Fintech
A game changer for financial inclusion?

Exploring the opportunities and challenges

Triodos Investment Management

Fintech: a game changer for financial inclusion?

Financial technology (fintech) has taken centre stage in the financial inclusion industry. Many believe that low cost, far-reaching digital solutions hold the key to reach out to the 1.7 billion people worldwide who are still excluded from formal financial services. Not only are fintech initiatives mushrooming, the number of investment activities is also increasing, including those by impact investors such as Triodos Investment Management.

In this publication, we explore the opportunities and challenges of fintech for the financial inclusion industry. We share the results of a survey conducted with our investees and discuss what fintech means for us as an investor. We also shed light on our fintech investment approach highlighting some of our fintech investments.

Triodos Investment Management
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Leading investor in financial inclusion

As one of the leading investors since 1994, Triodos funds hold over EUR 800 million in financial inclusion assets, providing finance to 100+ financial institutions in 43 countries. They hold equity stakes in 25 financial institutions and actively contribute to the governance of these institutions.

1. Fintech defined

Fintech refers to new technology and innovations that aim to compete with traditional financial methods to deliver financial services. Fintech players, or fintechs, aim to reach a broader range of customers, in a more efficient, cheaper and customer-friendly way than traditional bricks-and-mortar financial institutions.

Non-traditional and disruptive

New non-traditional entrants in the financial industry can easily exploit the latest developments in electronic communication and data management systems to reach millions of new customers. Take for example TransferWise, a remittance platform which is used to transfer money globally. Through this platform, people can send money to India, for example, in 12 seconds. It will take four days to do this using a bank and the cost will be much higher[1]. Over four million people transfer more than USD 4 billion every month using TransferWise. This is just one example of many.

Multibillion-dollar business

Fintech has become a multibillion-dollar business. According to Fintech Global[2], fintech investments increased steadily between 2014 and 2017 from USD 19.9 billion to USD 39.4 billion, with a rising average deal size. This trend accelerated in 2018 with USD 41.7 billion invested in the first half of the year alone.

Multitude of players

The fintech ecosystem contains a host of players at different stages of maturity. A McKinsey report[3] mentions four distinct models, each operating in different niches, with different modus operandi:

- FINTECHS AS NEW ENTRANTS, startups, and attackers looking to enter financial services using new approaches and technologies
- FINTECHS AS INCUMBENT FINANCIAL INSTITUTIONS that are investing significantly in technology to improve performance, respond to competitive threats, and capture investment and partnership opportunities.
- FINTECHS AS ECOSYSTEMS ORCHESTRATED BY LARGE TECHNOLOGY COMPANIES which offer financial services both to enhance existing platforms (e.g. AliPay supporting Alibaba's e-commerce offering) and to monetise current user data or relationships.
- FINTECH AS INFRASTRUCTURE PROVIDERS selling services to financial institutions to help them digitise their technology stacks and improve risk management and customer experience.

[1] According to Remittance Prices Worldwide (RPW) which monitors remittance prices across all geographic region of the world, banks remain the most expensive type of service provider, with an average cost of 10.53%. https://remittanceprices.worldbank.org//sites/default/files/rpw_report_december_2018.pdf

[2] http://Fintech.global/2018-is-already-a-record-year-for-global-Fintech-investment/

[3] 'Synergy and disruption: Ten trends shaping fintech, published in December 2018

2. The promise and the pitfalls of fintech

Improving access and affordability

Tech-enabled financial solutions, such as mobile phone technology, data analytics, new digital products and approaches, and the deployment of agent networks, have the potential to radically enhance and foster financial inclusion. They do this at a much faster pace and larger scale than traditional financial inclusion players.

These tech-enabled solutions are instrumental in reducing operating costs, increasing efficiency, and reaching people in remote and rural areas. Fintechs have expanded their scope far beyond traditional microcredit products. They are tapping into technology to design, customise and distribute a broader range of financial products tailored to the needs of those on a low income, such as microinsurance, microsavings or remittance products. They can help financially excluded people to build a credit score so they can access the financial system. And they can support those unable to meet financial obligations by consolidating debts, offering cheaper rates and providing customised advice to help over-indebted customers gain financial stability.

Fintech holds the key to exponentially increase financial inclusion.

