expensive than what the value chain partner could offer alone and/or riskier for the FSP than initially thought.

“In the scenario of financing via our own entities the cost of capital will remain low with a high level of flexibility in the terms and conditions we can offer,”

Operations Controller, Agribusiness

“If we were able to access transaction data from input purchases or produce sales we would be able offer more flexible and possible more attractive credit terms, but that is not something that today our partners are willing to share.”

CEO & Founder, Fintech

The institutional rigidity and compliance requirements of FSPs can also affect time to market, disrupting the entire value proposition. Our assessment showed that one fintech’s attempts to partner with FSPs to finance input loans proved challenging. Banks were often slow in approving loans and many farmers did not get their inputs in time for planting, leading to high default rates that damaged the organization’s relationships with the farmers.

Given FSP demands, some value chain actors are considering a more viable long-term solution: setting up and managing village savings and loans associations (VSLAs). These informal groups have a greater focus on savings, rather than loans—which matches farmers’ preferred way of financing investments, according to research by the RAF Learning Lab. VSLA loans tend to be more flexible than those of traditional financial institutions, often using members’ own savings to lend to each other. Members agree on the interest rate, maximum loan amounts, and repayment date, with borrowers able to repay as preferred up to that date. VSLA participation also correlates with increased adoption of insurance and knowledge-sharing among group members.

Attracted by these benefits, one of the agribusinesses in our assessment actively supports VSLAs to help farmers build savings and extend small loans for inputs. The organization uses its own field staff to increase farmer awareness on VSLA, support VSLA group formation and training of new groups, facilitate group meetings, and conduct group monitoring, including record keeping and cash handling. Over time, as farmers increase their productivity and finance capacity, the business aims to use this data to extend bigger loans that the VSLA would not be able to provide.
Beyond operational complexity, FSPs and value chain actors may be reluctant to undertake partnerships that require them to outsource elements they perceive as fundamental to the success of their value proposition. Many value chain actors perceive finance as a key driver of farmer loyalty. For buyers, it can reduce the risk of side-selling, while for input providers it can boost farmer sales. Putting finance into the hands of an external organization may feel like forgoing a competitive advantage. For those with a big enough balance sheet, they may prefer to on-lend directly.

“The provision of a holistic service package to farmers that includes delivery of on-credit high quality inputs at a negotiated rate is the key to establishing trust and loyalty with farmers,”
CEO, Agribusiness

Relatively speaking, FSPs tend to be more open to these partnerships. However, they also increasingly recognize the value of developing differentiated value propositions and, therefore, the risk of outsourcing non-financial services. While there are few examples of FSPs vertically integrating into market linkages, many are building their own networks of specialized agents to deliver agronomic advisory services.

Despite all these complexities, there is reason to be optimistic about the potential of FSP and value chain partnerships. Agribusinesses with big balance sheets and specialized finance divisions will probably continue providing short-term financing where they can. But smaller value chain actors and innovators will likely rely on FSPs to offer holistic solutions to their farmers—and all value chain actors will rely on FSPs to provide long-term financing and other specialized financial products. Similarly, FSPs that rely on non-agricultural services for differentiation will probably seek to own a greater part of the customer journey but will still rely on value chain actors to service the last mile, given the commercial challenges of fully vertically integrated models. While more systematic research is needed to understand the secret ingredients of successful partnerships, our SDM assessment revealed a set of guiding principles, which are summarized in Figure 14.
3.2 GROWING WITH THE RIGHT CUSTOMERS

Across all the FSPs we assessed, the number one priority was acquiring more customers. Most projections relied on substantial and continued growth simply to break even. This also tends to be the case for non-financial service delivery models, where scale ambitions are equally aggressive. In general, scaling ambitions tend to be over-optimistic and historically realized growth rates are lower (see Figure 15).

To fulfill their growth aspirations and gain traction quickly, private sector FSPs have heavily invested in consumer research and human-centered design to understand smallholder farmer needs. However, deep quantitative knowledge on smallholder farmer segmentation—and its links to customer profitability—continues to be a major gap across all the financial and non-financial service providers assessed. These providers have limited understanding of the economic value of different smallholder segments and what customer cash flows look like. Accordingly, they generally do not have systems in place to distinguish between different value-segments, how much revenue each brings in, and whether they can effectively invest in acquiring them.

Understanding smallholder customer economic value is fundamental for long-term growth. A crucial part of reaching financial viability is to be profitable at the customer level. Customer lifetime value—defined as the net present profit a company will get from serving a customer over its lifetime—can allow providers to segment, manage, and target their farmer customer base according to value. Customer lifetime value, ROI, and payback can vary widely across segments, as shown in Figure 16. By understanding the differences in lifetime revenues and servicing costs between different farmer segments, providers can identify specific strategies that support overall profitability. For instance, if one fintech in our assessment could better segment and target its market efforts to grow with high- and medium-value customers, average annual customer lifetime value could increase by up to 70%.

Most importantly, understanding customer lifetime value can help FSPs put into perspective how much they should spend on customer acquisition. If the lifetime value for a specific farmer segment is below its customer acquisition cost, the provider will need to reflect on whether long-term subsidy is needed, or whether short-term subsidy can be accompanied by other support to help customers graduate to a more profitable segment (or until customer acquisition cost can be lowered). With a strong pressure for growth, many FSPs may be tempted to burn large amounts of cash on customer acquisition. While spending too little is not advisable, spending too much to grow at any cost is also dangerous. This delicate balance requires continual monitoring of customer economics and the costs of growth.
Towards market transparency in smallholder finance

Each FSP SDM analysis seeks to understand the customer unit economics of farmers. Often, these farmers are segmented on the basis of characteristics of service usage. The visual below—taken from one of the assessed FSPs—illuminates how customer unit economics can vary significantly across segments that are classified by service usage.

