Financing Agribusiness in Sub-Saharan Africa: Opportunities, Challenges, and Investment Models

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Acknowledgments

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Contents

Abbreviations and Acronyms

AATIF	Africa Agriculture and Trade Investment Fund
AECF	African Enterprise Challenge Fund
AGF	African Guarantee Fund
AGRA	Alliance for a Green Revolution in Africa
AgriFin	Agriculture Finance Support Facility
agri-SME	small and medium agricultural enterprises
BAGC	Beira Agricultural Growth Corridor
CGAP	Consultative Group to Assist the Poor
DFI	development finance institution
EMPEA	Emerging Markets Private Equity Association
ESG	environmental, social, and governance
FAO	Food and Agricultural Organization of the United Nations
FDI	foreign direct investment
FI	financial institution
FY	fiscal year (World Bank, July 1–June 30)
GAFSP	Global Agriculture and Food Security Program
GDP	gross domestic product
IFC	International Finance Corporation
IBRD	International Bank for Reconstruction and Development
IDA	International Development Association
IEG	Independent Evaluation Group
MFI	microfinance institution
MNC	multinational corporation
NAIC	National Agricultural Insurance Company
NGO	nongovernmental organization
NIRSAL	Nigeria Incentive-Based Risk Sharing Agricultural Lending Scheme
PBGs	producer business groups
RIF	Rural Impulse Fund
SMEs	small and medium enterprises
TA	technical assistance
UNDP	United Nations Development Program
UNIDO	United Nations Industrial Development Organization
USAID	United States Agency for International Development
UTB	Union Trust Bank
WDR	World Development Report

Executive Summary

Rising income and urbanization are driving investments in agribusiness, estimated to develop into a US$1 trillion industry by 2030, up from US$313 billion in 2010. These trends offer bright prospects for creating jobs and income opportunities that are crucial for ending extreme poverty and boosting shared prosperity. Yet agribusiness faces major challenges. A survey of 75 agribusiness firms in Nigeria cited infrastructure, financing, securing supplies, and the policy and regulatory environment as the greatest constraints to agribusiness investments. Regarding financing, African agribusiness faces a multibillion-dollar financing gap estimated at US$11 billion annually for expansion of agricultural output, and in Nigeria alone working capital needs for agribusiness are estimated at between US$4.6 billion and US$6.5 billion per year. Significant financing is also required for midstream and downstream agribusiness activities, such as processing, logistics, and trade.

This study examined the financing needs of farmers and off-farm agribusiness enterprises, the role of different actors in catalyzing sustainable and inclusive agribusiness finance, and the mix of financial products and services offered. It used multiple analytic methods, including targeted surveys of value chain actors, interviews with businesses, and desk research to get an in-depth look at the demand for and sources of agribusiness finance, and to identify constraints, challenges, and gaps based on both demand and supply constraints. On the demand side, the study team interviewed actors in farming and off-farm agribusiness operating in four value chains: cashew in Côte d'Ivoire, maize in Ghana, cassava in Nigeria, and rice in Sierra Leone. Data on the supply of agribusiness financing was obtained from a literature review of agriculture and agribusiness finance; a desk review of annual reports and other relevant documents from 34 commercial banks in four countries, 21 agricultural investment funds, and 21 multinational agribusiness firms with operations in Africa and direct interviews with staff from a subsample of these organizations. A review of World Bank and International Finance Corporation (IFC) projects with agribusiness finance components and interviews with past and current Task Team Leaders provided insights on World Bank Group activities.

Finance for working capital was a priority need to meet production costs across farms and agribusiness firms of all sizes and across all value chains. In farm operations, financing of working capital was crucial for purchasing inputs such as seeds, fertilizer, agrochemicals, and hiring labor and farm equipment. Off-farm businesses needed finance for working capital to purchase inputs and meet expenses for logistics and transportation for different value chain activities. Financing for investment capital was also an important need, primarily for non-land assets and industrial construction. At farm level, farmers and cooperatives identified investment in farm assets (tractors and farm equipment) storage and warehousing facilities, and irrigation as priorities for investment financing. Off-farm respondents identified financing of assets such as equipment, transportation, and industrial property (storage and warehouse facilities and processing plants) as priorities for investment finance. Different value actors face varying challenges in accessing finance, including appropriate types of financial instruments as well as range and cost of finance, suggesting important roles for context-specific and, in some cases, tailor-made financial instruments. Challenges in securing investment finance are also likely to translate into weak incentives for adoption of climate-smart agricultural technologies and management practices.

Despite the significant demand for working and investment capital, many value chain actors faced difficulties getting access to finance, even in countries like Ghana and Nigeria, which have relatively developed financial systems. The few agribusinesses with access to financial services found it inadequate. Beyond savings and credit, agribusinesses had limited access to financial products such as value chain financing, agricultural insurance, warehouse receipts systems, leasing, and digital banking services. The assessment of constraints and potential solutions from the perspectives of borrowers and financial service providers is useful for designing development interventions. However, efforts aimed at increasing access to financial services would need to go further to consider the actual bankability of different actors.

Informal sources of finance were the most important sources for financing working and investment capital for farm and off-farm activities. Own savings, retained earnings, and family and friends were cited as the main sources of finance for farm operations, particularly for small-scale farms. Credit from input suppliers appeared to be a declining source of financing at both farm and off-farm levels. At the same time, credit from commercial banks became an increasingly important source of financing, particularly among medium- and large-scale farms and cooperatives at the farm level, and for input suppliers, processors, and marketing and distribution actors. Agricultural investment funds provided finance for medium- and large-scale farmers and cooperatives and for marketing and distribution activities in Ghana. None of the value chain actors interviewed reported receiving financing or other engagement with multinational corporations (MNCs). This may reflect the limited sample of value chain actors surveyed in each country instead of the multinationals' role in financing agribusinesses.

In all four countries, the cost and ease of financing—reflected in high lending rates and the number of documents required for credit assessment—were important constraints on lending for all value chain actors. Even though both farm and non-farm actors identified the cost of credit as a major challenge for access to finance, a close, important correlation exists between bank lending rates and macroeconomic factors, so these issues have to be viewed in the context of the overall economy. Production risks, insufficient market information, and access to product markets and inputs were also major challenges at the farm level. Off-farm actors cited production and market risks, poor infrastructure, access to inputs, and limited flow of information on business opportunities (as well as along value chains) as important constraints.

Formal private financing for agribusiness comes from domestic sources, mainly commercial banks, and external sources through foreign direct investment primarily from investment funds and multinational agribusiness companies. Domestic financing for agribusiness from commercial banks is limited and relatively insignificant considering the importance of agriculture and agribusinesses in overall economic activities in the case study countries. Between 2012 and 2014, commercial bank lending to agriculture accounted for less than 6 percent of total private sector lending in all four countries.

Banks mainly targeted actors involved in midstream and downstream value chain activities, such as processing, marketing, and trade. Most commercial banks reported that they provided financial services to on-farm and off-farm clients, but off-farm clients were a greater share of the client base. In the few cases where banks had farm clients, they were usually medium- or large-scale farmers.

Commercial lenders tended to underserve smallholder farmers, except in cases when they were in strong cooperatives or producer organizations.

Most commercial bank lending in agribusiness was short term, with loan tenors that did not adequately match investors' needs, particularly investment capital requirements for farm machinery, non-farm assets, and industrial property. The limited supply of finance with adequate tenor is due mainly to banks' lack of specialized knowledge to deal with agribusiness investments. Even in Nigeria, where most commercial banks employed staff with a bachelor of science degree or higher in agriculture-related fields, many staff lacked the technical skills to understand agriculture and agribusiness or to analyze business plans for agribusiness investments. These skills gaps were especially limiting for development of innovative financial products and services, such as value chain finance, crop insurance, and warehouse receipt systems.

As with most commercial lending, interest rates for unsubsidized agribusiness loans averaged more than 20 percent, making them unaffordable for many commercial farmers and domestic agribusiness firms. In addition, all banks interviewed required collateral, financial statements, a business plan and, in some cases, a guarantor. Commercial bank lending decisions that emphasized collateral and credit history and the large number of documents required for loan processing posed major barriers for agribusinesses, particularly smallholder farmers and small and medium agricultural enterprises (agri-SMEs).

All commercial banks in the study provided traditional banking products, such as credit for working and investment capital, overdraft facilities, and deposit accounts. Banks in the four countries also reported a variety of products and services for lending, risk management, and delivery channels. However, there was limited offering of innovative products and services such as value chain financing, warehouse receipt systems, and electronic delivery systems. Banks claimed that they did not offer many of these products and services because most customers did not understand them or know how to use them. Generally, there was a mismatch in the demand and supply of financial products and services to agribusiness with regard to lending volumes, tenor, and product mix.

However, the wide range of financial products and services on the books of commercial banks showed their willingness to experiment with lending, risk management models, and delivery channels that can improve clients' access, enhance affordability, and better manage risks. Government and donor interventions provided important incentives for commercial banks' experimentation with financial products and services. Examples of such initiatives are the Nigeria Incentive-Based Risk Sharing Agricultural Lending Scheme (NIRSAL) supported by the Central Bank of Nigeria, a credit risk guarantee scheme in Ghana supported by a partnership between Standard Bank and multiple donors, and a credit guarantee scheme in Sierra Leone supported by the African Development Bank. Donors and government should support commercial banks' early-stage experimentation with innovative agribusiness financial products and services. In addition to supporting promising pilot phases, efforts to scale up proven interventions for broader impact should be a priority.

Commercial banks identified profit expectation as the most important driver of their lending decisions. Other important drivers were the conduciveness of laws and regulations, and the ability

of banks to develop appropriate agribusiness financing products and services. Several banks did not perceive agriculture, particularly for smallholders, as a profitable investment. Banks considered farm production risks to be the most important challenge that deters commercial lending to agribusiness. The inability of the banks' staff to assess risks in agribusiness often complicates the perceived riskiness of farm production. Other important challenges were marketing risks, skills and literacy of agribusiness clients, customer knowledge, low profitability of agriculture, limited information on value chain actors, lack of collateral, limited capacity in product development and delivery, and weak legal and regulatory environment. The banks proposed solutions such as increased attention to development of risk management products (guarantee schemes, crop insurance, and warehouse receipt systems), investment in improving financial literacy for bank clients (farmers and SMEs), and training bank staff. Many banks noted that technical assistance from development finance institutions provided important impetus for experimenting with new financial products and services.

An increasing number of investment funds—private equity, venture capital, and impact investing—are targeting investments in agribusiness. West Africa was the most important destination for agribusiness investment funds, followed by East and Southern Africa. Of the 16 investment funds considered, 10 were dedicated agribusiness funds and six invested in different sectors along with agribusiness. Investments were concentrated in farm production and processing activities. Targeted clients along value chains were smallholders in out-grower schemes, cooperatives, and large farms; SMEs with annual sales revenue greater than US$100,000 and employing up to 20 people; and large agribusiness companies.

Agribusiness investment funds provided capital to agribusiness through diverse instruments, such as equity, debt, debt and equity, and guarantees. Of the 16 agribusiness investment funds, 13 complemented financing with technical assistance mainly as grant-based facility to businesses that received investment through the fund. Many of the agribusiness investment funds were set up as public-private partnerships with development finance institutions (DFIs) as major investors in nine of the 16 funds. Development impact and profitability were the two most important factors driving agribusiness investment funds' decisions. The funds were more likely to set priorities for development impact if a DFI was an investor.

Agribusiness investments by foreign firms in Africa are growing rapidly, providing important sources of financing and technical assistance for farmers and businesses along agricultural value chains. The most important region for these investments was East Africa, followed by West Africa. Agribusiness investments targeted mainly smallholders and cooperatives at the farm level, and processing and trade at midstream and downstream segments of value chains.

Financing was mainly provided for working capital, using different arrangements such as contractual or off-take agreements with individual farmers and farmer associations, out-grower schemes linked to nucleus farms, and third-party financing involving commercial financial institutions or nongovernmental organizations (NGOs). All of the multinationals interviewed provided technical assistance either directly from their staff or through contractual arrangements with private sector agencies, development agencies, or NGOs. Multinational investments in agribusiness are influenced by growth prospects in an economy, laws and regulations governing foreign direct investment, cost of doing business, and potential for development impact.

Partnerships with development institutions were valuable because they helped improve environmental and social governance and provided patient capital to establish linkages with smallholder farmers and agricultural SMEs.

Along with domestic and external sources of financing agribusiness, development finance institutions such as the World Bank and IFC are major actors in agribusiness financing, and technical assistance aimed at commercial finance institutions and value chain actors. World Bank Group support for agribusiness has focused on delivering credit to commercial financing institutions, capacity building of financial institutions, financing business development services to target agricultural SMEs and farmers, and investment climate work that improved the legal and regulatory framework for provision of financial services to agriculture and agribusiness. The main financial instruments used in World Bank projects were credit lines, matching grants, and guarantee funds targeted to commercial institutions and value chain actors. In addition, projects used complementary technical assistance to improve the capacity of financing institutions and value chain actors, improve coordination in value chains, and product development, such as warehouse receipt systems and leasing programs.

IFC's financing for agribusiness emphasized credit lines to commercial banks, and direct financing and technical assistance to value chain actors. IFC investments also supported the establishment of private equity funds that invested in agribusiness. Technical assistance also supported improvements in the institutional capacity of financial institutions, including development of SME banking, and lending to agribusiness. IFC Advisory Services supported development of delivery of financial services, such as mobile and agency banking.

The study findings yield four key observations:

i. Financing of working and investment capital at both farm and non-farm levels for input supply, farm equipment, non-farm assets, and industrial property must be at the core of an agribusiness transformation agenda that will drive competitiveness, industrial development, and jobs.

ii. There is an urgent need to learn from the commercial banks' experimentation with innovative financial products and services that improve access and affordability, and enhance risk management with a view to scaling them up, particularly among currently underserved smallholder farmers and agricultural SMEs.

iii. Domestic financial institutions, such as commercial banks, are not the only actors in the supply of agribusiness finance. MNCs and investment funds are providing new sources of finance to actors across all sizes in different segments of agribusiness value chains. The growth of external financing for agribusiness through agricultural investment funds and multinational agribusiness firms provides new opportunities for integrating commercially oriented farmers, farmer groups, and growth-oriented SMEs into high return value chain activities.

iv. The World Bank and IFC have played important roles in agribusiness financing. However, the growing number of actors providing agribusiness financing in the form of debt, patient

capital, and equity provides new avenues that development financing institutions, such as the World Bank and IFC, could explore. Development finance institutions need to be proactive and engage commercial banks, investment funds, and multinational agribusiness firms to facilitate experimentation, learning, knowledge exchange, and scaling up of innovative lending, risk management, and delivery models. Here it is important that donors set clear priorities and make strategic choices that are effective in helping to build a country's overall financial systems. The strategic use of patient capital and technical assistance from development financial institutions can be crucial to leveraging the impact of domestic and external private sources of financing on competitiveness of the agribusiness industry and job creation.

1. Introduction

The rapidly changing context for agriculture and agribusiness in sub-Saharan Africa will drive the industry into an estimated US$1 trillion economy in 2030, up from US$313 billion in 2010, due to several supply and demand factors.[1] On the demand side, consumption of vegetables, fruits, fish, meats, dairy, and fast-moving consumer goods is increasing, driven mainly by growing incomes and rapid urbanization of the population across the region. Urban food consumption and food markets already represent the majority of the food economy (50 percent of total food and 60 percent of marketed food).[2] Urban food markets are expected to quadruple in the next two decades as urban populations and incomes continue to grow.[3] On the supply side, the growth potential from agriculture is enormous, with the region currently using less than 25 percent of its arable land and 20 percent of irrigation potential; also, cereal yields are slightly more than one-third of those in Asia. These trends provide several growth opportunity for all types of farms and firms, with the shares of both downstream and upstream agribusiness activities poised for rapid growth.

Agribusiness can play a significant role in Africa's economic transformation, providing jobs and income opportunities through agro-processing and other agricultural businesses. These investments stimulate agricultural productivity, commercial agriculture, and development of upstream and downstream agribusiness activities, such as input supply, logistics, and trade. Consequently, agribusiness will provide an important pathway to job creation and economic transformation in Africa.[4] Yet agriculture and the agribusiness industry face many challenges, particularly with regard to affordable access to finance. Commercial banks and financial institutions have been reluctant to finance agribusiness because of perceived sector-specific risks, transaction costs, and institutional capacity in financing institutions.[5]

In recent years, strong market demand, enhanced focus on production potential and risk management, and an improved policy environment have increased the private sector's appetite for agribusiness financing from external and domestic sources. In commercial banking systems, technology improvements and innovations in delivery systems is changing risk perceptions, and the projected bright prospects for agribusiness are turning this untapped industry into a potentially lucrative market opportunity, particularly for large banks.[6] A growing number of financial institutions, like private investment funds, increasingly perceive that business opportunities in Africa outweigh the risks in promising sectors such as agribusiness.[7] Commercial and community banks are also expanding their investments and services using innovative delivery systems, such as mobile banking to previously underserved populations. However, many of these services are concentrated in urban areas, and there are still significant gaps in providing access to financial services in rural areas.

1 Byerlee and others 2013.

2 AgriFin 2014.

3 World Bank 2013.

4 ACET 2014.

5 Yumkella and others 2011; Varangis and others 2012; Byerlee and others 2013.

6 Financial Times 2013.

7 Financial Times 2013.

Along with an increased interest by large commercial banks, the emerging opportunities for agribusiness are attracting great interest from private equity firms and multinational corporations. Like commercial banks, private equity firms are increasingly seeing greater returns on their investments in agribusiness in Africa. As a result, they are taking stakes in large farms, food processing, or warehousing companies. At the same time, multinationals are looking to capture the growing consumer demand in the region to better secure supplies for their products globally, expand their procurement networks, and develop local, high-quality sources of supply. Besides helping smallholders and SME agribusinesses access markets through more stable, long-term contracts with buyers, multinationals are also helping them improve and grow their operations through technical assistance, support for inputs, and access to finance. By doing so, these companies are developing strong supplier relationships, which will be beneficial for developing local supply chains.

Objectives

Growth opportunities offered by the bright prospects for the agribusiness industry in Africa led to renewed private sector interest in financing agribusiness. Developments in the financial sector in Africa are important for exploiting emerging growth prospects in agribusiness. Yet there is scant empirical evidence on the extent to which private sector financing is accelerating agribusiness development in an industry dominated by smallholder farms and small and medium agricultural enterprises. A key objective of this study is to examine the supply and demand for agribusiness finance from the perspective of the key actors providing financial services to agriculture and agribusiness activities. Another objective is to identify the roles of different actors in catalyzing sustainable and inclusive agribusiness finance, the mix of financial products and services that are available, and the financing demands and needs of farmers and off-farm enterprises in specific value chains.

For the purposes of this study, agribusiness includes privately owned companies and cooperatives involved in commercially oriented farm production activities, and upstream and downstream agricultural businesses and service providers. Supply side agribusiness finance actors include commercial and state development banks, investment funds (private equity funds, venture capital, and impact investors), multinational corporations, and development finance institutions. On the demand side, agribusiness clients include commercially oriented farm operators, input suppliers, processors, distributors, and traders in specific value chains.[8]

[8] Agribusiness in this study does not include state-owned enterprises and marketing franchises

Approach and Methodology

This study examined the demand and supply of agribusiness financing from the perspective of actors operating along four specific value chains in four countries, and the domestic and external actors that provide financial services to agribusiness in Sub-Saharan Africa. The research used multiple analytic methods to address the different dimensions of demand for and supply of agribusiness financing. The team used surveys in a small selection of African countries and interviews with businesses operating across the region to get an in-depth look at the demand for and sources of agribusiness finance as well as identify constraints, challenges, and gaps based on both demand and supply constraints. It also conducted a desk review of literature on agriculture and agribusiness finance, including extensive internet searches of relevant documents on the operations of multinational companies and investment funds with agribusiness investments in Africa.

Box 1. Definitions Used in this Report

Agriculture refers to on-farm production. It includes crops and livestock, but not floriculture, fisheries, or forestry. Although much agriculture in Africa is oriented to sustaining livelihoods, this report focuses on commercial farming, recognizing that the commercial farmers in Africa are overwhelmingly small and medium scale.

Agribusiness denotes organized firms—from small and medium enterprises to multinational corporations—involved in input supply or in downstream transformation, and it includes commercial agriculture involving some transformation activities (even if they are basic). Smallholder farms, food processing, and retail microenterprises are included because they are market oriented; these producers and enterprises make up the bulk of agribusiness activity in Africa today.

Agricultural value chain refers to the sequence of value-adding activities— from production to consumption, through processing and commercialization. Thus, the agricultural value chain concept includes the full range of activities and participants involved in moving agricultural products from input suppliers to farmers' fields and, ultimately, to consumers' tables.

Agricultural value chain finance represents both internal finance that takes place within the value chain, and external finance made possible by value chain relationships and mechanisms.

Source: Byerlee and others 2013; Miller and Jones 2010.

The financing needs of value chain actors came from surveys of farm and off-farm actors in four value chains in four countries in West Africa:

- Cashew in Côte d'Ivoire
- Maize in Ghana
- Cassava in Nigeria
- Rice in Sierra Leone.

These value chains have many differences between them, specifically between the value chains for rice, maize, and cassava, which are primarily domestic staples, and cashew, which is an export commodity. For example, the lengthening of value chains for an export commodity, such as cashew, implies a different marketing structure with greater demand for midstream and downstream services as well as more investment and financing opportunities. The four value

chains covered variations in value added and complexity of agro-processing activities in countries at different stages of financial market development. The country reports provide detailed insights into the structure and actors involved in the four value chains.[9] Each stage of the chain has wide ranges of actor types, from smallholder farmers to large commercial farms; single proprietor collectors to large-scale aggregators; micro and small processors to vertically integrated processing plants run by multinational corporations. The study team collected information from 74 farms of various sizes, 11 cooperatives, and 112 off-farm actors. In each segment of the value chains, data were collected on the financing needs for working and investment capital, sources of finance, availability, access, and usage of different financial services for agribusiness investments. Data were also collected on the extent to which access to and use of these services were adequate for needs. Furthermore, respondents provided information on critical financing and non-financing challenges to agribusiness investments in their respective countries.

Interviews were conducted with staff from 30 domestic banks in the four countries, where demand for agribusiness financing was examined. The sample included 17 commercial banks, five rural or community banks, six microfinance institutions, and two state banks. Data were gathered on investment drivers, clients, financial products and services, loan tenor, lending requirements, factors influencing lending decisions, staffing and other resources dedicated to agriculture and agribusiness financing, partnerships, challenges, expansion opportunities, and future outlook for agribusiness financing.

Table 1. Number of Financial Institutions Interviewed

Financial institutions	Nigeria	Sierra Leone	Ghana	Côte d'Ivoire	Total
Commercial banks	8	4	5	3	17
Rural and community banks	—	2	3	—	5
MFIs	6	—	—	1	6
State banks	2	—	—	—	2
Total	16	6	8	4	34

Source: Field surveys and interviews conducted in 2014.
Note: MFI = microfinance institution; — = Not available.

Interviews were also conducted with staff in 16 investment funds and seven multinational companies with operations in Sub-Saharan Africa. Information from investment funds contained data on investment drivers, clients, commodity focus, country and regional priorities, types of businesses supported, investment instruments, provision of technical assistance, shareholders, partnerships, environmental and social governance, expansion opportunities, challenges, and outlook for agribusiness finance. Interviews with multinational companies gathered information on investment drivers, clients, commodity focus, country and regional priorities, financing models, provision of technical assistance, partnerships, environmental and social governance, expansion opportunities, challenges, and outlook for agribusiness finance.

A portfolio review involved 32 World Bank projects and 64 IFC projects with agricultural finance components and approved between fiscal years (FY) 2004 and 2013. Data were collected on types of agribusiness activities, financial institutions and services supported, financing instruments used,

[9] The four country reports are Awo (2014), Biley (2014), Fraser (2014), and Okpukpara (2014).

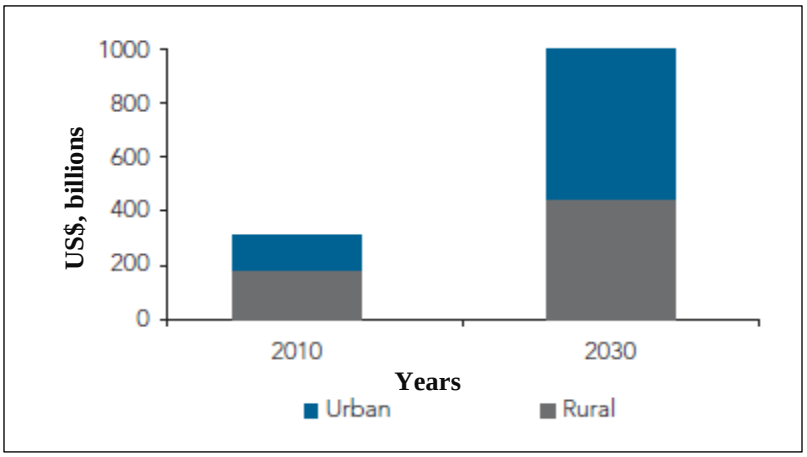
provision of technical assistance, target clients in value chain segments, and intended use of financing by value chain actors. In addition to the portfolio review, the team conducted a survey of World Bank and IFC staff that led agribusiness operations with a financing component to assess their views on the range of financing instruments used to support the industry.

The information collected from the case studies provided in-depth insights on the supply of agribusiness financing from commercial financing institutions, and the financing needs of agribusiness clients in the four countries. The relatively small sample is purposively selected and not statistically representative of value chain actors or financing institutions. Thus, the study findings are limited and generalized to draw robust inferences. Nevertheless, the analysis and information from the limited sample is illustrative, providing useful observations that can be the basis of further inquiry, as well as lessons that may be applicable in similar value chains and country contexts.