Competitive pressure for traditional players

The traditional financial inclusion market relies on the bricks-and-mortar concept and close human interaction, and they are getting increasingly concerned about fintech competitors. The Finance for All 2018 Banana Skins report[4] confirms that 'financial services providers see the arrival of new technology posing the greatest risk to their business because of its complexity, high cost of investment and profound change it is bringing to financial services'.

Confronting risks

While fintech holds tremendous potential, it also poses very real risks, especially for low-income customers. Risks include lack of cyber-security and data privacy, overpricing, over-lending, and fraud.

In the past few years, we have seen the emergence of fintech models in the consumer lending space, offering loans as small as USD 10 or less. This occurs in countries with less stringent financial regulation, where fintechs conduct little or no underwriting, charge high prices and do not take into account the use of the loan and capacity of repayment. They can easily write off these small loans thanks to the high prices they charge. Borrowers who miss a one-dollar repayment on time can quickly end up being blacklisted by credit bureaus. It can be costly and time-consuming for borrowers to turn around this bad credit.

So, financial inclusion in the short-term can end up being financially excluding.

[4] https://www.centerforfinancialinclusion.org/finance-for-all-wedded-to-Fintech-for-better-or-worse

3. What is our perspective as investor?

We have sketched out the positive and negative sides of fintech, so how does Triodos Investment Management look at it from an impact investor perspective?

Financial Inclusion 3.0

We see investing in fintech as Financial Inclusion 3.0. Financial Inclusion 1.0 refers to the late 1970s when microcredit developed into a proof of concept that poor and low-income households are bankable. Microfinance institutions became scalable and commercially viable through information technology and back office automation in the 1990s, defined as Financial Inclusion 2.0.

Financial Inclusion 3.0 means that we keep our focus on the low-income segment, the un(der) banked and micro, small-and medium-sized enterprises (MSMEs), with fintech playing an instrumental part in increasing outreach exponentially.

Dual track investment approach

Fintech is here to stay and as an investor we have developed a dual track approach to contribute in a sustainable, responsible way. The aim is not to invest in fintech for the sake of fintech, but to deepen the impact of financial inclusion.

- TRACK 1 Addressing the impact of fintech on our current client base
- TRACK 2 Making direct investments in fintech companies that are driven by a social mission to enhance financial inclusion

TRACK 1: How Fintech savvy is our current client base? The survey results

In Q4 2018, we conducted a survey[5] among our client base of traditional financial services providers to find out how they view the opportunities and challenges of fintech. We wanted to find out how they are adapting to these changing dynamics, and how we can support them in a concrete way to develop their fintech strategy.

Main conclusions

The survey contained 22 questions about market, regulation, strategy and responsible financing.

- Respondents gave **a mixed verdict on competition for business from fintech companies.** One-third view it as collaboration, one-third view as competition and the rest expect competition in the next few years.
- It is a **fast-evolving landscape**. 80% of respondents said yes to new government and/or sector initiatives in promoting digitisation/fintech and financial inclusion (other than regulation) while 90% of respondents expect new fintech regulations across emerging markets.
- **Payments & remittances** are ahead of other fintech subsectors with respect to 'enabling regulations across emerging markets' indicating this is the first sector likely to be disrupted.
- 75% of the respondents have fintech and/or digitisation as a **recurring topic at board meetings.**

[5] This survey consisted of a questionnaire via SurveyMonkey in English and Spanish, which was completed by 51 of Triodos IM's investees in Latin America, Asia, and Africa. In addition, four in-depth interviews were conducted by phone.

- **Key drivers** for fintech/digitisation are better customer service (such as better turnaround time, customised products), reduction in operating costs and market opportunity.
- **Key challenges** for respondents on digitisation are unclear regulations, lack of digital infrastructure (financial ecosystem, data availability) and lack of in-house knowledge.
- Fintech/digital solutions expected to be introduced by respondents include **digital credit scoring, new channels** (mobile apps, online platforms) and **data analytics.**
- 75% of the respondents have established **in-house task force and resources** for digitisation/fintech.

The outcome of this survey has been instrumental in further defining issues and questions to address on the topic of fintech in our due diligence process. This will help us to examine potential risks from digitization for existing and prospective clients.

