Fintech:

The perspective of African agriculture

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Executive summary

This report provides an overview of the landscape of financial technology (fintech) companies operating in Africa to September 2020¹, and the wider ecosystem that they operate in. The report provides an analysis of those fintech companies that are involved in the agriculture sector, with a particular focus on the those providing working capital solutions.

Within the wider African fintech sector, the report finds that fintech hubs have emerged in Nigeria, Kenya, South Africa and Egypt. Across the industry, the most vibrant sector focuses on payments: the infrastructure that is used to facilitate the transfer of funds electronically, with key users including commerce and financial institutions.

These not only represent the largest grouping of firms in our dataset, accounting for 40% of companies (the lending subsector at 15% is the next most numerous), but also dominated large ticket investment, with 8 out of the 11 largest deals occurring in the subsector since 2019 (\$471m out of \$530m for these top deals).

Agriculture makes up a relatively small portion of fintech companies on the continent; we identified about 11% of the businesses in our dataset as being focused on rural or agricultural requirements. Amongst these companies, the largest subgroup was crowdfunding businesses (at 38%), followed by lending businesses (20%).

For data that we could access, funding rounds tend to be smaller in agriculture than the broader African fintech sector. This may indicate that successful business models are still in the process of being developed and are not yet ready to scale, or possibly that relatively capital-light business models are being deployed. It is perhaps no surprise, then, that lending is the subcategory that has received the largest share of publicly disclosed funding to-date.

The dataset identifies 35 fintech companies that are actively involved in agricultural lending or lending to smallholder farmers.

This includes a significant number (24) that are focused on crowdfunding. The businesses not involved in crowdfunding are described in more detail, with indication of each company's scope and reach provided where available.

The report highlights businesses not operating in agricultural lending that may be worth considering as potential partners to explore new business lines. For example, those businesses that are currently more focused on agtech opportunities could extend their reach into financial services through partnerships. Digital finance providers who do not yet focus on agriculture may be lured into developing products for the sector. These market adjacencies also present interesting opportunities to explore, and execution risk could be lowered through partnering with appropriate companies rather than building the capability from scratch.

¹ It is important to note that the data and descriptions of businesses are a snapshot of what is happening as of September 2020 and may not reflect more recent information at the time of publishing.

Introduction

Financial technology (fintech) companies can be defined as organisations combining innovative business models and technology to enable, enhance and disrupt financial services (Ernst and Young, 2019).

They are attention worthy because, at their best, they combine technology with access to alternative data and innovative approaches to deliver new kinds of financial products, services, and experiences to their customers. Fintech companies are often characterised as start-ups whose goal is to upend traditional incumbents. They are often smaller firms with an innovation culture; their size and lack of legacy systems and mindsets can give them an agility to change and develop infrastructure built for digital operations.

However, there are traditional financial institutions who embrace technology-enabled financial innovation and there are also a range of fintech companies who integrate with, and improve the performance of, financial institutions. This is as true of the African continent as it is across more developed markets.

In Africa, fintech companies are worth investigating because their approach is often to focus on the needs that are not being currently addressed by the market, which are typically segments that are underserved or groups that are dissatisfied with the existing offerings. Therefore, in this context fintech offerings often align with financial inclusion goals and have made significant progress in this respect over the last few years. Consultative Group to Assist the Poor (CGAP) identify key trends that have led to fintech companies in emerging markets gaining traction:

- Widespread digital payment schemes have created an enabling infrastructure to bring new businesses to market.
- Third-party integration mechanisms have made it easier for innovation to reach consumers.
- Rising smartphone penetration has improved customer experience.
- New data sources have enhanced delivery and reduced costs to serve (CGAP, 2019).

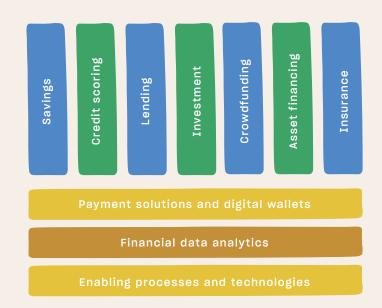
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A typology of fintechs

There are different ways to categorise fintech companies. In this report we use the following typology, whilst understanding that not all organisations will fall neatly into one category:

Level 2 process	Key challenge
Savings	Companies that provide savings solutions, including layaway plans, for their customers
Credit scoring	Companies that assess the creditworthiness of their customers
Lending	Companies that provide loans to their customers
Investment	Companies that enable their customers to invest (but not crowdfunding)
Crowdfunding	Platforms that link organisations that are seeking funding to retail investors
Asset financing	Companies that seek to finance assets through digital platforms, also includes asset sharing platforms.
Insurance	Companies that provide risk mitigation products through digital channels
Payment solutions and digital wallets	Companies that are building the infrastructure to enable digital transactions to take place between and amongst individuals and companies.
Financial data analytics	Companies that analyse data in order to make decisions (not relating to creditworthiness)
Enabling processes and technologies	Applications and programmes that other firms can utilise to deliver their products and services

The first seven of the "products" are recognisable as stand-alone offerings. The last three can be considered cross-cutting pieces of the wider infrastructure required to make the products work effectively. Diagrammatically, they may be illustrated as follows:



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As we are looking specifically at the impact of fintech companies within the agriculture sector, we will also briefly look at the range of agtech companies that are present in the market. The reason for this quick assessment is that some organisations cannot easily be classified as exclusively as fintech or agtech.

There are also strong complementarities between these emerging business models, and we would expect the number of hybrid organisations to increase as the sector matures.

The chart below outlines some of the key business models that are being developed in the agtech space.

