



BANKING-AS-A-SERVICE

How it can catalyze financial inclusion

June 2022

Gcinisizwe Mdluli, Ivo Jeník, and Peter Zetterli

ACKNOWLEDGEMENTS

The authors would like to thank the companies and their various staff members who gave generously of their time to help us better understand their business models and the wider BaaS space.

CONSULTATIVE GROUP TO ASSIST THE POOR

1818 H Street NW, MSN F3K-306

Washington DC 20433

Internet: www.cgap.org

Email: cgap@worldbank.org

Telephone: +1 202 473 9594

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Cover image: Abhijit Banerjee, 2016 CGAP Photo Contest

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EXECUTIVE SUMMARY

RETAIL BANKING IS CHANGING AT THE CORE

The world around us is changing rapidly. New technologies and business models are upending long-established markets across virtually every major sector. Financial services are no exception, as traditional retail banks are joined by a growing number of digitally native partners and challengers.

What will be the implications for incumbents, for regulators, for investors? And what will it mean for financial inclusion and the many stakeholders working to make universal access a reality?

In mid-2018, CGAP launched an effort to understand this change and how it may alter the very nature and structure of banking.

The initiative focused on three broad innovation spaces defined by different sets of actors.

- **Digital banks** from the plain startup challengers to radically new business models like Banking-as-a-Service.
- **Fintech startups** and the funding and innovation eco-systems that enable them.
- **Platforms** like the big tech giants in the US and China as well as local goods or services platforms in emerging markets.

As part of this work, we identified three new business models for retail banking. This publication presents a series of case studies on one of them: **Banking as a Service**.

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WE SEE THREE NEW DIGITAL BUSINESS MODELS FOR RETAIL BANKING

These are all genuinely new, digitally native business models that can help advance financial inclusion



Fully digital retail bank

Digital-only banks with a fairly traditional business model for retail banking, but a very different operational model.

From the core banking system onward, these challengers use cutting edge digital technologies extensively in order to offer a better banking experience for lower cost.



Marketplace bank

Digital-only banks that respond to intensifying competition at the product level by enabling their customers to access a range of 3rd party products.

Recognizing that the best way to retain customers is to help them access the best solutions, regardless of who offers it, marketplace banks embody the idea of an increasingly modular demand for financial services.



Banking-as-a-Service

Tech companies with a banking license that offer a combination of both amenities as a B2B service. Clients are often non-banks who want to offer banking products without requiring their own banking license.

As such, BaaS providers embody the idea of basic banking products becoming fully commoditized and an increasingly modular market structure in financial services.

For more on each model, please see our work on digital banking at cgap.org/fintech



THE BaaS MODEL IS CHANGING THE BANKING SECTOR BY ENABLING EMBEDDED FINANCIAL SERVICES IN ALMOST ANY DIGITAL CONTEXT

The model

Banking-as-a-Service (BaaS) is an entirely new business model that enables non-banks to offer banking services under their own brand and seamlessly embedded into their digital offering.

BaaS is based on the premise that there are powerful gains from specialization around roles in the banking value chain, particularly between the regulated back-end components vs. the front-end customer relationship and distribution elements.

By enabling the embedding of financial services into almost any digital context, BaaS may augur a profound evolution of the financial sector of which we are only seeing the early stages.

The implications

BaaS drives commoditization of banking products in a way that is likely to have a positive impact on their cost and availability. Sophisticated tech stacks enable innovative use cases and better user experiences. This should benefit customers.

For banks, BaaS models raise an interesting conundrum: the prospect of business expansion at very low cost, but also of longer-term pressure on margins if banks evolve toward utilities.

For financial authorities, BaaS raises a whole host of new questions, including issues around third-party risk, market conduct, concentration risk, competition, consumer protection, and how the regulatory perimeter needs to evolve.

BaaS PRESENTS GROWTH OPPORTUNITIES FOR BANKS AS WELL AS FOR THEIR NON-BANK PARTNERS

Business case for BaaS providers

The commercial motivations for a bank to consider a BaaS play are fairly straightforward.

In the short term, a BaaS model can let banks escape the shackles of high operational costs and grow their reach considerably by leveraging vast customer bases and cheap distribution channels that their clients bring to the table.

In the longer term, embedded financial services appear poised to grow into a sizeable share of the banking sector. Given the importance of returns to scale in that business, early movers may enjoy winner-takes-most dynamics. This is a space that banks may not be able to ignore.

Business case for BaaS clients

The motivations for a non-bank to explore BaaS partnerships are equally straightforward.

The vast majority of commercial transactions can be facilitated by some sort of financial solutions. The most obvious are payments and consumer lending, but working capital, asset financing, and a variety of insurance products can also be potent lubricators of economic activity.

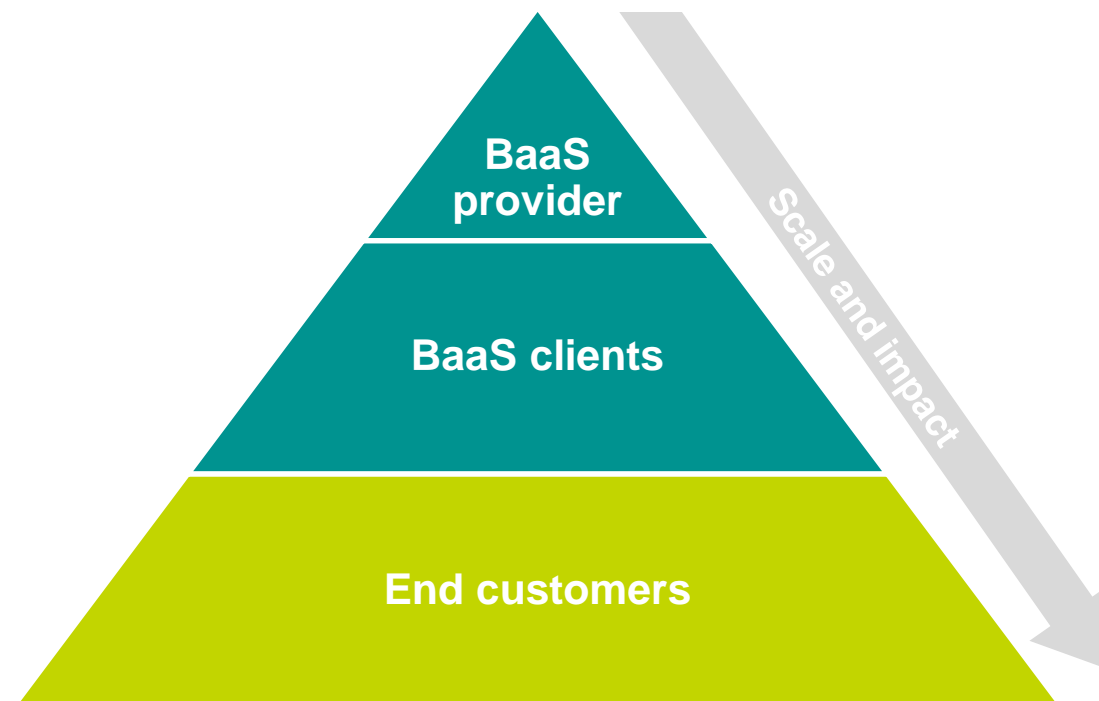
Aside from credit cards, this financial dimension has until now typically been separate from the transaction itself. What BaaS offers is a seamless integration of the financial components directly into any context where they are relevant. This will lubricate the core business, while also enabling new sources of financial revenue.

BaaS CAN ALSO DEEPEN FINANCIAL INCLUSION

Relevance for financial inclusion

CGAP believes that BaaS models offer important openings for deepening financial inclusion. By providing a flexible and low-cost way to combine the scalability of digital ecosystems with the financial depth of a full banking offering, BaaS models bring clear potential to go beyond the “broad, but shallow” state of inclusion today.

However, its relevance for inclusion will ultimately depend on the BaaS clients: who they want to serve and with which financial services. If the companies using BaaS only serve middle-class customers, then it may have little impact. Hence we hope this work can help serve as a call to action to use this potential deliberately.



ABOUT THIS READING DECK

The contents of this document were created by CGAP on the basis of in-depth conversations with BaaS providers, desk research, and our own analysis.

The main focus was on the four providers Solarisbank (Europe), Cross River (USA), Accendo Banco (Mexico) and Green Dot (USA). Despite all being based in North America and Europe, these businesses can offer a compelling indication of how the BaaS model may unfold in emerging markets and developing economies.

The scope of this work did not include interviews with BaaS clients or end customers, which may provide an important complementary perspective. We hope that future research by CGAP or others will contribute this perspective.

Any errors of omission or commission in describing the BaaS model in general or the individual case study businesses in particular are solely those of the authors.



PART 1: THE ANALYSIS

BUSINESS MODEL

How is Banking-as-a-Service different from traditional retail banking models?

FIRST A WORD ON SOFTWARE-AS-A-SERVICE (SaaS)

BaaS is a banking equivalent of this business model from the software world

Software-as-a-Service (SaaS) is a digital business model whereby software solutions are sold as an ongoing subscription, rather than as discrete copies of a program fully paid up-front. For the user, this reduces the initial cost and risk of deploying a new solution.

SaaS software is typically **hosted centrally** on remote cloud servers managed by the SaaS provider, rather than installed on individual computers owned and operated by the client. This makes it faster to deploy while also relieving clients of the operational cost and burden of maintaining and upgrading any hardware required to run the software.

SaaS models often use volume-based pricing, whereby clients largely pay for what they use. Combined with the unique scaling capabilities of cloud-based software, this makes SaaS models **highly flexible and cost efficient**. It significantly reduces the risk and expense for new market entrants, who can launch with a minimal investment but scale rapidly if the business takes off.

The model usually involves **continual updates** to the software, rather than static versions requiring costly upgrades to access new versions and functionality.

SO, WHAT IS BANKING-AS-A-SERVICE (BaaS)?

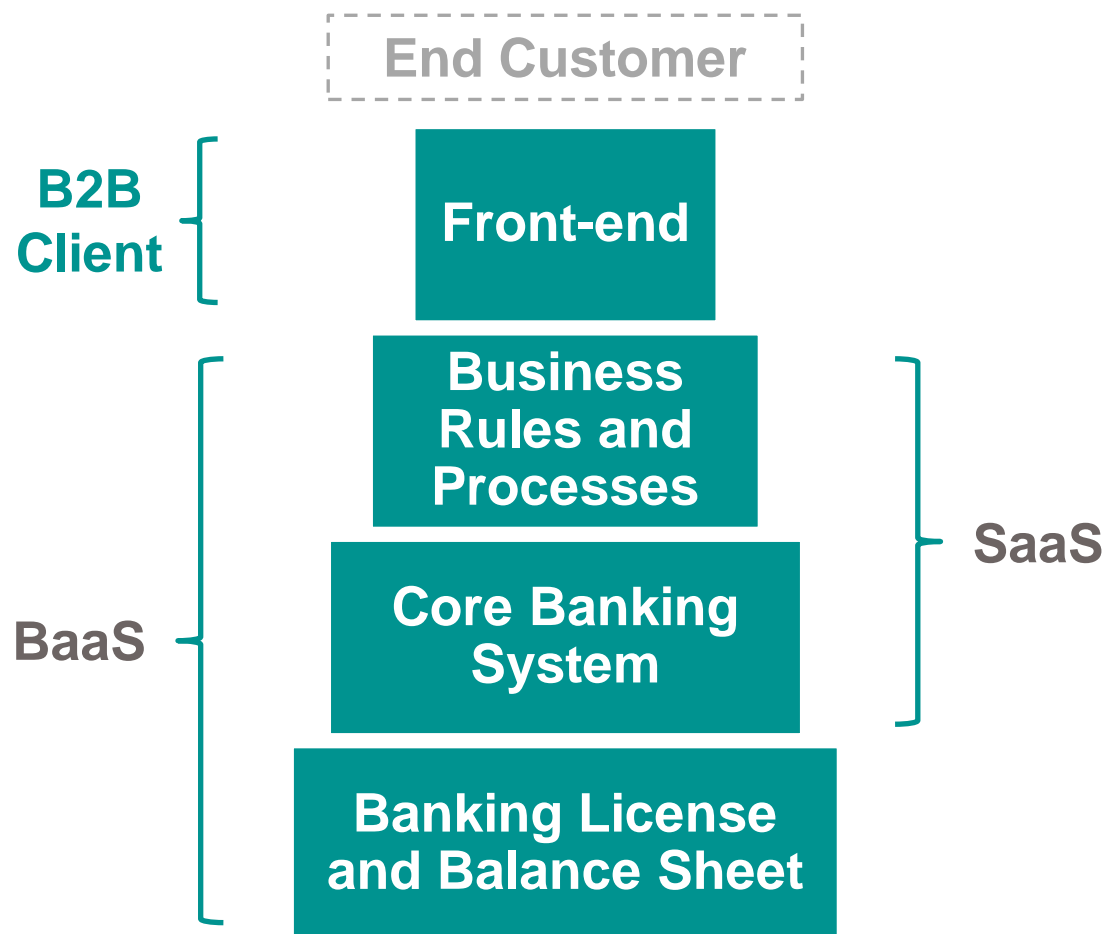
Banking-as-a-Service (BaaS) is an entirely new business model for retail banking that recasts financial services in a SaaS model.

