11FS

Banking as a Service: reimagining financial services with modular banking

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Executive summary

Executive Summary

Banking as a Service (BaaS) is paving the way for embedded finance

What it is	What's happening	Why it matters	What to do about it
Banking as a Service (BaaS) offers complete banking processes, such as payments or credit, as a service through modern API-driven platforms.	Third-party brands are embedding financial services in context to create better end-to-end journeys for their customers. BaaS will accelerate the growth of digital business ecosystems.	BaaS offers speed, collaboration, and specialization, enabling companies to bring new propositions to customers far faster than they could alone. This could be a $3.6trn* market by 2030.	Competitive advantage will shift to providing and configuring financial services for customer contexts and providing brands with the tools to manage many providers.

How 11:FS can help

We partner with brands and financial institutions looking to build their strategy, platforms and propositions for the next decade to take advantage of the embedded finance opportunity.

Source: 11:FS. * According to research by Simon Torrance, and Bain Capital Ventures

What is Banking as a Service (BaaS)?

The 11:FS Banking as a Service definition

Banking as a Service (BaaS) is the provision of complete banking processes (such as loans, payments or deposit accounts) as a service using an existing licensed bank's secure and regulated infrastructure with modern API-driven platforms.

Source: 11:FS

What is BaaS?

The BaaS stack

Brands

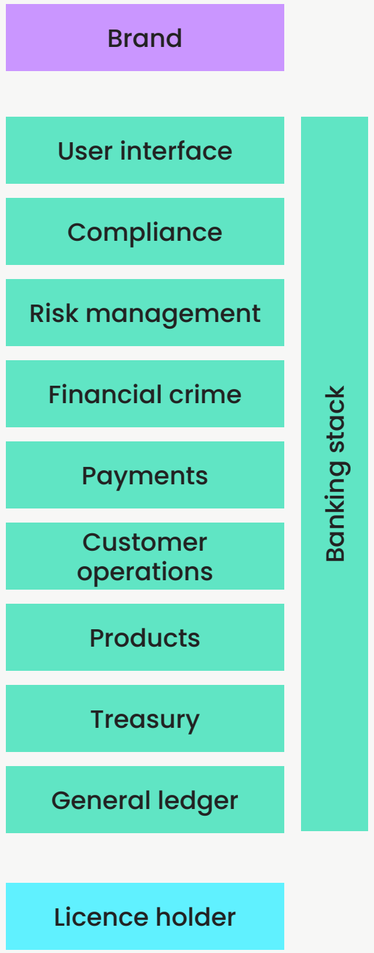
Providers

Licence holders

The picture on the right is the 11:FS Banking as a Service stack. It shows our view of the banking stack, breaking down the players and specialties that make up the BaaS ecosystem. The colours represent the three main actors in BaaS:

- BaaS allows any **brand** to embed financial services into its customer experience…
- …by picking and choosing capabilities offered by **providers**…
- …and **licence holders** in a modular fashion.

11:FS Banking as a Service stack



Source: 11:FS

What is BaaS?

Brands embed banking services into their offering

Brands

A company wishing to embed financial services into its customer experience.

Role they play

The brand manages the customer experience. It creates the user interface the customer interacts with and embeds finance in the customer experience. For example, Shopify allows a merchant to finance their stock, store it in a warehouse, ship it and accept payment all through one experience. The finance is one part of a broader experience.

Examples

amazon, Grab, lyft, shopify, Uber, WeChat

11:FS Banking as a Service stack

Source: 11:FS

What is BaaS?

As-a-service providers offer capabilities to brands

Providers

A company supplying one of the services in the banking stack as a service.

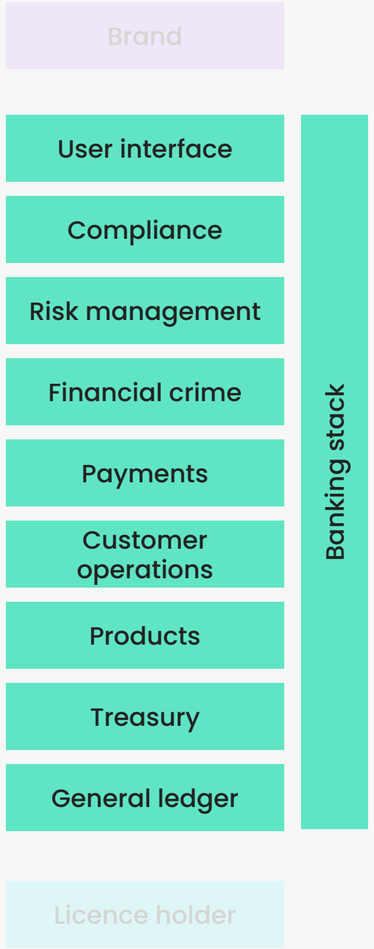
Role they play

As-a-service providers offer one or more banking capabilities as a service through modern API-driven platforms. Brands can choose multiple providers to bring best-in-class capabilities to the end customer. with BaaS, brands can “pick and mix.”

Examples

BOND, GALILEO, GPS, MARQETA, Railsbank, solarisBank, Synapse

11:FS Banking as a Service stack



Source: 11:FS

What is BaaS?

Licence holders provide the underlying financial products and access to rails and infrastructure

Licence holders

A bank that provides the licence for the financial services.

Role they play

A bank licence holder enables partner brands to provide financial services by renting their licence out as a service, often through partnerships with an as-a-service provider. This ensures that the brands embed compliant financial services into their customer experience.

Examples

cross river
EVOLVE bank & trust
green dot
Lincoln SAVINGS BANK
solarisBank
STARLING BANK
SuttonBank
The Bancorp

11:FS Banking as a Service stack

Source: 11:FS

What is BaaS?

Banking as a Service enables specialists to partner and bring new services to market

Brands

Providers

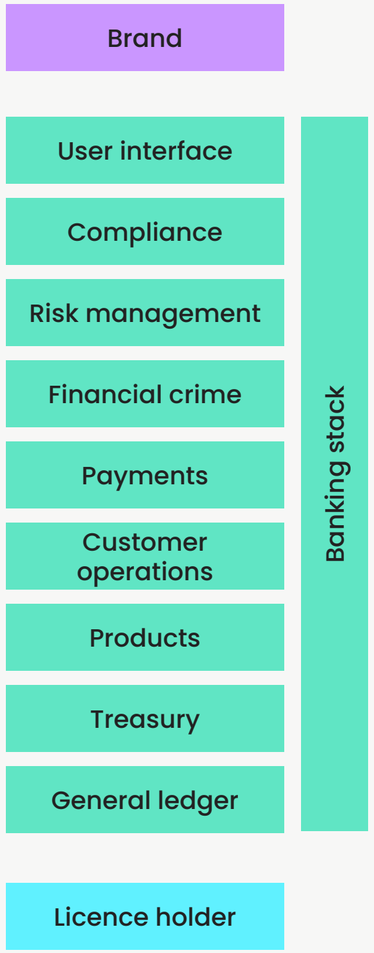
Licence holders

Brands embed financial services in their customer offering.