It is worth noting that fintech's "Enabling Processes and Technologies" when applied in an agricultural setting often bear a close resemblance to agtech's "Market Linkages" and that we would expect to see convergence between agtech and fintech offerings in this area.

Digital agronomy & production

- Precision irrigation
- IOT crop sensing and monitoring tools
- Imaging analytics & services

Planning & farm management

- Crop management software
- Farm ERP tools
- Sustainability and traceability tools
- Market information

Market access & financing

- Farmland analysis
- Yield forecasting
- Finance & insurance
- Food recovery

Market linkages: digital marketplaces (inputs and offtakes), value chain integrators, mechanisation access services, e-commerce services

Adapted from Better Food Ventures, 2020

Enabling ecosystem for tech companies in Africa

There are over 640 "innovation hubs" that provide support to tech-based companies – usually early stage – in a variety of different packages on the African continent (AfricaLab and Briter Bridges, 2019). There a range of organisations that contribute to this ecosystem, as outlined below:

 Accelerators: cohort-based and fixed term programmes that support growth stage ventures to achieve scalability and self-sufficiency, through offering advisory services, mentorship, workshops, networks and frequently investments in cash or inkind.

- Co-working space: a shared physical workspace that provides office facilities and a community to start-ups, small companies and independent workers.
- Innovation hubs: centres that nurture innovative ideas and market disruption and support creative ways of solving problems through offering on-the-ground support across the entirety of the start-up lifecycle.
- Incubators: programmes that help early-stage startups at the outset of their journey through advice, workshops, and training. They occasionally provide some cash to support the portfolio companies.

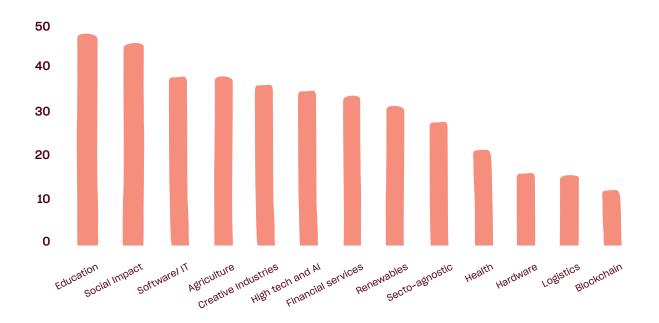
The following chart shows the relative frequency of these hubs in Africa.

Frequency of hubs



The AfriLabs and Briter Bridges (2019) report also provides details of those hubs that are providing sector-specific support, as the chart below demonstrates.

Sectors supported by hubs (%)



This demonstrates that across categories there appears to be a burgeoning ecosystem to support start-ups, and this includes those operating across the software/IT, agriculture and financial services, which are amongst the sectors most frequently cited as receiving support.

Specifically within the fintech ecosystem, there is an Africa Fintech Network which is made up of self-regulating national fintech associations, designed to coordinate collaboration, engagements and partnerships across the continent, with 32 member country associations. Zazu, the Zambia fintech company, is also attempting to establish Union54 as a correspondent network of fintech platforms that seeks to facilitate real-time payments across Africa and offers each member equity.

Fintech companies in Africa

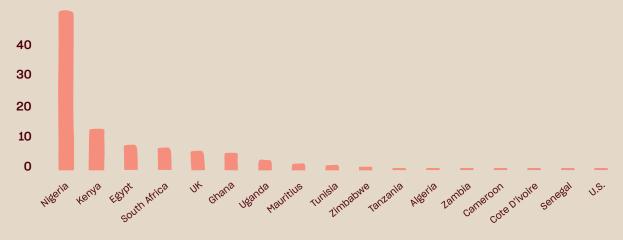
Across Africa, fintech companies are not disrupting traditional financial services per se, but more building up an underdeveloped industry. By creating a raft of techbased products and solutions, including mobile money, online payment processing, lending, and investing, these start-ups are plugging large gaps that exist in local financial service industries.

With around 66% of the adult population in Africa unbanked, the emerging industry has a huge opportunity to drive financial inclusion outside traditional banking systems (Quartz, 2019). In Kenya, M-Pesa mobile money service has been a runaway success by allowing users to pay bills, and each other, through mobile phones or an agent network. Since launching in 2007, the service has impacted local access to financial products and services: today, financial inclusion in Kenya stands at 83%—up from 27% in 2006 (FinAccess, 2019).

Our dataset highlights nearly 600 fintech companies operating in Africa (see Annex A for further details on data sources). Of fintech companies active, about 80% are believed to have originated on the continent, with the remaining 20% being international companies expanding their presence onto the continent (Tellimer, 2019). The number of fintech companies has grown at a Compound Annual Growth Rate (CAGR) of over 24% over the past 10 years (Ernst And Young, 2019).

In 2019 African fintech companies raised over \$900 million USD across 113 rounds and have raised over \$180 million USD across 65 deals in 2020 YTD. (Baobab Insights, 2020).

% of funding received by country HQ since 2019



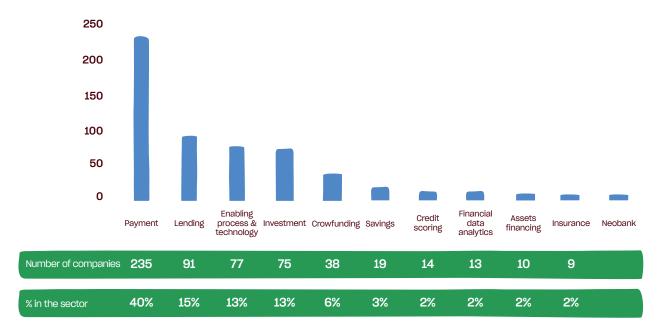
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The payments segment is the most dominant sector in sub-Saharan Africa (SSA), mainly due to the large unbanked population and correlating high demand for financial inclusion. The high concentration of mobile phones in SSA has also aided the segment's expansion. Mobile money has been a fantastic enabling technology for many sectors and industries, and the movement beyond peer-to-peer transfers has been going significantly in last couple of years.