TRACK 2: Direct investments in fintech companies. Our approach

In addition to assessing, monitoring and supporting the fintech approach of our existing client base, Triodos IM has also started to make direct investments in fintech.

Our initial approach: funds' investments

One challenge for us to consider when directly investing in fintech companies has been the early stage, loss-making nature of these start-ups. They often have a high-risk profile which limits the ability of our funds to consider them. One way to circumvent this challenge has been to invest in specialised, venture capital funds who share our mission to foster financial inclusion[6]. These investments bring diversification for our funds which mitigate the early stage risk. They also provide us with multiple knowledge opportunities which have helped us to further define and structure a phased and dynamic approach for our other direct fintech investments.

Direct investments: focus on alternative lending channels

The fintech ecosystem is broad and diverse, as shown in the following overview of fintech subsectors.

In view of our expertise and in-depth knowledge of lending models, our initial focus is on fintech companies active in alternative lending channels that leverage technology and alternative data, for example utility and bill payments, tax returns, and mobile data, to design lending models targeting un(der)banked markets. Examples include digital loan origination (on/off balance), factoring, automated credit underwriting systems, merchant cash advance, peer-to-peer (P2P) and crowdfunding. Parallel to this, we are exploring other subsectors, especially agricultural technology (AgTech), insurance technology (InsurTech) and payments & remittances, that meet our impact and financial criteria.

Balancing impact and risks

When evaluating the business models of fintech investment opportunities, we focus first and foremost on their customer approach: What is the impact of the digital service for the end user? Does it improve accessibility and affordability of financial services? And does the fintech company balance digital technology with appropriate human interactions to engage, educate, and support the customers? In other words, we look at the right combination of 'tech & touch'. Other aspects we use to evaluate opportunities and to mitigate risks include:

[6] In 2016, we invested in the Accion Frontier Inclusion Fund and in 2018 in the follow-on fund Accion Quona Inclusion Fund, both managed by Quona Capital, the leading global impact investment manager in fintech, with the US NGO Accion as General Partner.

- Proven business model/technology (beyond pilot phase)
- Preference for companies that collaborate with solid partners, for example an established bank
- Analysis of financials and asset quality
- Credit assessment, including assessment of algorithm composition and usage and availability of alternative data (utility bills, payments, VAT returns, and so on)
- Evaluation of data and privacy protection
- Assessment of the country's digital infrastructure and regulation.

Overview of fintech subsectors

	Business-to-Consumer	Business-to-Business
Alternative Lending	› Online lending (digital origination, algo-based credit assessment › Short-term (nano) lending › Theme-based lending (education, health, etc.) › Asset-backed finance (e.g. SHS PAYG) › P2P marketplaces and crowdfunding (off-balance, hybrid)	› Long-term SME lending (on and off-balance) › Short-term working capital finance (Merchant Cash Advances, Last-mile distributors) › Factoring and invoice discounting › Peer-to-Peer and crowdfunding
Payments	› Mobile payments services › Remittances › Mobile wallets	› Point-of-Sales solution providers › Payment infrastructure providers › Agent networks
Financial Management	› Financial coaching planning, advisory › Savings platforms › Investment advisors	› Financial management › Financial data analysis and advisory › Financial accountancy
Insurance	› Digital insurance providers › Brokers / platforms	› Microinsurance › Farmer insurance › Digital providers › Health insurance › Hybrid models
Other models	› Challenger banks (licensed) › Digital banks (unlicensed) › Other mobile solutions	› (FI) Technology Support › Credit scoring & algorithm providers › Data analytics › Cloud-based Core Banking Systems › Regtech (e.g. KYC support)

Direct investments in fintech

Our direct fintech exposure as at 31 March 2019 consists of the following investments:

Company/Fund	Description	Country/region
Accion Frontier Inclusion Fund	Venture Capital fund investing in startups and early stage Fintech companies	Global
Accion Quona Inclusion Fund	Venture Capital fund investing in startups and early stage Fintech companies	Global
NeoGrowth	Card receivables financing for SMEs	India
Capital Float	Lending platform for SMEs	India
M-KOPA Solar	Mobile instalment method of paying for solar energy	East Africa
Twiga Foods	Mobile-based business-to-business food supply platform	Kenya
Tienda Pago	Provides small shops with short-term working capital via a mobile platform	Peru and Mexico

4. What's next?

The fintech ecosystem is extremely broad and is constantly evolving, with new innovative models being developed. The enormous potential of these developments to deepen the impact of financial inclusion, strengthens our ambition to develop our fintech strategy. In that sense, fintech is a game changer for financial inclusion.