A BaaS provider is essentially a **technology company with a banking license**. It offers a white labelled mix of tech solutions and regulated banking capabilities to third party companies on a commercial basis. In short, **BaaS enables non-banks to offer banking services under their own brand**. And it does so with all the cost, simplicity, and scalability benefits of a SaaS software licensing model.

BaaS lowers barriers to entry in banking and provides a powerful engine for **embedded financial services**. These enable all sorts of businesses in other sectors to seamlessly blend financial services into their own offerings, in order to meet specific needs of their existing customers in that context.

By offering a core set of basic financial capabilities at mass scale, BaaS also drives a commoditization of banking products and represents the vision of **banks as market utilities**. This is likely to have a positive impact on the cost and availability of many financial services.

IT IS IMPORTANT TO DISTINGUISH BaaS FROM BANKING SaaS



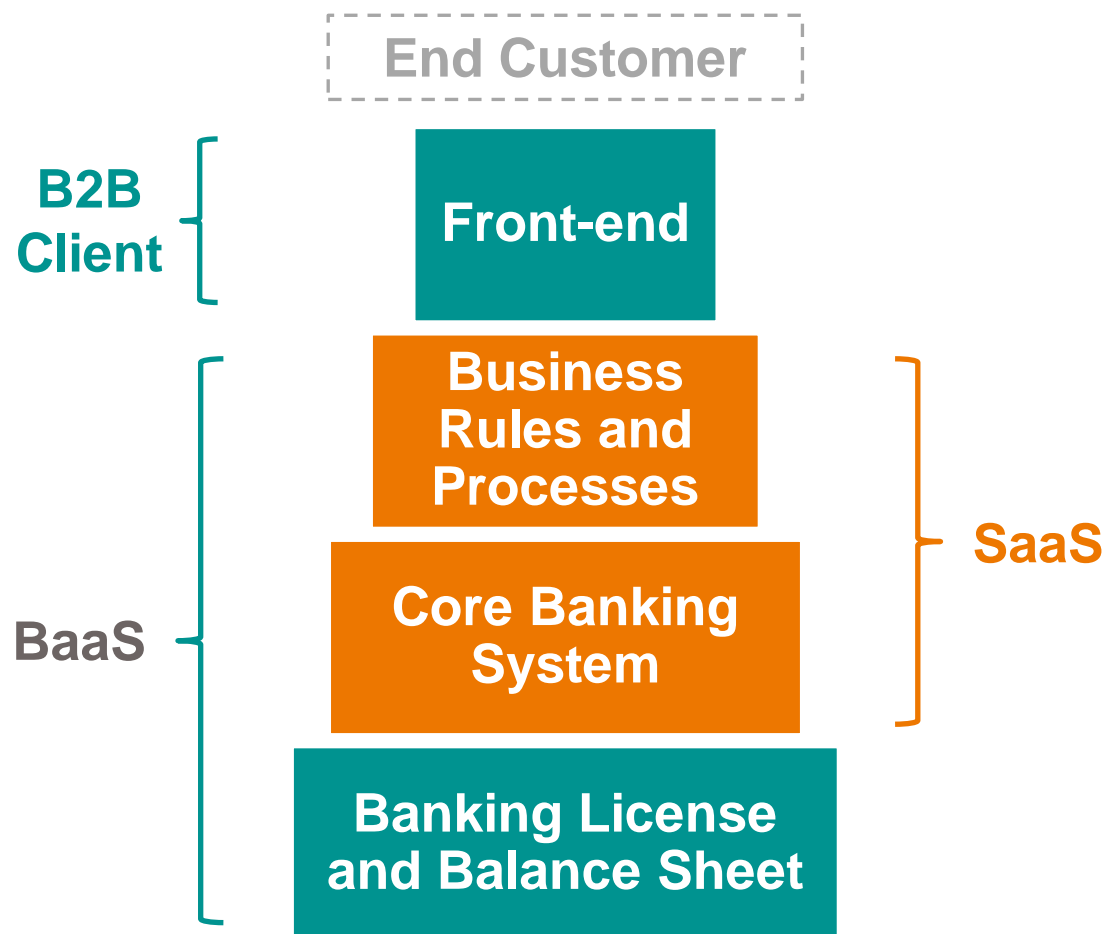
We define BaaS as a service that offers a sophisticated technology stack on top of a banking license and balance sheet.

This is very different from the numerous fintech companies who offer just the banking technology part, even if on a SaaS basis.

While SaaS providers can play an important role in evolving the capabilities of banks, they are less transformative than BaaS.

The revolutionary aspect of the BaaS model is that it alters not only how banking is done, but who can do it.

THERE IS SOME FLUIDITY IN HOW THE MODEL IS DEPLOYED...



There are examples of BaaS being offered through a partnership between licensed banks and fintech providers of banking technology. As long as the offering to clients combines the technology and the license in one package, we consider that BaaS.

Because of the time and cost involved in acquiring a banking license across multiple markets, some BaaS providers who are regulated in the home markets have in their overseas expansion opted to sell only a SaaS solution, often to existing financial service providers. As with other banking SaaS, this model is less transformative.

... AND USED BY THE B2B CUSTOMERS

Bank using the business rules layer to improve CDD

This fluidity (modularity) of BaaS provides for a range of use cases that can be built on by a variety of different types of entities that can benefit from the model.

This includes product use cases in payments, credit, and savings, but also process-level solutions like eKYC or access to banking rails.

Fintech offering payments accounts

Clients include non-bank FSPs and non-financial businesses as well as existing banks, each of which may be looking for a different type of solution from the BaaS provider. Bank clients don't need the license part, but may want the technology solutions that the BaaS provider offers.

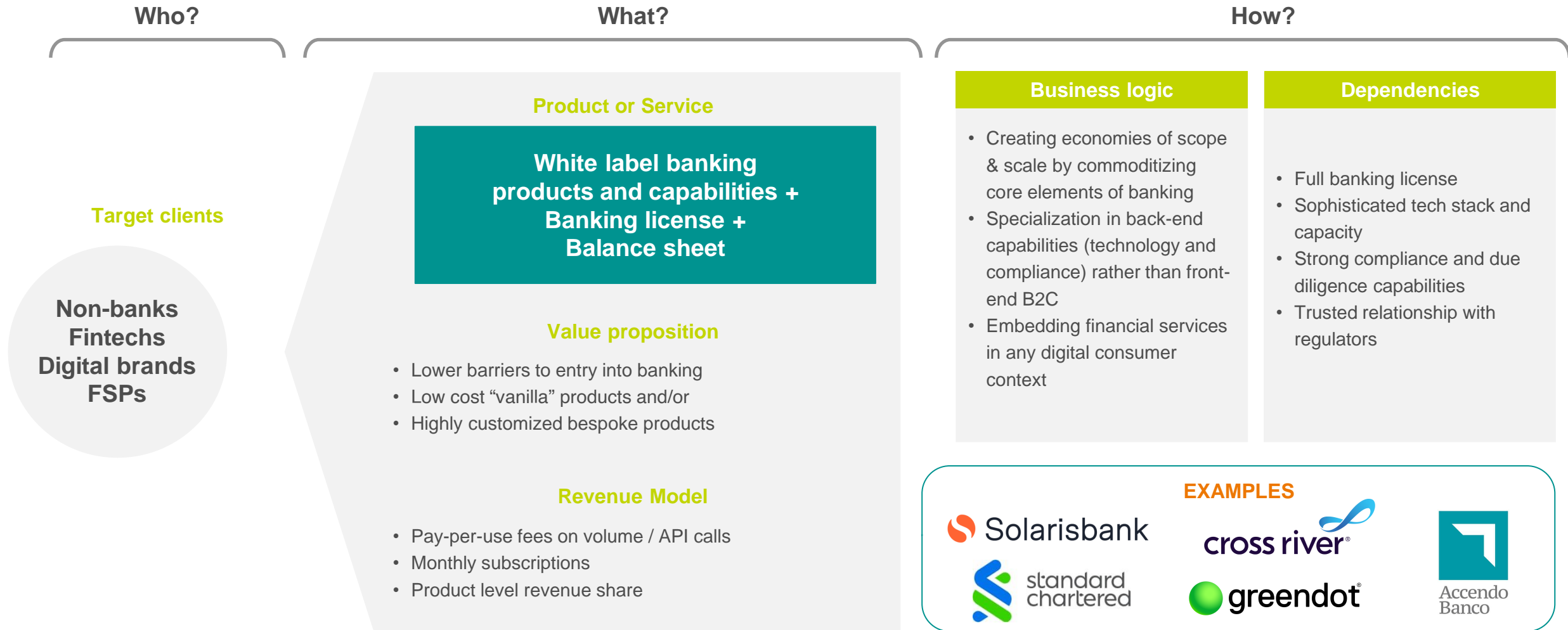
E-commerce platform offering buy-now-pay-later.

This gives BaaS providers a wide range of options for how to enter the market, depending on their strategic focus, existing demand, and regulatory frameworks.

Some of our case studies started with payments offerings in the e-commerce space, others with neo-banking offerings for the fintech startup space.

Longer-term strategies range from solidifying around the initial specialization by taking it to new client groups to evolving the offering into a more diverse value proposition.

KEY ELEMENTS OF THE BaaS BUSINESS MODEL



PART 1: THE ANALYSIS

IMPLICATIONS

THE POTENTIAL EFFECTS OF BAAS BANKING AND FINANCIAL INCLUSION

THE MARKET STRUCTURE FOR BANKING IS ALREADY GROWING MODULAR

As CGAP has previously written, we believe financial services value chains are unbundling around four key market layers that play distinct functional roles in the provision of retail financial services (left).

This is happening because technology is rapidly clearing the way for disaggregation of the layers and business models are evolving as a result.

This trend enables providers to make new business model choices across the four layers. Different players specialize in layers where they have comparative advantages—and partner for the others. This is fundamentally reshaping financial services.



For more on the evolving market structure, please read our work on modularization.



Balance sheet layer.

Provision of capital, risk management and balance sheet risk, at the wholesale or retail level.



Product layer.

Design and manufacture of individual financial products and services.



Customer relationship layer.

Customer acquisition, sales, servicing and permanent primary interface.



Distribution layer.

Physical touch points for distributing products and serving customers.

BaaS IS ONE CLEAR EXAMPLE OF THIS MODULARIZATION OF BANKING

BaaS providers are a great example of this process. They have opted to relinquish the customer and distribution layers, focusing instead on creating, originating, and underwriting products that other companies sell to customers under their own brand.

This fundamentally new business model for retail banking is a result of the new choices technology has enabled. It helps unbundle the traditional value chain, enabling players with comparative advantage on the front- and back-end of banking respectively to focus on maximizing value added around that.

This differentiation can be expected to drive access up and unit costs down, as economies of scale at the BaaS-provider level are paired with the low distribution costs of offering financial services to end customers that have often already been acquired by the BaaS clients in their core business.