Companies like Interswitch (which raised a \$200 million corporate round from Visa), Flutterwave (who have also received investment from Visa and have a partnership with Amazon) and Cellulant (raised a \$47.5 million in May 2018) are all building mobile payment services.

Number of fintechs by sub-sector



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Not only are payments dominating the number of businesses that are in the sector, but they also dominate the businesses receiving investment. In terms of attracting funding, since the start of 2019 the largest 11 funding rounds/transactions in the African fintech space have accounted for nearly \$530m, and 8 of them (a combined \$471m) have been in the payment sub-sector.

We have been able to identify 97 investors involved in the above deals. As noted already, these are only the deals that have been made public, and that also include announcements about who their investors were. It is worth noting that "friends and family" fundraising rounds aren't captured in the above data, which undoubtedly means a more accurate breakdown would skew heavily to a smaller ticket size.

It is worth highlighting that these large deals are outliers in the sector, with the majority of the approximately 50 publicly announced funding rounds being considerably smaller, as shown in the table below:

Deal range	No. of deals since Jan. 2019
\$40M+	2
\$10M-\$40M	9
\$5M-\$10M	9
\$2M-\$5M	7
\$1M-\$2M	19
<\$1M	7

Source: Zeugma dataset

In addition, there is good anecdotal evidence of the existence of a strong informal network of local and regional angel investors who invest relatively small amounts in early-stage businesses but do not disclose these investments publicly. Nevertheless, the most active investors in the public eye in fintech in Africa since January 2019 are detailed in the table on the following page.

Geographically, three main fintech hubs in SSA have been formed around Nigeria, South Africa, and Kenya respectively. South African fintechs are split between Cape Town and Johannesburg. It is a diversified hub and has similar characteristics to more developed markets, with an outsized focus on fintech companies that are building the infrastructure for others to operate on.

Kenya, the second largest fintech hub, has a stronger focus on the payments segment - almost certainly linked to the early success and wide adoption of mobile money (the aforementioned M-Pesa). Nigeria's fintech sector, based around Lagos, is the other hub. It is also dominated by the payments sector and has a focus on the needs of the vibrant retail sector (Ernst and Young, 2019).

Investment firm	Fintech deals in last 20 months	Website	Description
500 Startups	4	https://500.co	Tech VC/accelerator
Allan Gray	4	https://www.allangray.co.za	Investment firm
Deciens Capital	3	https://deciens.com	Early stage fintech investor
Goodwell Investments	3	https://www.goodwell.nl	Impact investor
Liquid 2 Ventures	3	https://liquid2.vc	Seed stage VC investor
UW Ventures	3	https://uwventures.co	VC firm
Accion Venture Lab	2	https://www.accion.org/how-we-work/invest/accion-venture-lab	Early stage impact investor
Bittrex	2	https://global.bittrex.com	Cryptocurrency exchange
Creadev	2	https://www.creadev.com	Family office
Flourish Venture	2	https://flourishventures.com	Impact investor
IDG Capital	2	https://www.idgcapital.com	VC/PE investor
Michael Seibel	2	http://www.michaelseibel.com	Angel investor
Newid Capital	2	https://www.newidcapital.com	fintech investor
Partech Partners	2	https://partechpartners.com	Tech VC investor
Raptor Group	2	https://www.raptorgroup.com	Family office
Sequoia China	2	https://www.sequoiacap.com/china/en	VC investor
Source Code Capital	2	https://sourcecodecap.com/en	Early and growth stage investor
Standard Bank	2	https://www.standardbank.com	Financial institution
TLcom Capital	2	https://tlcomcapital.com	Early/growth stage VC investor

Fintech companies focusing on African agriculture

Whilst it is useful to note the large and growing fintech sector in Africa, the sub-sector that focuses on agriculture is relatively small. Whilst we are unlikely to have captured every relevant company, the trend is quite clear: even allowing for a broad definition only about 11% of the nearly 600 fintech companies we have identified target predominantly agricultural and rural communities.

The typologies below are developed with typical examples of what the underlying business models of fintechs involved in the sub-sector.

Sub-sector	Ag business model in sub-sector
Savings	Mobile platforms that enable farmers to save on a regular basis and use savings toward input purchases
Credit scoring	Use of remote sensing/precision imaging and alternative datasets to assess risk of farmers
Lending	A range of products from invoice financing, to credit for inputs, to supply chain financing
Asset finance	Platforms to enable access to mechanisation services
Insurance	Provision of index insurance for crops based on precision imaging
Payment	Enables farmers to use their mobile phones to make and receive payments, as well as access finance, along their supply chain
Enabling process & technology	Supply chain management system to organise and potentially credit score out-growers and coop members, as well as capture farm management data
Crowdfunding	Platforms that link smallholders and farm owners with retail investors

The number of identified businesses in each of these categories is outlined below (and a full list can be found in Annex 2). It is noticeable that crowdfunding is disproportionately represented.

There may be a number of reasons for this, perhaps not least the relatively high profile fundraising success of the Nigerian company Farmcrowdy who have raised \$2.4m over 5 rounds, with \$1.3m most recently being invested in March 2019. (Half of the ag-focused crowdfunding businesses are based in Nigeria.)

