Financing Agricultural Value Chains in Latin America: Barriers and Opportunities in Mexico, Peru and Honduras

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PREFACE

Since 2000, the MIF has supported the agriculture sector in Latin America and the Caribbean (LAC) through over 100 targeted interventions, benefitting over 200,000 small producers. These interventions have played a key role in unlocking market access and increasing income for rural, often isolated, communities across the region. The MIF supports innovative business models that help small producers adopt cutting-edge farming techniques to improve productivity and sustainability, improve internal management capacities, and strengthen links to the supply chains of national and global corporations.

A number of these initiatives, along with projects financed by the MIF-managed Social Entrepreneurship Program - which provides a combination of grants and long-term loans to rural grassroots organizations in the poorest countries of the region - have focused on addressing the lack of financial products and services tailored to the agricultural sector. Similar efforts have also been undertaken by other donor organizations, commercial financial institutions, and NGOs that recognize the undeveloped market potential for small-scale agricultural finance in the region and the need to develop this new financial frontier.

Our experience with key stakeholders -- producers, leading firms, and finance providers-- has shown that supply chain linkages are being used to facilitate lending for small producers through innovative financing structures designed and implemented by microfinance institutions, municipal and rural banks, finance companies, and even lead firms themselves, referred to as Agricultural Value Chain Finance (AVCF) in this study.

The objective of this study is to understand the context and current market for AVCF in the region. Recognizing the difficulties involved in launching a region-wide study, three countries (Mexico, Peru, and Honduras) were chosen based on their agricultural tradition, the size of their smallholder producer population, and the maturity level of their financial institutions. In addition to landscaping these countries in terms of barriers, current practices, and opportunities for AVCF, the study also examines an economy with a more developed value chain finance structure (the United States) in order to gather lessons, best practices, and to compare what has worked in these different contexts.

This study, co-financed by the MIF and Citi Foundation and commissioned to Chemonics, a consulting firm with broad experience in agricultural finance, features first-hand information collected through interviews with 55 financial institutions, producers, agribusinesses, and producer associations in the region. Some of the findings confirm what we already know, for example, that some financial institutions still perceive small producers and the agriculture industry as inherently risky. This perception leads them to limit their portfolio exposure by providing financing only to larger producers or by using very conservative guidelines for their risk assessment. In other cases, agricultural lending is provided through corporate or

small and medium enterprise (SME) units, but the financial institution's standard products and services are not tailored to the needs of smaller actors.

The report highlights AVCF products and structures that various lead firms, agro-processors, banks, and non-bank financial institutions have designed and implemented to provide financing to producers either directly or through producer organizations, cooperatives, etc. These models can range in complexity from input suppliers advancing seeds or fertilizer, to lending structures that require the active involvement of lead firms and the use of government guarantee funds, such as Mexico's FIRA, or guarantee programs, such as the Development Credit Authority (DCA) from the U.S. Agency for International Development (USAID).

Lead firms' ongoing efforts to provide short-term credit to producers in their value chains or to become actively involved in producer lending through mobile and electronic underwriting and other structures confirm that supplier sustainability is one of their main concerns. This top business concern can become an opportunity for financial intermediaries interested in expanding agricultural lending through partnerships that leverage a firm's agronomic knowledge and personal relationships with producers. In addition, the region's governments can play a catalytic role in establishing a supportive regulatory framework and addressing specific bottlenecks, such as land titling.

We hope that the findings presented in this study help to facilitate discussions between agricultural sector actors and financial institutions in order to develop commodity-specific AVCF solutions and products. The financial institutions featured in the report have found creative ways to leverage existing commercial relationships between lead firms and producers and use them as both a guarantee and as an initial filter for their credit evaluation process. These sorts of models can be adapted and replicated in different contexts.

Agricultural value chain finance can be an important tool for increasing the financial inclusion of small and medium producers in the region. For the IDB Group and other multilateral donors and policymakers, the findings presented here can help inform future interventions in this area, such as the use of models that link small producers directly with formal financial institutions, to help farmers build credit histories so they qualify for future long-term finance. Another promising action area where the IDB and the region's governments could work together is in the provision of critical risk mitigation tools, such as guarantee programs and affordable crop insurance.

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EXECUTIVE SUMMARY

Small and medium commercial family farms in Latin America represent a large and important portion of the agricultural sector, with significant potential for catalyzing economic growth in the region. Despite this potential, small and medium producers often face several key constraints when looking to traditional lenders for credit. First, small and medium producers in Latin America lack capital and have limited cash flow. Their tenure often is not secure enough to be able to use their land as collateral, and banks often do not accept the collateral they do have, such as livestock, equipment, and other moveable property. Small and medium farmers and agribusinesses often have poor credit histories, or lack them altogether. They also tend to lack business plans, financial statements, and the ability to project cash flow realistically.

Small and medium farmers integrated into value chains, however, often have access to some form of financing from input suppliers and/or buyers. Using examples from Mexico, Peru, and Honduras, this report demonstrates that financial institutions can often leverage these value chain finance arrangements to mitigate risk and help small and medium producers capitalize on new opportunities to grow in the global market. This report also looks to the US for factors critical to expanding access to credit for small and medium farmers.

MEXICO Bank lending to the agricultural sector in Mexico declined drastically following the peso crisis of the mid-1990s. Medium and large agro-processors and exporters were forced to step in to finance their small supplier producers directly. New entrants to the financial services sector, such as Bankaool and Finterra, as well as existing banks, such as Banamex, are capitalizing on these existing agricultural value chain financing arrangements by using medium and large agro-processors as intermediaries for lending transactions with their small producer suppliers. These models often utilize the agro-processor to identify potential borrowers, originate and distribute loans, and collect payments. The models provide a win-win-win scenario, as they reduce the costs of loan origination, administration, and collection for banks, reduce the amounts of capital the agro-processor has tied up in supplier finance, and provide small producers with opportunities to access credit for production while building credit histories with formal financial institutions. Government agricultural guarantee programs have been instrumental risk mitigation tools for helping these institutions reenter the agricultural finance sector in Mexico.

PERU Peru's banks are focused almost exclusively on lending to medium and large producers with crops for export, while its municipal and rural banks and finance companies are focused on lending to micro producers with financing needs of US$2,000 or less. While financing to small and medium

commercial and semi-commercial producers is limited to those with a title to land, banks like Interbank, BCP, and BBVA have developed financial products that have significant potential to serve the small and medium farmer segment. BCP and BBVA's electronic purchasing and electronic factoring products enable producers to free up capital, either after purchasing inputs, or advancing credit to buyers. BCP's "leasing for construction" product is helping some medium producers upgrade production and expand processing and packaging facilities. Risk mitigation mechanisms, such as guarantees and private crop insurance, remain underutilized in Peru.

HONDURAS While bank lending to the agricultural sector is growing, more than fifty percent of farmers in a recent USAID survey stated that they had received financing through suppliers and production cooperatives. Major input suppliers, such as Caldega and Del Campo, are increasingly developing creative financing products for small and medium producers, as well as small input suppliers, who in turn advance inputs on credit to small producers. At least four banks are making significant inroads to reaching small and medium producers with finance by utilizing agricultural value chain products, such as factoring and warehouse receipts. Banks, like Ficohsa, have also had success experimenting with more creative value chain finance relationships that leverage forward contracts with buyers.

UNITED STATES The US Farm Credit System began as the result of the US Congress' recognition of the severe lack of finance for farmers at the start of the 20th century. Today, the system encompasses 82 single-purpose retail associations that lend directly to farmers and ranchers, and four wholesale banks. While it has gone through several adjustments and some consolidation over the years, the Farm Credit System has been instrumental in creating a demonstration effect that has resulted in the entry of hundreds of commercial and farm banks competing with retail associations for farmers' business. The subsidized insurance provided by the US Federal Crop Insurance Corporation has also been a key factor in mitigating risks associated with agriculture, and enabling banks and retail associations to lend to the agricultural sector. As a result, the US has far fewer of the "triangular" bank-buyer-supplier lending schemes seen in Latin America.

LESSONS LEARNED.

The largest barriers to finance for small and medium producers in Latin America are information asymmetries between small and medium producers and lenders, lack of acceptable collateral, and the lack of financial institution presence in rural areas. Successful agricultural value chain finance (AVCF) models help close both the geographic and information gaps between producers and financial institutions by creating mechanisms for sharing the risk of lending among two or more actors in the value chain. Several lessons learned can be gleaned from this report:

- **Agricultural value chain finance may provide a cost-effective solution for reaching greater numbers of farmers in rural areas.** For example, Bankaool in Mexico is using lead firms as new "branches" and providing them with a commission for managing the bank's portfolio of smallholder borrowers.
- **Agricultural value chain finance can provide an entry point for small farmers to access additional longer-term finance.** AVCF models can be a first step for many small farmers in building a credit history with a formal financial institution. In Honduras, a

financing arrangement based on forward contracts developed by the nongovernmental organization (NGO) FUNDER is connecting suppliers of a supermarket chain with a bank for the first time.

- **Government sponsored risk mitigation tools can be more efficient than direct lending programs.** Financial institutions in the United States assert that the federal crop insurance program has been a critical tool for mitigating price and weather risks of lending to farmers. Government guarantee programs in Mexico have significantly helped financial institutions manage the risk of lending to small and medium producers. These tools require less government involvement and fewer funds and have enabled multiple financial institutions to reach significantly more farmers than those reached by state-run banks in Peru and Honduras.

RECOMMENDATIONS.

The Inter-American Development Bank and other donors can replicate and enhance successful AVCF models by:

- Helping banks identify new agricultural sectors with growth potential and structure financing arrangements that mitigate the risk of lending to "unknown" small farmer borrowers.
- Championing models that directly link small producers with formal financial institutions to help them build credit histories to access future long-term finance.
- Piloting crop insurance programs and other risk mitigation tools to enable more small farmers who lack titles to land to access finance.
- Promoting peer exchanges to refine and replicate successful AVCF models.

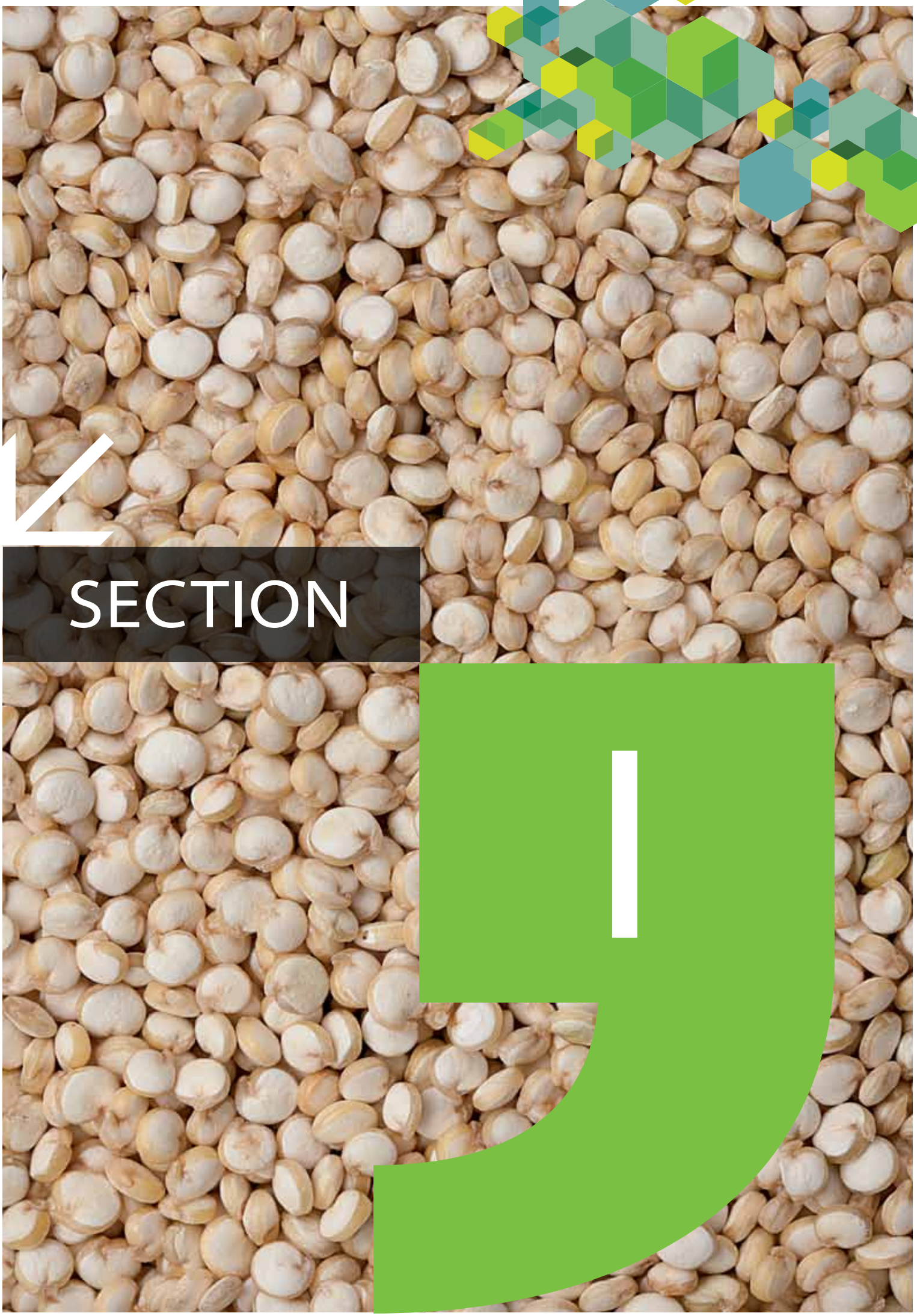
CONTENTS

ACRONYMS

AGAP	Agricultural Producers Guild
AHIBA	Honduran Bankers Association*
ASERCA	Service Agency for the Commercialization and Development of Agricultural Markets (Mexico)*
AVCF	Agricultural Value Chain Finance
CARUCHIL	Chinacla Regional Agricultural Cooperative Union (Honduras)*
COCAFCAL	Capucas Coffee Cooperative (Honduras)*
CNBS	National Banking and Insurance Commission (Honduras)*
CNBV	National Banking and Securities Commission (Mexico)*
DCA	Development Credit Authority
EDPYME	Small and Medium Enterprise Development Entity (Peru)*
FAO	Food and Agriculture Organization
FCA	Farm Credit Administration
FCE	Farm Credit East
FCS	Farm Credit System
FONAGA	National Guarantee Fund for Agriculture, Forestry, Fishing, and Rural Sectors*
FEGA	Special Guarantee Fund for Agricultural Credit*
FINRURAL	Mexican Rural Development Bank*
FIRA	Trust Funds for Agriculture*

GDP	Gross Domestic Product
GDW	General Deposit Warehouse
IADB	Inter-American Development Bank
IFC	International Finance Corporation
IICA	Inter-American Institute for the Cooperation on Agriculture*
IMF	International Monetary Fund
INEGI	National Institute for Statistics and Geography (Mexico)*
LAC	Latin America and the Caribbean
MIF	Multilateral Investment Fund
MFI	Microfinance institution
MPCI	Multi-peril crop insurance
NAFIN	Mexican National Development Bank*
NGO	Nongovernmental Organization
SBS	Superintendency of Banks, Insurance, and AFP (Peru)*
SME	Small and medium enterprise
SOFIPO	Popular Finance Company (Mexico)*
SOFOL	Limited Purpose Finance Company (Mexico)*
SOFOM	Multiple Purpose Finance Company (Mexico)*
US	United States of America
USAID	United States Agency for International Development

*Spanish acronym


SECTION
I

INTRODUCTION

The World Bank estimates that agriculture in Latin America and the Caribbean (LAC) employs 16 percent of the labor force and generates more than 5 percent of overall GDP growth in the region (World Bank, 2009). Inclusive of agribusiness and food services, agriculture may account for as much as one-third of GDP of the region's economy (World Bank, 2008). Exports of agricultural products have grown at about 8 percent annually since the mid-1990s, and now make up about a quarter of the region's total exports. Latin America's importance as a global player has also grown: it now represents 13 percent of agricultural trade, up from 8 percent in the mid-1990s (Chaherli & Nash, 2013). Global food demand is expected to grow 50 percent by 2030, and with 28 percent of new arable land and the largest share of renewable water resources of any region, Latin America has the potential to become a regional food "powerhouse" (Chaherli & Nash, 2013).

This potential hinges on the region's small and medium farmers' integration into value chains, and their transformation from traditional, low-productivity growers into modern, commercial agricultural producers. Access to finance for small and medium producers in Latin America, however, continues to be a major constraint to this type of transformation. According to the IFC, in rural Nicaragua, Honduras, and Peru, 40 percent of agricultural producers are credit constrained (IFC, 2011). Many financial institutions in the region view small and medium agricultural producers as inherently riskier than other clients, due to their high levels of informality and to external factors outside of their control, like weather and price fluctuations.

Several financial institutions in Latin America are leveraging relationships between these producers and their buyers and suppliers in the value chain to mitigate the risks of lending to the sector. While we cannot begin to map the entire landscape for agricultural finance across the region — the countries are too vast and varied — we will look at examples of creative, relationship-based finance in Mexico, Peru, and Honduras that take advantage of relationships within the value chain to mitigate, share, and manage risks involved in lending to small and medium producers. We will compare what policies, practices, and mechanisms exist in these countries, as compared with the United States, to examine what can be learned across the region, and to identify opportunities to expand access to financial services to more small and medium agricultural producers in Latin America.

EXPORTS OF AGRICULTURAL PRODUCTS HAVE GROWN AT ABOUT 8 PERCENT ANNUALLY SINCE THE MID-1990S

A

Small and Medium-sized Producers in Latin America

Small and medium commercial family farms in Latin America represent a large and important portion of the agricultural sector, with significant potential for catalyzing growth. Berdegué and Fuentealba argue that the "transformation of LAC rural societies have led to a significant sector of family farms that have some assets but that often lack a few critical elements that can make the difference (e.g., they have land but lack enough credit or are not part of an effective producers organization), and that are located in places (territories or regions) where the biophysical and socioeconomic conditions are 'good enough' but that are not the fast-moving regions of highly competitive, globalized agribusiness" (Berdegué & Fuentealba, 2011, p. 10). The authors estimate that there are roughly four million of these small and medium-sized family farms, with an average of 50 hectares each, across the region. This represents roughly half of farmland in the region.

These small and medium family farms are defined differently and have different characteristics depending on each country, and even depending on the region within that country. In Peru, banks define small farmers as those with fewer than 50 hectares. In Mexico, the definition of small and medium commercial and semi-commercial farmers includes those with between US$20,000 and US$250,000 and in need of between US$10,000 and US$80,000 in financing. In most countries in Latin America, small farmers are classified into three categories: commercial, semi-commercial, and subsistence. On the one end of the spectrum are the commercial small and medium farmers, who have on average 100 highly productive hectares and are fully integrated into value chains. They may employ some permanent labor and may even have access to commercial finance. At the other end of the spectrum are subsistence farmers, who have 10 hectares or less on average and who often depend on non-farm income just as much as on farm income. In the middle are the semi-commercial small and medium family farms of 10 to 100 hectares, which have some productive assets, but whose growth is constrained by lack of credit or links to markets. These small and medium farmers often rely on family members for labor, and self-fund any capital investments to reduce costs and improve productivity (Berdegué & Fuentealba, 2011).

Berdegué and Fuentealba contend that this sector of small and medium-sized family farms represents the best opportunity in LAC for strategies and policies aimed at revitalizing rural societies and for promoting socially inclusive economic growth. This is because

PEOPLE IN LATIN AMERICA ARE EATING 22 PERCENT MORE FOOD PER CAPITA THAN 30 YEARS AGO

"while production for the export market tends to be concentrated in capitalized farms and agribusinesses, a large percentage of medium and small family farms and agri-processors tend to focus on the domestic market. This creates a potential for direct and indirect impacts of agricultural growth on the reduction of rural poverty and inequality" (Berdegué & Fuentealba, 2011, p. 31). People in Latin America are eating 22 percent more food per capita than 30 years ago, as well as eating more expensive foods like meat, dairy products, fresh fruits and vegetables, and vegetable oils. (Berdegué & Fuentealba, 2011) With domestic consumption of agricultural products increasing, and with lead foreign and domestic firms recognizing the importance of integrating small and medium producers into well-integrated value chains, small and medium family farms have the potential to contribute significantly to the challenge of increasing domestic and global demand for more sophisticated and diverse agricultural products.

Despite this potential, small and medium producers often find their growth constrained by a lack of access to capital to improve and increase production. A knowledge gap exists between traditional lenders and farmers. Small farmers often lack personal capital and bankable assets, they do not have title to the land they farm, and they have limited cash flow. Small farmers also have credit histories that are poor or insufficient to meet commercial lenders' requirements. They tend to lack the skills and resources to develop realistic business plans and cash flow projections. Using these traditional measures of creditworthiness, banks simply cannot tell whether or not the loans they make to small and medium farmers will get repaid.

Small and medium farmers integrated into value chains, however, often have access to some form of financing from input suppliers and/or buyers. As we will demonstrate in the sections that follow, financial institutions can often leverage these value chain finance arrangements to mitigate risk and help small and medium producers capitalize on new opportunities to grow in the global market.

B

Agricultural Value Chain Finance and Small and Medium Producers

Fries defines value chain finance as "financial services and products flowing to and/or through value chain participants to address and alleviate driving constraints to growth" (Fries, 2007). Agricultural value chain finance (AVCF) can be an internal transaction that takes place between two actors within the value chain, such as when a supplier of seeds or fertilizer advances inputs to a farmer on credit, or when a processor or aggregator advances funds to producers to finance production. AVCF can also involve actors external to the value chain, such as when a financial institution, investor, or other actor outside the value chain provides financing to an actor or actors within the value chain based on its knowledge of relationships and mechanisms within the value chain. For example, a bank could issue a loan to a producer based on a purchase order from a legitimate buyer or a warehouse receipt from a recognized storage facility (Miller & Reynolds, 2010). Campion, Coon, and Wenner argue that this type of external finance from formal financial institutions can maximize the competitiveness of value chains by allowing lead firms to reinvest funds normally lent to producers, buyers, and suppliers in innovating and improving their own operations (Campion, Coon, & Wenner, 2010).

Small and medium producer and agribusiness barriers to traditional finance. AVCF is often a work-around in environments where direct lending to agricultural producers and agribusinesses by financial institutions is not keeping up with the sector's needs for finance. Small and medium producers often face several key constraints when looking to traditional lenders for credit. First, small and medium producers in Latin America, as in many developed and developing countries, lack capital and often have erratic cash flows (Cocciarelli, Suput, & Boshara, 2010). They may not own the land they work, or due to weaknesses in registry systems, may not have secure enough tenure to be able to use their land as collateral. Banks may not accept the collateral they do have (such as livestock, equipment, and other moveable property).

AVCF IS OFTEN A WORK-AROUND WHEN DIRECT LENDING TO AGRICULTURAL PRODUCERS BY FINANCIAL INSTITUTIONS IS NOT AVAILABLE

Weak contract enforcement in many Latin American countries deters banks from lending, as repossession of collateral can be a lengthy and costly process.

Second, small and medium farmers and agribusinesses often have poor or non-existent credit histories. Third, small and medium farmers and agribusinesses often lack business plans, financial statements, and the ability to realistically project cash flow (Cocciarelli, Suput, & Boshara, 2010). They may maintain one set of "real" books that do not match their tax records, on which banks often rely. In many cases, small and medium producers and agribusinesses do not even approach banks because they fear they will not be found creditworthy. In Mexico, for example, while 20 percent of producers surveyed in the 2012 Agricultural Census cited access to finance as a binding constraint to growth, only 7.7 percent applied for credit. (INEGI, 2012)

Agricultural value chain finance alleviates some of these constraints by leveraging the relationships between actors in the value chain to mitigate the risks involved in lending. AVCF is inherently relationship-based, in that the knowledge that actors within a value chain have of one another enables the development of effective arrangements that facilitate financing. Strong linkages between buyers, suppliers, processors, aggregators, and others in the value chain, and dependency on one another for products and/or funds, helps actors negotiate terms and conditions for finance that overcome information asymmetries, minimize risks, and maximize efficiencies. Lenders in AVCF relationships still examine traditional measures such as collateral, capacity, and credit history as part of their decision-making process, but they may put different weights on each than would a traditional lender, and/or they may be willing to share more of the risk depending on what they get in return from the borrower.

What is a Value Chain?

Agricultural value chains look very different depending on the country context, the end product, and the end market. However, the basic concept of the value chain is one in which each actor in the chain, from the farmer, to the retail outlet selling the product, all the way to the end consumer, are linked from one to the next in a process of progressively enhancing or transforming the product, from the moment it is planted in the field to the time it reaches the table. Each actor in the chain makes some additional enhancement to the product. Enhancements can be as simple as transporting the product or aggregating sufficient volume to meet buyer demand, or more complex processing and packaging operations that literally transform a commodity into a new product for sale. Small and medium producers in Latin America are present at all points in many agricultural value chains. In the coffee value chain in Peru, for example, roasters depend heavily on smallholders, often with fewer than five hectares, to produce beans, and often procure them through medium-sized cooperatives or aggregators.

B1. Examples of Agricultural Value Chain Finance

Steve Weir, Vice President of Farm Credit East in the United States, explains the continuum of risk management options for financial institutions in agricultural lending: 1) Avoid; 2) Mitigate or Reduce; 3) Share or Transfer; and 4) Accept and Manage. Examples and instruments of AVCF cover this continuum of risk management, ranging from transaction-based finance involving physical collateral as guarantees, to relationship-based approaches involving complex agreements between producers and buyers or processors. Below we provide several examples of AVCF instruments to illustrate some of the ways agricultural value chain finance helps to mitigate risk. This list is by no means exhaustive, but is meant to demonstrate some of the various ways that lenders can use AVCF to reduce risk when lending to small and medium producers and agribusinesses in the value chain.

FIGURE 1 VALUE CHAIN FINANCE INSTRUMENTS AND LEVELS OF RISK ACCEPTED BY LENDERS

Source: Author.

B1a. Leasing.

Leasing minimizes risk to the lender in that the lessor owns the equipment or property and the lessee pays for its use over a pre-determined period. Leasing is good for the small or medium producer, as this type of transaction often requires lower up-front costs and monthly payments, freeing up cash for the farmer. Large equipment manufacturers and distributors, like John Deere, have long held their own financing arms to facilitate leasing of their products by farmers in the United States and Mexico, while smaller equipment distributors throughout Latin America have developed relationships with banks and leasing companies to finance customers (John Deere Financial, 2014).

B1b. Warehouse Receipts.

In warehouse receipt financing, the physical agricultural commodities to be sold provide security for the loan. The producer deposits his or her goods in a secure warehouse or storage facility. The warehouse issues a certificate of pledge to the lender, enabling the farmer who has deposited to borrow against the value of those goods. The lender usually advances a specified percentage of the value of the goods to the producer. That way, should the producer default on his or her loan, the lender can cover any costs associated with selling the commodity and/or any decrease in the market value of the stored good. Once the farmer sells the commodities stored in the warehouse, the facility issues a certificate of title to the buyer. The buyer pays the lender, receiving the certificate of pledge in exchange. With both the certificate of pledge and the certificate of title, the warehouse releases the goods to the buyer. Warehouse receipts are a good mechanism to facilitate short-term working capital loans to small and medium producers that generally do not have fixed assets. Warehouse receipts also do not tie up fixed assets, allowing produers to use these assets to secure longer-term financing for capital expenditures (Baldwin, Bryla, & Langenbucher, 2006).

Repurchase agreements, or "repos," are a variation on warehouse receipts, whereby the producer actually sells the commodity to the lender at a certain price with the commitment to buy it back at a later date for another specified price. The repo lowers the risk to the lender in that the lender owns the asset for that period of time. It also provides liquidity to the farmer while offering a contractual guarantee that he or she can buy back the crop when he or she has found a buyer (Calvin & Miller, 2010).

B1c. Factoring.

Factoring is an arrangement that allows a producer or agribusiness to sell its invoices yet to be paid (its accounts receivable or that which is owed after he/she has shipped the product to the buyer) at a discount to a bank or other lender. This supplies the producer or agribusiness with immediate access to cash flow, rather than having to wait the 30 to 60 days it usually takes for a buyer to process payment. Generally, once the bank or other lender purchases the accounts receivable, it performs all the necessary credit, collection, and accounting services. In emerging markets, factoring is uncommon due to lack of sufficient credit information about producers and agribusinesses and the frequency of fraud, such as counterfeit receivables (Baldwin, Bryla, & Langenbucher, 2006).

Reverse factoring can help overcome concerns about fraudulent receivables and risky producers or agribusinesses. In reverse factoring, the lender purchases accounts receivable only from recognized buyers with solid reputations for repayment. This way, the lender only needs to collect credit information and determine the credit risk for transparent, reliable firms which are more likely to pay on time. This transfers the credit risk of small suppliers to their

highest quality customers (Baldwin, Bryla, & Langenbucher, 2006).

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B1d. Export Receivables Finance.

Export receivables financing involves a bank or other lender providing a loan to a small or medium producer or agribusiness based on purchase orders or import contracts from an importer. The lender, based on the contracts, finances the producer or agribusiness' short-term working capital needs to produce or process and export the commodities. The importer pays the agreed purchase order price to the lender, who then pays down the loan and passes any additional proceeds to the producer or agribusiness. (Baldwin, Bryla, & Langenbucher, 2006) *Purchase order finance* is essentially the same arrangement, but in purchase order finance, the purchase order used to secure the loan can be either from a foreign importer or from a domestic firm committing to buy the goods. (Gold & Jacobs, 2007) Challenges with export receivables finance are similar to factoring, in that the bank often cannot determine the validity of purchase orders or the reliability of the buyer to pay, especially if that buyer is a foreign firm. In the case of exports, the bank also cannot know if goods might be rejected by the buyer or by customs officials for not meeting specifications or standards.

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B1e. Contract Farming.

Contract farming helps lead firms ensure a steady supply of high-quality agricultural products for processing and sale to end consumers. As part of the contract farming agreement with the producer, the lead firm generally supplies key inputs, such as seed/seedlings and fertilizer, or chicks/piglets and feed, to the farmer, and for a pre-determined fee or set price per unit, the farmer provides the labor, equipment, and conditions needed to successfully grow the plants or animals to maturity. The ownership of the plants or animals usually vests with the buyer, and the lead firm may provide technical assistance or visit farmers periodically to ensure successful production and/or that the farmer is adhering to certain standards. Once the crop reaches maturity, the lead firm harvests and transports the commodities and pays the farmer his or her fee. Contract farming is an arrangement in which both the buyer and the farmer share the costs and risks of production, so mutually beneficial arrangements that recognize this risk sharing tend to be more successful. Contract farming also works well in sectors where transport of the final product is complicated or costly, so that farmers are less tempted to sell to another buyer who offers a higher price (Miller & Reynolds, 2010). Agreements tied to market rates can also avoid this danger of producers reneging on their contracts.