2. Agribusiness Financing: Opportunities and Challenges

Agribusiness needs sustainable financing to unlock its potential in Africa's economic transformation. This potential arises from demand and supply side opportunities.[10] On the demand side, strong urban market demand—set to quadruple in the next two decades—is driving food markets (figure 1). Growing urban markets give rise to demand for high value and processed foods and feed, and for development of new supply chains that need supporting services, such as finance and logistics. There are also good prospects for expansion of regional markets, which accounts for less than 10 percent of Sub-Saharan Africa trade.[11]

Figure 1. Projection of Food Market in Sub-Saharan Africa



Source: Byerlee and Haggblade 2013.

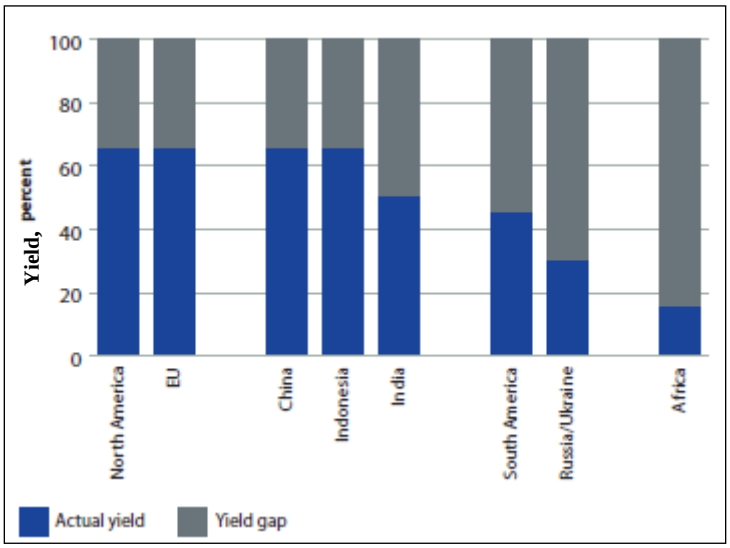
On the supply side, there is significant potential to boost food supply to meet the increasing food needs of the rising population. There are good prospects for increasing production of 240 hectares of uncultivated land, increase irrigation potential from less than 20 percent of arable land, and close the yield gap, which is a fraction of its potential (figure 2). In addition, the region can build on the momentum of strong private sector interest from local, foreign direct investment (FDI), and investment funds to increase the private sector share in total agribusiness investment.

The role of agribusiness increases with rising incomes. Across developing countries, agribusiness accounts for a large and rising share of gross domestic product (figure 3). Globally, agribusiness is about 78 percent of value added in the agricultural value chain, but this share varies widely across income levels. Much of the global value added in all agricultural value chains is in upstream and downstream activities, with farming making up the remainder (figure 4). Value added is largest in the downstream activities, such as processing, logistics, distribution, and retailing, and in upstream input supply, which accounts for about one-quarter of global value added in global agricultural chains.

[10] Byerlee and Haggblade 2013; Financial Times Business 2011.

[11] Rakotoarisoa, Iafrate, and Paschali 2011.

Figure 2. Comparison of Africa's Yield Gap.



Source: World Bank 2011.
Note: EU = European Union.

Worldwide, agriculture and the agribusiness industry are facing a multibillion-dollar financing gap. Estimates of the global demand for smallholder agriculture finance are as high as US$450 billion.[12] Within Sub-Saharan Africa alone, an estimated US$11 billion of investments are needed each year to achieve the desired expansion of agricultural output in the region.[13] Furthermore, financing is required for midstream and downstream agribusiness activities and services, such as logistics, agro-processing, and trade. Of the estimated US$940 billion investment needed to grow African agriculture by 2050, investment in cold and dry storage are estimated at US$78 billion, rural and wholesale market facilities at US$159 billion, and first-stage processing at US$207 billion.[14] These investment requirements are substantially less than the volume of current agribusiness financing from both public and private sources.

"There can be failures in critical infrastructure such as inadequate cold storage facilities, unexpected disruptions in commodities trading, lack of adequate feeder roads to production areas, inadequate storage facilities, and congested ports prohibiting the export or import of products on time. And there can also be delays in the supply of critical inputs such as fertilizers, seeds, and fuel because of difficulties in getting goods to markets. This is a particular problem in landlocked countries where it can sometimes take as long as four months to get inputs to the required areas."

Chomba Sindazi, Standard Chartered

[12] Dalberg 2012.

[13] GrowAfrica 2014.

[14] Yumkella and others 2011.

However, limited access to affordable finance remains one of the greatest challenges to the growth of agriculture, agri-SMEs, and even large agribusiness.[15] Commercial banking systems in many African countries experienced a boom in recent years. Financial access initiatives and innovations, such as expansion of new commercial bank branches, automated teller machine (ATM) networks, mobile banking, and agency banking, enhanced access to financial services to previously underserved locations.[16]

Although these developments in financial systems are impressive, the flow of investment funds to the agribusiness industry continues to lag, with the private sector not able to fill the financing gap.[17] In the few cases where private sector financing is available, the cost of finance is usually prohibitive for both smallholders and SMEs, with interest rates often as high as 35 percent.

Finance was limited and, when available, expensive for agri-SMEs and smallholder producers. This is primarily because of the real or perceived risks within value chains—production (drought, flood, pests, disease, and the like), market (price volatility and logistics challenges, for example) and legal (such as land tenure), and the high costs of reaching them with financial services through traditional mechanisms. In addition, most agribusinesses are SMEs—engaged in activities such as farm operations, input supply, trade, and processing—that banks consider too risky.[18] The relatively low margins associated with agricultural-related activities discouraged investment, as did the opportunity cost of sacrificing market share in other fast-growing and profitable banking opportunities in urban markets. On the supply side, many financial institutions' capacity (including limited expertise and experience in agricultural value chains) is too low to provide effective financing services to agribusiness. These factors, often working together, deter many financial institutions from lending to agribusiness.

Traditionally, the agriculture sector in Africa sought to overcome this financing challenge by relying on governments for subsidies and on donors and development finance institutions (DFIs) for investments in agriculture development projects, some of which provide financing for agribusiness. Investments mainly focused on farm production activities, sometimes in combination with technical assistance but without a systematic view of linkages across value chains. However, this approach was inadequate to create the kind of transformation required in Africa's agriculture and agribusiness sector, and the investments were unsustainable in the long term. When investments were in off-farm activities, they tended to be concentrated in either larger enterprises or microenterprises and SMEs, particularly those in urban areas. Agribusiness finance often neglected the missing middle—defined as medium-size enterprises—that are too large to qualify for microfinance and too small to obtain finance from commercial lenders or investments from venture capital or private equity funds.

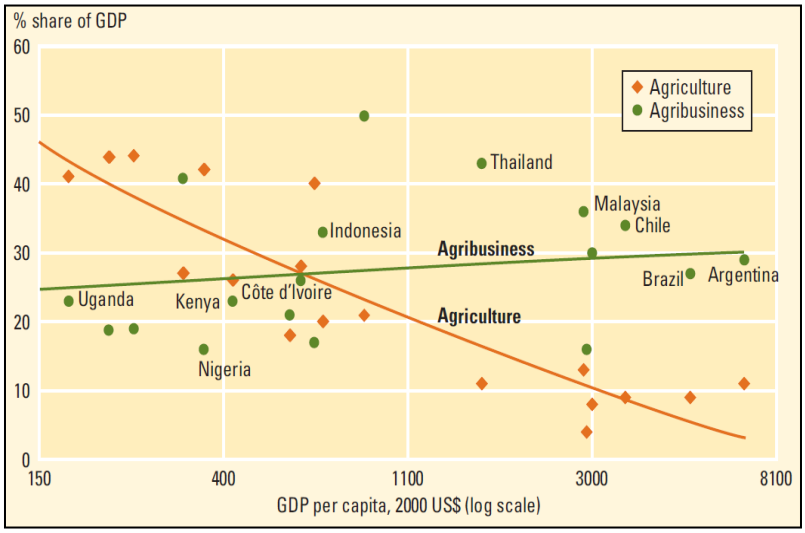
[15] Yumkella and others 2011; Varangis and others 2012; Byerlee and others 2013; World Bank 2008.

[16] Byerlee and others 2013; Moghalu 2014.

[17] Yumkella and others 2011; Byerlee and others 2013.

[18] Varangis and others 2012.

Figure 3. Relative Shares of Agriculture and Agribusiness



Source: *World Development Report* 2008.
Note: GDP = gross domestic product.

Agribusiness financing also came from external sources (FDI) and domestic sources, mainly commercial banks. Estimates of FDI flows to Africa's agricultural sector are less than US$2.5 billion, although data are incomplete because of poor reporting.[19] Though this amount is significantly higher than a decade ago, Africa's share of total FDI to agriculture at 7 percent of total stock in developing countries is much lower than other regions (78 percent for Asia and 15 percent for Latin America).[20] Investment funds, social lenders, or impact investors helped address the gap in agribusiness financing, but they satisfy less than 2 percent of demand.[21] Furthermore, within the agricultural sector, FDI is concentrated mainly on downstream activities (processing, manufacturing, trade, and retail), leaving primary agriculture mainly to public sector funding.[22] To meet this projected growth in the agribusiness industry in Sub-Saharan Africa in the coming decades, greater and more sustainable sources of private and public finance are required.

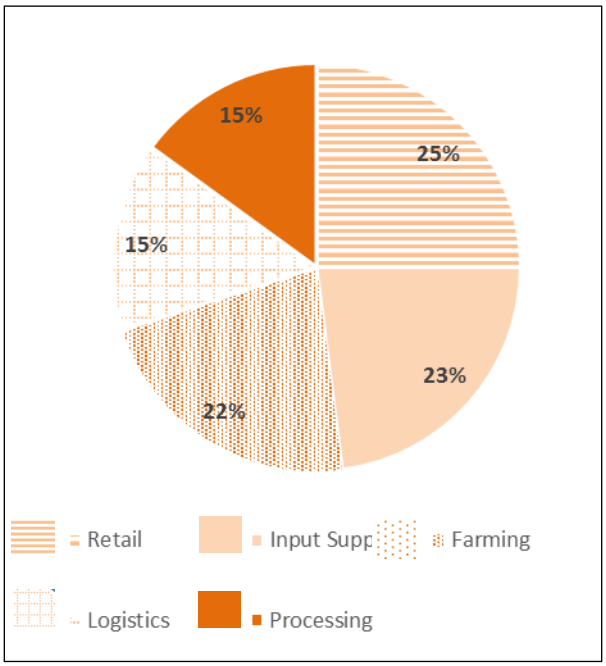
[19] FAO 2013.

[20] Byerlee and others 2013.

[21] Dalberg 2012.

[22] FAO 2013.

Figure 4. Value Added Shares in Global



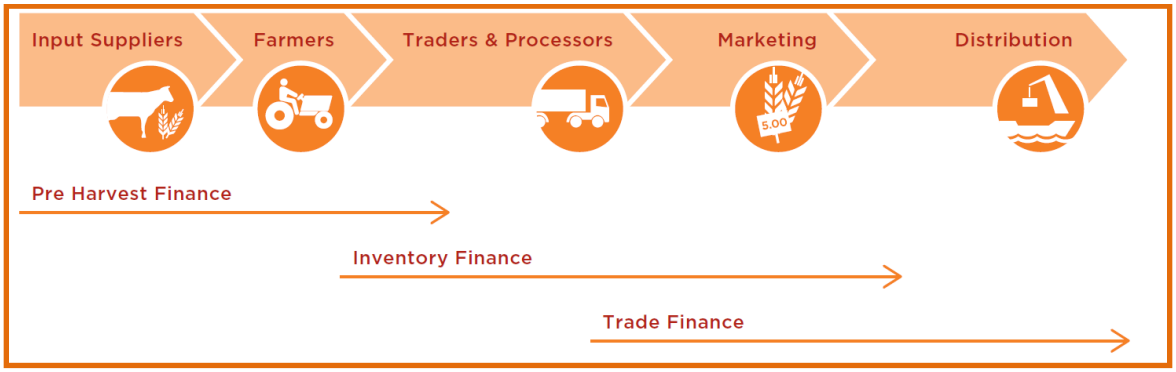
Source: *World Development Indicators* 2015.

This finance will need to support both smallholders and medium- and large-size farms, and actors operating in upstream and downstream activities along value chains (figure 5).

A growing body of analytical work within and outside the World Bank Group examined options for improving the flow of financial services to agriculture and agribusiness activities.[23] This study builds on the findings and insights from these studies. However, unlike other studies that looked at the supply and/or demand for financing separately, this study examines the supply side and demands of agribusiness clients in specific value chains at the same time. By doing so, it provides an enhanced understanding of gaps and opportunities in agribusiness financing and the appropriateness of available financial products to observed needs in specific value chains. Its findings will be relevant for public and private financial institutions and development agencies—including the World Bank Group—that provide financing and technical assistance for agribusiness development.

[23] Within the World Bank Group, these studies include the Benchmarking the Business of Agriculture project, the AgriFin program, and the AgriFinance advisory services by IFC. Important work outside the World Bank Group include the Smallholder Finance initiative by Dahlberg, the Agricultural Finance Markets Scoping study by Gatsby Trust in Tanzania, studies on value chain financing and investment funds in agriculture by FAO, and an agrifinance investment tool developed by KfW Development Bank.

Figure 5. Agribusiness Value Chain for Financing



Source: Varangis and others 2012.

Integrated solutions involving multiple stakeholders are needed to address the agribusiness financing gap. As the private sector becomes more involved in agriculture and agribusiness, development agencies and governments are increasingly collaborating with the private sector on projects and program initiatives. By working together, the public and private sectors can develop strategies that leverage each of their strengths to enhance industry competitiveness, facilitate trade, and develop agro-based industries that generate local employment. For instance, many companies view working with DFIs as a way to leverage patient capital and technical expertise, but DFIs and other donors seek to ensure the long-term sustainability of their activities through the private sector. For development organizations, it is highly important to get this right because agricultural production and agribusiness together make up an average of about 45 percent of the economy of Sub-Saharan Africa and 65 percent of its labor force.

Along with private and public sector actors taking a greater role in providing finance, agribusiness development in Sub-Saharan Africa needs new approaches marked by stronger linkages, greater innovation, and shorter supply chains. First, besides one-off investments in a given farmer or processor, investments are supporting linkages between smallholders and enterprises across entire value chains. For example, value chain financing available to an agribusiness company can help finance inputs and other working capital for smallholder out-growers in its supply chain. Investments are also starting to increase in areas in the value chain that were previously neglected, such as in SMEs in logistics (for example, cold chains and trucking). Second, innovations in financing such as new e-banking technologies and insurance products are expanding lending to the sector that has the potential to be scaled up for broader impact. Finally, as supermarkets buy more directly from farms and processors, there is increased interaction between buyers and sellers that facilitates a flow of knowledge and technology. Moreover, new financing arrangements are leading to a gradual erosion of financing roles previously held by village traders as moneylenders.

This report discusses several models and innovative ways for investing in agribusiness finance. These models have tremendous potential to be replicated, scaled up, and adapted for different countries, crops, and contexts across the continent to address the industry's limited access to financing and unleash Africa's enormous agribusiness potential.

3. Demand for Agriculture and Agribusiness Finance

The study recognized the distinctions between different segments of the value chain and their demand finance. Farmers were categorized into cooperatives, and small-, medium-, and large-scale farms to capture differences in their financing needs and constraints. Farm size categorizations were based on differences in resource endowments, such as land and labor, use of technology, sources of finance, and market orientation as follows:[24]

Small-scale farms were those that operated less than 20 hectares as either commercial or semicommercial farmers. They primarily employed family as labor and used little or no mechanization. The main source of finance was from crop sales, own savings, or other informal sources. They grew mostly staple crops with varying value chain linkages.

Medium-scale farms operated between 20 and 500 hectares and were largely commercial. They typically employed a mix of family members and hired labor, had reasonable market access, and were partly mechanized. However, they had limited access to formal bank loans and were in a relatively weaker position in the value chain compared with larger-scale farms.

Large-scale farms operated more than 500 hectares and were fully commercial. They relied mainly on hired labor and were fully mechanized. They generally had access to formal bank loans and/or external capital, had good market access, and were fully integrated into the value chain.

Cooperatives included formally organized groups of small-, medium-, and large-scale farms. In some countries the cooperative consisted of both grain and seed producers. Ranging in farm size between 100 and 3,600 hectares, cooperatives were a source of finance and provided different services, including provision of inputs and output marketing. Most of the produce collected by cooperatives is sold to large-scale traders or processing companies.

Across all countries and in all value chains, farmers were selling more than one-quarter of the crop produced, suggesting a pattern of commercial orientation across farms of all sizes. As expected, the commercial orientation is greatest among large-scale farms, which reported selling more than 75 percent of their production, and medium-scale farms, which sold more than 50 percent. Even small-scale farmers, who would typically farm for subsistence in the past, reported selling at least one-quarter of their crop produced. Among the four countries, Côte d'Ivoire had the strongest commercial orientation, with farms of all sizes selling at least 50 percent of crops produced. This may be due in part to the focus on cashews, which is not a traditional food staple in the country.

[24] Varangis and others 2012.

Demand for Farm and Off-Farm Agribusiness Financing

Finance for working capital was a priority need to meet production costs across farms and agribusiness firms of all sizes across all value chains. Tables 2 and 3 show priority requirements for working and investment capital, respectively, identified by actors interviewed in the four value chains across all the countries. In farm operations, financing of working capital was crucial for purchasing inputs such as seeds, fertilizer, and agro-chemicals, and for hiring labor and farm equipment. Off-farm businesses required finance for working capital to purchase inputs and meet expenses for post-harvest storage, electricity, water, logistics, and transportation to support different value chain activities.

Table 2. Priority Uses of Working Capital

Value Chain Segment	Uses of Working Capital
Input supply	• Purchase inventory/inputs (Nigeria, Sierra Leone) • Hire labor (Nigeria) • Post-harvest activities (Ghana)
Production, small farm	• Purchase inventory/inputs (Nigeria, Sierra Leone, Ghana) • Hire labor (Nigeria, Côte d'Ivoire) • Hire equipment (Sierra Leone, Ghana) • Household expenses (Côte d'Ivoire)
Production, medium farm	• Hire labor (Nigeria, Sierra Leone, Côte d'Ivoire) • Hire equipment (Nigeria, Sierra Leone, Ghana) • Purchase inventory/inputs (Ghana) • Leasing (Côte d'Ivoire)
Production, large farm	• Purchase inventory/inputs (Nigeria, Ghana) • Hire labor (Nigeria) • Hire equipment (Sierra Leone) • Post-harvest activities (Ghana)
Production, cooperative	• Purchase inventory/inputs (Nigeria, Ghana) • Hire labor (Nigeria) • Hire equipment (Ghana)
Storage and transport	• Post-harvest activities (Ghana) • Household expenses (Ghana)
Processing	• Purchase inventory/inputs (Nigeria, Ghana) • Transport, getting farm supplies to processing plants (Nigeria, Côte d'Ivoire) • Hire equipment (Sierra Leone, Ghana) • Post-harvest activities (Ghana) • Household expenses (Ghana) • Hire labor (Côte d'Ivoire)
Marketing and distribution	• Purchase inventory/inputs (Nigeria, Sierra Leone, Côte d'Ivoire) • Hire labor (Nigeria, Ghana, Côte d'Ivoire) • Post-harvest activities (Ghana)

Source: Field surveys and interviews conducted in 2014.

Financing was also required for investment capital, primarily for non-land assets and industrial construction. At farm level, farmers and cooperatives identified investment in farm assets (tractors

and farm equipment), storage and warehousing facilities, and irrigation as priorities for investment financing. Off-farm, financing of assets, such as equipment, transportation, and industrial property (storage and warehouse facilities and processing plants), were identified as priorities for investment finance. Value chain actors increasingly require financing for midstream segments, such as wholesale and processing, and downstream segments, such as retail trade.

Table 3. Priority Uses of Investment Capital

Value Chain Segment	Uses of Investment
Input supply	• Warehouses/storage (Nigeria) • Business/processing plants (Nigeria) • Farm inputs (Sierra Leone) • Land development (Ghana) • Equipment (Ghana)
Production, small farm	• Equipment (Ghana, Sierra Leone, Côte d'Ivoire) • Warehouses/storage (Sierra Leone, Côte d'Ivoire) • Irrigation (Ghana)
Production, medium farm	• Equipment (Ghana, Nigeria, Côte d'Ivoire, Sierra Leone) • Warehouses/storage (Sierra Leone, Côte d'Ivoire) • Irrigation (Ghana, Sierra Leone, Nigeria)
Production, large farm	• Equipment (Ghana, Nigeria) • Warehouses/storage (Sierra Leone) • Irrigation (Ghana, Nigeria)
Production, cooperative	• Equipment (Ghana, Nigeria) • Warehouses/storage (Nigeria) • Irrigation (Ghana)
Storage and transport	• Warehouses/storage (Ghana) • Equipment (Ghana)
Processing	• Equipment (Ghana, Sierra Leone, Nigeria, Côte d'Ivoire) • Warehouses/storage (Sierra Leone) • Business/processing plants (Nigeria, Côte d'Ivoire) • Irrigation (Ghana)
Marketing and distribution	• Business/processing plants (Nigeria) • Warehouses/storage (Nigeria, Côte d'Ivoire) • Land development (Ghana) • Irrigation (Ghana) • Purchase vehicles (Côte d'Ivoire)

Source: Field surveys and interviews conducted in 2014.

Recent value chain studies, including some in West Africa, show that financing of midstream and downstream segments of value chains are just as important as financing farm production.[25] Although the food security debate has focused heavily on the farm sector, Reardon (2014) finds that costs formed after the farm gate, at midstream and downstream segments of value chains, accounted for 50 to 70 percent of the total costs and value in supply chains in developing countries of Asia and Africa. Since processed and perishable foods make up a greater share of consumption, there becomes a greater need for midstream (processors, wholesalers, and cold chain and logistics

[25] AgriFin 2014.

providers) and downstream retail activities. This creates enormous opportunities for finance across the entire value chain, including in upstream activities such as input supply.

The demand for working capital demonstrated that financing requirements reflect peculiarities that are specific to value chains. For example, in Sierra Leone, farms of all sizes prioritized working capital for hiring farm equipment. This is mainly because farmers in the production system in the rice value chain need mechanical plowing to prepare their fields. All commercially oriented farmers in the Bolilands (where this study was conducted), plow their fields mechanically.[26] In Ghana, actors involved in post-farm gate segments in maize value chains—particularly those in storage and warehousing activities—set priorities for working capital for post-harvest activities to manage losses from the estimated one-third of maize production that is lost at the farmer and village level after harvest.

Farmers' requirement for investment capital provides useful insights on the increasing trend toward commercialized food crop farming in Africa. Both farm and off-farm actors involved identified non-land assets, such as farm equipment, irrigation, and storage infrastructure, as key priorities for investment capital for staple crops such as rice, maize, and cassava. In the past, agribusiness sought capital investment mainly for cash crops such as cocoa. However, urbanization and income growth is driving increasing demand for processed foods, crops such as rice, and beverages derived from crops like maize and cassava. As a result, demand for these products is leading to rising demand for investment capital to grow, process, and market food crops.

Sources of Finance

Informal sources of finance were the most important sources for financing working and investment capital for farm and off-farm activities. Own savings, retained earnings, and family and friends were cited as the main sources of finance for farm operations, particularly for small-scale farms (table 4). However, own savings accounted for less than 10 percent of total financing needs for farms in Nigeria and less than 50 percent in Ghana, suggesting a strong unserved need for credit.

Credit from input suppliers, once an important source of financing for farmers and other value chain actors, appeared to be a declining source of financing at both farm and off-farm levels. Input suppliers and traders, who were traditionally major sources of farm credit in rural areas, were important sources of finance only by small-scale farmers and input suppliers in Ghana as well as for marketing and distribution in Côte d'Ivoire and Nigeria. Reliance on trader finance was more common in the export-oriented cashew value chain in Cote d'Ivoire, where many village traders provided production credit to farmers and exporters pre-financed wholesalers to purchase crops from farmers and other aggregators. However, such trader financing for inputs and crop purchase is becoming less important for financing value chain activities mainly because of growing self-finance from crop sales and non-farm income at the farm level. For example, about 75 percent of respondents reported self-financing for more than half of their working capital. Off-farm, value chain actors reported greater commercial financing opportunities and much less reliance on traditional trader finance for midstream and downstream segments of value chains. This suggests that, as formal sources of finance became more important, financing from input suppliers and

[26] Spencer and Fornah 2014.

traders at village level declined across all value chain segments. This pattern is consistent with recent findings from India, showing that that only 2 percent of farms received finance from input suppliers, and only 2 percent of traders provided it.[27] AgriFin 2014 attributed the disappearance of traditional trader finance in agriculture primarily to the rise of self-finance, viewing this trend as an opportunity for commercial banks to have a greater role in agriculture and agribusiness financing.

Credit from commercial banks is becoming an increasingly important source of financing, particularly among medium- and large-scale farms and cooperatives at the farm level, and for input suppliers, processors, and marketing and distribution actors. Aggregating farmers into cooperatives helps to reduce the transaction costs associated with lending to smallholder farmers, making it easier and more attractive for commercial banks to lend to them. However, many farmer cooperatives and companies that supported farmer cooperatives reported facing significant challenges getting access to financial services from commercial banks. For example, officials in one company supporting three farmer cooperatives in Sierra Leone reported that commercial banks are generally not interested in financing agribusiness, especially at the farm production level. According to these officials, several issues are similar across cooperatives that limit their access to finance. These include the conditions set by financial institutions, such as stringent collateral requirements, submission of business plans, and the location of financial institutions that are not easily accessible to cooperatives or their members.