Balance sheet layer

Product layer



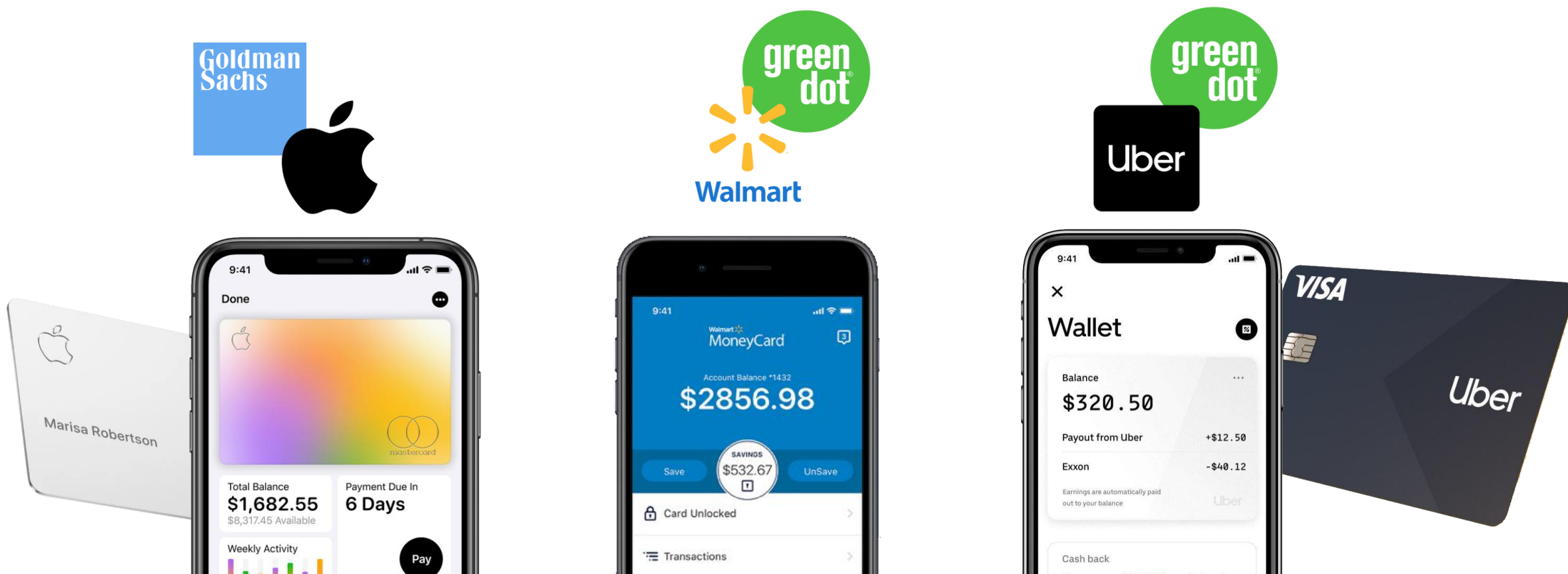
Customer relationship layer



Distribution layer

IT CAN CREATE MASSIVE SCALABILITY IN FINANCIAL ACCESS

Some of the biggest companies in the world now offer banking via BaaS (in certain markets)



EMBEDDED FINANCE FINTECHS WILL CATALYZE THIS FURTHER



Stripe is a powerful example of the potential for scale in embedded financial services. Founded in 2010, it is now one of the most highly valued global fintechs and is used by scores of major companies. Stripe started in payments and is not itself a bank, but has moved into the BaaS space through multiple bank partnerships.



Stripe Payments

Enables any business to accept payments in 135 currencies and dozens of payment methods.

Turnkey solution with prebuilt process flows, UI, fraud detection, analytics.

Fully API-based for seamless integration and simple customization.

Stripe Capital

Enables small businesses to access working capital — and large platforms to offer financing to its own users.

Fully API-based and automated flow using Stripe data for underwriting. Funds typically arrive in one day.

Loans are financed by partner banks.

Stripe Treasury

Banking-as-a-Service API that lets platforms embed a range of financial services with a single integration.

Includes bank accounts, cards, ACH and wire transfers as well as all compliance and regulatory aspects.

Accounts are held by partner banks.

CLIENTS ARE STARTING TO WORK WITH MULTIPLE BAAS PROVIDERS

This creates more choice, better fit, and greater competition in the BaaS space



OUR CASE STUDY COMPANIES ILLUSTRATE ALL THIS WELL



WE EXPLORE BUSINESS MODEL IMPACT ON INCLUSION IN FOUR AREAS



Cost

Does a BaaS model make financial products or services more affordable for providers to offer and for underserved customers to use?

- Lowers operating costs
- Lowers end user fees
- Offers more flexible payments
- Reduces the need for expensive devices
- Requires less or cheaper connectivity
- Reduces the need for collateral
- Etc.



Access

Does a BaaS model make financial products or services more accessible to underserved customers?

- Expands eligibility through innovative means of CDD
- Expands eligibility through innovative means of risk assessment
- Requires less interaction at physical transaction points
- Expands or improves the distribution of physical transaction points
- Etc.



Fit

Does a BaaS model make financial products easier for underserved customers to use and to understand?

- Has product features that are easier to access, understand and compare
- Has an interface easier for most customers to understand and use
- Delivers clearer value to users
- Helps users identify, understand and resolve problems
- Gives users control over data
- Stronger technical security
- Etc.



Experience

Does a BaaS model make financial products better suited to the needs and wants of under-served customers?

- Addresses a customer need not served by typical products
- Aligns better with the needs and wants of underserved customers
- Allows greater customization to different contexts, user needs and preferences
- Has a higher degree of suitability for target customers
- Enjoys higher general trust and satisfaction from users
- Etc.

WE THINK BaaS MODELS CAN EXPAND INCLUSION IN SEVERAL WAYS



Cost

- Cuts cost by commoditizing standard financial services
- Brings economies of scale
- Brings cost efficiency gains from specialization
- Can cut costs via adjacencies to BaaS clients' core business
- Lowers cost of entry for 3rd parties into financial services
- Shifts entry costs from fixed to variable, enabling more flexible consumer pricing



Builds cost efficiency via scale, specialization, commodification, and business adjacency



Access

- Enables virtually any company to offer banking services, incl. some with vast customer bases
- Helps bank products embed into non-financial contexts
- Expands eligibility via clients with access to rich customer data used for risk scoring
- Can lower user prices via synergy or cross-subsidy from BaaS clients' core business
- Securitization expands access to capital for scaling up lending



Places financial services in contexts where vast numbers of consumers already are



Fit

- Seamless integration into the existing value proposition, user interface, and process flows of the BaaS clients
- Simplified onboarding through combination of advanced tech and pre-existing customer due diligence information held by the BaaS clients



Financial services grow more diverse and better aligned to real world needs



Experience

- Expands competition and the proliferation of a wider range of models and products
- Enables BaaS clients to create new and bespoke solutions relevant for their customers, based on insights about use cases typical banks don't have



Financial services are integrated seamlessly into client service

Actual financial inclusion outcomes will however depend on what end customers BaaS clients chose to serve.

BaaS COULD IMPACT GLOBAL FINANCIAL INCLUSION IN DEVELOPING MARKETS ACROSS MULTIPLE INFLUENCE VECTORS



Mobile money operators



Digital platforms



Incumbent banks



Fintech startups

VECTOR A: MOBILE MONEY FINALLY GOES DEEP

BaaS can help deepen financial inclusion for the 1.2 billion mobile money customers worldwide



Mobile money operators (MMOs) in many markets serve big numbers of low-income customers with accounts. But these services tend to focus on payments, with savings, credit, insurance, and investment products still few and far between.

Where such products are offered, MMOs have been reluctant to acquire a banking license and hence do not get involved with balance sheet or risk management aspects, but partner with banks who do this.

One of their key assets is a vast network of agents performing cash in/out services, but this is also their most significant cost base.

While they currently have valuable data on a big customer base, most MMOs worry about disintermediation by app-based providers of voice, text, and payments services.

With BaaS models, MMOs can:

- Widen their consumer offering at low cost and risk by plugging a range of banking products into existing mobile money accounts.
- Double down on the revenue opportunity from financial services, which already constitutes a third of total revenue for many MMOs and is widely seen as central for their future viability as margins on telecoms dwindle.
- Do so with far greater ease, speed, control, and long-term strategic alignment than the bespoke bank partnerships that some of them have experimented with so far.
- Create new value added through synergy with other providers and digital ecosystems served by the same BaaS providers, including new revenue from renting access to their agent networks for third party providers.

VECTOR B: BANKS FINALLY ACHIEVE SCALE IN EMERGING MARKETS

BaaS models can enable more banks (new or incumbent) to truly scale and serve low-income clients



Most banks in emerging market and developing economies (EMDEs) offer a broad range of financial services, but only to a small portion of the addressable market in a given country.

A significant reason for this is expensive cost structures that make many low- and middle-income customers unprofitable to serve. Many banks also struggle to keep up with tech-driven innovation, due to legacy product development processes and IT stacks that (while costly) are clunky and inflexible.

As a result, many incumbent banks worry both about missing a vast market opportunity that others are starting to seize and about losing existing customers to players with more modern products and user experiences.

Open Banking, which is growing increasingly common, will only increase this competitive pressure on incumbent banks.

With BaaS models, new or incumbent banks can:

- Scale up customer reach by embedding white label products within non-banks that have vast customer bases, including social media apps, mobile money providers, e-commerce players, ride-hailing companies, and other digital platforms.
- Scale up physical distribution reach by partnering with retail players that have large footprints, including mobile money providers, e-commerce players, and ride-hailing companies.
- Create more innovative and effective products by leveraging the digital data trails that partner companies accumulate on their customers.

VECTOR C: PLATFORMS DRIVE ACCESS AND COMPETITION AT SCALE

BaaS can supercharge emerging digital ecosystems with financial services—and vice versa



E-commerce, ride-hailing, and delivery services are growing rapidly across developing and emerging markets. Some are big global brands, but most are local and regional players that know their markets well. A few have grown to a formidable size.

Each of them started out in a well-defined space centered on e-commerce, delivery, or ride-hailing enabled by smartphones and mobile data. But thanks to the economics of platform business models, many now try to build the “super app” ecosystems people turn to for their every need.

Financial services are one such need. Most of the platforms have started offering not just payments and stored value accounts, and several are now offering lending products and even insurance. There is every reason to think they will go further in this direction, since it supports the core business, generates direct revenue and meets demand in the market.

With BaaS models, digital platforms can:

- Offer a broader range of financial services to their customers, seamlessly embedded into the user interface, process flow, and design language people are used to.
- Create financial products that are better tailored to the needs of specific users, with bespoke offerings for e.g., the small vendors on the platform, the delivery drivers, and the end consumers.
- Make thin-file clients more serviceable by financial service providers by making platform data available for due diligence and risk scoring (provided customers consent).
- Create new revenue streams from drivers and other physical distribution networks by renting access to financial service providers to do cash-in/cash-out for customers.

VECTOR D: FINTECH STARTUPS FLOURISH AND COMPETE

BaaS can provide a very significant boost to the growth and capabilities of fintech ecosystems



Fintech startups are springing up in many or even most emerging markets and developing economies, looking to solve old problems in new ways with technology.

While the level of energy and activity is clear, many fintech ecosystems are constrained by regulatory restrictions on what services they can offer without a banking or other financial license.

Hence finding banking partners that have the insight, the willingness, and the capability to partner has become a significant constraint on fintech innovation in many emerging markets and developing economies.

Thanks to BaaS models, fintech startups can:

- Bring banking products to market with high speed, modest initial investment, low operational cost, and a high degree of scalability.
- Avoid the need to acquire a banking license and spend precious resources building up mandatory compliance, reporting, and other capabilities.
- Scale up customer reach by partnering with BaaS providers to embed white label versions of their products within social media platforms, mobile money providers, e-commerce players, ride-hailing companies, and other tech platforms.
- Scale up physical distribution reach by partnering with retail players that have large footprints, including mobile money providers, e-commerce players, and ride-hailing companies

For more of our work on startups and financial inclusion, please visit cgap.org/fintech.



PART 1: THE ANALYSIS

REFLECTIONS ON REGULATION

WHAT DO FINANCIAL AUTHORITIES NEED TO START THINKING ABOUT?

BAAS BRINGS SPECIFIC REGULATORY AND SUPERVISORY ASPECTS TO THE FORE

Policy makers, regulators, and supervisors who want to enable BaaS should reflect on these areas

Policymakers need to adapt their frameworks to deal with banks operating in a **back-end role** of financial services while relationships with customers are managed by non-banks.

