

BRIEFING NOTE

ALTERNATIVE LENDING: LANDSCAPING THE FUNDING MODELS FOR LENDING FINTECH COMPANIES







BRIEFING NOTE

Alternative lending: Landscaping the funding models for lending fintech companies

Summary

During the past years, the U.S., the UK and China have seen an explosion of what has come to be called 'alternative lending'—domestic lending by or through digital platforms to distinct niches such as consumers and SMEs which are ignored by conventional lenders. In these environments with rich data sets and relatively developed capital markets, much of the funding has come from institutional investors who are treating these loans as a new asset class. However, in most developing countries, while fintech models have also proliferated, alternative lending has generally struggled to gain scale. The main reasons for this include the difficulties of obtaining local funding and of overcoming regulatory obstacles. This Briefing Note surveys the emerging landscape of alternative lending with a view to informing tech and fintech companies which are already in, or which plan to enter, this space in developing countries. The main message is that fintech companies intending to lend need to ensure that they have a robust funding strategy which will support them to get to the necessary scale. This strategy will include a review of the regulatory requirements for lending and data sharing in the domestic market.

Introduction

During the past decade, alternative lending—the provision of credit through non-bank digital platforms—has developed very fast particularly in the U.S. the UK and China. In the U.S., there was over \$16.6 billion in outstanding alternative credit in 2015.¹ While this was less than 1% of all retail bank credit, volumes had risen very steeply to that point; and as a percentage of total lending, commentators forecast that alternative lending would rise five-fold over the following three years.² In one segment alone, the SME sector, the penetration of alternative lending was forecast to rise faster and further, to around one sixth of all US non-corporate lending by 2020.³ Though the UK market is much smaller in absolute terms than that in the U.S., alternative lending already constitutes up a higher percentage (1.5%) of consumer & SME lending there; and this proportion is also forecast to triple in the next few years. And although the earliest models of alternative lending on digital platforms originated in these two markets, their combined scale is dwarfed by the scale of alternative lending in China: alternative lending in China already exceeds \$67 billion or 3% of all retail lending there, which is twice and five times the relative penetration in the UK and US markets respectively.

These boom-like conditions for alternative lending have not come without challenges: in 2016, allegations arose over misrepresentations to investors by certain larger platforms in the U.S.⁴; while in China, the failures of several large P2P lending platforms in 2015 have shaken confidence and led to investor losses amounting to billions of dollars.

Meanwhile, in most other developing markets, fintech companies have often struggled to scale their credit offerings. In the FIBR Emerging Inclusive Fintech landscape, BFA identified nine fintech offerings in the credit space, but of these, few have reached large scale or yet found sustainable funding paths.⁵ Is it merely

a matter of time for these markets to see the types of growth experienced in China or the US? Or are there barriers which may impede the development of fintech credit models, especially in Africa?

This Briefing Note surveys the landscape for alternative credit in the three leading markets and sets this against evidence from developing countries. Its aim is to inform the choices being made by tech and fintech companies in developing countries either to enter or to persist in the alternative credit space, while also informing incumbent financial institutions about what they may see as either a threat or an opportunity.

Alternative lending in fast growth markets: US, UK & China

U.S.

The alternative lending landscape in the U.S. can be segmented based on the type of borrowers targeted and the risk model. On the latter dimension, there is an important distinction between lenders which raise the funds to hold the loans on their own balance sheets, at least for a while, and companies which serve merely as platforms to connect borrowers with lenders and not take risk themselves. Figure 1 below populates this segmentation with some of the leading names in the current US landscape.

Figure 1: Landscape of alternative lenders in U.S

		Funding model			
		Marketplace lenders	Balance sheet lenders		
	SME	Funding Circle	ondeck		
Target borrowers	Individuals	PROSPER	SoFi CommonBond		
	Both SME & individuals	::::Lending Club	Kabbage		

Source: E&Y 2016: p.7

With the diversity of alternative credit models available in the US, other categories may be added to this diagram. For example:

- ▶ distinguishing balance sheet lenders linked to e-commerce platforms such as Square or PayPal, as well as:
- ▶ multi-lender marketplaces in which borrowers can invite offers from participating lenders.⁶

For the purposes of this Brief, one of the most interesting aspects of the evolution of US alternative lending is in fact on the funding side: institutional funders, including banks, rather than individuals, have become dominant sources of funds, mainly through taking up notes issued by the balance sheet lenders. Banks have reached agreements to fund loans through certain platforms, seeing this as an opportunity to deploy their liquidity at lower operational cost. Since rating agencies are able to rate certain issuances, the securitization of alternative lending portfolios made up 18% of all funding in 2014.