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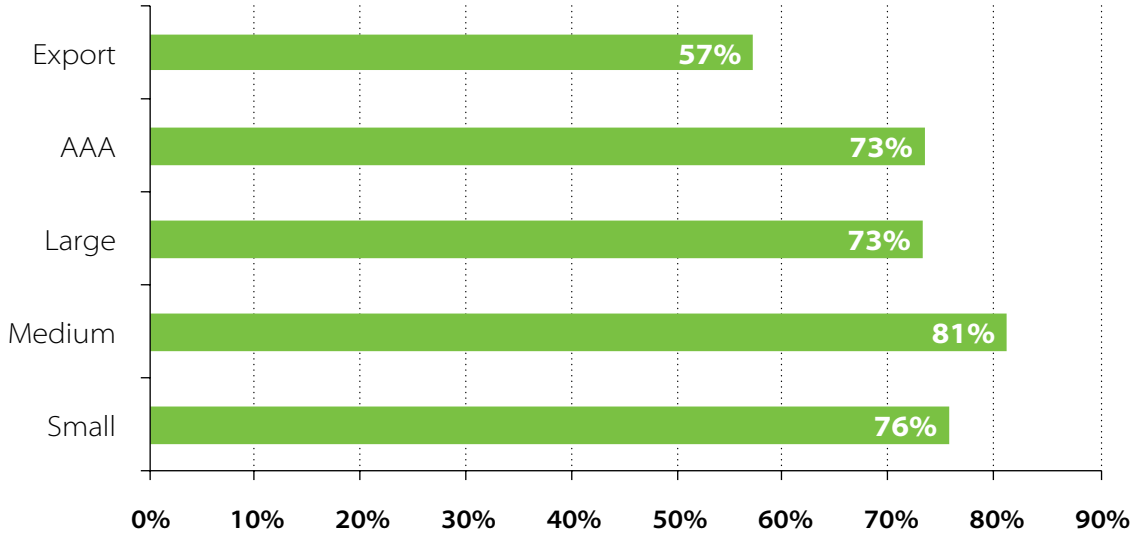
B1f. Trade Finance.

The most common forms of AVCF involve internal value chain transactions between farmers and buyers, and between farmers and suppliers that help to finance production at the precise points in which it is needed. Actors within the value chain can be both recipients and suppliers of finance. For example, an input supplier often receives financing to purchase inventory and sells the inputs on credit. Farmers may receive inputs on credit or advances from processors (directly or through their associations). They may also provide in-kind finance, such as through delayed payments for sales of products to brokers or supermarkets (Campion, Coon, & Wenner, 2010). As shown in Figure 2, a recent survey of firms in Mexico by the Central Bank illustrates that firms of all sizes provide some form of trade finance to another within the value chain.

FIGURE 2 PERCENT OF MEXICAN FIRMS THAT FINANCE CLIENTS



Source: Klapper. The Role of Supply Chain Financing.

Trade finance within the value chain depends heavily on the relationship between the borrower and lender. Transactions are generally faster, require less paperwork, and have terms in line with the production cycle. However, advancing inputs or products often depletes the creditor's cash flow for a period, and may make it challenging to repay any loans he or she took out to finance supplies or production. Having funds tied up in advances or credits to buyers or producers also means suppliers and farmers cannot reinvest them in their own businesses.

The growing importance of multinational lead firms as providers of agricultural value chain finance. One form of trade finance involves lead firms advancing credit to small producers, either directly or through cooperatives or associations of small producers, to ensure steady supply of high-quality agricultural goods. Lead firms, including agro-processors, aggregators, and exporters have long advanced inputs and/or financed small amounts of working capital to reliable small suppliers to ensure a steady stream of commodities.

Increasingly, the business of many multinational firms, like Starbucks, Nestle, and Mondelez, depends heavily on small and medium producers within Latin America. As value chains become increasingly integrated and demand for food grows worldwide, multinational corporations dependent on steady supplies of high-quality agricultural goods recognize the need to facilitate access to finance for smallholders at the start of the value chain.

THE IMPORTANCE OF MULTINATIONAL LEAD FIRMS AS AVCF PROVIDERS IS GROWING

Growing consumer demand for products that meet certain standards or possess certain certifications, such as organic and Fair Trade, also may lead multinational firms to provide financing to ensure greater numbers of small and medium producers can meet these standards. A survey conducted by Fairtrade International in 2012 revealed that Latin American Fairtrade farmers report they need more than US$500 million to cover their financing needs. Over half of that amount would need to be long-term loans (Fairtrade International, 2013).

Few multinationals are attempting to finance small and medium producers directly. Recognizing that finance is not part of their business model, multinationals like Starbucks, Keurig Green Mountain Coffee, and Walmart are teaming with impact investors, donors, and nongovernmental organizations (NGOs) to facilitate access to finance and technical assistance for their smallholder suppliers. For example, Starbucks established the Verde Ventures fund with Conservation International and KfW to provide credit and technical assistance to small producers in Latin America through coffee cooperatives. Starbucks also funds small coffee producers in Latin America through impact investors like Root Capital, Calvert Foundation, and Incofin Investment Management. In 2013, Starbucks pledged US$1.3 million to a new fund created by Incofin, Fairtrade International, and Grameen Foundation to provide farmers' cooperatives and associations with long-term loans to renew their farms or adopt new technologies and equipment. (Starbucks Corporation, 2014) Similarly, in 2013 Keurig Green Mountain Coffee pledged US$1.9 million toward a US$7 million public-private partnership with the Multilateral Investment Fund (MIF) of the Inter-American Development Bank (IDB), the Skoll Foundation, and Root Capital's Coffee Farmer Resilience Initiative. The fund aims to provide 200,000 members of coffee farming communities in Latin America with long-term lending to finance the replacement of coffee trees affected by rust disease, as well as short-term trade credit and financial management training. "We depend on a long-term supply of high-quality beans for our business," explained Lindsey Bolger, Vice President of Coffee Sourcing Excellence for Green Mountain (Root Capital, 2013). These types of investments, while small relative to each firm's profits, demonstrate lead firms' increasing willingness to engage in financing small farmers to ensure a constant supply of high-quality product.

Need to Link Small and Medium Producers with Formal Financial Institutions

While trade finance is efficient in meeting small and medium-sized producers' working capital needs, it generally cannot provide the type of long-term finance farmers need to make capital investments, upgrade equipment or technology to improve production, or significantly increase production to grow the business. Our interviews with medium and large producers and agribusinesses in Latin America showed that all eventually had to seek financing from a formal financial institution to access longer-term credit and other financial services to grow their business.

While growing domestic and global demand for food would seem to make small and medium-sized farmers in Latin America an attractive market segment for financial institutions, anecdotal information from interviews with 55 financial institutions, producers, agribusinesses, and producer associations in the region indicate that small and medium producers often fall within the "missing middle" when it comes to access to credit. More commercially oriented small and medium-sized farmers' financial needs are linked to specific farming activities and investments needed to grow, harvest, and manage crops post-harvest. They require larger, longer-term loans of between US$10,000 and US$1,000,000 to purchase inputs, modernize equipment, or hire labor.

These loans are often too large to be serviced through internal trade finance or even through microfinance institutions, but these farmers often lack the assets, collateral, and financial savvy required to secure a loan from a bank. They are also constrained by the perceived risks of agriculture as well as those typically associated with small and medium enterprises, including:

- Lack of financial statements, business plans, and sales projections
- Lack of credit history
- Low scale of production and lack of access to markets
- Low capital endowment and/or lack of collateral
- High transaction costs (loan origination and collection).

Furthermore, commercial and semi-commercial small and medium-sized farmers require not just credit, but a range of financial services like payroll services, overdraft protection, factoring, and savings. A one-size-fits-all approach to agricultural lending rarely meets their needs.

C1. Risk Mitigation Mechanisms for Lending to Small and Medium Producers

Several mechanisms exist that can help banks and other financial institutions mitigate the risk involved in lending to small producers with little to no credit history, low financial literacy, and no collateral. We present four of the most common of these types of risk mitigation tools below. While banks must couple these tools with their normal due diligence processes, these products help reduce some of the risks involved in lending to agriculture, such as fluctuating commodity prices, weather and natural disasters, and other adversities that might prevent a producer from being able to repay a loan.

Forward contracts. Forward contracts involve various types of contracts between producers of commodities and buyers that lock in prices and sales volumes in advance. The product is owned and controlled by the producer during the production process, and then sold to the buyer at a pre-determined price. Forward contracts help reduce uncertainties around the price of commodities at a future time of sale, and therefore lessen the risks for both the borrower and producer should prices fall significantly (Miller & Reynolds, 2010).

Crop insurance. Crop insurance is an insurance policy purchased by a farmer or a rancher that insures crops or livestock against price volatility, weather losses, and/or natural disasters, such as hail, drought, freezes, floods, fire, pests, and disease. Crop insurance payments are generally tied to the actual value of the crop loss due to price volatility or natural disaster. Jon Jaffe of Farm Credit East in the United States explains, "If money is borrowed to start a new crop, with 100 percent insurance, and the crop fails, the lender is compensated and will care less because they are not relying on the success of the farm" (Cocciarelli, Suput, & Boshara, 2010, p. 18). In this way, crop insurance can be a powerful risk mitigation tool that can enable producers with lower levels of collateral to access finance. Crop insurance also enables farmers to take advantage of forward contracts to lock in better prices for their products. For example, if a farmer takes advantage of high prices prior to harvest by pre-selling 1,000 bushels of corn, and a natural disaster affects his yield, crop insurance will provide the funds he or she needs to settle that forward contract. While crop insurance is an extremely useful tool for protecting lenders and borrowers from catastrophic events, if not subsidized it often comes with a price tag that many small and medium-sized producers consider too high.

Loan guarantee programs. Several governments and donors in Latin America have sponsored loan guarantee programs to facilitate increased lending to small and medium agricultural producers. Mexico's FIRA, for example, has established four heavily utilized permanent guarantee funds to promote bank lending to small agricultural producers. The U.S. Agency for International Development (USAID)'s Development Credit Authority (DCA) is a limited-term (three to five years) guarantee mechanism used to spur financial institutions to expand services to underserved sectors, including agriculture. DCA guarantees of up to 50 percent have successfully enabled microfinance institutions in Peru and Honduras to begin lending to underserved small farmers. The intent of many short-term guarantee programs like DCA is to introduce banks to the sector in the hopes that they will continue to serve small farmers after the guarantee program has ended.

Lead firms in Latin America are also utilizing guarantees to facilitate lending to smallholder suppliers. This is the case in Mexico, where lead firms guarantee a portion of a financial institution's loan to a small supplier in order to ensure adequate levels of production. In

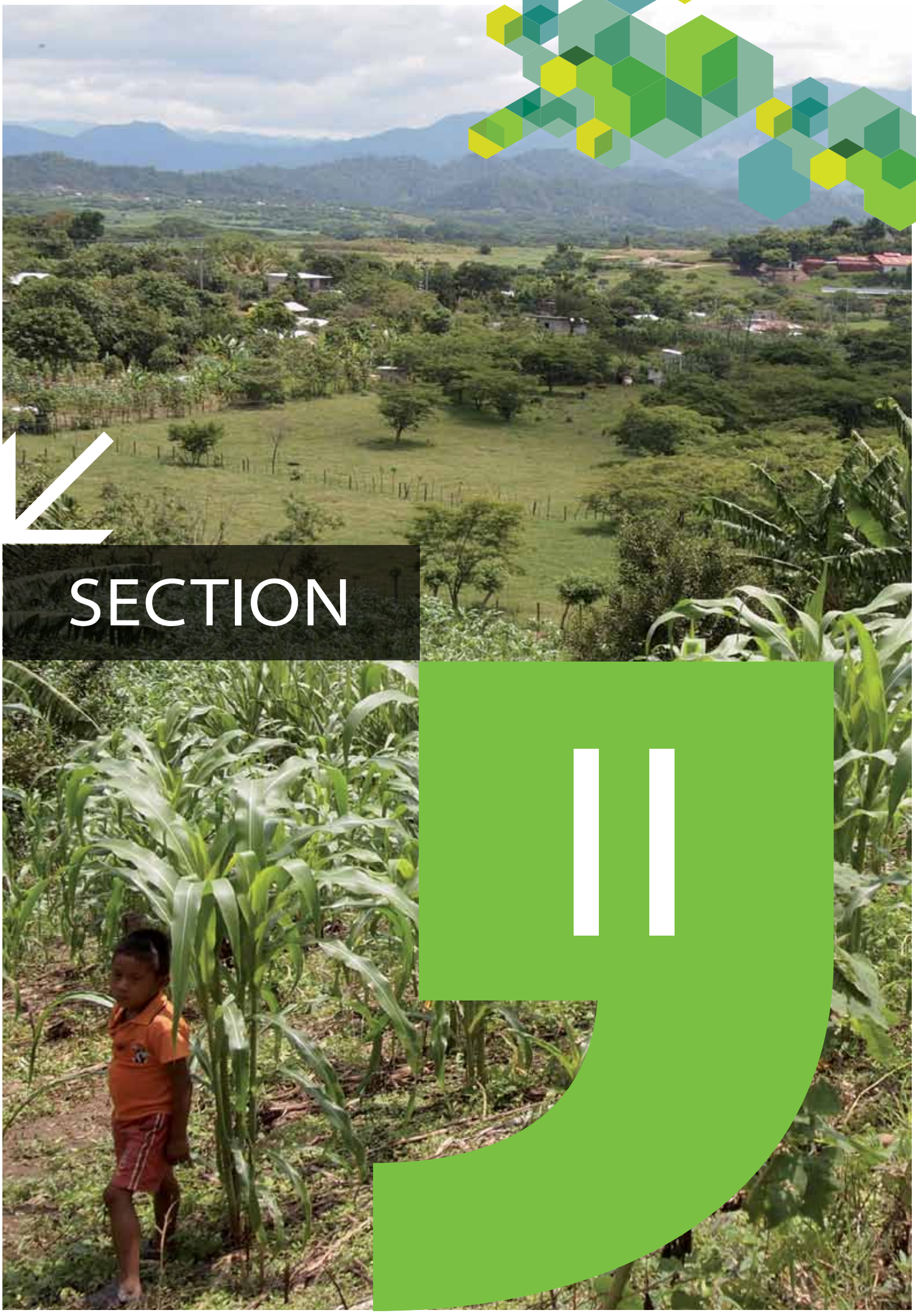
the dairy industry in Argentina, processors have created Loan Guarantee Associations to provide credit guarantees, and sometimes direct financing, to small producers to improve quality and quantity of production (Kamiya, Navas-Aleman, & Pietrobelli, 2012).

Pairing loans with technical assistance. Many social investors and donors pair financing for small and medium-sized producers with technical assistance as a way to ensure production and repayment of loans. Root Capital, for example, provides training in more sustainable production techniques to members of many of the coffee cooperatives it finances. This ensures higher levels of production of coffee meeting Fair Trade, organic, or other standards, and improves the likelihood that the cooperative will be able to repay its loan on time (Root Capital, 2014). In Peru, USAID is pairing loan guarantees with technical assistance to link producers to both financing and buyers for premium cacao. By increasing the price that the producer can command for his or her goods, and by ensuring he or she has a predetermined buyer, these organizations are reducing the risk that the farmer will not be able to sell the product or repay his or her loan.

C2. Agricultural Value Chain Finance as a Risk Mitigation Tool

As the examples of various AVCF arrangements in Section B above demonstrate, agricultural value chain finance leverages existing relationships between suppliers, farmers, and/or borrowers to inject finance for production at critical points in the value chain. AVCF often involves the use of alternate forms of collateral more accessible to small and medium-sized farmers, as well as terms and conditions that match the production cycle. In this way, AVCF improves the likelihood of on-time payments as well as mitigates the risk of massive write-offs in the event of default.

In the sections that follow, we use examples from Mexico, Peru, and Honduras to present some creative ways in which lenders and lead firms are teaming up in Latin America to provide agricultural value chain finance. In addition, we examine the degree to which each country's financial institutions are utilizing AVCF to serve small farmers and the barriers that may be encouraging or hindering the use of AVCF instruments.



SECTION 11

AGRICULTURAL VALUE CHAIN FINANCE IN MEXICO, PERU, AND HONDURAS

Using Berdegué and Fuentealba's estimate that there are approximately four million small and medium family farms in Latin America facing some type of constraint to growth, and coupling this with recent agricultural census data from Mexico and Peru that indicate that roughly 10 percent of producers applied for finance in 2012, we can conservatively estimate that there are at least 400,000 small and medium farmers in the region in need of finance. Assuming an average loan size of US$10,000 per farmer, we can estimate that the market for agricultural value chain finance in Latin America is at least US$4 billion per year. This figure is extremely conservative, and does not begin to incorporate the many small and medium agribusinesses, intermediaries, processors, cooperatives, and producer associations also likely in need of finance all along the value chain. It also does not take into account the large portion of farmers who did not apply for credit simply because they did not think they would be considered creditworthy by a bank.

Taking into account this rather conservative estimate of demand for finance in the region, we conducted desk research as well as a series of site visits, surveys, and interviews with financial institutions, producers, producer associations, and others in Mexico, Peru, and Honduras to attempt to better understand which institutions, if any, were using agricultural value chain finance to serve small and medium producers. We also highlight common practices, innovative models, and specific institutional cases within each country to illustrate challenges and opportunities for structuring finance for small and medium producers and agribusinesses in the region.

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ASSUMING AN AVERAGE LOAN SIZE OF US$10,000 PER FARMER, WE CAN ESTIMATE THAT THE MARKET FOR AGRICULTURAL VALUE CHAIN FINANCE IN LATIN AMERICA IS AT LEAST US$4 BILLION PER YEAR

A

Structure of the Industry and Historical Trends in Mexico

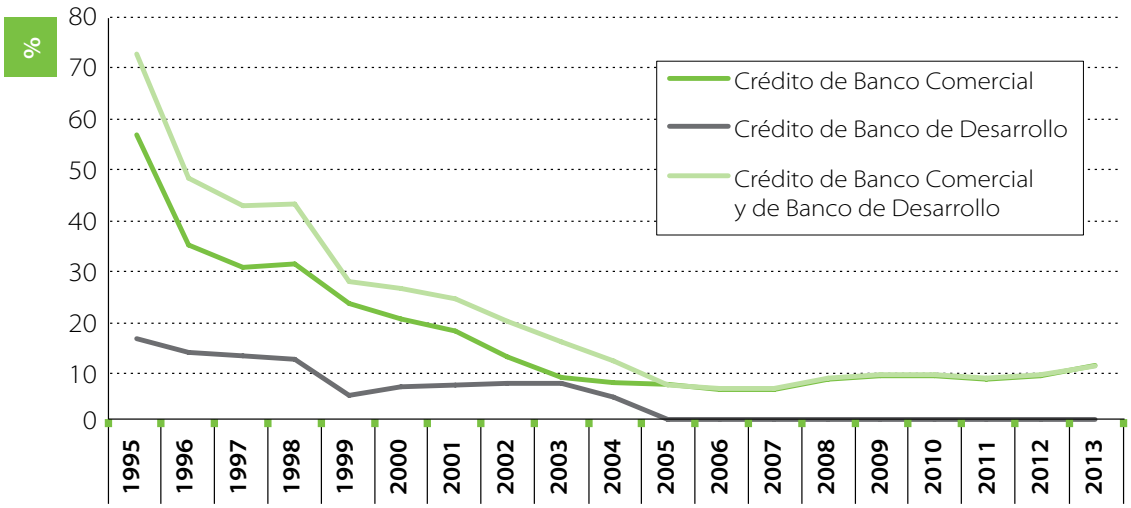
Mexican agriculture runs the gamut, from simple subsistence farming to technologically advanced, export-oriented crop production. Agriculture is certainly an important part of the Mexican economy, employing approximately 13 percent of working adults and accounting for 2.6 percent of GDP (INEGI, 2012). Including agro-industries (e.g., food processing) and production of drinks and tobacco, agricultural and agribusiness accounts for 7 percent of Mexican GDP (Banco de México, 2013).

As recently as the early 2000s, Mexico's government exerted strong, direct control over agricultural finance, channeling credit directly to producers through Banrural, a national bank dedicated to financing agriculture. Financed with practically unlimited government funds, Banrural lent at below-market interest rates and had default rates upwards of 50 percent in some years. Banrural's lack of due diligence and minimal efforts to recuperate losses created a culture of non-repayment in rural areas and discouraged many financial institutions from entering those markets (Juarez, 2011).

Mexico's peso crisis of 1994 and 1995 ushered in a commercial credit crisis, with credit delinquencies exceeding 30 percent in all economic sectors, across practically the entire commercial banking sector. The crisis, coupled with the eventual collapse of Banrural in 2002 and new requirements related to agricultural subsidies under the North American Free Trade Agreement (NAFTA), prompted Mexico's government to initiate major reforms in the financial sector in the 1990s and 2000s, which deeply affected the provision of agricultural finance. Figure 3 shows the impact the government withdrawal had on the flow of credit to agricultural producers.

The effect of the post-crisis reforms generated a steady withdrawal of government from direct financing of agriculture, and the expansion of agricultural guarantee activities managed through state-owned but financially sustainable development banks *Nacional Financiera* (NAFIN), *Financiera Rural* (Finrural), and *FIRA*. Carlos Budar of Bankaool (formerly Agrofinanzas) explains that many lead firms and processors stepped in to provide financing to small producers to secure steady supplies of commodities (Budar, 2013). New commercial market entrants also emerged in the mid-2000s to serve farmers and agribusinesses (Richter, Woodruff, & Boucher, 2006). Mexico's regulatory environment enabled microfinance institutions and specialized lenders to establish themselves as limited or multiple purpose finance entities (*sofom* or *sofol*, as they are known by their Spanish acronyms) and provide financial services to previously

FIGURE 3 CREDIT TO THE AGRICULTURAL SECTOR (AS PERCENTAGE OF AGRICULTURE GDP)



Source: Bank of Mexico, 2013.

underserved sectors, including the agroindustrial and micro, small, and medium enterprise sectors[1]. According to Budar, some large lead firms even established *sofoles* to provide financing to their suppliers.

In recent years, government programs, specialized lenders, and commercial banks have begun experimenting with agricultural value chain finance to support Mexico's agricultural sector. Mexico's small and medium producers face similar challenges to those seen in other developing countries: lack of capital, no credit histories, insufficient financial information, and concerns about commercial viability (Budar, 2013). Mexico's *ejido* system also presents unique challenges for traditional lending in that farmers' parcels on these communal lands cannot be sold or used as collateral to secure credit[2] (Saldaña Rosas, 2014). Mexico's small and medium producers are also spread out across vast rural expanses, making it difficult to reach them cost-effectively with financial services. These rural areas have been, and continue to be underserved by the financial sector. According to Mexico's National Banking and Securities Commission (CNBV, as it is known by its Spanish acronym), 92 percent of rural municipalities with fewer than 5,000 residents lack any kind of bank or financial institution presence.

In the following sections, we provide an overview of financing for Mexico's agricultural sector, as well as examples from several programs and lenders that are successfully using AVCF to mitigate the risks associated with lending to small and medium farmers.

1. Existing sofoles have been authorized by the National Banking and Securities Commission (CNBV, as it is known by its Spanish acronym) to provide credit to one of the following sectors: agroindustrial, consumer credit, small and medium enterprise, housing, or automotive. Regulated sofomes are not limited to one sector. Unregulated sofomes are not required to receive authorization from the CNBV and may provide leasing, factoring, or credit services as long as they have economic ties to a regulated credit institution. Sofoles and sofomes may not capture deposits.
2. While the constitutional right to *ejido* land was abolished in 1991, existing *ejidos* were not disbanded. Roughly 38 percent of Mexico's rural land is still part of the *ejido* system.

B

Supply and Demand for Agricultural Value Chain Finance in Mexico

The Mexican Bankers Association estimates that total financing to agribusiness in Mexico is around US$10 billion (Saldaña Rosas, 2014). Market research by Mexican financial institution FinTerra suggests that actual demand for credit from agricultural producers may be upwards of US$18 billion annually. This high level of demand is supported by Mexico's 2012 Agricultural Census, which showed that one in five producers saw access to credit as a significant constraint to development (INEGI, 2012). The challenge, as shown by FinTerra's research in Figure 4 on the next page, is that the majority of demand for credit comes from the more than 4.4 million micro producers who need only around US$1,600. Spread out over a huge territory, in a country without a well-developed financial network, the challenge is reaching these smallholders cost-effectively.

At the end of 2012, Mexico's financial sector included 289 financial institutions. Still, according to the 2012 Agricultural Census, only 7.7 percent of producers said they had access to credit (INEGI, 2012).

Of those producers who had received financing, 35 percent said they had accessed loans through financial cooperatives and popular finance companies (*sofipos*, as they are known by their Spanish acronym) (See Figure 6). Financial cooperatives and *sofipos* fall into the category of popular savings and loans entities under Mexico's current regulatory structure. The vast majority of cooperatives are not regulated, operate on a local level, and have limited scale.[3] An exception to this is Caja Popular Mexicana, Mexico's largest financial cooperative, with more than US$1.3 billion in outstanding loans. Caja Popular offers a productive credit line for financing agriculture, livestock breeding, and aquaculture. The loan is a one-size-fits-all product with an annual interest rate of 20.73 percent and terms of 24 months (Caja Popular Mexicana, 2014).

Small Producers in Mexico

Carlos Budar of Bankaool explains that the average small producer the bank finances has an annual income of around US$10,000 and farms between two and five hectares. Small and medium agribusinesses are comprised of both registered and unregistered companies and agrarian production and producer societies, which are legal entities engaging at least five farmers.

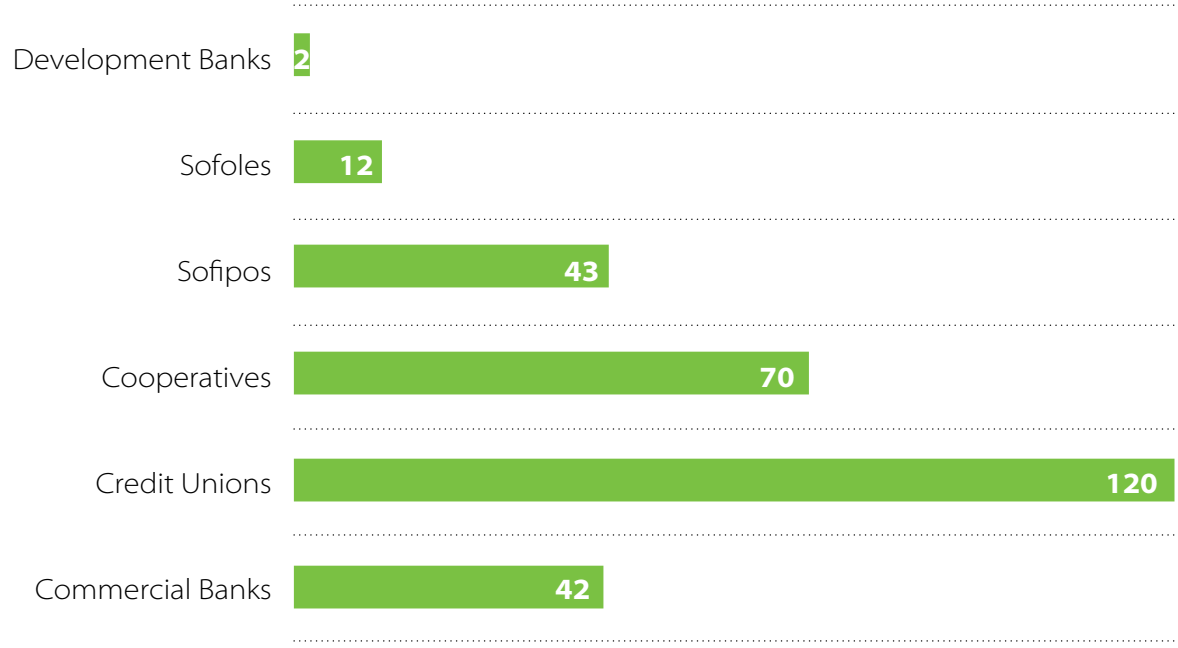
3. Mexico's CNBV is working to implement new regulations that would bring these financial institutions under its supervision in order to expand access to financial services to more rural areas. (CNBV)

FIGURE 4 DEMAND FOR WORKING CAPITAL FINANCE BY CUSTOMER SEGMENT IN MEXICO)

	SALES RANGE (USD)	NUMBER OF FARMERS	AVERAGE LOAN SIZE (USD)	WORKING CAPITAL FINANCE NEED (USD 000)
↘ Micro farmers	<20,000	4,445,202	$1,597	$7,098,988
↘ Small farmers	$20,000-$50,000	372,520	$10,621	$3,956,535
↘ Medium farmers	$50,000-$250,000	26,767	$80,503	$2,155,824
↘ Large farmers	>$250,000	5,680	$860,327	$4,886,657
TOTAL		**4,850,169**	**$3,731**	**$18,095,981**

Source: Gallo, 2013.

FIGURE 5 NUMBER OF CREDIT PROVIDERS IN MEXICO BY TYPE



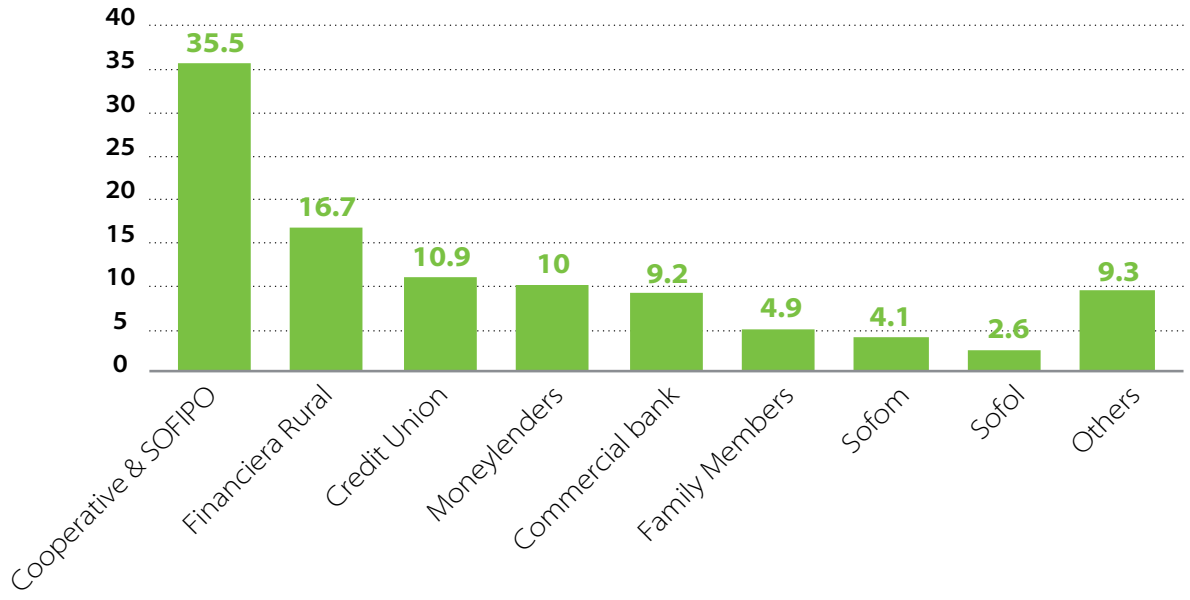
Source: Consejo Nacional de Inclusion Financiera, 2013.

Sofipos include many growing microfinance institutions like Libertad Servicios Financieros. While some *sofipos* are funding very small-scale agricultural and livestock production in Mexico, they tend to be more focused on growth in urban areas. Given the average loan size of approximately US$500, it is likely that the typical agricultural client of these institutions is a subsistence farmer accessing microcredit for a range of household needs, and not necessarily to increase or modernize agricultural production.