Regulation must account for banks assuming **third party risk** in new ways. BaaS models rely on the banks themselves to control (their own liability arising from) the risks of outsourcing.

Supervisors must determine what are acceptable **compliance and due diligence** arrangements for these new models.

New tools and approaches for **oversight and supervision** may need to be developed as the role of non-bank actors in the provision of financial services grows.

In most markets, BaaS models are likely to be permissible under existing laws on banking, though there are various regulations that effectively delimit the universe of potential BaaS models. This includes rules in four key areas that we will explore in the following slides.

Outsourcing
and use of
various channels

Consumer
protection and
data sharing

Competition

Regulatory
perimeter and
coordination

OUTSOURCING AND DISTRIBUTION CHANNELS

Bank outsourcing rules limit the functions that may be contracted out to 3rd parties. Global guidance requires outsourcing rules to consider the “materiality” of banking functions being contracted out. Outsourcing should be subject to effective risk management policies as part of the bank’s overall operational risk management (BCBS 2021, n. 54).

These rules may constrain BaaS by restricting third party involvement in credit risk assessment, marketing, customer interface, etc. Outsourcing may also trigger unanticipated effects beyond the perimeter of financial sector regulation (e.g., obligations under labor law).

Outsourcing happens in both directions. Regulators primarily see the BaaS model as one where banks outsource front-end functions to nonbanks, while the nonbanks are outsourcing back-end functions to the BaaS provider. The scope of regulated outsourcing for nonbanks depends on their own regulatory status.

Cloud computing will have a significant impact on BaaS models, which typically run on cloud- and API-based architectures. Regulations should set risk-based rules regarding outsourcing to the cloud.

Agent banking frameworks should facilitate activities like cash in/out and might be subject to rules on outsourcing relationships (e.g., where an agent network manager is involved).

Remote/electronic onboarding (CDD) of bank customers enables the BaaS provider to bring on customers through its client company cheaply and at scale. This may be particularly important for digital banks (with restrictions on their physical presence) wishing to become BaaS platforms. Regulation should provide for remote onboarding.

CONSUMER PROTECTION AND DATA SHARING

There are important considerations around consumer protection raised by BaaS and embedded finance:

Data privacy and protection is critical as BaaS models often involve using and sharing financial and non-financial customer data between the provider and its clients. While the use of personal data enables the underserved to access previously unavailable products, the privacy and data protection concerns are real. These issues arise especially for BaaS providers, as they have a wider customer base (thus more risk of overlap and leakage) than banks usually do.

General data regulations should allow customers (data subjects) to control and be informed about how their data are used. As CGAP has written about, customers should have authority over portability, sharing, and uses of their personal data.

Mandatory sharing of data across providers (as in credit reporting and Open Banking regulations) may help customers obtain services that more closely align with their needs and preferences.

Dispute resolution could grow more complex since it may not be fully clear which party in a BaaS relationship is mainly liable in the case of a data breach. This can be addressed with well-crafted regulations.

Disclosure is important. Consumers need to be informed about what services are provided by the BaaS provider, its responsibilities, and the channels that customers can use to submit complaints and communicate their inquiries.

COMPETITION

Data hoarding and market concentration. BaaS providers may serve multiple client entities with very large customer bases. In this way, BaaS platforms may be able to access or control big datasets about individual consumers, extracting insights using proprietary algorithms. This can drive down costs and broaden access to financial services.

On the other hand, the rapid scaling enabled by big data and network effects could give rise to excessive market concentration. Once in a dominant position, BaaS providers and partners may be drawn into anti-competitive practices. For example, they might engage in ‘gate keeping,’ i.e., limiting competitors’ timely access to key data and preventing others from sharing data. This calls for policy initiatives to strengthen competition regulation and to mandate some forms of data-sharing.

Conduct and fair treatment issues may rise if BaaS client firms control digital ecosystems that confer market power across sectors. This might be the case, for example, where BaaS end-customers depend on commercial platforms for their livelihoods (e.g., ride-hailing or e-commerce). Such non-bank actors may also be harder for financial authorities to sanction.

Over-reliance on third parties. As mentioned with regard to cloud computing, BaaS providers may risk becoming dependent on the same specialized third-party providers. From a competition perspective, supervisors need to be alert to risks posed by the third-party providers due to concentration and potential anti-competitive practices.

CONCENTRATION RISK

A specific aspect of competition with micro- and macro-prudential implications concerns potential **concentration risks**.

Large BaaS players serving B2B clients with millions of customers (such as e-commerce platforms) may become **systemically important** if they indirectly serve significant portions of the financial consumer base. This could have the following consequences:

1. The concentration of market power in the hands of a few BaaS providers may undermine the stability of the banking and financial system. This risk may be less than immediate in banking markets with healthy competition. But due to network effects, the risk could proliferate quickly and should be monitored by the supervisor.
2. The micro-prudential risk is present at both the BaaS level and the business customer level. Failure, withdrawal, or other significant business decisions by major B2B clients could trigger **bank runs** on BaaS providers, with all the usual consequences. These risks may be aggravated by the digital nature of BaaS that allows for almost immediate money outflow.
3. Conversely, the failure of a BaaS provider may **jeopardize its B2B clients**, which could have market-wide implications for the economy even if the financial sector remains unaffected. The case of Accendo Banco in Mexico (described in greater detail below) offers one example of this, though the consequences are not yet clear.

REGULATORY PERIMETER AND COORDINATION AMONG REGULATORS

BaaS models enable aggregation of different entities and activities, giving rise to special risks:

- Lack of **transparency about who does what** – or who is legally responsible for what – in the partnership between the BaaS provider and its client organization. That is, who opens or closes accounts, who bears which type of risk (financial, operational, governance, etc.), who responds to customer complaints, etc.
- Potential for relevant decisions, obligations, and risks to arise **outside the financial regulatory perimeter** – that is, where they are not fully visible to the regulator.

Clear rules are needed on the allocation of liability and control of third-party risk within these new, modular value chains.

Supervisors need to understand the extent of risk transfer to—and have authority to inspect—3rd parties/client entities.

For financial regulators and supervisors to have such end-to-end oversight, there need to be **adequate mechanisms for coordination across sectors and agencies**. Financial regulators must be able (and willing) to collaborate with authorities in such areas as competition, data rights and consumer protection.

Financial regulators can coordinate oversight and share information on BaaS platforms with competition authorities. This might mean collaboration on market studies, consultation on proposed regulations, clearance of mergers and acquisitions, and the review of partnerships between financial institutions and third parties such as BaaS platforms. The same would apply in other areas such as data protection.

Collaborating with competition or data authorities could provide financial regulators a means of managing a range of cross-sector issues that have implications for financial services.

PART 2: THE CASE STUDIES*



A closer look at leading BaaS implementations in practice

*All case study information sourced through: (1) Interviews with BaaS providers and
(2) publicly available information

OVERVIEW OF CASE STUDIES

The following section describes four notable BaaS providers across various markets. Although they are all based in North America and Europe, these businesses can offer a compelling indication of how the BaaS model may unfold in emerging markets and developing economies. All four cases demonstrate the potential for BaaS to bring more retail customers into the financial system and deepen their experiences.



Solarisbank is a **European** BaaS provider focused on delivering white-label financial products to B2B clients who, in turn, customize those products for their end user. It offers services such as Buy Now Pay Later, Business CDD or crypto custody to other banks/incumbents and fintechs.



Cross River is a **U.S.** BaaS and technology infrastructure provider that leverages its technology platform to offer embedded financial solutions. It enables small-dollar loans by non-bank fintech lenders and helps the lenders free up liquidity by securitizing and on-selling those loans.



Accendo
Banco

Accendo Banco was a **Mexican** BaaS provider that offered various combinations of technology solutions and regulatory permissions to fintechs to allow them to deploy their business models. While its banking license was revoked for other reasons, the case is still informative.



Green Dot is a **U.S.** digital bank and fintech focused on facilitating seamless and affordable banking directly and through B2B clients. It is a BaaS provider to some of the most recognizable brands in the world and helps them embed financial tools and services into their brands and ecosystems.

PART 2: THE CASE STUDIES



BACKGROUND AND STRATEGY



Solarisbank was launched in 2016 out of Finleap, a fintech “startup factory” in Berlin, with the core idea of being an enabler for others trying to do pioneering things in financial services.

Born from the frustrations that fintechs had in partnering with existing banks, Solarisbank focused from the start on building a modern tech stack with a strong API layer for easy integration with financial or non-financial businesses.

The rise of embedded banking has been the driving inspiration for Solarisbank. To them, this idea means serving up financial services to customers at the moment they need it, as an embedded and frictionless part of what they are doing—not as a standalone product.

Solarisbank aims to enable this transformation by offering a suite of simple and efficient banking products that other companies can embed into their core value proposition.

Embedded banking makes a financial offering potentially relevant for virtually any company that has customers. But that financial offering itself becomes a commodity: customers don’t really care who actually offers it or how. This requires a fundamentally different business model.

The bank has raised over EUR 350 million from investors such as ABN AMRO’s Digital Impact Fund, BBVA, Samsung Catalyst Fund, Visa, and others.

“Our vision is to create a world where financial services seamlessly sync with life.”

Solarisbank vision statement

BACKGROUND AND STRATEGY

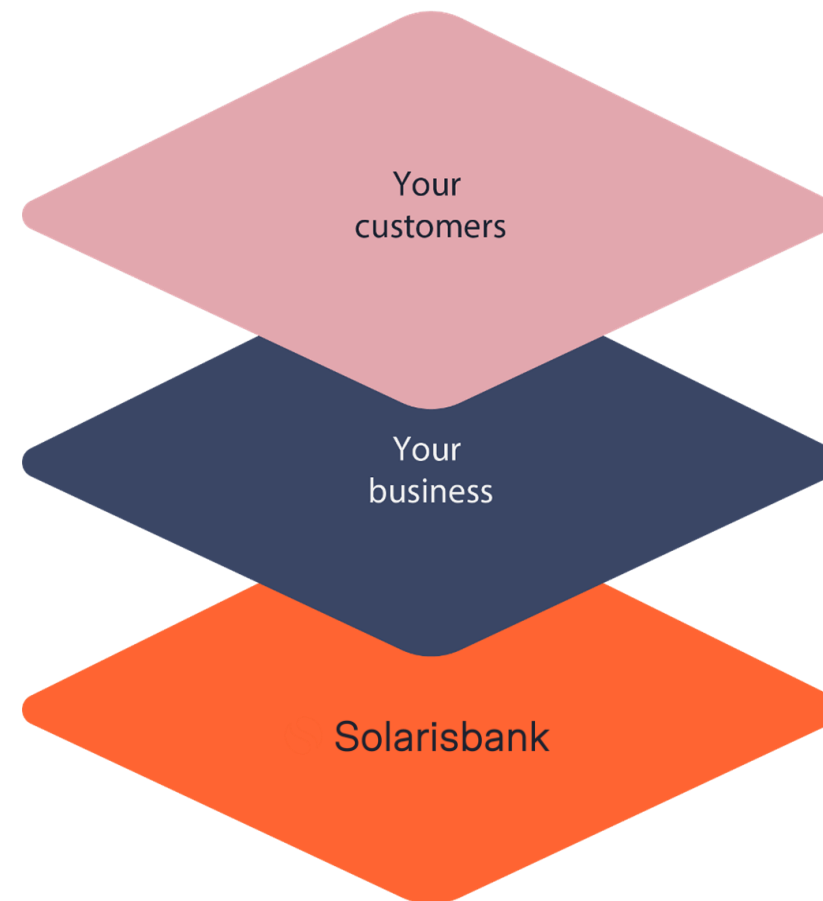


Ultimately, Solarisbank aims to be a foundational form of financial infrastructure, akin to the hardware and basic operating system of banking.