Although the growth of alternative lending in the US has been robust to date, the regulatory environment remains unclear and complex. A number of financial regulators have overlapping jurisdictions, and a variety of conduct-related laws apply to different forms of credit. Notwithstanding this, Mills and MCarthy (2016) from Harvard Business School conclude their recent study focused on alternative lending market for SMEs:

"We have largely come to the end of the first phase of the market, in which observers saw the new entrants as largely dominating and replacing the activity of the existing lenders. The next phases of the evolution of the small business lending market will depend largely on the competitive responses of the banks and other lending incumbents."

UK

The UK alternative lending market has about fifty peer-to-peer or marketplace lenders with the top three doing about eighty percent of the volume. It is also distinct from the US in that retail investors remain the most important sources of funds; however, market leader Zopa reports that around a third of its funding now comes from institutions, mainly UK banks. By contrast to the US, the UK also has a clearer and simpler regulatory structure. The UK Treasury passed legislation in 2013 which requires that all peer-to-peer platforms wishing to allow individuals to be either lenders or borrowers must:

- ▶ be authorized by the FCA
- ▶ have wind down plans in place in case the marketplace firm fails, with funding set aside to enable the platform to continue to oversee servicing of the loans
- ensure their ads are fair, clear and not misleading, and give borrowers a 14-day right to withdraw from loan contracts
- ► have credit checks on individual potential borrowers

The Treasury has even provided funding to alternative lending platforms for SMEs via the government-owned British Business Bank.

In some ways, the UK experience points to the next phase of development beyond that in US at present, in which regulation stabilizes risks and in which large platforms increasingly dominate.

China

China has the largest number of P2P lending platforms in the world—some 4,000 by the end of 2015—and the combined volume of lending has risen some twenty times in the past few years. Chinese P2P platforms such as LuFax and China Rapid Finance are listed among the most valuable fintech 'unicorns' in the world (alongside US alternative lenders Prosper, SoFi and Kabbage). Others like Creditease have spun off their online lending platform into a subsidiary called Yirendai which was listed on Nasdaq in 2015. Creditease has a large and active sales force recruiting individual lenders through their branches across China, much like retail banks do. However, the rapid growth of alternative lending in China has taken place in the absence of regulatory oversight, and there has been a rise in the number of 'problem platforms'. High profile public failures of large P2P platforms such as Ezubao led to widespread public protests and have triggered new regulations from the Chinese Banking and Regulatory Commission which came into

force in 2016. These regulations inter alia require that lender funds be segregated; and that the platforms do not take risk themselves. The new laws also limit the maximum size of loans which an individual can take from all these platforms to around \$150,000, with no more than \$30,000 from any one.

Experience in developing financial markets

The developing country contrast

In these three booming alternative credit markets, data about borrowers is already quite widespread.¹⁰ So is access to the internet to apply, re-pay and access information (at least in the urban areas of China where smartphones are common). This is a marked contrast from other markets, such as Ghana and Tanzania, in which the FIBR project is focused as Figure 2 below shows.

Figure 2: Contrasts in alternative lending markets

Country	Strength of legal rights index (0-12)	Depth of credit information index (0-8)	Credit bureau coverage (% of adults)	Is P2P regulated?	Can non-FIs lend?
China	4	8	21%	Yes	Yes
United Kingdom	7	8	100%	Yes	Yes
United States	11	8	100%	Depends	Yes
Ghana	7	6	16%	No	No
Tanzania	5	8	6.5%	No	No

Sources: Columns 1-3: Doing Business 2016; Others: BFA based on own research and a variety of secondary sources.

Although according to the *Doing Business* survey, the strength of legal rights in Ghana exceeds China and the depth of credit information in Tanzania at least matches it, there are important differences in credit bureau coverage and more importantly, in regulation of lending. In common with most of the developing world, neither Ghana or Tanzania yet has P2P regulations but after all, China only promulgated regulations in 2016 so these alone are not necessary for growth. More significantly, however, both these countries have laws which restrict the business of granting credit to licensed financial institutions, unlike the other three countries.

In 2015, Arjuna Costa and colleagues from Omidyar Network published a report entitled, *Big Data, Small Credit*. This report highlighted the growing potential for lenders to draw on alternative data sources, such as mobile calling records and social media patterns, to predict credit risk in new ways, thereby enabling lenders to underwrite and price loans to those without established credit records. The report also highlighted the willingness of borrowers to trade off degrees of privacy by providing lenders with access to certain information in return for the prospect of a loan. In environments like Ghana, data privacy is already governed by a 2012 law which affects the information which formal lenders can use. The Ghana Data Protection Commission is charged with applying and enforcing this law which is still underway.