Traditional players are faced with the challenge to integrate new technology. But as our survey shows, many of them already have a fintech strategy in place, whereby partnerships between fintech companies and traditional financial service providers are of key importance to leverage the banks' scale and the innovative capabilities of fintech. We strongly believe in these partnerships as they combine the best of both worlds to promote financial inclusion.

Financial institutions

- Brand/Name recognition
- Large customer base
- Wide range of product offerings
- Comprehensive customer data
- Robust infrastructure
- Advanced underwriting capabilities
- Risk management experience
- Access to capital
- Licensed to provide regulated financial services

Shared

- Scaled and innovative solutions
- Deeper and analytics-driven customer engagement
- Enhanced risk mitigation
- Improved product efficiency
- More accessible products

Fintechs

- Culture of innovation
- Nimble
- Agility and speed to market
- Disruptive mindset
- Lean set-up and an absence of legacy systems
- Technological expertise
- Customer data analytics
- Specialised solutions
- Modern IT systems
- Customer centricity

Source: IIF and Accion

Furthermore, we see an important role for governments to play, as their fintech regulation policies can either promote or stifle the progress of financial inclusion.

Fintech has the power to impact lives in a meaningful way. Triodos Investment Management will continue to work to strengthen and support this expanding area of the financial inclusion market, where it meets our impact investment goals: to invest only in companies that contribute to a sustainable society through their products, services, and business practices.

In our portfolio

Microfinance institution KMF in Kazakhstan

Tech and touch: the digital transformation of KMF

With around 245,000 clients, KMF is the largest microfinance institution in Kazakhstan and has become one of the leaders in the microfinance sector in Central Asia. Karlygash Raikhanova, Deputy Chairman of KMF, talks about how KMF has embarked on the journey to digital transformation.

Karlygash Raikhanova

What was KMF's first step to this digital transformation?

The use of tablets. Tablets are now used by all employees who work in the field and by those who take credit decisions at the branches and head office. We can review loan applications and disburse funds more quickly using these tablets. And we have recently launched a pilot version of an app for existing clients, which means that they can apply for a loan using a smartphone. At the moment, clients can apply for a loan through our website, but these days people mostly access internet through smartphones.

How does the app work?

By downloading the app, clients can access their account for an overview of what loans they have and amount of money owing. Existing clients can apply for a loan using the app and the loan application will be sent to of one of our credit experts' tablets or to the call centre. KMF can also communicate directly through the app push notifications instead of mobile messages, which is less expensive and more attractive design-wise. This way we can inform a client about special offers, financial courses, etc. This also frees up time for our credit officers and call centre.

Does that mean that KMF intends to fully digitalise its loan application process?

Yes, that's our aim. But not for all of our clients. Many of our clients prefer face-to-face communication, and in many cases we need to visit a client in order to evaluate his or her business activity. So, we are also looking at a combination of tech & touch, where clients have access to our credit experts in the office but at the same time have most of our processes automated, to ensure a quick and efficient process.

Are digital solutions widespread in Kazakhstan?

The penetration of technological innovation is broad in Kazakhstan, although there is a difference between urban and rural populations. In cities, the usage of mobile application and internet banking is much higher than in the villages. Fintechs are active but are not regulated either by the Central Bank or any other laws and regulations. The Central Bank did initiate a maximum effective interest rate cap of 100% on loans offered by fintechs. Prior to this, the interest rates could be extremely high, even reaching 500 to 700%!

What are the key areas for the future?

Considering the existing low level of financial and tech literacy in Kazakhstan, easy access is not always a good thing. Therefore, first there should be promotion of financial literacy, and each client should understand how much they pay for this easy access. All lenders, including digital lenders, should educate their clients. They must provide transparent information to the clients about their loan conditions. And for KMF, innovation is a continuous process. We have a dedicated innovation team that will continue to develop new products and processes that cater to the needs of our clients.