Providers offer the modular financial capabilities to brands to embed finance.

Licence holders partner with providers and give access to the underlying rails and financial products.

11:FS Banking as a Service stack



Source: 11:FS

What is BaaS?

Different actors play different roles in the stack

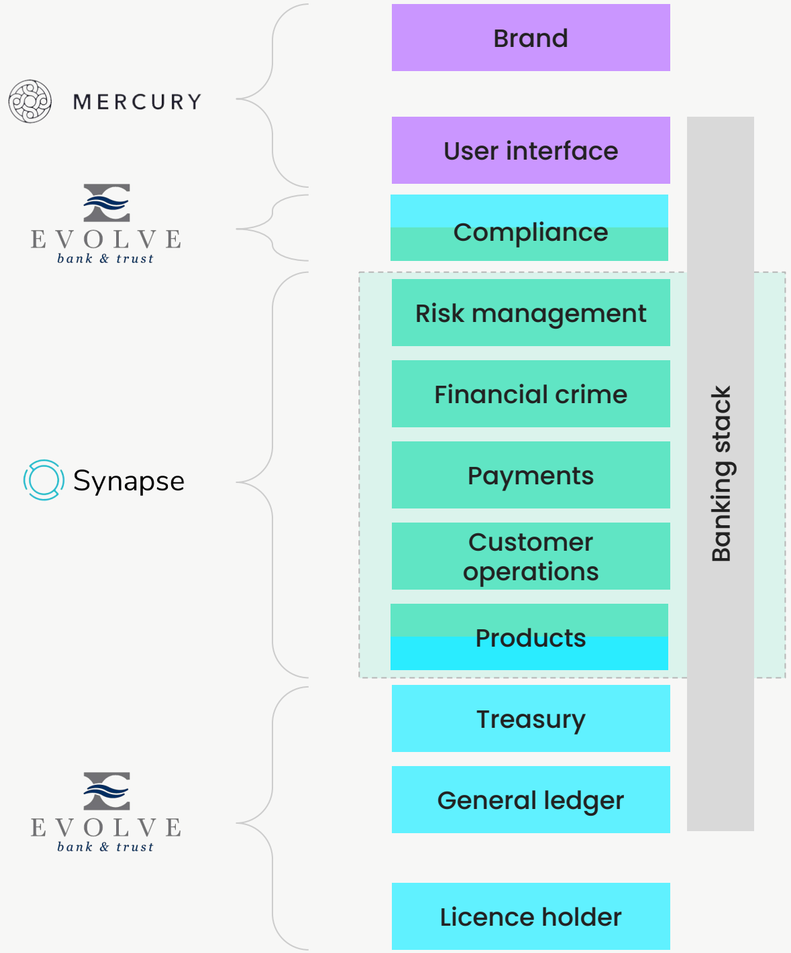
Mercury is the brand and provides the user interface
Brand | **Provider**

Synapse provides many of the core capabilities. It is a special type of "regulated product API provider" that partners with regulated licence holders that we cover in depth in this report.
Provider

Evolve provides the underlying deposit accounts and licence / sponsorship, but it also provides some of the compliance capabilities.
Licence holder | **Provider**

Source: 11:FS

11:FS Banking as a Service stack



BaaS enables...

Collaboration

BaaS is about working together. It requires collaboration from multiple providers.

Banking brought to you by your favourite brands.

Speed

BaaS enables companies to design and build new propositions far faster than they could on their own.

Financial services as a seamless experience.

Specialisation

BaaS enables services to be delivered by an ecosystem of specialised providers rather than one, single vertically integrated entity.

The best providers bring best-in-class capabilities.

Source: 11:FS

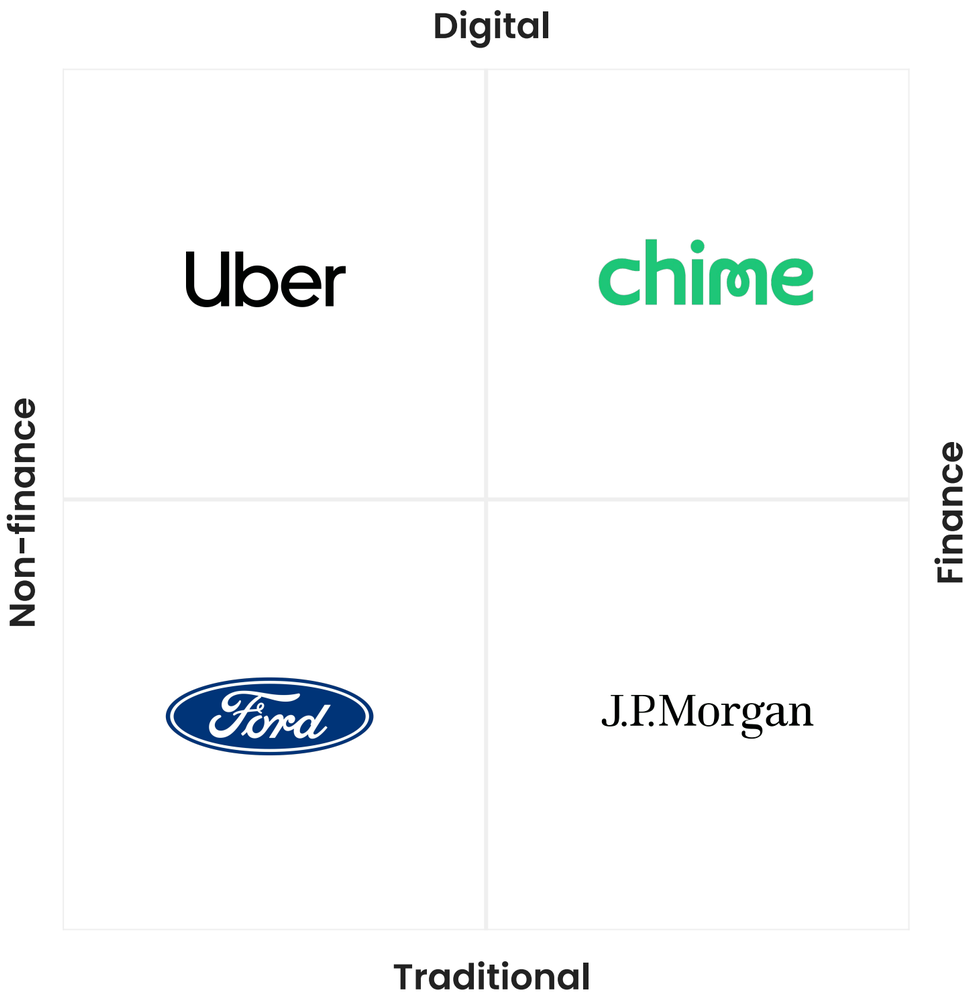
Who’s involved in Banking as a Service?