In these countries, banks are often still unwilling to take much risk at all on unsecured loans. For example, even for loans made with an automatic payroll deduction for repayment, Ghanaian retail banks lend almost exclusively to the employees of large, pre-vetted employers (such as Unilever or civil servants) and

As fintech companies enter the market to fill the gap by providing more 'small credit' using big data, they soon encounter funding obstacles beyond the regulatory barriers alone: since they are themselves SMEs in terms of size, and perceived as early stage risk, how can they best finance growing volumes of loans if they are not themselves banks or financial institutions licensed to take deposits?

Conversations with bank staff and fintech companies suggest that the 'credit gap', caused by lack of availability of loans of affordable sizes or on suitable terms which is observed among US SMEs is wider in Ghana. While unsecured microloans of \$10,000 or less have become more common, it is very difficult to attract commercial loan facilities for less than \$2 million. This means that fintech companies which need credit to grow their own lending would likely find it hard to do so until they have reached this size. How then can tech and fintech companies fund themselves to play in the alternative credit space in emerging markets?

The FIBR typology of linkages

To address this question, consider the typology of 'linkage models' adopted by the FIBR Project since the answer will vary by model. These models map to the categorizations seen in more developed alternative lending markets in ways which will be outlined below. In environments like Ghana and Tanzania which are not yet data-rich, the FIBR project aims to demonstrate how data captured in the course of day-to-day engagements can first be digitized at or close to the point of use; then how this data can be used to provide access to better formal financial services. In FIBR terms, customers transact with a range of touchpoints such as small shops, schools, clinics or buyers, which, if equipped with suitable smart devices, can capture data about customer transactions. Aggregators of this data can analyze this data to open new pathways to linked financial services. The linked financial services could in principle take any form—savings, credit or insurance, for example—but in this note we focus especially on *credit linkages*. This is because credit appears to be especially in demand, in part because of the gaps in these markets, and in part because the margins on credit sometimes makes the business model around this form of linkage seem more attractive than others.



riefina note

Type 1: Tech company sells data or data analytics capabilities to lender

In this model, tech aggregators collect digital data about clients at touch points like small merchants. They may then develop the capability in house to analyze this data for risk, or else work with analytics companies which specialize in this area of analysis. The data in processed form is sold to a financial service provider which then provides credit, either to the end consumer or to the touchpoint itself. In this model, the tech company is not directly providing a financial service but rather information in a B2B business model.

The Sale of data Linkage model 1



-- Data flow

---- Financial flow

Model 1: Sell data, new and direct

Aggrecator sells data to financial institution, wich is able to assess risk and provide for underlying customer or touchpoint client directly

There are already various examples of analytics companies which support both traditional and digital lenders to use their data more effectively to lend in emerging markets (and many in developed credit markets). For example, **First Access** has built a customizable credit scoring platform that allows lenders to incorporate external data sources with internal and financial data for credit decisioning. With First Access, traditional lenders are able to leverage their own data for new insights while also building trust among loan officers in the use of algorithms that can include a wide variety of data sources. This approach allows traditional lenders to be more competitive in a world where digital lenders are gaining insight into borrower behavior via smartphone usage and social media profiles.

By contrast, **Cignifi**, an analytics company based in Cambridge, Massachusetts, spent some years searching for its breakthrough opportunity to sell credit scores based on mobile phone call data in African markets. It has found that traditional FSPs are wary of relying on credit scoring algorithms of analytics companies which neither enter into risk-sharing arrangements nor contribute capital toward their loan books. Cignifi has subsequently decided to focus on one region (Latin America) linked to a partnership with one large telco from that region.

These diverse experiences highlight some of the issues around this business model. Since these companies don't lend directly, they have the advantages of (generally) not having to comply with local lending laws where these exist; they may, however, be subject to Data Protection Laws, although these laws are still rare in developing countries. Also, they themselves don't require access to funds for on-lending. This may seem like a low risk business model. However:

▶ this model depends on having cost effective access to sufficient credit-relevant data, which some touch points or aggregators are reluctant to part with;

- while data analytics companies don't take risk themselves, they require sufficient equity to sustain them through the often long sales cycle to when they can earn sufficient revenue from selling their data and services; and
- ▶ they may even benefit from having some capacity to take risk to be able to show 'skin in the game' on their products to skeptical lenders.