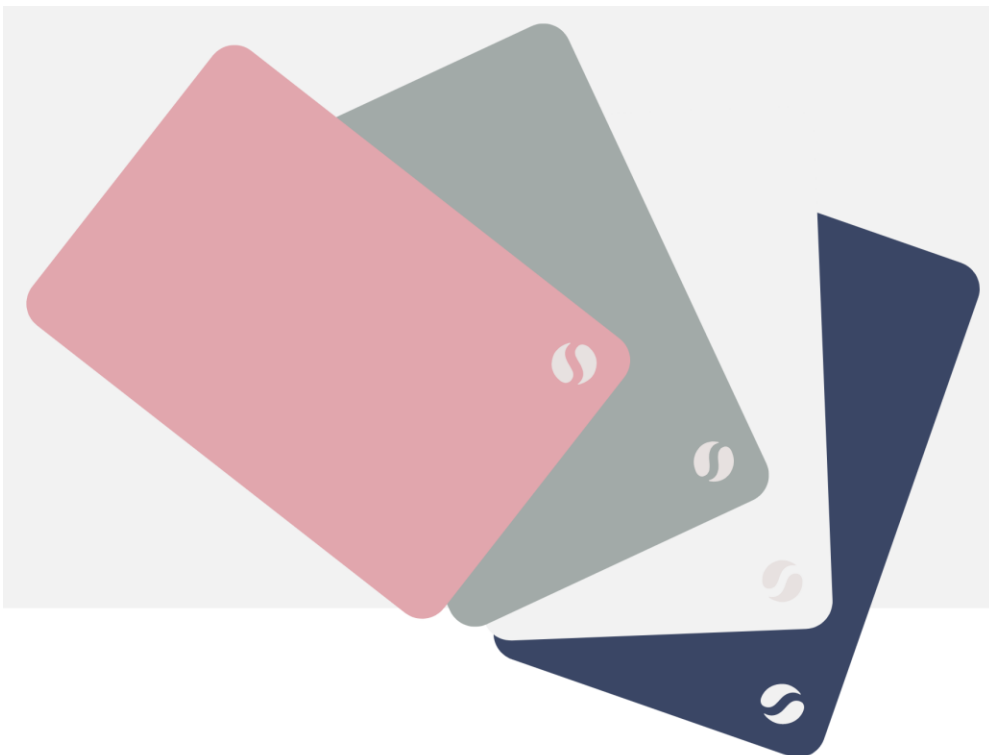
This lets other businesses create their own bespoke financial solutions much like writing software, without worrying about the standard components underneath.

Over time, the bank will sit at the heart of a growing ecosystem of clients and services that use all these same components.

Since it has undertaken the KYC for the end customers of all these clients, Solarisbank will be able to create interactions and efficiencies between them that unlock additional value.



BACKGROUND AND STRATEGY



Like most BaaS providers, Solarisbank has a revenue model using a mix of fixed subscription fee, volume-based commissions, revenue share, and transaction fees. For lending products, it offers to hold loans on its balance sheet in exchange for part of the net interest income.

However, Solarisbank sees itself as a technology company first and a bank second. It doesn't want to be the bank with the biggest balance sheet, but the bank with the most efficient solutions.

Hence it has a clear preference for commission revenue from services, as opposed to more mundane balance sheet revenues from products.

PRODUCT



In keeping with its overall strategy, the defining feature of the Solarisbank product offering is commoditization. The bank deliberately creates “plain vanilla” products, not highly specialized solutions for specific end-user segments.

Instead, it offers that capability to its clients, who know best what their own end-customers want—and have the wealth of data needed to build and refine the solution using the building blocks provided by Solarisbank.

Solarisbank offers five major product categories:

- **Digital banking & cards**
- **Lending**
- **Payments**
- **KYC**
- **Digital assets**

The digital banking offering enables Solaris to be able to launch a new bank from scratch within a few months—and indeed it counts a whole string of banking challengers among its clients.

The lending business includes buy now-pay later (BNPL) credit, including embedded loans in e-commerce platforms. A white label consumer loan can be issued in 7 minutes, including real-time credit scoring and video-based remote KYC.

The KYC process itself is one of the products most of interest to incumbent banks with legacy IT systems, who struggle to build processes as quick and flexible as those offered by Solarisbank.



CLIENTS



Solarisbank broadly has three types of clients:

Fintechs were the original client base. Solarisbank offers them a quick route to market without worrying about acquiring a banking license or building the full suite of staffing and capabilities associated with that. Instead, the fintechs can focus all their energy on building their differentiating features.

Digital consumer companies are a rapidly growing client segment. These companies want to add financial products and revenues to their existing core business. They include Chinese and other international providers seeking to quickly and easily enter the EU market.

Traditional financial institutions are also among Solarisbank's clients, albeit a less important part. These banks don't need the regulatory elements of what Solaris offers, but still want to make use of the advanced capabilities that its tech stack enables—which would be too hard or too expensive for them to build on their own legacy systems.

As of 2021, Solarisbank had 70+ clients, including

- Challenger banks like Kontist, Penta, Vivid, and Tomorrow
- Digital consumer giants like Samsung and Alipay
- E-commerce platforms like CarNext and Otto
- Cryptocurrency fintechs like Nuri and Coinbase
- Incumbents like American Express

VALUE PROPOSITION



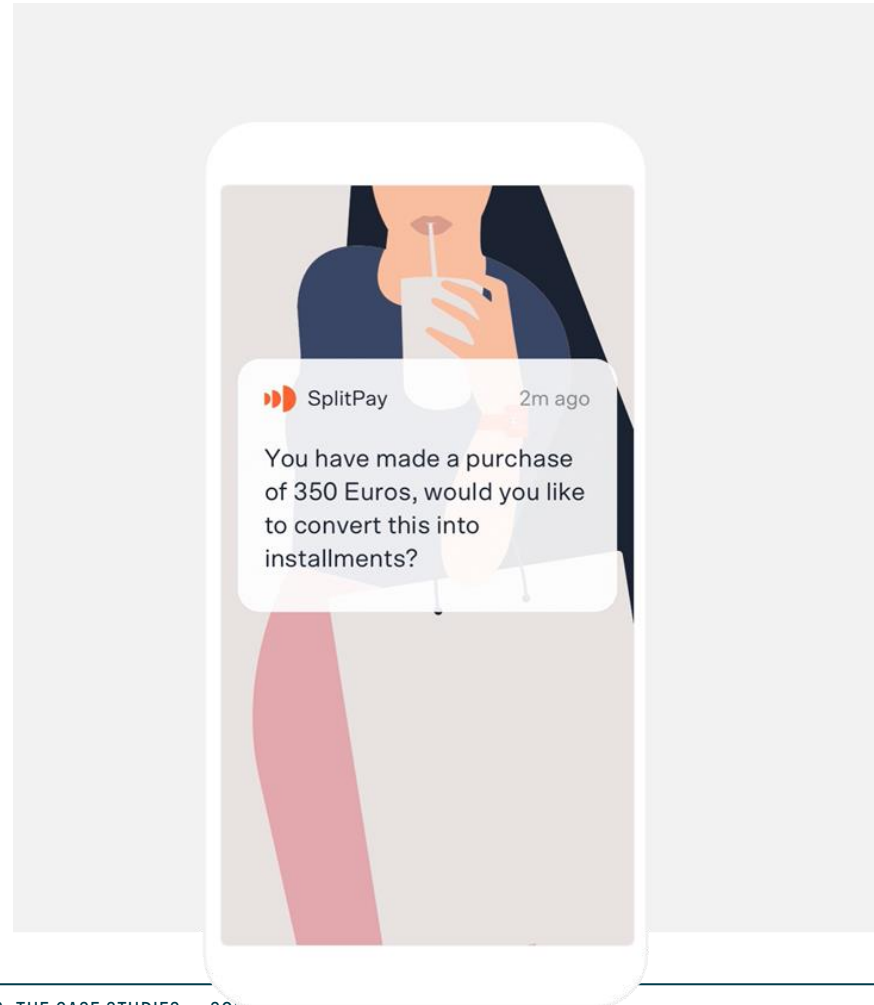
The immediate value proposition that Solarisbank offers depends on the type of client: fintech, digital consumer company, or traditional FSP.

In each case, technology sits at the heart of and powers the Solarisbank value proposition:

- **Processing speed**, enabling onboarding and risk scoring from scratch in minutes.
- **Flexibility** thanks to modular design, APIs, and a flexible pricing model.
- **Scalability** by being the first German bank to operate fully in the cloud.
- High **pace of innovation** to keep up with client expectations of best-in-class solutions.



VALUE PROPOSITION



Because it focuses on generic banking products that are inherently very low margin, being highly **cost-efficient** is a central part of the Solarisbank value proposition. Cost advantages come from:

- The banking license that would otherwise cost clients significant time and capital to acquire.
- Low process costs thanks to an efficient tech stack and a significant degree of automation.
- The business model that creates increasing economies of scale and scope over time.

The final ingredient stressed by the bank is **trust**:

- Trust from financial authorities in the bank's due diligence and compliance processes.
- Trust from clients in the reliability and security of the bank's systems and solutions.

The tech stack has been central for Solarisbank from the start as a core driver of value. In particular, it has prioritized these capabilities:

- **APIs.** Every key product and process in the bank is accessible via API.
- **Cloud.** Solaris says it is the first bank in Germany running 100% in the cloud.
- **Automation.** This is mission critical, given the need for highly cost-efficient and scalable operations with a high degree of reliability.
- **Microservices.** The company describes its offering as “lego blocks” that clients can arrange as they like. This requires a modular software architecture.

The technology enables Solarisbank to be flexible and responsive, with constant iteration: it ships around 3,000 code releases per year.

The API layer also lets Solarisbank integrate best-in-class solutions offered by third parties, such as the remote KYC capabilities by IDNow.

While stopping short of a marketplace, this adds new capabilities that the bank can offer its clients, without them having to spend resources building their own solutions for things that others do better.

Over time, this can create an ecosystem of solutions that could become an important part of the bank’s medium-term strategy and value proposition.

Sample endpoints of our API
`POST /persons/:person_id/identification`



INCLUSION



Solarisbank sees embedded finance as a major evolution of banking that makes financial services more accessible, more efficient, and more relevant for a wider range of customers.

It believes that when virtually any company can offer banking services, this will make banking more accessible also for the underserved; and that the solutions and experiences they build will be much better at meeting customer needs across a wide range of contexts.

Cost is one tangible aspect. Solarisbank says its clients can offer a bank account for less than €2/month compared to €12-15 in a typical bank. As the bank and its clients grow, these cost advantages will increase with returns to scale.

Beyond cost, the bank believes it can bolster the **value** of financial services, especially to marginal segments with particular needs. Several of its more prominent clients are pursuing this by building banking experiences specifically tailored to freelancers and small businesses.

Customers also benefit from better **processes** that save time and hassle while reducing barriers. For instance, Solarisbank clients can onboard new customers remotely and without paperwork in as little as 7 minutes. Lenders can approve consumer loans in merely 15 minutes.

CLIENT EXAMPLE



Germany's first digital bank account tailored for freelancers and microenterprises

CHALLENGE

Kontist launched in 2016 to offer banking services tailored to the needs of freelancers and the self-employed, who are often underserved by large banks. While other fintechs launched “neobanking” that was actually based on e-money accounts, Kontist wanted to offer a full bank account. Moreover, it wanted the ability to easily integrate third party software solutions directly into the banking platform in a way that saved clients time, since it found freelancers spent up to 24 days per year on simple administrative tasks.

SOLUTION

- By partnering with Solarisbank, Kontist was able to offer full bank accounts and integrate a suite of software that its customers needed, such as solutions for invoicing and accounting, with automated profit and loss reports generated inside the banking environment and integration with major accounting software in the market.
- It also included tax management, which is central for their client segment but typically walled off from their banking. Kontist clients can take advantage of automatic tax calculations and VAT declarations as well as more sophisticated taxes-as-a-service features.
- Thanks to Solarisbank's flexible core, Kontist can offer three tiers of customer accounts that give access to different parts of the product and services offering across tiers.

CLIENT EXAMPLE



Germany's leading marketplace for used cars

CHALLENGE

CarNext.com is a Pan-European digital marketplace for used cars. As a 2-sided platform, it allows customers to buy, lease or subscribe to a wide range of used cars. It also operates as a B2B auction platform for professional buyers. CarNext was looking for a way to offer financing to its clients looking to fund their car purchase.