Brands want to embed finance into their customers’ experience

Brands

Every brand is a fintech

11:FS uses the brand fintech matrix to the right when thinking about the different approaches banks have taken to BaaS.



Source: 11:FS

Brands

Traditional non-finance brands

Typically these brands' commercial objective is to earn customers' loyalty, and generate new revenue streams.

This segment has been served historically by banks directly, through co-branded and **"affinity"** programmes and partnerships.

This model is usually a traditional **white-label** approach. The partner bank capabilities are unlikely to be modular, pay-as-you-go or subscription-based. Banks offer revenue shares on interchange and complex enterprise sales via RFPs (which are nonetheless familiar to this segment).

Source: 11:FS

Brands

Digital non-finance brands

Digital non-finance brands often have a large number of existing users across their platforms, and are seeking new revenue streams or ways to earn brand loyalty.

Typically they're engineering-led, and may experiment with a BaaS provider before contacting the sales team. This makes having open APIs and pay-as-you-go pricing a competitive advantage for this client segment.

These brands expect real time and intelligent APIs instead of long sales cycles and RFPs.

Source: 11:FS

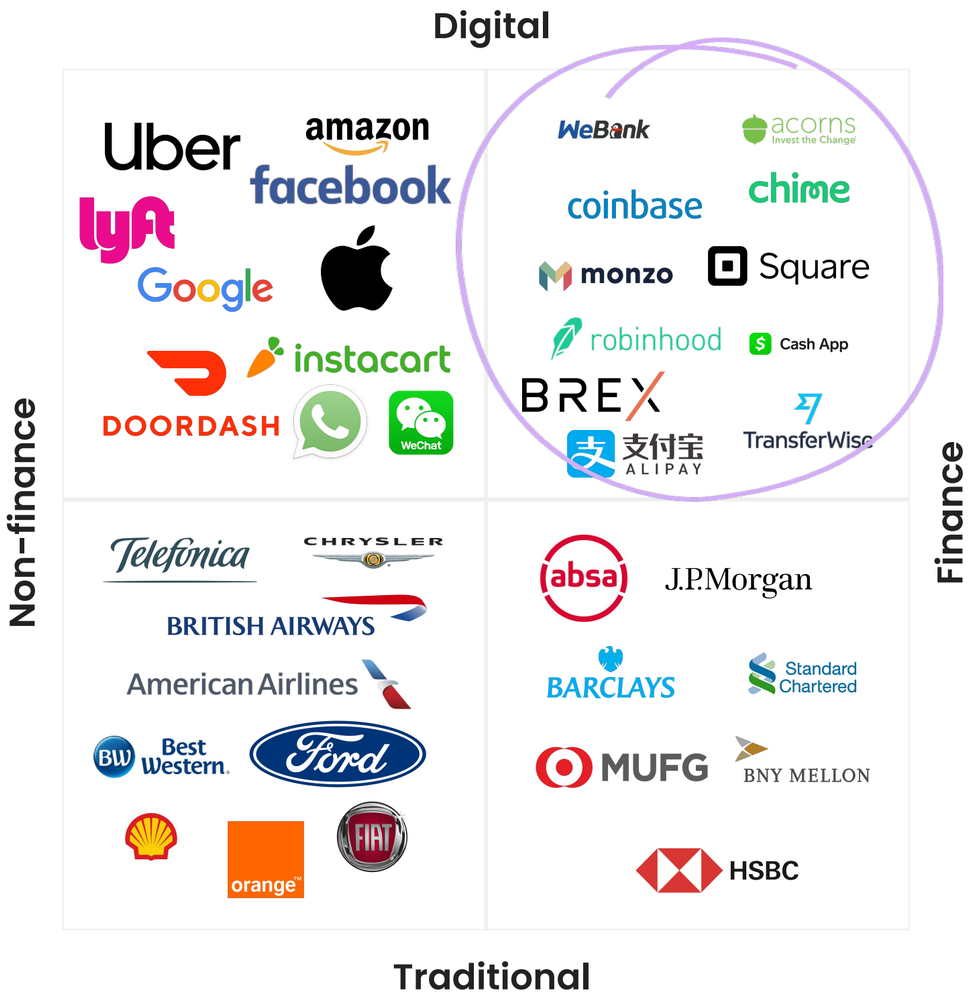
Brands

Digital finance brands (AKA fintechs)

Brands like Chime, Monzo, Robinhood and Square have different commercial objectives but have all introduced card-based payment services to their customers through BaaS providers.

The BaaS providers they default to offer modern, clean APIs with developer-first approaches to sales and marketing.

These companies can quickly get payments services to market and improve the commercials as they scale and apply for new licences.



Source: 11:FS

Brands

Traditional finance brands

Traditional finance brands are themselves licence holders and sometimes **providers of white-label or co-branded cards.**

However, some of these brands are looking at BaaS providers as potential payment processors or as partners to help them take their balance sheet and capabilities to market.

Few established banking brands have the capabilities and modern API-driven platforms needed to attract non-finance digital brands as clients.

Source: 11:FS

Brands

Increasingly, brands are embedding financial services into their propositions

2010
Established brands

Established brands worked closely with banks like Bank of America, Capital One, Citi and Barclays to offer white-label financial products.

American Airlines, British Airways, Dodge, President's Choice Financial, Tesco Bank, Walmart (Save money. Live better.)

2020
Digital brands

Some of the biggest digital brands in the world are now embedding financial services into their customer propositions.

amazon, Apple Card, facebook, Grab, lyft, Uber, WeChat

Future
All brands

Potentially all brands will embed finance through BaaS, making financial services available at the point of customer need.

BMW, Jio, John Deere, Mercedes, salesforce, Samsung, Starbucks Coffee, WhatsApp

Source: 11:FS

New providers enable brands to deliver embedded finance and better fintech products faster.

Providers

Three Banking as a Service (BaaS) providers stand out in the USA

GALILEO

The ultra flexible API

Galileo has a suite of APIs and partnerships with over 20 banks and can offer debit, prepaid and investing capabilities. Galileo's flexible APIs can be deployed against their existing partner banks or, if a brand has a preference, they can be deployed to that brand's existing bank partner.

MARQETA

The developer friendly platform

Marqeta focuses on providing world-class payments and debit card programmes through its API services. It partners with small US banks such as Lincoln Savings Bank, Sutton Bank and The Bancorp. Marqeta has focused on card-control features, providing brands with compelling digital, real-time experiences.