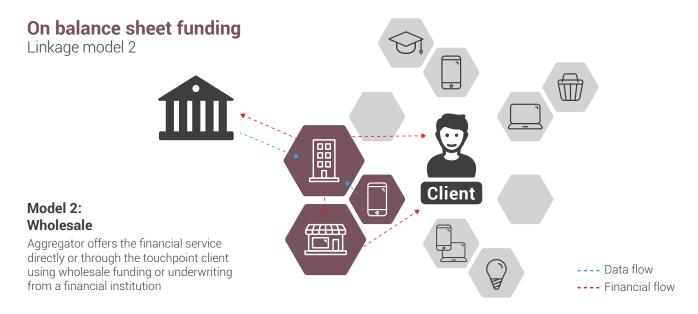
Type 2: Fintech lends on balance sheet

The second linkage model corresponds directly to the 'balance sheet lenders' of alternative lending first shown in Figure 2 above. The lender in this case directly takes credit risk on its own balance sheet, drawing on three different forms of institutional funds available:

- ► Equity from investors
- ▶ Debt from foreign or domestic banks and non-bank FSPs through a variety of possible structures
- ▶ Retail deposit taking as a result of becoming or acquiring a deposit taking institution.

Equity from investors has been the most common way for early stage credit Fintechs to fund their loan books on their own balance sheet. For example:

- ▶ Digital lender **LulaLend**, which uses a proprietary algorithm to lend to small and medium enterprises (SMEs) across sectors in South Africa, in October 2016 raised its latest funding from Accion Venture Lab, Newid Capital and other investors.¹²
- ► Merchant Capital, which provides working capital advances to retail merchants who then repay Merchant Capital with a percentage of their customers' card purchases, has relied on South African equity investors since its founding in 2013.¹³



While funding with equity can get lenders around banking regulations (which often restrict borrowing for the purpose of on lending), equity is usually the most expensive form of funding. As Fintech companies start to grow beyond the early stage, they invariably need to attract a package of debt and equity to be

Box 1: Agricultural lending: What helps credit models to scale?

Commercial banks generally consider unsecured agricultural lending to be high-risk. In addition to many smallholder farmers (SHF) having thin credit files or lacking them altogether, many banks lack core expertise in evaluating credit risk on these borrowers, who are typically located far from their branches.

Yet several relatively low-tech approaches from institutions based in Latin American and Asia suggest a model worth exploring in agricultural lending in Africa. Agrofinanzas, a non-deposit taking MFI in Mexico, provides working capital and capex loans to SHF. It disburses funds via off-takers (or buyers) who already have business relationships with the SHF, ensuring alignment of incentives by using both success fees and risk sharing arrangements. FIRA, a group of trust funds for rural development in Mexico, funds about 80% of Agrofinanza's loan book while also guaranteeing close to 100% of its loans—a critical piece of Agrofinanzas' model.

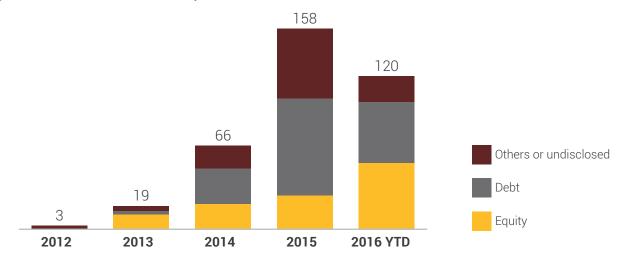
Similarly, other wholesale agricultural lending schemes such as Root Capital, which lends to farmers' cooperatives in markets in Latin America (as opposed lending to SHF directly); and the USAID AESA pilot with Bank Asia Limited in Bangladesh (see AESA's product innovation note) in which farmers access microloans guaranteed by MFIs via NFC debit cards demonstrate that agricultural lending is feasible where lenders lend to value chain participants who have relationships with SHF. FIBR has adopted this approach in its pilot with partner Farmerline.

For example, obtaining wholesale debt financing for unsecured agricultural lending is particularly challenging. Often the lending support of a government agency or aid agency may be required to help absorb the risks (see Box 1). In Ghana, the staff in the retail credit departments of large commercial banks in Ghana confirmed that their banks had virtually 'zero appetite' for lending to this sector: none of them thought their credit committees would approve these types of loans in the near future. MFIs with expertise in agricultural lending appear more willing to lend under the right conditions: portfolios of 10,000 smallholder or more farmers, and a minimum book value of USD 2-3 million would interest them, according to our interviews with select MFIs.

Similarly, the education sector has also been perceived as risky. In India, venture capital funded fintech company Ventana has provided some \$36million in loans to 2000 private schools, and recently had a successful Series B placement which even allowed early stage investor Accion Venture Labs to exit. 14 Despite this apparent track record of success, it has still been difficult for Ventana to attract wholesale loan facilities from commercial banks.