Ag-focused fintechs by sub-sector



Source: Zeugma dataset

There is relatively little information about the funding received by these firms, with only 23 having any funding details publicly available. Of these, the data shows that the funding rounds tend to be smaller than the broader African fintech sector. This may indicate that successful business models are still in the process of being developed and are not yet ready to scale, or possibly that relatively capital-light business models are being deployed.

However, there are some businesses that we know have received external funding but whose round hasn't been disclosed, and who would likely fall into the higher categories of sums raised.

Deal range	No. of deals
\$5 - \$10M	1
\$2 - \$5M	1
\$1 - \$2M	1
\$0.5 -\$1M	6
0 - \$0.5M	14

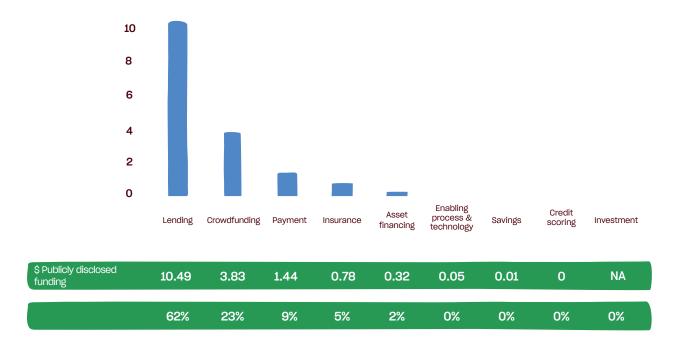
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The chart below shows that, for the known funding rounds, lending businesses have attracted the most attention.

However, this is dominated by the \$7.4m funding raised by Apollo Agriculture (\$6m of which came in May 2020).

For nearly 11% of the businesses within the fintech category, it is clear this sector is disproportionately under-funded compared to, for example, payments.

Publicly disclosed funding by ag fintech sector (USD millions)



Fintech companies in Africa focused on lending

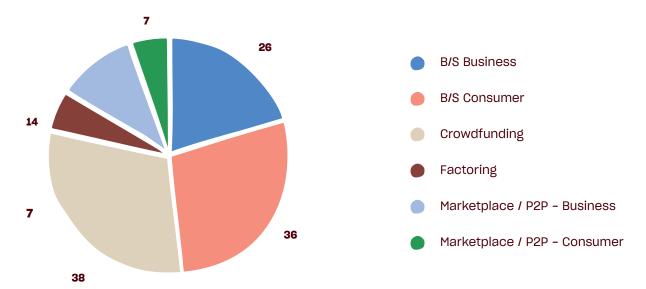
This is a brief section that provides an overview of the type of companies that are currently focused on lending in Africa. The purpose is to understand the relative vibrancy of the sector and to see whether there are successful models or operators that might not be focused on agriculture but could move into the sector. The table below characterises the main business models that we see in the sector.

Companies like Interswitch (which raised a \$200 million corporate round from Visa), Flutterwave (who have also received investment from Visa and have a partnership with Amazon) and Cellulant (raised a \$47.5 million in May 2018) are all building mobile payment services.

Financing model	Definition	Potential fit with ag
Marketplace/ P2P Consumer Lending	Individuals or institutional funders provide a loan to a consumer borrower	Not directly applicable - we classify loans to smallholders as business use.
Balance Sheet Consumer Lending	The platform entity provides a loan directly to a consumer borrower	These models are based on high interest short- term loans. Unlikely to be suitable to the financing requirements of ag businesses or farms
Marketplace/ P2P Business Lending	Individuals or institutional funders provide a loan to a business borrower	Could potentially fund fintechs that are generating sizeable books with good track records lending to smallholders
Balance Sheet Business Lending	The platform entity provides a loan directly to a business borrower	Financial institution would need to be familiar with the risks of lending to the ag sector, and maybe partner to mitigate it, but remain most important source of external capital in the market
Invoice Factoring	Individuals or institutional funders purchase invoices or receivable notes from a business (at a discount)	Usually more common in more developed financial markets (e.g. South Africa) but remain a potential source of working capital for well-organised businesses
Crowdfunding	Individual or institutions funder purchase equity or debt issued by a company	Possibility of using pool of retail capital that may be willing to take risks that more conservative lenders would not.

Across the Africa fintech landscape the following pie chart provides an outline of the vibrancy of each type of lender.

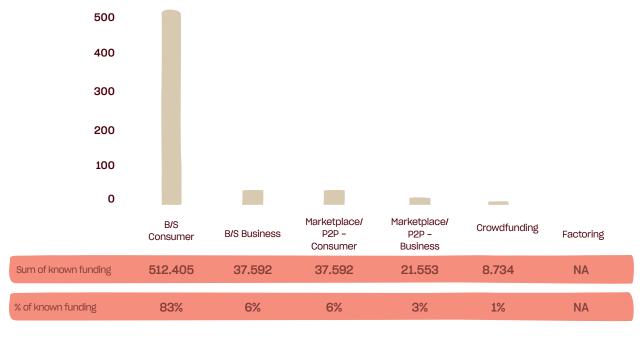
Number of lenders by product type



Lending to consumers from a business's balance sheet is a sector that is popular, as indeed are crowdfunding platforms. It is noticeable that balance sheet lending to business is significantly less well represented, and it is noticeable it has received relatively little funding to date (below). Businesses that lend from their own balance sheet require a significant amount of financing to take the risk of lending, but this does not seem to be forthcoming, unlike their consumer-facing counterpart.

This could indicate that there are relatively few successful businesses operating in this space, and/or that fintechs are partnering with financial institutions that do have a balance sheet to access this space (although there weren't obvious examples of this).