SOLUTION

- By partnering with Solarisbank, CarNext can offer fast, secure and transparent car financing embedded in the shopping process. There is no need to visit external web pages or wait for approval by a 3rd party.
- Customers can secure instant car financing from €1,000 to €50,000 for vehicle purchases through a streamlined and fully digital process, which is usually completed in as little as 10 minutes.

PART 2: THE CASE STUDIES



cross river[®] | **USA**

BACKGROUND AND STRATEGY



Cross River was founded in 2008 as a community bank focused on providing ways for businesses and consumers to gain access to credit. However, within two years, Cross River saw an opportunity to partner with a fintech platform offering home improvement loans that needed a bank partner.

From that beginning, Cross River built its own API-based core and technology infrastructure to support an array of white label solutions in payments, banking services and lending that today makes it one of the most prominent Banking-as-a-Service providers in America.

In addition to BaaS services for fintechs, Cross River also offers direct financial products and services to both commercial and retail clients.

In the words of key staff, the vision that animates Cross River is to build a foundational tool kit for financial services that can be used by any type of business, for any sort of consumer use case.

Cross River says it aims to offer a flexible set of tools for a variety of fintechs and other third parties to develop their own tailored financial services to meet the needs of businesses and consumers around the world.

“Cross River is powering the future digital economy and changing lives by reinventing the way financial services are accessed.”

Gilles Gade (Founder and CEO, Cross River)

PRODUCT



Cross River's offering revolves primarily around a set of white label banking solutions, though it also offers own label financial services.

White label

- **Bank accounts**
- **Lending**
- **Payments**

Own label

- **Deposits**
- **SME lending**
- **Real estate financing**

Being an FDIC-insured bank, Cross River offers a variety of account and deposit solutions based on a core banking platform that is completely cloud based, API-accessible and very modular.

On top of that sits access to the payment rails through which its clients can embed, for example, ACH or real-time payments capabilities.

The main part of the offering is a marketplace for loans, which has two distinguishing features.

On the one hand, the BaaS provider leverages its technology platform to enable small-dollar loans by non-bank fintech lenders. The solution includes seamless integration, robust credit decisioning, and frictionless processing.

On the other hand, it also has an extensive capital markets team that securitizes and sells those loans onward. By streamlining the origination and underwriting of the loans and refinancing 80-90% of the loan book in the secondary market, CRB creates the liquidity for fintechs to churn out loans at massive scale.

CLIENTS



Cross River counts among its clients some of the highest valued **fintechs** in America. On lending, this includes firms such as Affirm, Upstart, and Best Egg. On payments it includes Stripe, Coinbase, and Visa. It also enables high yield savings accounts for companies including Affirm.

Cross River's roots in **community banking** also inspires an engagement with such banks. It is seeking to provide access to rails and products to community banks across America, allowing them to leverage its platform to access liquidity and overcome technology limitations. In so doing, the bank hopes to reverse a trend of declining community banking and expand access in marginalized parts of the economy.

As the license holder liable to regulators, Cross River is careful with the clients it onboards. It has an extensive compliance practice and is highly selective, signing only clients that justify the regulatory exposure and for which the BaaS offering adds clear value.

This selectivity goes beyond risk management. CRB purports to also look for strong alignment in the longer vision and roadmap, not just short-term revenue of a more transactional nature.

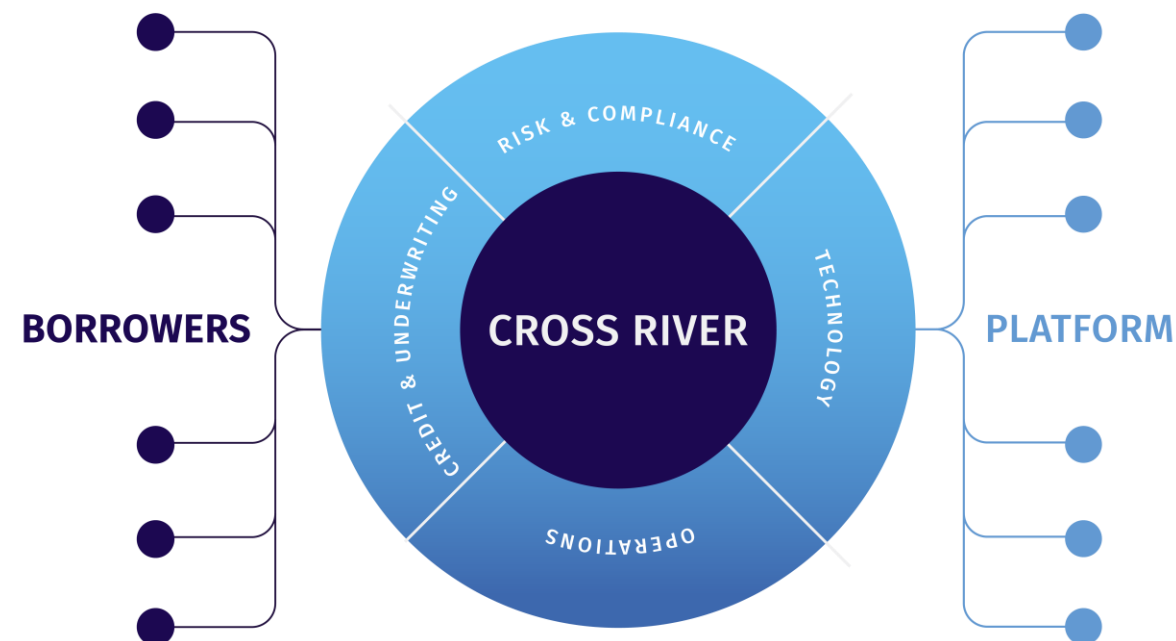
This perspective reflects the view of the bank that BaaS fundamentally is about creating long-term value where both parties grow together. The same sentiment is evident in the labelling of its clients as Partners.

VALUE PROPOSITION

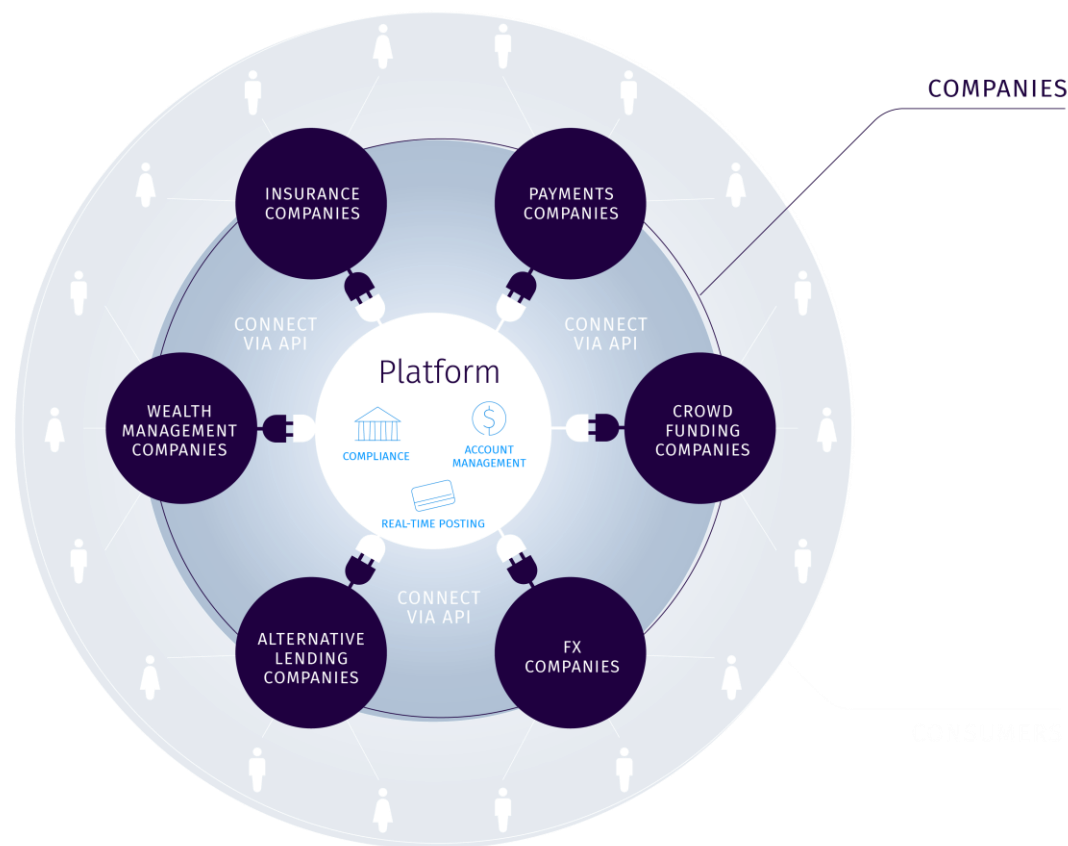
The main utility non-bank fintechs get from Cross River is access to banking infrastructure and the ability to deliver regulated financial products. For community banks, it offers access to advanced new rails, products and technological solutions.

Beyond the standard BaaS capabilities, CRB offers both sets of clients deep expertise around, and access to, **secondary capital markets**, which can help greatly with liquidity and scale.

The central values often emphasized by the bank are **speed** and **flexibility**. One aspect of this is technical: a modular, API-based tech stack that is malleable and easy to reconfigure in order to create new approaches to solving customer problems. This makes the bank fast and nimble.



VALUE PROPOSITION



But an equally important element of the flexibility that the bank underlines is the sense of a **shared journey** where CRB helps clients supercharge their own strategies.

The bank knows it cannot understand or solve the pain points of every community or customer, but its clients can. Hence the most compelling value Cross River can provide is to offer the **building blocks** that others can use to create those solutions.

Cross River has found its clients value having a partner that takes the time to understand what they are trying to do and is able to develop new solutions to meet their needs. Indeed, the development of the bank's BaaS offering has itself been a gradual result of client asks for different capabilities over time.

TECHNOLOGY

Cross River builds most of its tech in-house and runs on a homegrown core banking platform called COS. The original motivation for CRB to build its own tech stack was simply to control its destiny and create the capabilities it needed. Then it offered these to clients, who then brought their own asks.

The main features of the tech stack are:

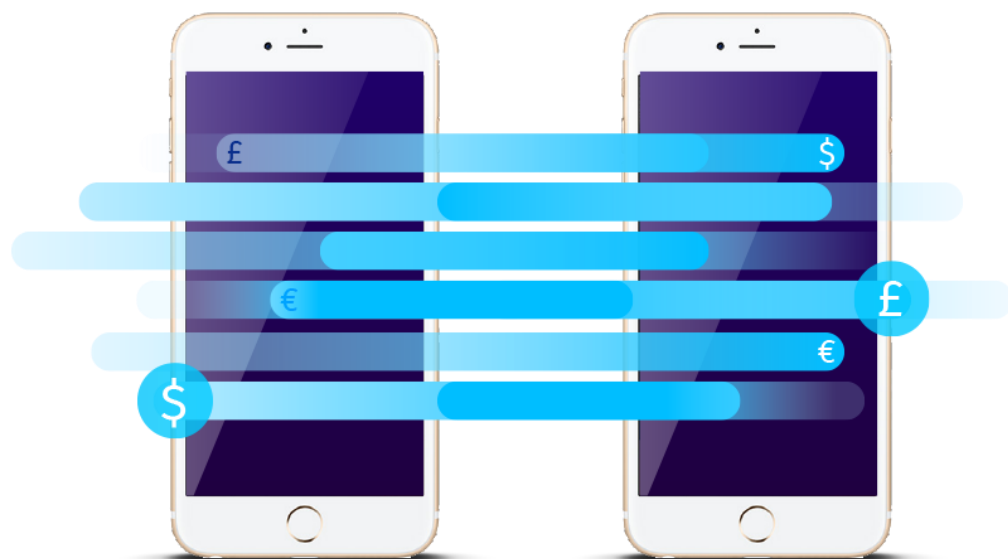
- **APIs.** These are seen as perhaps the most central tech capability of the bank, with around 500 individual APIs exposed to clients.
- **Microservices.** A completely service-oriented architecture renders Cross River's solutions as modular as possible for clients to use like blocks and build the experience they want.



- **Cloud** is foundational for the bank. Initially running on a private cloud, the bank is now doubling down with a multi-cloud strategy.
- **Redundancy**. By using combinations of in-house and external solutions, CRB creates fallback capacity that guarantees reliability.