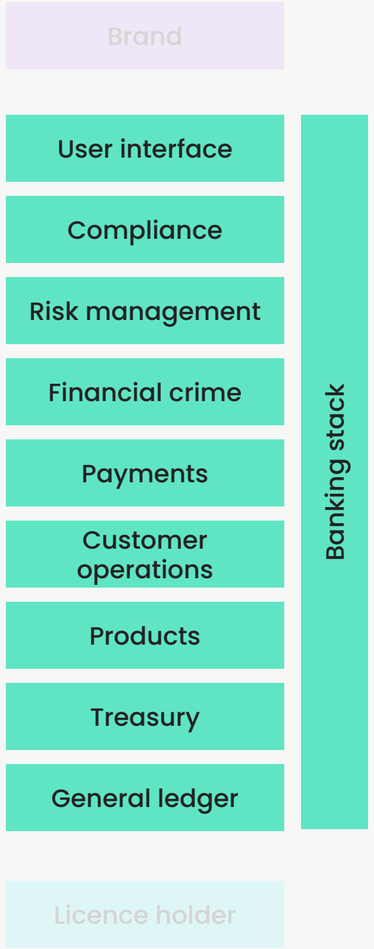
Synapse

The challenger

Synapse covers a number of the provider capabilities (e.g. customer operations), providing payments, deposit, lending and investment products. Synapse is simpler and more out of the box than Marqeta's offerings to date, but potentially at the risk of being less flexible and powerful for brands as they scale.

Source: 11:FS

11:FS Banking as a Service stack



Providers

European BaaS providers are more diverse in capabilities

Railsbank

The ultra simple but powerful API

solarisBank

Hybrid provider with its own licence

GPS

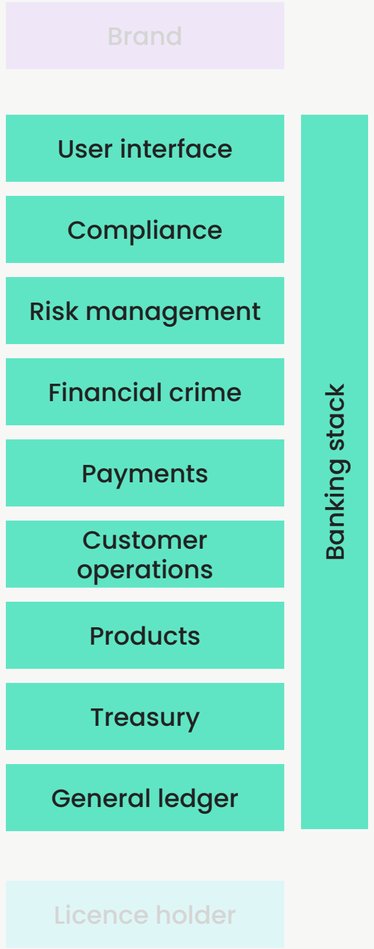
The OG payments processor of fintech

Railsbank works with payments processors, partner banks and fintechs to enable rapid creation of financial products including debit cards, payments and FX through one API. Despite its name, Railsbank is not a bank because it does not have a banking licence.

Solaris Bank powers Penta, Tomorrow Bank and many of Germany's largest fintech players. Offering many of the API capabilities in the BaaS stack. Unusually, it has its own licence and has neatly coupled the regulated activities with clean APIs.

GPS was the payments processor behind many of the UK's early fintech successes including Revolt, Monzo and Curve. With a wide geographic footprint, GPS is able to offer payments services, and works with local partners to provide access to card schemes.

11:FS Banking as a Service stack



Source: 11:FS

Providers

Other BaaS providers are emerging around the world

TUTUKA

Developer friendly payments processor

Tutuka has created a business and operating model that helps trial capabilities and get to market quickly (similar to Railsbank or Galileo Instant). Its clients include Grab, Telenor and Hong Kong's Octopus payments card.

中国平安 PING AN 金融·科技 ONECONNECT

The platform and the ecosystem

PingAn has a central core "One Connect", which centralises the data, transactions and capabilities for ventures across banking, healthcare and transport. The combination of data and capabilities means PingAn's venture spin-outs are able to offer unique pricing and risk models as a result.

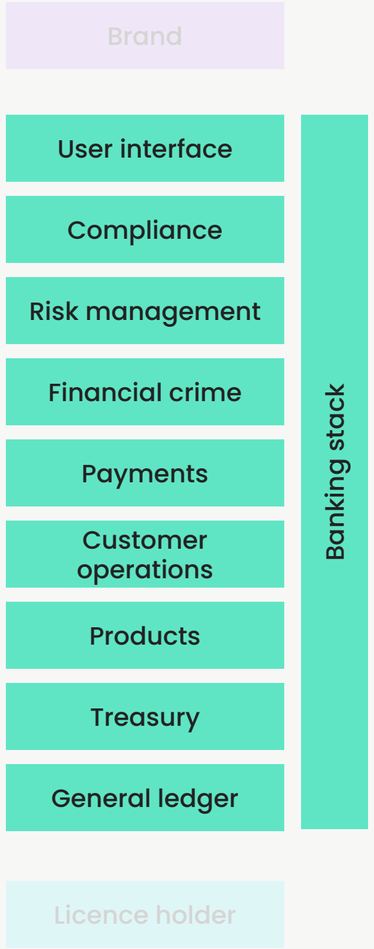
cielo

Brazilian payments processor

Cielo briefly partnered with Shopify, Facebook and local banks such as Nubank to provide WhatsApp payments in Brazil (although this was quickly shut down by the Brazilian central bank).

Source: 11:FS

11:FS Banking as a Service stack



Providers

Some non-payments API providers offer banking capabilities as a service that are complementary to BaaS

Upstart

The specialist lending engine

Currencycloud

The FX specialist

PLAID

Payments, identity and risk as a platform

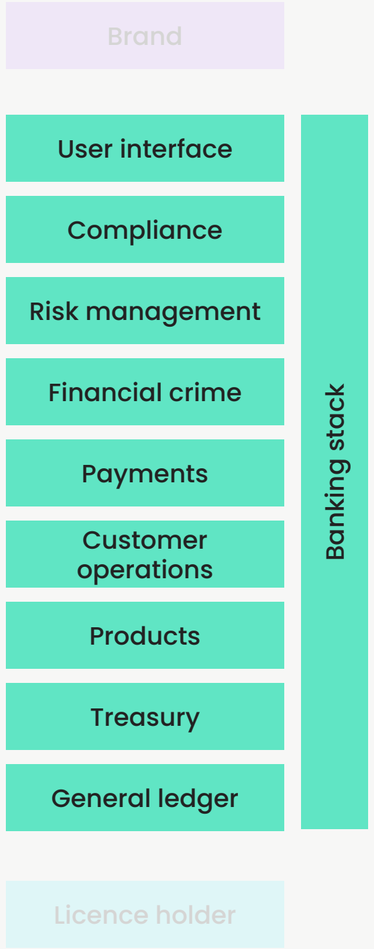
Upstart offers direct loans, credit-decisioning APIs and enables partner banks to embed loans from Upstart into their services. Upstart claims it is able to offer 75% fewer defaults at the same rate a bank would offer today, at an NPS of 80 (vs industry NPS of 30 for large banks) because of its digital platform.