> "In Kayeigorma's case it is largely, but not only, due to the stringent collateral requirements and location of financial institutions."
>
> ***Manager, Kayeigorma Company***

However, there are important differences in sources of financing at the farm level within countries. In Sierra Leone, the government is a significant source of financing for farmers because the government's strategy for agricultural commercialization under the Smallholder Commercialization Program was instrumental in providing subsidized credit and inputs to farmers and processors.

Furthermore, the Nigeria Incentive-Based Risk Sharing Agricultural Lending Scheme supported by the Central Bank of Nigeria helped to increase commercial bank lending, particularly to the farming sector. Recent revisions to the scheme expanded participation to other segments of Nigerian agribusiness.[28] In Ghana, agricultural investment funds through private equity, venture capital, and impact investing are emerging as a major source of finance for medium- and large-scale farmers and cooperatives, and for marketing and distribution activities.

Off-farm value chain actors tend to have better access to formal financial services, with credit from commercial banks and private equity reported as the most important source of financing among all non-farm actors. However, in Sierra Leone, own savings and government financing were the primary sources of credit for off-farm actors. This reflected the relatively low penetration of financial services into agribusiness in the country due, in part, to government's agriculture

[27] AgriFin 2014.

[28] Moghalu 2014.

strategy, which may be crowding out commercial financial service providers from agriculture and agribusiness.

Table 4. Main Sources of Financial Services

Value Chain Segment	Sources of Financial Services
Input supply	• Commercial bank (Nigeria, Ghana) • Savings (Nigeria, Sierra Leone) • Input supplier (Ghana)
Production, small farm	• Savings (Nigeria, Sierra Leone, Côte d'Ivoire) • Family and friends (Nigeria, Ghana, Côte d'Ivoire) • Government (Sierra Leone) • Input supplier (Ghana, Cote d'Ivoire)
Production, medium farm	• Savings (Nigeria, Sierra Leone, Côte d'Ivoire) • Family and friends (Ghana, Côte d'Ivoire) • Commercial bank (Nigeria) • Private equity (Ghana) • MFI/community bank (Côte d'Ivoire) • Money transfer (Côte d'Ivoire)
Production, large farm	• Commercial bank (Nigeria, Sierra Leone, Ghana) • Savings (Nigeria, Sierra Leone) • Private equity (Ghana)
Production, cooperative	• Cooperative (Nigeria) • MFI/community bank (Nigeria) • Commercial bank (Ghana) • Private equity (Ghana)
Storage and transport	• Commercial Bank (Ghana) • Family and friends (Ghana)
Processing	• Savings (Nigeria, Sierra Leone, Côte d'Ivoire) • Family and friends (Ghana, Côte d'Ivoire) • Community bank (Nigeria) • Commercial bank (Ghana) • Government (Sierra Leone) • Business partners (Côte d'Ivoire)
Marketing and distribution	• Savings (Nigeria, Sierra Leone, Côte d'Ivoire) • Commercial bank (Ghana) • Community bank (Nigeria) • Private equity (Ghana) • Family and friends (Côte d'Ivoire) • Traders (Côte d'Ivoire, Nigeria)

Source: Field surveys and interviews conducted in 2014.

The financing needs identified illustrate a huge and largely untapped opportunity for financial institutions. Commercial banks remain an important source of working and investment capital for many agribusiness firms that can get access to commercial financing. However, there tends to be a mismatch between commercial banking services and requirements of agribusiness. Even though average loan sizes and tenors vary by country, commercial banks in the four countries reported that the bulk of available funding was for short-term loans, usually less than 12 months. Lending at such shorter maturity is suitable for short-term financing needs of agribusiness firms at both farm and on-farm segments of value chains. When investment capital is available, it is generally for maturities of three years or less, which does not match the longer-term financing needs of

agribusiness firms required to deal with multiple production cycles at farm level, as well as financing requirements for equipment and processing investments, throughout the value chain (annex A, tables A.3–A.10).

Financial Inclusion

This study defines financial inclusion as access to and availability of formal, regulated financial services with regard to physical proximity and affordability (the cost of using financial services). Despite the significant demand for working and investment capital, many value chain actors faced difficulties getting access to financing from formal sources, and the few who do find it mostly inadequate. Difficulties accessing financial services were prevalent, with lending to agribusiness and affordable access to other financial services lagging far behind other sectors of the economy, even in countries such as Nigeria and Ghana that have more developed financial systems.

Respondents in Sierra Leone reported that banks preferred lending to large-scale international agribusinesses because they do not consider smallholder farmers and agricultural SMEs to be viable clients that can satisfy their rigid lending conditions. Actors operating in off-farm segments of value chains did not fare any better—off-farm operators, including medium-size agribusinesses, reported major challenges getting access to a range of financial services from formal commercial sources. The few agribusinesses that had access to financial services found it inadequate.

For respondents at farm level, saving deposits appeared to be generally available across the sample, although the quality of service was low. After savings, credit from commercial banks was the next most common financial service available, particularly for large, medium, and cooperative farms. However, respondents had mixed perception of their adequacy. Beyond savings and credit from commercial banks, there was little evidence of access to other financial services by farms of any size, particularly access to more innovative financial products such as value chain financing, agricultural insurance, warehouse receipts systems, leasing, and digital banking services. Of the 72 farm operators interviewed in the four countries, only two had access to loan guarantees and one had access to warehouse receipts, though neither thought they were adequate. None of the farms reported that they had access to leasing or crop insurance facilities (table 6).

The most widely reported financial services available for off-farm actors were savings and credit from commercial banks, though they were not always adequate to meet the needs of clients. Most respondents in Nigeria found savings and credit from commercial banks to be mostly inadequate for their needs, but in Ghana, most respondents reported that they were adequate for their needs. In particular, off-farm respondents in Ghana were satisfied with the availability and adequacy of access to credit from commercial banks. This finding on the sources of capital showed that commercial banks were the most important source of financing among value chain actors in Ghana (table 7).

Table 5. Access to Finance Challenges

Farm and off-Farm Actors	Rank[a]	Nigeria	Sierra Leone	Ghana	Côte d'Ivoire
Input suppliers	1	Cost	Cost	Cost	—
	2	Ease; Products do not meet needs	—	Ease	—
Small farm	1	Ease	Cost	Cost	Cost
	2	Cost	Financial literacy	Ease	Ease; Collateral
Co-op	1	Ease	—	Cost	—
	2	Cost	—	Ease	—
Medium farm	1	Cost	Cost	Ease	Ease
	2	Collateral	Ease	Cost	Cost
Large farm	1	Cost	Ease	Cost	—
	2	Ease	Cost	Ease	—
Storage and transport	1	—	—	Cost	—
	2	—	—	Ease	—
Processors	1	Cost	Cost	Cost	Ease
	2	Ease	Ease	Ease	Cost
Marketing and distribution	1	Cost	Cost	Cost	Cost
	2	Ease	Financial literacy	Ease	Ease

Source: Field surveys and interviews conducted in 2014.
Note: — = data not available.
a. Survey respondents ranked the top challenges facing their businesses. If access to finance was one of their top four challenges, they also ranked their most common financing challenges. This column represents the top two most common financing challenges.

Table 6. Access to and Use of Financial Services: Farm-Level Actors

Financial Services	Farm-Level Actors												
	Small-scale farms				Cooperatives		Medium-scale farms				Large-scale farms		
	Côte d'Ivoire	Ghana	Nigeria	Sierra Leone	Ghana	Nigeria	Côte d'Ivoire	Ghana	Nigeria	Sierra Leone	Ghana	Nigeria	Sierra Leone
Commercial bank	○	○	●	○	◑	◑	○	◑	◑	●	●	●	◑
MFI/community bank	◑	○	◑	●	○	◑	◑	○	◑	●	◑	○	◑
Trader or input supplier	○	●	○	○	○	◑	○	●	◑	●	◑	◑	◑
Savings	◑	◑	◑	●	○	◑	◑	○	◑	◑	○	◑	◑
Money transfer	◑	○	○	○	○	○	◑	○	○	○	○	◑	○
Leasing	○	○	○	○	○	○	○	○	○	○	○	○	○
Insurance	○	○	○	○	○	○	○	○	○	○	○	○	○
Loan guarantees	○	○	○	○	○	○	◑	○	○	○	○	○	◑
Warehouse receipts	○	○	○	○	○	○	○	○	○	○	○	◑	○

Source: Field surveys and interviews conducted in 2014.

Note: ○ = not available; ◑ = available, but inadequate; ● = available and adequate.

Table 7. Access to and Use of Financial Services: Off-Farm Actors

Financial Services	Off-Farm Actors											
	Input Suppliers			Transport and Storage	Processors				Marketing and Distribution			
	Ghana	Nigeria	Sierra Leone	Ghana	Côte d'Ivoire	Ghana	Nigeria	Sierra Leone	Côte d'Ivoire	Ghana	Nigeria	Sierra Leone
Commercial bank	●	◑	◑	●	●	●	◑	◑	●	●	◑	●
MFI/community bank	○	○	◑	◑	◑	○	◑	●	◑	○	◑	●
Trader or input supplier	●	◑	○	○	●	●	◑	●	◑	○	◑	○
Savings	○	◑	◑	◑	◑	◑	◑	◑	◑	●	◑	◑
Money transfer	◑	○	○	○	◑	○	○	○	○	○	○	○
Leasing	●	○	○	○	○	●	○	○	○	○	○	○
Insurance	○	○	○	○	○	○	○	○	○	○	○	○
Loan guarantees	●	○	○	○	○	○	○	○	●	○	○	○
Warehouse receipts	○	○	○	○	○	○	●	○	○	○	○	○

Source: Field surveys and interviews conducted in 2014.

Note: ○ = not available; ◑ = available, but inadequate; ● = available and adequate.

Challenges Faced by On- and Off-Farm Value Chain Actors

The case studies showed that access to finance was a major challenge across all types and sizes of on- and off-farm actors in all countries. The second most important challenge facing farmers is access to inputs, such as seeds, fertilizer, and agro-chemicals. However, there were important variations in agribusiness challenges by country and actors. Even though access to finance was always identified in the top two challenges, small- and medium-scale farms in Ghana reported that production risks were a greater challenge than access to finance (table 8).

Table 8. Farm-Level Challenges

Farm-Level Actors	Rank[a]	Nigeria	Sierra Leone	Ghana	Côte d'Ivoire
Input suppliers	1	Access to finance	Access to finance	Business/market risks	—
	2	Business/market risks Flow of info among actors	—	Access to finance	—
Small farm	1	Access to finance	Market information	Production risks	Access to finance
	2	Access to inputs	Access to inputs	Access to markets	Access to inputs
Co-op	1	Access to inputs	—	Access to finance	—
	2	Access to finance	—	Infrastructure	—
Medium farm	1	Access to finance	Market Information	Production risks	Production risks
	2	Access to inputs	Infrastructure	Access to finance	Business and market risks
Large farm	1	Access to finance	Infrastructure	Access to finance	—
	2	Infrastructure	—	Access to inputs	—
Storage and transport	1	—	—	Access to finance	—
	2	—	—	Access to markets Legal/regulatory	—
Processors	1	Access to finance	Access to finance	Access to finance Access to inputs Production risks	Access to finance
	2	Infrastructure			Legal/regulatory
Marketing and distribution	1	Business/market risks	Access to finance	Access to finance	Access to finance
	2	Access to markets	—	Infrastructure	Information on business opportunities Flow of information among actors

Source: Field surveys and interviews conducted in 2014.
Note: — = data not available.
a. Survey respondents ranked the top challenges facing their businesses. This column indicates the top two challenges.

In access to finance, the most important challenges cited by both farms and off-farm agribusinesses were the cost and the ease of accessing credit. The cost of accessing finance remains high in most Sub-Saharan African countries because annual interest rates average more than 20 percent. Access

to credit was further restricted by burdensome bank lending procedures that require numerous documents to process loans, and a lack of convenient points of service, such as rural branches, ATMs, and mobile payment services. Some respondents cited lack of adequate collateral and limited financial literacy as key challenges that limited access to financial services.

Table 9. Off-Farm Challenges

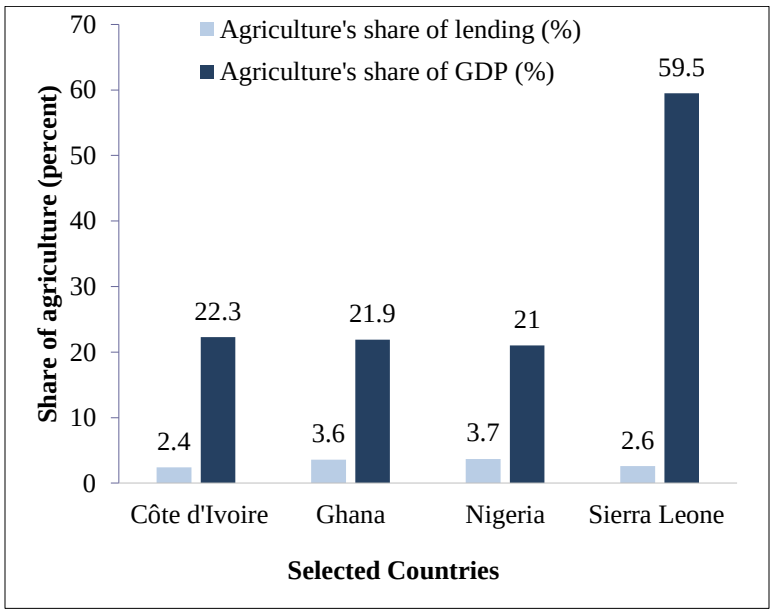
Off-farm actors	Rank[a]	Nigeria	Sierra Leone	Ghana	Côte d'Ivoire
Input suppliers	1	Flow of information among actors; Business/market risks	—	Production risks	—
	2	n.a.	—	Business/market risks	—
Small farm	1	Access to inputs	Access to inputs	Production risks	Access to inputs
	2	Access to markets	Lack of buyers	Infrastructure	Infrastructure
Co-op	1	Access to inputs	—	Infrastructure	—
	2	Access to markets	—	Business/market risks	—
Medium farm	1	Access to inputs	Market information	Access to inputs	Infrastructure
	2	Infrastructure	Infrastructure	Production risks	Production risks
Large farm	1	Information on business opportunities	Infrastructure	Access to inputs	—
	2	Infrastructure	—	Production risks	—
Storage and transport	1	—	—	Access to inputs	—
	2	—	—	Production risks; Access to markets; Information on business opportunities	—
Processors	1	Infrastructure	—	Access to inputs	Legal/regulatory
	2	Access to markets	—	Production risks	Information on business opportunities
Marketing and distribution	1	Business/market risks	—	Legal/regulatory	Information on business opportunities
	2	Access to inputs	—	Access to inputs	Infrastructure

Source: Field surveys and interviews conducted in 2014.
Note: — = data not available.
a. Survey respondents ranked the top challenges facing their businesses. This column indicates the top two challenges.

4. Supply of Agribusiness Finance from Domestic Banks

Overall, commercial lending to agriculture and agribusiness is relatively insignificant in the four countries studied, with the sector consistently accounting for less than 10 percent of total private sector lending in the past 10 years. Data from the Central Banks in the four countries indicate that the share of agriculture in total lending to the private sector is less than 5 percent, even though the sector's share of gross domestic product (GDP) averages more than 20 percent and up to 60 percent in Sierra Leone (figure 6).

Figure 6. Share of Agriculture in Total Lending and GDP in Selected Countries



Source: World Bank and documents from Central Banks of Côte d'Ivoire, Ghana. Nigeria, and Sierra Leone.
Note: Agriculture share of lending for Ghana and Nigeria are 2014 data, and data for Sierra Leone and Côte d'Ivoire are 2013 data. Agriculture share of gross domestic product is 2014 data for all countries. GDP = gross domestic product.

Findings from the supply-side interviews conducted for this study show that the supply of formal financial services for agriculture and agribusiness from commercial banks is limited. The commercial banks surveyed typically dedicated less than 10 percent of their total lending portfolios to agriculture. For example, in Sierra Leone, interviews with commercial banks showed that most avoided agricultural lending, and in cases where banks do lend to the sector, it was part of their general lending portfolio instead of through a specialized agriculture sector unit. Community banks in Sierra Leone that were set up specifically to meet the financing needs of rural populations also reported limited lending to agriculture and agribusiness. According to the Technical Assistance Agency in Sierra Leone (supported by the International Fund for Agricultural Development), only 15 percent of rural financial institutions' lending is to agriculture. Agricultural development banks were established in Ghana in the mid-1960s specifically to finance the agricultural sector. However, a recent World Bank study showed that the World Bank allocated only 29 percent of its

lending portfolio to the sector in 2010.[29] Only in Nigeria did the majority of financial institutions interviewed report having a separate unit for dealing with agribusiness financing. This is partly due to a Central Bank of Nigeria directive that mandated commercial banks to set up an agriculture lending desk, even though they are not compelled to lend to the sector.[30] Aside from this, banks in Nigeria reported relatively low lending to agribusiness, with current average lending rates to the sector averaging 2.6 percent of total private sector lending compared with 12.5 percent in the manufacturing sector. Banks also reported a limited mix of agribusiness financial products and services, particularly for smallholder producers and agricultural small and medium enterprises (agri-SMEs) operating in different segments of value chains. These estimates of commercial lending rates to agribusiness are likely to be lower bound estimates because many banks classify agribusiness clients as those engaged in commercial production of crops or livestock. Agribusiness activities undertaken further down the value chain, such as transportation, processing, and wholesale and retail trading, are usually classified and reported as lending to manufacturing, commerce, and trade. Consequently, reporting on agribusiness loans tend to be underestimates because they do not take lending to the entire value chain into consideration.

Most commercial bank lending in agribusiness was short term; the majority of reported loan tenors for working capital was 12 months or shorter. Loan tenors for investment capital are usually for three years or less, with a few banks reporting tenors for investment capital between three and seven years, and fewer for seven to 10 years or more. Several banks noted that loan tenors did not adequately match investors' needs, particularly for investment capital such as farm machinery, non-farm assets, and industrial property.

The limited data on the average loan size for agribusiness from the commercial banks surveyed showed wide variations in loan sizes, which makes it difficult to discern any consistent pattern. The main reason banks cited for the limited supply of agribusiness finance with adequate tenors is the lack of specialist knowledge of agriculture and agribusiness among their staff. Even though the majority of commercial banks surveyed have staff with a bachelor of science degree or higher in an agriculture-related field (all eight in Nigeria, two of three in Ghana, and one of two in Sierra Leone), respondents to the survey noted that their staff did not adequately understand how to analyze and supervise agribusiness investments. In the Nigeria study, for example, many credit risk management officers in commercial banks did not have the analytical skills to analyze an agribusiness business plan. In the few cases where banks had skilled staff, they may not have been aware of or known how to analyze innovative financial products and services for agribusiness, such as crop insurance schemes, warehouse receipts, and value chain finance.

Agribusinesses cited the high cost of financing as a major factor limiting access to finance. Most banks surveyed reported charging interest rates of more than 20 percent or higher per year on agribusiness loans. Few commercial banks and some state banks in Nigeria provided subsidized lending to agribusiness. For example, one commercial bank in Sierra Leone implemented a government-supported scheme, and three banks in Nigeria reported lending rates of 10-15 percent interest per year. Microfinance institutions (MFIs) in Nigeria had the highest rates for agribusiness lending—all reported rates greater than 30 percent per year. The relatively high lending rates were

[29] World Bank 2012.

[30] Moghalu 2014.

not limited to agribusiness, but reflected the generally high cost of borrowing that often related to broader macro issues in these economies.

Besides the high cost of lending, it is difficult for agribusinesses to get loans because the banks' loan processing required a large number of documents. Overall, commercial banks required between three and five documents for loan appraisal, with banks in Sierra Leone requiring the most documents (table 10). Banks reported that loan processing typically required physical collateral, financial statements, and business plans. Some banks also required moveable property and a guarantor.

Table 10. Documents Required for Loan Approval

Required documents	**Commercial banks**				**MFIs**	**Community banks**	**State banks**
	Nigeria (N = 8)	Ghana (N = 3)	Sierra Leone (N = 2)	Côte d'Ivoire (N = 4)	Nigeria (N = 6)	Ghana (N = 2)	Nigeria (N = 2)
Physical collateral	8	3	2	4	1	2	2
Movable property	1	1	2	4	0	1	0
Guarantor	4	2	2	2	6	2	2
Financial statements	8	3	2	4	2	1	1
Business plan	8	3	2	4	0	1	2

Source: Field surveys and interviews conducted in 2014.
Note: MFI = microfinance institution; N = number of financial institutions interviewed.

As shown in table 11, provision of collateral is a major consideration for commercial bank lending, and all banks cited it as the most important factor except in Ghana, where the client's repayment capacity was the leading consideration. The client's credit history was also an important factor. Most commercial banks surveyed, but especially those in Nigeria, stated that credit reporting is increasingly a key factor influencing their lending decisions. Although credit reporting was as an important factor, the utilization of credit reporting or credit bureaus is still rudimentary in all of these countries.

The heavy reliance on collateral and number of document required discriminates against many small- and medium-scale farmers and agri-SMEs, who may have viable businesses but do not have the assets or documents the banks require.

Despite these limitations on supply of finance for agribusiness, some banks are starting to grow their agribusiness portfolios and their number of branches. Increasing perceptions of profitability is driving some banks to increase their lending to agribusiness. For example, in Sierra Leone, Union Trust Bank (UTB) increased its lending to the sector from 12 percent of its total portfolio in 2012 to 20 percent in 2013. In Nigeria, the target is to increase the share of agriculture in total commercial lending from 2 percent in 2011 to 7 percent in 2020, primarily by improving risk

management in agricultural lending and emphasizing lending throughout the entire value chain—from upstream input supply to downstream marketing activities.

Table 11. Determinants of Commercial Bank Lending

Country	Determinants of lending
Côte d'Ivoire	• Cash flow analysis • Collateral • Repayment capacity
Ghana	• Repayment capacity • Cash flow analysis
Nigeria	• Collateral • Credit history
Sierra Leone	• Collateral • Repayment capacity • Credit history

Source: Field surveys and interviews conducted in 2014.

Target Clients

Banks mainly targeted actors involved in midstream and downstream value chain activities, such as processing, marketing, and trade. Most commercial banks reported that they support both on- and off-farm clients, but off-farm clients made up a greater share of investments. As shown in table 4.3, processing and trade are the two key segments of agribusiness value chains to which commercial banks lend. In Ghana, respondents reported that they preferred clients in these value chain segments because the risks of lending to them were lower and the investments more profitable. However, among off-farm clients, banks rarely lend to aggregators, transport and logistics providers, or input suppliers. Only one of 13 commercial banks in Ghana provided credit to actors in transport and logistics, and although nine of 13 commercial banks were lending to input suppliers, these value chain segments consistently constituted less than 50 percent of the bank's agribusiness lending portfolios. When banks lend to off-farm segments of value chains, they predominantly targeted medium-size actors, with few reporting loans to small- and large-scale agribusinesses.

Few banks reported lending to small-scale agricultural producers, and when they do lend to farm production, it is mainly to large-scale farms and well-organized farmer or producer cooperatives. In Nigeria, commercial banks reported that they preferred lending to large-scale farms; they avoided lending to smallholder farmers because of the high transaction costs and overheads associated with advancing loans to smaller producers. Even MFIs in Nigeria had less than 50 percent of their total agribusiness loans going to small-scale farmers. In Sierra Leone, Ghana, and Côte d'Ivoire, banks consistently expressed a stronger preference for lending to off-farm actors. However, in all countries, the banks surveyed were more inclined to lend to small-scale producers when they were organized into cooperatives or in out-grower schemes. Even though lending to cooperatives represented less than 50 percent of the agribusiness portfolios of these banks, many reported that this share is increasing and expected to grow in the future.

Table 12. Commercial Banks's Target Clients

Country	Segments to which banks lend
Côte d'Ivoire	• Trade • Processing
Ghana	• Processing • Production
Nigeria	• Processing • Trade
Sierra Leone	• Processing • Production • Trade • Transport

Source: Field surveys and interviews conducted in 2014.

Banks reported that large farms, cooperatives, and out-growers were perceived as promising investment opportunities, along with continued expansion of lending for processing and trade. Several respondents in Nigeria reported that the main drivers of these growth opportunities were perceived increased profitability and improved risk management in these value chain segments as well as increased investment in building the capacity of bank staff to better understand and adequately assess the risks and potential profitability of agribusiness investments.

Table 13. Commercial Banks' Expansion Opportunities

Country	Commercial bank expansion opportunities
Côte d'Ivoire	• Processing • Input supply • Transport
Ghana	• Input supply • Transport
Nigeria	• Large farms • Out-growers
Sierra Leone	• Processing • Production (co-ops and smallholders)

Source: Field surveys and interviews conducted in 2014.

Financial Products and Services

Across all countries, all banks provided traditional banking products and services, but only limited offerings of innovative lending, risk management, and distribution products. All banks reported that their main activities involved provision of banking products such as savings accounts, lending for working and investment capital, and overdraft facilities. As illustrated in table 14, however, many banks reported providing a wide variety of lending, risk management, and delivery products and services to clients, even though these were in limited quantities or at pilot stages. The range of financial products and services on the banks' books shows their willingness to experiment with different lending, risk management models, and delivery channels that can improve clients' access, enhance affordability, and better manage risks, even though these products and services are vastly underutilized. In Nigeria, for example, respondents stated that these innovative financial products

and services were not operational because customers were not knowledgeable about the products or knew how to use them.