In deciding whether to build or buy new solutions, CRB considers core competency. It will typically buy pieces that require significant scale to cover costs or continual effort to solve for edge cases. In either case, there is value in sourcing from third parties rather than building in-house.

Recognizing that some clients get frustrated by too frequent software updates, CRB issues a major code release only every couple of months.



INCLUSION



Cross River is a staunch believer in the role of technology in expanding financial inclusion. The company hopes to contribute to that by empowering fintech providers with the capabilities, capital markets depth, trust and compliance rigor of a regulated bank.

For instance, Cross River believes some of its partners can make a difference for underbanked consumers who rely on expensive credit. Others make it possible for gig workers to access earnings quickly and affordably.

These gains stem from new tech capabilities and low operational costs, but also from enabling a more diverse field of players that have different business models.

The company also sees a role in empowering the community banking sector, which has shrunk significantly since the 2008 financial crisis—not least in already marginalized communities. This leaves customers relegated to big national banks who may move funds out of these communities rather than reinvest them.

One of the big challenges for community banks is keeping up with technological development. But there is a new generation of banks emerging that focuses on underserved communities.

By supporting these banks with its advanced technology, access to banking rails, and bridge to secondary capital markets, Cross River hopes to give a rejuvenated local banking sector the tools to build solutions that their communities need.

CLIENT EXAMPLE



Leading US provider of e-commerce point-of-sale lending

CHALLENGE

Affirm had an innovative idea around offering e-commerce clients instalment loans at the point of sale. It needed a bank partner to help originate and fund the loans. Later, it wanted to offer savings accounts to its customers, again needing a bank.

SOLUTION

Cross River provides the lending expertise and compliance engine to originate the majority of Affirm loans. It also funds the loans and enables their sale to the secondary market, to free up liquidity. Many of the loans are subsidized by vendors to drive sales, offering a low or even 0% APR.

Cross River also enables Affirm to offer a savings account with a 0.65% interest rate, one of the highest yields in the US market.

Thanks to the API-oriented tech stack, Affirm was able to build its user experience directly on top of the Cross River core banking system, making the solution seamless and robust.

Affirm went public in early 2021 and as of December is valued at \$31 billion.

CLIENT EXAMPLE



The leading global provider of API-based payments solutions in e-commerce

CHALLENGE

Stripe needed a bank sponsor for their direct integration to Visa and MasterCard. This integration allows marketplace economy/gig workers to quickly and conveniently access their earnings in order to meet daily obligations.

SOLUTION

Push-to-card payments: This is a solution that combines Cross River's banking network with Stripe's payments platform. It provides gig workers with quicker on-demand access to their earnings and more options for receiving them for a fee, and thereby helping them more efficiently and effectively manage their day-to-day cash needs.

- Instant payout (within 30 minutes compared to 2-3 days for standard payout)
- Costs 1% of transfer amount
- Available 24/7
- Offers USD denominated international push-to-card

PART 2: THE CASE STUDIES



I MEXICO

BACKGROUND AND STRATEGY

Accendo Banco began more than 20 years ago as a subsidiary of global banks ABN AMRO and RBS. In 2014, a group of Mexican investors acquired the bank, with the goal of creating an institution more focused on Mexican clients.

After initially banking large and medium-sized businesses in mining and agribusiness, in 2016 Accendo started developing a BaaS strategy, which went live in 2019.

The initial focus was to serve Mexico's rapidly expanding fintech sector. The many startups that have sprung up required various combinations of technology solutions and regulatory permissions to deploy their business models. Accendo solved both sets of problems in one flexible service.

Aside from meeting a growing market demand, the fintech strategy enabled the bank to reduce its cost of funds. Being an SME-focused bank, Accendo never had a consumer banking offering. The BaaS model allowed the bank to move into that space indirectly and rapidly mobilize deposits from retail consumers through their B2B clients.

While the fintech business was growing rapidly, Accendo adopted a more ambitious vision of what it could bring to the Mexican market.

The vision was for Accendo to enable any company in Mexico to offer financial services to its clients, in a safe and regulated manner, through a plug & play solution that was both simple and seamless. They called this "banking-in-a-box".

ACCENDO CAPITALIZATION ISSUES AND LIQUIDATION

On 28 September 2021, after the interviews for this report were concluded, the governing board of the Mexican financial regulator CNBV voted to revoke Accendo Banco's banking license.

This was prompted by the failure of the bank to maintain capital ratios above the minimum levels required by regulation. The bank then went into liquidation, managed by the deposit insurance agency IPAB.

The liquidation unfolded in an orderly manner and did not raise concern about the stability of the Mexican financial system overall.

For more information, see CNBV Circular 97.

We decided to keep the case study, since the reasons behind Accendo's liquidation were not related to the BaaS model and do not change our fundamental takeaways about their business.

It does however underline the potential risks for clients if a BaaS provider were to fail. Thankfully the increasingly nimble and flexible nature of these systems also helps to mitigate the impact of such a failure.

In the case of Accendo, their biggest BaaS client Rappi quickly declared that their services would not be affected by the developments. It simply shifted the concerned processes to another bank, Banorte, with which it already had a partnership.

PRODUCT

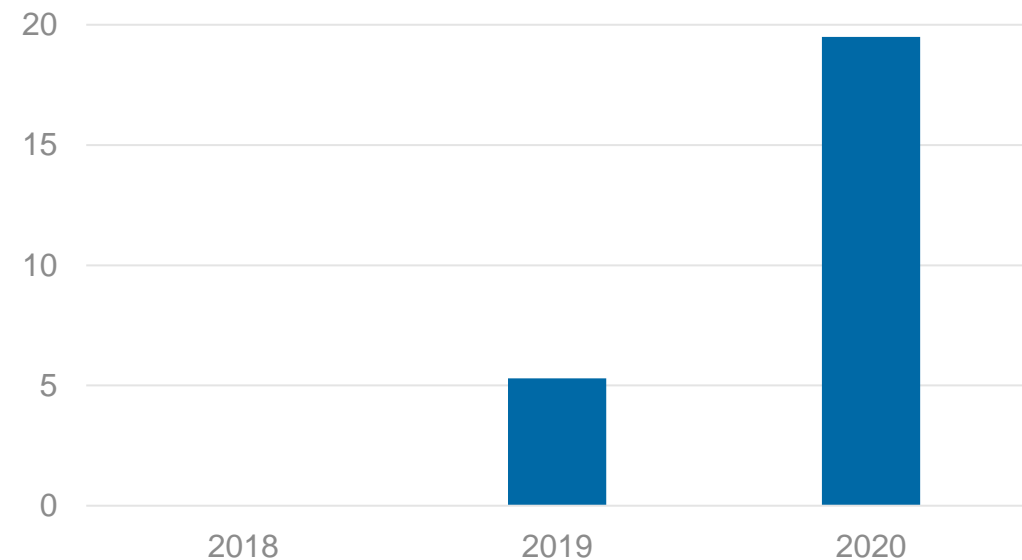
In deploying the BaaS model, Accendo first went to market with a set of solutions for the payments space, notably including:

- **Card issuing**
- **Transfers**
- **Card acquiring**
- **Remittances**
- **Payments Hub**

This focus was driven by a strong belief in the opportunity around digital payments in Mexico, where 93% of transactions are still in cash but two thirds of the population use smartphones.

Given the importance of economies of scale for profitability in payments, BaaS offered a promising way to realize that opportunity,

The payments business grew rapidly, with annual transactions expanding 5x between 2019 and 2020 (see below; million transactions).



The most common product was Bank Identification Number (BIN) sponsorship, by which the bank enabled new payments acquirers easy access to the major card schemes (e.g., Visa and MasterCard).

PRODUCT

Accendo took another step in developing its BaaS offering by consolidating it into what they called “banking in a box”. This offered its clients a single solution for a complete suite of banking products, including:

- **Bank account**
- **Mobile banking app**
- **Debit cards**
- **EFT transfers**
- **POS devices**

The goal was to create an end-to-end package for any company in Mexico to deploy a fully digital retail banking offering under its own brand, on a white label basis, via APIs.

Once the payments business reached sufficient scale, Accendo sought to bring to market other parts of the product roadmap it had been working on, including various lending, savings, and insurance products.

There is a significant opportunity around lending in the Mexican market, where access to credit is low and net interest margins very high.

Accendo believed that its technology-intensive and low-cost model, coupled with the data generated from the payments business and the scale achieved by the BaaS partnership model, would put it in a unique position to seize that opportunity and expand access to credit.

CLIENTS

After initially securing several notable clients on the issuing side, Accendo positioned itself as the bank of choice for aggregators in the rapidly growing payments acquiring space.

The number of clients grew from one in 2019 to 18 in mid-2021 and was on track to double by year end, with another 150+ in the pipeline.

Issuing clients included P2P enabler **Swap**, Stripe-invested mobile payments app **Cuenca**, and the regional delivery giant **RappiPay**.

Acquiring clients included **Billpocket**, **Primeiro Pay**, **Senor Pago** and **Pharos**.



CLIENTS



The pipeline included a wide array of companies, including major international retailers (physical and online), for whom Accendo would not only solve payments but enable the wider array of financial services that retailers in many markets are increasingly starting to offer.

It also included prominent Mexican and regional “bank-like” companies deploying a fully digital account, card, and mobile app without having an actual banking license. Accendo offered a simple way for them to create a full banking experience without trying to secure one of Mexico’s 50 bank licenses for themselves.

Accendo was also readying offerings for MFIs and government utilities that use payments as an entry point, but bring wider capabilities.

VALUE PROPOSITION

The core value that Accendo brought to its clients was simply **banking-as-a-service**: a quick and simple means to operate in the highly regulated Mexican banking market, without worrying about regulatory issues, access to bank infrastructure, and other steps they would otherwise need to secure.

Low cost was a key selling point, both for the up-front capital expenditures and operational cost. Accendo offered technological capabilities that a fintech may otherwise spend millions to develop. The bank purported to cut transaction costs for a domestic payment by 50-60%.

While part of the cost-efficiency in the model depended on scale and standardization, the ability for **customization** was stressed by the bank:

- The modular tech architecture meant that new solutions could be created with relative ease
- The large number of APIs enabled—fairly easy—integration with client systems
- The software development kit (SDK) let clients build and test solutions by themselves.

Implementation speed was also key. Thanks to its tech stack, the bank offered rapid integration and launch timelines as well as the ability to monitor and resolve issues in real time.

VALUE PROPOSITION

Complementarity, not competition. Accendo Banco executives often emphasized the fact that they had no consumer-facing offering of their own as a key point in conversations with prospective clients.

Fintechs partnering with an incumbent retail bank will always harbor concerns about various types of competitive risk. Will the bank try to steal their customers? Or provide sub-par services to the fintech in order to protect their own consumer business?

Such concerns are dispelled with a BaaS partner which doesn't have a consumer-facing brand and whose profitability is directly dependent on the success of its clients.

It is worth noting that Accendo did retain SME lending under its own brand from its historical business in mining and agriculture. The bank however saw this as clearly distinct from the markets pursued by its BaaS clients: Accendo's SME lending had loan sizes in USD millions while the BaaS strategy was focused on loans in the hundreds or thousands of dollars.

To support the BaaS strategy, Accendo made significant investments in technology and human capital, completely rebuilding its core banking and analytics capabilities from the ground up.

In so doing, Accendo prioritized a set of specific capabilities that are central to its tech stack:

- **Cloud.** Accendo said it was the sole bank in Mexico running its stack 100% in the cloud.
- **Open APIs.** The bank exposed 100 APIs that client developers could access.
- **Microservices.** The software architecture was based on modular blocks that were assembled flexibly in different ways to execute functions.
- **Automation.** 100 processes fully automated.

In the words of the senior management and IT leadership of the bank, the key features that this technology stack delivered for the bank were all essential for a BaaS model:

- **Scalability**
- **Reliability**
- **Flexibility**
- **Security**
- **Low cost**

Aside from integrity and robustness, Accendo strongly emphasized its ability to quickly create demand-driven technology solutions that met the diverse needs of clients.

This set its value proposition apart from that of traditional banks, who tend to offer more supply-driven, one-size-fits-all solutions.