However, the outlook is not entirely bleak for Fintechs in Africa seeking commercial debt funding. Ben Lyon, founder of **KopoKopo**, which provides *cash advances* (among other services) *to merchants* accepting mobile money in Kenya and Tanzania, says that he was able to fund an overdraft facility for KopoKopo's merchants in Tanzania but only on the basis of a personal relationship he developed with the CEO of a large commercial bank in one of his markets. This was KopoKopo's way of skirting the bank's credit committee, which was unlikely to have approved this facility via a standard process.

The fast-growing sector comprised of Offgrid Electricity Companies (OECs) is also showing some promise of mobilizing debt funding. OECs typically sell their devices (most commonly a solar panel linked to a light or other household appliance) on instalments and retain the ability to control the device remotely hence switch it off in the case of non-payment. OECs usually finance their growth through a mixture of equity and debt, usually from international sources, as shown in the **Figure 3** from Bloomberg New Energy Finance. However, CGAP notes that commercial debt for OECs in Africa is usually "inefficient, scarce and costly." ¹⁵



The first known asset securitization by an OEC was completed in December 2015. In this funding structure, a special purpose vehicle subsidiary of BBOXX Ltd. issued asset backed notes secured by some 2,500 customer installment sales contracts for approximately US \$500k in local currencies (Aiden and Muench 2016). This small debt offer was taken up by one international impact investor but proponents like Auden and Muench believe there is scope to attract commercial debt investors in future. More recently, it was reported in February 2017 that a bank in Rwanda, BPR, had provided local currency financing to an OEC worth \$2m.¹⁶

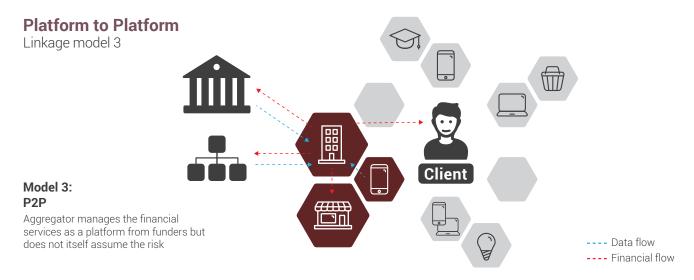
The third and final way for an on-balance sheet lender to finance its growth is to acquire a license as a deposit-taking institution. This is the path taken by South Africa-based consumer lender **MyBucks** in purchasing Opportunity International's banks with their branch network in 6 countries in Africa. This move provides MyBucks with access to relatively cheap retail deposits. It is also the route which two of the major Chinese internet finance players, Ant Financial and Tencent, have followed, in joining the owning consortia which received banking licenses issued in 2015 for digital banks called MyBank and WeBank respectively. However, this route is conditional on the Fintech having the funds and regulatory standing to make an acquisition or provide the minimum capital required.

Lending on balance sheet therefore inevitably requires access at some stage to increasing sources of debt funding to finance growing loan portfolios. If this funding is not available in the local currency of lending, then borrowing in a foreign currency may be possible, but this adds risk to the fintech company. Most importantly, lending directly requires that fintech companies build or acquire the operational ability to manage credit risk which many fintech companies lack, as indeed do some banks. Regulations around who can lend may prevent Fintechs in certain markets like Ghana from lending on balance sheet beyond a localized scale unless they partner directly with an FSP or become one themselves. Understanding how

to build and cultivate relationships with FSPs is an essential skill ensuring that Fintechs will be able to sustain an on-balance-sheet growth path to sustainability.

Type 3: Fintech provides marketplace lending platform

In this model, the fintech company serves as a platform, linking lenders with borrowers, but not necessarily taking any credit risk itself. This model corresponds to that of the traditional 'market place lenders' in Figure 1 above. Despite successes in US, China and UK, market place lending is not yet a viable or even common model in developing markets. There are signs of growth, although this often requires considerable time (and therefore also equity) to cultivate the trust of both regulators and investors.



- ► In Latin America, **Afluenta**, which according to its CEO has created the "first authorized P2P marketplace in the region," took the route of establishing a trust wherein Afluenta is the trustee and its retail investors are the trustors¹⁷. As a first mover, Afluenta had to work with Argentina's Securities Commission to establish the rules of the road for P2P lending in the market.
- ▶ In East Africa, fintech company **Lendable** has launched a marketplace lending platform which has so far attracted impact investors to finance debt portfolios of asset-linked loans made by alternative lenders. Lendable collects detailed information on portfolio performance in ways which enable impact investors to price their debt and to follow their interests in the underlying receivables from financing the sale of assets including solar panels and motor cycles. Lendable's marketplace lending model is a B2B one.
- ▶ By contrast with East Africa, in Ghana, there is only one known P2P lender currently operating at very low scale. The rules of the road for P2P lenders there remain unclear. This has likely discouraged the proliferation of this lending model despite Ghana's high interest rate environment.