Table 14. Financial Products and Services Offered by Banks

Financial Products and Services	Overall	Sierra Leone	Ghana		Nigeria			Côte d'Ivoire	
		Commercial banks	***Commercial banks***	***Community banks***	***Commercial banks***	***State banks***	***MFIs***	***Commercial banks***	***MFIs***
	N = 23	N = 2	N = 3	N = 2	N = 8	N = 2	N = 6	N=3	N=1
Savings/deposit accounts	20	2	2	2	8	2	4	1	1
Direct lending for working capital	19	2	3	0	8	2	4	2	1
Overdraft facilities	17	2	3	1	8	1	2	2	0
Direct lending for investment capital	16	2	3	2	8	1	0	2	1
e-banking	14	1	3	0	8	2	0	2	0
Mobile banking	13	1	1	1	8	2	0	1	0
Leasing	12	1	2	0	8	1	0	0	0
Nucleus farms/contract farming/out-grower	12	1	2	0	8	1	0	0	0
Trade finance	12	1	2	0	8	1	0	2	1
Credit guarantee	12	1	3	0	8	0	0	1	0
Agency banking	10	0	2	0	8	0	0	1	0
Mobile payment	9	0	1	0	8	0	0	1	0
Value chain finance of input suppliers	7	1	2	0	3	1	0	0	1
Warehouse receipts	5	1	1	0	3	0	0	2	0
Value chain finance of output buyers	4	1	2	0	0	1	0	0	1
Crop insurance	3	1	0	0	2	0	0	1	0
Factoring	2	1	1	0	0	0	0	1	0
Commodity price risk management	0	0	0	0	0	0	0	1	0

Source: Field surveys and interviews conducted in 2014.

Government and donor interventions provided important incentives for commercial banks' experimentation with financial products and services. Examples of such initiatives are the Nigeria Incentive-Based Risk Sharing Agricultural Lending Scheme supported by the Central Bank of Nigeria, a credit risk guarantee scheme in Ghana established by a partnership between Standard Bank and multiple donors (including the Alliance for a Green Revolution in Africa), and a credit guarantee scheme in Sierra Leone supported by the African Development Bank. Other bank experimentation with new lending, risk management models, and delivery channels include value chain financing in Ghana, warehouse receipt systems in Nigeria and Côte d'Ivoire, and agency banking in Ghana.

Box 2. Credit Guarantee Scheme in West Africa

Agricultural Guarantee Fund Scheme was established in 2009 through a partnership with Standard Bank, Alliance for a Green Revolution in Africa (AGRA), OPEC Fund for International Development, Kilimo Trust, the Millennium Challenge Account, and the Millennium Development Authority as an innovative loan guarantee fund targeted at smallholder farmers. The fund operates in Ghana, Mozambique, Tanzania, and Uganda, aiming to reach more than 750,000 smallholder farmers and small and medium-size agricultural enterprises. Donor partners provide first-loss loan and risk share guarantees to the Standard Bank, and the World Bank makes available up to US$100 million—US$25 million for each of the target countries—over three years. AGRA provides 20 percent of loan guarantee funds in the first year, which is reduced to 15 percent in the second year and 10 percent between years three and five. The AGRA program aims to cover US$25 million of total lending to smallholder farmers and small agricultural businesses. The Agricultural Guarantee Fund Scheme is the largest single financing facility by a bank targeting smallholder agriculture in Africa.

Africa Guarantee Fund for Small- and Medium-Sized Enterprises (AGF), launched in 2012, is a credit guarantee scheme designed and funded by the African Development Bank in partnership with the governments of Denmark and Spain and aims to ease access to finance to African small and medium enterprises (SMEs). In 2013, the Union Trust Bank Limited (UTB) of Sierra Leone signed a portfolio guarantee agreement with the AGF to provide loans to agri-SMEs. The AGF is intended to provide partial guarantee to the UTB for a maximum of US$2 million, with US$500,000 set as an initial utilization unit. The actual guarantees are issued in local currency, which is the currency of UTB's portfolio. AGF will help UTB enhance its capabilities in SME banking through a capacity development component that complements the guarantee.

Nigeria Incentive-Based Risk Sharing System for Agricultural Lending (NIRSAL) was established by the Central Bank of Nigeria in August 2011. The fund emphasizes lending to all the agricultural value chains—input, cultivation, storage, industrial production of value-added products, and marketing—and aims at increasing lending to agriculture from less than 2 percent of total bank lending in 2011 to 7 percent over 10 years. NIRSAL was initially set up as a pilot scheme to benefit smallholder farmers by allocating the largest part of the fund to very small agricultural producers, offering up to 75 percent risk coverage in addition to an interest payback of 40 percent. The initial structure of NIRSAL rapidly led to high non-performing loans because of a combination of factors. In September 2014 NIRSAL's credit guarantee and interest rebate products for counterparties, investors, and market participants in agriculture and agribusiness were changed. NIRSAL is the largest government-run scheme in Africa focusing on de-risking agricultural lending and pushing an agenda of a value chain–based approach to agricultural lending.

Source: OPEC Fund for International Development press release, 2010; African Development Bank website; NIRSAL website.

Gaps remain in offerings of these innovative agribusiness-related financial services and products. With regard to risk management, experimentation was mainly limited to credit guarantee schemes, with few banks piloting warehouse receipts, crop insurance, or commodity price risk management products. For example, the main government- or donor-supported risk management schemes in

Nigeria, Ghana, and Sierra Leone involved credit guarantees to commercial banks for agribusiness clients. In Nigeria, Stanbic IBTC Bank announced the launch of an electronic warehouse receipt system (e-WRS) for farmers in July 2014. This system enables farmers to take their agricultural products to accredited warehouses in Nigeria to be preserved until sold. Farmers receive an electronic receipt from the e-WRS that they can either keep until prices appreciate, use as collateral to obtain loans from banks, or trade on the floor of the Nigerian Commodity Exchange. However, the banks experimenting with warehouse receipt financing in Nigeria reported that the major reasons impeding extensive use of these schemes are limited customer knowledge of the product and weaknesses in the legal and regulatory systems to enforce contracts. Limited financial sector reform is another factor holding back extensive use of innovative financial products. Although banks cite production risk as a major factor limiting lending to agriculture and related agribusiness, innovative insurance products and techniques are scarce. The case of agricultural insurance in Nigeria is instructive for explaining this dilemma. Although agricultural insurance offered by NAIC benefit from a 50 percent subsidy and law mandates crop insurance for agricultural borrowers, its products are not widely used as a risk management tool. Market penetration of NAIC products are less than 2 percent of the agricultural insurance market. Most private investors suggested that reform of the agricultural insurance sector would be a necessary condition for significant uptake of agricultural insurance among farmers and banks.

Banks perceive that early-stage experimentation and roll out of innovative agribusiness financial products and services is poised to expand significantly. In Ghana, most banks interviewed suggested that they would provide several innovative financial products and services to agribusiness clients within the next one to three years. For example, one commercial bank that does not currently provide value chain finance through output buyers reported that it plans to introduce this product line within one year, and another stated that it plans to roll out a warehouse receipts financing within three years.

The limited use of innovative lending and risk management products observed in this survey is consistent with findings on agribusiness finance from recent studies. For example, Dalberg 2012 noted that commercial banks have experimented with models to provide financing to smallholder farmers, but these models reach a very small proportion of smallholder agriculture finance demand.[31] The Consultative Group to Assist the Poor also noted that despite recent developments and pilots in digital finance and in enhancing delivery of financial services, the use of digital financial services to expand smallholder access to finance is still in its infancy.[32] The findings from this study's survey are consistent with those from other studies, which show that commercial bank' early-stage experimentation with innovative agribusiness financial products and services were in the pilot phases and, though promising, more needs to be done to scale them up for broader impact.

Factors Impacting Agribusiness Lending Decisions

Several factors influenced the existing state of agribusiness finance and its future, but banks' profitability and perceived risk of lending to agribusiness rank the highest. Instead of starting with

[31] Dahlberg 2012.

[32] Grossman and Tarazi 2014.

a target client or commodity in mind, most banks across all the countries surveyed reported that profit expectation was the most important factor driving long-term lending decisions to the agribusiness sector. Even among banks that did target commodities, their commodity selection was primarily based on profit-related considerations, including the return on investment and its comparative advantage in the area. A number of banks noted that agriculture was not often seen as a profitable investment market, particularly for smallholder farm production. Other important drivers of bank lending were the conduciveness of laws and regulations and the ability of banks to development appropriate agribusiness financing products and services (table 15).

Table 15. Factors Influencing Commercial Bank's Long-Term Lending

Country	Factors
Côte d'Ivoire	• Laws and regulations • Profit expectations • Market for agribusiness financial products and services
Ghana	• Profit expectations • Growth prospects
Nigeria	• Profit expectations • Laws and regulations
Sierra Leone	• Profit expectations • Growth prospects

Source: Field surveys and interviews conducted in 2014.

Banks also considered farm production risks as the most important challenge that deters commercial lending to agribusiness. The perceived high risks involved in agricultural production was reported as a major factor that drives bank lending toward off-farm activities such as processing and trade. The perceived riskiness of farm production is complicated by the inability of bank staff to adequately assess risks in agribusiness. For example, respondents in Nigeria noted that these risk perceptions are compounded by the fact that bank staff often does not have the skills to adequately assess risks in different segments of value chains. Table 16 shows other important challenges that banks identified.

Table 16. Main Challenges Identified by Financial Institutions

Country	Main Challenges
Côte d'Ivoire	• Legal and regulatory • Risk in farm production • Information on value chain actors
Ghana	• Risk in farm production • Post-harvest losses
Nigeria	• Skills and literacy • Customer knowledge
Sierra Leone	• Risk in farm production • Skills and literacy

Source: Field surveys and interviews conducted in 2014.

Banks proposed a number of solutions for dealing with these challenges. These included increased attention to development of risk management products (guarantee schemes, crop insurance, and warehouse receipt systems); investment in improving financial literacy for bank clients (farmers

and SMEs); and training of bank staff to increase awareness and knowledge of the range of financial services and products available to agribusiness clients.

Across the four countries, commercial banks respondents also suggested that the continued strengthening of financial infrastructure (defined broadly to include institutions, information, technologies, rules, and standards that enable financial intermediation) could have a major impact on their lending decisions. Banks emphasized the importance of a sound financial regulatory system, noting that strengthening key elements of the financial infrastructure is vital to expanding financial products and services—credit, savings, and payment services—to agribusiness and other underserved segments of the population.

Some key financial infrastructure elements were established, such as credit bureaus, collateral registries, and payments and securities settlement systems, as well as legal and regulatory framework to allow for proper functioning of various financial infrastructure elements; however, they are at different stages of development in the financial system of the four countries. Each country established a legal and regulatory framework that allows for collection of information on individuals and business entities that will help a creditor check a potential borrower's credit experience or evaluate suitability for a loan. Ghana, with the strongest financial infrastructure in the four countries, has the Credit Reporting Act, 2007 aimed at promoting the orderly development of a credit reporting system. Three credit information bureaus collect and provide information about the creditworthiness of individuals/borrowers to all commercial banks and some non-bank financial institutions. In Sierra Leone, the Credit Reference Act passed in 2011 established the Credit Reference Bureau to obtain, maintain, and provide credit information in accordance with the Act. The Bureau is currently operated by the central bank and is open only to commercial banks. In 2008, the Central Bank of Nigeria issued guidelines for licensing, operations, and regulation for the credit bureaus in Nigeria. Currently there are three registered credit bureaus providing services to commercial banks. The central bank approved the collateral registry regulations in 2014 and the collateral registry is expected to be operational in March 2016.

Commercial banks reported that they are increasingly relying on key financial infrastructure elements to evaluate risks, process credit applications, and provide financial products to agribusiness and other clients at competitive rates in all four countries. Of the financial infrastructure elements considered, commercial banks in Ghana identified the credit bureau as a highly important factor in commercial bank lending decisions to agriculture and agribusiness clients, followed by use of moveable assets for loan security and payment, remittance and settlement systems. The commercial banks in Sierra Leone rated the credit reference bureau as a highly important factor in their lending decisions, followed by use of moveable property as collateral and payment systems. They further indicated that the credit reference bureau improved their loan servicing, although there are significant opportunities for improvement in the financial infrastructure. In Nigeria, credit bureaus are still rudimentary, but most commercial bank interviewed emphasized the importance of credit bureau reports, followed by moveable property in their lending decisions to agriculture and agribusiness.

Many banks noted that technical assistance from development finance institutions (DFIs) provided important impetus for experimentation with new financial products and services. Some banks are collaborating with DFIs and development agencies, mostly for provision of technical assistance.

A few banks collaborated with DFIs to develop and launch new financial products such as targeted credit lines, equity, and credit guarantees, and for training and skills development. For example, UTB collaborated with IFC in Sierra Leone to improve management skills of its SME clients using Business Edge tools. The goal was to enhance the bank's performance and productivity for its clients. However, commercial banks surveyed also reported developing important partnerships with governments and other development agencies for product development and delivery.

There are good opportunities to strengthen partnerships between banks and DFIs that can enhance provision of financial products and services to agribusiness. Commercial banks in Ghana, for example, reported that collaborating with DFIs allows them to lend to new agribusiness clients who lack collateral or cannot meet other traditional lending criteria. The patient capital provided by DFIs allows banks to provide agribusiness loans with longer tenors.

Several banks are also developing partnerships with DFIs to improve their environmental and social performance and address gender-related issues. In Sierra Leone, respondents said these are the main areas that technical assistance from DFIs was useful. In Nigeria, only two banks reported they had set up adequate environmental, social, and governance (ESG) plans, and none reported having adequate gender strategies. Most banks surveyed in Côte d'Ivoire, Ghana, and Sierra Leone reported inadequate ESG plans and gender strategies, even though they acknowledged that these are important areas for their businesses.

Many banks are also exploring opportunities to develop financial relations with global agribusiness actors to provide enhanced products and services for agribusiness. Some banks in Ghana reported new partnerships with foreign agribusiness firms that allow them to reduce the risks associated with lending to smaller agribusiness clients in rural areas. Banks benefit from agribusiness firms' linkages with producers, which significantly reduces their need to invest in new branches, decreases their overall costs of appraising and supervising agricultural investments, and improves their understanding of these customers. Agribusiness firms benefit from ensuring that their suppliers have access to credit for inputs, such as fertilizer to improve their yields, while keeping such loans on their balance sheets. For example, in Ghana, a large local supermarket that wanted to expand its sales of horticulture produce from local producers and improve its supply chain pre-financed its suppliers' production and offered them off-take contracts.[33] Instead of relying entirely on its own balance sheet, the supermarket collaborated with a bank to extend working capital credit lines to smallholders. The bank would have been reluctant to lend directly to these smallholders, but it was comfortable supporting a larger supermarket as an intermediary.

> "We do not confuse size with credit quality… Even if a farmer is small, if he can demonstrate a successful repayment history, has kept track of his production data and financials, banks will be willing to lend. This holds true for other banks as well…When I talk to my peer group of banks, everyone is looking for quality deals."
>
> ***Mohit Arora, Head of Agriculture, Standard Bank Africa (Financial Times 2013)***

[33] Beck and Maimbo 2013.

Despite the myriad of challenges highlighted in this section, the banking sectors in these countries are highly optimistic about the future of agribusiness finance. All 23 banks surveyed in the four countries stated that the banks' interest in agribusiness would continue to grow steadily in the next decade.

5. Supply of Agribusiness Finance from Investment Funds

Private investment is increasingly becoming an important source of financing for agriculture and agribusiness in Sub-Saharan Africa. Such investments are driven primarily by rising demand for fast-moving consumer goods (including food and beverage products) and improved profitability projections in the industry.[34] Within private sector investment, agricultural investment funds are growing rapidly as vehicles for financing agribusiness. As with FAO 2010a, this study defined agricultural investment funds as a way to pool the capital of different types of investors and provide capital to different agricultural stakeholders. By pooling investments, these funds offer investment vehicles that help manage investors' risks through diversification of investments while also providing specialized fund management expertise to investors to support their target clients and improve performance. These investments, therefore, tend to have positive impacts on job creation and other economic opportunities that support agricultural sector development. When properly implemented, they can also improve environmental and social governance issues in agribusiness investments.

> "Food and agribusiness are now seen as a hot new investable asset in the African private equity environment."
>
> ***Africa Investor 2011***

Financing agribusiness through agricultural investment funds is on an upward trend, with many new funds established and others recording significant growth within the past decade. FAO 2010a identified 31 agricultural investment funds that either targeted Sub-Saharan Africa or were global but with significant agricultural investments in the region. These funds have a capital base of about US$4 billion and range from US$8 million and US$2.7 billion. Another recent study identified 53 funds with 27 dedicated agribusiness funds and 26 investing in a range of sectors in Sub-Saharan Africa, including agribusiness.[35] The study estimated the capital base of dedicated agriculture funds at US$5.88 billion, representing about 18 percent of the capital base of all private equity funds invested across different sectors in the region in the past decade.

Supply of Agribusiness Finance and Technical Assistance by Investment Funds

This study applies a broad scope to agricultural investment funds to include private equity, venture capital, impact investors, and social impact funds. Consistent with recent findings from other studies, it shows that agribusiness investment funds—private equity, venture capital, impact investing—have a growing interest in Africa. The study identified 18 agribusiness investment funds, of which 16 provided complete data for analysis. The total capital base of the 16 funds was US$3.5 billion and ranged from US$7 million and US$2 billion; more than three-quarters of these funds were established within the last 10 years (table 17). Of the firms surveyed, 10 managed funds that were dedicated exclusively to agribusiness, and six were non-dedicated funds that invested in a range of sectors, including agribusiness. Of the 10 firms with dedicated agribusiness funds, nine

[34] KPMG 2014; FAO 2010a.

[35] Silici and Locke 2013.

invested in both on- and off-farm segments of value chains, and one fund targeted only off-farm value chain activities.

Box 3. Private Equity Funds in Africa: The Africa Agriculture Trade and Investment Fund

The Africa Agriculture Trade and Investment Fund (AATIF) was set up with backing from public and private investors to focus on investment in agriculture. The fund targets small, medium, and large-scale farms and agricultural businesses along the entire agricultural value chain. Its aim is to improve food security, create employment, and increase local income opportunities through direct financing of economically sound projects and by refinancing local financial intermediaries. It also seeks to attract public and private capital into Africa agriculture financing, where the lack of patient and reliably available financing is a major constraint on economic growth.

AATIF's investment can be either direct or indirect. Direct financing consists of investments in farmer cooperatives, commercial farms, and processing companies. For example, in 2011 AATIF made its initial investment of US$10 million into the maize, wheat, and soya bean farming operation in Chobe Agrivision Company, Zambia. AATIF also signed a US$5million loan agreement with the Global Agri-Development Company, a Ghanaian rice producer. AATIF's indirect investments relate to local financing institutions or other intermediaries, such as large agribusiness or distributors of agricultural inputs, which on-lend AATIF funding in cash or in kind into the agriculture sector. For example, AATIF provided a trade finance facility of US$20 million in a partnership agreement with Wienco, an agribusiness firm in Ghana, to support the development of smallholder agriculture in the country. The facility is intended for procuring inputs to smallholder farmers in the cocoa, maize, and cotton sectors and for purchasing their crops. AATIF also signed a US$25 million funding and risk-sharing agreement with BancABC to increase agricultural lending in Botswana, Tanzania, Zambia, and Zimbabwe.

Besides financing, AATIF provides grant resources through a technical assistance (TA) facility that is intended to support AATIF investments in realizing their development potential, and pursue research and development activities to promote agrifinance in Africa. The Common Fund for Commodities, an intergovernmental financial institution, manages the TA facility.

Source: AATIF annual reports, various years.

Both public and private investors finance investment funds (figure 9). Development finance institutions (DFIs), such as the U.K. Department for International Development, IFC, and GIZ (Deutsche Gesellschaft für Internationale Zusammenarbeit GmbH), played important roles in establishing agribusiness investment funds. Of the 16 funds analyzed, nine cited a development agency as a major investor, so these are essentially public-private initiatives. Beyond direct investment of own resources, DFIs also act as catalysts by mobilizing additional sources of capital in funds, particularly from foreign investors. For example, the African Development Bank estimated that for every U.S. dollar it invests into funds, another US$5 is raised from other investors.[36] Other donors—including foundations, high net-worth individuals, and private corporations—are also investing significantly in investment funds (figure 9).

Fund managers reported that the top three factors driving their investment decisions were potential for development impact, projected returns to investments, and growth prospects in an economy. Other important factors were a country's laws and regulations governing private investments, and opportunities for leveraging patient capital. Funds, both with and without a DFI as a major investor, identified development impact as an important driver of investment decisions. However, those

[36] Silici and Locke 2013.

with a DFI investor were more likely to identify potential for development impact as an important factor in their investment decisions.

Table 17. Investment Funds Capital and Years Invested

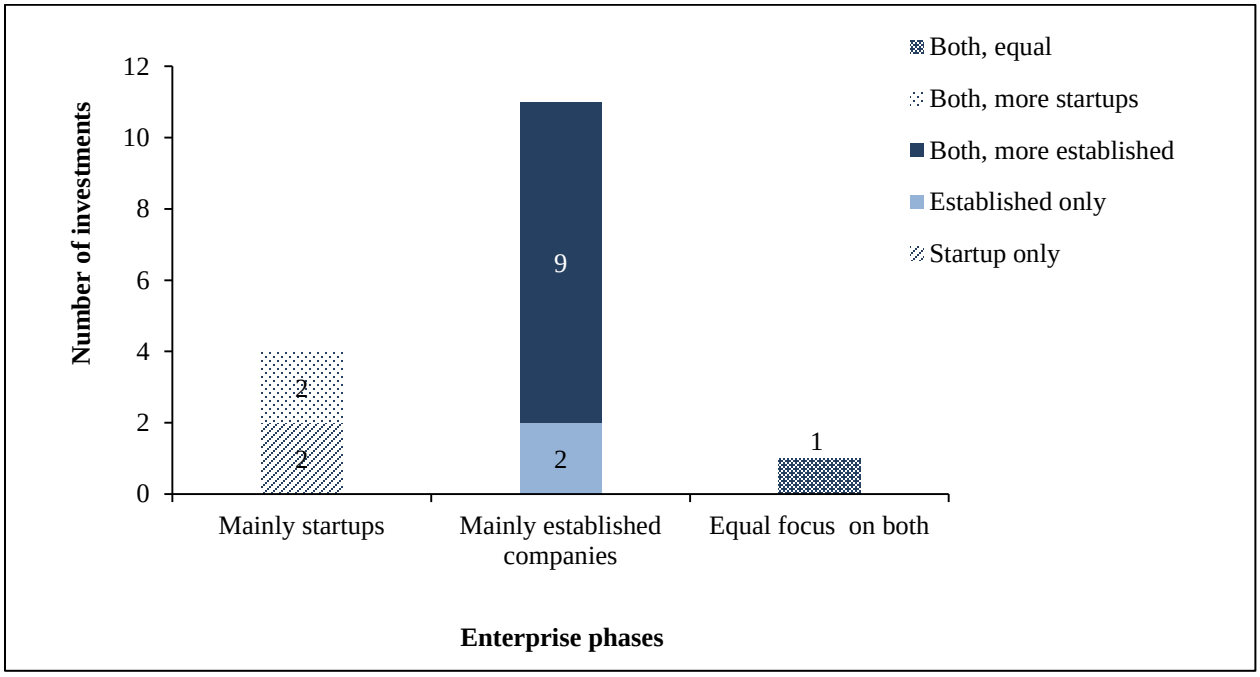
Years invested	**Capital base (US$, millions)**	
	Average	***Range***
0–5 (n = 4)	51	10–140
6–9 (n = 6)	132	7–320
10+ (n = 3)	821	140 –2 billion

Source: Field surveys and interviews conducted in 2014.

More than two-thirds of the fund managers surveyed reported that their funds had a regional focus. West Africa was the most important destination for agribusiness investment funds, followed by East and Southern Africa. Only one fund mentioned Central Africa among its top three destinations for its investments. Many funds do not target specific commodities or value chains. Only about one-quarter of the funds surveyed reported that their funds targeted specific commodities, with food crops given the highest priority, followed by cash crops and livestock.