### FIGURE 16 RANGE OF CLTV, CAC, ROI AND PAYBACK BY CUSTOMER SEGMENT FOR A SELECTED FSP

<table>
<thead>
<tr>
<th>Segment A</th>
<th>Segment B</th>
<th>Segment C</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Service uptake</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Passive saver</td>
<td>Active saver purchasing inputs</td>
<td>Overdraft farmer purchasing inputs</td>
</tr>
<tr>
<td><strong>Customer Lifetime Value (CLTV)</strong></td>
<td>€0</td>
<td>€0.1</td>
</tr>
<tr>
<td><strong>Customer Acquisition Cost (CAC)</strong></td>
<td>€3.4</td>
<td>€3.4</td>
</tr>
<tr>
<td><strong>Return on Investment (ROI)</strong></td>
<td>-100%</td>
<td>-97%</td>
</tr>
</tbody>
</table>

Historically, rural women and youth have been disproportionately impacted by a wider range of structural challenges. They tend to have smaller farms, limited asset ownership, and unequal access to productive assets and services. Women, in particular, tend to have weaker links to off-take markets, as well as limited information about financing.
HOW UNIT ECONOMICS DIFFER FOR WOMEN AND YOUTH: THE RISK OF MOVING UP-MARKET

Historically, rural women and youth have been disproportionately impacted by a wider range of structural challenges. They tend to have smaller farms, limited asset ownership, and unequal access to productive assets and services. Women, in particular, tend to have weaker links to off-take markets, as well as limited information about financing opportunities. For one microfinance institution in East Africa, we found that 58% of women stated they had no access to contractual off-taking services, relative to 54% of adult men. Women also tend to be less mobile and more time-poor than men, have lower digital literacy, and have less agency in decision making. These trends have been exacerbated by the COVID-19 pandemic. Data by 60 Decibels shows that women smallholder farmers in Kenya sold less than male farmers during the pandemic; improved connection to buyers was highlighted as their top request.

Perhaps unsurprisingly, these factors have historically made women and youth less attractive to serve by private actors. Lower incomes and less access to collateral limit loan sizes for both women and youth.1 For the microfinance institution mentioned above, where gender disaggregated data was available, adult men received an average of 32% and 10% higher loan sizes than their female and youth counterparts, respectively. For women, in particular, tailored services and marketing tend to increase the cost to serve. Combined, smaller loan sizes and a higher cost to serve (particularly for women) often translate into lower customer lifetime value relative to male counterparts. In the case of this microfinance institution, customer lifetime value for adult men was 39% and 21% higher than for their female and youth counterparts.

As providers become smarter about customer lifetime value and manage their customer base to maximize profitability, some may be encouraged to move up-market. This could mean growing with top-line (often male) farmers, while leaving the least profitable customers (often women and young farmers) behind. While that is certainly a risk, understanding customer lifetime value can also help to surface the economic realities of serving specific smallholder segments—and, in turn, uncover how service design, delivery, and capital needs might need to be adapted to enhance the business case.

Serving women and youth may be less profitable today, but that could change tomorrow if structural challenges are addressed. Importantly, both segments appear to exhibit lower rates of churn and lower default rates than adult men, presenting opportunities for bigger loan sizes. Since 2016-2017, the microfinance institution’s female customers have consistently had lower churn rates than males, with youth females recording the lowest churn rate (12%). We also observed that adult female borrowers exhibited default rates of ~0.9% relative to ~2.3% for adult men for the organization’s core agricultural loan. Assuming that targeted initiatives could enhance female and youth borrowers’ incomes through tailored service and market linkages, large loan sizes could increase the customer lifetime value of their youth female and youth male farmers by up to 100% and 50%, respectively.

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for most of the field agent time. Similarly, gender- and youth-sensitive design and delivery of services can also help drive adoption and usage of services, thereby increasing customer lifetime value. One fintech in our assessment reached gender parity for both registration and usage of all services—including higher-margin services like market linkages—by partnering with a local cooperative that reached women where they lived and leveraging community-based channels such as friends, neighbors, trusted agents, or local agro-vets to increase awareness.

Tech-driven solutions and engagement in high value chains seems to be particularly effective at engaging youth, who often struggle to see agriculture as a promising, innovative, and profitable industry. One pilot program in our assessment supports young producers with input loans at favorable rates, learning content focused on digital literacy, market linkages, and—in the case of high-value crops—irrigation financing and training. Youth that demonstrate a good performance could become village agents for the program, building new skills and earning additional income.

Women and youth represent an opportunity to grow the customer base while improving financial sustainability over time. Capturing this opportunity takes time, focus, and deliberate investment in both understanding unique customer segments and designing products and processes that target these segments. In-depth knowledge on digital usage patterns, demographics, behavior, and psychology can also help FSPs design delivery channels, lending processes, and digital interfaces appropriately. These investments will, of course, need to be accompanied by better gender representation in management and governance. Finally, even if the market opportunity exists, expanding reach to these customer segments will likely require donor support in the short- and medium-term to offset the initial cost and risk for providers.
3.3 LANDING ON THE RIGHT CAPITAL STRUCTURE

As providers optimize their value propositions and seek to scale, landing on the right capital structure becomes crucial. Access to appropriately priced and structured capital is a key constraint of smallholder finance growth. This is particularly true for innovators, such as specialized fintechs; unlike more commercial incumbents, they cannot easily draw from their own balance sheet or cross-subsidize from other profitable business lines. An optimal capital structure can maximize value creation, allowing business models to serve smallholder farmers while increasing financial sustainability. Across the FSP SDMs assessed, changes to the capital structure could lead to ROE uplifts of up to 14%.

Providers’ sources of capital include grants, concessional and commercial debt, and equity. Each plays a specific role, and the prevalence of each in the broader capital structure varies widely according to the underlying profitability of the SDM. While more data and research is needed to compare the financial and impact returns of different models (and thus their optimal capital structure), our assessments yielded four important lessons on how to leverage assets, drive impact, and manage common challenges.