Officially announced funding by sub-sector

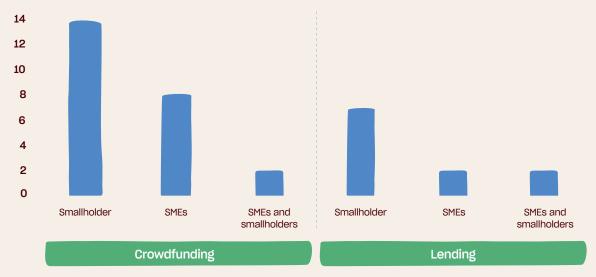


Fintech companies focusing on lending to African agriculture

This section looks at those businesses that are lending in the African ag sector. We have focused on those businesses whose primary model appears to fund agribusinesses and smallholder farmers using technology, but there may be those who are adjacent to this market who don't appear on this list. We will touch on the potential for engaging with adjacent markets below.

At a high level, we include both crowdfunding businesses as well as other lending businesses, as they are both providing access to finance to the sector. The chart below outlines their target market.

Ag fintech: recipients of lending



Source: Zeugma dataset

The "lending businesses" (those that aren't crowdfunding) are detailed below, with a brief description of their business model and data on users compiled from publicly available sources. It is important to note that descriptions of businesses are a snapshot of what is happening as of September 2020 and may not reflect more recent information at the time of publishing.

Company	Description	Customers	Sub-sector
Agri-Wallet	Agri-wallet provides financial services for agribuyers (smallholder produce) and loans for inputs to farmers with track record of delivery. Over a dozen merchants, 4,000 farmers onboard	Smallholders and SMEs	Marketplace lending to business
Agrocenta	Provides supply chain facilitation between smallholder farmers and consumers, as well as a financial inclusion platform for smallholder farmers, allowing institutions to on-lend to networks of smallholder farmers. 45,000 farmers onboard	Smallholders	Balance sheet lending to business
Akello Banker	Uses alternative data sources from cooperative members to link to financial service lending and payments services to smallholder farmers. 50,000 users have received financial literacy training, over 300 merchants onboard	Smallholders	Marketplace lending to business
Apollo Agriculture	Apollo Agriculture offer credit for inputs based on a range of alternative data sets (phone surveys, satellite imagery of land, photo of farm). Using mobile phones uses agronomic machine learning to provide improved credit scoring services to smallholder farmers 20,000 paying customers	Smallholders and SMEs	Marketplace lending to business
CapAGRI	CAPTUREPesa™ is a Mobile loan app to provide cash advances and farm inputs financing for smallholder farmers. No data available on their reach	Smallholders	Balance sheet lending to business
DigiFarm	An integrated mobile platform that offers farmers one-stop access to a suite of products, including financial and credit services, quality farm products and customised farming best practises. Offered by Safaricom Over 40,000 active users	Smallholders and SMEs	Marketplace lending to business
emata	Digitises co-operative processes and management, credit scores farmers and offers loans to farmers who are members of cooperatives. Data on reach unavailable but still in start-up mode, so not expected to be high.	Smallholders	Balance sheet lending to business
FACTS Africa	FACTS can provide working capital if SMEs active in the Agri sector assigns its future sales to FACTS.	SMES	Factoring
Farmerline	Farmer Service model provides quality and affordable inputs on credit with free input delivery to farmers. The input credit service comes with a flexible repayment system that allows farmers to pay back any amount at any time during the season. Ove 12,000 farmers reached	Smallholders	Balance sheet lending to business
	,		

Company	Description	Customers	Sub-sector
KCB MobiGrow	MobiGrow is a KCB offering for financial solutions including affordable loans, savings, insurance and training opportunities, all delivered via mobile phones targeting smallholder farmers. Over 4,000 farmers using the service	Smallholders	Balance sheet lending to business
m-0mulimisa	ICT-powered Village Agent Model to provide a bundle of agriculture services including microloans from MFI partners. Over 8,000 farmers receiving services	Smallholders	Marketplace lending to business
Novus agro	A multisided platform that organises smallholder farmers into accessible groups for all that want to transact with them Over 52,000 farmers engaged	Smallholders	Marketplace lending to business
Zuricap	Invoice financing platform for ag-processor SMEs Data on reach unavailable	SMEs	Factoring

Zuricap and FACTS Africa are the only businesses that appear to be focusing exclusively on SMEs and both favour factoring as a method of financing, something that isn't possible for smallholders who are unlikely to have invoices for the purpose. It is unclear how successful these businesses are, although their existence across different markets (Kenya and Tanzania), suggests that this is an underserved area that may warrant a deeper understanding of the relative chances of sustained success. Umati Capital, an invoice finance house in Kenya with funding from the likes of Accion Ventures and FMO, appears to have been unable to survive in the SME (not exclusively ag) factoring niche.

Akello Banker and Agrocenta use their insight into farmers they work with to provide credit scores based on alternative data sets to financial institutions, or other market participants willing to lend into the value chain interested in lending to farmers.

Agri-Wallet and Apollo Agriculture aim to finance both smallholder farmers, and those that they are linked to in the value chain.

Agri-Wallet will finance buyers of smallholder produce – paying smallholder farmers up front and bridging the working capital cycling for when these "agribuyers" are in turn paid. They also offer loans to the smallholders based on their previous track record of delivering produce, and these loans can be used to buy inputs. Apollo Agriculture also finance smallholder inputs, based on a range of alternative data sets to assess the viability of the crops they are due to grow (including photographs and satellite imagery) but also have programmes to finance agro-dealers that supply the smallholders, to ensure that they have sufficient stock at the right time.