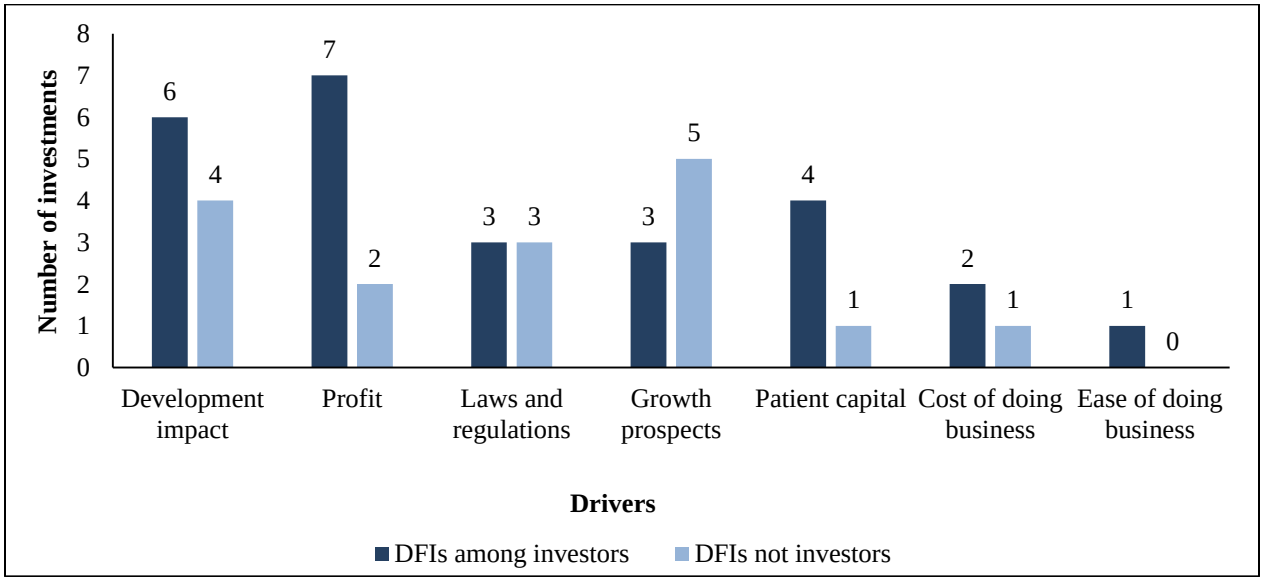
The agribusiness investment funds surveyed invested mainly in more established companies. As shown in figure 7, the largest proportion of agribusiness funds was investments in established businesses that were already viable commercial enterprises or that demonstrated a record of accomplishment of profitability. Startups that tend to have uncertain returns and no record of accomplishment of positive cash flows accounted for about one-quarter of agribusiness fund investments. Thus, the preferred client profile of agribusiness investment funds may be start-ups; several are innovative SMEs and agribusiness firms that may have very good potential to generate jobs and create income opportunities. Such gaps suggest that the missing middle conundrum in agribusiness financing still persists, despite the growing importance of agribusiness investment funds in Sub-Saharan.

Figure 7. Investment Focus by Enterprise Phase



Source: Field surveys and interviews conducted in 2014.

Figure 8. Drivers of Investment Funds Decisions

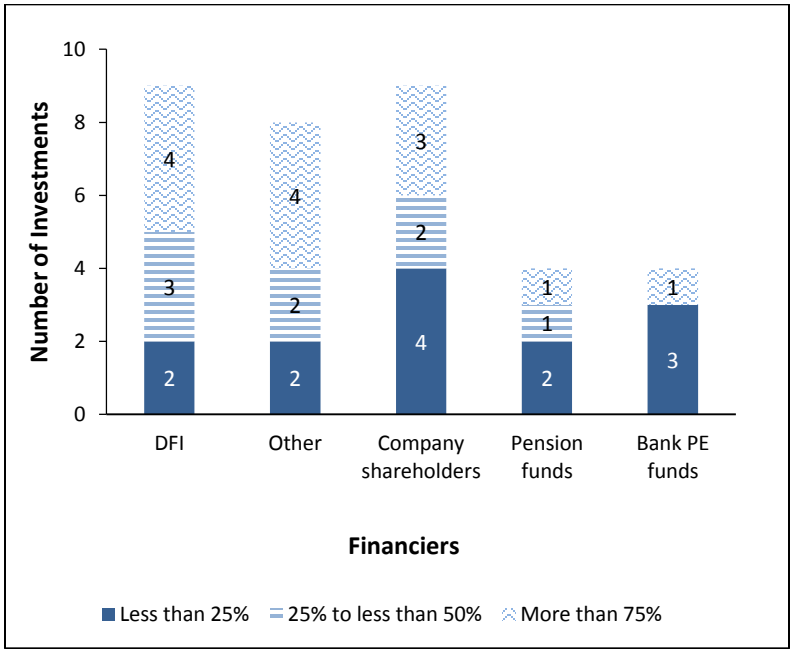


Source: Field surveys and interviews conducted in 2014.
Note: DFI = development finance institution.

Most investments were concentrated in the farm production and agro-processing segments of value chains (figure 11). The focus on processing is partly driven by the infrastructural needs that allow processing to take place and the limited availability of long-term financing for industrial capital from traditional financing sources, such as commercial banks. Investments were made in other segments of the value chain such as input supply, trade, and transportation, but these activities tended to account for a much smaller proportion of agribusiness fund investments along value chains. Targeted clients along value chains were smallholders in out-grower schemes, cooperatives, and large farms at the farm level; SMEs employing up to 20 people and with annual sales revenue greater than US$100,000; and large agribusiness companies at off-farm segments.

> "Typically the margins in processing are much greater than they are in pure acquisition and distribution, so part of the capital will be used to build processing facilities around the continent."
>
> ***Marlon Chigwende (Financial Times Business 2011)***

Figure 9. Shareholders of Agribusiness Investment Funds in Africa

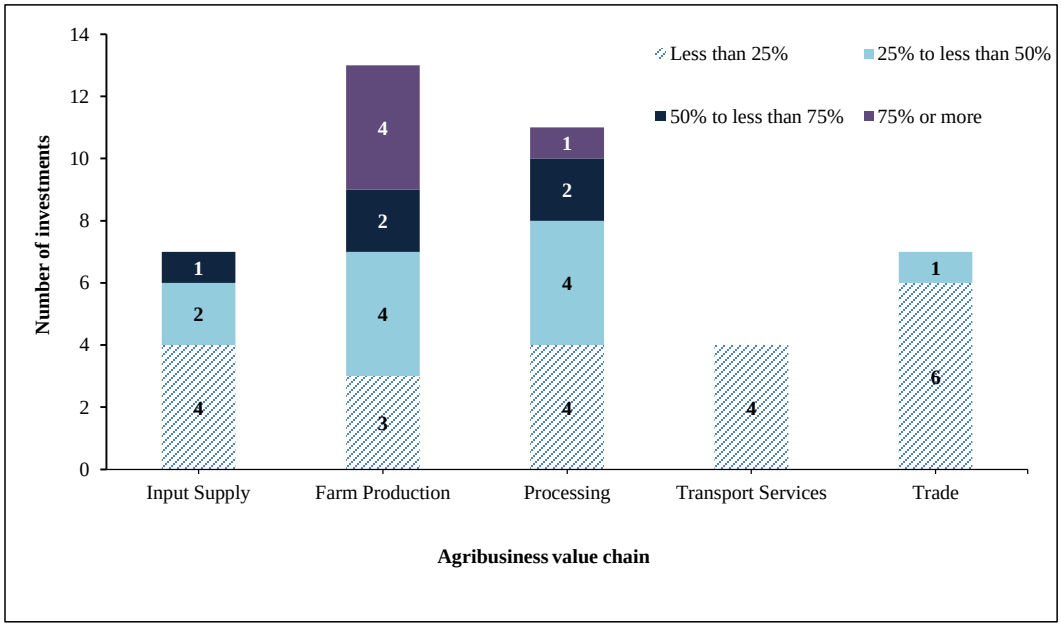


Source: Field surveys and interviews conducted in 2014.
Note: DFI = development finance institution; PE = private equity.

Though many investors often perceive small enterprises and startups as too risky, some funds are investing in these segments, showing that such investments can be profitable. One example is Icofin's Rural Impulse Fund (RIF), which used financial institutions as an intermediary to reach the missing middle of rural smallholders and micro and small enterprises. RIF was set up as a public-private partnership, with a total capital base of US$38 million. The fund achieved its planned deal flow in half the expected time, reflecting the strong demand for rural microfinance, and it has now made investments with 24 microfinance institutions (MFIs) across 18 countries, with a customer base of 1.5 million clients. RIF II was established in May 2010 with a fund size

of US$173 million. To be eligible, MFIs must be in developing countries and have at least a 30 percent presence in rural areas.

Figure 10. Investment by Value Chain Segment

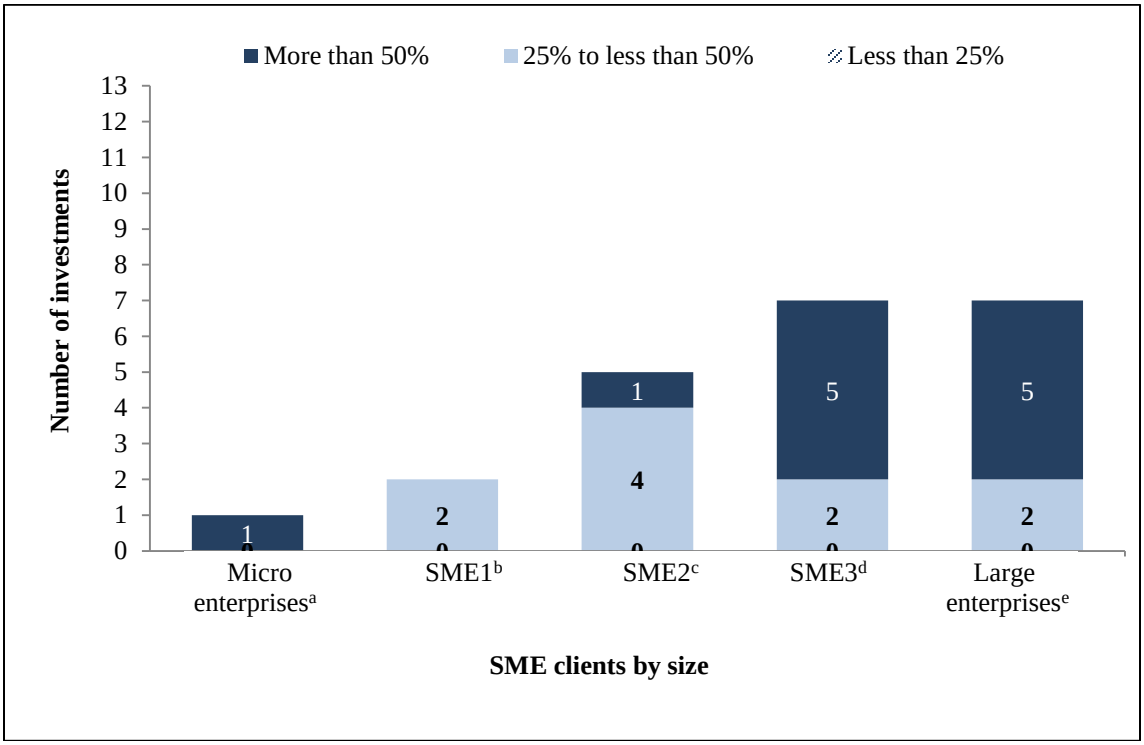


Source: Field surveys and interviews conducted in 2014.

Agribusiness investment funds provided capital to agribusiness through diverse instruments, such as equity, debt, debt and equity, and guarantees. Equity only was the most preferred financing instrument, followed by combinations of equity and debt and debt only across all segments of the value chain. Only one fund reported using leasing to finance investments.

Along with financing, many agribusiness investment funds provided TA to investee firms and their clients. Of the 16 agribusiness investment funds surveyed, 13 complemented financing with TA, mainly as a grant-based facility to businesses that received investment through the fund. Typically, that investment was through a combination of in-house expertise, contracting services from private firms or nongovernmental organizations (NGOs), and partnerships with DFIs or other development agencies. Complementing TA with financing was seen as a way to enhance an agribusiness investment fund's impact on development. For example, the African Agriculture Fund (AAF), a private equity fund launched in 2009 to address food security challenges in the region, created a TA facility funded by a pool of donors and development finance institutions and managed by TechnoServe, an NGO. The TA facility complemented the AAF SME fund, which focuses on small to medium sized enterprises to boost development returns. The facility provides finance for studies, capacity building, and other technical support to agribusinesses that obtain investments from AAF, helping them to create new opportunities for smallholder farmers, out-grower schemes, producer business groups, and SMEs (www.phatisa.com).

Figure 11. Allocation of Investment Funds by SME Clients



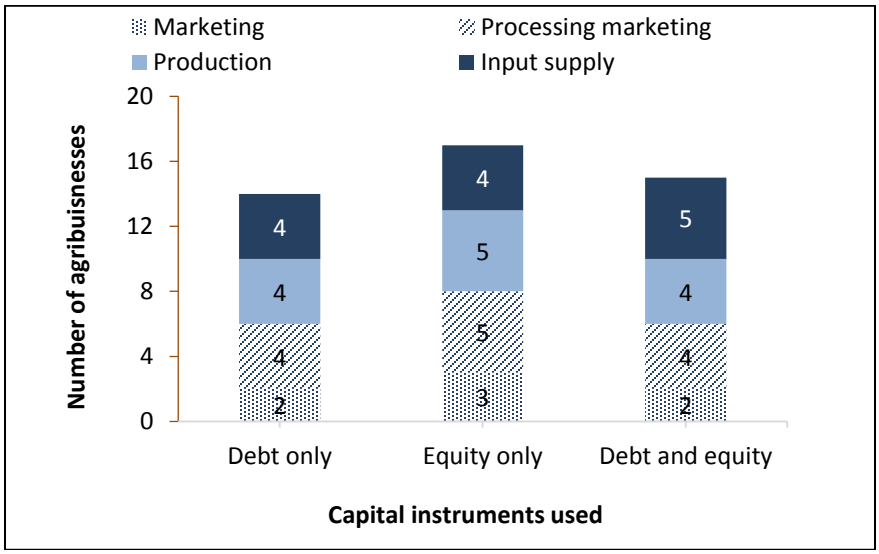
Source: Field surveys and interviews conducted in 2014.
Note: SME = small and medium enterprise.
a. Microenterprises are informal, employ 1–4 people, and have sales less than US$30,000.
b. SME1 are registered small and medium enterprises that employ 5–15 people and have sales less than US$30,000.
c. SME2 are formal small and medium enterprises that employ 5–20 people, and have sales greater than US$100,000.
d. SME3 are formal small and medium enterprises that employ 5–20 people, and have sales greater than US$100,000.
e. Large enterprises are formal, have established brands, and have sales greater than US$500,000.

Technical assistance was provided at different value chain segments using a combination of in-house and public and private sector providers. Of the 13 funds that provided TA, a little more than half (seven) subcontracted a specialized private firm, four used in-house expertise, and three each collaborated with DFIs or development agencies and contracted NGOs. TA was mainly targeted to processing companies, followed by input suppliers and, at the production level, to cooperatives and out-growers. Local research and marketing and distribution were the services least targeted by agribusiness investment funds.

Along with establishing partnerships for TA, the agribusiness investment funds surveyed expressed strong interest in establishing partnerships with DFIs to leverage patient capital for investing in established companies or startups. Funds can also benefit from donor-supported infrastructure such as roads and energy in agribusiness clusters, and improve their environmental, social, and governance (ESG) strategies. The availability of long-term donor financing provides important incentives for private equity and venture capital funds' investments in agribusiness, which tend to tie up capital in the short term and yield returns in the medium to long term. Partnerships with DFIs and other donors who can invest patient capital are attractive to agribusiness investment funds because it helps them achieve both their commercial and development goals. Patient capital (long-term, low-cost capital provided in the early stages of agribusiness ventures) helps to finance startup costs, infrastructure (such as irrigation, electricity,

and roads), and working capital required by SMEs and smallholders. Private investors are much more willing to invest in the growth of agribusiness firms directly or in firms that support agribusinesses when they see that infrastructure is in place, and financing is available for value chain actors. Such investments reduce some of the systemic agribusiness risks.

Figure 12. Agribusiness Investment Funds Financing Instruments

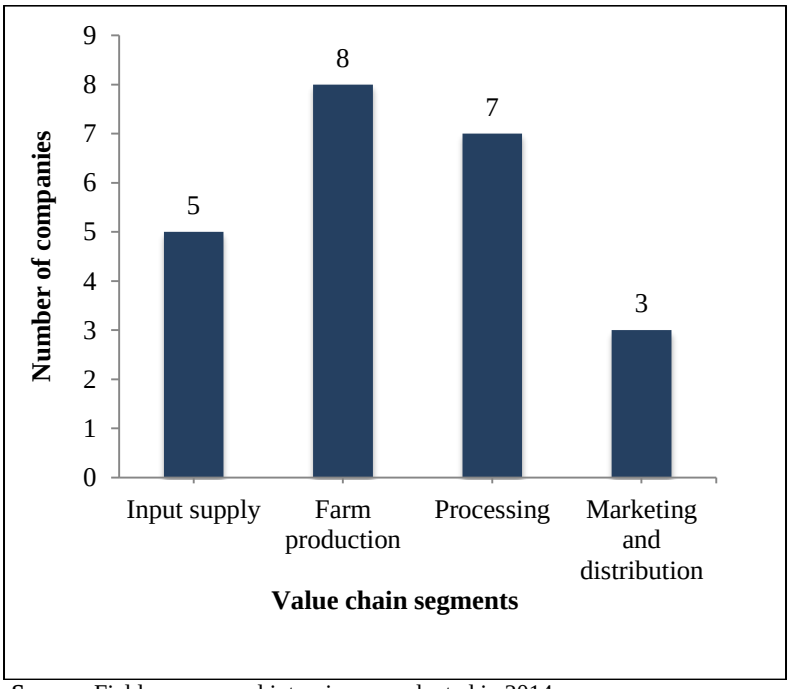


Source: Field surveys and interviews conducted in 2014.

Many investment funds wanted partnerships with DFIs, and respondents noted several advantages from these arrangements. Most DFI investors bring extensive strategic and operational experience to partnerships with agribusiness investment funds from their work in developing and emerging markets. Fund managers find such experiences invaluable for both financing and TA to investee companies and their clients. Investment funds that are deeply interested in environmental and social issues also benefit from the development and compliance with ESG and gender strategies. Nine of the investment funds surveyed have DFI investors, requiring them to comply with the donors' ESG performance standards in the design, implementation, and monitoring of their investments. All the agribusiness investment funds reported that they had an ESG strategy or action plan for their implementation in place. Three firms stated that their ESG strategies were inadequate, and the other noted that there was room for improvement.

Fund managers see the greatest growth potential in the processing and production segments of value chains. Most respondents noted that processing is a huge market opportunity because of the rising share of processed foods in total food consumption in Africa, and the relatively high margins compared with other value chain segments. Other fund managers saw processing as the biggest missing piece in the value chain and that the value added of processing is the primary way producers can benefit from a growing agribusiness industry.

Figure 13. Investment Funds Support for Technical Assistance by Value Chain Segments



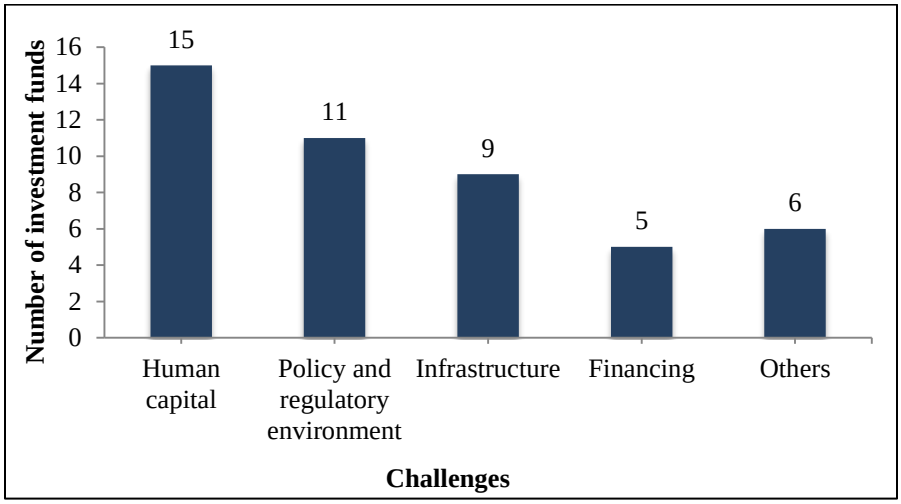
Source: Field surveys and interviews conducted in 2014.

Current low crop yields also provide significant growth opportunities. Fund managers noted that financing and TA that enhance the use of improved farming practices, optimum utilization of inputs, and increased interaction between buyers and farmers is crucial for raising farm yields. Furthermore, they are essential to producing high-quality crops that benefit smallholder farmers and SMEs involved in upstream and downstream activities linked to agriculture.

At the production level, respondents mentioned that investments in out-growers would be a win-win situation: buyers would benefit from increased, high-quality produce; and out-growers would benefit from improved access to inputs, skills, and knowledge transfer that would increase crop productivity, as well as better access to reliable markets that increase returns from cropping. Some firms reported that they were more likely to expand investments in large- and medium-size farms because of economies of scale that can help reduce per-unit production costs of output and promote commercial farming.

Some fund managers also see input supply, marketing, and distribution as growth areas. For inputs, respondents noted the importance of investing in high-quality inputs (such as seeds and fertilizer) to increase agricultural productivity. With regard to marketing and distribution, respondents noted that improved logistics is a crucial factor in sustaining profits and controlling costs, particularly in emerging markets.

Figure 14. Challenges Faced by Investment Funds across Sub-Saharan Africa



Source: Field surveys and interviews conducted in 2014.

The importance of creating and strengthening linkages across value chains lies in understanding that the success of an investment at one stage in the value chain is heavily dependent on effective and timely investments in other stages. One of the most prominent investment funds supporting this type of investment is AgDevCo, an agricultural development company and social impact investor in Sub-Saharan. AgDevCo invests social venture capital to create commercially viable agribusiness investment opportunities and bring them to the point where they can attract private investment. An example of their work in creating linkages, the Beira Agricultural Growth Corridor Catalytic Fund, described in box 4. This new, hybrid investment model supports smallholders, value chain finance, TA, and longer-term investments. It allows AgDevCo to incubate investments gradually to the point where third party capital can be attracted to invest on a larger scale, and at that point, the fund exits the investment.

Fund managers identified critical challenges that can stifle agribusiness growth, including inadequate human capital, weaknesses in the policy and regulatory environment, and infrastructure constraints. Respondents suggested that improvements in human capital (such as investments in vocational and technical programs, business management, and finance) would be vital for realizing future growth potential. Furthermore, respondents noted that the educational systems have to be better aligned with industry needs to ensure demand-driven growth.

Regarding the policy and regulatory environment, respondents emphasized the importance of government creating a business climate that is more conducive to doing business, especially for SMEs. They also noted that governments should make agriculture a priority sector, including providing incentives and support to foreign investors to attract more capital. Limited investments in infrastructure – particularly electricity, power, and roads – are critical constraints to expansion of agribusiness investments and the funds to finance them. Improvements in infrastructure such as feeder roads and energy, including last-mile electrification, would increase agribusiness investments and support businesses significantly. Other issues related to financing that can also stifle agribusiness investment growth include lack of financial innovation, the need to better leverage DFI resources, geopolitical issues, and land tenure reforms.

Box 4. Providing Debt and Equity: Beira Corridor Catalytic Fund

The Beira Agricultural Growth Corridor (BAGC) Catalytic Fund, managed by AgDevCo, is a social venture capital fund that makes debt and equity investments in early-stage, commercially viable agribusinesses in the Beira Corridor that are expected to have a positive social impact on local farmers and communities. The fund invests between US$50,000 and US$500,000 per business. It seeks to recover its capital and make a financial return (likely 5 to 10 percent). AgDevCo takes a coordinated approach by focusing on activities along the full value chain, including production, storage and processing, and access to markets. For larger projects such as BAGC, which has major infrastructure needs (feeder roads and power lines, for example), AgDevCo sources patient capital for such investments from development finance institutions and other international donors.

As a revolving facility, all returns are recycled into developing new investment opportunities. Its purpose is to demonstrate that it is possible to develop profitable agribusiness with major social benefits. AgDevCo stays invested in a business until it has reached sustainability and can attract third party investment. For example, RDI, a commercial farm hub and out-grower fruit production, packaging, and marketing company in Mozambique, received a US$200,000 equity investment from the BAGC Catalytic Fund in 2012 for a 23 percent equity stake in the business. RDI contracts directly with out-growers, and facilitates a route to market and access to technology.

Source: AgDevCo.

Fund managers also noted the need to address specific challenges with limited exit strategies. Exit opportunities are typically available for investments in larger firms, such as initial public offering share buybacks, and mergers and acquisitions. Nevertheless, there are fewer options for smaller enterprises, and it takes much longer before the investments are ready for an exit. The fund managers interviewed said the greatest share of their portfolio used "other" exit strategies—that is, a combination of exit strategies dependent on the type of fund and context. Several companies also reported using different exit strategies, depending on the situation.

Many factors will influence the long-term investment decisions of agribusiness investment funds. The top three factors identified by fund managers that would drive future investments in agribusiness investment funds are (i) their ability to make adjustments that will allow them deliver tailor-made financing solutions for their investee company; (ii) specialized experience in the agribusiness sector; and (iii) the capacity to leverage support from DFIs and development agencies.

Agribusiness investment fund managers overwhelmingly showed high optimism about the potential for expanding investment funds in African agribusiness. About 90 percent of fund managers interviewed said that investment funds' interest in agribusiness in Africa would continue to grow steadily in the next decade. Only two fund managers said it would likely take 10 to 20 years for such investments to materialize.

6. Agribusiness financing from Multinational Corporations

Multinational agribusiness companies are growing their investments in agricultural value chains in Africa at a rapid pace.[37] Several multinationals involved in food and beverages have been operating in Africa for more than 50 years, including brand names such as Coca-Cola, Mars, Diageo, and Unilever. However, in a fast-moving consumer goods market, more multinationals are investing in agricultural value chain activities than ever before. By creating linkages and relationships along supply chains to their third-tier suppliers, these global agribusiness corporations are improving the productivity and quality of agricultural produce, securing more long-term sources of supply, and adding value. When multinational agribusiness companies integrate smallholder farmers in value chain, they help increase farm incomes through better access to inputs, finance, equipment, and training that improve crop productivity and provide greater access to markets. In some other cases, jobs and income opportunities are created where small and medium enterprises (SMEs) are targeted for enhanced upstream and downstream linkages in the value chains in which multinational agribusiness companies operate.