A variant on the debt crowdfunding model is to take a 'platform of platforms¹⁸' approach to connecting institutional lenders with creditworthy borrowers. **SME Corner** of India facilitates unsecured lending to SMEs by presenting those which pass an initial screening with pre-approved offers from multiple banks.¹⁹ Its 'turnkey origination services' have helped banks and non-bank financial companies (NBFCs) identify borrowers from the mass market segment who they might otherwise have missed.

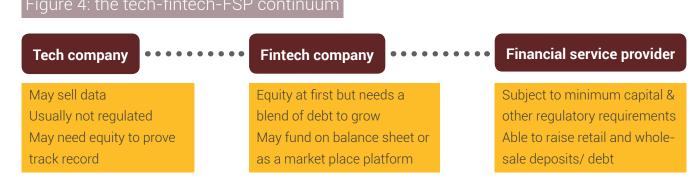
Seeking to leverage its growing expertise in SME lending, SME Corner is in the process of transforming into an NBFC itself.

Conclusions: The tech-fintech-bank continuum

Although more and more digitized data is being generated globally, this brief survey of the experience in high growth markets as well as in less developed markets suggests that the rate of growth of alternative lending will most likely be a function of:

- ► The extent and nature of regulation on lending and/or data flows: the absence of any regulation may create uncertainty for investors, but the presence of restrictive rules may also constrain the ability of new players to enter;
- ▶ Domestic debt funding markets: while domestic banks are not the only source of local currency denominated debt, in many developing markets, they are the main ones; and their appetite to provide funding for alternative credit models will be influenced by the competitive structure of the local banking sector, as well as its profitability, which will affect the appetite for new risks.

For tech or fintech companies seeking to enter the alternative lending space, it is important to understand how both factors can interact to create opportunities or restrict their offerings. A spectrum of institutional forms exists, linked to the different models, from a tech business through a fintech company to a licensed financial service provider (FSP), as shown in Figure 4 below. There are precedents for tech companies moving all the way along the spectrum to become FSPs, such as the progression from Chinese e-commerce platform Alibaba which set up and spun off payment provider Ant Financial, and in 2015, invested in a new private bank, MyBank. But there is nothing inevitable about the progression.



To be successful, movement across the spectrum, from tech to fintech to FSP, requires an intentional building of skills, reputation and capital to satisfy both regulator and investor requirements. For most tech or fintech companies which serve a particular niche, there is unlikely to be a strong business case to complete this full progression to licensed FSP. Instead, however, all entrants need to consider from the early stages:

► Their capacity to raise the debt funding necessary to test and refine lending products through to having sufficient scale to attract commercial interest (likely above \$2m in portfolio, backed by several years of loan performance data); and

- ► Their capacity to raise the debt funding necessary to test and refine lending products through to having sufficient scale to attract commercial interest (likely above \$2 million in portfolio, backed by several years of loan performance data)
- A robust plan to develop relationships with likely future local currency lenders from the early days onwards

For domestic FSPs, the entry of alternative lenders need not be a threat—after all, most started up to fill gaps left by the banks. Instead, the evolution of alternative lending in the U.S., UK and China shows how traditional banks may be able to partner new lenders to mutual benefit.