Currency Cloud is an API-driven platform that allows banks and fintechs to embed international payments and FX capabilities. Used by Klarna, Revolut and Starling, Currency Cloud has a network of partner banks. By abstracting from many banks it has become a scale platform.

Plaid offers a series of payments, data and investments aggregation solutions. Plaid enables traditional bank capabilities, like identity and risk, to be performed by almost any market actor. Visa's January 2020 acquisition of Plaid valued the firm at over $5bn.

Source: 11:FS

11:FS Banking as a Service stack



Licence holders have woken up to the ecosystem opportunity BaaS presents...

Licence holders

Dozens of mostly smaller banks now offer their capabilities as a service, particularly in the US

Source: 11:FS

Licence holders

BaaS is gaining momentum fastest in the US for two reasons

01

The Durbin amendment

Small US banks are allowed to charge higher card interchange fees - making them attractive partners

After the global financial crisis of 2008, the Dodd-Frank Act introduced a series of new US banking regulations. The Durbin amendment to that act limits US debit card interchange fees - but the amendment does not apply to banks with less than $10 billion in assets. That makes smaller US banks and credit unions attractive partners for US brands because they can earn higher card interchange fees.

02

The difficulty of getting new US banking licenses

In the US, it is difficult and costly to earn a banking license.

It makes a lot of sense for banks to lend out their licenses to those brands and capability providers that need a banking license to provide financial services. For example it took Varo Money three years and an astonishing $100 million to get a national bank licence. That makes partnering with an existing licence holder more attractive - or even acquiring one, as LendingClub did by buying Radius Bank.

Source: 11:FS

Licence holders

Small US banks are using BaaS partnerships to attract deposits

SuttonPayments

Ohio bank that reinvented itself

EVOLVE bank & trust

Tennessee bank powering Synapse

Lincoln SAVINGS BANK

Small bank, big name brands

The Bancorp

The pioneer partner bank

Sutton has an active "partner bank" strategy and is the deposit holding entity for many challenger banks and brands (e.g. Monzo) The Ohio-based community bank has partnered with various providers of BaaS, from partnerships with **Marqeta** and **Galileo**.

Evolve Bank & Trust, partnered with **Synapse** to provide the underlying deposit accounts for both payments and lending products. Evolve enables Synapse to use its regulated capabilities and offer a more complete proposition to brands such as **Mercury**.

Lincoln Savings Bank has focused on becoming a "partner bank". By working with a new generation of providers, Lincoln's LSBX proposition has attracted Acorns, Q2, Qapital, **Money Lion** and **Square**.

The Bancorp provides its banking license as well as covers vendor elements as a vertically integrated offering to its partners, and helps enable **Marqeta's** platform. The Bancorp is a banking provider for many well-known fintech brands (such as **Chime**).

Source: 11:FS

11:FS Banking as a Service stack

Licence holders

Only a couple of banks above the Durbin $10bn assets threshold have (or intend to have) API-first BaaS offerings

BBVA

The world's most innovative established bank

Spanish banking group BBVA introduced a BaaS proposition in US with BBVA Compass through its BBVA Open platform. **BBVA Open Platform** offers a series of card, payments, deposit and verification APIs to third parties. BBVA provides banking capabilities to some leading US fintechs including Azlo, Catch, Digit, Modo, and Wise. BBVA partnered with **Uber** in Mexico offering BaaS APIs as both a provider and licence holder.

Goldman Sachs

Financial powerhouse with everything to play for

Goldman Sachs's leading collaboration with **Apple** has put it on the map as a BaaS licence provider. In its January 2020 Investor Day, Goldman noted its intent to build a full "banking as a service" capability. Goldman Sach is also an investor in BaaS provider **Bond.tech**

11:FS Banking as a Service stack

Source: 11:FS

BaaS needs modern, modular API-driven banking software platforms...

...but BaaS and banking software are not the same thing

Source: 11:FS

BaaS vs banking software

Banking software is becoming modular

Many finance brands may look into deep banking software as they mature and scale.

Modern banking software platforms share the same cloud-based, modular, API-driven approach to architecture that is fundamental to delivering BaaS.

Modern banking software providers represent a huge advance on legacy banking software. These software providers sell primarily to bank licence holders, and (often) require a level of scale or expertise to implement and typically upgrade their platforms over time.

By providing bank-critical software as a service, modern banking platforms bring licence holders significantly increased speed to market, speed of change, and ability to configure and personalise financial products.

Source: 11:FS

Banking software platforms are not “Banking as a Service”

To use a banking software platform you must either be a bank or have some level of lending or payments licence and a relationship with a bank.

Banking as a Service is sometimes confused with the delivery of banking Software as a Service, but they are not the same thing:

Software as a Service
The provision of software using centrally hosted delivery and licensing on a subscription basis. Software as a Service is sometimes referred to as "on-demand software". Modern core banking platforms are usually delivered as a service.

A bank licence holder would typically use a banking software platform.

Banking as a Service
The provision of complete banking processes, such as loans, payments or deposit accounts, as a service using an existing licensed bank's secure and regulated infrastructure with modern API-driven platforms from a specialist provider.

Any brand can partner with a BaaS provider to deliver bank-like services.

Source: 11:FS

The world is becoming truly digital

The world is becoming truly digital

Digital technologies have transformed business by making it faster and easier to partner

Mobile
Mobile devices offer customer context and connectivity

Cloud computing
Cloud-based services enable rapid scale

Digital architecture
Flexible architectures enable real-time data

APIs
Application Programming Interfaces (APIs) enable the standardized exchange of data

Source: 11:FS

The world is becoming truly digital

Digital businesses create partnerships with adjacent businesses to serve their customers better

Digital businesses turn to partnerships to:

- Deliver better customer outcomes faster
- Add adjacent capabilities that serve more of their customers' needs
- Build new capabilities faster than they could alone
- Reach new customers through their partners

BaaS partnerships between brands, providers and licence holders:

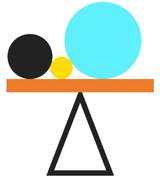
- Deliver financial services at the point of customer need
- Enable brands to serve more of their customers' needs
- Help brands build new finance capabilities faster than they could alone
- Help licence holders reach new customers through their partners

Source: 11:FS

The world is becoming truly digital

Platform companies are starting to dominate business

Company	Sector
Amazon.com	Consumer services
Apple	Technology
Microsoft	Technology
Alphabet	Technology
Tencent	Technology
Berkshire Hathaway	Financial services
Facebook	Technology
Alibaba	Consumer services
Visa	Financial services
JP Morgan	Financial services



7 out of 10

of the companies with the largest market cap growth since 2009 are platform companies

Sources: 11:FS; PwC.