3.3.1 ENSURE FLEXIBILITY

FSPs serving smallholder farmers often operate in challenging regulatory and macro-economic environments. They serve high-risk and high cost-to-serve borrowers who lack collateral or the capacity to take on larger loans. Margins are therefore slim, and various risks, from health crises and crop failures to macroeconomic or political shocks, make accurate forecasting a particular challenge. Accommodating financing arrangements are, therefore, critical to ensure SDMs are not derailed by minor disruptions or seasonal variations.

Given the seasonality of short-term agricultural loans, for example, FSPs do not have clear visibility into future loan book size and financing needs. Long-dated term loan debt can generate unnecessary interest costs for agricultural lenders during periods of revenue contraction. Lines of credit can offer more flexibility and lower average balances—which can reduce the cost of funds, even in instances where stated interest rates are higher than fixed-term equivalents. For example, one fintech was paying up to 33% more in interest expenses that it needed given its scale and the seasonality of its operations.

3.3.2 STRIKE THE RIGHT BALANCE BETWEEN SUBSIDY AND COMMERCIAL CAPITAL

Private players, particularly innovators, are often attracted by commercial capital. Equity and commercial debt can serve as unrestricted financing sources and are often more readily available than donor funding. Equity injections, in particular, allow providers to expand their lending portfolio by unlocking additional debt capacity without transferring financial burden to borrowers through higher pricing. At the same time, commercial capital (and equity in particular) is more expensive. It can also increase pressure on managers to prematurely accelerate scaling or move up-market to realize expected risk-adjusted returns. Commercial capital, which tends to be less patient, may build fragility into the capital structure if macroeconomic risks suddenly change the operating environment.

“We’ve raised 30% from donors and 70% from equity investors. It should have been the reverse... we’ve aimed to grow too fast, largely because we were getting a lot of pressure from investors.”

CEO & Founder, Fintech

Subsidy or sub-commercial capital can balance some of these risks and enhance financial resilience. Across all models assessed, subsidy played a key role; though the types, length, and uses of subsidy varied. This included in-kind technical assistance for capacity building, grant funding to offset innovation and/or scale-up costs, concessional debt and equity to reduce the cost of funds, and first-loss guarantees to de-risk investment. Figure 17 summarizes the different capital forms, its most prevalent uses, and the average length.
Across SDMs, grants (including technical assistance) supported providers with targeted training, capacity building, market research and product design, and digitization—offsetting the costs of product innovation and inclusive service delivery without exposing an uncertain ROI.

Concessional debt and equity seem to be particularly effective for three things:

1. **Tapping into a larger pool of capital.** As “blended finance” grows in popularity, the pool of available concessional lending is large and growing, enabling FSPs to explore a wider range of financial sponsors than grant-only approaches;

2. **Retaining financial accountability.** With well-structured repayment schedules and loan monitoring engagement, concessional debt can help retain managerial incentives to focus on efficiency in service delivery. As scale or investments yield cost savings, concessional rates can also be adjusted to match prevailing economics; and

3. **Driving inclusion.** Concessional debt and equity can support lending to marginalized segments with structurally high cost-to-serve, by reducing the cost of funds associated with loan book expansion.

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**FIGURE 17 TYPES, PREVALENCE AND USES OF CAPITAL IN SMALLHOLDER FINANCE**

<table>
<thead>
<tr>
<th>Types of capital</th>
<th>Commercial</th>
<th>Sub-Commercial</th>
<th>Grants</th>
</tr>
</thead>
<tbody>
<tr>
<td>Instrument</td>
<td>Equity</td>
<td>Commercial debt</td>
<td>Concession debt</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Affordability (Cost of capital)</th>
<th>Equity</th>
<th>Commercial debt</th>
<th>Concession debt</th>
<th>First loss guarantees</th>
<th>Grant funding</th>
<th>In-kind support</th>
</tr>
</thead>
<tbody>
<tr>
<td>Availability</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

**Use Cases**

- Serving underserved
- Facilitating growth
- Fostering innovation
- Building capacity

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40 (Adapted from) Bannick, Goldman, Kubzansky, and Saltuk, Across the returns continuum, Omidyar, 2020.
As governments, donors, and impact investors increasingly focus on cross-sectional issues—including gender, youth, and climate change—FSPs can benefit from understanding, intentionally serving, and communicating the impact of their services related to these issues. Doing so may unlock access to a greater pool of concessional, patient funds. For example, funders that invest in institutions that offer finance to youth farmers include ABC Fund, Acumen, Inco-fin, Global Innovation Fund, KfW DEG, and IFAD. Funders that invest in institutions that offer finance to women farmers include One Acre Fund, IFAD, the UK (FCDO), DFC, Root Capital, NORAD, GAFSP, USDA, and FAO.

Finally, first-loss guarantees at below-market rates shift the high risk of serving smallholder farmers to donors or other parties who are better able to handle the risk, allowing FSPs to explore the extension of loans to underserved demographics, often through innovative lending modalities. Guarantees thus allow FSPs to innovate in service delivery and increase their balance sheet capacity and can be particularly useful in supporting initiatives that serve as proof-of-concept for the viability of novel service modalities.

Typically, innovators start by raising money from angel investors to test their idea. As the business gains traction and capital needs increase, innovators will need to raise substantial equity. Since the perceived risk of agriculture is high, it is often easier to mobilize small amounts of capital from a large pool of investors. However, relying heavily on too many angel or small-scale equity investors has drawbacks. This kind of capitalization table can make it hard to reach consensus on important decisions; moreover, small-scale investors may not care enough if tough times arise. **While larger positions will make investors more likely to protect their investee from challenges, these investors need to be selected and managed wisely.** Investors tend to collude on decisions related to follow-up or bridge funding—and, in a more concentrated capitalization table, that collusion can quickly change the course of a business. It is essential for FSPs to ensure equity investors are patient partners, with a fully aligned understanding of both the business model and the impact case. This requires understanding investors’ impact and investment theses, and regularly communicating how the SDM fits into these theses. Doing so will help organizations overcome hiccups and weather the frequent macroeconomic headwinds that characterize agriculture.