Endnotes

- Citi GPS. "Digital Disruption: How FinTech is Forcing Banking to a Tipping Point," https://ir.citi.com/D%2F5GCKN6uoSvhbvCmUDS05SYs-RaDvAykPjb5subGr7f1JMe8w2oX1bqpFm6RdjSRSpGzSaXhyXY%3D, (March 2016)
- 2. Idem
- 3. Mills, Karen Gordon & Brayden McCarthy. 2016. The State of Small Business Lending: Innovation and Technology and the Implications for Regulation, Harvard Business School Working Paper 17-042, http://www.hbs.edu/faculty/Publication%20Files/17-042_30393d52-3c61-41cb-a78a-ebbe3e040e55.pdf
- 4. Faus, Zeke. "The Stunning Fall of Lending Club's Founder," https://www.bloomberg.com/news/articles/2016-05-09/lendingclub-founder-goes-from-wall-street-darling-to-unemployed, (May 9, 2016). This article covers the resignation of the CEO of Lending Club, one of the largest P2P pioneers.
- 5. del Ser, David, "How does inclusive fintech landscape compare to mainstream fintech?" https://medium.com/fibr/how-does-the-inclusive-fintech-landscape-compare-to-mainstream-fintech-d08ce4e5c721#.kq2xr31cs, (June 20, 2016).
- 6. See for example Mills and McCarthy 2016 Fig. 35
- 7. Consult Hyperion Podcast with Zopa Founder and CEO, February 2017
- 8. The common word for an unlisted tech company with a latest valuation of more than \$1 billion
- 9. Oscar Williams-Grut, "The 27 fintech unicorns from around the world, ranked by value," http://www.businessinsider.com/fintech-unicorns-ranked-by-value-2016-7/#3-jd-finance-online-financial-services-tied-to-online-shopping-25, (August, 1, 2016)
- 10. China has a comprehensive credit registry run by the People's Bank of China (the central bank) which covers most adults but only recently have private credit reference bureaus been licensed on a pilot basis.
- 11. The Bank of Ghana's website stated the rates on 182-day treasury bills as 17.9% for the week of December 16, 2016.
- 12. PRNewswire, "Lulalend Raises New Round of Funding to Support Credit Access for Small Businesses in South Africa," http://www.prnewswire.com/news-releases/lulalend-raises-new-round-of-funding-to-support-credit-access-for-small-businesses-in-south-africa-300340773.html, (October 6, 2016)
- 13 These include Capricorn Capital Group and RMI Holdings according to Merchant Capital's website.
- 14. Accion, "Accion Venture Lab Completes First Successful Exit in India-Based Lender Varthana, Generating Financial and Social Returns," https://www.accion.org/content/accion-venture-lab-completes-first-successful-exit-india-based-lender-varthana-generating, (November 14, 2016)
- 15. Waldron, Daniel and Faz, Xavier. 2016. "Digitally Financed Energy: How Off-Grid Solar Providers Leverage Digital Payments and Drive Financial Inclusion," Washington, D.C.: CGAP
- 16. New Times Reporter, "BBOXX secures unique financing facility with BPR to support the government's off-grid electrifications goals," http://www.newtimes.co.rw/section/article/2017-02-16/208062/, (February 16, 2017)
- 17. P2Pbanking.com, "Interview with Alejandro Cosentino, CEO of Afluenta," http://www.p2p-banking.com/countries/latinamerica-interview-with-alejandro-cosentino-ceo-of-afluenta/, (March 2015)
- 18. An example of a US-based lender adopting this approach is Community Investment Management (CIM), which is an aggregator of online lenders
- 19. It was not clear from desk research whether SME Corner earns its revenues from borrowers or from banks.