The state-run agricultural bank Finrural provided finance to another 17 percent of producers surveyed, followed by credit unions (11 percent), moneylenders (10 percent), and commercial banks (9 percent). Another 7 percent of producers surveyed had received loans from *sofoles* and *sofomes* (INEGI, 2010).

FIGURE 6

PRODUCERS ACCESSING CREDIT IN MEXICO ACCORDING TO SOURCE



Source: INEGI Agricultural Census, 2012.

B1.

Lead Firms, Production Cooperatives, and Impact Investors as Lenders in the Value Chain

Lead firms. While there are no hard data on the amount of finance provided by lead firms to small producers in Mexico (data likely fall in the 9.3 percent attributed to "others" in Figure 6), Carlos Budar of Bankaool explains that lead firm finance has been a critical factor in the production of commodities like wheat, sugar, and corn. Processors often advance or finance inputs and then discount the costs from the final sale price. As mentioned previously, in the absence of banks and other financial institutions to finance their suppliers, some lead firms even created financing arms in the form of *sofoles* to secure steady supply of commodities. As of July 2013, *sofoles* were deregulated and must be transitioned to new legal structures or liquidated. In many cases this means financing small farmers will once again fall to the lead firms themselves and will tie up the firm's cash and assets. As described in the following sections on state and commercial lenders, lead firms like Grupo Bimbo are teaming with lenders through AVCF arrangements to facilitate lending to small producers without tying up critical cash and assets that could be reinvested into their businesses.

Production cooperatives. Production cooperatives are also important providers of finance to small producer members. Producer cooperatives are groups of producers organized to market their produce in bulk, as well as, in some cases, to access finance. In exchange for a small annual membership fee, cooperatives often offer small farmers additional benefits, including: market pricing and knowledge; technical assistance and training on agricultural best practices for applying fertilizers; growing products; and post-harvest handling. Members often benefit from volume discounts on inputs and facilitated access to finance, either directly through the cooperative or due to its affiliation with a financial institution. There are approximately 15,000 farming cooperatives in Mexico with assets of more than US$8.3 billion. (Godoy, 2011) Alpura (the National Association of Producers of Pure Milk), a dairy cooperative with more than 4,350 member farmers, boasts its own credit union subsidiary. Coffee, rice, flowers, and other sectors also boast strong cooperatives with the capacity to provide financing to member smallholder producers. In addition, relatively new cooperatives in the organic and fair trade markets are realizing significant growth. Del Cabo, a cooperative of 1,300 growers that sells organic produce to U.S. supermarket chains, including Safeway, Trader Joe's, and Whole Foods, has seen steady growth since its founding in the mid-1980s. Del Cabo also provides production financing to its members.

THERE ARE APPROXIMATELY 15,000 FARMING COOPERATIVES IN MEXICO WITH ASSETS OF MORE THAN US$8.3 BILLION.

Impact investors. While larger production cooperatives may have the capital and liquidity to provide producers with access to finance, smaller cooperatives in Mexico are also receiving financing from lead firms through social and impact investors. Financed by lead firms like Starbucks and Keurig Green Mountain, impact investors like Root Capital and Verde Ventures are actively financing Mexican coffee cooperatives. Root Capital, a nonprofit social investment fund, lends capital, delivers financial training, and strengthens market linkages for small and medium rural businesses. Root Capital typically provides loans ranging from US$50,000 to US$2 million to production cooperatives, especially those not currently reached by commercial lenders. Root Capital provides short-term trade credit and pre-harvest loans with terms of up to one year and oriented around a harvest or production cycle, which are used by cooperatives to cover costs of purchasing raw product from farmers. Root Capital also provides long-term fixed-asset loans with terms of up to five years for investment in equipment and infrastructure. Currently, Root Capital has a loan portfolio of US$900,000 with one coffee cooperative in Chiapas. Verde Ventures, a fund created by Starbucks, KfW, and Conservation International, provides similar financing, matched with technical assistance, to cooperatives in Mexico's coffee sector. Verde Ventures currently has rotating lines of credit with two coffee cooperatives in Mexico. Both Verde Ventures and Root Capital couple financing with technical assistance to promote more socially and environmentally sustainable production practices to ensure cooperatives can meet higher standards of production required by Starbucks, Green Mountain, and others. Impact investors in Mexico are generally focused on lending to the coffee sector, and the amount of credit from these types of funds to cooperatives is less than 1 percent of total lending to the agricultural sector.

LEAD FIRMS LIKE STARBUCKS AND KEURIG GREEN MOUNTAIN ARE ACTIVELY TEAMING WITH IMPACT INVESTORS IN LATIN AMERICA TO FINANCE COFFEE COOPERATIVES TO ENSURE STEADY SUPPLY OF QUALITY BEANS.

B2.

State-owned Banks and Government Support for AVCF

Recognizing the importance of the agricultural sector, and learning from the failure of Banrural, Mexico has successfully created a complex of institutions and structures to support the agricultural sector that includes sustainable guarantees, second-tier lending institutions, and direct lending programs to support increased access to credit for small and medium agricultural producers and agribusinesses.

Banks and other financial institutions can also take advantage of a government program that provides subsidized premiums to buy options to cover price volatility in some agriculture commodities, notably maize. This program reinforces value chains; farmers who fail to honor procurement agreements cannot avail themselves of these price stabilization measures in the subsequent year.

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B2a. FIRA's Small Producer Loan Guarantee Programs

Roberto Saldaña Rosas, agribusiness coordinator for Banamex, explains that FIRA's National Guarantee Fund for the Agriculture, Forestry, Fishing, and Rural Sectors (FONAGA, as it is known by its Spanish acronym) has been an instrumental tool for incentivizing commercial banks, *sofoles*, *sofomes*, and credit unions to finance agriculture. The guarantee provides coverage of up to 20 percent for loans up to US$800,000. Banks surveyed by the Economic Commission for Latin America and the Caribbean ranked FIRA's guarantee program 5 out of 5 (on a scale of 1 to 5, with 5 being the highest score) for usefulness and 4 out of 5 in terms of ease of securement (Fenton Ontañon & Padilla Pérez, 2012). Since April of 2008, FONAGA has guaranteed more than US$122 billion in loans to nearly 4 million producers.

Under FONAGA, borrowers are required to provide liquid assets of 10 percent to secure the loan. Real estate, movable property, bonds, and other items are acceptable collateral, but only between 50 and 80 percent of their value (depending on the type of collateral) may be counted toward the required liquid assets. There is no cost to borrowers or to lenders to use the guarantee, which provides coverage of 20 percent of fixed asset loans and 14 percent of working capital loans. For a nominal fee, lenders can also opt to use FIRA's Special Guarantee Fund for Agricultural Credit (FEGA, as it is known by its Spanish acronym) to secure between 50 and 80 percent of the remainder of the loan. In this way, the entire loan may be covered by FIRA guarantees and the borrower's liquid assets, essentially posing no risk to the lender.

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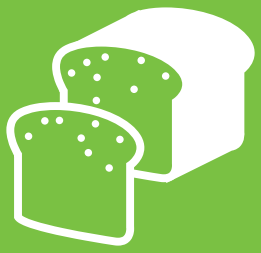
B2b. Nacional Financiera

Development bank Nacional Financiera's *Cadenas Productivas* program is a reverse factoring program that allows small suppliers to use their receivables — or balance due — from big buyers to secure working capital financing. Big buyers are large, creditworthy firms that pose a low credit risk to NAFIN (see box below). Small suppliers receiving credit through the program have typically been unable to access credit from the formal banking sector due to lack of collateral or credit history. *Cadenas Productivas* transfers the credit risk of these small suppliers to their big, low-risk customers. Banks require no collateral and charge only interest (no fees) for factoring services through

Reverse Factoring Secures Grupo Bimbo's Supply of Goat's Milk in Mexico

Multinational food conglomerate Grupo Bimbo teamed with NAFIN's Cadenas Productivas program in 2011 to establish a special mechanism to finance small suppliers of goat's milk for its Coronado brand of caramel products (Grupo Bimbo, 2011). Bimbo provides NAFIN with lists of its suppliers, who are then invited to register for the factoring service for their respective large buyer. Working with only large, established buyers reduces both the cost of assessing accounts receivable risk and the risk of non-payment itself. Once the producer delivers milk to Bimbo and supplies an invoice, Bimbo posts a negotiable document online. The supplier accesses Bimbo's Web page on the NAFIN Web site and locates his or her receivable, along with a list of lenders with a relationship to the buyer and supplier who are willing to factor the receivable, with their corresponding interest rate quotes. Once the supplier clicks on the preferred lender, the amount to be factored — generally 100 percent of the value of the receivable — is transferred electronically to the supplier's bank account. When the invoice comes due, the buyer pays the lender/factor directly (Averch, Hamilton, & Stuckmeyer, 2009). This arrangement is helping Bimbo's producers improve cash flow, strengthen relationships with financial institutions, and build credit histories. By the end of the program's second year, NAFIN had facilitated nearly US$280,000 in financing to Bimbo suppliers in the northern and Baja regions of Mexico (Grupo Bimbo, 2011).



NAFIN. NAFIN can also finance small suppliers for up to 50 percent of confirmed contract orders from big buyers, enabling small suppliers' access to working capital to fulfill larger orders.

To reduce costs and improve the speed and security of transactions, NAFIN established an electronic platform for conducting factoring services online.[4] The platform facilitates the participation of commercial banks and introduces an element of competition for suppliers' receivables, as suppliers are able to select from numerous banks and interest rates posted via the platform. NAFIN covers all costs associated with the electronic platform, as well as legal expenses including document preparation, signing, and transfers, out of fees paid by participating banks (Averch, Hamilton, & Stuckmeyer, 2009). Crucial to the development of the platform was government support in setting up a legal and regulatory environment that allowed for electronic sale of receivables. The legal and regulatory support offered in Electronic Signature and Security laws in Mexico to support NAFIN could be viewed as a model for other countries in Latin America (Baldwin, Bryla, & Langenbucher, 2006).

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B2c. Financiera Rural

As the legal successor to Banrural, FinRural was formally chartered as a rural development bank in 2003. FinRural's charter focuses the institution's activities on rural communities that have a population of 50,000 or less, and does not require that loans be made only for agriculture; practically any viable commercial business in a rural area can qualify for a loan from FinRural. Loans for agriculture have consistently represented less than half of FinRural's loan portfolio. Though FinRural is mainly focused on its own credit operations, it also manages a variety of special government funds that support, among other activities, technical assistance to rural enterprises, and farmers and crop insurance schemes.

As a development bank chartered through a large public grant *("patrimonio")*, FinRural's financial strategy is to grow its balance sheet through retained earnings. It does not issue debt or otherwise leverage its capital and therefore must function profitably. While some of FinRural's operating costs are covered by annual government-provided funding for technical assistance and rural development programs, FinRural has been profitable, as evidenced by its constant, relatively high return on assets.

At its initial conception, FinRural was envisioned to lend directly to farmers and rural enterprises, while FIRA was to be focused on developing wholesale activities with financial institutions and MFIs. FinRural currently provides both retail and wholesale financing, and is looking to grow as a wholesale credit provider to cooperatives, credit unions, *sofoles*, and *sofomes*. FinRural's wholesale lending operations target approximately 400 small-scale financial institutions and producer organizations. Underwriting of loans is based upon extensive examination of these businesses, and over the years, FinRural has developed significant expertise in analyzing these specialized entities.

In addition to loans, FinRural often provides technical assistance to wholesale customers, including in specialized areas like parametric lending to farmers. FinRural prides itself on its technical expertise in agriculture, and has developed its own unique set of lending packages based on input and seasonal cash flow needs for different crops. FinRural encourages the use of its lending packages among wholesale borrowers, to both promote good agricultural practices, and to ensure that credit extended to farmers does not exceed

4. Small producers can also call a customer service line if they do not have access to the internet.

their technical production needs or debt capacity. FinRural tracks farmer productivity and rewards wholesale customers who can demonstrate that they are increasing productivity of farmer customers (Fissha & Nair, 2013).

FinRural's retail customers are served through a combination of lending packages and credit scoring. The smallest borrowers are generally screened and approved based upon a credit score. Natural risks are mitigated through a combination of some crop price guarantees and crop insurance, both provided by the government.

The average loan size at the end of fiscal year 2012 was equivalent to about US$850,000. This figure might seem high at first glance, but actually reflects the fact that about half of FinRural's lending is done on a wholesale basis to producer groups, credit unions, *sofoles*, and *sofomes*, which then on-lend these funds to members and customers. FinRural managers indicated, however, that loans to individual agribusinesses and farmers were also larger than might be expected from a development bank.

THE AVERAGE LOAN SIZE AT THE END OF FISCAL YEAR 2012 WAS EQUIVALENT TO ABOUT **US$850,000.**

B3.

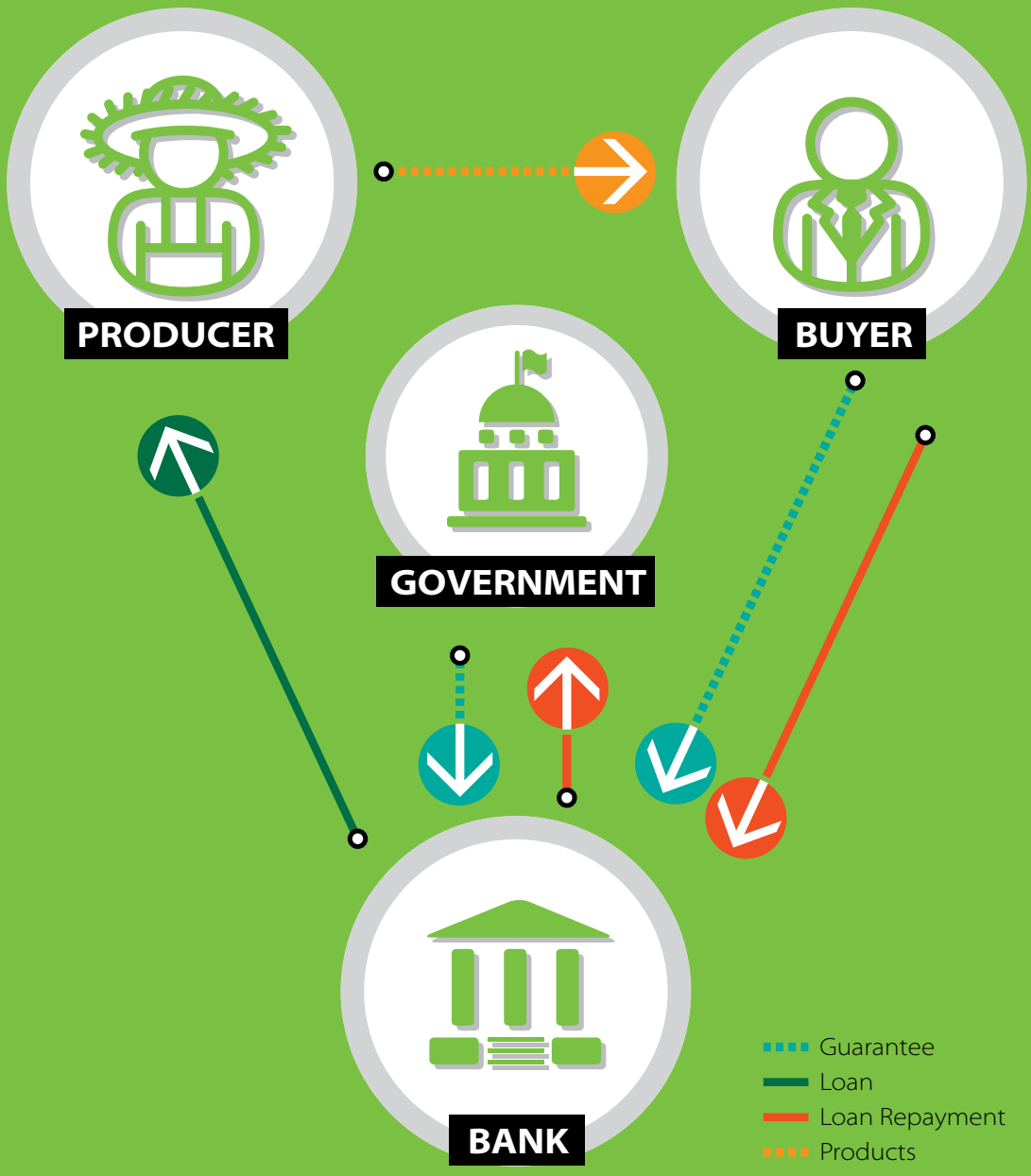
Commercial Banks using AVCF to Reach Small and Medium Producers

Roberto Saldaña of Banamex estimates that there are 21 banks with agricultural lending portfolios. Most major commercial banks focus on loans to large producers and agribusinesses. Four commercial financial institutions, including Bankaool, Grupo Finterra, Banco Ve por Más, and Banamex stand out as leaders in using agricultural value chain finance to reach small and medium producers and agribusinesses. Below we present some of the innovative models being used by these institutions to serve what they see as a growing and potentially highly profitable market.

B3a. Bankaool

Bankaool was originally established as Agrofinanzas S.A. in 2005 by Mexico's Esteve family. The Esteve family also controls ECOM, an international commodities company active in the trading of coffee and cocoa, among other agricultural products. Agrofinanzas was set up initially as a *sofol* to finance ECOM's Mexican operations. The International Finance Corporation (IFC) became a shareholder in 2010 via a US$40 million investment. The IDB's private sector arm, the Inter-American Investment Corporation (IIC), placed US$3.8 million in debt financing with Agrofinanzas in early 2013. Agrofinanzas completed the process of conversion to a commercial bank in March of 2014, changing its legal name to Bankaool. This conversion is allowing the institution to diversify its funding sources to include commercial and retail deposits.

FIGURE 7 BANKAOOL AVCF MODEL



Source: Author.

Bankaool's business model is successfully "disintermediating" the many formal and informal agricultural financing operations that sprung up in the wake of the retraction of Banrural. Carlos Budar of Bankaool explains that many agro-processors entered into the financing business to ensure supply sources of agricultural commodities, providing small amounts of credit to trusted farmers who, in turn, generally sold their produce to the processor under flexible contractual arrangements (i.e., allowing some price fluctuation based on market conditions). While providing finance to suppliers helped processors secure commodities, it also tied up capital that could have been reinvested into the business. The bank now finds many of these sofol operators eager to turn over the financing of their small suppliers to Bankaool.

Bankaool establishes partnerships with medium to large lead firms—generally processors—to build financing arrangements for their farmer suppliers. The lead firms provide the bank with a list of trusted small farmers with contracts to supply commodities. These are farmers with which the lead firm already has a financing history, thereby overcoming many of the suppliers' lack of credit history. Bankaool signs loan agreements with each small producer, embedding mandatory crop insurance into the cost of the loan. The average size loan is US$3,400 and is based on a technical package of crop inputs (e.g., seeds, fertilizer, etc.) that is standard for specific crops in specific regions. The annual interest rate of Bankaool's loans to small producers via these arrangements is approximately 13 percent, much lower than that offered by microlenders in Mexico (Budar, 2013).

Rather than establishing and staffing a costly branch to administer hundreds of small loans, Bankaool uses the lead firm as the point of sale

BANKAOOL ESTABLISHES PARTNERSHIPS WITH MEDIUM TO LARGE LEAD FIRMS - GENERALLY PROCESSORS - TO BUILD FINANCING ARRANGEMENTS WITH THEIR FARMER SUPPLIERS.

for credit distribution and collection. The lead firm disburses Bankaool funds to its suppliers, deducts the loan and interest from the total price at the time of purchase of goods, and remits the loan repayments directly to the bank. The lead firm shares the risk of lending to its small producer suppliers in the form of a first-loss guarantee of between 10 and 20 percent of the value of the combined credit exposure. The lead firms also receive a commission of 20 percent on the net financial margin of reserves for administering part of Bankaool's loan portfolio (Budar, 2013).

This business model creates a profitable win-win-win equation for Bankaool, lead firms, and suppliers. This arrangement reduces information asymmetries in that it leverages the supplier's good repayment history with the processor. As the small suppliers have a direct relationship with Bankaool, the bank is also helping them establish solid credit scores. Roughly 80 percent of the bank's borrowers did not previously have a credit history. Once suppliers establish a good repayment record with Bankaool through the lead firm arrangement, the bank offers financing for larger capital investments, such as improved irrigation systems (Budar, 2013).

The model is beneficial for the lead firm, as it frees up cash and other assets that were once tied up in financing small suppliers. Lead firms are free to reinvest funds normally used to finance suppliers into their businesses. Customer acquisition costs are kept low for the bank, and operating costs and credit risks are minimized by having the lead firm continue to administer the flow of payments, a role it was already playing with its own funds. The agro-processor also continues to provide technical assistance as needed to the farmers to help them boost yields and produce the crop varieties that the processor requires. This, coupled with financing crop insurance as part of the loan and utilizing FIRA guarantees, significantly reduces lending risks for Bankaool.

B3b. Banco Ve por Más

Banco Ve por Más is a small commercial bank controlled by the del Valle family of Mexico. The del Valles purchased the former local unit of Dresdner Bank in 2003 and merged its operations with an existing leasing company to create Grupo Ve por Más, of which Banco Ve por Más is the lead operating unit.

Ve Por Más is focused on a few distinct market segments, namely small and medium enterprises and the agricultural sector, including agricultural *sofoles*. The institution grew at a dramatic pace in recent years (48 percent from 2011 to 2012), and is now consolidating its market position and fine-tuning its strategy. The bank relies on funding from FIRA for roughly one-third of its agricultural lending (Esquer, 2013).

Ve por Más has adopted a strategy similar to that of Bankaool in that the bank looks for agro-processors, many of whom operate formally licensed *sofoles* or informal financing operations, to support their own supplier networks. Jorge Esquer Gaytan, Ve por Más' Executive Director for Agribusiness Development, indicated that there are thousands of small to medium-scale agribusinesses that maintain networks of primary producers. These regionally dispersed SMEs are increasingly keen to partner with a bank to manage their financial relationships with suppliers. Banco Ve por Más judges itself to be in direct competition with Bankaool for this market. Like Bankaool, Ve por Más looks to its larger clients to aggregate farmers and share risks. The bank carefully selects staff for their expertise in agriculture, and examines the risk profile for each crop or commodity.

Ve por Más is focusing on building a branch network in regional centers as its primary channel for reaching agricultural clients, as well as to support the capture of deposits. The bank is not overly concerned with the competition, given the size of the market and generally poor coverage by existing banks. It feels that there

is room for several players in the agricultural finance space (Esquer, 2013).

B3c. Grupo FinTerra

Grupo FinTerra is run by a team of experienced agricultural lenders who saw unique opportunities in agriculture and agribusiness, and believed that there was space in the market for a niche player focused on agriculture. Grupo FinTerra is like Bankaool in that it began as a *sofol* in 2003, and later evolved into a *sofom*. Rabobank holds a 37.5 percent stake in Grupo FinTerra. The IIC extended a US$4 million loan to FinTerra in December of 2010. FinTerra also receives funding from the IFC.

FinTerra's credit operations are focused on a few specific client segments, including small, medium, and larger growers, as well as agribusinesses of all sizes. Medium to large growers represent 60 percent of its total loan portfolio. Typically, these larger farmers have 100 hectares in cereals, 3 to 5 hectares in fruit or greenhouse operations, or 300 dairy or beef cattle. FinTerra mitigates weather risk by requiring larger farmer customers to have irrigation facilities. In addition, all farmer customers are required to have crop insurance.

FinTerra is actively promoting agricultural value chain lending for smallholder clients and is currently focusing its efforts on the sugar industry. FinTerra employs a variant of the Bankaool lead firm-supplier lending model, with processors helping to channel loan repayments to FinTerra and managing the relationship with the smallholder borrowers. The institution establishes credit criteria that smallholder clients must meet, but the processor facilitates the introduction of the smallholders to FinTerra, and in many cases provides a partial loan guarantee to the smallholder. Like FinRural, FinTerra has developed its own set of lending packages based on the technical needs of specific crops.

Agricultural value chain loans as described above currently account for about 15 percent of FinTerra's lending. FinTerra is projected to reach 99,000 smallholder sugar cane farmers by the end of 2013 through its value chain financing operations with processors. While the institution's management reports that they have been more successful than Bankaool at targeting medium-sized farmers for direct loans, outside of the sugar industry the institution has not had the same success as Bankaool working with smaller farmers in triangular lending schemes (Fissha & Nair, 2013).

B3d. Banamex

Banamex agribusiness coordinator Roberto Saldaña Rosas estimates that Banamex currently has 15 percent of Mexico's US$10 billion agribusiness finance market. Similar to the models used by Bankaool and FinTerra, Banamex works with agro-processors to finance their small producer suppliers. Banamex is primarily focused on financing small producers of grains through mills and elevators. As opposed to signing loan agreements with each individual farmer, Banamex lends directly only to the mill or elevator, which then advances cash or inputs to its suppliers. Banamex generally charges 8 to 10 percent interest on its loan to the mill or elevator, which then charges between 10 and 15 percent interest to its suppliers. In this way, the mill or elevator's finance team assumes responsibility for the bulk of the costs of administration and monitoring and supervision of the loans.

The mill or elevator is required to have 20 percent of the value of the loan in liquid (cash) collateral. Suppliers under the credit agreement with the mill/elevator are also required to have 10 percent in liquid (cash) collateral. Banamex also uses the forward contracts (see box) between the mill or elevator and producers as collateral. In addition, the bank utilizes FONAGA

and FEGA guarantees from FIRA. Saldaña Rosas explains that in addition to reducing the risk of default, these guarantees help reduce the amount Banamex has to keep in its reserves. The cost of the FEGA guarantee is usually 5 percent of the loan amount. Saldana Rosas explains that while many banks use the guarantee to cover up to 90 percent of loans to farmers, Banamex accepts more risk and reduces its costs by only purchasing FEGA guarantees for between 40 and 50 percent of the amount of the loan.

At the time of harvest, the small producers deliver the grain to the mill or elevator, which then discounts the cost of the credit from the sale of the grain. The mill or elevator repays Banamex, which then repays FIRA the cost of the guarantee.

Most of these arrangements also involve financing for the mill or elevator for the cost of cash or inputs for the farmers, which are then advanced on credit through the lending arrangement. In addition, Banamex uses warehouse receipts to free up cash flow to the mill or elevator post-harvest. The mill or elevator places a quantity of grain in a secure General Deposit Warehouse (GDW). The GDW issues a deposit certificate and a pledge bond to the mill or elevator. Banamex takes the pledge bond as collateral for the loan. When the mill or elevator sells the commodities stored in the GDW, the facility issues a certificate of title to the buyer. The buyer pays Banamex, which provides the pledge bond to the buyer in return. With the title and pledge bond, the GDW can release the grain purchased to the buyer.

Banamex has a network of 18 agribusiness coordinators that facilitate these types of value chain financing arrangements, ranging in size from US$1 million to US$30 million. While it has solid models for grains, Saldaña Rosas admits it needs to develop new models for other commodities, such as cattle, dairy, vegetables, fruits, and fisheries. Banamex claims to have 0 percent past due credit with these financing models over the past eight years.

↘

Using Options to Reduce Price Uncertainties

Banamex takes advantage of forward contracts signed between small producers and mills or elevators to reduce risks associated with price uncertainties. In Mexico's grain markets, mills and elevators sign options with producers, giving them the right to buy a specific quantity of grain at a future point in time for a predetermined price (the strike price). This protects the mill or elevator from rising grain prices. In return for this option, the mill or elevator pays a fee, or premium, up front. Mexico's Service Agency for the Commercialization and Development of Agricultural Markets (ASERCA, as it is known by its Spanish acronym) subsidizes a large portion (between 50 and 85 percent) of the costs of the option premium.

Key Challenges, Opportunities, and Innovations in Mexico's Agricultural Finance Sector

While 20 years ago, Mexican financial institutions avoided lending to the agricultural sector, today Mexico's financial institutions are implementing a range of creative financing arrangements to share risks with lead firms dependent on steady supply of agricultural goods. Many of these arrangements leverage the creditworthiness of large lead firms to reduce the need for collateral from small producers. While most banks still rely heavily on government guarantee programs to mitigate risk during the loan decision phase, low non-performing loan rates under these schemes signal that banks may be willing to lend under these models, even in the absence of such large guarantees. Banamex's experience also demonstrates that banks may begin relying less on these guarantees in order to maintain more competitive rates as more financial institutions enter what appears to be an attractive market. Several challenges remain to expanding access to finance for small and medium producers in Mexico, as discussed below.

Replicating successful business models. Several new entrants into the agricultural credit market have tested new business models and strategies, experienced success, and are expanding outreach to primary producers and agribusiness. Overall, there appears to be wholehearted enthusiasm on the part of at least four commercial banks — Banamex, Grupo Finterra, Banco Ve por Más, and Bankaool — to dramatically expand services to commercial agricultural producers on a nationwide scale. In addition, FinRural provides a significant amount of direct agricultural lending to individual farmers as well as to farmer groups.

Clearly, the model being used by these banks is successful in reducing operating costs of expanding to serve new, small suppliers. But these models are only being tested in tight, high-value chains like sugar, wheat, livestock, and aquaculture. It remains to be seen whether these models can work for commercial lenders in new value chains with smaller, less capital-rich lead firms.

Reaching more farmers in rural areas. The challenge also comes in reaching small and medium producers in more rural and remote areas. Bank penetration in Mexico is one of the lowest in the region. According to the CNBV, 92 percent of rural municipalities had no financial sector presence. The CNBV is implementing new regulations to expand the use of mobile and agent banking with some success. Fifteen of 42 banks in Mexico now have agent banks. Bankaool and others are looking to other retail correspondents and mobile banking to reach its largely rural

customer base. It is targeting small, and in many cases, regional networks of retailers that can serve as cash in/cash out agents dedicated to the institution.

The lead firm-supplier finance model being used by the four banks described above is also helping banks expand into rural areas to reach new small and medium producer clients with minimal costs. In many ways, Bankaool, Banamex, Banco Ve por Más, and Finterra are using lead firm partners as agents to originate, distribute, administer, and collect loans. This model may even be more effective, as unlike retail correspondents and cell phones, lead firm partners have in depth knowledge of small suppliers and the ability to monitor their production and repayment capacity.

Developing longer-term products to finance small and medium producer modernization. In the 2012 Agricultural Survey, more than 85 percent of producers with access to credit said that their loans had terms of one year or less. Nearly all of the examples of agricultural value chain finance described above involve short-term working capital loans. While these products are critical for ensuring production in the short term, they may not be serving a large segment of small and medium producers that need access to longer-term financing for investments to improve quality or increase production. Bankaool is beginning to address this need by leveraging the good repayment histories of small suppliers to provide them with long-term finance to improve irrigation systems or make other capital improvements.

Strengthening creditor protection. Historically, limited consequences for non-repayment and a challenging legal environment for collections have made banks in Mexico hesitant to lend to SMEs in all sectors, including small and medium agricultural producers and agribusinesses. Currently, government agencies are slow to execute guarantees in the case of default on a loan. Banks must engage in lengthy, costly, and complex legal proceedings to recover pledged assets in the case of default, and they encounter significant legal hurdles to carrying out foreclosures. The average amount recovered from a small or medium enterprise in default in Mexico is just 49 percent of the value of the loan. Only 16 percent of banks surveyed said that the laws and regulations applicable to taking legal action against a nonpaying small or medium enterprise were effective. Debtors can often leave the area or sell assets pledged as collateral in anticipation of legal proceedings, and the bank must enter into criminal proceedings in such cases (Fenton Ontañon & Padilla Pérez, 2012).