**“We got a USD 10Mn loan guarantee and exhausted it in one year. It enables us to do a lot more and serve customers that we wouldn’t have lent to in normal circumstances,”**

**CEO & Founder, MFI**

**“If you’re bringing impact investors on-board, they need to see impact in the same way, especially when you’re talking about fragile agri SMEs.”**

**Portfolio Manager, Social Impact Investor**

**“As an entrepreneur you need to think about whether you have the right investors that will stay with you in times of crisis. And whether you have the right dynamics between them. Beggars can’t be choosers but be careful about the terms and structure of the cap table because it could bite you.”**

**CEO & Founder, Fintech**
3.3.4 MOBILIZE SAVINGS, IF YOU CAN

For deposit-taking institutions, offering savings-related services can unlock a critical source of financing, particularly during challenging times. As FSPs grow their savings portfolios, the cost of mobilizing deposits falls and savings can become a stable fount of low-cost financing. As evidenced by the COVID-19 pandemic, economic crises reinforce the importance of savings products as a tool for building resilience. This is true not only for borrowers—many of whom may be forced to live off their savings during hard times—but also for FSPs, for which deposits can be a reliable safety net as other sources of financing become increasingly hard to access. For example, Muktinath Bikas Bank Ltd. (MNBBL), in Nepal, is able to cover nearly 40% of its outstanding micro-loans through its micro-savings portfolio of $41.7 million.

3.3.5 MANAGE CURRENCY RISK

Domestic investors are, in theory, a natural source of capital for FSPs extending local currency loans to smallholder farmers. However, they are often unwilling to provide the requisite support, leaving FSPs to source capital from foreign development finance institutions (DFIs) or impact or commercial investors—which introduces currency risk. Unfortunately, there is no silver bullet in dealing with currency risk in agricultural finance; it must be borne, in some form or another, by one or more parties in the value chain. End users are poorly positioned to absorb this risk—thus, absent sufficient local currency financing, FSPs are left with the burden. This exposes them to exogenous volatility that generates fluctuations in asset-liability matching and amplifies financial fragility. For example, one fintech in our assessment borrowed fixed-term debt in USD but on-lended in KES, exposing it to currency fluctuations. Losses from foreign exchange fluctuations accounted for up to 12% of gross income.

Funders can help improve FSP sustainability by either taking on currency risk directly or facilitating FSP access to local currency financing. For example, DFIs can work closely with local banks and investors to support local currency financing, take first-loss positions, provide guarantees, or support securitized bond issuances to crowd in private capital to local currency lending opportunities. Though not inexpensive, funds like The Currency Exchange Fund (TCX)—founded in 2007 by a coalition of DFIs, donors, and microfinance investment vehicles—can help foreign funders take on currency risk by offering swaps and forward contracts that allow them to hedge local positions in FSPs and shift currency risk to another, better-suited counterparty.
DEVELOPING THE SMALLHOLDER FINANCE MARKET THROUGH SMART SUBSIDY

As discussed in this brief, subsidy plays a crucial role in accelerating the development of inclusive, sustainable, and commercially viable smallholder finance markets. It can directly offset the cost and risk for FSPs in serving smallholder farmers. Beyond that, when deployed effectively, subsidies strengthen the wider market ecosystem by identifying new models to drive sustainable market development, providing proof of concept for innovations, and catalyzing more investment into the sector.

While the question of how to deploy “smart subsidy” is heavily context-specific, our SDM assessments revealed a few guiding principles to ensure subsidies effectively contribute to overall market development. These include:

1. **Structure subsidies to build long-term sustainability.** While providers appreciate the value of one-off catalytic subsidies (e.g., to offset pilot program costs), they generally find subsidies most effective when structured to build their long-term capacity and help them tap into additional sources of capital.

   “Support to “train the trainer” rather than the farmer would have allowed us to build internal capacity and lower our cost to serve in the long run.”
   
   CEO, MFI

2. **Avoid distorting the market.** Subsidies that distort market dynamics can disrupt long-term financial sustainability. One microfinance institution’s USD 472K repayable grant to cover the cost of funds for its CSA Dairy Loans required the organization to lend at below-market rates. While lending at subsidized rates quickly attracted farmers, over time it created a precedent with customers that the organization cannot afford to maintain.

3. **Balance innovation capital with growth capital.** Innovation grants that offset the cost and risk of piloting new products and services have successfully catalyzed a new wave of agricultural FSPs. However, these grants have tended to be smaller and timebound, causing many providers to quickly face a “valley of death” before they have reached critical mass. As the smallholder finance market matures, donors will need to shift their focus from experimentation to scaling. This will necessarily involve more sustained subsidy with longer-term horizons and larger tickets sizes.

4. **Aim for resilience.** The macroeconomic shock triggered by COVID-19 has shown that many private sector innovators will struggle to sustain their cash burn rates and keep operations viable when global capital markets freeze. With their longer-term horizon for sustainability and impact, donors can provide a life-line to FSPs that enhances their financial resilience in the face of changing macroeconomic conditions or growth roadblocks.

“One of our key strategic priorities is how can we use donor de-risking facilities to allow us to crowd in investors and grow our agricultural portfolio.”

CEO & Founder, MFI
To resolve the mismatch between investors’ risk-return hurdles and the lending realities of smallholder farmers, we must gain a deeper understanding of the financial sustainability of smallholder-focused portfolios. By analyzing the underlying profitability of different SDMs, we can begin to align demand for different types of capital with the relevant supply.