In our portfolio
Tienda Pago

Mobile wallets for small stores in Peru

Small neighbourhood stores are vital to many communities across the globe, particularly in Peru. They are not only an important source of employment, but they play a key role in supplying food and essential household products to customers on a low income. 80% of Peru's total food and basic product retail market is channelled through a network of 400,000 neighbourhood stores. One of the challenges these small stores face is lack of access to short-term credit to pay suppliers up front in cash to buy inventory.

Fintech company Tienda Pago addresses this challenge. They provide quick short-term working capital for small stores to purchase inventory from distributors using a mobile-based platform. They collaborate with fast-moving consumer goods distributors, such as Nestle and Coca-Cola. Tienda Pago also provides a solution to another problem. The large distributors sell in cash and the truck drivers delivering the goods have to deal with the cost and risk of collecting this cash.

Tienda Pago lends small stores a credit line which allows them to buy inventory from agreed distributors. They provide a line of credit in a mobile wallet accessible using a mobile phone. Stores use this to pay the truck drivers instead of cash. The typical term of a loan is 1-2 weeks. The stores pay off the loan quickly and more credit is available. By creating a closed loop (stores can only buy inventory from distributors and cannot use the credit for anything else), the risks are minimised.

The benefits are wide-reaching for the SME retail sector in Peru as well as the large distributors that supply the goods. Distributors see an increase growth because small stores are no longer limited by the cash they have to spend, and they save on inefficient and expensive cash processing. For the small stores who had no access to credit, they can develop a formal credit history and improve their income and their lives.

The short-term loan can be used by shop owners on demand, matching their inventory turnover requirements for up to 14 days. For instance, a shop owner can take out a 4-day loan if there is a weekend event they need to stock up for. The average loan provided by Tienda Pago is less than USD 400, which is not normally seen as profitable enough for lenders. Furthermore, 75% of their clients had no formal access to finance before and 74% are women.

Capital Float: revolutionising the loan market in India

Credit cycles in India are long, and the process of getting short-term financing from banks is slow and arduous for entrepreneurs. The rigid guidelines of banks very often work against entrepreneurs who need relatively small loans. Through a sophisticated back-end technology, digital finance company Capital Float provides entrepreneurs simple and quick access to credit.

How does it work?

Borrowers can apply online in minutes, select desired repayment terms and receive funds in their bank accounts in three days. For the underwriting of loans, Capital Float uses a mix of traditional and alternative data: third-party partners, for example from ecommerce firms and point-of-sale transactions, psychometric evaluation, banking transaction history, tax returns and credit bureaus.