New financial reforms set to go into effect in 2014 are designed to strengthen creditor protection and address many of these challenges. For example, reforms call for establishing commercial courts dedicated to facilitating recovery of collateral in the case of bankruptcy of the borrower. Reforms also enable businesses with anticipated liquidity problems to pre-negotiate a reorganization and exit strategy with their creditors . Reforms also allow creditors to ask the courts to order that the debtor facing trial not leave the area as well as enable the provisional seizure of pledged collateral.

Expand access to insurance. Several of the banks interviewed required that borrowers have crop insurance. Banamex agribusiness coordinator Roberto Saldana Rosas explains, however, that few insurance companies have entered into the agricultural insurance market, and there are few options for small farmers for mitigating risk. Several farmers' associations have banded together to create farmers' insurance funds, which are reinsured by a government reinsurance company, Agroasemex. There are more than 240 self-insurance funds operating in Mexico, which mainly provide agricultural insurance services to members. They cover roughly 50 percent of the total insured agricultural area in Mexico (Ibarra). While these self-insurance funds provide a successful model, just 3.1 percent of farmers in the 2012 Agricultural Survey responded that they had some type of crop insurance, signaling that more could be done to expand affordable access to these f unds and/or access to private crop insurance (INEGI, 2012).

FIGURE 8 MEXICO: OVERVIEW OF AGRICULTURAL VALUE CHAIN FINANCE

	TYPICAL CLIENT	AVCF PRODUCTS OFFERED	KEY FACTORS IN LOAN EVALUATION	AVERAGE LOAN SIZE (USD)	AVERAGE LOAN TERM	ANNUAL INTEREST RATE (%)	AGRICULTURE PORTFOLIO AT RISK (>30 DAYS)	PRIMARY SECTORS WHERE ACTIVE
NON-FINANCIAL INSTITUTIONS								
↘ Production Cooperatives	Smallholder members	Input/trade finance	• Character • Capacity	N/A	N/A	N/A	N/A	Dairy; fruits & vegetables; coffee
↘ Social and Impact Investors	Small to medium producer cooperatives	Short-term working capital	• Social and environmental scorecard • Capital	$342,000	> 1 year	9.5%	1.0%	Coffee
↘ Large farmers	Small and medium producers	Revolving credit line for small and medium producers	• Credit history • Savings of 15% of amount of loan	$40,223	2 years	20.73%	5.07%	Livestock; various crops
↘ Large farmers	Smallholders	Working capital	• Character • Capacity	$500	> 1 year	35.01%	7.38%	Various crops
STATE-OWNED FINANCIAL INSTITUTIONS								
↘ Production Cooperatives	Small financial institutions and producer organizations	Wholesale loans to cooperatives Retail loans to small and medium producers	• Credit history (retail lending)	$850,000 wholesale; $10,900 retail	> 1 year	14%	N/A	Livestock; grains; beans
↘ Social and Impact Investors	Small producer	Reverse factoring	• Creditworthy buyer	N/A	45 days	10.4%	N/A	Dairy; various crops

	TYPICAL CLIENT	AVCF PRODUCTS OFFERED	KEY FACTORS IN LOAN EVALUATION	AVERAGE LOAN SIZE (USD)	AVERAGE LOAN TERM	ANNUAL INTEREST RATE (%)	AGRICULTURE PORTFOLIO AT RISK (>30 DAYS)	PRIMARY SECTORS WHERE ACTIVE
COMMERCIAL BANKS								
↘ Production Cooperatives	Grain mill/ elevator	Working capital or inputs for production Warehouse receipts	• FIRA guarantees (50%) • Options between small farmers and processors • Liquid collateral (20%)	$1 million	< 1 year	9% for processor (13% for producer)	0% (for agricultural lending)	Grains
↘ Social and Impact Investors	Small and medium farmers	Working capital or inputs for production Finance for capital investments	• FIRA guarantees (50%) • Processor guarantee (10-20%)	$3,400	51% less than one year; 42% long-term fixed asset	13%	9.51%	Grains; sugar; aquaculture

Source: Root Capital, 2014; Budar, 2013; CPM Website: http://www.cpm.coop/index.php/en-que-te-podemos-servir/necesito-credito/linea-preferencial; CNBV: http://portafoliodeinformacion.cnbv.gob.mx/eacp1/Paginas/sc_infosituacion.aspx; MiX Market: http://www.mixmarket.org/mfi/caja-popular-mexicana/report; CNBV: http://portafoliodeinformacion.cnbv.gob.mx/eacp1/Paginas/boletines.aspx, Dec. 2013; CNBV: http://portafoliodeinformacion.cnbv.gob.mx/bm1/Paginas/boletines.aspx, Feb. 2014.

A

Structure of the Industry and Historical Trends in Peru

The agricultural sector has contributed to Peru's steady economic growth over the last decade, and has seen average annual growth of 4.2 percent from 2001 and 2010. Agriculture contributes 9.3 percent of Peru's GDP and employs 22.6 percent of all economically active people (CEPLAN, 2010). Its importance for livelihoods is even more pronounced in rural areas, where the World Bank estimates the share of the rural population involved in agriculture was around 50 percent in 2008. It also estimates that 7 percent of all exports in 2008 were agricultural goods (World Bank, 2010). Coffee, grapes, asparagus, avocados, and chilies destined for the US and Europe have contributed the largest shares of export revenue in recent years. (FAO, 2011) Peru's Agricultural Producers Guild (AGAP) reported that non-traditional agricultural exports amounted to US$940 million in September 2013 despite the country's slowdown. Growth in exports of fruits and vegetables in 2013 is estimated to be between 18 and 20 percent higher than the previous year.

As a result of Peru's agrarian reform (1969–1979), small family farms control the majority of agricultural land. Eighty-four percent of irrigated land is controlled by farmers who own fewer than 10 hectares. The mean farm size is just under three hectares. Land holdings in Peru are also fragmented because of the country's topography.

While all land is individually operated, not all land has a formally registered property title. Farms of less than 10 hectares account for approximately 50 percent of Peru's land tenures (MINAG, 2008). Peasant communities *(comunidades campesinas)* control a significant portion of agricultural land. Similar to Mexico's *ejido* system, the community owns the land and grants rights to farm the land to individual community members. While use rights over community land can be bequeathed, land cannot be sold without community authorization, nor can it be registered as private property. As in Mexico, parcels on these communal lands cannot be used as collateral to secure financing.

Additionally, a large fraction of parcels was previously part of the collectively operated agrarian reform cooperatives. While almost all cooperatives completed a privatization process by the 1980s and allocated land to individual cooperative members, this process was infrequently accompanied by a formal survey of individual parcels. As a result, owners of these parcels were unable to acquire a registered property title (Guirkinger & Boucher, 2008). While Peru implemented a large-scale titling program in peasant communities and ex-cooperative

areas, the percentage of these lands under title is still relatively small.

Until 1992, the Agrarian Development Bank (Banco Agrario) held a monopoly over formal agricultural credit in Peru. The government of Alberto Fujimori (1990–2000) implemented a financial liberalization program that shut down the Agrarian Development Bank in 1992, and eliminated interest rate controls in order to induce commercial banks to increase their presence in rural areas. The agricultural development bank was later relaunched in 2001 as Banco Agropecuario (AgroBanco).

The government also promoted the establishment of rural banks *(cajas rurales)* and the strengthening of municipal banks *(cajas municipales)*, which have become important providers of finance to small farmers. Alongside this set of formal institutions, a vibrant informal credit sector coexists.

AGRICULTURE CONTRIBUTES 9.3 PERCENT OF PERU'S GDP AND EMPLOYS 22.6 PERCENT OF ALL ECONOMICALLY ACTIVE PEOPLE

PERU

B

Supply of Agricultural Value Chain Finance in Peru

Thanks to a robust enabling environment for finance, Peru's micro, small, and medium producers can be served by a wide range of regulated financial institutions. (See Figure 9 below.) There are also 162 credit unions and financial cooperatives supervised by the National Federation of Savings and Credit Cooperatives (FENACREP as it is known by its Spanish acronym). Several unregulated microfinance NGOs also provide credit to agricultural producers.

According to the Superintendent of Banks, Insurance, and AFP (SBS, as it is known by its Spanish acronym), lending to the agricultural sector made up only about 5 percent of the total volume of loans to enterprises. In the 2012 Agricultural Census, roughly 1 in 10 producers surveyed said they had applied for financing, and of those who had applied, 90 percent said they had received a loan. This was true across the board for micro, small, medium, and large producers surveyed. Of those small and medium producers who did not receive financing, 87 percent said they were turned down due to lack of collateral or lack of title to land.

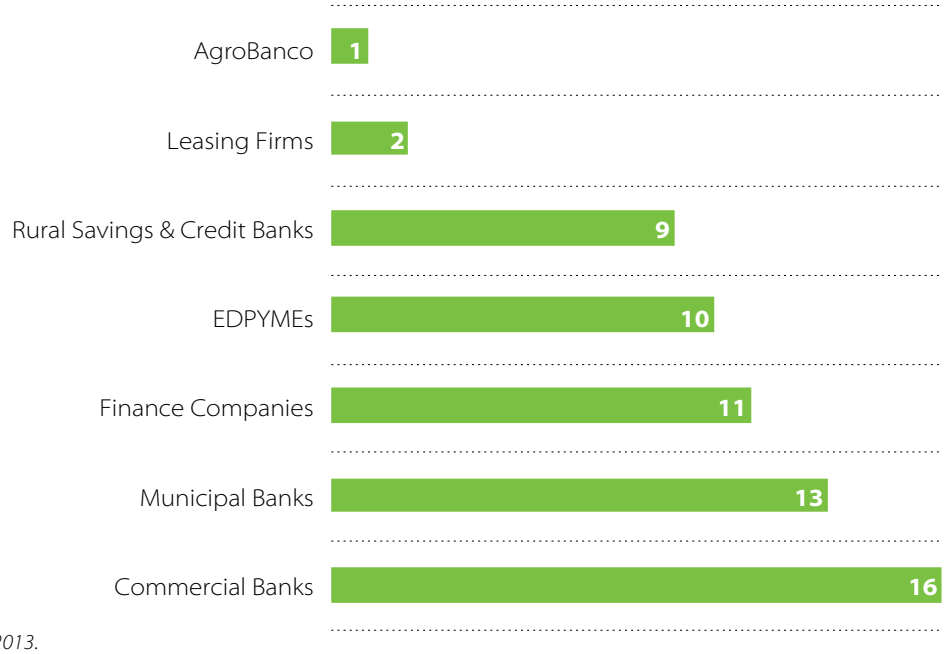
Nearly 30 percent of small and medium producers (those with between 2 and 200 hectares) who applied for and obtained a loan said they received financing from a municipal bank. Commercial banks financed 9 percent of small and medium producers surveyed, while state-owned bank AgroBanco financed 13 percent. Rural savings and credit banks, financial cooperatives, and EDPYMEs also played important roles, all together accounting for nearly 40 percent of loans to small and medium producers surveyed.[5] (See Figure 10.)

Ninety percent of agricultural producers are self-selecting out of the loan application process by not applying. Roughly a third of micro, small, and medium-sized producers responded that they did not apply for a loan because they simply did not need credit. An almost equal percentage of respondents, however, cited excessively high interest rates as their reason for not applying. One-quarter of micro, small, and medium producers surveyed believed that they did not have sufficient collateral or that they would not be eligible for a loan.

5. An EDPYME is a financing entity dedicated to the development of small and medium enterprises.

FIGURE 9

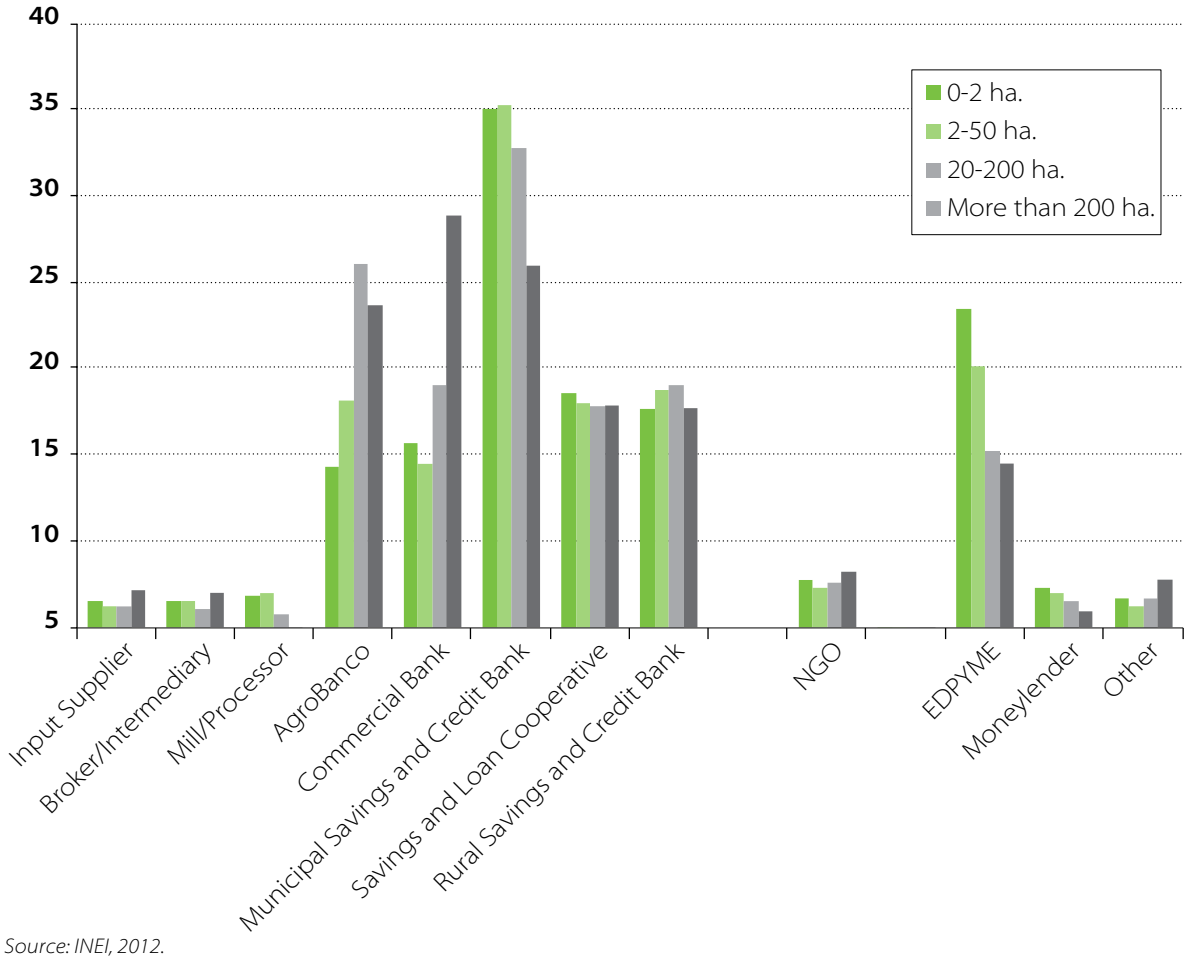
NUMBER OF REGULATED CREDIT PROVIDERS IN PERU, BY TYPE



Source: SBS, 2013.

FIGURE 10

SOURCES OF FINANCE FOR AGRICULTURAL PRODUCERS IN PERU (BY SIZE OF LANDHOLDINGS)



Source: INEI, 2012.

B1.

Lead Firms, Production Cooperatives, and Impact Investors as Lenders in the Value Chain

Lead firms. As in Mexico, lead firms in Peru have stepped in to finance small producers in order to secure adequate supply of commodities for processing or export. Lead firms advance inputs like seedlings and fertilizer on credit, and often discount the cost plus interest at the time of purchase. While only 2 percent of small and medium producers reported having received finance from lead firms, our interviews with lead firms and experts in Peru suggest that agro-processors are financing suppliers in a wide variety of value chains, from chilies, to grains, to fruits and

For example, to motivate farmers to grow artichokes, artichoke processors have used their own funds to finance 30 to 100 percent of the farmers' start-up costs. The processors provide farmers with artichoke seedlings, the value of which do not have to be repaid until after the first harvest (four to five months later). Artichoke seeds are hard to grow, and seedlings are more likely to result in harvestable product. By providing the seedlings, processors incentivize farmers to enter artichoke production while also ensuring their production. They do not charge any direct interest or fee on the cost of the seedlings (Campion, 2006).

In the aquaculture sector, Jose Iturrios, former director of USAID's Poverty Alleviation Program in Peru, explains that trout processor Piscifactoría de los Andes (Piscis) initially financed small trout producers in Puno in order to help them set up production in floating cages along Lake Titicaca. Piscis began by advancing trout food and other inputs to the producers. After three years of steady growth in production, however, Piscis was unable to meet the financing needs of all of its producers. Piscis now introduces suppliers to its commercial bank partners, providing credit records for those it has previously financed. Piscis also provides guarantees to trusted producers in order to help them secure finance to increase production (Iturrios, 2013).

Production cooperatives. Producer cooperatives in Peru also play an important role in providing and/or facilitating finance for their members. According to the 2012 Agricultural Census, nearly one-quarter of farmers with between two and 200 hectares in Peru belong to some type of production cooperative (INEI, 2012). Larger cooperatives, such as ACOPAGRO (coffee) and APPBOSA (bananas), provide direct loans of up to 15 months to their members; others provide finance through a financing arm. Cooperative Oro Verde and its sister finance cooperative Nor Andino, and Naranjillo with Credi Naranjillo are two such examples. Smaller cooperatives that lack the sophisticated systems and experience of their larger counterparts and do not finance producers directly often facilitate finance by establishing relationships and even securing preferential treatment and rates for associated producers. Cooperatives may also provide guarantees for member loans.

AS IN MEXICO, LEAD FIRMS IN PERU HAVE STEPPED IN TO FINANCE SMALL PRODUCERS IN ORDER TO SECURE ADEQUATE SUPPLY OF COMMODITIES FOR PROCESSING OR EXPORT.

Employing Credit to Ensure Steady Supply and Maximize Processing Capacity

Major Peruvian rice producer CampoSur provides cash loans to smallholder rice growers, most of whom have an average of five hectares or less. While the smallholders do not have an obligation to sell their rice to CampoSur, they are required to pay the loan back at a rate of 4 percent per month and to use CampoSur's processing plant. Small producers can bring their unshelled rice to CampoSur's plant for processing and sell to another buyer, or sell to CampoSur, which will send its harvesting equipment to their fields to harvest their rice and transport it to the processing plant. Interest and costs of processing and transport are discounted from the sale price should farmers choose to sell to CampoSur. In this way, CampoSur ensures it maximizes the use of its processing equipment, which is not currently at full capacity. It also helps to ensure a steady supply of rice to meet growing domestic demand. CampoSur also uses financing from BBVA Continental and Scotiabank to purchase inputs like fertilizer and seeds in bulk, and then advances them to small farmers on credit at an average interest rate of 1.5 percent per month.

These smallholders typically receive additional loans from finance companies or rural banks during the production cycle to smooth consumption. CampoSur checks their repayment history in the SBS-managed credit bureau prior to signing any loan agreement. The processing plant manager and staff also visit the small farmer at least once to verify production capacity, and follow up with personal and credit references to get a sense of the farmer's character. Loan agreements are relatively informal, but the borrower is required to sign a note outlining the terms of the loan.

CampoSur has had success with this model with small farmers along Peru's southern coast (average default rate is 3 percent), but has had less success along the northern coast, where farmers are poorer. Grupo CampoSur general director, Hans Samalvides, was a former credit manager at Caja Nuestra Gente, and notes, "You have to follow up like a parent. We give small farmers one chance. If they don't pay us back, we don't lend to them a second time." CampoSur hopes to employ similar models for quinoa and blue corn.

Social and impact investors. As in Mexico, impact investors in Peru are financing producer cooperatives, particularly in the coffee and cacao sectors. Root Capital has historically focused on coffee cooperatives in Peru, but it is also making loans in the cacao and fruits and vegetables sectors. Interest rates on Root Capital's loans averaged roughly 10 percent in 2013, and portfolio at risk (greater than 90 days) was less than one-half of 1 percent. Verde Ventures is currently working with six coffee cooperatives in the Pichanaki district and near the Alto Mayo Protected Area. Oikocredit has partnered with the Association of Small Producers of Organic Banana Saman (APPBOSA, as it is known by its Spanish acronym) and recently approved a second credit line of US$150,000 for the cooperative for working capital. ResponsAbility, Incofin, and Triodos, are also actively investing in several *EDPYMEs*, finance companies, and rural banks in Peru to promote expansion of financial services to more rural areas and agricultural clients.

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Cocoa Cooperative Finances Member Production

ACOPAGRO is the largest cocoa cooperative in San Martin, Peru. It has 2,000 members and more than US$3 million in equity. Collectively, the cooperative members sold 4,000 tons of high-quality cocoa in 2012, an increase of 14 percent over 2011. For a US $192 membership fee, cooperative members benefit from life insurance, access to lower cost organic fertilizers, drip irrigation, technical assistance, and access to credit. ACOPAGRO offers short-term financing of inputs for its members at 1.7 to 2 percent per month, depending on how long they have been members. At the end of 2012, ACOPAGRO's credit portfolio was US$770,000, with outstanding loans to nearly half (900) of its members. The maximum loan size is US$2,700 per member. Most loans are for 15 months, payable monthly or upon harvest. ACOPAGRO boasts delinquency rates of only 1 percent of its outstanding portfolio.

Using sales contracts with international buyers, ACOPAGRO has accessed short-term credit from local banks and impact investors at annual rates as low as 9 percent. This is a term loan, usually for about one year, to be used for purchasing and selling beans from farmers. The cooperative has had access to longer-term local bank finance to construct one of its buildings. ACOPAGRO management likes the idea of having access to longer-term loans to be able to invest in improving the productivity of its members. (ACOPAGRO, 2013)

B2. State Agricultural Bank and Government Finance Programs

Originally envisioned as a second-tier lender, AgroBanco now primarily lends directly to producers. Roughly 15 percent of the bank's portfolio is made up of loans to cooperatives or other producer organizations that on-lend to farmers. Agrobanco also offers some warehouse receipt financing to farmers and/or traders, as well as trade finance. AgroBanco provides both working capital and fixed asset loans with terms of 5 to 10 years. AgroBanco utilizes government funding and guarantees available for agri-finance, making it able to lend at rates of between 10 and 14 percent, much lower than those of rural and municipal banks, finance companies, and even some banks competing for the same micro, small, and medium sized clients in the same markets. Some competitors feel AgroBanco's rates are unsustainable and distort the market. Others state that recent loan restructuring and forgiveness programs in 2010, 2011, and again in 2013 with the coffee rust crisis, pose a challenge to the repayment culture.

AgroBanco's management team stresses that it cultivates relationships with agribusinesses with value chain operations, strong agricultural cooperatives, and municipalities willing to originate and/or guarantee loans to farmers. In many cases, partner agribusinesses and cooperatives provide AgroBanco with information on suppliers and members with a strong track record of regular supply. In a few arrangements, the agribusiness discounts loan repayments from payment to small suppliers and remits them to AgroBanco, similar to Bankaool's model in Mexico. AgroBanco's management team members spend roughly one-third of their time each month cultivating relationships with corporate agribusinesses with value chain operations, strong agricultural cooperatives, and municipalities willing to do loan origination and guarantees.

Government guarantees and finance programs. Other government programs include the Guarantee Fund for Loans to Small Business (FOGAPI), AGROIDEAS, and Fondo MiRiego. FOGAPI provides guarantees for loans to micro and small enterprises, regardless of sector. AGROIDEAS is a government program that provides matching grants to producers to: 1. upgrade production technology; 2. improve management; and 3. formally register.

Fondo MiRiego is a government fund created to help producers in Peru's poorest regions finance construction or improvements to canals, reservoirs, and irrigation systems. While some of the finance companies interviewed had used FOGAPI guarantees in the past to secure agricultural loans, a poor experience resulting in significant write-offs has prompted them not to use this guarantee program again. Banks interviewed also did not seem to rely heavily on government guarantees to lend to farmers, but rather continueto rely on fixed asset collateral.

ROUGHLY 15% OF AGROBANCO'S PORTFOLIO IS MADE UP OF LOANS TO COOPERATIVES OR OTHER PRODUCER ORGANIZATIONS THAT ON-LEND TO FARMERS.

B3. Municipal and Rural Savings and Credit Banks

Forty-four percent of producers who applied for and obtained a loan stated that they had received finance from a municipal bank or rural bank (INEI, 2012). The SBS reports that roughly 12 percent of rural banks and nearly 7 percent of municipal banks' portfolios are lent for agriculture, livestock breeding, or forestry activities. (SBS, 2013) Those municipal banks in regions with high agricultural productivity lead lending to the agricultural sector. Like banks, these formal financial institutions can capture savings from the public and are regulated by the SBS. Unlike banks, they are limited to a certain geographic region and tend to be closer to rural and semi-rural communities.

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B3a. CMAC Huancayo

Caja Huancayo is a municipal bank owned by the Municipality of Huancayo. It has its strongest market in the Junin province, where it has more branches than any other financial institution. Caja Huancayo has been involved in financing a wide variety of agricultural activities, including livestock raising, dairy production, and several types of crops, since 1996. Agriculture makes up roughly 5 percent of the institution's loan portfolio. In areas where Huancayo has agriculture lending operations, state-owned Agrobanco is a direct competitor.

Caja Huancayo is typical of many rural and municipal banks, in that most of its loans are made directly to small producers using microfinance individual credit methodologies rather than through value chain finance arrangements involving medium and large lead firms or cooperatives. Caja Huancayo bases the bulk of its loan decisions on the producers' repayment capacity, taking into account all sources of household income and expenses. By evaluating the entire household unit, the Caja analyzes risks of cash sources and uses. As of July 2013, 59 percent of agricultural loans disbursed were valued at US$1,800 or less (Hamilton, Munster, & Grace, 2013).

The bank has one agricultural credit product, regardless of crop, amount, or type of funding needed (i.e., fixed asset or working capital). The maximum term is two years with a grace period of just 30 days, and the average interest rate runs around 33 percent annually. Loan officers factor crop price and productivity into the loan decision process via a semi-automated tool pre-loaded with standard production costs and harvest length information, depending on

the type of crop/production. The evaluation methodology and tool formulates a month-by-month production cost and revenue structure, which permits Caja Huancayo to design a loan to accommodate irregular inflows and outflows, which are characteristic of small producers' cash flows. To minimize risk, loan officers generally use extremely conservative price and productivity estimates. This approach to assessing the farmer's capacity and the credit required usually involves lowering price and productivity estimates to worst-case scenarios, which can result in lower financing than clients may prefer (Hamilton, Munster, & Grace, 2013).

In addition, Caja Huancayo uses property or land as collateral to secure loans whenever possible. The bank is somewhat flexible, however, as to the legal ownership of the collateral, especially for smaller loans. Just 30 percent of agriculture loans have secured guarantees. The bank also factors in clients' credit history via the SBS' central credit bureau. The bank's lending methodology and processes typically allow Caja Huancayo to complete the loan analysis and disbursement process within two to three days. While Caja Huancayo's rates are three times as high as AgroBanco's, its ability to rapidly process and disburse loans and its less stringent requirements for financial statements continue to make it competitive (Hamilton, Munster, & Grace, 2013).

Caja Huancayo's agricultural loan officers are not necessarily agronomists, but generally have education in agronomy or family backgrounds in farming, as well as in-depth understanding of local production cycles, requirements, and risks. Caja Huancayo also has an agronomist in the risk management department who carefully reviews agricultural loans valued at US$35,920 or higher, and a credit analyst, working under the credit manager, who oversees the agriculture lending portfolio. Per Caja Huancayo's policy, loans of more than US$35,920 have to be reviewed by the risk management department. In September 2013, 12.5 percent of the small agricultural loan portfolio was at risk, versus 3.88 percent for the overall portfolio. This is nearly triple historical portfolio at risk rates (which are normally just 1 percent higher than the overall portfolio), due to a high incidence of coffee rust disease among smallholder clients that year (Hamilton, Munster, & Grace, 2013).

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44% OF PRODUCERS WHO APPLIED FOR AND OBTAINED A LOAN STATED THAT THEY HAD RECEIVED FINANCE FROM A MUNICIPAL BANK OR RURAL BANK

B4. Finance Companies and EDPYMEs

Finance companies, or *financieras*, and EDPYMEs provide roughly 9 percent of the total value of loans to the agricultural sector (SBS, 2013). While both types of organizations have similar missions to provide underserved MSMEs with microfinance, finance companies are able to capture deposits, while EDPYMEs are not. Many EDPYMEs, including Confianza, Edyficar, Proempresa, and others have converted to finance companies in the last three years in order to better serve their microfinance clients and increase capital for on-lending.

Of the financial institutions interviewed, *financieras* and EDMYPES appeared to be the most focused on expanding services to agricultural clients in rural areas. Wilber Dongo, president of Proempresa, explained that saturation and high levels of indebtedness in urban areas are prompting his and other similar institutions to move away from consumer finance and to focus on growth in more rural areas.

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B4a. Financiera Confianza

Financiera Confianza echoes this focus on growth in rural areas and the agricultural sector. Agricultural lending already makes up nearly 20 percent of Confianza's portfolio, and it believes it has a competitive edge in this segment. As the product of a recent merger between Financiera Confianza and Caja Rural Nuestra Gente (with support from the BBVA Foundation), Confianza has an extensive presence in rural areas, with 180 agencies throughout Peru. Like ProEmpresa and other finance companies and EDPYMEs, Confianza's core clientele is made up of micro borrowers, including micro and small producers. The institution's average loan size is around $1,800, and it is actively working to move downmarket to reach greater numbers of micro clients with even smaller loans. Expansion in more rural and agricultural areas will play a significant role in achieving these objectives (Naranjo, Ventura, & Fernandez, 2013).

Confianza offers two agricultural loan products: AgroMix, for clients with under US$7,000 of debt, who need loans of US$100 to roughly US$7,000; and AgroPuro, for clients with debts of more than US$7,000, who need between US$100 and US$107,000. These two products are the result of two institutions with different clienteles and different credit evaluation methodologies coming together. Both products offer a loan term of up to 12 months for working capital loans, and two years for fixed asset loans. AgroMix, however, offers either regular monthly payments or irregular payments (i.e., interest only), depending on the producer's projected cash flow. AgroPuro loans, on the other hand, are structured to have lower regular monthly payments with a single balloon payment at the end. The average interest rate for AgroMix loans is 32 percent annually, and for AgroPuro it is 26 percent, below the average interest rate for Confianza's standard microloan. Interest rates do not reflect the overall risk of the crop being financed, but may incorporate reductions for clients who have a history of good repayment with the institution.