However, profitability cannot be considered in isolation. As we outlined in Section 1, smallholder farmers represent a huge opportunity for advancing global social and development outcomes. With finance as a key enabler for improving livelihoods, FSPs should ensure their services translate into positive outcomes for farmers and the broader ecosystem in which they operate.

Moreover, any long-term consideration of profitability must place impact at the forefront. After all, profitability can only be sustained if FSPs retain customers and grow with new ones—which is only possible if their services deliver economic returns for farmers. At the same time, accurately evaluating the need for subsidy requires a solid understanding of the impact case (the social and economic value that smallholders’ access to finance can unlock) and whether or not there is a trade-off between this and expected returns.

In this section, we shed light on the social and economic value that financial SDMs can create. First, we examine the farmer impact case to understand the extent and conditions under which farmers are able to increase production, income, and resilience. This is the focus of our SDM assessments, for which we can draw on the most primary data. However, recognizing that farmers and rural households are a meeting point for a number of critical global agendas, we also explore how access to finance can impact broader issues, such as climate, gender equality, youth, employment and food security. Finally, we reflect on the role finance plays in shaping agricultural markets, as well as what enabling elements must be in place to catalyze market transformation.
4.1 UNDERSTANDING THE FARMER IMPACT CASE

Smallholder farming households perceive access to capital as a key driver of the success of their farms. New research by the RAF Learning Lab reveals that, while most households view savings as the preferred way to fund investments, up to 40% point to credit as the top enabler for achieving their goals—signaling that most households don’t have enough savings to make their planned capital investments. Farmers’ ability to access credit enables them to purchase farm inputs, farm and business machinery, business stock, and other goods and services that are crucial for expanding their livelihood activities. Data from over 1,700 farmers across our assessed SDMs seems to confirm this: around 75% of farmers identified lack of access to finance as a key factor constraining their ability to purchase improved inputs.

Access to credit also allows farmers to smooth their cash flows and better time their market sales. Farmers earn a majority of their annual income once or twice a year at harvest time; yet they have ongoing financing needs throughout the year, for both agricultural and non-agricultural expenses. This mismatch often leads farmers to harvest prematurely in order to generate quick cash to pay for urgent household expenses. These premature harvests are lower quality, leading farmers to earn lower prices than they would otherwise. Farmers may also engage in side-selling to middlemen (often at a lower price), rather than waiting for their contracted buyer—which leads to significant supply disruptions for agricultural buyers.

But does credit really deliver the returns farmers expect? From a production and income perspective, findings from over 30 SDMs reveal that credit is not a silver bullet. Credit can allow farmers to invest in their farms and smooth their cash flows, but it is one of many factors that can constrain or enable farmers as they seek to expand their farms. Often, farmers also lack access to training and knowledge on agricultural practices, financial literacy and business management expertise, technology, and markets. Without access to complementary financial and non-financial services that address a broad set of farmer needs, credit can become a double-edged sword. Farmers may find it challenging to manage the increased risk associated with credit and to translate capital investments into substantial productivity and income gains.

Our research reveals that end-to-end value propositions facilitating both financial and non-financial services across a broad set of farmer needs may be more effective at driving farm growth and increasing income. Holistic value propositions providing access to finance, inputs, advisory services, and market linkages can deliver up to 40% more value to farmers than credit alone. These one-stop shops are particularly relevant for women, who face a wider range of mobility and time constraints.

A significant part of the income uplift of holistic value propositions comes from higher yields, primarily due to the use of more and better-quality inputs (e.g., seeds, fertilizer, or pesticides). Although it varies significantly by crop and specific context, use of improved fertilizer can increase productivity by up to 300%. Early evidence shows that the income uplift from better access to markets—through higher farm-gate prices, quality premiums, or lower post-harvest losses—may be as high or higher than the uplift from increased yields. Indicative results from one fintech we examined show a 20% increase in income from inputs on credit, but up to a 30% increase from advisory services and up to a 100% increase in income from market linkages. At another fintech, farmers using advisory services, inputs on credit, and market linkages saw their farm income increase by up to 165%, compared to 51% for those that used only advisory services and inputs on credit.

**FIGURE 18 FARM INCOME UPLIFT BY SDM DEPENDING ON BREADTH OF SERVICES**

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Holistic value propositions are also more effective at building more resilient farms. Increased indebtedness can exacerbate farmer vulnerability. Across all SDMs we analyzed, farmers who received credit became more vulnerable to yield and market price fluctuations than those who had not. If things go well, the gain is bigger—but so is the loss if things turn for the worse. Bundling insurance with credit is probably the most effective measure to protect farmers against the increased risk of debt. But, as mentioned in Section 2, farmers’ uptake of agricultural insurance is still low. Holistic value propositions can step in to offset some of this risk. For example, if there is an oversupply in the market, farmers with access to storage services can wait to sell when prices come up again. Advisory services can help farmers prepare for climate shocks and minimize yield losses, while guaranteed offtake services can ensure a market for farmer produce.

Though evidence suggests that holistic value propositions can lift farmer yields and prices while helping to manage risks, these outcomes vary significantly across SDMs. Furthermore, to really understand the impact of credit on farmers, it is vital to use time-series data to better isolate the effects on individual farmers. Nonetheless, our evidence suggests that impacts on farm income depend on a wider set of elements, including:

- **Sequencing of financial and non-financial services.** One fintech sequenced its product to ensure farmers were familiar with the platform before introducing the higher impact but more complex services, such as soil testing or market linkages.

- **Customer engagement models.** Higher-touch models with a very tight relationship between the farmer and the FSP tend to have a bigger impact on farm income than low-touch models.