The world is becoming truly digital

Platform and ecosystem businesses have greatly outperformed traditional businesses

50% **Have half the employees of non-platform or ecosystem businesses**

2x The revenue platform or ecosystem companies generate in comparison to other companies.

2x Sales growth for platform or ecosystem-based companies in comparison to their non platform based competitors year on year.

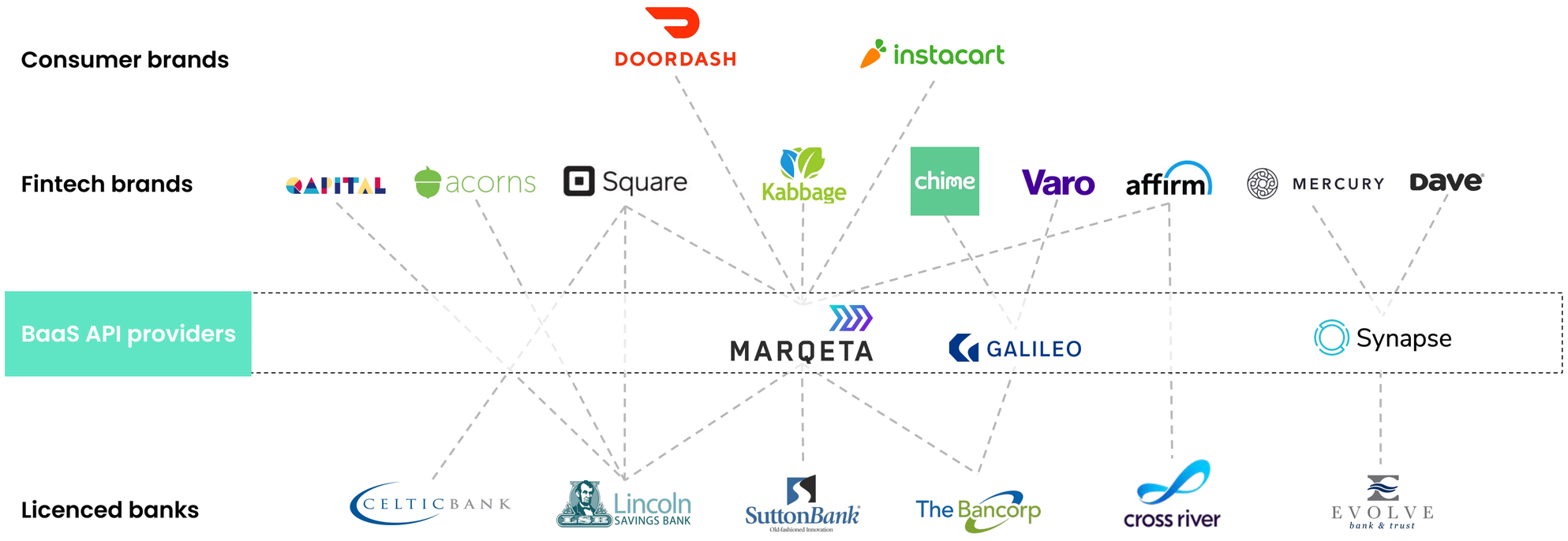
2x Platform or ecosystem based companies have an average market value 2x greater than their non-platform or ecosystem competitors.

Sources: 11:FS; MIT Sloan Management Review

BaaS enables brands to embed finance

BaaS enables brands to embed finance

BaaS providers have helped digital brands to bring new experiences to their customers



Source: 11:FS. Selected partnerships only. Accurate as of July 2020.

BaaS enables brands to embed finance

Brands can embed finance in context to create end-to-end journeys

Context is everything: Brands increasingly win by providing services closest to the context where it solves a customer problem in real time.

A customer context is the combination of events or circumstances and the touchpoint best placed to do the job they're aiming to do.

The list on the right gives examples of contexts (of which there may be thousands).

Not all brands will play in all contexts.

Understanding the power of context is key to evolving your BaaS strategy if you're a brand, provider or licence holder.

Chat context
Brands that could serve:

amazon alexa, facebook

Life event context
Brands that could serve:

acorns, rightmove, Zillow

Purchase / Point of Sale context
Brands that could serve:

Klarna., shopify, stripe, Square

Business event context
Brands that could serve:

salesforce, shopify, xero

Pay day / Get paid context
Brands that could serve:

chime, Varo

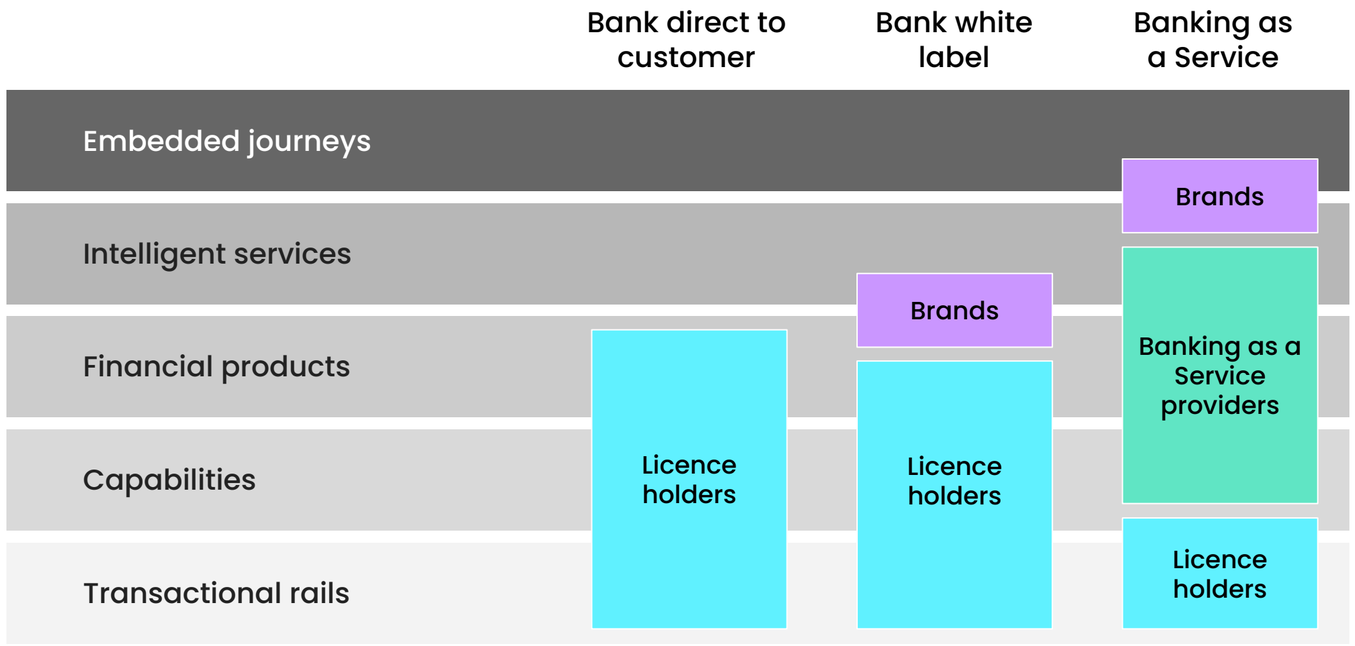
Accident / Emergency context
Brands that could serve:

facebook, Lemonade, Mercedes-Benz, orange, Telefónica

Source: 11:FS

BaaS enables brands to embed finance

BaaS providers enable innovation because they can break free from the underlying legacy technology and operating constraints



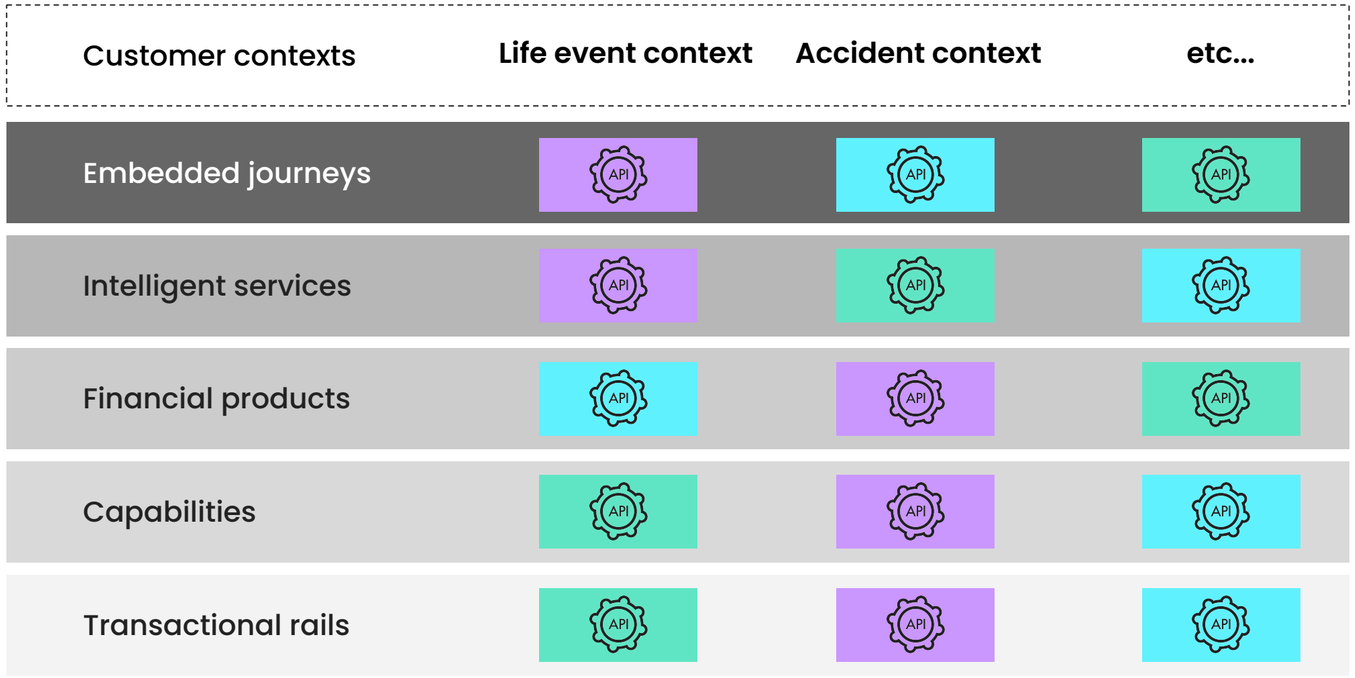
Historically banks would manufacture and distribute financial products. Banks would work with a series of providers in a tightly coupled technical, business and operating model.

The banks have a high cost of maintaining pace with regulation and despite spending billions, often do not build developer and brand friendly APIs. It is this gap that the Banking as a Service providers fill.

Source: 11:FS

BaaS enables brands to embed finance

A change in how the infrastructure is accessed has reduced the cost and complexity of embedding finance in a context

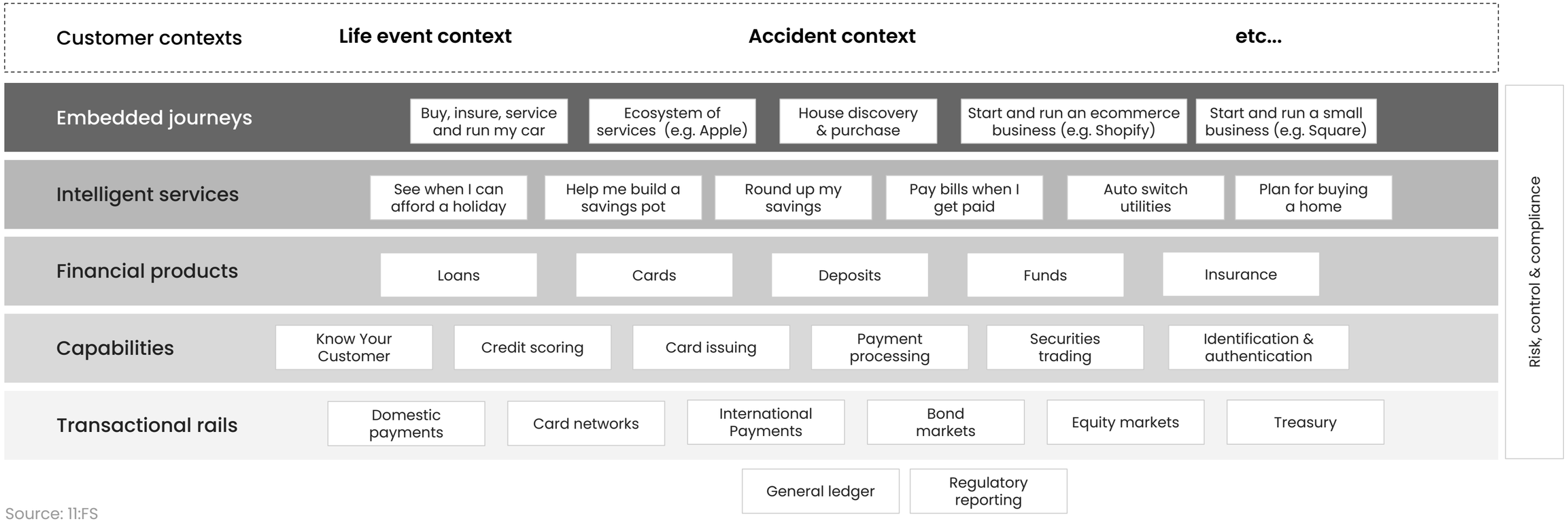


- Underlying transactional rails were traditionally only available to banks and regulated entities
- Bank capabilities and financial products historically were only provided by banks or specialists
- Banking as a Service providers partner with banks to make the rails, capabilities and financial products much more accessible to brands
- Brands use BaaS providers to create intelligent services (e.g. alert me when I've been paid or get paid early)
- Brands can also embed finance in a journey (e.g. help me build and run a business)