Exposure to more than one part of the value chain, as is the case of Agri-Wallet and Apollo Agriculture, brings increased risks in difficult market conditions. However, we believe that these models are more likely to succeed than more narrowly-focused offerings as they are contributing to a more financially robust value chain (providing they adhere to prudent lending standards) and the companies will generate meaningful insights into multiple market actors that can help refine and shape their business operations.

Market adjacencies

The previous section has highlighted the fintech companies that are currently active in lending into the agricultural or rural sector as their primary business focus. However, it is worth noting that there are fintech businesses that do not currently serve the sector, but their business model may be amenable to moving into it. Broadly, companies that have successfully developed digital lending businesses may wish to see what adaptations are required to look at factoring businesses or providing financing for inputs. For example, Musoni is not classified as an agri-focused fintech company, but they do have a portfolio in the sector and their "digital first" platform may sufficiently reduce costs to develop a profitable lending book in the agricultural and rural space. Similarly those businesses that are engaged in "Enabling Process and Technologies" already operating in the agricultural space may find that they are generating enough insights into agricultural value chain actors that they could offer a lending product that matches their customer's needs. This would make customer acquisition costs significantly lower from the outset. An example of a business that could consider this is Ghalani in Ghana, who have developed both farm management and supply chain management tools which farmers or agribusinesses can use to manage on-farm activities and track funds. As noted near the start of the report, the boundaries between agtech and fintech companies are likely to continue blurring, and technological solutions that can cater for a farmer or agribusiness varied needs could be powerful proposition. A company like Ghalani need not develop many additional capacities themselves - risks increase as companies move away from their core area, particularly if that isn't already lending - but they could partner with other companies or financial institutions. For example,

companies such as Agrocenta have developed a platform for integrating into financial institutions, which could be coupled with supply chain management and traceability tools. Whilst having so many partners within a supply chain could make it economically unfeasible, it may suggest that there are areas where consolidation of actors could make increasing sense as businesses grow.

The table below suggests areas of evaluation to assess what fintech companies are doing differently from a standard business model to increase their likelihood of success for agricultural and rural customers.

Area of operation	Area of Innovation
Operations	Customer acquisition and onboarding
Credit scoring	Alternative datasets for credit assessment and approval
Payment	Disbursement and repayment
Farm advisory	Local, tailored extension and advisory service
Market connection	Market linkage for inputs or offtake
Risk management	Relevant insurance
Funding	Cheaper or more risk-tolerant access to capital

A glimpse into the future?

It is our belief that the agriculture fintech sector is only beginning to move through its first iteration of product offerings. Companies whose business is based on a single offering still dominate the sector and they are only now moving beyond their first iteration of products: whether it is focusing on credit scoring, lending or digital farmer aggregation. Very few businesses appear to have achieved obvious scale or success using this approach. Apollo Agriculture, which has just concluded a significant funding round, is interesting because it seeks to bundle a range of innovations (credit scoring, lending, customer acquisition) within a single offering. We believe that as we head towards the next phase of products there will be increased integration of products, or deeper partnerships between players, and this will lead to a greater likelihood of achieving impact at scale.

There are clearly gaps in the market for fintech companies to focus on agriculture and rural communities. There are innovations occurring, both in terms of product development, business model configuration, and technology, that give reason to be optimistic for future development of the sector. This brief section raises some of the things that investors may want to think through when it comes to looking at opportunities in the sector.

There is a tension between businesses being extremely focused on solving a specific customer pain point and those taking a broader approach and offering a range of solutions. This is rarely truer than in African agriculture where there are both deep problems that need expertise to overcome, as well as a host of market inefficiencies that

can render a narrow solution unsustainable.

We argue that the fintech companies focusing on African agriculture are more likely to succeed when attempting to overcome more than one inefficiency or market failure. This can be done through their own product, or in coordination with partner actors, but it seems unlikely that an approach to tackle a single pain point will be sufficiently robust to deliver enough value to the market and overcome the various risks inherent in agricultural and rural financing. A successful product will likely need to tackle multiple market inefficiencies at once. It seems likely that successful businesses will need to be able to innovate in more than one area to:

- Provide similar services to an incumbent's customers cheaper
- Provide new services to an incumbent's customers
- Develop new customers by mitigating previous risks
- Develop new customers by lowering the cost of serving them.

Companies that have, or can build, a strong advantage in one of these areas are well-placed to bolt-on other capabilities, either through partnerships or acquisitions. For example, mobile phone companies already have the advantage of massive scale, cheap customer acquisition costs and alternative sources of data for decision making. They are well-placed to expand their efforts and partnerships in the ag sector and could be leading innovators in the sector. The development of DigiFarm is something that should be watched closely. Similarly, KCB's

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MobiGrow is an interesting, and rare, example of a financial institution moving strongly into the ag fintech space. The lessons that can be drawn from its experience at the end of the 5-year MasterCard programme in 2021 will certainly be instructive. There have been no notable mergers or acquisitions taking place in the sector, but there is now a wave of corporates investing into start-ups as they grow (most notably in the payments sector, with Visa and Opera's large investments in payments companies) and this may be a trend that spreads out to other fintechs as they mature.

The move into other offerings is not without risks.

Companies that move outside of their core business into financial services, especially if their core business isn't already sustainable, need to carefully consider what how adding financial services as an offering will impact the company's overall risk profile.

As noted above, it seems likely that fintech companies will need to innovate along more than one aspect of the business model to stand a chance of being successful in a market that is difficult for even experienced lenders. The various configurations of these innovations mean that it is entirely possible that businesses that eventually develop successful loan books lending to farmers and agri-businesses may arise from ventures focusing on other parts of the fintech spectrum.