Within Confianza's portfolio there are some loans in which producer associations provide a partial guarantee for loans to their members, but this is limited to certain products, such as coffee, milk, and cocoa. In general, agricultural value chain finance is not a part of Confianza's current strategy for the sector. Like Caja Huancayo and many microfinance providers in Peru, Confianza's loan evaluation methodology is based on individual microcredit methodologies that

examine cash flows for the entire household. Smallholder farm and non-farm income are often intermingled, and there may be multiple sources of income at varying times. By reviewing inflows and outflows at the household level, Confianza can evaluate the risks of all sources of income to tailor the disbursement and payment schedule. To further mitigate risk, all loan products have a mandatory credit life insurance policy priced into the cost of the loan. Confianza is also working with insurance company La Positiva to develop two types of insurance: the first would cover the institution's agricultural portfolio from climate variations (i.e., El Niño), and the second would be a more traditional agricultural insurance product for rural clients (Naranjo, Ventura, & Fernandez, 2013).

Confianza manages risk in its agricultural lending portfolio by encouraging clients to diversify crops and income, and by proactively working with clients to address unexpected risks (as in the case of coffee rust disease this year). Similar to Caja Huancayo, Confianza mitigates price and other market risks by projecting significantly lower than current market prices in the cash flow analysis. The institution also puts limits on portfolio exposure in different agricultural segments. The portfolio at risk for Confianza's agricultural portfolio (4.8 percent) is somewhat higher than that of the overall portfolio (3.3 percent) (Hamilton, Munster, & Grace, 2013).

Loan officers at Confianza tend to have a background in agriculture, and in many cases, a degree in agronomy. Loan officers are supervised by a product specialist (one in each of the institution's regions) who is responsible for ensuring the quality of the agricultural product, as well as compliance and on-the-job training (Hamilton, Munster, & Grace, 2013).

Currently, Confianza provides its financial products and services through a network of 118 branches. In addition, Confianza has created six Promotion and Information Offices within three to four hours of existing branches aimed at building the finance company's presence in new areas. These offices cannot provide financial products and services (they must refer clients to a branch), but if they capture enough clients, they can eventually become branches. Like Agrobanco, and many rural and municipal banks and finance companies, Confianza also has an agreement with the Banco de la Nacion (a government bank) to use its branches to process disbursements and payments.

Confianza strives to keep loan processing to within three days of receiving a client's paperwork. This is significantly faster than Agrobanco, which often takes a minimum of one month to process loan applications. While the speed of loan processing makes Confianza more attractive than Agrobanco to many clients, even with Agrobanco's lower interest rates, Confianza General Manager Martin Naranjo Landerer explains that Confianza has made the strategic decision not to enter any new markets where Agrobanco operates, due to what it views as distortions to the market.

Confianza also relies on a Development Credit Authority (DCA) guarantee for production loans disbursed in offices located in drug eradication zones such as San Martin, Huanuco, and Ucayali. USAID's DCA guarantee program is designed to stimulate lending to viable but underserved sectors. Confianza currently has a US$3 million DCA guarantee on loans to farmers in these high-risk areas. It is a partial guarantee that covers up to 50 percent of losses on guaranteed loans. (See box below.)

Technical Assistance and Loan Guarantees Expand Lending to Small Cacao Farmers in Peru

Peru is the second largest producer of certified cocoa in Latin America, and is responsible for roughly 51 percent of exports from the region, but only between 30 and 40 percent of Peru's 22,000 cocoa producers are organized into cooperatives, and financing for small producers continues to be a challenge. (Medrano, 2013)

The USAID-supported Peru Cacao Alliance is working with small farmers, producer associations, and major processors and exporters in Huanuco, Ucayali, and San Martin to organize production of the highly-prized Fino de Aroma cacao. The Alliance helps to organize farmers into existing producer associations, while strengthening those associations to equip farmers with the knowledge, skills, and inputs needed to produce quality cacao.

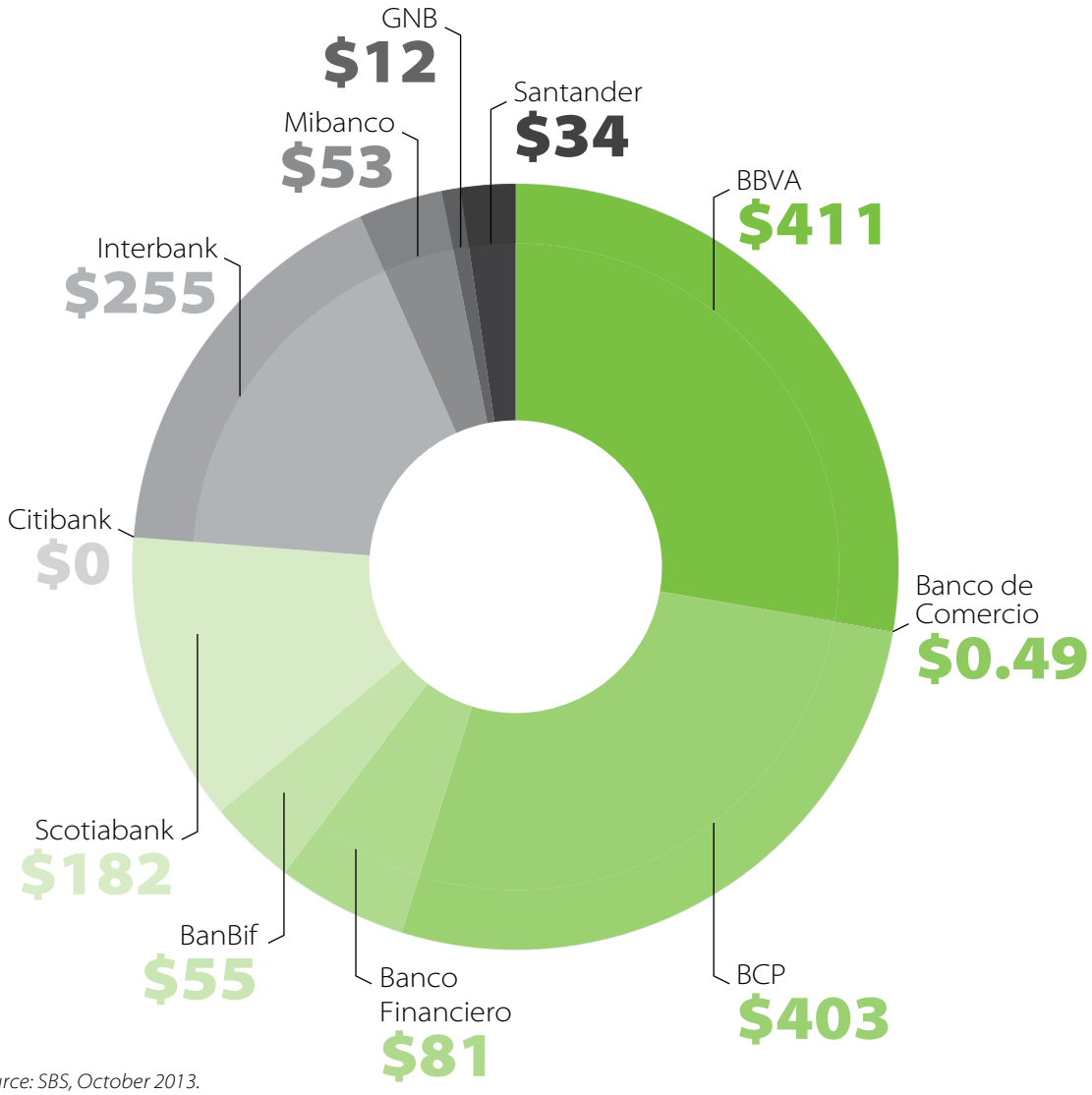
The Cacao Alliance has also teamed with three municipal banks (Nuestra Empresa, Señor de Luren, Maynas) and three finance companies (Confianza, Edyficar, and ProEmpresa) to roll out a specialized product to finance working capital for small cacao farmers. The Cacao Alliance reduces the institution's risk by linking it to producers who are well-integrated into the cacao value chain and are also receiving technical assistance to improve quality and increase production. The Alliance also links them to USAID's DCA program, which provides a blanket 50 percent guarantee on each of the institutions' loan portfolios to small farmers in the target areas.

B5. Commercial Banks

Unlike in Mexico, most of the commercial banks actively lending to Peru's agricultural sector are using more traditional financing arrangements, with decisions based largely on collateral. In addition, all banks interviewed were primarily focused on lending to large producers and agribusinesses. While Mexico boasts several banks with dedicated agriculture departments, and even a few lenders that exclusively serve the agricultural sector, Peruvian banks are lending to producers primarily through existing enterprise and SME departments, treating agricultural loans as they would any enterprise loan. Most do not lend to small producers with less than 50 hectares, and most are focused on lending to producers of crops with potential for export, such as grapes, citrus, avocados, and asparagus.

FIGURE 11

COMMERCIAL BANK LENDING TO AGRICULTURE SECTOR IN PERU (MILLIONS USD)



Source: SBS, October 2013.

B5a. BCP

BCP was recognized by the medium and large farmers interviewed as one of the leading providers of finance to the agricultural sector in Peru. Indeed, BCP's agriculture portfolio is second only to BBVA in Peru. BCP, like most banks, is focused on lending to producers with more than 50 hectares who are focused on growing products like grapes, artichokes, asparagus, and avocados for export. BCP does not seem to discriminate against any agricultural product, as long as the producer has an identified buyer, land, and know-how to ensure a successful harvest and sale. BCP does not have a unit or team dedicated to agricultural lending. Loans are made to medium and large enterprises via the bank's Enterprise Banking division, and directly to small and medium producers via its Business Banking and SME Divisions. While BCP does finance some traders and other large intermediaries in the coffee sector, they have yet to leverage relationships within this or other value chains to lend to more small producers.

BCP does not have specialized agricultural loan products, but rather adjusts existing products (i.e., via extended terms and grace periods) to meet the needs of agricultural clients on a case-by-case basis. BCP is actively using a variety of products to meet the needs of its medium and large producer clients, including rotating lines of credit (see box), factoring, and leasing. For example, medium-sized egg producer Avivel is using a "leasing for construction" product from BCP to build an automated packaging plant to modernize operations and reduce labor costs.

Generally, these products are offered only after a client has secured his or her first loan from the bank and established a solid repayment history. It is clear from interviews with BCP's Enterprise Banking Division Manager Gonzalo Alvarez, as well as BCP's medium producer clients, that having title to land was critical for securing a first loan. Land prices have increased drastically in coastal regions in recent years, and

Using Credit Lines to Facilitate Trade Finance in Peru

BCP has developed a pair of products very popular with the medium agricultural producers we interviewed, known as "FEV" (financing for electronic sales) and "FEC" (financing for electronic purchases). These products enable a producer or firm to finance purchase of inputs or sales to intermediaries through a line of credit with the bank.

For example, medium-sized egg producer Avivel uses FEV to collect payments from the intermediaries that purchase its products to sell to retail outlets. Using FEV, Avivel sends an electronic invoice from its BCP account directly to the intermediary's account. The intermediary sends payments to its BCP account through an electronic transfer. Using FEV, Avivel can provide discounts to intermediaries that pay before the due date of the invoice. Similar to factoring, drawing down on the FEV line of credit can also help Avivel manage cash flow while it waits for intermediaries to pay. BBVA has a similar product ("electronic factoring") for financing purchases from suppliers.

We heard that many small and medium producers in Peru do not sell directly to supermarkets as these retail outlets take 90 days to pay for products. An electronic factoring product similar to FEV structured for this 90-day window could potentially help facilitate more direct producer-to-supermarket relationships in Peru or elsewhere.

this has provided farmers with greater options for securing bank financing. Despite extensive land titling efforts by the government, however, Mr. Alvarez noted that onerous processes and disputes over boundaries still often make it difficult for borrowers to present titles to land.

Similarly, BCP uses the same systems and methods for evaluating the risk of loans to the agricultural sector as they do for any other sector. In addition to capital, collateral, and credit history of the client, BCP looks at financial statements, sales projections, prices, and diversity of crops. The client is usually required to hire an agronomist to complete an evaluation of production as part of the loan application process. Depending on the size of the loan and the risk involved, staff from BCP's Credit Division may also conduct site visits. BCP's staff, both in the Enterprise Banking and in the Credit Divisions, were extremely knowledgeable about best production practices and potential risks in the various agricultural sectors in which the bank works. Mr. Alvarez noted that better access to crop insurance could possibly spark more lending to new clients, but because only one firm in the market provides any type of crop insurance, and because that product was limited, not many of the bank's clients used it.

GENERALLY, INTERBANK FEELS COMFORTABLE STRUCTURING LONG-TERM LOANS (7 TO 10 YEARS) FOR PERMANENT CROPS THAT DO NOT PRODUCE FOR SEVERAL YEARS ONCE PLANTED, BUT ONCE THEY BEGIN TO PRODUCE, HAVE A LONG CROP LIFE (10 TO 15 YEARS) WITH LOW MAINTENANCE COSTS.

B5b. Interbank

Like BCP, Interbank lends to medium and large-sized producers with between 50 and 1,000 hectares. Like other banks interviewed, Interbank considers up to 50 hectares a small producer, and 50 to 200 hectares a medium-sized producer. The bank views agriculture as a growing segment with significant growth opportunity. Interbank looks to the Chilean market for products with potential for growth in Peru, especially given that Chile's agricultural sector is aging and not as productive as it once was. Similar to BCP, Interbank focuses on lending to growers of products destined for large international markets, and that may have certain process or quality standards such as ISO or organic certification. Additionally, and somewhat different from BCP and other banks, Interbank is only focused on lending to producers of four specific export crops: grapes, citrus, avocado, and asparagus. This focus has enabled the bank to develop very specific products and lending criteria for loans to producers in each of these sectors over time. The bank is interested in expanding lending to blueberry, maca root, and quinoa producers, but it believes that it first needs to develop a more thorough understanding of the risks and opportunities in these sectors, as well as a better understanding of best practices in production. Generally, the bank feels comfortable structuring long-term loans (7 to 10 years) for permanent crops that do not produce for several years once planted, but once they begin to produce, have a long crop life (10 to 15 years) with low maintenance costs. Interbank ties loan terms and payment schedules to the crop lifecycle. For example, the bank's typical grace period for loans to avocado producers is three years.

Loans to medium-sized producers are typically made through Interbank's Structured Finance Division. The sub-manager of this division, Maria del Carmen Rueda, explains that fewer than half of its medium-sized producer clients can prepare their own cash flow statements.

The loan application process for any producer involves significant handholding to educate him or her about the type and amount of loan he or she can afford. This handholding begins with a specialized checklist developed by Interbank for evaluating agricultural loans. The checklist sets minimum standards for each of the following elements:

- EXPERIENCE AND KNOW-HOW OF THE PRODUCER AND TECHNICAL TEAM
- COLLATERAL (REAL ESTATE, HOME, BUILDINGS)
- CAPITAL CONTRIBUTION/ LOAN RATIO
- CLIENT/CROP DIVERSIFICATION
- DIVERSIFICATION OF END MARKETS (I.E., ASIA, EU, US)
- CLIMATE/GEOGRAPHIC ZONE (INTERBANK MAINLY FOCUSES ON THE THREE REGIONS OF ICA, CHINCHA, AND PIURA)
- WATER AVAILABILITY, QUALITY (I.E., SALINITY LEVELS), AND RIGHTS
- CASH FLOW
- FINANCIAL STATEMENTS AND RATIOS (I.E., DEBT TO EQUITY, CURRENT RATIO, ETC.)
- OPERATING EXPENSES AND WORKING CAPITAL RATIO (INCLUDING LABOR)

Interbank puts significant emphasis on the experience of the producer and his or her management team. Interbank transfers information gathered about the client through this process to its existing business credit models to be evaluated by its credit risk department. Similar to BCP, Interbank also requires that the client have an external agronomist evaluate production as part of the application process. Capital and collateral are still key to the decision-making process. Interbank generally accepts land as collateral, but at only about 50 percent of its appraised value.

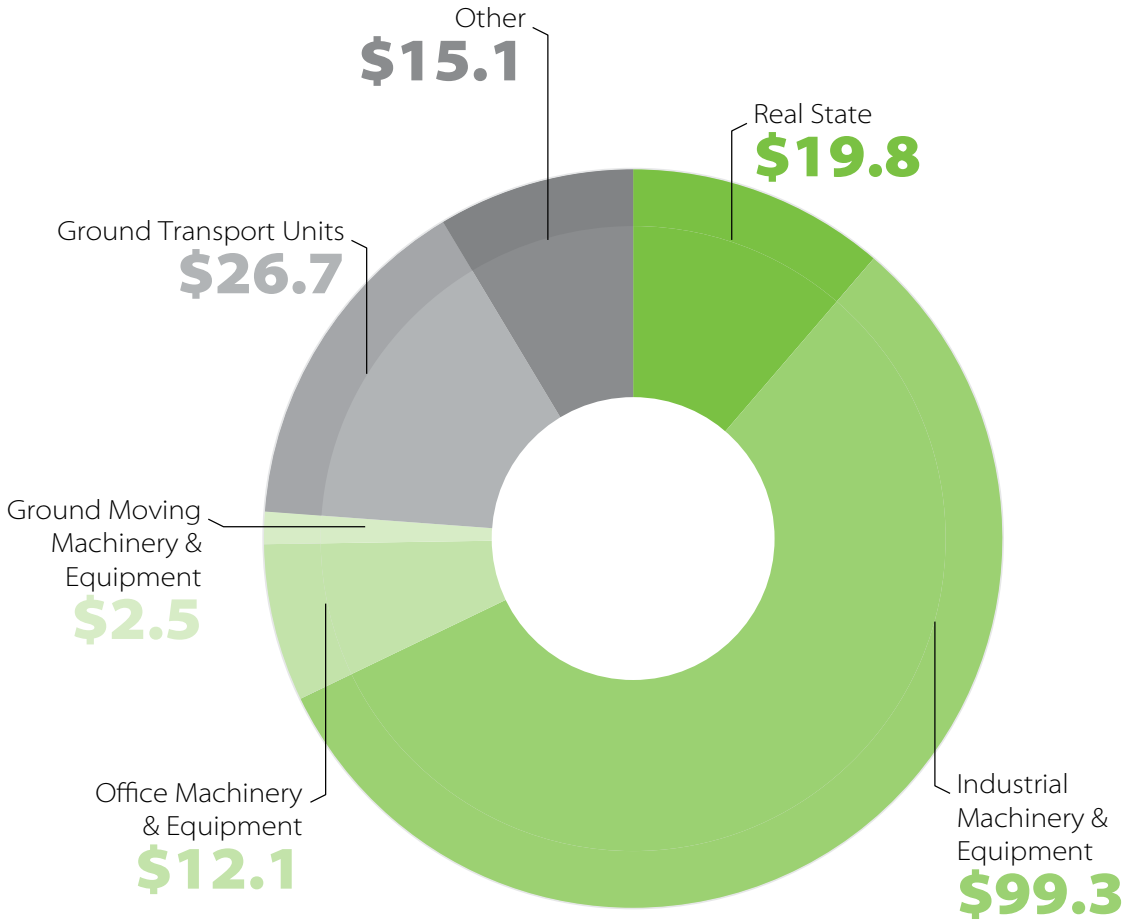
While Interbank does not hire agronomists, its managers are extremely knowledgeable in the agricultural sectors in which the bank works. This is in large part due to intensive training required for staff working in each of the four agricultural sectors to which it lends.

B5c. Leasing

While specialized leasing companies account for less than 0.07 percent of lending to the agricultural sector, leasing to the agricultural sector by banks like Interbank and BCP represented roughly 11 percent (US$175.5 million) of the amount made in direct loans to producers and agribusinesses (US$1.49 billion). (SBS, 2013) A number of banks and agribusinesses we spoke with noted that more and more medium-sized producers are finding that it makes sense financially to brand and package their own products. As such, there appears to be significant growth potential for creatively structured leasing products to modernize processing and packaging. Medium-sized egg producer Avivel, for example, was using a seven-year "leasing for construction" product from BCP to finance the building of a new modernized packaging plant that would enable Avivel to completely automate the egg packaging process, reducing costly labor and breakage. The new plant would also enable Avivel to better meet customer needs by providing packs of six and 18 eggs in addition to the traditional packs of 12.

FIGURE 12

LEASING BY BANKS TO THE AGRICULTURAL SECTOR
BY TYPE OF ITEM FINANCED (USD MILLIONS)



Source: SBS, October 2013.

B6. Insurance Companies

While there are 14 insurance firms in Peru's financial sector, only one, La Positiva, offers agricultural insurance. Other firms offer specialized SME insurance products, but these do not cover weather, crop, and other risks specific to the agricultural sector. La Positiva's AgroSeguro product covers risks associated with drought, floods, frost, hail, extreme climate variations, diseases, and other risks associated with crop production. La Positiva structures its agricultural insurance according to the five different ways explained in Figure 13. Banks interviewed shared that they are more likely to lend to clients with crop insurance, but products are limited. Some microfinance institutions are taking matters into their own hands to provide coverage for clients. Confianza is currently working with La Positiva to develop two types of insurance: the first would cover the institution's agricultural portfolio from climate variations (i.e., El Niño), and the second would be a more traditional agricultural insurance product for rural clients. Caja Municipal Sullana is developing its own weather index insurance product. Agrobanco also recently introduced crop insurance for its clients.

FIGURE 13

AGRICULTURAL INSURANCE PRODUCTS OFFERED BY LA POSITIVA

TRADITIONAL AGRICULTURE	WEATHER INDEX	PERFORMANCE INDEX	CATASTROPHIC EVENT	EL NIÑO
Protects investment or production costs against climate risks according to the total productive potential of the customer or of individual losses of each parcel insured.	The Insurance Climate Index agreed to in the policy measures a climate variable that affects the crop in a given period (maximum or minimum temperature, rainfall, relative humidity, etc.). Recommended for exporters.	Provides coverage when the average performance of a zone is equal to or less than a set percentage of expected performance. Recommended for organized producers that manage one crop in a single production zone.	Provides coverage when average performance of a zone is equal to or less than 40% of historic performance in a set district or sector. Protects against losses due to major climate events and diseases. State contracts with La Positiva to provide this insurance to small producers in Peru's poorest zones.	Provides coverage when sea temperatures in El Niño 1.2 (northern coast of Peru) reach levels that permit the prediction of severe El Niño phenomena. Recommended for financial institutions, businesses in diverse sectors, agro exporters, etc.

Source: La Positiva's website. http://www.lapositiva.com.pe/generales/jerarquia/77/seguro-agropecuario-agro-positiva/jer.77. 2013.

BANKS INTERVIEWED SHARED THAT THEY ARE MORE LIKELY TO LEND TO CLIENTS WITH CROP INSURANCE, BUT PRODUCTS ARE LIMITED. SOME MICROFINANCE INSTITUTIONS ARE TAKING MATTERS INTO THEIR OWN HANDS TO PROVIDE COVERAGE FOR CLIENTS. SOME EXAMPLES INCLUDE INSURANCE AGAINST CLIMATE VARIATIONS (BEING DEVELOPED BY CONFIANZA AND LA POSITIVA) AND WEATHER INDEX INSURANCE PRODUCT (BEING DEVELOPED BY CAJA MUNICIPAL SULLANA).

C

Key Challenges, Opportunities, and Innovations for Agricultural Value Chain Finance in Peru

For the most part, Peruvian financial institutions are offering traditional lending products and not actively pursuing creative agricultural value chain finance arrangements. Several challenges to expanding small and medium producers' access to finance remain:

Few options for small and medium producers. Banks are inclined to serve larger customers, while cajas, financieras, and EDPYMEs are focused on micro producers. There are few financial institutions, other than state-run AgroBanco, focused on serving small and medium producers and agribusinesses, especially outside of the coastal areas. This leaves a "missing middle" of underserved commercial and semi-commercial small and medium producers without access to finance. In addition, all of the banks interviewed, as well as cajas and finance companies required collateral in the form of real estate to secure loans. This leaves many small and medium borrowers who do not have formal title to land out in the cold.

Unfair competition with a subsidized single purpose lender. Finance companies interviewed expressed dissatisfaction with AgroBanco's practices of lending at interest rates that do not reflect the true cost of lending to micro and small producers. AgroBanco admits that as part of its mission to serve micro and small farmers, it uses earnings from large loans to subsidize its microloans in rural areas. Banks also did not feel that they should have to compete with a government-funded entity for medium and large producers' business. Even more said that they would not enter the agricultural lending market, as it was already being served by AgroBanco. State-owned banks and single purpose lenders can help to spark competition in traditionally underserved markets. Given the many institutions that expressed concern, it would be worthwhile to examine in more depth whether AgroBanco is limiting competition or distorting the market.

Reaching more small and medium producers in rural areas. Financial institutions in Peru continue to be more active in urban and peri-urban spaces, while rural markets continue to be largely underserved. As in Mexico, bank and financial institution presence in rural areas of Peru is still extremely limited. The SBS estimates that roughly 57 percent of districts in Peru have no financial institution presence. Peru's current regulatory environment for finance promotes competition by allowing rural savings

and loans institutions to operate throughout the country, and allowing MFIs to provide a wide range of services (such as factoring and leasing). Recent regulations promote the use of agent banks and mobile banking. Several institutions are experimenting with new channels for distributing credit and other financial services in rural areas, including agent networks and mobile and branchless banking. Caja Arequipa, for example, has dramatically expanded its use of agents over the last four years, more than tripling the number of these types of points of service. While this does not seem to have influenced the percentage of its portfolio in the agricultural sector, it has potential for expanding services to more rural areas. To expand its outreach in rural areas, and make products and services more accessible to clients, Financiera Confianza has developed a pilot with information technology company Resonance to establish 20 points of service in small shops in rural areas. At these service points, clients will have the ability (in the initial phase) to withdraw and deposit up to US$72.

Expand risk mitigation mechanisms. While La Positiva and Agrobanco offer agricultural insurance, just 11 percent of producers in Peru have some type of crop insurance (Global Findex, 2011). A more in-depth look at why so few insurance companies are providing this type of insurance would help to identify whether reinsurance costs or regulatory hurdles are preventing them from doing so. In addition, there are surprisingly few government loan guarantee programs designed to help expand lending to small and medium producers. The USAID DCA guarantee is helping cajas and finance companies serve this segment. Interviews suggest that few banks are actively using loan guarantees to mitigate the risks of lending to farmers. Useful tools could be a study to determine what guarantees are available, and trainings for banks on how to use them.

FIGURE 14 PERU: OVERVIEW OF AGRICULTURAL VALUE CHAIN FINANCE

	TYPICAL CLIENT	AVCF PRODUCTS OFFERED	KEY FACTORS IN LOAN EVALUATION	AVERAGE LOAN SIZE (USD)	AVERAGE LOAN TERM	ANNUAL INTEREST RATE (%)	AGRICULTURE PORTFOLIO AT RISK (PAR)	PRIMARY SECTORS WHERE ACTIVE
NON-FINANCIAL INSTITUTIONS								
↘ Production Cooperatives	Smallholder members	Input/trade finance	• Character • Capacity	$2,000	15 months	22%	1.0%	Coffee, cacao, bananas
↘ Social and Impact Investors	Small to medium- sized producer cooperatives	Short-term working capital	• Social and environmental scorecard	$342,000	< 1 year	9.5%	0.3%	Coffee, cacao
↘ Lead Firms	Smallholder suppliers	Input finance, working capital	• Character • Credit history • Pledge to sell	< $1,000	< 1 year	20.7%	N/A (3% NPL)	Rice, coffee, cacao
STATE-OWNED BANK								
↘ Agrobanco	Small, medium, and large producers (> 5 ha)	Working capital	• Capital/collateral • Cash flow • Credit history • Farmer experience	$4,473	1 year (5 years for fixed asset)	18.3%	1.62%	Livestock, dairy, variety of crops
RURAL/MUNICIPAL BANKS								
↘ CMAC Sullana	Commercial/ Semi-commercial small farmers	Working capital or inputs for production Warehouse receipts	• Character • Cash flow	$1,671	2 years (10 years for fixed asset)	49.6%	9.66%	Livestock, dairy, variety of crops
↘ CMAC Huancayo	Commercial/ Semi-commercial small farmers	Working capital or inputs for production Finance for capital investments	• Cash flow • Crop price • Productivity • Agronomist analysis	$2,722	2 years (10 years for fixed asset)	33%	4.7%	Livestock, dairy, variety of crops

COMMERCIAL BANKS								
↘ BCP	Medium to large producers (> 50 ha) and agribusinesses	Fixed Asset Factoring Leasing Export finance Credit Lines Loans to Cooperatives, Intermediaries Post-Harvest	• Capital/collateral • Credit history • Financial statements • Agronomist analysis • Links to buyers	N/A	N/A	Agriculture Loan: 20% Factoring: 22% Leasing: 32%	N/A	Asparagus, artichokes, grapes, avocado, citrus, mangoes, blueberries, pomegranates
↘ Interbank	Medium to large agricultural producers (50-200 ha.)	Fixed Asset Factoring Leasing Export finance Credit Lines	• Capital/collateral • Sales/cash flow projections • Agronomist analysis • Farmer experience	N/A	5-10 years	Guaranteed with mortgage: 14% Factoring: 23% Leasing: 24%	N/A	Asparagus, avocado, grapes, citrus
FINANCE COMPANIES								
↘ Confianza	Smallholders with farm and off-farm income	Working capital	• Cash flow • Credit history • Collateral	$2,052	1 year (2 years for fixed asset)	26%	4.2%	Various crops
↘ Proempresa	Smallholders with farm and off-farm income	Working capital	• Cash flow • Credit history • Collateral	$1,850	> 1 year	26%	5.02%	Various crops

Source: Root Capital, 2014; Agrobanco Annual Report, 2012; BCP: https://ww3.viabcp.com/connect/Nuestrobanco/pdf2006/ActivasMN_08.pdf; Interbank: http://www.interbank.com.pe/tasas-tarifas; SBS, 2013; Data gathered through Chemonics questionnaire as of March 31, 2013.

A

Structure of the Industry and Historical Trends in Honduras

Agriculture plays a critical role in Honduras' economy, contributing 15 percent of value added GDP and employing 35 percent of the country's adult population (World Bank, 2012). While basic grains hold the greatest social and economic importance in Honduran agriculture, most of the production of these commodities is consumed domestically. Important exports include coffee, African palm, shellfish, fish, bananas, and a variety of horticultural products. Between 2008 and 2012, values of agricultural exports grew at an average annual rate of 14 percent, led by coffee, which is by far the biggest export and which grew 31 percent annually during the same period (Banco Central de Honduras, 2014).

Low participation on the part of Honduran lenders in the agriculture sector has its origins in post-Hurricane Mitch recovery efforts. Before the disaster in 1998, banks had established significant agricultural loan portfolios. With the destruction of both crops and agricultural production infrastructure, a significant percentage of banks' credit portfolios became nonperforming. Initially, it was agreed that banks could continue to recognize unpaid interest on the nonperforming loans to avoid massive write-offs that would reduce bank capitalization. Over several years, the Honduran government mandated forgiveness of agricultural loans for farmers who had lost their businesses. As banks wrote off the loans, they had to report significant losses, triggering a rapid reduction in the reported level of agricultural loans outstanding. The performing loans remaining on the books quickly proved impossible to collect, as borrowers felt they too should benefit from the government's debt forgiveness. BANHCAFE, for example, reported a 65 percent contraction in its agricultural lending during that time, and many banks suffered, albeit to a lesser degree (BANHCAFE, 2007). Between December 2000 and June 2010, while banks' total loan portfolios more than tripled (from US$2 billion to US$7 billion), fueled by growth in mortgage and consumer loans, loans to the agriculture sector as a percentage of total lending declined from 21.6 to 4.6 percent (AHIBA, 2010).