Bibliography

- Acción. 2016. "Bridging the Small Business Credit Gap through Innovative Lending," https://www.accion.org/sites/default/files/Bridging%20 the%20Small%20Business%20Credit%20Gap%20Through%20Innovative%20Lending%20by%20Accion%20Venture%20Lab.pdf?_ga=1.129 988367.2070064675.1482024542
- Aiden, Chris and Dirk Muench. 2016. "Securitization: Unnecessary Complexity or Key to Financing the DESCO Sector?" PEC Capital.
- Braniff, Lauren. 2015. "Digital Finance and Innovations in Financing for Education," Washington, D.C.: CGAP.
- Brodie, Brian. American Banker. "First Access, Cignifi Use Big Data to Bring Economic Security to the Unbanked," https://www.americanbanker. com/news/first-access-cignifi-use-big-data-to-bring-economic-security-to-the-unbanked, (December 23, 2013)
- Burwood-Taylor, Louisa. 2016. "Six Questions with Kenyan Irrigation Tech Provider SunCulture on Startup Funding Challenge," https://agfundernews.com/6-questions-with-kenyan-irrigation-technology-provider-sunculture-5204.html, (January 6, 2016)
- Costa, Arjuna, Anamitra Deb, and Michael Kubzansky. 2015. Big Data, Small Credit, Omidyar Network, https://www.omidyar.com/sites/default/files/file_archive/insights/Big Data, Small Credit Report 2015/BDSC_Digital Final_RV.pdf
- Ernst & Young. 2016. Alternative lending, http://www.ey.com/Publication/vwLUAssets/ey-understanding-alternative-lending/\$File/ey-understanding-alternative-lending.pdf
- GPFI. 2016. "Third GPFI-FSI Conference on Standard-Setting Bodies and Innovative Financial Inclusion: Crowdfunding at the Base of the Pyramid," Basel, Switzerland
- Haque, Majidul and Woodard, Josh. 2016. "Digital Financial Service Product Innovation #1: USAID's Agricultural Extension Support Activity in Bangladesh," https://www.microlinks.org/sites/default/files/resource/files/DFSProductInnovation1_Oct2016.pdf, Washington, D.C.: USAID
- Haque, Majidul and Woodard, Josh. 2016. "Digital Financial Service Product Innovation #2: USAID's Collaboration with Feed the Future Rice Value Chain Project and IFIC Bank in Bangladesh," https://www.microlinks.org/sites/default/files/resource/files/DFSProductInnovation2_Oct2016.pdf, Washington, D.C.: USAID
- Idev, "Digital Tech in Latin America." 2016. http://idevinternational.com/wp-content/uploads/2016/11/LATAM-Digital-Tech-in-Latin-America-%E2%80%93-November-2016.pdf
- Lesher, Nicholas. "Integrating Digital Financial Services into Agricultural Value Chains: A Bangladesh Market Landscape Assessment," Washington, D.C.: USAID
- Martin, Christine. 2016. "Guide to the Use of Digital Financial Services in Agriculture," Washington, D.C.: USAID
- Mattern, Max and Tarazi, Michael. 2015. "Designing digital Financial Services for Smallholder Families," Washington, D.C.: CGAP
- Rao, Leena. November 7, 2016. "Square Capital Has Loaned Over \$1 Billion to Small Businesses," http://fortune.com/2016/11/07/square-capital-1-billion/, Fortune Magazine
- Teima, Ghada. 2016. "Innovation in Electronic Payment Adoption: The Case of Small Retailers," http://www3.weforum.org/docs/Innovative_ Solutions_Accelerate_Adoption_Electronic_Payments_Merchants_report_2016.pdf, Washington, D.C.: World Bank Group
- Van der Made, Graham. 2016. "Exclusive Interview: RainFin CEO on Buying Back company from ABSA," http://ventureburn.com/2016/11/exclusive-interview-rainfin-ceo-buying-back-company-absa/, Ventureburn.com
- Van der Made, Graham. 2016. "ABSA Bets on Partnership with RainFin's Credit Marketplace," http://ventureburn.com/2016/02/absa-bets-partner-ship-rainfins-credit-marketplace-update, Ventureburn.com
- Wack, Kevin. 2016. "Why Square is Overhauling Its Popular Financing Product," http://www.castconsultants.com/wp-content/uploads/2016/04/ Why-Square-Is-Overhauling-Its-Popular-Financing-Product-_-American-Banker.pdf, American Banker

About FIBR

FIBR (Financial Inclusion on Business Runways) is an initiative of BFA in partnership with The MasterCard Foundation.

FIBR seeks to learn how to transform emerging data on mobile phones about low-income individuals into inclusive financial services. FIBR supports technology, business and financial partners in Ghana who, with technical assistance and funding, could design and develop new ways to link savings, credit and insurance products to reach underserved people. With the rapid uptake of smartphones in emerging markets, financial and non-financial service providers can reach customers over apps, resulting in new data about an individual's transactions as an employee, a customer or a supplier in the trusted context of their communities and its businesses. FIBR launched in 2016 and will be active over four years to help partners roll out new or existing services and grow their customer base. FIBR also seeks to cultivate the lessons learned through this work and share them with the wider financial inclusion industry to build the knowledge base about new ways to approach digital financial services. For more information, please visit www.fibrproject.org.

About The MasterCard Foundation

The MasterCard Foundation works with visionary organizations to provide greater access to education, skills training and financial services for people living in poverty, primarily in Sub-Saharan Africa. As one of the largest, independent foundations, its work is guided by its mission to advance learning and promote financial inclusion in order to alleviate poverty. Based in Toronto, Canada, its independence was established by MasterCard when the Foundation was created in 2006. For more information, please visit www.mastercardfdn.org or follow the Foundation on Twitter @ MCFoundation.

About BFA

Innovating solutions for finance, for life.

BFA is a global consulting firm specializing in financial services for low income people. Our approach is to seek out, create and implement financial solutions to help people manage challenges and seize opportunities. We partner with cutting-edge organizations that touch the lives of low income consumers such as financial institutions, fintech companies and information providers. In creating solutions, we integrate our deep expertise in customer insights, business strategy, new technology, and growth-enabling policy and regulation. Founded in 2006, BFA's clients include donors, investors, financial institutions, policymakers, insurers and payment service providers. BFA has offices in Boston, New York, Nairobi and Medellín. For more information, please visit: www.bfaglobal.com or follow BFA on Twitter @BFAglobal.