Annex 1: bibliography and data sources

Sources for the Data Set

The data that has been compiled from a variety of sources and cross-checked where possible for verification.

The main sources that underpin the dataset are:

Baobab Insights: Company and Deal database

Briter Bridges: Data maps and Briter Intelligence database

Crunchbase database

Maxime Bayen, Start Ups in Africa dataset

Zeugma Management's own dataset

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Annex 2: full list of agfocused fintech companies

Company	Description	HQ Location	Sub-sector
ACRE Africa	Provide various insurance products for farmers	Kenya	Insurance
Agrilet	Agrilet is a crowd-farming solution that connects smallholder farmers based in Nigeria to investors thereby helping to secure the farming supply chain	Nigeria	Crowdfunding
Agrinotech	Agrinotech is a crowd-farming solution that connects smallholder farmers to investors to help secure the farming supply chain	Nigeria	Crowdfunding
Agripool	Agripool is a crowdfunding platform that enables investors to help grow smallholder farms and agribusinesses	Ghana	Crowdfunding
Agri-Wallet	Agri-wallet provides supply chain finance and lending solutions for smallholder farmers	Kenya	Lending
Agrocenta	Aims to increase smallholder farmer access to finance and to buyers by facilitating trade between smallholder farmers and consumers (inventory management and logistics) and financial inclusion platform targeted at smallholder farmers, allowing institutions to on-lend to networks of smallholder farmers.	Ghana	Lending
AgroPay	Agropay is an integrated transactional, operational and administrative platform for the agricultural sector. Service providers and entities that do business with the farmer are able to do so quickly and efficiently.	Zambia	Payment
Agrorite	Agrorite is a "crowd-farming" platform based in Nigeria, it partners rural farmers with investors via a web platform to help fund farm inputs	Nigeria	Crowdfunding
AgroSupply	A digital platform that enables farmers to pay in advance for agricultural inputs by buying Agro Supply cards.	Uganda	Savings
Akello Banker	Akello Banker is a Uganda financial services and payments company that provides credit scoring, lending and payments services to smallholder farmers in East Africa	Uganda	lending
Apollo Agriculture	Apollo Agriculture uses agronomic machine learning to provide improved credit scoring services to smallholder farmers	Kenya	Lending
BaySeddo	BaySeddo is a Senegalese crowd-farming platform which connects investors in West Africa with agricultural projects	Senegal	Crowdfunding
Birdpreneur	Birdpreneur is a crowdfunding website that connects farm 'investors' to smallholder farmers to support the purchase of farm inputs	Nigeria	Crowdfunding

Company	Description	HQ Location	Sub-sector
BitFarming	BitFarming is a South African crowdfunding platform that connects livestock farmers with investors around the world	South Africa	Crowdfunding
Bnkability	Bnkability uses automation and a scoring system to help African businesses prepare for trade finance and project owners for investment	United Kingdom	Credit scoring
CapAGRI	CAPTUREPesa™ is a Mobile loan app to provide cash advances and farm inputs financing for small holder farmers.	Kenya	Lending
Complete Farmer	Complete Farmer is a crowd-farming platform that connects local investors with rural farmers based in Ghana to provide input capital for each harvest.	Ghana	Crowdfunding
Crop2Cash	Wallet that enables payments both to farmers and by farmers. Banks and other formal lenders are able to sign in to the platform, find groups of vetted farmers that are ready to receive credit for a season, and fund them directly.	Nigeria	Payment
DigiFarm	An integrated mobile platform that offers farmers one-stop access to a suite of products, including financial and credit services, quality farm products and customised farming best practises. Offered by Safaricom	Kenya	Lending
EcoFarmer	Econet's farmer platform that provides insurance as well as market information	Zimbabwe	Insurance
emata	Digitises co-operative processes and management, credit scores farmers and offers loans to farmers who are members of cooperatives.	Uganda	Lending
EZ Farming	EZ Farming is a agricultural investment platform, connecting smallholder farmers to investors in exchange for a share of crop yields	Nigeria	Crowdfunding
FACTS Africa	FACTS can provide working capital if SMEs active in the Agri sector assigns its future sales to FACTS.	Tanzania	Lending
Farm Drive	FarmDrive collects and aggregates alternative datasets from multiple sources, in Kenya and around the world, to build credit scores for smallholder farmers in Africa.	Kenya	Credit scoring
Farmable	Farmable is a crowdfunding platform that links investors in developed countries with real farms in Ghana	Ghana	Crowdfunding
Farmcrowdy	Farmcrowdy is a digital agriculture platform that connects investors and farm sponsors with smallholder farmers in West Africa	Nigeria	Crowdfunding
Farmer1st	Provides mobile banking and payment services for farmers, as well as facilitates market access online and offline services to farmers (marketplace,	Nigeria	Payment
Farmerline	Farmer Service model provides top quality and affordable inputs on credit with free input delivery to farmers. The input credit service comes with a flexible repayment system that allows farmers to pay back any amount at any time during the season.	Ghana	Lending