- **The role of digital and data.** Models balancing the use of digital tools with a human element tend to be more effective in driving active usage of advisory services or market linkages, which tend to rely heavily on trust. This balance is particularly important for specific segments (e.g., women) who are often at a disadvantage in accessing and using digital tools. In the case of one fintech, women customers place more value on the presence of field agents to support awareness and engagement of additional services. Early evidence indicates that models that use data analytics and alternative data to design and deliver their customer value proposition have the potential to better serve their customers—for example, by using data analytics to deliver tailored advisory services or to sequence products and services based on farmer cash flow needs.

- **Flexibility in loan terms.** The most impactful credit products are flexible, adapting loan sizes, disbursement, and repayment structures to fit smallholder cash flow needs. By letting farmers pay their input loan on their own time and offering storage bags, one nonprofit lender in our analysis enables farmers to delay selling their harvest until the price is better. Another agribusiness’ flexible cash loan can be used for both farm or non-farm expenses, allowing farmers to cover household expenses and repay the loan back once they sell the coffee cherries to the business itself. In several tree crop SDMs, farmers are required to carry out replanting or rejuvenation of aging trees in order to safeguard long-term incomes. However, such practices often entail a short-term hit to production and income. One coffee exporter offered much needed long-term loans for farm renewals as well as short-term loans for production.
**IS THERE STILL AN IMPACT CASE FOR STANDALONE CREDIT?**

The evidence for holistic value propositions doesn’t mean that finance-only products cannot have a positive impact on farmer livelihoods, especially when outcomes other than production and farm income are considered or when the unit of analysis is extended from the farm to the household more broadly. Farmers have incredibly diverse livelihoods. Many combine farming with small side businesses and/or on- or off-farm labor, all while juggling multiple household priorities. Credit can enable households to seize opportunities, whether in farming or elsewhere—particularly when the credit is delivered in cash. Credit can be used to diversify household income sources, manage household expenses, and respond to climate, market, and personal shocks. Access to credit can also bring households into the formal financial system for the first time, opening further opportunities to access a wider range of financial services. Psychologically, credit can give borrowers a sense of purpose; it has been shown to increase the independence, empowerment, and self-esteem of women, in particular.

Even at the farm production and income level, standalone credit products can play an effective role if farmers are able to access non-financial products and services elsewhere and independently (e.g., through public extension programs or locally developed markets). Since many FSPs operate in less mature markets with limited enabling infrastructure, they will often need to facilitate these services themselves, or through partnerships.

“Loans are a critical input for my farm, but access to stable contracts and more education about how to get good seeds and other inputs is really important. If I can access those and other supporting services the credit is important in growing my farm.”

Smallholder farmer, MFI

**4.2 CONSIDERING A WIDER IMPACT AGENDA**

While access to smallholder finance tends to be associated primarily with production and income-related outcomes, finance is also a key element for advancing a wider impact agenda. FSPs can generate outsized impact for **women** and **youth** if they can address structural barriers to inclusion. A more productive, mature agricultural market can drive **rural employment** opportunities and enhance **food security and nutrition**. Access to **climate-smart** technology and practices can boost smallholders’ adaptive capacity while mitigating their contribution to climate change as they grow their farms.

Unfortunately, however, these impact areas have only recently been incorporated into SDM assessments. In this context, this section summarizes our early hypotheses on the extent to which finance can drive positive outcomes related to women, youth, employment, food security, and climate, to help frame and guide future research.

**4.2.1 GENDER**

**Rural women play a crucial role in agriculture and global food systems. Yet women are disproportionately poor and underserved.** Women are up to 50% less likely to adopt improved inputs and agricultural practices, primarily because they have unequal access to an array of productive assets and services.  

Additionally, women tend to focus on lower-value, often unpaid activities—for instance, planting, weeding, and harvesting a family farm—while men focus on higher-value activities like marketing. This is explained by women’s lower access to capital as well as their mobility and time constraints.

Holistic value propositions, with their combination of financial and non-financial services, present a good opportunity closing the gender gap on access to productive assets and services.

This includes land, extension services and credit.  

Combined with enhanced access to markets, serving women can drive a shift from subsistence to higher-value commercial farming activities.

Strengthening women’s control over assets—by, for instance, putting input, offtake, and financial services contracts under women’s names—also has a positive im-

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42 Anne Maftei, Clara Colina, Understanding women’s rural transitions and service needs, Rural and Agricultural Finance Learning Lab, 2020.

43 Ibid.
Towards market transparency in smallholder finance

In the case of a few SDMs we examined, registration with the FSP improved women farmers’ lifestyles through increased agency, improved decision-making power, time saving, and increased confidence through knowledge-building and improved social status.

Some of the most promising approaches include:

- **Service adaptation approaches** that tailor interventions to women’s specific needs—particularly around flexible collateral requirements, alternative data for credit risk assessment, customized disbursement and repayment structures that fit women’s crop and cash flow needs, and meeting women when and where they are available.

- **Collective action approaches** that enable women to circumvent individual constraints. When women are collectivized (e.g., through local savings groups), they are more likely to gain access to productive assets and formal services. Serving them as a group can also increase the economic viability of the service.

- **Capacity building approaches** to address the human capital gap between genders—for example, through financial and digital literacy or soft skills development (e.g., negotiation skills).

- **Shared dialogue approaches**, involving both men and women, that help challenge powerful gender dynamics.

- **Gender-based affirmative action approaches** to counterbalance structural biases and discrimination, particularly in access to labor markets and entrepreneurship opportunities.

**“Female farmers prefer to work in other farms to earn money, rather than their own because its managed by their husband who will keep the money...we ensure women farmers have individual accounts through which they are paid and that cannot be accessed by anyone else.”**

CEO, Global input supplier

These benefits extend to the wider household and community as women are more likely to spend extra income on family-related expenses, such as schooling or food. Women reinvest 90% of every dollar that they earn back into their families’ education, health, and nutrition.  