> "Our success is inextricably linked to that of the communities in which we operate. So we work to build value chains that drive economic growth and stimulate social development. By doing this, we can generate long-term returns for our business while also creating wealth for our communities."
>
> ***Andy Wales, SABMiller (Financial Times Business 2012)***

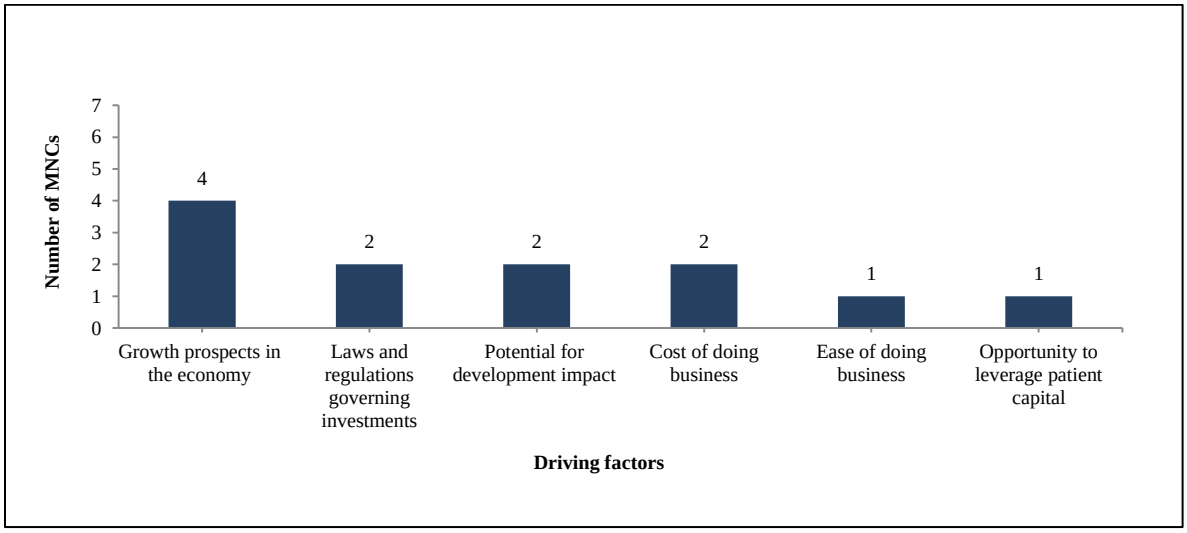
Supply of Agribusiness Finance by Multinational Corporations

The investment decisions of multinational corporations (MNCs) in agribusiness are influenced mainly by growth prospects in the economy of the countries in which they are operating. Besides growth considerations, other important factors mentioned were laws and regulations relating to foreign direct investment, the potential for development impact, and the cost of doing business. The MNCs surveyed cited East Africa as the number one destination for their agribusiness investments in Africa, followed by West Africa. Several companies operated in many countries, with one company operating in more than 40 countries across Sub-Saharan Africa.

Multinational corporations' agribusiness investments flowed to cash crops, food crops, and livestock. Traditionally, MNCs have invested heavily in cash crops, such as cocoa, coffee, and palm oil. However, there is surging investment interest in staple food crops such as rice, and other processed foods derived from staple crops such as maize. Such investments are geared toward meeting the growing demand of an affluent consumer class, particularly in urban areas, that puts a premium on convenience and processed foods. Rising imports fill the widening gap between domestic food production and demand. In response, several MNCs reported that they are increasing their investment in food crops to increase domestic market shares in import substitution strategies. For example, many MNCs developed investment strategies aimed at gaining domestic and/or regional market shares in the estimated US$5 billion food import market in Africa.

[37] KPMG 2014.

Figure 15. Multinational Corporations' Agribusiness Investment Drivers



Source: Field surveys and interviews conducted in 2014.
Note: MNC = multinational corporation.

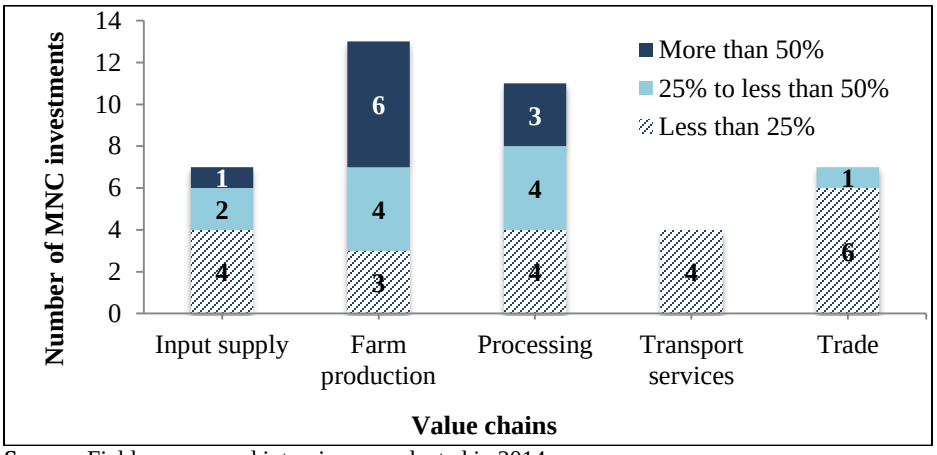
The survey findings show that MNCs invest across the entire value chain, but with larger concentration in the trade, processing, and production segments of value chains. Relatively limited MNC investments are going to transportation and logistics and input supply (figure 16).

MNC investments target smallholder farmers at the farm level, providing inputs, finance, and technical information that increase productivity and quality of farm produce. MNCs reported that they targeted commercially oriented farmers mainly organized in cooperatives, producer associations, or in out-grower schemes. Aggregating smallholder farmers in such schemes makes it easier for the companies to focus their investments on technical assistance (TA), logistics, and infrastructure to targeted clients.

Business Models Used for Supply of Finance to Value Chain Actors

Multinational corporations have played important roles in supplying finance to value chain actors operating in agricultural value chains in Africa, particularly smallholders who do not have the required collateral for traditional bank loans. MNCs traditionally provided credit for producers, mainly through cooperatives that grow and market cash crops to the firm. Credit, both in cash and in kind, was predominantly for inputs, with payments tied to crop sales. However, MNCs are increasingly experimenting with and adopting new approaches and business models for delivering finance and TA to value chain actors, often in partnership with financial institutions such as commercial banks and private equity firms, and with nongovernmental organizations (NGOs) and development agencies.

Figure 16. Multinational Corporations' Financing by Value Chain Segments



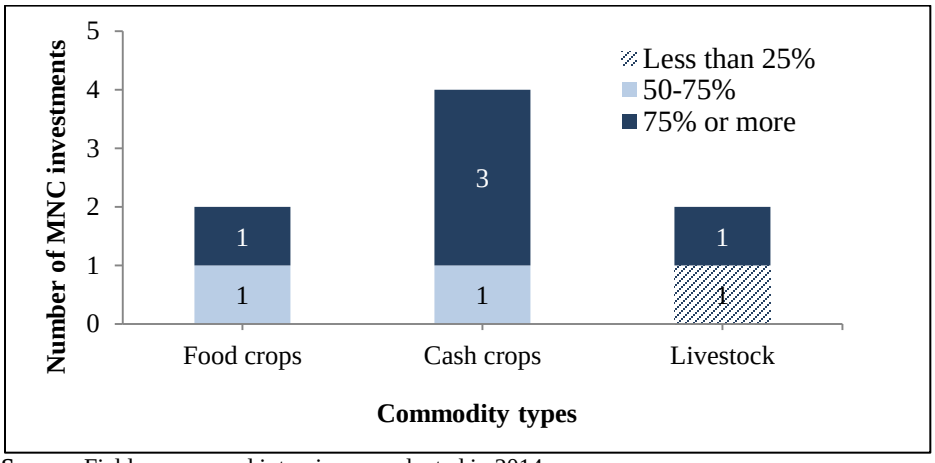
Source: Field surveys and interviews conducted in 2014.
Note: MNC = multinational corporation.

Multinational corporations are using a range of direct and indirect financing schemes to support financing of smallholders and other actors along agribusiness value chains.[38] MNCs support value chain actors through direct financing to smallholders and SMEs operating in different segments of the value chain or in partnership with an intermediary (a commercial bank, private equity firm, or other stakeholder) that may lend or make equity investments in smallholder or SME-run value chain activities. In many cases, access to finance is combined with TA.

Nucleus farms operated by MNCs are becoming an increasingly important business model for providing working capital and TA directly to farmers (box 5). In this model, the company operates a centralized production and processing facility and supplements its production with out-grower contracts or off-take agreements with farmers in out-grower schemes. In some cases, farmers own and operate the land; in others, the company obtains a long-term lease on land that it subleases to farmers. In nucleus farm arrangements, the MNC typically provides inputs, financing, TA, and monitoring and supervision of production, harvesting, and marketing activities.

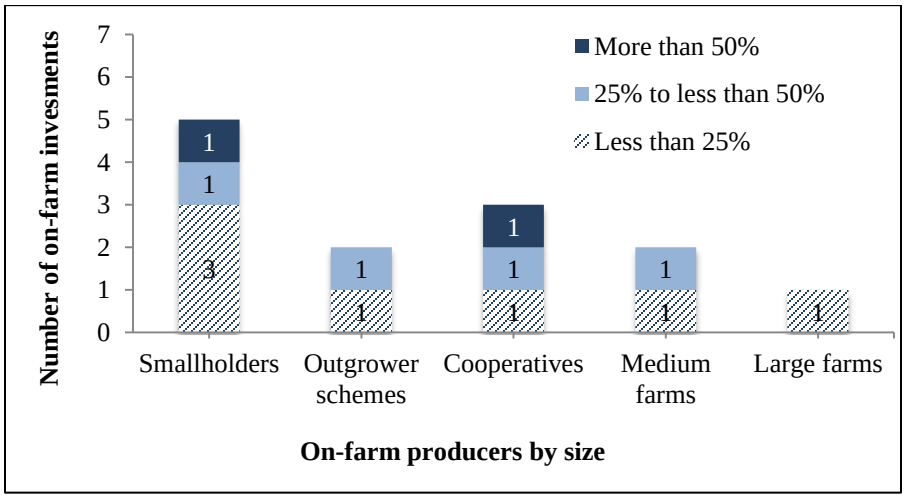
[38] Dahlberg 2012.

Figure 17. Distribution of Multinational Corporations Investments across Value Chains



Source: Field surveys and interviews conducted in 2014.
Note: MNC = multinational corporation.

Figure 18. Multinational Corporations' Clients: On-Farm Production



Source: Field surveys and interviews conducted in 2014.

Multinational corporations have become more involved at earlier stages in their supply chains, integrating backward to provide credit to farmers and agribusiness SMEs for inputs, technologies, infrastructure, and market access. The company's incentives for doing so are the resultant increase in product volume and quality, and securing a reliable source of long-term supply of products that are inputs for their processing or marketing activities. Other companies have adopted this approach, including Cargill, Massmart, Nestle, Starbucks, Wienco, and East African Breweries Limited, a subsidiary of Diageo.

Box 5. Olam's Nucleus Farm Model Benefits Smallholders and the Company

Nigeria, the second largest rice importer in the world, grows only about 65 percent of the rice it consumes. Olam International, a leading agribusiness operating in several African countries, saw this as an opportunity to increase Nigeria's domestic rice production. Instead of continuing with its previous, more traditional model based on farming cooperatives, Olam shifted to a new, innovative nucleus farm model in Nigeria.

Launched in 2010, Olam's nucleus model combines a central commercial farm of 10,000 hectares with a program that works with nearby smallholder farmers or out-growers. This model gives Olam greater control over product quality. For farmers, the model provides greater market access for their crops.

Olam provides training for farmers on new techniques and use of state-of-the-art machinery to increase yields. This contributes to increases in both the company's profits and the capacity and incomes of the farmers.

To connect the central farm to smaller communities, Olam constructed more than 40 kilometers of roads in Nigeria. Besides facilitating the farm's operations and enhancing farmer-to-farmer communications, these new roads connect previously inaccessible villages for the first time, making education and health care more accessible for rural areas. Olam also built a school and developed plans to build wells and a hospital.

Olam predicts that by 2018, more than 16,000 out-growers will produce approximately 60,000 tons of rice per year, with average yields per smallholder increasing by 100 percent. Although there are still potential risks for the out-growers (mostly from their dependence on sourcing inputs from and selling all their outputs to Olam), the nucleus farm model is expected to benefit Nigeria by fueling its economic growth and reducing its dependence on agricultural imports. Furthermore, Olam committed itself to purchasing out-growers' crops at "fair and competitive prices," according to one of the eight principles embodied in its Livelihood Charter.

Olam hopes to replicate the nucleus farm model in other countries in Africa after experimenting and drawing lessons from its experience with Nigeria's rice farmers.

Source: Rockefeller Foundation 2013.

At the farm level, it becomes viable for smallholders to apply agro-inputs if the net benefit in cash is higher than the cost of production. Several multinational corporations are successfully using the backward integration model in Africa. For example, Cargill launched an input credit scheme in Ghana in 2013 that provides farmers with access to inputs and equipment, which they can repay when they receive cash payments for their harvest. The pilot has already more than doubled the yields of 116 farmers in Ghana.

Some MNCs provide agribusiness financing to value chain actors indirectly by collaborating with one or more public or private sector stakeholders or intermediaries. Similar to direct financing, the MNCs, which buy crops from farmers, manage and collect on loans given to farmers. However, the financial institution, and not the company itself, delivers the loan and other lending products, which allows the buyers to take loans off their balance sheets.

Box 6. Multinational Corporations Finance through Financial Intermediaries

Starbucks has been providing farmers with access to credit since 2000, in collaboration with several loan partners: Root Capital Calvert Foundation, Verde Ventures, and the Fairtrade Access Fund (set up by Incofin Investment Management, Grameen Foundation, and Fairtrade International). Globally, Starbucks' goal is to increase its farmer loans from a total commitment of US$11.9 million in 2013 to US$20 million by the close of 2015.

Besides financing, Starbucks also backs Farmer Support Centers in Rwanda, Tanzania, and Ethiopia. These centers provide farmers with resources and expertise from agronomists and quality experts to help them reduce pests and disease, improve soil management, lower production costs, increase yields, improve quality, and implement responsible growing practices that meet various sustainability certification standards.

Diageo, in partnership with the Africa Enterprise Challenge Fund, launched a program in 2008 that provides smallholder sorghum farmers in Cameroon with access to improved seed varieties and agricultural inputs, hands-on agronomic training and advice, and support in the development of storage and transport infrastructure.

Source: Companies' annual report, various years.

Multinational corporations are also collaborating with donors and development agencies to provide finance and technical assistance. Coca-Cola for example, collaborated with the Bill and Melinda Gates Foundation and TechnoServe to support value chain interventions from production through to market to meet farmers' needs (box 7).

The examples described in box 7 are consistent with the survey findings, which showed that most MNCs provide TA along with direct or indirect financing. All MNCs surveyed reported that they provided TA across the entire value chain, although the bulk of such support is directed to farm production. According to the respondents along value chains, the need for TA was greatest in farm production activities, followed by input supply and processing (figures 18 and 19). Within production, there were three main types of actors supported: cooperatives, medium-scale farms, and large-scale farms. Only two of seven respondents mentioned providing TA support to smallholders who were not organized in cooperatives or out-grower schemes. Several respondents also reported recognizing the need for TA in supporting services such as research and extension.

The most common approach MNCs used to provide TA was from in-house capacity. In other cases, company provision of TA was subcontracted to third parties in the private sector, NGOs, or development agencies (figures 19 and 20). MNCs surveyed reported providing professional services grants to NGOs and private contracts to provide on-farm TA to smallholders, grants to input suppliers to implement training programs, and pay for work done by local research institutions that develop training materials and programs

Along with establishing partnerships for TA, MNCs surveyed for this study also mentioned that they commonly establish partnerships to leverage patient capital for startup costs and long-term infrastructure such as roads, and to improve their environmental and social performance and strategies. Development agencies (including multilateral and bilateral agencies and NGOs), such as IFC, World Bank, Food and Agriculture Organization of the United Nations (FAO), TechnoServe, Solidaridad, and Rabobank, are developing innovative ways to collaborate with MNCs on agribusiness finance.

Box 7. Collaborating to Support Development of Inclusive Value Chains in Kenya and Uganda

In January 2010 Coca-Cola, TechnoServe, and the Bill and Melinda Gates Foundation launched a four-year, US$11.5 million partnership program in Kenya and Uganda called Project Nurture. The project's objectives included doubling the incomes of 50,000 small-scale mango and passion fruit farmers by 2014, and securing new, local sources of supply for Coca-Cola to help it achieve its 2020 Vision (which includes a goal to triple its global juice business).

To achieve these goals, Project Nurture supported several activities spanning the entire value chain, including aggregation, training, access to finance, and product marketing. For example, the project facilitates advance orders of mango and passion fruit puree to create sustainable demand for farmers, and advises local juice processors on the technical and business requirements that meet the standards of international buyers. The project also worked to build stronger market linkages between all supply chain actors. Each partner contributed its own unique strengths to the project:

TechnoServe used its capacity to work with smallholders in-country to advice traders, processors, and exporters, and to build strong linkages among them. TechnoServe also identified existing or established new groups of smallholders, called producer business groups (PBGs), which aggregate farmers and give them greater bargaining power, and enable buyers to reach them more cost-effectively.

The Coca-Cola Company contributed its core competencies in product innovation, marketing, supply chain management, procurement systems, and supplier relationships, and paid for one-third of TechnoServe's work.

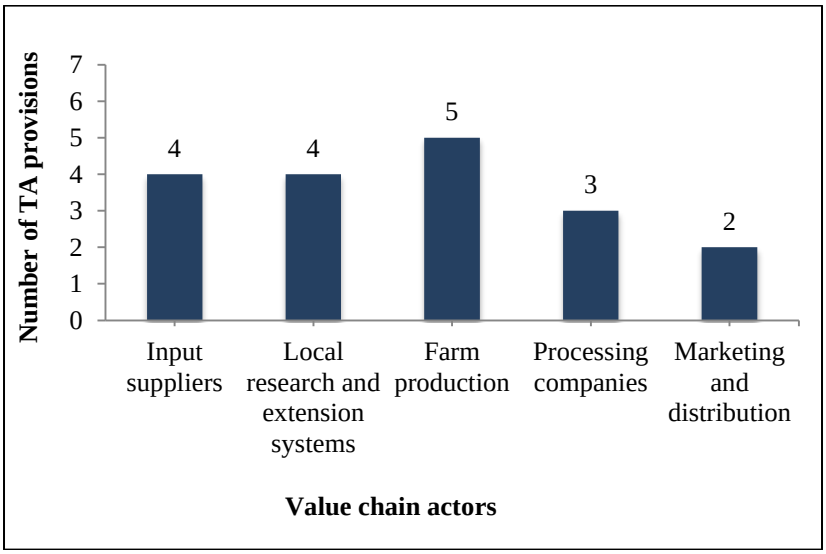
The Bill and Melinda Gates Foundation covered the remaining two-thirds of TechnoServe's work, and had a crucial role in originally bringing the partners to the table, making them aware of the business and development opportunity to be captured by working together.

Since June 2013, TechnoServe recruited more than 50,000 farmers and successfully organized those into 1,100 PBGs. TechnoServe also trained 48,500 farmers in agronomic practices. Through Project Nurture, 297 loans worth US$115,300 were disbursed to finance passion fruit farming startup costs such as seeds, seedlings, poles, and wires. In addition, the project facilitated connections between smallholders and markets—covering both fresh and processed channels, including exporters, high-end market consolidators, open-air market traders, and processors—thereby helping farmers gain greater market access and selling power for their fruits. Because of this training, aggregation, financing, and market access, smallholder farmers increased their sales volume and improved quality, which led to significant revenue increases.

Source: Agrifin; World Bank.

This study's findings show that NGOs were the main type of partner with which MNCs currently engage, followed by development finance institutions (DFIs). Many MNCs noted several benefits of collaborating with DFIs: organizational expertise, capacity building and engagement at the government level, grant funding, and risk mitigation. The partnerships also bring credibility to the lender profile. However, at least one MNC reported that they found collaborating with DFIs to be challenging because of their relatively slow pace and numerous monitoring and evaluation requirements.

Figure 19. Multinational Corporations' Technical Assistance by Value Chain Segment

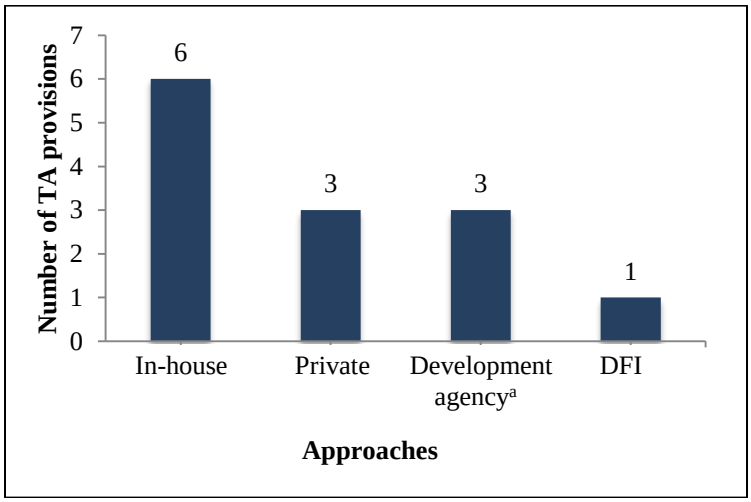


Source: Field surveys and interviews conducted in 2014.
Note: TA = technical assistance.

Multinational corporations tend to view compliance with environmental and social issues seriously. Almost all MNCs interviewed (six out of seven) reported that they had an environmental, social, and governance (ESG) strategy and/or action plan in place (for example, through their supplier code of conduct and/or sustainability standards). However, only two of these companies think that their ESG frameworks are adequate, and the majority believes that they can get help with development and complying with these standards through collaborating with development agencies. The companies surveyed reported that it is highly important for their suppliers to meet the internationally acceptable environmental and social standards. Some of these companies mentioned specifically that they have supplier reviews and supplier development programs to help implement these standards, at least for their medium- and large-scale suppliers. Other MNCs reported contracting NGOs to help them grow and improve in ESG, particularly for the smaller producers. Regarding gender, five MNCs reported having gender strategies, but only two think they are adequate. Some MNCs suggested that a stronger focus on gender issues is an area where they could benefit from closer collaboration with development agencies.

> "We found that, when done correctly, improving E&S helps suppliers, so they're interested in meeting them… For us, our business and our reputation depends on it… Development agencies could potentially help, but the question is how… and whether our goals are aligned…"
>
> ***Multinational Corporation Executive (2014 Field Survey)***

Figure 20. Sources of Multinational Corporations' Support for Technical Assistance



Source: Field surveys and interviews conducted in 2014.
Note: DFI = development finance institution; NGO = nongovernmental organization; TA = technical assistance.
a. Especially NGOs.

Expansion Opportunities for Multinationals

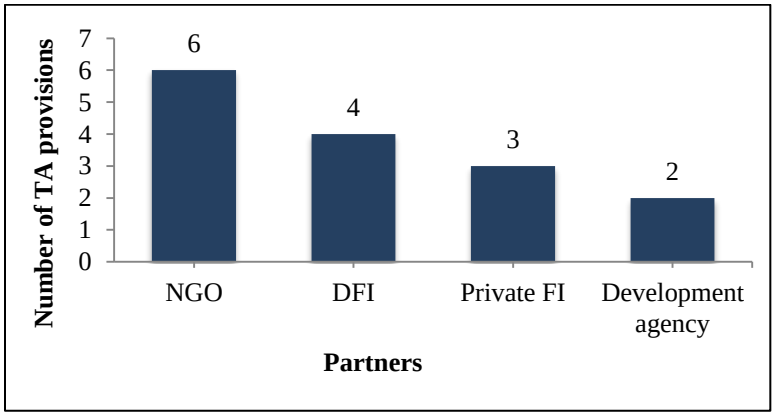
Nearly all MNCs (six of seven respondents) believed that investments in agribusiness would continue to grow in the near term. MNCs surveyed identified farm production—smallholders, medium-scale farms, cooperatives, and out-growers—and processing as potential growth areas. Few respondents viewed large-scale farm production as a growth area. According to one executive interviewed, future investment growth in production would be in the smallholder farm segment. According to the executive, "There's an assumption that smallholders are inherently less efficient at producing, but that's not true. It just depends on what access they have to inputs and support, so this is a huge and largely untapped opportunity."

Another respondent observed that future investments would focus more on medium farms, stating that although his company is interested in starting to work with smallholders, "the retail environment requires that farmers can produce to a forecast, pre-sort and pre-grade produce, and aggregate it for sale; however, most smallholders do not have this capacity." He emphasized that significant infrastructure and TA would be required to get smallholder farmers to the capacity of medium farms.

Off-farm, the processing segment of value chains was identified as a priority area, with respondents noting the importance of linking smallholders with aggregation facilities that can grade, sort, and interact with the market on the farmers' behalf. Although mentioned by fewer respondents, input supply was reported to be a challenging but important area, as the demand for inputs, such as fertilizer, is increasing. Opportunities for marketing and distribution were also reported to grow as new markets continue to develop.