Company	Description	HQ Location	Sub-sector
Farmers Assistant	Farmers Assistant is a AgriTech company that helps connect farmers to land holders and machinery operators to develop a more efficient food value chain	South Africa	Asset Financing
FarmFunded	FarmFunded is a crowdfunding and investment platform connecting investors to smallholder farmers based in Nigeria	Nigeria	Crowdfunding
FarmHire	FarmHire provides on-demand services to enable farmers to rent farm machinery and hire skilled labour	Nigeria	Asset Financing
Farmignite	Farmignite is a crowd-farming service connecting investors to smallholder farmers in Africa	Nigeria	Crowdfunding
FarmKart	FarmKart is an agricultural investment platform, connecting smallholder farmers with investors	Nigeria	Crowdfunding
FarmPal	FarmPal is a Rwandan crowdfunding platform that connects investors to smallholder farmers based in Rwanda	Rwanda	Crowdfunding
Ghalani	With Ghalani, a farmer or an agribusiness can organize their workers, monitor the flow and use of money on their farm(s), and keep track of the yields and incomes, all from their mobile device.	Ghana	Enabling process & technology
Gric Coin	Gric Coin is a decentralized open-source currency that is focused on improving agricultural practice through block-chain technology	Nigeria	Investment
GroupFarma	GroupFarma is a crowdfunding platform based in Nigeria, they connect investors with rural farmers to help them expand their operations	Nigeria	Crowdfunding
GrowForMe	GrowForMe is a crowdfunding platform that enables investors to support accredited growers to grow, harvest and sell crops in Ghana	Ghana	Crowdfunding
Harvesting	Agri Intelligence Engine utilises remote sensing data alongside a range of traditional and alternative data points to assess a farmer's creditworthiness	Kenya	Credit scoring
Hello Tractor	Hello Tractor provides farmers with on-demand farming equipment through a sharing marketplace	Nigeria	Asset Financing
iFarm360	iFarm360 is a Kenya crowd-farming platform that connects smallholder farmers to investors to help source farm inputs	Kenya	Crowdfunding
julaya	The digital account for African small and medium businesses. Made for small merchants and SMEs, Julaya gathers all your financial services in one interface.	Cote d'Ivoire	Payment
KCB MobiGrow	MobiGrow is a KCB offering for financial solutions including affordable loans, savings, insurance and training opportunities, all delivered via mobile phones targeting small holder farmers.	Kenya	Lending
LendXS	A low-cost SaaS solution for loan origination that includes digital data collection, workflow management, innovative credit scoring and loan portfolio monitoring.	The Netherlands	Enabling process & technology
Livestock Wealth Private Company Limited	Livestock Wealth is a South African Crowdfunding platform, it enables users to invest money into agricultural projects in Southern Africa	South Africa	Crowdfunding

Company	Description	HQ Location	Sub-sector
mFarmpay	Providing loan origination, proprietary credit scoring model, and payment infrastructure to de-risk financing for financial institutions for African farmers	Ghana	Credit scoring
M-Kulima (Vodacom Tanzania)	Vodacom, has developed a mobile enabled solution to mitigate the risk for agri-businesses doing business with SHFs. Connected Farmer utilize readily available, reliable and scalable mobile technology to deliver a comprehensive, yet easy-to-use business management solution for all stakeholders in the agriculture ecosystem.	Tanzania	Payment
m-0mulimisa	Operates an ICT-powered Village Agent Model to provide a bundle of agriculture services including inputs demand aggregation and distribution, mobile extension and micro-loans from MFI partners.	Uganda	Lending
MoneyFarm	Moneyfarm is a crowdfunding platform that connects smallholder farmers to investors to help grow their agri-business	The Gambia	Crowdfunding
myAgro	myAgro's Mobile Layaway helps farmers save little by little to buy seeds, fertilizer and training using their mobile phone	Mali	Savings
Nocofio	Nocofio provides an online crowd-lending platform that connects smallholder farmers to investors	Ghana	Crowdfunding
Novus agro	Novus Agro is a multisided platform that organizes smallholder farmers into accessible groups for all that want to transact with them. Using technology and a trained network of community-based facilitators, they profile and verify smallholder farmers on our platform and facilitate interactions between them and other stakeholders.	Kenya	Lending
ОКО	Index insurance for farmers via mobile phones, based on satellite imaging	Mali	Insurance
ProximateAGRO Solutions	ProximateAGRO Solutions is a USSD platform that helps smallholder farmers to save, build their credit score and access to farm machinery, extension services, and saving schemes	Nigeria	Savings
Pula	Provide class agriculture index insurance products to protect smallholder farmers and sell inputs with their bundled insurance	Kenya	Insurance
Seekewa	Seekewa is a crowdfunding platform allowing people and organizations to make in-kind contributions to agricultural projects in Africa	Cote d'Ivoire	Crowdfunding
Shamba Records	Shamba Records is a distributed ledger that process payments to farmers along the supply chain	Kenya	Payment
Smartfarm	A complete farming solution company that provides a secured way to create wealth through investing in farms with high yields.	Nigeria	Crowdfunding
Thrive Agric	Thive Agric is a crowd-farming service connecting investors to smallholder farmers in Nigeria	Nigeria	Crowdfunding
TradeBuza	Web and mobile platform to monitor and track all out grower schemes and aggregators activities from pre-production to harvest and eventual trade. Claim to integrate LPO financing	Nigeria	Enabling process & technology

Company	Description	HQ Location	Sub-sector
TroTro Tractor	TroTro Tractor provides on-demand farm machinery rentals to smallholder farmers in West Africa, the service is accessed through a USSD app	Ghana	Asset Financing
Tulaa	Tulaa provides smallholder farmers and the agricultural community with lending services and supply-chain management solutions	Kenya	Payment
World Cover	Provide hyperlocal crop insurance for agribusinesses and farmers	United States of America	Insurance
YouFarm	YouFarm is a crowd-farming platform that connects investors to smallholder farmers in Zimbabwe	Zimbabwe	Crowdfunding
Zuricap	Invoice financing platform for ag-processor SMEs	Kenya	Lending

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