**However, because women face additional barriers to accessing financial and non-financial services, SDMs must address their specific needs and challenges to be effective.**

<table>
<thead>
<tr>
<th>Percentage of women reporting agriculture as a primary activity</th>
<th>79%</th>
</tr>
</thead>
<tbody>
<tr>
<td>Women in agriculture labour</td>
<td>40%</td>
</tr>
<tr>
<td>Rural women access to bank account</td>
<td>35%</td>
</tr>
<tr>
<td>Women access to extension services in certain countries</td>
<td>10%</td>
</tr>
<tr>
<td>Agricultural land owned by women in sub-Saharan Africa and East Asia</td>
<td>5-10%</td>
</tr>
</tbody>
</table>

**FIGURE 19 THE GENDER CHALLENGE IN FIGURES**

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4.2.2 YOUTH AND EMPLOYMENT

There are 500 million youth between the ages of 15-24 living in rural areas in developing countries—and agriculture is the main source of employment for most of them. In sub-Saharan Africa, two-thirds of the youth living in rural areas work in agriculture; in many countries, farming is the largest employer for youth, overall. Yet, new research by the RAF Learning Lab in Kenya shows that more than two-thirds of rural youth want to shift to non-farming work and are less likely to report that they enjoy farming.

Many youths do not see farming as an attractive business opportunity—in part, because of their poor access to land and productive assets, including capital. Youth tend to own small assets if they own any at all. They also have lower levels of income and savings. RAF Learning Lab research shows youth income was 32% lower than older counterparts; according to the World Bank, youth are 33% less likely to have a bank account. At the same time, those who want to transition out of farming will struggle to find meaningful employment opportunities in agricultural value chains. Many will risk migration to urban areas where unemployment is already high.

While more research is needed, early evidence suggests that holistic value propositions have the potential to nurture a generation of productive farmers, while also creating additional employment opportunities along the value chain. SDMs can be tailored to the specific needs and circumstances of youth—for example, by decreasing collateral requirements or leveraging youth’s higher levels of digital literacy to serve them at a lower cost. According to research by RAF Learning Lab, when youth can access capital, they are more likely to invest it in productive assets. Additionally, they are more open to learning innovative agricultural practices, and more flexible and mobile when it comes to selling their produce. Combined, these characteristics can lead to improved yields and income.

Beyond the farmer level, FSPs providing holistic value propositions can drive direct and indirect employment creation for rural youth. Direct job creation includes hiring done by the FSP itself (e.g., for branch field staff or an agent network), as well as on-farm labor and hiring. As farmers buy more inputs and increase their productivity, job opportunities are also created indirectly along the value chain. One fintech increased sales of input suppliers

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46 Will Saab, Matt Shakovskoy, Understanding youth rural transitions and service needs, 2020.

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and buyers by 106% and 25% respectively; another did so by 18% and 3%. Recent research by MercyCorps Agrifin Accelerate in Kenya estimates there are over 140,000 job opportunities in aggregation, logistics, and agent roles—for which youth, with their higher energy, flexibility, and digital literacy, are particularly well positioned. Another 510,000 job opportunities could be created in commercial farmer and up to 227,000 jobs could be unlocked as Kenya continues its agricultural transformation journey and grows its agro-processing industry.46 One local microfinance institution assessed is expected to directly support over 50,000 on-farm jobs in the next 5 years. Farmers are also expected to spend over KES 332M on inputs and equipment. While it is hard to trace down the multiplier effect of that increased expenditure and productivity uplift, according to CDC each direct job created in developing economies is linked to at least five additional jobs along the value chain and at least two jobs induced through employee expenditure.49 In total, and in this context, this would mean another 25,000 indirect opportunities.

"Human-centered design has worked but worked best when it was 100% focused in women. [One bank] has reached gender parity on registration but only when we designed the service 100% for women," Program Director, Donor


4.2.3 CLIMATE

Farmers across the globe have always been subject to climate shocks, such as drought, floods, or pests and diseases. However, climate change is making these shocks more severe and unpredictable. Despite their low levels of contribution to climate change, rural households are disproportionately impacted by climate-related shocks and have limited ability to invest in adaptive capacity. Research by the RAF Learning Lab in Kenya reveals that households relying primarily on farming for a living consider climate shocks to be their top risk factor, above other very prominent shocks such as COVID-19. Moreover, households reporting a decrease in their income in the last three years cited drought, bad weather, and pests as the main factors. Without measures to help farmers adapt to climate change, worst-case scenario models estimate that global agricultural productivity may decrease by 17% by 2050 (or as much as 50% in Africa). Impacts at the farmer level will ripple throughout agricultural value chains, disrupting entire rural economies and global food systems.50

Holistic value propositions can help build smallholder farmers’ adaptive capacity. Credit can unlock access to climate-smart inputs, such as drought-resistant seeds or irrigation equipment. Insurance bundled with inputs can further enhance resilience, while climate-smart advisory services can help farmers adopt new techniques and technologies to adapt to climate-related shocks. These practices are also important in preventing soil degradation (e.g., through crop rotation and regenerative farming), pest resistance, and ecosystem degradation (e.g., through rehabilitation and restoration of biodiversity), which are often the unintended consequences of agricultural transformation focused primarily on productivity.

One manufacturing company in our assessment provides farmers with high-quality drought- and pest-resistant stems, often on credit. The use of this stem variety has reduced the impact of droughts on farm yields up to 6.5% on average. Two other buyers/exporters we analyzed recognize the potential for drip irrigation to increase yields and reduce energy, water, and fertilizer costs; but also highlight the need for credit to finance the upfront investment.