In 2011, in response to contractions in credit to productive sectors and heavy reliance on real estate as collateral, Honduras passed the Secured Transactions Law, which enabled a wide range of tangible and intangible items – including inventory, future crops, farm equipment, supply contracts, and accounts receivable – to be used as collateral. The law also established a Moveable Property Registry linked to existing land and vehicle title registries to expand access to credit for farmers without secure tenure to land. The law is seen as a model for other countries in the region, and put Honduras at the top of the World Bank's Doing Business rankings for Latin America and the Caribbean in terms of ease of "Getting Credit" in 2013.

LOW PARTICIPATION ON THE PART OF HONDURAN LENDERS IN THE AGRICULTURE SECTOR HAS ITS ORIGINS IN POST-HURRICANE MITCH RECOVERY EFFORTS.

B

Supply of Agricultural Value Chain Finance in Honduras

Small and medium producers in agricultural value chains in Honduras receive financing from a variety of regulated entities — banks, finance companies, Private Finance Organizations for Development (OPDFs, as they are known by their Spanish acronym) — and unregulated entities such as financial cooperatives, NGOs, rural banks, and input providers. In addition, producer cooperatives, lead firms, and input suppliers finance farmers' production. USAID's ACCESO program, which works with more than 34,000 farmers with less than five hectares in six of the poorest departments of Honduras — Santa Barbara, Intibuca, La Paz, Ocotopeque, Lempira and Copan — provides insight into where small and medium producers are able to access finance.[6] From USAID ACCESO program data on participating farmers with access to credit (see Figure 15 below), we see that producer cooperatives and banks, including state-owned bank Banadesa, provide the largest volumes of loans to small and medium agricultural producers, while rural banks *(cajas rurales)* are responsible for lending to the largest number of borrowers.

Small input providers make up a large number of lenders in the "providers with fewer than 25 loans" category. This category is responsible for the bulk of lending, both in terms of number of borrowers, as well as value of loans. A significant number of small and medium producers also receive finance from production cooperatives, financial cooperatives, and rural banks.

SMALL INPUT SUPPLIERS WITH FEWER THAN 25 LOANS PROVIDE THE MAJORITY OF FINANCE, BOTH IN NUMBER OF LOANS AS WELL AS IN DOLLARS LENT.

6. USAID ACCESO, a four-year project funded by the United States Agency for International Development, is working with 34,000 farmers in Honduras to introduce improved production practices for high-value cash crops in Honduras and link producers to markets. The program also has a rural finance component to link participating producers with financial institutions.

FIGURE 15

LOANS TO MICRO, SMALL, AND MEDIUM PRODUCERS (GRAINS, HORTICULTURE, COFFEE) PARTICIPATING IN USAID ACCESO PROGRAM AS OF SEPTEMBER 2013 (USD)

	Nº LOANS	LOANS VALUE
Providers with fewer than 25 loans	1,003	$2,596,462
Producer cooperatives/associations	728	$1,052,193
Banks (includes Banadesa)	322	$907,125
Rural Banks (Cajas rurales)	1,056	$489,498
Financial cooperatives	285	$432,825
NGOs	625	$426,026
Buyers/exporters	607	$367,818
Microfinance institutions	367	$249,284
Input suppliers	375	$239,540
Government programs	431	$68,999
Unidentified	928	$996,463
TOTAL	**6,727**	**$7,826,233**

Source: USAID ACCESO Project, Sept. 2013

B1. Role of Lead Firms, Production Cooperatives, and Impact Investors in Financing Value Chains

B1a. Lead Firms

The large coffee exporters have long provided some financing to their suppliers and are seasonally financed by banks such as Lafise and Atlantida. Finance for their suppliers is usually short-term in nature for the trade season. At times, it is secured by producers or by storage of coffee in a warehouse. Pre-financing of small coffee producers, usually by informal traders, is extremely common and sometimes exploitative.

Exporters of horticultural products often directly finance their smallholders. This is particularly prevalent in the vegetable market. Exportagro and Exveco, based in the Comayagua Valley, both finance smallholder working capital, primarily by advancing inputs. Inalma SA, a

processor of plantains, does not provide finance directly to producers but may guarantee loans from financial institutions to its suppliers.

Supplier finance. Formal financing from large input suppliers like Caldega and Del Campo is becoming increasingly prevalent within Honduras. Input suppliers are usually well integrated into value chains, and have a good understanding of markets and trends, and a good knowledge of clients. While these input suppliers have long financed small and medium farmers' purchases, formal provision of credit services through financing divisions is resulting in more appropriate financial products for these producers. Formal provision of credit has also made it easier for input suppliers to take advantage of risk mitigating mechanisms, such as guarantees and risk sharing arrangements.

Del Campo Soluciones Agricolas. Del Campo is a critical purveyor of inputs and equipment in Honduras. To finance sales of fertilizer, irrigation systems, feed, and other inputs, Del Campo has developed several loan products with significant differentiation in terms of client segments. These include: traditional finance (30 days, no interest), Agro Facil (a short-term revolving credit line), equipment finance, and irrigation finance (long-term). Del Campo's top three products are differentiated in Figure 16.

Del Campo has two primary types of clients: producers and small input dealers. Providing finance to clients has been an integral part of Del Campo's growth strategy. The credit department is made up of six people dedicated to credit administration. The number of credit clients under management has grown from 90 in November of 2009 to 1,521 in July of 2013.

Risk is managed in a number of ways, including using lending packages tailored to specific crops, production plans, and credit bureau consultations. A portion of Del Campo's portfolio is funded and backed by a partial loan guarantee from the Millennium Challenge Account (MCA).[7]

FIGURE 16

DEL CAMPO AGRICULTURAL FINANCE PRODUCTS

	TRADITIONAL	AGROFACIL	IRRIGATION FINANCE
↘ Terms	30 days	3-12 months	Irrigation Finance
↘ Quantity	$1,250-$75,000	$250 -$2,500	4-10 years (15 for housing)
↘ Interest rate	0%	18%	$900-$75,000
↘ Other conditions		No collateral required	18%

Source: Interview with Del Campo, Nov. 2013.

7. The United States Millennium Challenge Corporation (MCC) provides well performing developing countries with large-scale grants to fund country-led solutions for reducing poverty through sustainable economic growth. When the MCC awards a country funds through a "compact," that country sets up its own local Millennium Challenge Account accountable entity to manage and oversee all aspects of implementation. One of two major objectives under the MCC compact with Honduras involves increasing the productivity and business skills of farmers who operate small- and medium-size farms and their employees.

B1b. Production Cooperatives

Production cooperatives throughout Honduras can be seen as quick adopters of creative value chain finance mechanisms to serve small producer members. Cooperatives, especially those in the coffee sector, finance their members through advances of inputs. Coffee cooperatives such as Beneficio, Santa Rosa, and COHORSIL (among many others) also lend directly to member producers. Cooperative CARNEL, based in Negrito, Yoro, is a producer cooperative focusing on basic grains, plantains, and other horticultural products. Using a guarantee against its property from Banadesa, CARNEL has been able to leverage input loans from DuWest and Cadelga (both large input suppliers), which it subsequently on-lends to member producers.

B1c. Impact Investors

As in Mexico and Peru, social and impact investors are actively providing wholesale funds to MFIs who on-lend to small producers and to cooperatives to support their member small farmers. Social and impact investors providing finance in Honduras include: Triodos, Oikocredit, Consortium Etimos, Root Capital, Kiva, Alterfin, and ReponsAbility. Others provide trade finance to small and medium agribusinesses.

The Fairtrade Access Fund — a collaboration between Incofin Investment Management, the Grameen Foundation, and Fairtrade International — made one of its first trade finance loans to coffee cooperative COPROCAEL in Honduras. The Fairtrade Access Fund aims to provide longer-term loans to farmer organizations and cooperatives to invest in projects that will improve farmers' income in the long run. However, in Honduras, it has mostly made short-term trade finance loans of less than one year to cooperatives to finance the purchase of commodities from members for export. Most recently, the Fairtrade Access Fund gave a US$2 million trade finance loan to the Capucas Coffee Cooperative (COCAFCAL, as it is known by its Spanish acronym) in 2013. COCAFCAL has 792 member coffee producers, each with an average of 4.3 ha. The loan will support the cooperative in purchasing Strictly High Grown coffee from its members during the 2013/2014 harvest for export to fair trade and organic markets. The Chinacla Regional Agricultural Cooperative Union (CARUCHIL) in Honduras also received a trade finance loan in 2013 of US$500,000 to purchase coffee from its 556 members for export to conventional, fair trade, and organic markets in the United States and Europe (Fairtrade International, 2013).

Root Capital also actively lends to Honduran cooperatives (e.g., COCASJOL and COARENE), and has recently begun to lend to a few private enterprises. For example, Root Capital is financing Cultivos del Norte, a processor and exporter of chiles. Interest rates for either type of loan are between 9 and 12 percent. Root's loans in Honduras range from US$50,000 to US$1.5 million. Almost all of the coffee cooperatives to which Root Capital lends are also financed by Banco Occidente, which primarily lends for trade credit against the cooperatives' real property.

B2. Financial Cooperatives

Financial cooperatives are important financiers of smallholders in Honduras. Some of these financial cooperatives also finance small and medium agribusinesses, such as producer cooperatives, although this is not their primary business line. Twenty-three of the better managed financial cooperatives are in the process of securing regulated status from the National Banking and Insurance Commission (CNBS, as it is known by its Spanish acronym), under modified regulations.

B2a. CACIL

CACIL is a financial cooperative that started in La Esperanza, Intibuca. In 2008, CACIL had almost no agriculture smallholder portfolio, but with technical assistance and funding from the MCA Farmer Access to Credit program, the institution began to pilot smallholder finance. It struggled with its methodology until 2010, when it introduced a microcredit unit. Delivering credit through this unit, either using a group or individual lending, has lead to rapid expansion of its agriculture portfolio in the last three years.

Of its 3,000 loans to agriculture clients (under the microcredit unit), 1,053 are lent to groups of borrowers. The average loan size is US$700. The bulk of this lending is provided to groups of farmers of rice, vegetables, potatoes, strawberries, coffee, and tomatoes. CACIL also lends to small and medium agribusinesses, typically against real estate or property. The institution currently has 44 outstanding loans to SMEs, with an average size of US$8,000. CACIL maintains a standard interest rate (micro and SME) of 15 percent.

Rapid growth in the agriculture sector has meant that 10 percent of CACIL's portfolio is now in agriculture. CACIL sees significant potential for continued growth in the sector, at both the micro and SME level. This growth is likely to be powered by existing offices in rural areas, which have yet to roll out the microfinance product.[8] Rapid expansion of its branch offices has resulted in 17 branches, with an additional two expected to open in 2014. Most of these are in extreme rural areas in what is considered the poorest corridor of Honduras: Lempira, La Paz, Intibuca, and Ocotopeque. Further office expansion will cover the corridor linking San Pedro Sula and Tegucigalpa. CACIL's rapid growth in under- and unserved rural areas has been primarily financed through the growth of its savings portfolio.

Risk is managed through use of group guarantee and traditional collateral. CACIL generally accepts rural property as collateral and does not discount it as heavily as do commercial banks. CACIL also occasionally accepts movable property, such as machinery, vehicles, or equipment, as collateral.

TWENTY-THREE OF THE BETTER MANAGED FINANCIAL COOPERATIVES ARE IN THE PROCESS OF SECURING REGULATED STATUS FROM THE NATIONAL BANKING AND INSURANCE COMMISSION (CNBS, AS IT IS KNOWN BY ITS SPANISH ACRONYM), UNDER MODIFIED REGULATIONS.

8. The 10 percent of CACIL's portfolio that is in agriculture is currently managed through its central office.

B2b. Taulabe

Taulabe is a financial cooperative based in Taulabe just south of Lake Yojoa, in the central corridor of Honduras. On the back of its recent expansion of branch offices, it has also expanded its agriculture portfolio, representing approximately 25 percent of its overall loan portfolio in 2012.

Taulabe has received technical assistance from the World Bank and the IDB-financed AHIBA al Agro program, managed by the Honduran Association of Banking Institutions.[9] Taulabe has just one working capital product for agriculture known as "Production Plan" in English. The institution primarily finances coffee, rice, and African palm using this product.

Taulabe does not count on any distinguishing agriculture credit policy, and in fact loans to agriculture are differentiated only by the higher interest rate charges. Taulabe's staff does not have any agriculture specialization, either. It manages risk through the use of collateral and an agricultural risk tool developed with assistance from AHIBA al Agro. Taulabe also uses third-party guarantees, such as the purchase/registration mechanism that exists in the rice market (See box on the right).

Guaranteed Repayment for Rice Buyers in Honduras

The rice industry in Honduras is led by between 20 and 25 lead firms, many of which finance small producers. There are just over 2,000 rice producers, 93 percent of which are small or medium in size. The fact that rice is temporarily protected and lead firms are required to purchase a certain percentage of their total processing from local producers has led to a unique system in which all rice plantings are registered by an entity called "AgroBolsa." Rice sales by a producer to a lead firm must be accompanied by a certificate from AgroBolsa, at which time any pending debt must be cancelled. This means that the producer must deliver his/her product to the purchaser with which he/she has a purchase and/or finance agreement. This results in an extremely secure circuit, which has generated the interest of traditional banks to augment producer financing.

9. AHIBA al agro was a program co-funded by the IDB and the World Bank and managed by the Honduran Bankers' Association to improve credit risk management through the development and use of instruments to manage agricultural price risk. In its first phase, AHIBA al agro provided training in price risk management in certain sectors, including coffee, bananas, dairy, livestock, and horticulture.

B3. Microfinance Institutions

Microfinance institutions are important providers of finance for smallholders, but less so for small and medium producers and agribusinesses. At the end of 2012, 9.4 percent of the portfolio of reporting microfinance institutions (including Banhcafe's microfinance unit) was invested in agriculture and forestry. World Relief, Credisol, ODEF, FUNED, FAMA, Pilarh, and Hermandad de Honduras reported significant investments of US$1 million or more. Hermandad, Credisol, and Pilarh had roughly 50 percent or more of their portfolios invested in agriculture in 2012 (REDMICROH, 2012).

↘B3a. Credisol

Credisol has been involved in agriculture finance for some time, initially through livestock loans (as it is based in the predominantly livestock-based area of Tocoa, Honduras). Credisol has two products for micro and small producers. Mi Parcela, with terms of 4 to 12 months and average loan size of US$550, is for working capital and machinery, equipment, and implements related to farming. Credi Finca provides medium-term financing (1 to 4 years) for the acquiring and expanding farms (i.e., land purchase). Credi Finca tends to offer larger loans of up to US$17,500. The interest rate is 27 percent for both types of loans. Agriculture loans fall under the same policies as other loan types, and oscillate between 35 and 40 percent of the total portfolio outstanding.[10]

Credisol manages risk through a combination of collateral and a cash flow tool developed in-house to forecast capacity to repay. The MFI is also entering into a pilot with the Honduran Microfinance Network (REDMICROH, as it is known by its Spanish acronym) to deliver crop insurance to Credisol clients.

10. Seasonally linked.

B4. State Banks

The National Bank for Agricultural Development (Banadesa, as it is commonly known) is still an important provider of retail finance, but suffers from the politicization and habitually scarce funds common to state-run banks. Historically, Banadesa has lent to small producers in a variety of sectors at interest rates of between 9 and 12 percent. These rates are well below rates charged by banks and microfinance institutions for similar loans (between 17 and 22 percent for banks and between 19 and 27 percent for MFIs and cooperatives), which many argue deters competition in the agricultural finance sector. Also, while these rates are attractive to small producers, Banadesa has historically required collateral of between 1.4 and 1.6 times the value of the loan. Banadesa also requires borrowers to purchase crop insurance for most crops (Campion, Coon, & Wenner, 2010). Banadesa has also had extremely high delinquency rates of more than 30 percent between 2009 and 2012 (Instituto de Estudios Peruanos, 2012).

Banhprovi is a provider of second-tier finance through regulated institutions, with attractive end user rates, but its approval of applications are plagued by delays of several months, often forcing smallholders and SMEs to look elsewhere for financing at higher rates. Several commercial banks facilitate these loans, but complain about the time it takes for Banhprovi to come to a decision. Management at Ficohsa Bank estimates that it is able to secure funds from Banhprovi for only about 1 percent of loans, due to the long processing time involved. The interest rate associated with the Banhprovi line is attractive, as it can be as low as 10 percent for the end client.

In February 2014, the Honduran government announced that both Banadesa and Banhprovi would be absorbed into a new second-tier development bank aimed at financing certain underserved productive sectors including agriculture, housing, and micro, small, and medium enterprises.

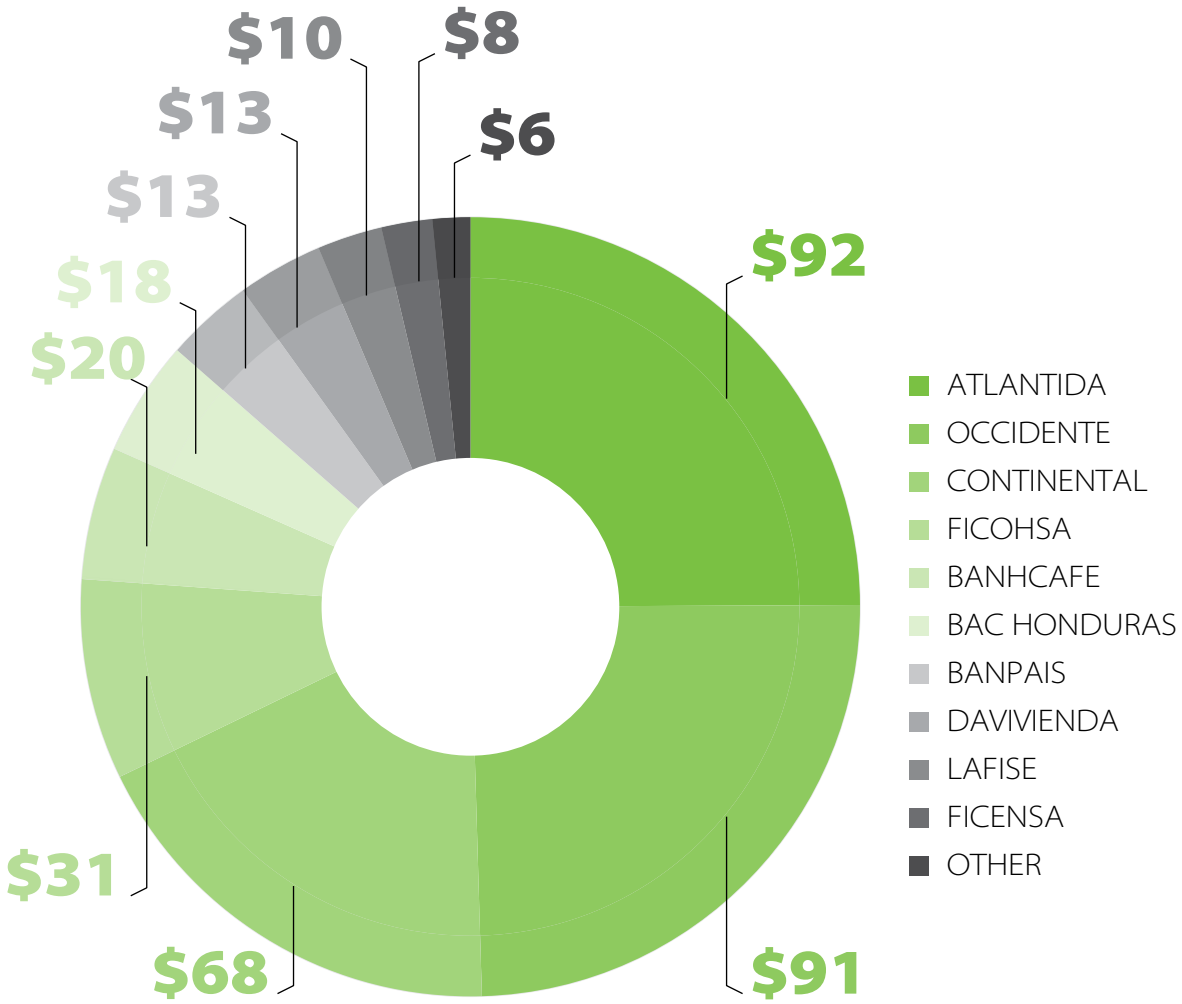
MICROFINANCE INSTITUTIONS ARE IMPORTANT PROVIDERS OF FINANCE FOR SMALLHOLDERS, BUT LESS SO FOR SMALL AND MEDIUM PRODUCERS AND AGRIBUSINESSES.

B5. Commercial Banks

At the end of September 2013, banks reported more than US$369 million in outstanding loans to agriculture and other production sectors (i.e., livestock, poultry, beekeeping). This is just under 5 percent of their total portfolio, as compared with 4.3 percent in September 2012.[11] Absolute growth since September 2012 (year over year), from US$327 million to US$369 million, has been fueled by Atlantida Bank's growth in the agriculture sector (CNBS, 2013).

FIGURE 17

OUTSTANDING BANK LOANS TO AGRICULTURE
AS OF SEPTEMBER 2013 BY INSTITUTION (USD MILLIONS)



Source: CNBS Boletin Estadistica, Sept. 2013.

11. Because of seasonality, agriculture data analysis uses year over year figures.

There are a few banks with SME banking departments, including BAC, Banco Atlantida, ProCredit, and Ficohsa, but none of the banks active in agricultural finance interviewed had a special unit or department dedicated to agricultural lending. Banco Occidente, one of the oldest banks in Honduras, has been lending to the agriculture sector, either directly or via agribusinesses and producer cooperatives, for many years. However, typical of most banks in Honduras, it requires real estate as collateral, for which few small producers hold title.

FIGURE 18

BANKS' AGRICULTURAL LOAN PORTFOLIOS (INDIRECT AND DIRECT) AS OF OCTOBER 2013

	VALUE OF AGRICULTURAL LOAN PORTFOLIO (USD 000)	NUMBER OF CLIENTS
↘ Total Direct Agricultural Credit	$164,201	11,076
↘ Total Indirect Agricultural Credit	$94,709	10,852
• Input Suppliers	$27,007	NA
• Exporters	$42,873	NA
• Aggregators/Marketers	$24,829	NA
TOTAL	**$258,910**	**21,928**

Source: AHIBA Member Banks Survey, Oct. 2013 [12]

A recent survey of banks conducted by the Bankers' Association showed lending rates somewhat lower than those reported to the CNBS. Interestingly though, it pointed out that nearly half of agricultural borrowers were input suppliers, exporters, and aggregators/distributors that often finance small producers. Average loans to these borrowers were US$8,727, while for direct loans to producers and agribusinesses the average loan was US$14,825. These are relatively small amounts, indicating that a number of small and medium producers are receiving financing either directly, or indirectly, from commercial banks.

↘B5a. Ficohsa

Ficohsa lends to producers through its traditional products — business loans, revolving lines of credit, and factoring — as well as through *Recursos para Mi Tierra*, a trust fund partnership with FUNDER and La Colonia supermarkets. FUNDER is a Honduran NGO which has for a number of years been working to develop the agriculture industry through technical assistance and training of producers.

12. Numbers don't necessarily correspond with CNBS data due to the voluntary nature of the survey and the inclusion of the "indirect" category, which CNBS does not use.

FUNDER: Replicating the Recursos para Mi Tierra Value Chain Finance Model

Since 2008, FUNDER has tried to leverage its limited financial resources by developing funding and risk sharing agreements with other entities. The NGO has replicated this type of mechanism with others, including an arrangement with Antorcha (supermarket) and Cadelga (input provider) similar to the *Recursos para Mi Tierra* model to finance inputs for smallholders. Other arrangements include one with Oriental Vegetables, FINCA, and agro exporter San Rafael, which along with FUNDER, provides export contracts and guarantees a portion of the risk. With CACIL (a financial cooperative), FUNDER has joined forces along with COMSA (an organic coffee cooperative) to provide financing to up to 150 coffee producers to maintain their coffee plantations. FUNDER has also expanded the model to rural banks in conjunction with a financial cooperative (La Ceibena). In this model, FUNDER puts in 25 percent of the funds and La Ceibena lends the balance to the FUNDER-sponsored rural bank.

as well as small business development. In the *Recursos para Mi Tierra* arrangement, La Colonia signs forward contracts with farmers to purchase predetermined volumes of fruits and vegetables at market prices. Ficohsa provides lines of credit to small producers against these forward contracts . FUNDER provides technical assistance to the participating producers throughout the production cycle, promoting improved agricultural techniques to generate higher yields and guarantee delivery of fresh produce to La Colonia year-round.

The *Recursos para Mi Tierra* fund, which at the end of October 2013 had 300 outstanding loans totaling US$575,000, is exclusively for smallholders. At one point during its life, Recursos para mi Tierra had outstanding loans of approximately US$1 million (Gutiérrez, 2013). Interest rates on Recursos loans average 22 percent.

Ficohsa also finances small and medium producers of rice, coffee, and vegetables, and processors of plantains, milk, African palm, and meat through its SME department. Traditional loans of US$30,000 or more typically require financial statements, and loan officers often help the producer or agribusiness generate the financial statements, depending on the size and nature of the loan. Interest rates vary according to the type of collateral being used to secure the loan. Collateral is required to secure all loans greater than US$15,000. Ficohsa management estimates that in 50 percent of cases, land is used to guarantee the loan, and in 40 percent of cases, equipment is used. Third-party guarantees or inventory have also occasionally been accepted. Working capital for small and medium producers is typically managed as a line of credit in which a ceiling is established, and against which drawdowns are disbursed. Interest is paid monthly. Ficohsa's SME division had delved into some factoring products, but they are currently being redesigned.

Ficohsa's SME division had delved into some factoring products, but they are currently being redesigned.

↘B5b. Atlantida Bank

Atlantida Bank lends to agroindustry through two divisions: Business Banking and Personal Banking. The Business Banking division has seen good growth of approximately 11 to 20 percent annually in lending to agroindustry. Its primary growth area has been in African palm, but it also sees strong growth in shellfish, fish, poultry, and sugar cane. Atlantida estimates that of talmost 30 percent of its US$175 million portfolio, is in agroindustry.

Risk is managed through the use of collateral, as well as some limitations on exposure to any single activity. Atlantida does not take land as collateral, but rather lends against third party guarantees from lead firms. One form of guarantee it uses in the coffee sector is a "pledge bond," which is essentially a form of warehouse receipt finance. Under this mechanism, Atlantida provides working capital to AICAFE, an association of coffee intermediaries. Similarly, Atlantida lent US$1 million to coffee cooperative COMISUYL against an export contract.

↘B5c. Lafise Bank

Lafise has pulled away from agriculture in recent years after signing a much-touted arrangement with Walmart to finance its smallholder suppliers in 2010. Similar to the Ficohsa-La Colonia-FUNDER financing arrangement, Lafise would finance smallholder suppliers of Walmart using the firm's contract to purchase at market rate to guarantee the loan. To date, Lafise has only made two loans under that mechanism. Lafise attributes this to a lack of decision-making on the part of Walmart.

In addition to the Lafise-Walmart arrangement (secured against a contract for purchase), Lafise offers warehouse receipts and factoring to finance farmers. Interest rates range between 16 and 18 percent regardless of the end use.

Unlike Atlantida, Lafise has seen little growth in its agroindustry portfolio (approximately 1 percent annually). Approximately 8 to 10 percent of its portfolio is in agro industry, with three-quarters going to coffee exporters. Lafise has approximately 30 agriculture clients, with almost 80 percent of total agricultural loans having terms of less than one year. Miguel Galeas of Lafise stated that the bank evaluates and manages credit risk using a tool developed by Ahiba Al Agro. Lafise requires collateral, but appears to be more flexible, often accepting equipment financed or a complementary contract as collateral. it does not have any portfolio limits on exposure to agriculture or types of crops.

C

Key Challenges, Opportunities, and Innovations for Agricultural Value Chain Finance in Honduras

Perception of stricter norms for agricultural loans. A number of banks and other experts interviewed told us that higher reserves are required for loans to the agricultural sector than for other sectors. Higher reserve requirements generally result in higher costs for the financial institution, which are passed on to the borrower, primarily through higher interest rates. Our own analysis of CNBS Guidelines for the Evaluation and Classification of the Loan Portfolio currently in effect indicates that there are no explicit regulations stating that agricultural loans should be classified as higher risk or that higher reserves are required for loans to the agricultural sector. Loans to businesses, including farmers in the agricultural sector in Honduras, are classified as Large Commercial, Small Commercial, and Microcredit. Reserve requirements are based on the size of the loan, the borrowers' standing in the public credit registry, and the financial institution's classification of the business, according to factors such as his or her capacity to repay, repayment history with the institution, and availability of collateral or other guarantees.

It is clear from interviews and statements by the Honduran Bankers' Association that banks view the agricultural sector as inherently risky, and classify loans to producers as such (AHIBA, 2010). In interviews conducted by Fernando de Mergelina and Omar Villacorta in 2010, banks explained that CNBS inspectors often instruct them to provision agricultural loans using more conservative measures than regulations require. The CNBS however, noted that there is no operational policy promoting this practice (de Mergelina & Villacorta, 2010). A deeper investigation into default rates on agricultural loans over the past five years could help alleviate perceptions that small and medium farmers are risky clients. This, coupled with technical assistance to help banks structure and pilot

IN INTERVIEWS, BANKS EXPLAINED THAT CNBS INSPECTORS OFTEN INSTRUCT THEM TO PROVISION AGRICULTURAL LOANS USING MORE CONSERVATIVE MEASURES THAN REGULATIONS REQUIRE. THE CNBS HOWEVER, NOTED THAT THERE IS NO OPERATIONAL POLICY PROMOTING THIS PRACTICE.

AVCF products like Ficohsa's Recursos para Mi Tierra, could help foster a demonstration effect and dispel the myth that farmers are inherently risky clients.

Lack of secure land tenure and expansion of use of movable property as collateral. While reserve requirements are only slightly lower (0.25%) for loans guaranteed with real estate versus other types of guarantees, banks almost always require real estate as collateral for agricultural loans. Estimates vary, but only 40 percent of poor households hold any kind of title to land, and this title may not be in the name of the owner (e.g., it may still be in the name of the previous owner or a parent or spouse) (Aluna Development Associates, 2013). Even when the borrower does have secure tenure to land, rural parcels of land are appraised at significantly lower values than urban land, reflecting the fact that resale of rural land is more difficult and time-consuming. Regulations also require that the value of rural land used to guarantee a loan must be discounted by 20 or 30 percent, depending on whether it is irrigated or non-irrigated. As a result, banks like Lafise and Ficohsa often require collateral totaling at least double the amount of the loan (Campion, Coon, & Wenner, 2010).

The Secured Transactions Law, which enabled a wide range of tangible and intangible items – including future crops, farm equipment, supply contracts, and accounts receivable – to be used as collateral, holds promise for expanding access to credit for farmers without secure tenure to land. Unfortunately, the law has not been used as expected since its implementation in 2011. Most banks interviewed had heard of the law, but only one bank interviewed stated it used the recently established Movable Property Registry.