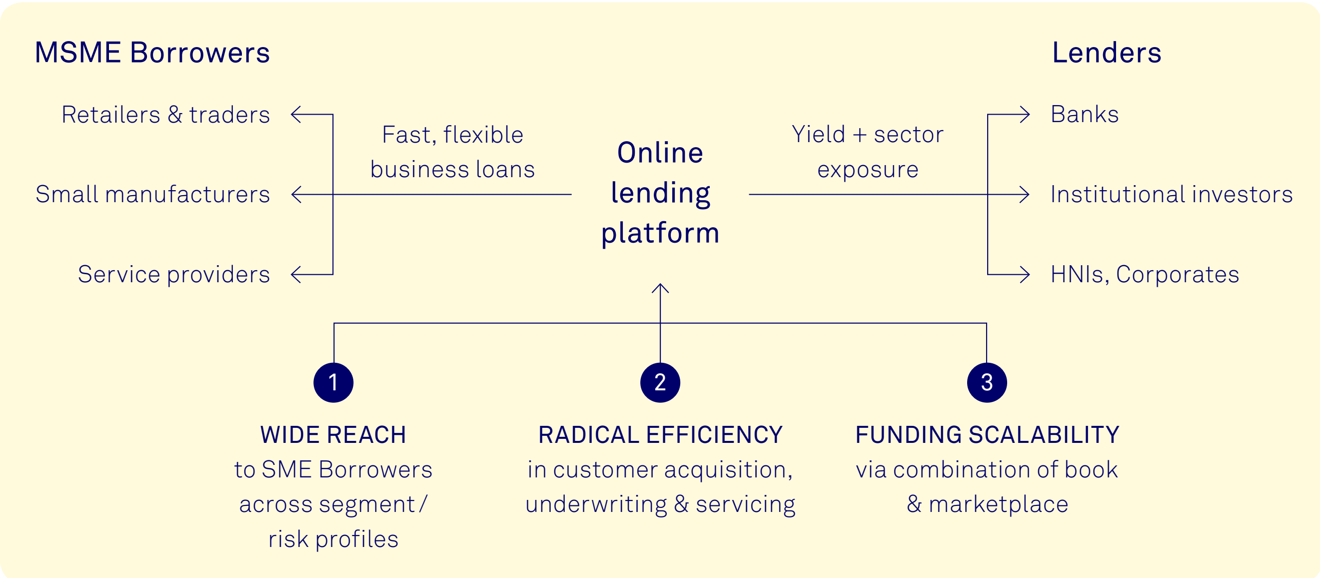
Hybrid lending model

Capital Float follows a hybrid lending model that more digital companies across emerging markets use. It provides finance itself as well as through other financial partners, from banks and high net-worth individuals (HNWIs) to institutional investors, such as mutual funds. For example, mutual funds in India are often interested in short-term products (<1 year) to park their surplus funds. HNWIs usually have higher risk appetite and banks have lower risk appetite and often lend on the platform to try new customer segments.

Platform players, such as Capital Float, divide the potential clients into different risk categories and fund them based on investor appetite for risk-reward.

Since the start in 2015, Capital Float has grown into one of the largest online lending platforms, providing working capital finance to micro, small and medium-sized enterprises (MSMEs) across India. With its innovative and scalable business model, Capital Float has revolutionised the lending landscape in India.

Hybrid lending model



In our portfolio M-KOPA Solar in East Africa

1.3 billion people around the world do not have access to energy and another one billion only have limited access. M-KOPA Solar addresses this challenge. The company was founded in 2011 by former executives behind M-PESA, the world's leading mobile payment platform. It uses an innovative approach to give low-income households in East Africa access to power: it combines mobile payments with GSM sensor technology to enable households to buy a solar home system at an affordable price.

Healthy and clean alternative

In Kenya, more than eight million households spend a combined USD 1 billion on kerosene lighting. This costs a household on average USD 200 per year. A solar system from M-KOPA costs a one-off payment of USD 200. Kenyans can make a deposit of USD 35 to get this product. Then they pay USD 0.45 every day using their mobile phones.

This daily amount is lower than the amount they paid daily for kerosene. The GSM technology ensures that the solar energy system is activated when the credit has been paid. It will take customers about a year to pay the instalments, and then they own the solar energy system.

M-KOPA currently provides more than 630,000 households in East Africa with a solar energy system.

ANNEX:
Guidelines for Investing in Responsible Digital Finance

Triodos Investment Management is signatory to the Guidelines for Investing in Responsible Digital Finance (launched in June 2018) and actively promotes the guidelines with its investees.

The Guidelines answer an increasingly urgent question: how to ensure that the transformative opportunities offered by the fintech revolution reach more of the world's poorest people, and do so in a way that is transparent, fair and responsible.

The Guidelines comprise the following 10 touchpoints that financial investors and their fintech investees can use to evaluate opportunities, mitigate risks and contribute to a more responsible and inclusive digital finance ecosystem:

- Promote responsible investment in digital finance
- Establish customer identity, data privacy and security standards
- Promote fair and transparent pricing
- Enhance customer services for problem resolution and product innovation
- Prevent over-indebtedness and strengthen digital literacy and financial awareness
- Improve the disclosure of terms and conditions for customers
- Manage risks comprehensively with growth of digital inclusion
- Foster a proportionate legal and regulatory framework
- Facilitate interoperability and infrastructures for digital financial services ecosystems
- Track progress to mitigate risks and expand opportunities in digital financial services

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About Triodos Investment Management

With over 25 years of experience as a globally active impact investor, and as a wholly-owned subsidiary of Triodos Bank, Triodos Investment Management has developed deep sector-specific insights across Energy & Climate, Financial Inclusion, Sustainable Food & Agriculture and impact investing in listed equities and bonds. Assets under management as per 31 December 2019 amounted to EUR 4.2 billion.

Investing in Financial Inclusion

For more information about the Financial Inclusion funds, and other impact investment opportunities, please contact our Investor Relations team at:

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