> "There's an assumption that smallholders are inherently less efficient at producing, but that's not true. It just depends on what access they have to inputs and support, so this is a huge and largely untapped opportunity."
>
> ***Director, Supplier Development, a global food and beverages company (2014 Field Survey)***

Figure 21. Multinational Corporations' Partnership Arrangements



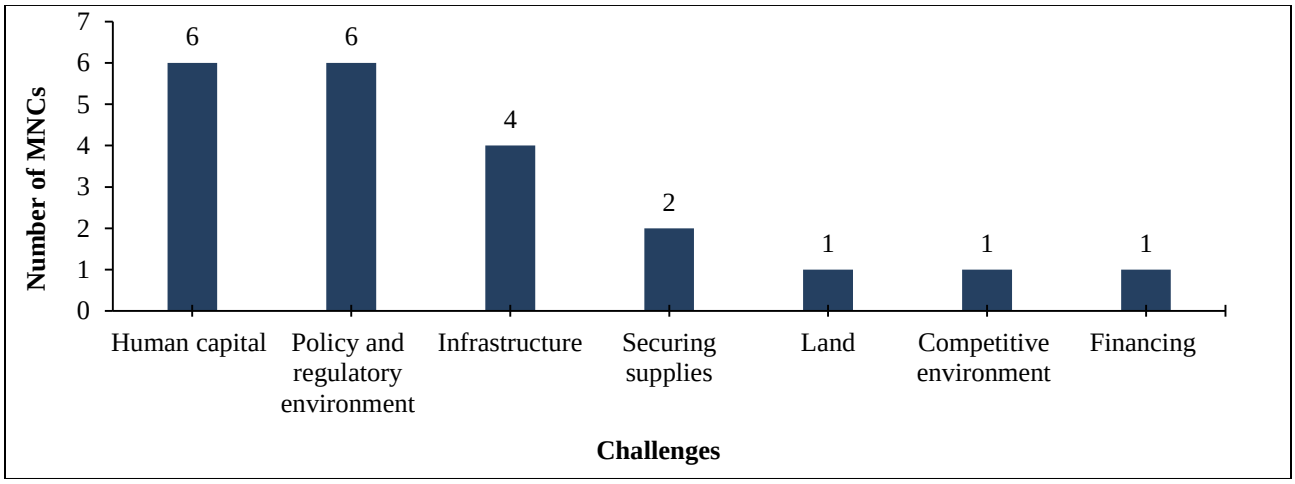
Source: Field surveys and interviews conducted in 2014.
Note: DFI = development finance institution; FI = financial institution; NGO = nongovernmental organization; TA = technical assistance.

Multinational corporations noted that there were many challenges to expanding into potential growth areas. The most common challenges identified were human capital, policy and regulatory, and deficiencies in infrastructure. Potential solutions proposed to address these challenges were investment in skills development, training, and collaborating with donors and governments to build better infrastructure. Regarding policy constraints, nearly all companies interviewed emphasized that regulations need to be clear, simplified, and stable. In addition, some respondents said that policies need to be more innovative and that government should be more open to inputs from the private sector.

Other respondents reported that securing supplies was a major challenge. "We've launched products, they do very well, and we need more raw materials, but we struggle with this," said a supply chain executive at a global food and beverage company interviewed for this report. Another executive said, "In many markets in Africa, the supply base is very fragmented and not very well organized, and it lacks sufficient access to finance. However, when the supply base is fragmented and you need to scale, the problems multiply, and this has become a really big challenge for our

company in Africa." According to the MNCs surveyed, mitigating geopolitical risk and support from governments to make the business environment more enabling, transparent, and compliant would provide a major boost to long-term agribusiness investment decisions.

Figure 22. Investment Challenges Facing Multinational Corporations



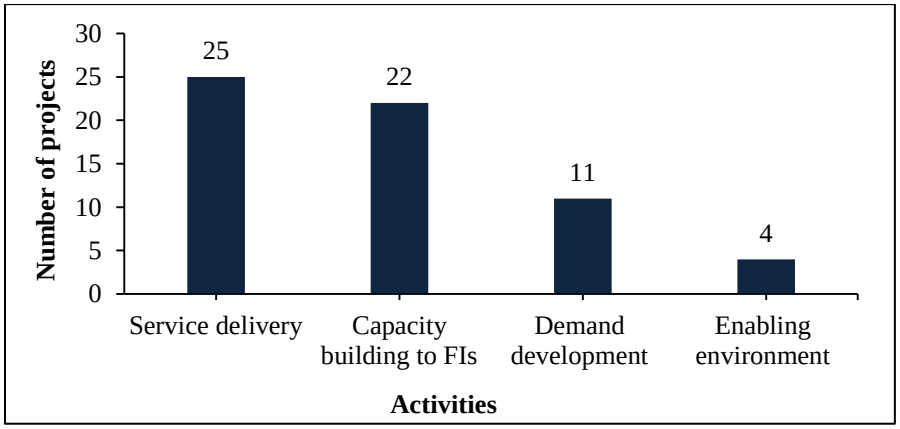
Source: Field surveys and interviews conducted in 2014.
Note: MNC = multinational corporation.

7. World Bank Group Financing for Agribusiness

The World Bank and IFC are both major players in providing financial services to agriculture and agribusiness in Africa. Recently, there is a renewed emphasis on agriculture and agribusiness because of the crucial role the sector can have in eliminating poverty and creating jobs and income opportunities that boost shared prosperity.

The 2008 *World Development Report* on agriculture and the 2007–2008 global food crisis helped put agriculture and agribusiness at the center of the development agenda. This renewed focus is reflected in the growth of World Bank Group investments in the agricultural sector, and in future projections. According to the 2013–2015 World Bank Group Action Plan, World Bank Group support to agriculture and related sectors increased in aggregate by 70 percent, from an annual average of US$4.1 billion in FY2006–08 to US$7 billion in FY2010–12. Of this US$7 billion, the share dedicated to Sub-Saharan Africa was approximately US$1 billion for IDA and IBRD, and US$349 million for IFC. By 2015, these shares are projected to increase to US$2.6 billion for IDA and IBRD and to US$1.2 billion for IFC. The extent of this financing and the significant support for technical assistance shows that the World Bank Group has a leading role in agriculture and agribusiness finance.

Figure 23. Types of Activities Supported in Agribusiness Projects



Source: Portfolio review 2014.
Note: FI = financial institution.

World Bank Support for Agriculture Finance in Projects

This study reviewed 32 World Bank projects approved between 2004 and 2014 that have an agriculture finance component. The 32 projects reviewed showed that the World Bank provided about US$194 million to support financial institutions that provided loans and other financial services to farmers and other actors in agriculture value chains in 20 countries.

Most projects support delivery of financial services and capacity building for financial institutions, as illustrated in figure 27. These projects focus primarily on supporting the delivery of credit at the retail level through credit lines, revolving funds, and credit guarantee funds. Some projects

support services delivery to targeted clients by establishing new and expanding existing branch networks of financial institutions (FIs) into rural areas. Capacity building involves projects that support FIs to develop products, increase sector knowledge, and improve systems and processes for agriculture lending. In many cases, credit line projects provided technical assistance to FIs to improve their capacity to manage the line of credit and ensure that credit line resources are used for the targeted activities.

Demand development is another key type of activity supported by agriculture finance. This is related to financing business development services to target clients, which in many cases are individual farmers and producer associations as well as micro, small, and medium enterprises. Besides these services, Bank projects provided grants to agriculture businesses for asset acquisition to build up their capital base. A number of projects helped financial institutions' potential clients prepare business and financial proposals to enhance their creditworthiness. Some projects had policy support components targeting legal and regulatory frameworks to facilitate provision of financial services to agriculture.

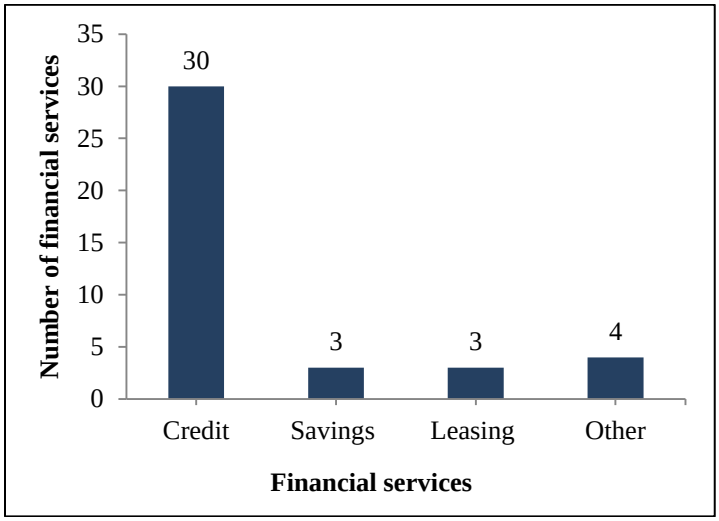
World Bank projects aim to address both supply- and demand-side constraints to agriculture finance by supporting activities to facilitate service delivery, develop demand for services, improve FIs' capacity to deliver services, and address legal and regulatory issues. Access to credit is the most prominent financial service supported by agriculture finance operations. All projects reviewed aim to enhance access to credit for clients in different agriculture value chains. As figure 24 shows, overall there is greater emphasis on credit to farmers and other value chain actors in agriculture finance projects.

To facilitate improved access to credit, agriculture finance projects use a wide range of financial and nonfinancial instruments, including credit lines, credit guarantee funds, revolving funds, matching grants, startup cost finance, technical assistance, and policy support (panel a of figure 25). Many projects used technical assistance to improve the capacity of FIs and their clients.

Technical assistance was commonly used together with financial instruments. However, in some projects, TA is the only instrument used to build the capacity of financial institutions for agriculture finance. The Agriculture Finance Support Facility (AgriFin) is a notable example (box 8).

Credit lines and matching grants were frequently used instruments in agriculture finance projects (figure 25 panel b). Credit lines aim to address market failures relating to access to finance in rural financial markets as well as increase liquidity in banking systems as a way to incentivize financial institutions to lend to agriculture. Matching grants were used to address credit market failures, but they are typically targeted to SMEs and implemented by project implementation units or specialized agencies that are linked to a project. Guarantee funds are also a frequently used instrument in Bank projects to help FIs manage the risk of lending to agriculture. Revolving funds, though not widely used, are another instrument used in Bank projects to support agriculture finance.

Figure 24. Financial Services Supported



Source Portfolio review 2014.

Box 8. The Agriculture Finance Support Facility (AgriFin)

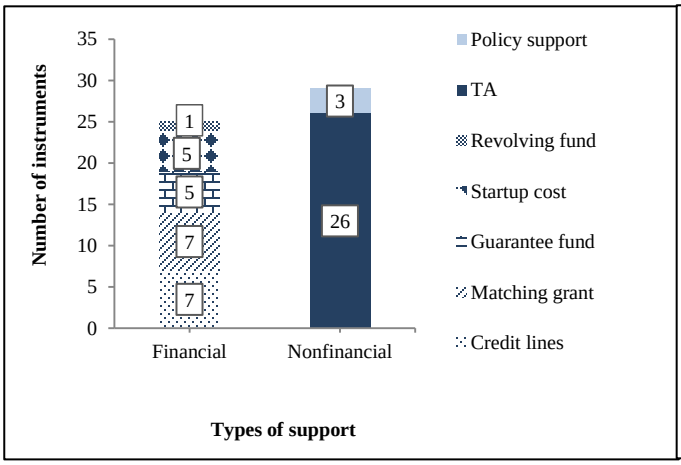
The Agriculture Finance Support Facility (AgriFin) is an initiative managed by the World Bank and supported by the Bill and Melinda Gates Foundation. AgriFin's overall objective is to demonstrate to a broad set of stakeholders—particularly commercial banks—that all levels of the agricultural value chain, including smallholders, can be profitably financed. The program has two main components. The first component supports provision of technical assistance to financial institutions through capacity-building grants to finance provision of key technical assistance in product development, improving lending processes and systems, staff capacity building, and expanding delivery channels. The second component supports generating knowledge and facilitating education about profitable agriculture finance business models. Under the first component, AgriFin supported eight financial institutions in Uganda, Rwanda, Senegal, Burkina Faso, Mali, Cameroon, Mozambique, and Madagascar to build key capacities for agriculture finance.

Source: Agrifin (http://www.agrifin.org).

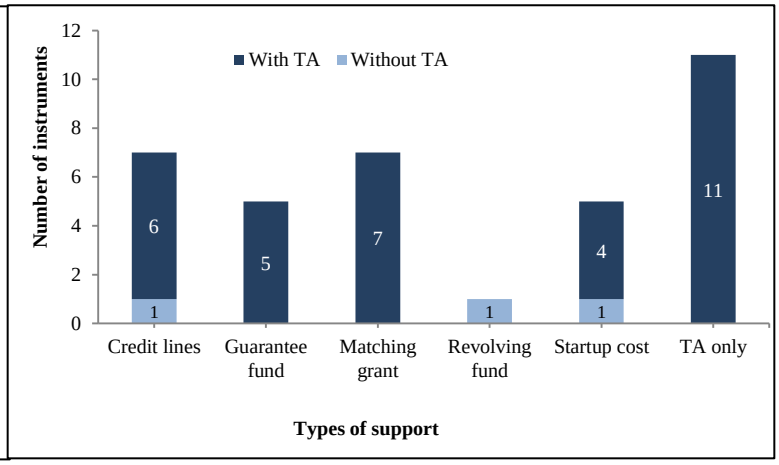
About one-third of agriculture finance projects supported FIs directly or indirectly. In the direct approach, TA is provided to FIs to strengthen their capacity in agriculture finance along with a credit guarantee to minimize the credit risk of lending to agriculture. In the indirect approach, Bank projects provide credit lines to FIs to serve potential clients in agriculture value chains. The range of institutions supported using both approaches includes commercial banks, microfinance institutions, and cooperatives. As shown in figure 26, many agriculture finance projects supported commercial banks, followed by microfinance institutions and cooperatives. This is consistent with findings from interviews with World Bank and IFC Task Team Leaders, who reported that projects supporting FIs mainly supported commercial banks and microfinance institutions (MFIs). A few IFC staff also reported that their projects supported private equity and venture capital funds, but none of the World Bank staff reported supporting such funds.

Figure 25. World Bank Group Financing and Non-financing Instruments

Panel a. World Bank Group support instruments



Panel b. Support blend of instruments

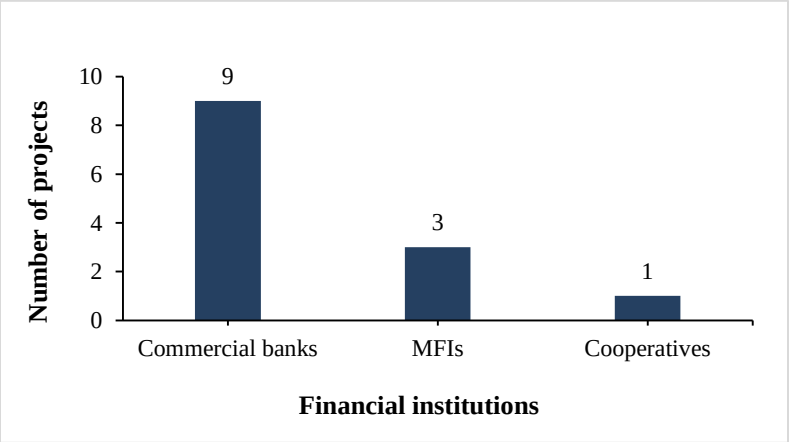


Source: Portfolio review 2014.
Note: TA = technical assistance.

Of 32 agriculture finance projects, 13 focused on supporting farmers and small agribusiness linked to agricultural value chains. These projects used matching grants, credit lines, guarantee funds, and competitive funds targeted for farmers and agri-SMEs operating within selected value chains to reinforce tight linkages within the value chains. Projects also used TA to improve coordination among value chain actors, including FIs as key partners. A good example of this is the Benin Agricultural Productivity and Diversification Project (box 9), which had a specific focus on creating framework agreements among value chain actors, and facilitating financing of farmers in these value chains through business development services and a credit guarantee scheme.

Regarding TA provided to FIs, support was primarily for product and instrument development such as warehouse receipts and leasing (seven), followed by building capacity to appraise and supervise agriculture loans and projects (four). For instance, one project provided support for development of a basic bad debtor database and a comprehensive credit information bureau. Another project provided institutional support for development of new branches, and a third project assisted with an environmental, social, and governance assessment.
For TA provided to agribusinesses, support was primarily to improve business and financial management skills such as preparing and presenting sound business plans and financial statements, followed by improving production practices such as disease control, conservation techniques, mix of inputs, and balance of crops.

Figure 26. Types of Financial Institutions Supported



Source: Portfolio review 2014.
Note: MFI = microfinance institution.

With regard to lending and financial instruments, support was primarily allocated to capital investment, such as irrigation, followed by the introduction and development of innovative technologies such as processing Jatropha into biodiesel or curing tobacco with high-efficiency use of firewood.

Along value chains, most projects supported both on- and off-farm activities; with production and processing, the most frequently value chain segment supported (figure 28). There was limited support for input supply and transport/logistics stages of the agriculture value chain.

World Bank projects in particular aim to improve the integration of smallholder farmers in key value chains—seven projects specifically mentioned supporting smallholders, whereas eight supported agribusinesses of various sizes. This is consistent with findings from the survey of Task Team Leaders, in which five out of seven World Bank respondents mentioned that their projects supported only subsistence and/or smallholder farmers. Only two of the seven World Bank Task Team Leaders reported that their projects targeted semi-commercial/commercial smallholders and/or medium and large farms. Among off-farm clients, few World Bank–supported projects provided financing for microenterprises, input suppliers, or retail trade.

IFC Support for Agribusiness Finance in Projects

A review of 54 approved investment projects and 10 advisory services projects from FY 2004 to 2014 shows that IFC provides financial and nonfinancial support to a variety of financial institutions and agribusinesses in Sub-Saharan Africa to strengthen the agricultural sector. Through these projects, IFC provided about US$1.81 billion in 24 countries (US$1.8 billion in 17 countries for investment services, and US$14 million in seven countries for advisory services).

Among the 54 investment projects, support was provided for 24 financial institutions and 30 agribusinesses. The focus for FIs was primarily on commercial banks (15), with some support for private equity funds (six). These findings are broadly consistent with feedback from IFC staff, who noted that projects mainly supported commercial banks.

IFC support directly improves access to credit for agribusinesses, and indirectly supports on-lending to agri-SMEs and smallholders through intermediary financial institutions. IFC also supports credit supply development with advisory services for product and delivery channel development for FIs. Some projects also support training for farmers and agri-SMEs on business and financial management practices, complementing support from IDA and IBRD—both of which typically provide more of this type of support. Most agribusiness investments supported production and processing, with somewhat less support for storage and transport, input supply, and marketing/distribution.

Box 9. Benin Agricultural Productivity and Diversification Project

Through the Agriculture Value Chain Coordination and Financing component, the Benin Agricultural Productivity and Diversification Project supports the building of value chain institutions in two ways: (i) through the organization of value chain participants into well-structured inter-professional organizations; and (ii) through the organization of producers around structuring activities, such as rice milling, fingerlings, and fish feed production. The project supports the creation and/or strengthening of partnerships between public and private stakeholders to improve coordination among the key links of the targeted value chain. Along with this coordination, the project helps improve access to financial services for farmers and service providers along the full value chain through business development services and guarantee funds. The project also supports financial institutions with capacity building to improve their knowledge of the targeted value chains. Finally, the project finances consulting services to support setting up the National Funds for Agricultural Development, which is central to Benin's long-term agricultural financing strategy.

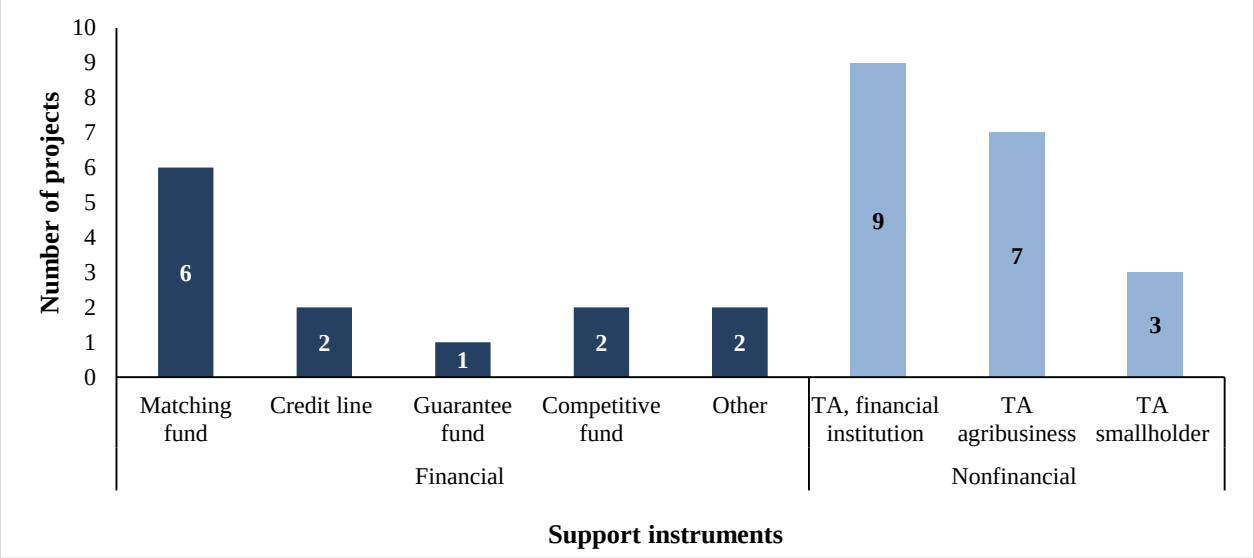
Source: Project Appraisal Document 2010.

Across all projects, investments were primarily designed to finance working capital (for purchasing fertilizer, seeds, and inventory, for example), followed by infrastructure investments and expansion of production capacity (figure 29). In several projects, IFC's investments made it possible for financial institutions to provide their clients loans with longer tenors.

Although IFC's investments mainly offered financing to agribusinesses, about half of all financial institutions provided complementary advisory services or TA to their clients. For example, TA was provided to improve FIs' institutional capacity, develop their SME banking and agribusiness lending capacities and skills, and to provide training on risk management, knowledge specific to the agribusiness sector, corporate governance, and environmental and social standards.

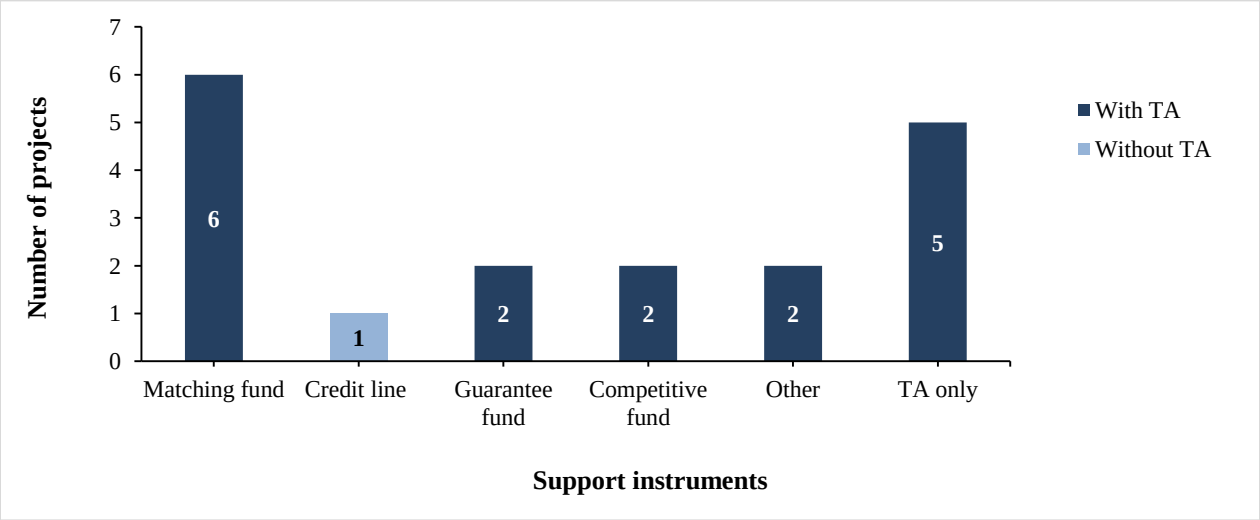
Figure 27. Agribusiness Projects and Instruments Used

Panel a. Financial and nonfinancial instruments



Source: Portfolio review 2014.
Note: TA = technical assistance.

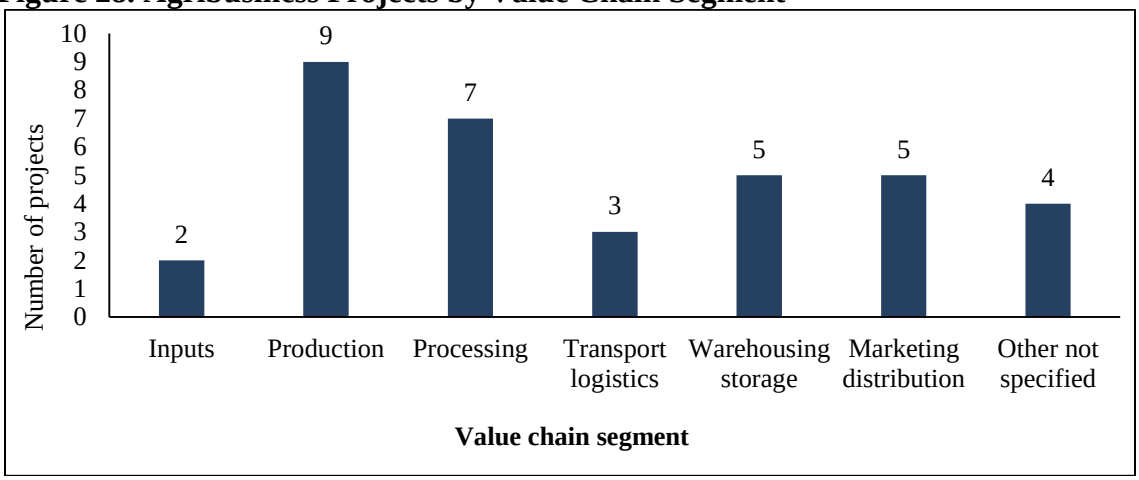
Panel b. Projects, financing instruments, and TA



Source: Portfolio review 2014.
Note: TA = technical assistance.