Interviewed banks viewed movable property as a potentially useful tool for mitigating risk, and have gradually been expanding the use of physical assets, such as stocks of maize, sugar, and rice, as well as machinery and vehicles, as registered security. A more in-depth look at the use of moveable property by banks in Honduras would be worthwhile to determine if additional assistance is needed to upgrade the registry and/or educate banks on how to use it to secure collateral.

Lack of risk mitigation tools. Government debt forgiveness programs for farmers, coupled with mismanagement by Banadesa, have in the past fostered a culture of non-repayment in rural areas that now make banks and other financial institutions hesitant to lend to small and medium producers. Climate and market fluctuations, inexperienced farmers, crop diseases, and other risks were also noted as concerns by banks and non-bank financial institutions interviewed. The lack of guarantee funds for small and medium agricultural producers (or guarantee funds only accessible by regulated institutions), and the lack of affordability or unavailability of crop or weather index insurance, make it difficult for financial institutions to offset these risks.

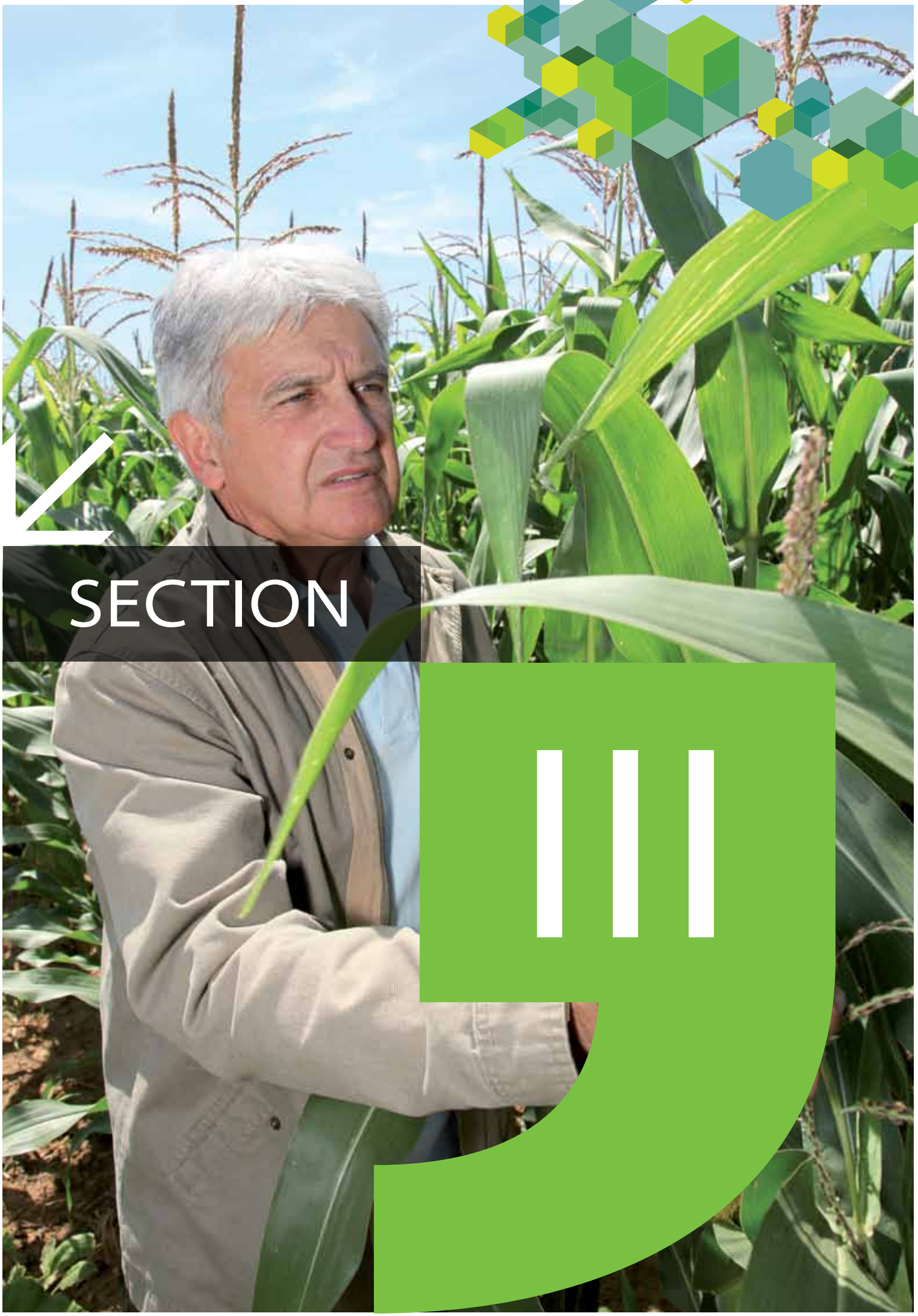
AVCF innovation,s like that of the shared risk "trust fund" piloted by Funder, Ficohsa, and La Colonia, are being replicated in other value chains, like coffee and horticulture. (See FUNDER text box on page 86.) Inalma partially guaranteed a financial arrangement between Cadelga and the 25th of March Cooperative in Choloma to finance plantain production, providing a contract as well as remittance of the loan payments directly to Cadelga. Additionally, Disagro, an input wholesaler, financed improved yellow corn seeds through local input providers for producers of feed corn. AVCF mechanisms underpinned by strong interdependence between two parties in the value chain hold promise for expanding commercial credit to small and medium farmers and helping them to build solid credit histories with formal financial institutions.

FIGURE 19 HONDURAS: OVERVIEW OF AGRICULTURAL VALUE CHAIN FINANCE

	TYPICAL CLIENT	AVCF PRODUCTS OFFERED	KEY FACTORS IN LOAN EVALUATION	AVERAGE LOAN SIZE (USD)	AVERAGE LOAN TERM	ANNUAL INTEREST RATE (%)	AGRICULTURE PORTFOLIO AT RISK (>30 DAYS)	PRIMARY SECTORS WHERE ACTIVE
NON-FINANCIAL INSTITUTIONS								
↘ Production Cooperatives	Smallholder members	Input/trade finance	• Character • Credit history • Capacity	N/A	<1 year	20%	N/A	Dairy; fruits & vegetables; coffee
↘ Social and Impact Investors	Small to medium-sized producer cooperatives some private sector firms	Short-term working capital	• Social and environmental scorecard • Capital	$342,000	<1 year	9.5%	1.0%	Coffee
↘ Input Providers	Small, medium, and large producers; cooperatives	Inputs, some irrigation	• Character • Credit history • Capacity	$1,500	<1 year except for irrigation	18%	N/A	Livestock; various crops
STATE-OWNED BANK								
↘ Banadesa	Small and medium producers	Short- and Long-term Loans	• Crop insurance • Collateral (land or livestock/ equipment • Experience of farmer	NA	18 months (working capital) 7–8 years (irrigation)	10%	NA	Various crops

RURAL FINANCIAL COOPERATIVES								
Taulabe	Members	Short-term loans	• Character • Collateral • Capacity	$125,000	<1 year	19%	N/A	Coffee, rice, African palm
CACIL	Micro, small, and medium producers	Short-term microfinance loans, SME loans	• Character, collateral • Group guarantee • Savings history • Capacity	Micro: $700 SME: $8,000	<1 year	15%	0% in group loans Approx. 3% in individual	Coffee, horticulture,
COMMERCIAL BANKS								
Ficohsa	Small and medium producers	Recursos para mi Tierra	• Collateral • Capacity • Contracts	$1,917	6 months-10 years	22%	N/A	Horticulture, Agroindustry
Bank Lafise	Small, medium and large producers and agribusinesses	Wal-Mart Lafise Factoring Leasing Fixed asset Working capital	• Collateral • Capacity • Contracts	$7,500	< 1 year	17%	N/A	Coffee, horticulture, meat, agroindustry
Atlantida Bank	Small, medium and large producers and agribusinesses	Working Capital Fixed asset	• Collateral • Capacity • Contracts	$750,000	6 months to 3 years (working capital); 5-10 years fixed asset	17%	N/A	Livestock, African palm, sugar cane, shellfish, coffee, fish, bananas, agroindustry
Pro-Credit	Smallholders, small and medium agribusinesses	Working Capital, Fixed Assets	• Collateral • Capacity		6 months to 5 years	23%	N/A	Coffee, horticulture, livestock, rice, agro industry
MICROFINANCE INSTITUTIONS								
Credisol	Smallholders	Land Purchase, Working Capital	• Collateral • Capacity	$550	< 1 year	27%	N/A	Livestock, horticulture

Source: Root Capital, 2014; interviews with financial institutions.



SECTION III

AGRICULTURAL VALUE CHAIN FINANCE IN THE UNITED STATES

According to the 2012 United States Department of Agriculture (USDA) Census of Agriculture, there are more than 2.11 million farms in the United States. The average U.S. farm is 175 hectares and has annual sales of US$187,000. Until 2013, the USDA defined small farmers in the United States as those with annual gross agricultural sales of US$250,000 or less.[13] By this definition, 88 percent of farms in the United States are considered small. Seventy-five percent of farmers in the United States had annual farm income of US$50,000 or less. The "average" U.S. farm household today earns between 80 and 90 percent of its income from off-farm sources. More than two-thirds of farm households have a household member earning income from off the farm (Ahearn, 2014). More than half of farmers state that farming is not their primary occupation (USDA NASS, 2014).

THE AVERAGE U.S. FARM IS 175 HECTARES AND HAS ANNUAL SALES OF US$187,000. UNTIL 2013, THE USDA DEFINED SMALL FARMERS IN THE UNITED STATES AS THOSE WITH ANNUAL GROSS AGRICULTURAL SALES OF US$250,000 OR LESS.

13. The USDA Economic Research Service changed its definition of small family farms from those with less than US$250,000 in sales to those farms with US$350,000 or less in gross cash farm income (GCFI). Medium family farms are defined by the USDA as those with between US$350,000 and US$999,999 in sales (Hoppe & MacDonald, 2013).

A

Supply of Agricultural Finance in the United States

Agricultural finance in the United States is characterized by large numbers of commercial financial providers willing to finance primary producers and commercial agribusinesses using a variety of products. Primary producers, for their part, have access to a variety of risk-mitigating mechanisms, including crop insurance, commodity price supports, and many other government subsidies targeting the agricultural sector.

According to the USDA's Economic Research Service (ERS), 40 percent of total debt to farmers in the United States in 2012 was provided through the Farm Credit System. A nearly equal amount of debt was provided by commercial banks. Consistent with 2010 and 2011, the remaining 20 percent was financed by individuals (14 percent), life insurance providers (4 percent), the USDA Farm Service Agency[14] (2 percent), and the Federal Agricultural Mortgage Corporation[15] (1 percent).

In 2012, 27 percent of U.S. producers used debt, down from 60 percent in 2002 (Ahearn, 2014).

Loan volume has increased over time, which indicates that debt usage has become more concentrated in fewer, larger farm businesses. Commercial banks were much more likely to be the only source of credit for small farms. In 2012, 28 percent of FCS borrowers had more than US$500,000 in gross sales, compared to 14 percent of commercial bank borrowers (Ahearn, 2014). Lenders and farm operators indicate that real estate accounts for the largest use of farm debt (Harris, Johnson, Dillard, Williams, & Dubman, 2009).

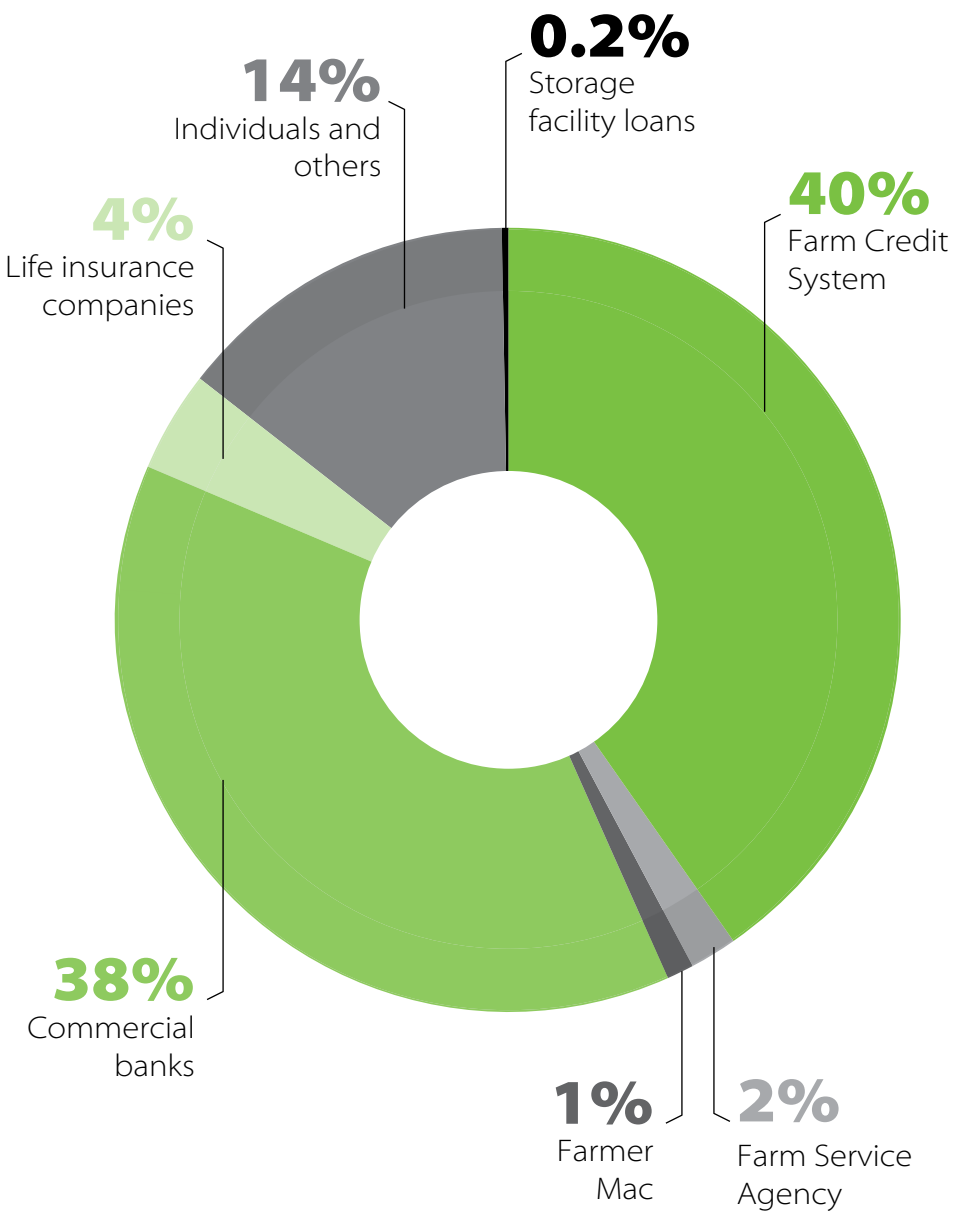
> 40% OF TOTAL DEBT TO FARMERS IN THE UNITED STATES IN 2012 WAS PROVIDED THROUGH THE FARM CREDIT SYSTEM. A NEARLY EQUAL AMOUNT OF DEBT WAS PROVIDED BY COMMERCIAL BANKS (ECONOMIC RESEARCH SERVICE, USDA)

14. USDA Farm Service Agency (FSA) provides direct loans to beginning and small farms and women and minority farmers, as well as emergency loans for farmers in federally declared disaster areas (USDA FSA, 2014). The FSA's Farm Storage Facility Loan Program (FSFL) provides low-interest financing for producers to build or upgrade farm storage and handling facilities (USDA, 2014).

15. The Federal Agricultural Mortgage Corporation, commonly known as Farmer Mac, was created by Congress to establish a secondary market for agricultural mortgage and rural utilities loans to increase the availability of long-term credit at stable interest rates to segments of rural America. (Farmer MAC, 2014)

FIGURE 20

SOURCES OF US FARM DEBT 2012



Source: USDA, 2013.

A1. Lead Firms as Lenders in the Value Chain

While there are little data on lead firm finance in the United States, lead firms have long been advancing specialized seeds, fertilizer, and other inputs to small farmers who make up their suppliers. Another form of "finance," contract farming, has been gaining popularity in the United States in recent years, as large poultry and pork companies like Perdue and Smithfield aim to increase supply while maintaining the quality and consistency of consumer products. In this type of arrangement, a large poultry company like Perdue will supply a small commercial farmer with chicks and all of the necessary feed to raise them into broiler chickens. The firm agrees to pay the farmer a fee based on an estimated price per pound.[16] Once the broilers reach maturity, the poultry firm takes them in exchange for the fee and processes them at its own plant. The average small poultry farmer in the United States receives a fee of US$152,000 for 460,000 birds, while the poultry firm sells the processed broilers for around US$1.1 million (Hoppe & MacDonald, 2013).

16. In the case of US poultry, the actual price per pound is determined by how much weight the chickens gained, compared to how much feed the company supplied. The firm then ranks the farmers according to efficiency. The top-ranked farmer can get paid up to 50 percent more, per pound of chicken delivered, than the one at the bottom. It is important to note that the small farmer must have the proper equipment and conditions to raise the chickens, which for an average operation of four chicken houses, could require an initial investment of US$1 million or more (Charles, 2014).

A2. Production Cooperatives as Lenders in the Value Chain

Cooperative firms account for a significant portion of economic activity in U.S. agricultural and food markets, both as providers of key inputs and as marketing and processing agents for farm output. The USDA's 2012 agricultural survey counted 2,238 marketing, supply, and service cooperatives, compared with 2,299 in 2011. Some marketing cooperatives in the United States, including Sunkist, Ocean Spray, Sun-Maid, and Sunsweet, are household names. These organizations, for the most part, do not lend directly to farmers in the United States, but do provide processing and marketing services to farmers, negotiate sales as a group to a single buyer or a small number of buyers, and provide logistical support to aggregate farm supply. The gross value of products marketed by cooperatives was US$138 billion in 2012. Many farmers purchase basic inputs, such as seed, fertilizer, and farm chemicals, from supply cooperatives. The gross value of supplies handled by cooperatives in 2012 was US$92 billion, with a net value of US$65 billion (USDA, 2013). CoBank, a member of the Farm Credit System (see below) provides financing to U.S. production cooperatives, as do the National Consumer Cooperative Bank and the Cooperative Finance Corporation. The USDA also provides targeted grants for cooperatives working to revitalize and redevelop rural areas.

↘ AGRICULTURAL COOPERATIVES IN THE US

MARKETING COOPERATIVES DERIVE MOST OF THEIR TOTAL DOLLAR VOLUME FROM THE SALE OF MEMBERS' PRODUCTS.

SUPPLY COOPERATIVES DERIVE MOST OF THEIR BUSINESS VOLUME FROM THE SALE OF PRODUCTION SUPPLIES, MACHINERY AND EQUIPMENT, AND BUILDING MATERIALS.

SERVICE COOPERATIVES PROVIDE SPECIALIZED SERVICES RELATED TO THE BUSINESS OPERATIONS OF FARMERS, RANCHERS, OR COOPERATIVES, SUCH AS TRUCKING, STORING, OR DRYING (USDA, 2013, P. 1).

B

Farm Credit System

The U.S. Farm Credit System (FCS) was established in 1916 with the passage of the Federal Farm Loan Act, after more than eight years of studies and commissions that responded to American small farmers' complaints about not being served fairly by the country's commercial banks. The Farm Credit System, inspired by the German *Landschaft* system of government-sponsored regional banks, was initially set up as a series of 12 regional Farm Loan Banks. Over the years, there have been challenges to the stability of the FCS, including the Great Depression and the difficult years in the 1980s, when many farmers and Farm Loan Banks suffered severe losses. In 1987, as part of a recovery package for the ailing FCS, Congress passed key reforms that forced the Farm Credit Banks and their regulators to reorganize and consolidate the system's structure to make it more competitive with commercial banks.

Today the FCS is made up of four large wholesale Farm Credit Banks (called "System Banks"), along with 82 local Farm Credit Associations. The system is a cooperatively owned government-sponsored entity with an explicit mandate to serve agricultural borrowers. However, Steve Weir of member Farm Credit East is quick to point out that the system currently operates without any financial support from the federal government. The Farm Credit Associations are established as cooperatives, with individual farmers as members providing share capital. Similar to municipal or rural banks in Peru, each association serves a specific region. The associations are prohibited from taking deposits.

The four system banks are CoBank[17], AgFirst, AgriBank, and Farm Credit Bank of Texas. The primary function of the System Banks is to extend credit to their affiliated retail associations and, to a lesser extent, extend credit to other eligible financial institutions that carry agricultural credit as part of their loan portfolio. The lending activities of the retail associations are funded through the System Banks (and to some degree through retained earnings), with the System Banks, in turn, receiving their funding through the Farm Credit Banks Funding Corporation (FCBFC), a U.S. Government-sponsored enterprise. FCBFC issues notes and bonds on behalf of the System Banks, and these funds are then lent to the regional associations. The system is regulated by the Farm Credit

17. CoBank differs from other banks in the system in that it loans directly to agribusiness cooperatives, rural communication, rural electricity, and rural water and waste, and provides international credit for promoting US agricultural commodity exports.

Administration (FCA). The FCA has the same range of regulatory and enforcement authorities as other Federal banking regulators. The FCA's budget is entirely funded by assessments paid by Farm Credit institutions. The Farm Credit System Insurance Corporation, a self-funded insurance fund, acts as the insurer to protect investors in Farm Credit Debt Securities (Farm Credit System, 2013). All of the institutions up and down the farm credit system are highly capitalized. In 2012, the system had a Capital Asset Ratio of 15.7, signaling that it and its members are well protected.

Presently, the Farm Credit System claims almost 500,000 "farmer-borrowers," who are the owners of the Farm Credit Associations. Total assets of the system exceeded US$248 billion as of year-end 2012. For its part, the Farm Credit System shows total debt outstanding — funding system assets — of more than US$191.9 billion as of December 31, 2013 (Farm Credit, 2013). In 2012, the Farm Credit System made 141,287 new loans to small farmers totaling US$13.279 billion, compared with 137,529 loans totaling US$11.197 billion in 2011. In 2012, these loans represented 41.6 percent of new loans made by Farm Credit during the year and 16.9 percent of the dollar volume of all loans made. At year-end 2012, Farm Credit had US$44.653 billion in outstanding loans to small farmers and ranchers (Farm Credit, 2012).

B1. Farm Credit East

Farm Credit East (FCE) is the leading lender to agriculture in the northeastern United States. Part of the National Farm Credit System, FCE is a farmer-owned cooperative. FCE currently serves 12,000 customers in the states of New York, New Jersey, Connecticut, Massachusetts, New Hampshire, and Rhode Island, with US$4 billion in loans and a diverse program of financial services that helps farmers successfully manage their businesses. Steve Weir, Vice President of FCE, explains that like other associations in the Farm Credit System, FCE is a mission-focused lender focused on lending to farmers and rural America. Unlike a commercial bank, the system's mandate means that FCE is "there in good times and in bad times," says Weir (Putnam, Weir, & Lamb, 2013).

FCE, like most of the 82 retail providers in the Farm Credit System, uses a highly consultative approach to working with its borrower members. FCE loan officers provide potential borrowers with extensive input, advice, and economic information during the loan process. This requires highly educated loan officers with extensive knowledge about the sectors in which their clients work. FCE recruits many of its loan officers from U.S. land-grant universities with a focus on agricultural economics. Loan officers are provided with specialized tools for evaluating customer risk. One tool is a checklist that the loan officer fills out with the customer to help the customer identify his or her own level of risk. Examining things like the customer's asset structure, whether he or she has adequate insurance, levels of indebtedness, and market risk, the checklist helps foster a dialogue between the loan officer and the customer about his or her level of risk, borrowing needs, capacity to repay, and ways to mitigate that risk. FCE, like many retail lenders in the Farm Credit System, relies heavily on loan officers to evaluate potential borrowers and provides them with certain levels of authority for decision making.

While the largest Farm Credit Association, Farm Credit Services of America, has developed a specialized scorecard for lending to producers and agribusiness, FCE, like most of the retail banks in the FCS, focuses on the five Cs of credit: Character, Capacity, Collateral, Credit Score, and Condition (how much risk is involved). No one area is weighted more than another, and if weaknesses are identified, the loan officer will

work to identify measures to mitigate specific risks as part of the recommendations for the loan package. These might include drawing on loan guarantees provided by the U.S. Farm Services Agency (FSA) or the Small Business Administration.

Product offerings. FCE offers seasonal "operating" loans, which usually have a one-year commitment, short-term working capital loans, and longer term "real estate" loans for infrastructure construction. FCE, like many retail banks in the Farm Credit System, also offers its borrowers non-financial services for a fee, including payroll services, tax preparation, appraisal, business consulting, and record keeping. FCE does not get involved in the management of the farm or agribusiness operations, but it is one of two retail lenders in the FCS to provide consulting services for a fee that support sound business decision making. FCE focuses on the long-term profitability of its farmer clients and prides itself on helping them take advantage of opportunities to take their business to the next level. Weir says that FCE's approach to lending is largely relationship-based — they look at all individual products as part of a larger offering to help farmer/owners grow and be more successful.

Risk management. FCE also prides itself on its "no surprises" approach to lending. It encourages its loan officers to be proactive, identify potential client risks early, and engage farmers in discussions on how to avoid potential problems. FCE states that its rate of non-performing loans it comparable to that of the overall Farm Credit System: less than 1 percent.

Like many FCS retail banks, one of the challenges FCE faces is being a single-purpose lender, and being regionally based it cannot diversify risk across industries. In a given region, a retail association like FCE may lend only for cattle, dairy, grains, etc., depending on the agricultural profile of the region (Putnam, Weir, & Lamb, 2013).

B2. Commercial Banks

Individual commercial banks compete with each other and with the Farm Credit System to provide credit to the agricultural sector. The American Bankers Association (ABA) reports that as of 2012, banks carried over US$140 billion of loans to farms for acquiring acreage and equipment, funding operations, and providing working capital. In 2012, the top five commercial banks lending to the agricultural sector included Wells Fargo (US$5.8 billion) Utrecht-America Holdings[18] (US$3.2 billion), BancWest (US$2.2 billion), John Deere Financial (US$2 billion), and Citigroup (US$1.4 billion). (Rieker, 2012) Like associations in the Farm Credit System, banks lending to farmers in the United States couple traditional measures of determining creditworthiness with a relationship-based lending approach. Bank delinquency rates on agricultural loans (2.55 percent) have tended to be lower than other loan types over the past two decades (Ellinger, 2011).

In addition to large commercial banks, hundreds of small "farm banks" finance U.S. producers. The ABA maintains a small division focused on promoting agricultural lending and agricultural banks. To be classified as a "farm bank," a bank must have at least 14.42 percent of total loans extended to the agricultural sector. Based on this threshold level, there are 2,215 farm banks presently operating in the United States (ABA, 2013). ABA claims that in 2013, farm banks held approximately US$70 billion in small farm loans with US$20.6 billion in micro-small farm loans.[19] Unlike Farm Credit Associations, these banks can capture deposits from the public.

18. Dutch bank Rabobank's U.S. lending affiliate.

19. A small farm loan is defined as a loan with an original value of US$500,000 or less.

C

Risk Mitigation in Agricultural Finance in the United States

There are a variety of ways for farmers, agribusinesses, and financial institutions to mitigate the risks inherent in lending to agriculture. An extended analysis of each of these instruments or risk mitigation techniques is beyond the scope of this report, but below we present three of the most critical risk mitigation tools that support agricultural lending in the United States.

Crop insurance.

More than 86 percent of insurable farmland in the United States is protected through the Federal Crop Insurance Program (Myers, 2014). Multi-peril crop insurance (MPCI) protects producers against the loss of their crops due to natural disasters such as hail, drought, freezes, floods, fire, insects, disease and wildlife, or loss of revenue due to a decline in price. Under the Federal Crop Insurance Program's unique public-private partnership, there are 19 private companies authorized by the USDA Risk Management Agency (USDA RMA) to write MPCI policies. The service delivery side of the program — writing and reinsuring the policies, marketing, adjusting and processing claims, training and record-keeping, etc. — is handled by each private company. The program is overseen and regulated by the RMA, which sets the insurance premium rates that can be charged and determines which crops can be insured in different parts of the country. The federal government also subsidizes farmer-paid premiums to reduce the cost to farmers. In addition, it provides reimbursement to private insurance companies to offset operating and administrative costs that would otherwise be paid by farmers as part of their premium. Crop insurance companies cannot refuse to provide protection, raise premium rates, or impose special underwriting standards on any individual producer, regardless of risk (National Crop Insurance Services, 2014).

Before 1980, the US government acted as the primary insurer, and farmer participation in the program was low. The US government, however, was simply not an effective marketer and service provider to farmers. Congress subsequently decided to use private-sector delivery with incentivized sales, and increased the premium discount to current levels of 60 percent (National Crop Insurance Services, 2014).

Forward and futures contracts.

Farmers and agribusiness can purchase commodity futures contracts to hedge price risk, and many large individual farmers do so. Chicago's two major commodity exchanges have grown up with American agriculture and now serve the world's needs to hedge agricultural commodity risks. In addition,

THE FARM SERVICE AGENCY PROVIDES LENDERS (E.G., BANKS, FARM CREDIT SYSTEM INSTITUTIONS, CREDIT UNIONS) WITH GUARANTEES OF UP TO 95 PERCENT OF THE LOSS OF PRINCIPAL AND INTEREST ON A LOAN.

commodity price risk can be mitigated through "marketing orders" issued through the Commodity Credit Corporation (CCC). Essentially, the marketing order gives the farmer certainty of price for a commodity; he or she can sell to the CCC at the agreed price, or sell to another buyer should there be a favorable price move.

Loan guarantees.
The Farm Service Agency provides lenders (e.g., banks, Farm Credit System institutions, credit unions) with guarantees of up to 95 percent of the loss of principal and interest on a loan. Farmers and ranchers apply to an agricultural lender, which then arranges for the guarantee. The FSA guarantee permits lenders to make agricultural credit available to farmers who do not meet the lender's normal underwriting criteria. Through this program, the government guarantees a percentage of a loan balance for the bank. If the loan defaults and the bank takes a loss, the government will reimburse the bank based on the percentage of the guarantee.

Interestingly, these risk mitigation instruments and other strong features of the agricultural credit system in the United States have combined to support lending directly to individual farmers. As a result, financial institutions like Wells Fargo and Farm Credit East are able to accept and manage the risks of lending directly to farmers, and are less likely to construct the types of creative risk sharing arrangements seen in Latin America.