Accendo Banco had the clearly stated goal of banking the un- and under-banked in Mexico, which it saw as a major commercial opportunity coming within reach thanks to digital channels.

Mexico is a market of 130 million people in which 63% of the adult population had neither a bank nor a mobile money account in 2017. But it is also a market with a high penetration of smartphones and mobile internet as well as a fintech startup scene that is among the most active anywhere.

All of this makes Mexico poised for an expansion of financial services to un- and under-served segments, which can now be served profitably through low-cost digital models.

Accendo or other BaaS players could play a key role in that expansion, in several ways:

- **Unleashing competition** by making it easier for a wide range of companies, including the many fintechs challengers as well as major players outside the financial sector, to offer banking services in a safe and regulated way
- **Lowering operational cost** via automation and efficiency as well as economies of scale by processing the transactions of customers from across a multitude of providers
- **Higher customer value** as B2B clients are forced to compete on other aspects of the business than the core elements in the BaaS offering that are increasingly commoditized.



CLIENT EXAMPLE



One of Latin Americas largest delivery platforms

CHALLENGE

Uptake of formal accounts and bank cards in Mexico is still low. Rappi wanted to offer its 6m customers a mobile account and payments card with features tailored to the segment.

SOLUTION:

- In 10 weeks from the first conversation, Accendo Banco enabled Rappi to launch a prepaid Visa debit card managed in the RappiPay App
- Fully remote signup matching facial recognition against national ID, with signup completed and the physical card delivered in 45 minutes
- A tailored rewards program with 1-3% cash back and price discounts of up to 50% at select merchants
- The partnership issued over two million cards in two years, reaching a full third of Rappi's Mexico customer base
- According to Rappi, many end customers were first-time bank card users

PART 2: THE CASE STUDIES



BACKGROUND AND STRATEGY



Green Dot is a digital bank and fintech whose aim is to drive the future of embedded fintech by being a platform partner that enables businesses to: (1) Embed banking and payments directly into their brands; (2) Create deeper, more valuable relationships with their users; and (3) Offer their customers new levels of simplicity and convenience in accessing and managing their money.

Founded in 1999, Green Dot was an early pioneer of general purpose reloadable prepaid debit cards. It then developed a Banking-as-a-Service platform offered as a B2B service. **GO2bank**, Green Dot's mobile banking service for consumers, was launched in 2021. It is aimed at low-income users with products such as overdraft protection, early access to wages or government benefits and high yield savings accounts.

Green Dot first partnered with Walmart in 2006 to create MoneyCard. In 2014, GoBank began to power Walmart's low-cost mobile checking accounts, and in 2015 added cash loading capability for prepaid cards and cash-in for instant transfers.

GoBank began powering Uber Checking in 2016, allowing drivers to instantly access funds paid to their business checking account. In 2018, Green Dot began to support Stash in providing mobile-first banking services.

In 2020, Green Dot partnered with Gig Wage to provide banking solutions to the payments platform for gig workers. That same year, Green Dot began powering Welcome Technologies' PODERcard, a debit card and mobile bank account targeted at unbanked immigrants.

PRODUCT



Green Dot's platform enables it to serve customers both directly, through products like its digital banking product GO2bank and as a banking platform services provider to some of the most recognizable brands in the world.

The company serves B2B clients by building financial tools and services that are seamlessly embedded into their brands and ecosystems - including online and in-store payments and white-label accounts.

Online banking:

This service allows B2B clients such as fintechs to offer banking services to their customers. Green Dot clients can integrate digital accounts within their own platforms, allowing customers to deposit and make or receive payments/transfers.

Breadth of Product Configurations



Mobile Banking
& Digital Wallets



Credit Score
Builder



Cash Pick Up &
Reload Network



Direct Deposit



Track Spending



ATMs Nationwide



Customer Support
(Chat, Web, IVR)



Fraud Protection



Family Account



Online Bill Pay
and eCheckbook



Shop Online, Virtual
Cards



Bank & P2P Transfers

Comprehensive Program Management



Bank

- Bank Issuing
- FDIC Insurance



Money Processing

- Tax Refund Processing
- Cash Deposit Network
- SimplyPaid Disbursements



Risk & Compliance

- MSB / AML
- Bank / Assoc.
- Process Design
- Card Transaction Monitoring / Handling



Technology

- Process Transactions
- Settlement & Billing



Product / UX

- Product Design & Development
- Customer Experience Mgmt.



Innovative Features

- Money In
- Money Out
- Account Management



Customer Service

- Call Center / IVR
- Web, text & email



Marketing

- Acquisition Promotion
- Retention Promotion



Supply Chain

- Package / POP Production
- Fulfillment

Green Dot architects customized, end-to-end solutions for B2B clients - with integrations that create deeper, more valuable user experiences and enable the B2B clients to deepen their relationships with their customers.

Early payday:

Enables customers to access their wages up to 2 days early and government benefits up to 4 days early when using Direct Deposit.

Tax refunds:

Enables providers of tax filing services to offer an everyday financial services experience by integrating a debit card into their online environment. This allows tax filers to access their tax returns faster and access advances based on the expected return.

CLIENTS



Green Dot's expanding list of partners includes companies ranging from top global brands to innovative start-ups.

In particular, Green Dot has deep experience serving large segments that include:

- **Payments/P2P**
- **Retail**
- **SMB**
- **Gig economy**
- **Wealth and investing**



VALUE PROPOSITION



Green Dot is a chartered bank holding company extending value add as a platform provider. Green Dot's ability to leverage its **banking license** to benefit technology and retail companies is the core of its value proposition. It enables its B2B clients/partners to integrate banking into their customers' experiences.

Retail network: Green Dot has a large (90,000+ strong) nation-wide retail partner network which it leverages to provide cash-in and cash-out services. The most expansive in the U.S., the retail network allows customers of Green Dot's digital-only clients to have access to cash or to digitize cash using locations that are more accessible and more available than traditional bank branches.

ATM Networks: Offer cash access using Green Dot nationwide no-fee ATM networks and ATM locator API.

Green Dot's BaaS platform also allows fintechs to let their customers:

- **Send money** for free
- Make purchases up to US\$100 using the **overdraft** facility
- Access **tailored rewards programs**
- Open **FDIC insured** accounts
- Enjoy **fraud protection**

TECHNOLOGY



Green Dot provides a **modern, scalable cloud-based banking platform** that makes it an agile technology partner.

How consumers prefer to bank or manage money is constantly evolving, meaning their bank must do so too. Green Dot changes its offerings and continually transforms its technology to support evolving B2B client/partner needs and the changing preferences of their customers.

Access to the BaaS platform features is enabled through APIs. The technology can empower Green Dot's B2B clients to create subaccounts tailored to customers' savings goals and to enable digital money movement to and from multiple accounts.

The platform is built for scale and can support the millions of accounts and thousands of integrated retail locations. It also supports accounts with anti-fraud, customer service and other services.



Green Dot says it aims to “give all people the power to bank seamlessly, affordably, and with confidence” by lowering barriers to participation in the financial system. Green Dot has served more than 33 million customers directly and reaches many millions more through B2B clients/partner solutions each year.

For instance, enabling gig workers real time access to earnings at no charge may help them avoid having to put spending on credit cards at 30-40% APR.

Similarly, unbanked recipients of US government benefits can use Green Dot’s Direct Deposit to receive payments electronically up to 4 days faster than mailed checks. This can also reduce the cost, since paper checks may need to be cashed using providers that can cost anywhere from 1% to 12% of the amount being cashed.

The bank also hopes to make financial services **more accessible**. One way to do that is to enable companies with vast existing customer bases to embed financial services into their offerings. In this way, Green Dot estimates it has ‘touched’ 15% of Americans with its products.

Despite being a branchless bank, Green Dot also has a network of 90,000 retail locations where customers who are paid in cash, including low-income and financially underserved communities, can deposit funds affordably into FDIC-insured bank accounts.

These 90,000+ cash-in/cash-out locations outnumber all the physical bank branches remaining in the United States. Ninety-six percent of Americans live within three miles of a Green Dot location.

CLIENT EXAMPLE



Uber

Global ride hailing company with one million drivers in the United States

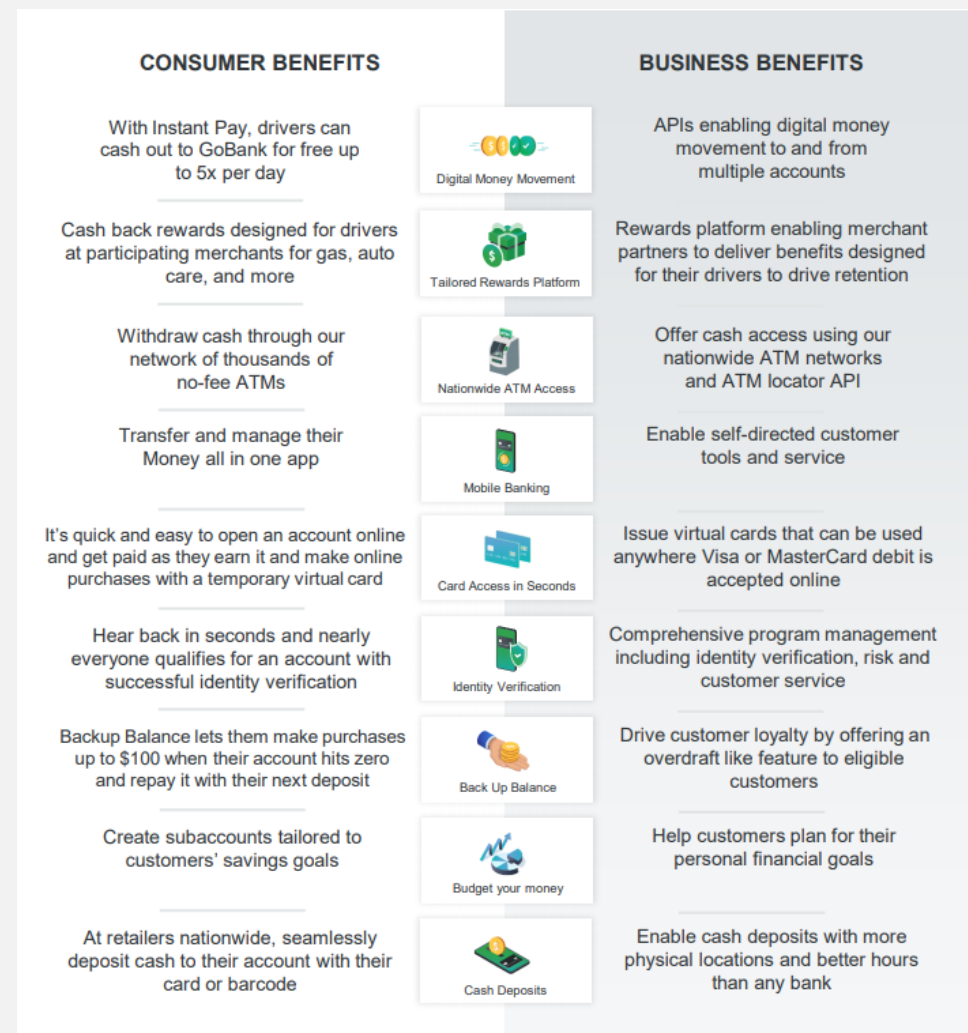
CHALLENGE

Uber wanted to offer its drivers a branded bank account with features more specifically relevant for them.

SOLUTION

- Green Dot powers Uber Checking, an FDIC insured bank account accessible in the Uber app for drivers, with no overdraft fees or minimum balance requirements.
- The account includes an Instant Pay feature, which gives drivers instant access to Uber earnings up to five times a day.
- It also includes a debit card with a tailored rewards program that offers 15% discount at some car service points, 10% cash back at some auto part stores, and 3% cash back at some gas stations.

Source: [Green Dot Uber Case Study](#)



CLIENT EXAMPLE



Banking Services: How to build a one-stop-shop for your finances

CHALLENGE

How does a leading robo-advisor best known for its automated investment service move into the broader market of banking and build a nextgen banking service for young professionals?

SOLUTION

Add checking features and a Wealthfront debit card to integrate spending, saving and investing into one seamless user experience.

Shifting into spending broadens market appeal and deepens the relationship with existing customers.

Source: [Green Dot Wealthfront Case Study](#)