Of these TA, five supported delivery channel development, such as extending branch and agency networks, launching mobile banking services, and founding new, rural MFIs. In a few projects, TA was provided to agribusinesses and smallholders through an intermediary financial institution. Box 10 highlights an innovative example of an IFC investment that provides finance for working capital and TA in both agricultural practices and financial management for cooperatives.

Figure 28. Agribusiness Projects by Value Chain Segment



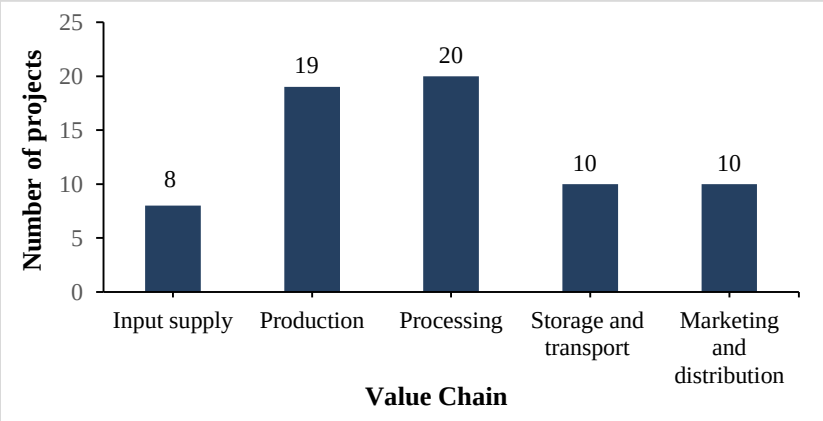
Source: Field surveys and interviews conducted in 2014.

Besides investment projects with TA components, IFC also supported agribusiness through specific advisory services projects. This study reviewed 10 IFC advisory services projects approved during the study period. These projects directly supported various actors—including commercial banks, insurance companies, multinational companies, commodity exchanges, and other agribusinesses—aiming to indirectly support micro, small, and medium enterprises and smallholder farmers.

The most common TA support was for development of financial products and channels to deliver them to clients. All four commercial banks and the three companies developing insurance products had support for product development. For commercial banks, the types of products developed varied and included warehouse receipts and leasing, among other agriculture-specific lending products. In addition, three of the four commercial banks supported received advisory services and TA for institutional support, such as developing agribusiness strategies and work plans, launching management information systems and other banking systems, and staff training on risk management in the agriculture sector. Two of the three banks did this through an IFC training program called Farmer and SME Training, or FaST, which combines IFC's Business Edge training platform with its Web-based SME Toolkit to strengthen the management capacity of SMEs. FaST also partners with large firms and financial institutions to strengthen farmers' technical skills to increase their agricultural productivity.

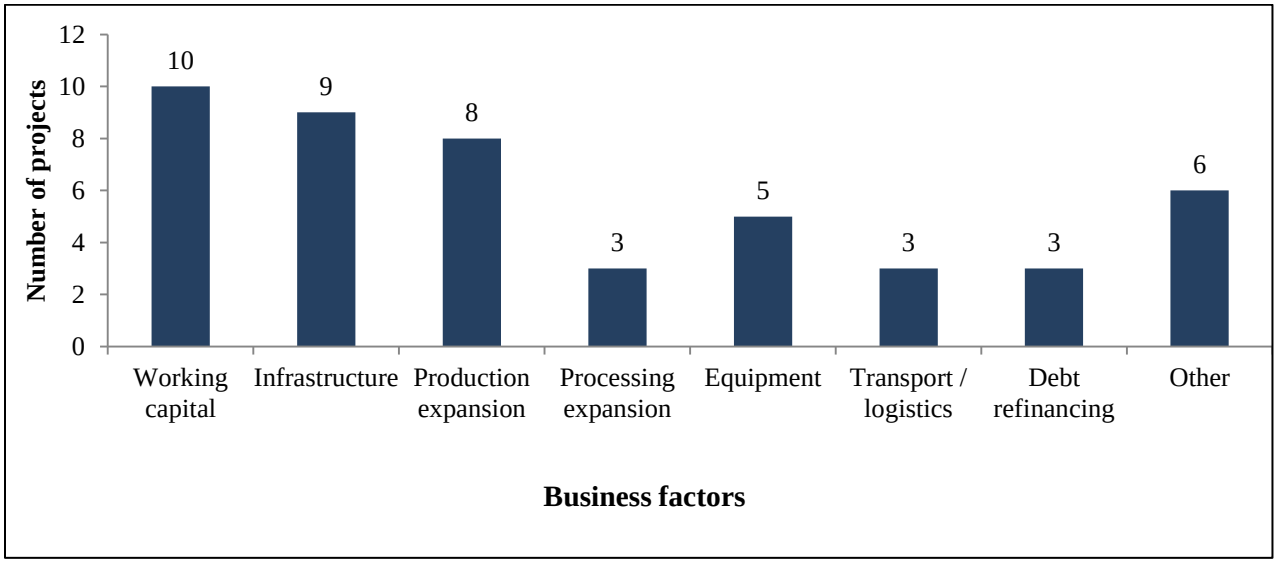
IFC advisory services support for development of delivery channels mainly focused on the expansion and diversification of financial institutions' branch networks. For example, IFC helped a commercial bank in Tanzania to expand the geographic reach of its branch network into the interior of the country, and for development of mobile and agency banking. In another example, UAP Insurance Kenya and Syngenta AG received advisory services for developing index insurance as a commercially viable product, as well as for development of a distribution network for the product, based on mobile technologies.

Figure 29. Value Chain Stages Supported by IFC



Source: Field surveys and interviews conducted in 2014.

Figure 30. Designated Uses of Finance



Source: Field surveys and interviews conducted in 2014.

IFC also increased its support for agriculture and agribusiness by implementing targeted programs, such as the Global Warehouse Finance Program (providing short-term commodity-based lending), the Critical Commodity Finance Program (which provides trade finance to support commodity export and import needs), and the Global Agriculture and Food Security Program (GAFSP), for which IFC manages the Private Sector Window. Going forward, GAFSP's Private Sector Window will be a priority vehicle for IFC's increased investments in the sector. GAFSP provides different types of financing to agribusiness—including long-term debt, equity capital, and first-loss cover—focusing on small and medium-size companies along the value chain in frontier regions or countries that otherwise would not attract investment capital. In some cases, advisory services complemented investments to enhance access to agribusiness and farmer finance, improving farmer productivity, standards, and market links, reducing risks, and dealing with climate change. In 2004 and 2014, GAFSP collaborated with five other donors to invest US$62.4 million in 14

projects globally, mobilize total investments of US$479 million, and support more than 758,000 farmers.

Box 10. IFC Revolving Risk-Sharing Facility Finances Cooperatives in Ethiopia

IFC's investment in a revolving risk sharing facility in Ethiopia in 2010 enabled more than 60 coffee cooperatives to access financing to meet their working capital needs. It also helped them acquire wet mills for processing "cherry" coffee into "washed" coffee. Farmers who can process and sell washed coffee obtain higher market prices than those who just sell cherries.

To implement the three-year, US$10 million facility, IFC collaborated with Nib International Bank (NIB) and TechnoServe. Credit risk was shared between IFC, which guaranteed 65 percent of the loan amounts, and NIB Bank, which was also responsible for originating and funding the loans. TechnoServe's role was in establishing the new cooperatives, which would be eligible for funding from the facility, and providing them with technical assistance in both agricultural practices and financial management.

Each participating cooperative established a bank account with NIB and received approximately US$100,000 to US$200,000, disbursed in 20 percent increments. At the end of each harvest season, cooperatives received payments from coffee exporters in foreign currency, which were used to repay the loans.

The risk-sharing facility provided the cooperatives with access to formal financial services for the first time, but today, it still only meets about 40 percent of their total demand for working capital.[a] The working capital needs of these cooperatives include costs associated with hiring labor, purchasing inputs and inventory, and transportation/logistics and storage.

Source: IFC Projects Database; Hirose 2014.
a. Hirose 2014.

8. Policy Implications and Conclusions

Growing urban food markets driven mainly by income growth and rapid urbanization are creating demand for high-value agribusiness products, new supply chains, and supporting services in the agribusiness industry. The new jobs and income opportunities created by this growth can significantly contribute to Africa's economic transformation. However, to take advantage of these growth opportunities, Sub-Saharan Africa needs to close the huge agribusiness financing gap estimated at US$11 billion of investments annually.

This study used interviews and surveys in selected African countries to provide insights and information for identifying and understanding the challenges faced by the different actors: those who seek financing for agricultural activities (on- and off-farm), those who would provide it, and those who would invest in agribusiness. It also identifies opportunities for addressing critical challenges that can help close the financing gap across different types and sizes of on- and off-farm actors in the four countries studied. The interviews, which the study used to determine the actual thinking of the actors involved on both the demand and supply sides of agribusiness financing, provide useful opportunities for learning as well as enabling solutions for overcoming barriers based on the perspectives of beneficiaries' and financial service providers.

An agenda to transform agribusiness in Sub-Saharan Africa must address the financing gap by placing a high priority on financing of working and investment capital at the farm and non-farm levels. Working capital is crucial to meeting production costs across farms and non-farm actors operating in different value chain segments. Investment capital is also a priority, mainly for investment in non-land assets, technology, and industrial construction that allow farms and agricultural business to increase productivity and grow. Among other things, both farm and non-farm actors identified the cost of credit as a major challenge for access to finance. However, a close, important correlation exists between bank lending rates and macroeconomic factors, so these issues have to be viewed in the context of the overall economy, including the level of market lending rates to other sector. The study recognizes that a wide range of actors exists at each stage of agricultural value chains, and each of these actors faces varying challenges in accessing finance, including appropriate types of financial instruments, range, and cost of finance. This suggests an important role for context-specific and, in some cases, tailor-made financial instruments for different value chain actors.

Furthermore, the challenges in securing investment financing prevent both farm and non-farm actors, particularly in the collection, distribution, and processing segments of value chains, to operate in a climate-sensitive manner. Farmers who cannot access long-term finance are unlikely to have incentives to invest in crop varieties, productive practices, technologies, and infrastructure that would help them grow more food, enhance their resilience, and reduce the negative impact of climate change on the environment. Likewise, a shortage of investment finance mid-stream and downstream of value chains translates into limited investment in quality machinery and storage and warehouse facilities, which results in the current high levels of food losses and waste with negative impacts on food security and the environment.

The assessment of constraints and potential solutions from the perspectives of borrowers and financial service providers is useful for designing development interventions. However, efforts

aimed at increasing access to financial services need to go further to consider the actual bankability of different actors. There are good opportunities to expand financing to commercially oriented value chain actors, but factors such as productivity and capabilities that affect potential profitability are important in considering their creditworthiness. Instead of assuming that all farmers and SMEs are creditworthy, interventions should focus on the features that do not make some actors creditworthy and the actions that are required to enhance their credit status. For example, most commercial bankers looking for efficiency and profitability in their lending operations suggest that, besides risk factors, an important consideration is differences in profit levels among farm and non-farm borrowers. Size also seems to matter in lending decisions because banks tend to disproportionately screen smaller enterprises out of credit markets. Policy actions to address such gaps may include productivity-enhancing interventions that lead to greater output per hectare at the farm level, as well as those that improve firm productivity and skills development. Such a nuanced understanding of actual or potential borrowers would help development practitioners better understand target beneficiaries for financial inclusion and those that could benefit most from technical assistance that would improve their creditworthiness.

In the past, interventions aimed at increasing food security and agricultural sector competitiveness focused mainly on the farm segment of value chains. Strong producer or cooperative organizations seem to facilitate smallholder access to financing, suggesting important pathways through which development organizations can focus their efforts to increase their reach in financing smallholder farmers. Aside from the importance of farm-level activities, this study shows that activities developed after the farm gate accounted for a significant share of total costs and value in value chains. Going forward, as food value chains are transformed in Africa, these midstream and downstream segments of value chains would represent a greater proportion of the projected trillion-dollar agribusiness industry by 2030. Such findings suggest that off-farm segments of value chains require equal attention for agribusiness financing efforts. Making such distinctions between financing needs at different segments of value chains and providing targeted solutions can drive competitiveness and industrial development, as well as create jobs.

Innovative financial products and services can be a key component of strategies to improve the access and affordability of finance and enhance risk management, particularly among underserved smallholder farmers and agricultural small and medium enterprises (SMEs). The study findings suggest that although large amounts of liquidity are in commercial banks, they have not been prominent as important sources of agribusiness finance. When there is commercial bank lending, it is often at tenors or shorter maturities that do not satisfy the financing needs of agribusinesses, particularly for investment capital. A common finding is that there is a mismatch in commercial banking services—for example, associated with lack of technical skills to understand agriculture and agribusiness. Donors and governments supported commercial bank experimentation with innovative agribusiness financial products and services, and should enhance collaboration that encourages further innovation. There is also an urgent need to learn from commercial banks' early-stage experiments with a view to scaling up proven models for broader impact. Systemic interventions that improve a country's financial infrastructure, such as credit bureaus, are critical for improving access to financial products and services that benefit all customers in the banking system.

Domestic financial institutions, such as commercial banks, are not the only actors in the supply of agribusiness finance. Traders are a key element for financing agribusinesses, though they are declining in importance as commercial financing opportunities grow. However, multinational corporations (MNCs) and investment funds are providing new sources of finance to actors across all sizes in different segments of agribusiness value chains. The growth of external financing for agribusiness suggests the importance of paying more attention to agricultural investment funds and multinational agribusiness firms that tend to prioritize technical knowledge of value chain processes. Donor engagement with agri-investors and MNCs are providing new opportunities to integrate commercially oriented farmers, farmer groups, and growth-oriented SMEs into high-return value chain activities. Such public-private sector partnership types of financing arrangements are increasingly becoming more effective in reaching commercially oriented smallholder farmers and SMEs operating in agribusiness value chains, offering new opportunities for reform and/or rethinking of underperforming public sector smallholder farmer financing schemes. The study did not explore the role of non-traditional finance providers or social lenders in agribusiness finance. However, entities such as Root Capital, Triodos, and Oikocredit, are playing important and growing roles in financing actors along agribusiness value chains.

The World Bank and IFC have played important roles in agribusiness financing. However, the growing number of actors providing agribusiness financing in the form of debt, patient capital, and equity, provides new avenues that development financing institutions, such as the World Bank and IFC, could explore. New opportunities exist to engage commercial banks, investment funds, multinational agribusiness firms, and non-traditional finance providers to facilitate experimentation, learning, knowledge exchange, and scaling up of innovative lending, risk management, and delivery models. Here it is important that donors set clear priorities and make strategic choices that are effective in helping to build a country's overall financial systems. In some situations, it might be preferable to work with agribusiness investment funds and MNCs over other financial institutions. In other cases, the focus might be on innovations that incentivize commercial banks' risk, or cost-sharing partnerships with agribusiness or producer associations. The strategic use of patient capital and technical assistance from development financial institutions can be crucial to leveraging the impact of domestic and external private sources of financing on competitiveness of the agribusiness industry, job creation, and promoting inclusive growth in Sub-Saharan Africa. The study findings also suggest specific actions that development institutions and the private sector can consider when designing interventions that aim to facilitate access to agribusiness finance. For example, how should projects determine which interventions are most appropriate for different situations? What type of diagnostic analysis can best inform project design? How can a multi-actor approach work when designing value chain themed projects? What risk-sharing mechanisms between value chain actors drive financing? What actions have the most impact?

This study provided some insights into both the demand and the supply side constraints and opportunities for improving the flow of agribusiness finance to a wide range of value chain actors. Notwithstanding its limitations, the findings provide useful insights that help frame the discussion on agribusiness financing and point toward areas of further study that depart from traditional approaches to assessing agriculture and agribusiness finance.

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Annex A. Data from Demand-Side Survey

Table A.1. Number of Farm Actors Interviewed

Farm size	Nigeria	Sierra Leone	Ghana	Côte d'Ivoire	Total
Small	10	12	3	12	37
Co-op	7	0	4	0	11
Medium	4	16	3	1	24
Large	4	2	7	0	13
Total	25	30	17	13	85

Source: Field surveys and interviews conducted in 2014.

Table A.2. Number of Off-Farm Actors Interviewed

Off-farm actor	Nigeria	Sierra Leone	Ghana	Côte d'Ivoire	Total
Input suppliers	2	4	9	0	15
Storage and transport	0	0	10	0	10
Processors	19	11	6	7	43
Marketing and distribution	12	15	8	9	44
Total	33	30	33	16	112

Source: Field surveys and interviews conducted in 2014.

Table A.3. On-Farm Tenor for Working Capital

Farm size	Nigeria	Sierra Leone	Ghana	Côte d'Ivoire
Small	7–11 months	12 months	12 months	12 months
Co-op	7–11 months	—	7–11 months	—
Medium	12 months	Overdraft	12 months	12 months
Large	12 months	—	12 months	—

Source: Field surveys and interviews conducted in 2014.
Note: — = not available.

Table A.4. On-Farm Tenor for Investment Capital

Farm size	Nigeria	Sierra Leone	Ghana	Côte d'Ivoire
Small	7–10 years	3–7 years	3–7 years	3–7 years
Co-op	10+ years	7–10 years	7–10 years	—
Medium	10+ years	—	3–7 years	3–7 years
Large	10+ years	7–10 to 10+ years	7–10 years	—

Source: Field surveys and interviews conducted in 2014.
Note: — = not available.

Table A.5. Off-Farm Tenor for Working Capital

Off-farm actor	Nigeria	Sierra Leone	Ghana	Côte d'Ivoire
Input supply	12 months	12 months	12 months	—
Storage and transport	—	—	12 months	—
Processing	7–11 months	9 months	12 months	12 months
Marketing and distribution	< 6 months	Overdraft	12 months	12 months

Source: Field surveys and interviews conducted in 2014.
Note: — = not available.

Table A.6. Off-Farm Tenor for Investment Capital

Off-farm actor	Nigeria	Sierra Leone	Ghana	Côte d'Ivoire
Input supply	< 3 years	10+ years	3–7 years	—
Storage and transport	—	—	3–7 years	—
Processing	3–7 years	7–10 years	7–10 years	3–7 years
Marketing and distribution	< 3 years	n.a.	3–7 years	3–7 years

Source: Field surveys and interviews conducted in 2014.
Note: n.a. = not applicable; — = not available.

Table A.7. On-Farm Loan Size for Working Capital (US$)

Farm size	Nigeria	Sierra Leone	Ghana	Côte d'Ivoire
Small	5,038	39,167	< 20,000	< 20,241
Co-op	22,320	n.a.	20,000–500,000	—
Medium	47,829	101,250	20,000–500,000	20,241–101,206
Large	146,674	225,000	20,000–500,000	—

Source: Field surveys and interviews conducted in 2014.
Note: n.a. = not applicable; — = not available.

Table A.8. On-Farm Loan Size for Investment Capital (US$)

Farm size	Nigeria	Sierra Leone	Ghana	Côte d'Ivoire
Small	5,165	72,917	20,000–200,000	20,241–101,206
Co-op	7,672	n.a.	20,000–1,000,000	—
Medium	114,846	190,938	20,000–500,000	101,206–500,000
Large	234,551	525,000	20,000–1,000,000	—

Source: Field surveys and interviews conducted in 2014.
Note: n.a. = not applicable; — = not available.

Table A.9. Off-Farm Loan Size for Working Capital (US$)

Off-farm actor	Nigeria	Sierra Leone	Ghana	Côte d'Ivoire
Input supply	7,652	95,000	20,000–1,000,000	—
Storage and transport	—	—	20,000–500,000	—
Processing	15,904	58,273	20,000–1,000,000	202,413–1,000,000
Marketing and distribution	4,559	29,467	20,000–1,000,000	202,413–1,000,000

Source: Field surveys and interviews conducted in 2014.
Note: — = not available.

Table A.10. Off-Farm Loan Size for Investment Capital (US$)

Off-farm actor	Nigeria	Sierra Leone	Ghana	Côte d'Ivoire
Input supply	392,194	362,500	20,000–1,000,000	—
Storage and transport	—	—	20,000–1,000,000	—
Processing	41,516	97,273	20,000–1,000,000	202,413–1,000,000
Marketing and distribution	82,010	0	20,000–1,000,000	20,241–500,000

Source: Field surveys and interviews conducted in 2014.
Note: — = not available.

Table A.11. Tenor for Investment Capital

Source of finance	Nigeria	Sierra Leone	Ghana	Côte d'Ivoire
MFI	< 3 years	—	—	< 3 years 3–10 years
Commercial bank	3–7 years	< 3 years	< 3 years; 3–7 years	—
State bank	3–7 years	—	—	< 3 years
Community bank	—	—	< 3 years	—

Source: Field surveys and interviews conducted in 2014.
Note: MFI = microfinance institution ; — = not available.

Table A.12. Tenor for Working Capital

Source of finance	Nigeria	Sierra Leone	Ghana	Côte d'Ivoire
MFI	6 months	—	—	12 months
Commercial bank	12 months	12 months	12 months	—
State bank	9 months	—	—	6–12 months
Community bank	—	—	6 months	—

Source: Field surveys and interviews conducted in 2014.
Note: MFI = microfinance institution; — = not available.

Annex B. Data from Supply-Side Survey

B.1. Determinants of Lending

Banks	Rank[a]	Côte d'Ivoire	Ghana	Nigeria	Sierra Leone
Commercial banks	1	Cash flow analysis	Repayment capacity	Collateral	Collateral
	2	Collateral; Repayment capacity	Cash flow analysis	Credit history	Repayment capacity Credit history
Community banks	1	—	Credit history	—	—
	2	—	Cash flow analysis	—	—
MFIs	1	Repayment Capacity	—	Credit history	—
	2	Collateral	—	Collateral	—
State banks	1	—	—	Credit history	—
	2	—	—	Repayment capacity	—

Source: Field surveys and interviews conducted in 2014.
Note: — = not available.
a. 1 is the highest rank

B.2. Bank Clients

Banks	Rank[a]	Côte d'Ivoire	Ghana	Nigeria	Sierra Leone
Commercial banks	1	Trade	Processing	Processing	Processing
	2	Processing	Production	Trade	Production Trade Transportation
Community banks	1	—	Production	—	—
	2	—	Input supply	—	—
MFIs	1	Production	—	Trade	—
	2	Input supply	—	Processing	—
State banks	1	—	—	Processing	—
	2	—	—	Production	—

Source: Field surveys and interviews conducted in 2014.
Note: — = not available.
a. 1 is the highest rank

B.3. Commercial Bank Expansion Opportunities

Banks	Rank[a]	Côte d'Ivoire	Ghana	Nigeria	Sierra Leone
Commercial banks	1	Processing	Input supply	Large farms	Processing
	2	Input supply Transport	Transport	Out-growers	Production (co-ops and smallholders)
Community banks	1	—	Input supply	—	—
	2	—	Out-growers; Cooperatives	—	—
MFIs	1	Input supply	—	Cooperatives	—
	2	Cooperatives	—	Marketing and distribution	—
State banks	1	—	—	Smallholders	—
	2	—	—	Processing	

Source: Field surveys and interviews conducted in 2014.
Note: — = not available.
a. 1 is the highest rank

B.4. Considerations for Long-Term Lending Decisions in Agribusiness

Banks	Rank[a]	Côte d'Ivoire	Ghana	Nigeria	Sierra Leone
Commercial banks	1	Laws and regulations Profit expectations Market for agribusiness financial products and services	Profit expectations Growth prospects	Profit expectations	Profit expectations Growth prospects
	2	—	—	Laws and regulations	—
Community banks	1	—	Profit expectations	—	—
	2	—	Growth prospects Capacity to leverage support from DFIs	—	—
MFIs	1	—	—	Profit expectations	—
	2	—	—	Laws and regulations Ability to develop agribusiness financing products and services	—
State banks	1	—	—	Laws and regulations	—
	2	—	—	Profit expectations	—

Source: Field surveys and interviews conducted in 2014.
Note: — = not available.
a. 1 is the highest rank

B.5. Top Challenges for Financial Institutions, by Country

Banks	Rank[a]	Côte d'Ivoire	Ghana	Nigeria	Sierra Leone
Commercial banks	1	Legal and regulatory Risk in farm production	Risk in farm production	Skills and literacy	Risk in farm production
	2	Information on value chain actors	Risk in post-farm	Customer knowledge	Skills and literacy
Community banks	1	—	Risk in farm production	—	—
	2	—	Lack of collateral Profitability of agriculture	—	—
MFIs	1	Risk in farm production	—	Risk in farm production	—
	2	Risk in post-farm	—	Legal and regulatory	—
State banks	1	—	—	Risk in farm production	—
	2	—	—	Capacity in product development and delivery	—

Source: Field surveys and interviews conducted in 2014.
Note: — = not available.
a. 1 is the highest rank

B.6. Future of Agribusiness Financing

	Overall	Côte d'Ivoire		Ghana		Nigeria			Sierra Leone
		Commercial Banks	MFIs	Commercial Banks	Community Banks	Commercial Banks	State Banks	MFIs	Commercial Banks
	N = 27	N = 3	N = 1	N = 3	N = 2	N = 8	N = 2	N = 6	N=2
Interest by banks in agribusiness will continue to grow steadily in the next decade	26	3	—	3	2	8	2	6	2
It will take 10–20 years for banks to become a substantial source of agribusiness financing that meets local demand for capital	0	0	—	0	0	0	0	0	0

Source: Field surveys and interviews conducted in 2014.
Note: — = not available.