Finance can also be an important enabler for livelihood diversification. As smallholder farmers are forced off their land or the economics of farming become increasingly challenging, many will look to diversify their reve-

nue outside of agriculture. RAF Learning Lab research in Kenya suggests a significant portion of farmers will seek to set up their own business outside of agriculture, look for more permanent job opportunities, or migrate to urban areas as livelihood adaptation strategies. Having the financial means to accomplish these goals will largely determine who can and cannot complete that transition.

4.2.4 FOOD SECURITY AND NUTRITION

Smallholder farmers produce 30% of the world’s food. Yet when it comes to their own food security, they are one of the most vulnerable population segments in the world. More than 60% of smallholder farmers surveyed across multiple SDM assessments reported not having enough food to meet their family’s needs during certain months in the last year.

Smallholder farmers’ access to safe, nutritious food in adequate quantities depends on their ability to either produce the food themselves or purchase it in their local markets. Low productivity (and therefore incomes) plus high vulnerability to shocks puts this access at risk. As mentioned above, smallholder farmers are particularly vulnerable to climate-related shocks that can severely disrupt their yields. Subsistence farmers are at highest risk of food insecurity in these instances since they rely on their productive capacity to feed their families. These farmers often have no savings or safety net on which to lean in hard times. Commercializing farmers are only slightly more food secure, as they draw income from produce sales but also tend to source part of their food intake from their own harvest.

Market shocks—often driven by fluctuations in the demand and supply of global agricultural commodities—can severely limit rural food security. For instance, an over-supply of coffee driven by increased production in Brazil and Vietnam has led the international price of coffee to drop to record-low levels. The resulting income shock has led many smallholder farming families to consume less food. A similar pattern emerges from income shocks that are not specific to agriculture, such as the COVID-19 pandemic or a family medical emergency. Data from the RAF Learning Lab and 60 Decibels in Kenya shows that the most common response to lower incomes and higher food prices following COVID-19 lockdown restrictions has been to consume less food: Over 35% of Kenya rural households (and up to 70% of female-headed households) reduced their food consumption in 2020.51

Food insecurity and lack of nutrition are not only consequences of rural poverty and vulnerability, but they are also a contributing factor. Energy intake and micronutrient deficits have irreversible physical and mental consequences, particularly early in life. Food insecurity can also perpetuate an intergenerational cycle, since an undernourished mother is more likely to deliver an undernourished baby. A study from GAIN on smallholder coffee farmers in Vietnam, India, Ethiopia, Kenya, and Indonesia found that undernutrition among farmers could lead to direct losses in coffee productivity. These losses are a result of reduced labor output and physical productivity due to illness, fatigue, and other health-related problems; reduced cognitive development and educational performance due to malnutrition early in life; and drainage of household resources to cover health costs.52

While FAO and GAIN have well documented that ensuring food security and reversing existing under-nutrition will depend on more than just agricultural growth, holistic value propositions combining financial and non-financial services can be a key element of efforts to improve food and nutritional outcomes. As smallholder farmers gain access to productive assets and increase their yields and incomes, they should be able to either produce or buy more nutritionally valuable foods. For women farmers, greater control over assets will also lead to more input and decision-making power related to family nutrition. SDMs that promote agricultural diversification can lead to more nutritious diets in rural areas, richer in vegetables, fruits, and animal sources of protein. Perhaps most importantly, holistic value propositions that increase resilience—for instance, through access to finance to manage cash flow fluctuations, advisory services to anticipate and adapt to shocks, or the building of household savings—can bolster food security for farmers most at risk.


52 Increasing coffee productivity through improved nutrition: a call to action, Global Alliance for Improved Nutrition, 2014.
5.0 WHAT’S NEXT?

This Learning Brief is only one step in the journey toward understanding the economic and social returns of smallholder finance. Our findings suggest that, while it isn’t an easy feat, there are pathways for FSPs to achieve financial sustainability while unlocking social and economic value—both for farmers and for the broader ecosystem. In other words, commercially viable lending (if well designed) has the potential to improve farmer livelihoods and shape more inclusive, sustainable, and viable agricultural markets. However, we also recognize that the depth and breadth of these insights are not enough. Several outstanding questions remain:

• Under what conditions and with what business models can smallholder lending be commercially viable?

• What are the most promising innovations that can drive down the costs and risk of lending to smallholder farmers and facilitate partnerships between FSPs and VCPs?

• What are potential unintended consequences of smallholder financing and how can these best be minimised? How do these vary for women and youth?

• How can subsidy be most effectively structured, for what purposes and for how long?

At a meso and macro level, we need to push for more systemic change beyond the individual FSP. While the relevance of finance and private capital is clear, they are only one piece of the wider puzzle. Agricultural markets are complex ecosystems made up of multiple, interrelated functions—from smallholder farming and off-take to services, capital, government and the enabling environment. Historically, as noted by ISF Advisors, governments have played a central role in providing much of the agricultural capital and shaping the overall market. But as agricultural markets evolve, their capital needs eclipse the government’s capacity to provide agricultural finance; markets must then increasingly rely on private sector agricultural finance approaches. The role of government in rural and agricultural finance, ISF Advisors, 2020. The challenge then becomes how to balance the private sector aspirations for maximum profits with the desired social and economic outcomes.
To resolve the systemic challenges inherent in smallholder agriculture—and fully realize the potential of private-led agricultural finance—we need coordinated improvements across multiple elements. Our Private Sector Development Strategies\(^54\) are already laying the groundwork for a better understanding of the role the private sector—including financial institutions—can play in transforming agricultural markets and of how to best engage them to align incentives in a way that bolsters economic and livelihood outcomes for all participants. In the next few years, IDH will take this effort further by working with financial institutions, service providers, off-takers, funders, and like-minded organizations to further understand and address the underlying network of relationships, interdependencies, norms, and mechanisms that can either constrain or spur more inclusive, sustainable, and commercially viable markets.

\(^{54}\) Shifting gears: engaging the private sector for agricultural transformation, IDH Sustainable Trade, 2022
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