D

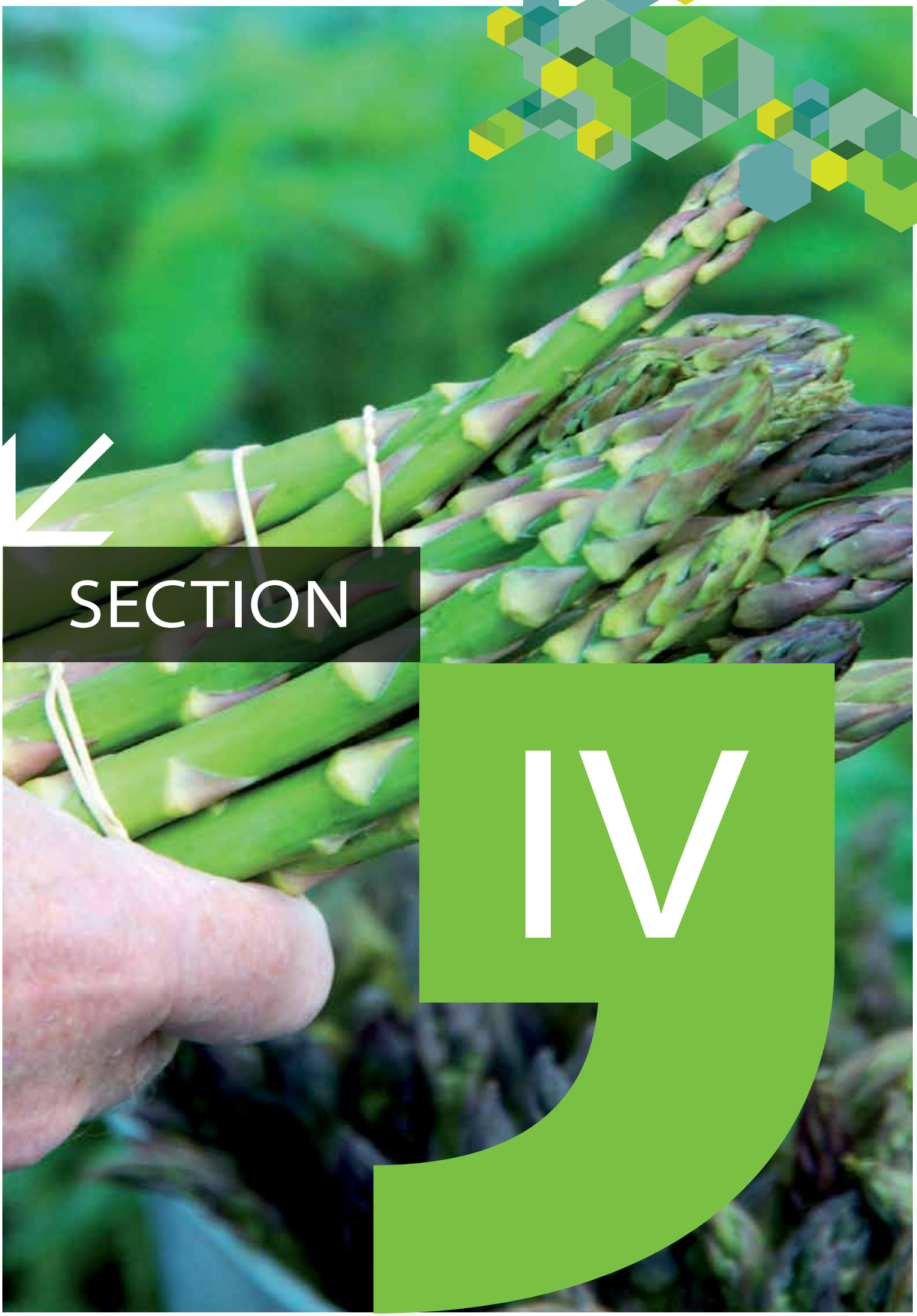
Lessons from the U.S. Agricultural Credit System

The robust but still highly subsidized agricultural credit system in the United States has resulted from the interplay of unique and generally favorable historical factors. Some of the key features in the U.S. system could be held out as examples for developing countries.

Favorable enabling environment for lending. The U.S. financial system can be characterized by strong and enforceable creditor rights, supported by efficient asset registries. Financial infrastructure in the United States supports working capital lending and fixed asset lending to individuals and businesses through the Uniform Commercial Code, which allows creditors to secure assets as collateral in an efficient and affordable manner. Credit histories of more than 90 percent of people in the United States are captured by three private credit bureaus, as utilities and other service providers contribute information to the system.

Strategic use of subsidies. Crop insurance at subsidized rates helps individual farmers — and their creditors by extension —mitigate weather-related risks. Derivatives also help price risk mitigation, but these instruments can be complex. Various other production-related subsidies, along with price supports, help enhance farmer incomes, showing that subsidies for agriculture can be a good thing if judiciously applied.

Private-sector oriented single purpose lenders with a focus on relationship lending. Farm banks and farm credit associations have a long history of analyzing and underwriting agricultural producers, processors, and other value chain actors. There is a substantial store of technical know-how about how to underwrite, monitor, and manage agricultural credit and portfolio risks.



SECTION IV

LESSONS LEARNED FROM EXPERIENCES ACROSS THE AMERICAS IN VALUE CHAIN FINANCE

Each of the four countries examined provides a vastly different set of challenges and each country is at a different stage in terms of its farmers' ability to access finance for growth. The United States has a robust mix of both private and government sponsored entities serving farmers with a variety of financial services, from mortgages to working capital loans, factoring, and leasing. Production cooperatives and lead firms play less of a role than in Latin America, largely because financial institutions already actively compete for farmers' business and there is less of a need for internal value chain finance. The U.S. government provides a comprehensive package of subsidies and supports to the agricultural sector that helps to mitigate risk to lenders, including subsidized crop insurance, loan guarantees, crop subsidies, a uniform commercial code for collateral, and a futures market for reducing price uncertainties. This was not always the case, and high levels of bank lending to farmers only came about after major interventions on the part of the government, including the creation of a Farm Credit System to serve the agricultural sector.

THE UNITED STATES HAS A ROBUST MIX OF BOTH PRIVATE AND GOVERNMENT SPONSORED ENTITIES SERVING FARMERS WITH A VARIETY OF FINANCIAL SERVICES, FROM MORTGAGES TO WORKING CAPITAL LOANS, FACTORING, AND LEASING.

Government programs and risk mitigation mechanisms also play an important role in the resurgence of lending to Mexico's agricultural sector. Lending to the agricultural sector dropped off dramatically after the 1994 and 1995 peso crisis, but a handful of relatively new entrants to the agricultural finance market have begun to take advantage of government guarantees, subsidies, and programs to finance agribusinesses and farmers. After the collapse of the state agricultural bank in 2002, lead firms (typically agro-processors) historically provided the bulk of financing to small and medium farmers on whom they depended for supplies. Private, single-purpose lenders are capitalizing on these value chain finance arrangements to build financing relationships with both agro-processors and their small suppliers, stepping in to provide the capital, while lead firms continue to administer loans in the majority of cases.

Peru's financial institutions are taking a less creative approach to finance, with few lending to small and medium farmers without the security of fixed collateral. While microfinance institutions are making new pushes into rural markets, loan amounts and terms are more geared toward small subsistence farmers with less than two hectares. Commercial banks generally loan only to medium to large farmers with more than 50 hectares, and require land titles, financial statements, external evaluations, proof of water rights, and other documents a typical small or medium producer would be hard-pressed to provide. The resulting gap implies that there are few financing options for small and medium commercial and semi-commercial farmers in Peru. Risk mitigation mechanisms, such as guarantees and private crop insurance, are highly underutilized. However, banks are actively using financing products like leasing and factoring with larger farmers that could be easily integrated into AVCF arrangements to provide finance for small and medium producers.

In the case of Honduras, financial institution lending to the agricultural sector is low. Banks require excessive collateral in the form of title to land, which the vast majority of small and medium farmers are unable to provide. Cooperatives and microfinance institutions lend to farmers, but also require collateral and tend to take a one-size-fits-all approach to product development.

Large input suppliers have stepped in to fill the gap, often advancing feed, fertilizer, and even irrigation systems on credit. A few banks are starting to experiment with creative value chain finance relationships that leverage forward contracts with buyers or warehouse receipts.

Financial institutions in all three countries studied in Latin America are building their agricultural finance portfolios to varying degrees, using models that leverage value chain relationships and incorporate several players within the value chain, including smallholder producers, small and medium processors and intermediaries, and larger buyers. These institutions have developed financing structures that more evenly distribute financial risk, as well as take advantage of lead firms' positions within the value chain and knowledge of their smallholder suppliers. Many of these arrangements help to address shortcomings in the enabling environment (see Figure 24).

FINANCIAL INSTITUTIONS IN ALL THREE COUNTRIES STUDIED IN LATIN AMERICA ARE BUILDING THEIR AGRICULTURAL FINANCE PORTFOLIOS TO VARYING DEGREES, USING MODELS THAT LEVERAGE VALUE CHAIN RELATIONSHIPS AND INCORPORATE SEVERAL PLAYERS WITHIN THE VALUE CHAIN, INCLUDING SMALLHOLDER PRODUCERS, SMALL AND MEDIUM PROCESSORS AND INTERMEDIARIES, AND LARGER BUYERS.

FIGURE 21

ENABLING ENVIRONMENTS FOR LENDING TO FARMERS

	MEXICO	PERU	HONDURAS	UNITED STATES
Agriculture Value Added (% of GDP)	4	7	15	1
Domestic Credit Provided by Financial Sector (% of GDP)	47	17	56	230
Commercial bank branches (per 1000 sq km)	4	<1	6	8
Percent of rural population with account at a formal financial institution	11	13	14	87
Percent of rural population with loan from a financial institution	6	12	6	20
Percent of Producers who Purchased Agricultural Insurance	5	11	3	80
Producer support estimates (subsidies) as percentage of gross farm receipts	12.3	N/A	N/A	7.1
Single-purpose Agricultural Lender(s)	Several Public and Private 1st tier and 2nd tier	One Public 1st tier and 2nd tier	One Public 1st tier	> 100 Public and Private 1st tier and 2nd tier
Types of Government Support for Agricultural Lending	Futures Market Loan guarantees	Direct Loans Loan guarantees	Direct Loans Loan guarantees	Guaranteed, subsidized crop insurance Futures market Loan guarantees Direct Loans Grants
Ease of Registering Property	150	22	94	25
Depth of Credit Information (0-10; low to high)	6	6	6	6
Enforcing Contracts (Doing Business Ranking)	71	105	182	11

Source: Doing Business 2014; OECD, 2013; Global Findex, 2011; Author

A

Challenges

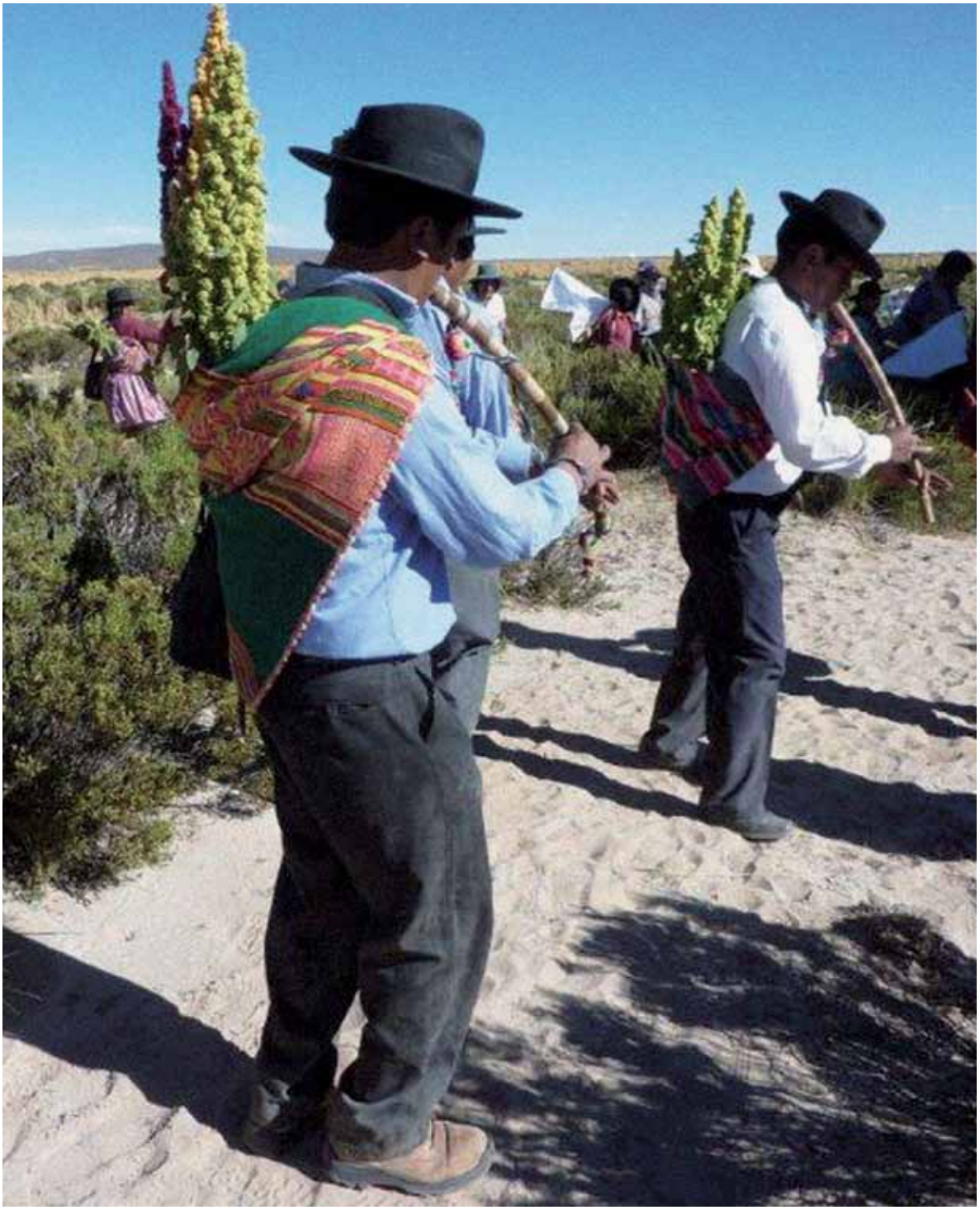
Several common challenges seem pervasive across markets in Latin America that limit access to finance for small and medium producers. As we have shown with examples from Mexico, Peru, and Honduras, agricultural value chain finance can be structured to address some of these challenges.

Bank penetration in rural areas is low. Financial institution penetration in all three countries, and especially in rural areas, is extremely low. The majority of small producers is still served by the local rural banks and financial cooperatives that have the greatest presence in these areas. In Mexico, more than one third of producers with access to credit said that they had received financing from local financial cooperatives; while in Peru, roughly half received financing from municipal or rural banks. In the case of Honduras, 16 percent of small producers surveyed said that they received credit from a rural bank. Peru and Mexico have both enhanced regulations to promote mobile and agent banking, but banks have just begun to venture into these new types of services. In general, rural farmers must make several trips to a distant city to even begin the application for a loan, and even then financing options are limited.

Credit options are extremely limited for small and medium-sized producers. It is clear that a "missing middle" still exists for small and medium-sized producers attempting to invest in modernization to increase production, improve quality, and reduce costs. Data are not readily available from banking superintendencies to support this assertion, but the vast majority of banks we interviewed were focused on large commercial producers, while the vast majority of financial cooperatives, MFIs, and NGOs we interviewed were focused on providing loans of US$2,000 or less to smallholders. Virtually no financial institution we interviewed had a unit focused on lending to commercial and semi-commercial small and medium producers with financing needs of between US$20,000 and US$100,000.

Loan terms are inadequate to finance the capital investments needed to modernize and increase production. Average terms for loans based on portfolio data from financial institutions in Mexico, Peru, and Honduras indicate that loan terms are typically one year or less. Loans to small and medium producers tend to be loans for working capital to finance one season of production. These loan terms are generally inadequate for small and medium producers and agribusinesses looking to finance larger investments such as improved irrigation, processing/packaging facilities, or transport.

Title to land is critical. Financial institutions almost always require fixed assets such as land or property as collateral for loans above US$10,000, and impose strict requirements on the value of those assets as compared to the value of the loan. In most cases, borrowers must pledge fixed assets totaling 150 percent or more of the value of the loan. With a few exceptions, such as factoring and warehouse receipts, banks rarely use other forms of collateral, such as inventory or specialized equipment. In countries like Mexico and Peru, with histories of agrarian reform and continuing challenges for small farmers in securing title to land, this severely limits credit to the agricultural sector.



B

Lessons Learned

Looking across each of the four countries examined, it becomes clear that no single factor can unlock access to finance for small and medium farmers. Rather, a combination of risk mitigation tools, incentives, and guarantees for lending to small and medium farmers seems to be most effective in moving financial institutions along the risk spectrum from avoidance of agricultural risk to acceptance and management of agricultural risk.

Multiple single-purpose lenders work better than one. In the United States, prior to the creation of the Farm Credit System, lending to farmers was extremely low. While it took more than a century and several adjustments to the system, it would seem that creation of the system sparked a demonstration effect, wherein banks and other commercial lenders began to view agriculture as an attractive segment of the market. Even after successive waves of consolidation in the banking sector and the Farm Credit System, today there are hundreds of banks and farm credit associations competing for farmers' business. The competition is so fierce that the American Bankers Association argues that the Farm Credit System has an unfair advantage and that a government-sponsored entity is no longer necessary.

Similarly, the entrance of a few single-purpose lenders into the Mexican agricultural financing market seems to have emboldened other financial institutions to expand services to farmers and agribusinesses. While it remains to be seen just how large the value chain finance segment can become in Mexico, several private, focused lenders seem to be creating a demonstration effect.

By contrast, the creation of one state-owned single-purpose lender does not seem to have had the same effect in most Latin American countries. While Banadesa in Honduras and Agrobanco in Peru have extensive branch networks throughout the country, their presence does not appear to spark competition in rural areas. In Peru and Honduras, it appears to have the opposite effect,

with several institutions frowning on competition from a state-owned provider. Rather than building a large bureaucracy to lend directly to farmers, governments might get more return on their investment by providing guarantees or tax incentives to existing providers willing to test agricultural value chain finance models or open branches in rural markets.

Government-sponsored risk mitigation tools can be more efficient than direct lending programs. One major difference between the United States and the other countries examined is the high prevalence of the use of crop insurance by farmers of all sizes. Rates of crop insurance in the United States are nearly 90 percent, as compared with rates of 3 percent in Mexico. In the United States, government subsidized multi-peril crop insurance is guaranteed at pre-determined rates to all farmers willing to share the costs. Crop insurance virtually eliminates weather risks, thereby significantly increasing financial institutions' confidence that farmers will be able to repay a loan.

In Mexico, all of the financial institutions lending to the agricultural sector in Mexico used the government's agricultural guarantee program. Saldaña Rosas of Banamex states that FIRA loan guarantees have been critical for incentivizing more financial institutions to enter the sector. In 2010, the FEGA guarantee service granted US$1 billion to guarantee loans granted by other financial intermediaries with their own resources. By contrast, Agrobanco lent less than half of this amount directly to farmers in 2013.

Rather than managing large direct lending programs, some governments in the region may be better served by providing strategic subsidies and risk mitigation mechanisms that target small farmers. Tailoring agricultural insurance products and subsidies to small and medium producers' needs may also dramatically impact product uptake and business growth.

Agricultural value chain finance has potential to cost effectively reach farmers in more rural areas. A major challenge for financial institutions in Latin America is how to serve farmers in remote areas cost effectively. Examples of agricultural value chain finance in Mexico, in which lenders use agro-processors and other lead firms to administer loan portfolios, may provide a viable solution to reaching many rural clients at a low cost. Rather than looking exclusively at developing agent banks within retail outlets like "mom and pop stores," banks could look to lead firms to be points-of-service for lending to small farmers. Bankaool in Mexico is doing just that, using lead firms as new "branches" and providing lead firms a commission for managing their portfolio of clients.

Agricultural value chain finance can provide an entry point for small farmers to access additional longer-term finance. Agricultural value chain finance models cannot by themselves address all of the financing needs of small and medium farmers in Latin America. Many AVCF models do not address farmers' needs for longer-term finance for capital investments. However, these models can be a first step for many small farmers toward building a credit history and a relationship with a formal financial institution. NAFIN's reverse factoring program in Mexico, for example, is linking thousands of small producers to finance from banks. Most of these small farmers have never before had an account or contact with a bank. In Honduras, FUNDER is connecting suppliers of a major grocery chain with Ficohsa, a major bank, for the first time. Bankaool is now providing direct long-term finance to suppliers who built a credit history through its agro-processer-supplier financing arrangements. All of these examples demonstrate that AVCF has the potential to foster relationships between lead firms, farmers, and banks, and eventually link farmers to new financing opportunities for growth.

5

Recommendations

The largest barriers to finance for small and medium producers in Latin America are the information asymmetries between small and medium producers and lenders, lack of acceptable collateral, and the lack of financial institution presence in rural areas. Successful AVCF models help close both the geographic and information gaps between producers and financial institutions by creating mechanisms to share the risk of lending among two or more actors in the value chain. Below are several options for supporting the expansion of these models and increasing access to finance for small and medium producers in Latin America.

Build bridges between small and medium producers and banks.

Interviews with banks and other regulated financial institutions in Mexico, Peru, and Honduras suggest that many are interested, and even enthusiastic, about growing their agricultural lending portfolio. Interbank in Peru, for example, would like to expand lending to new agricultural sectors, such as blueberries and pomegranates, but admits it needs to develop its understanding of promising crops before developing new products to serve new farmer borrowers. Banamex in Mexico would also like to expand its processor-producer lending model to sectors other than grains, but needs to develop new models to do so. Given their first-hand knowledge of small farmers' financing constraints, experts from the IDB's Multilateral Investment Fund are in a good position to help banks identify new agricultural sectors with growth potential and structure financing arrangements that mitigate the risk of lending to "unknown" small farmer borrowers. A first step would be to talk to farmers and lead firms in priority value chains in each country to better understand financing constraints and the types of finance that would alleviate those constraints. With this knowledge, MIF staff could support banks and other financial institutions to develop AVCF products and services that provide win-win solutions for all actors involved.

Champion creative transactions that build a path to longer-term finance.

One of the biggest challenges for small and medium producers in the three countries we examined was the lack of longer-term finance options. One of the failings of impact investors' loans to production cooperatives is that by lending to the cooperative and not its member producers, the impact investor is not helping to build the credit history of these small farmers or provide them with access to credit from domestic sources over the long term. Working capital for financing production is critical, but often cannot meet small and medium commercial producers' needs for finance for capital investments like improved irrigation or more modern equipment. These investments are often what small producers need to move from subsistence to semi-commercial, or from semi-commercial to commercial production. Agricultural value chain

finance models like those of Bankaool, NAFIN, and FUNDER provide small and medium producers with working capital while helping to build their credit histories and relationships with formal financial institutions. When examining AVCF opportunities for smallholders, donors like the IDB should champion those options in which formal financial institutions develop direct finance relationships with those producers, as they will be more likely to lend to producers with credit histories with the institution in the future.

Pilot crop insurance subsidies.
Lenders in the U.S. state that government-regulated and subsidized crop insurance has a profound impact on their willingness to extend credit to farmers of all sizes. In particular, multi-peril crop insurance has been the primary tool for both borrowers and lenders in the US to mitigate weather and price related risks. The fact that farmers who apply for insurance cannot be turned away, and rates cannot be changed regardless of the farmers' condition, makes it possible for even small farmers to access crop insurance. Having crop insurance may also make more farmers more eager to pursue financing opportunities, given that they have a safety net to protect their financial standing in case of drought, flood, or disease.

The Latin American region lags, on average, behind other regions in the development of agricultural insurance. Agricultural insurance premiums in 2009 accounted for only 0.37 percent of agricultural GDP in LAC, while in the United States and Canada, agricultural insurance premiums account for almost 6 percent of total agricultural GDP (Ariaz & Iturrioz, 2010). While the governments of Mexico and Peru provide reinsurance for agricultural insurance, and provide catastrophic agricultural insurance coverage for some states, the levels of farmers with individual crop insurance (4.9 percent in Mexico and 11.1 percent in Peru) are still low (Ariaz & Iturrioz, 2010; Global Findex, 2011).

IDB finance experts can help governments and providers in the region look at ways to expand the provision of agricultural insurance, and particularly MPCI, to small farmers. These types of products are in the best interest of governments, as wide-scale expansion can often prevent large, ad hoc post-disaster bailouts. For example, the U.S. government provides crop insurance subsidies to farmers in part to achieve high crop insurance participation and coverage levels, which are intended, according to USDA economists, to reduce the need for costly ad hoc disaster assistance payments to help farmers recover from natural disasters. Additional efforts aimed at scaling up crop insurance coverage in Latin America, either based on the U.S. subsidy model, the Mexican farmer group model, or named-peril crop insurance models in Uruguay (the country with the highest agricultural insurance rate in the region), could help reduce the risks of lending to small and medium producers significantly, and enhance their ability to access finance. Ensuring the proper regulatory frameworks and reinsurance markets would be the first step to expanding provision of crop insurance in the region.

Promote peer exchange to refine and replicate successful AVCF models.
As this report demonstrates, a number of interesting AVCF models are being tested in the region to expand access to finance for small and medium producers. Financial institutions themselves often house the best experts on how to improve upon and expand these models. Fostering exchanges in which managers from enterprise and credit risk management units from financial institutions looking to expand lending to small and medium farmers can visit peers who are already successfully serving these markets in other countries is often the best tool for generating enthusiasm and real solutions for expanding access to finance for small and medium producers. The IDB can identify opportunities for these types of exchanges, and in rare cases sponsor a portion of the program. The IADB can also continue to use Foromic, the Multilateral Investment Fund's annual forum for microenterprise, webinars, and other events to showcase successful models with potential for replication in other parts of the region.

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ANNEX A

NAME	TITLE	ORGANIZATION	TYPE	SECTOR	COUNTRY
Carlos Porfirio Budar Mejia	Director, Administration, Finance & Operations	Bankaool	Commercial Bank	Banking	Mexico
Jorge A. Esquer Gaytan	Executive Director, Agribusiness & Development	Banco B+X	Commercial Bank	Banking	Mexico
Anselmo Moctezuma Martinez	Director General, Supervision of Development Banks	Comision Nacional Bancaria y de Valores	Regulatory Agency	Banking	Mexico
Efrain Solorio Perez	Director General, Supervision of Groups and Financial Intermediaries "A"	Comision Nacional Bancaria y de Valores	Regulatory Agency	Banking	Mexico
Fernando Fernandez Araoz	President	Fernandez & Asociados	Consulting	Banking	Mexico
Luis Roberto Llanos Miranda	Adjunct Director General	FIRA	Development Bank	Banking	Mexico
Javier Delgado Mendoza	Director General	FOCIR	Development Bank	Banking	Mexico
Miguel Gallo	Director of Promotion	Grupo Finterra	Commercial Bank	Banking	Mexico
Maria Tapia	Senior Financial Markets Officer, Structured and Corporate Financing Department	Inter-American Development Bank	Multilateral Development Bank	Banking	Mexico
Kenneth Shwedel	Principal	KSAdvise	Consulting	Banking	Mexico
Sergio Dominguez Reyna	Adjunct Director General, Unit Support	Subsecretaria de Alimentacion y Competitividad (SAGARPA)	Government Ministry	Agriculture	Mexico
Walther Reategui	General Manager	AgroBanco	State Bank	Banking	Peru

NAME	TITLE	ORGANIZATION	TYPE	SECTOR	COUNTRY
Carlos Alberto Ginocchio	Development Manager	AgroBanco	State Bank	Banking	Peru
Oscar Rivera	Chairman of the Board	ASBANC	Association	Banking	Peru
Fernando Lancho	Sub-manager of Corporate Banking	BanBif	Bank		
Andrea Alva Maravi	Business Executive, Structured Finance	InterBank	Bank	Banking	Peru
Maria del Carmen Rueda	Sub-manager of Structured Finance, Leasing	InterBank	Bank	Banking	Peru
Steven Ljubicic	Relations Manager, Corporate Banking	Scotiabank	Bank	Banking	Peru
Gonzalo Alvarez Calderon Alzamora	Division Director, Business Banking	BCP	Bank	Banking	Peru
Renateo Vizcarra	Credit Manager, Business Banking	BCP	Bank	Banking	Peru
Martin Santa Maria Fernandez Stoll	General Commercial Manager	Financiera Confianza	Microfinance Institution	Microfinance	Peru
Martin Naranjo Landerer	President	Financiera Confianza	Microfinance Institution	Microfinance	Peru
Elizabeth Ventura	Vice President	Financiera Confianza	Microfinance Institution	Microfinance	Peru
Wilber Dongo	General Manager	Financiera ProEmpresa	Microfinance Institution	Microfinance	Peru
Jorge Meza		COPEME	Association	Microfinance	Peru
Hans Samalvides	General Director	Grupo CampoSur	Large Business	Rice	Peru

NAME	TITLE	ORGANIZATION	TYPE	SECTOR	COUNTRY
	Owner	Avivel	Medium Business	Poultry	Peru
↘ Gino Solimano	President	Estancia Santa Fe	Medium Business	Dairy/meat	Peru
↘ Jose Iturrios	Director	Alianza Cacao Peru	Donor	Cacao	Peru
↘ Jose Luis Lozano	Manager, Finance and Investments	Alianza Cacao Peru	Donor	Cacao	Peru
↘ Jose Luis Segovia	Country Manager	SNV (Netherlands Development Organization)	Consulting	Consulting	Peru
↘ Jaime Giesecke	Senior MIF Specialist	Inter-American Development Bank	Development Bank	Donor	Peru
↘ Laura Fernandez	MIF Specialist	Inter-American Development Bank	Development Bank	Donor	Peru
↘ Mayko Camargo	Intendent, Department of Bank Supervision B	Superintendency of Banking, Insurance, and AFP	Regulator	Government	Peru
↘ Matias Poggi	Analyst, Agrobanco	Superintendency of Banking, Insurance, and AFP	Regulator	Government	Peru
↘ Marlon Villareal	Business and Agriculture Executive	Banco Atlántida	Bank	Banking	Honduras
↘ Lizardo Reyes	President	Naitonal Federation of Farmers and Ranchers of Honduras (FENAGH)	Association	Agriculture	Honduras
↘ Juan Carlos Morazán		ProCredit	Bank	Banking	Honduras
↘ Miguel Galeas		Banco LaFise	Bank	Banking	Honduras
↘ José Jaar		Agropecuaria del Campo	Input Supplier	Agriculture	Honduras

NAME	TITLE	ORGANIZATION	TYPE	SECTOR	COUNTRY
David Chavarria	SME Banking Manager	Fichosa	Bank	Banking	Honduras
Andrés Carias	Manager	AgroBolsa	Broker	Agriculture	Honduras
Patricia Gutiérrez		FUNDER	NGO	Agriculture	Honduras
Fausto Castillo	MIF Specialist	Inter-American Development Bank	Development Bank	Donor	Honduras
Juan Poveda	Infrastructure and Environment Sector	Inter-American Development Bank	Development Bank	Donor	Honduras
Francisco Posas		Swisscontac	Donor	Donor	Honduras
Alex Renán Márquez	General Manager	CACIL	Financial Cooperative	Microfinance	Honduras
Daniel Rodriguez		CACIL	Financial Cooperative	Microfinance	Honduras
Nery Méndez		ECARAI	Agroprocessor	Agriculture	Honduras
Alfredo Ramos	Owner	Prover	Agroprocessor	Vegetables	Honduras
Raul Ortiz	General Manager	Expoyagua	Exporter	Vegetables	Honduras
Nestor Mendoza		Rice Grower's Association	Association	Rice	Honduras
Carmen Garcia	General Manager	Caldega	Input Supplier	Agriculture	Honduras
Andrew Medlicott	Chief of Party	USAID Acceso Program	Donor	Donor	Honduras

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