Source: 11:FS

BaaS enables brands to embed finance

Brands can focus on solving the problems of their customers with real-time, intelligent and context-aware experiences



Source: 11:FS

BaaS enables brands to embed finance

Designing, building and running a finance business becomes better, faster and cheaper than ever before

By launching **payments first** digital only banks get to market at a low cost, scale, and then move down the banking stack to grow profitability. They typically leverage as-a-service specialist providers and are cloud native.

monzo	Launched cards with Wirecard Q2 2015	Granted bank licence April 2017	Self issued debit cards + deposits July 2017	**~4.3m Customers** **Growing into SME banking**
Revolut	Launched cards with GPS / Wirecard Q3 2015	Lithuania Banking Licence December 2018	Applied for UK banking licence March 2020	**~10m Customers** **SME banking and investments**
chime	Launched cards with Galileo Q3 2014	Launches "get paid early" December 2018	OCC licence TBD	**~8m Customers** **Applying for a bank licence**
Varo	Launched cards with Galileo Q3 2016	Early licence approval Mid 2018	OCC licence completed Feb 2020	**~2m Customers** **Applying for a bank licence**

Source: 11:FS, AltFi, TechCrunch[1], TechCrunch[2]

BaaS enables brands to embed finance

Payments has also become central to many brand and platform businesses' revenue and profitability

By launching **payments first** digital brands get to market at a low cost, scale. They typically leverage as-a-service specialist providers and are cloud native. Shopify, Ant Financial and Grab have all moved deeper into financial services over the past 5 years.

Grab	Launches Grab Pay Nov 2017	Launches Finance Unit Oct 2018	Launches SME Banking Oct 2019	**187m users** **Applying for virtual licences**
shopify	Launches Shopify Payments Aug 2013	Launches Shopify Capital Apr 2016	Launches SME debit card Jun 2020	**< 57% of revenue is payments** **~$120bn market cap**
支付宝 ALIPAY	Alipay launched May 2008	Yu'e Bao Money Mkt Fund Launch Jun 2013	Zihma credit is introduced Jun 2015	**1.2Bn users** **Network of bank partnerships**
	Launch Apple Pay Oct 2014	Launch P2P payments Mid 2017	Launch Apple Card Oct 2019	**3.1m Apple Card users** **~5% of all global card transactions are Apple Pay**

Source: 11:FS, 9to5mac, Shopify

BaaS changes business and operating models

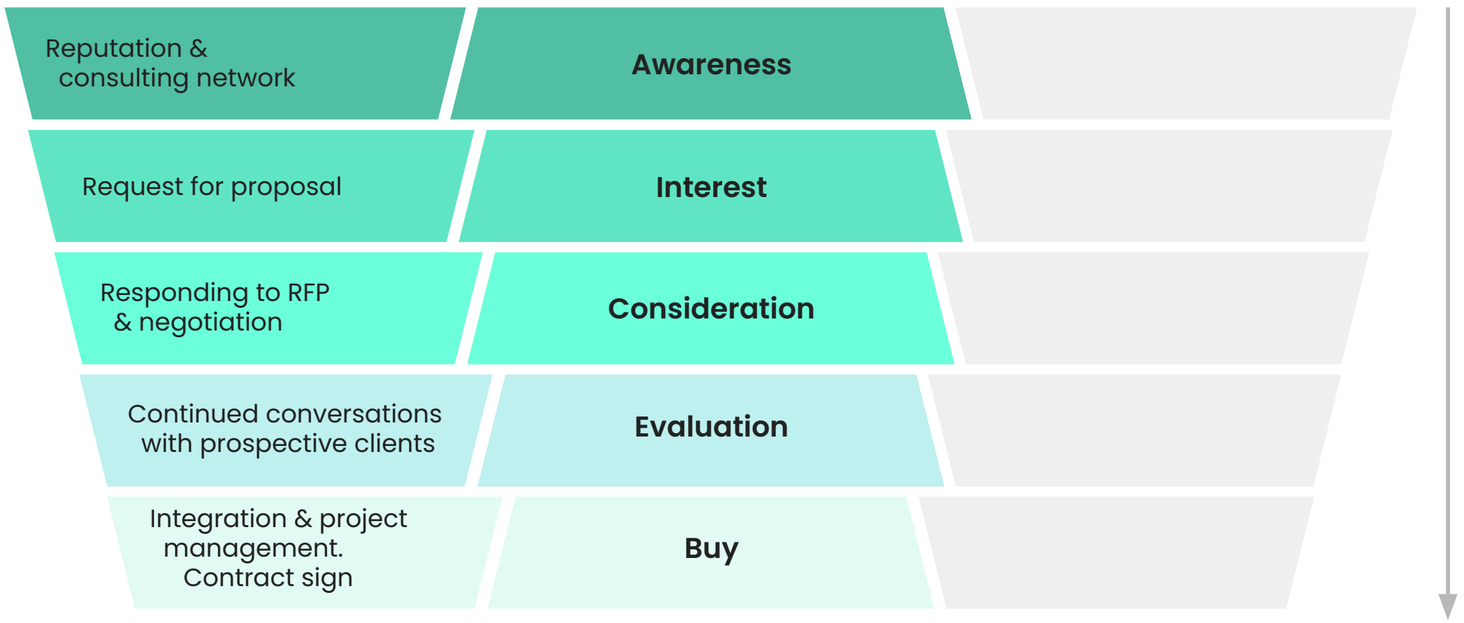
BaaS changes business and operating models

The fundamental shift of business model is in how brands are able to buy from this new type of BaaS provider

Historically, banks would “white label” banking capabilities, and the sales funnel would look as per the diagram on the right.

The sales cycles are long, aimed at larger organisations and focus on complex sales of many underlying capabilities.

The way the modern providers do this looks significantly different.



The whole process takes on average of 6 to 12 months, often with significant custom or bespoke effort required.

Source: 11:FS

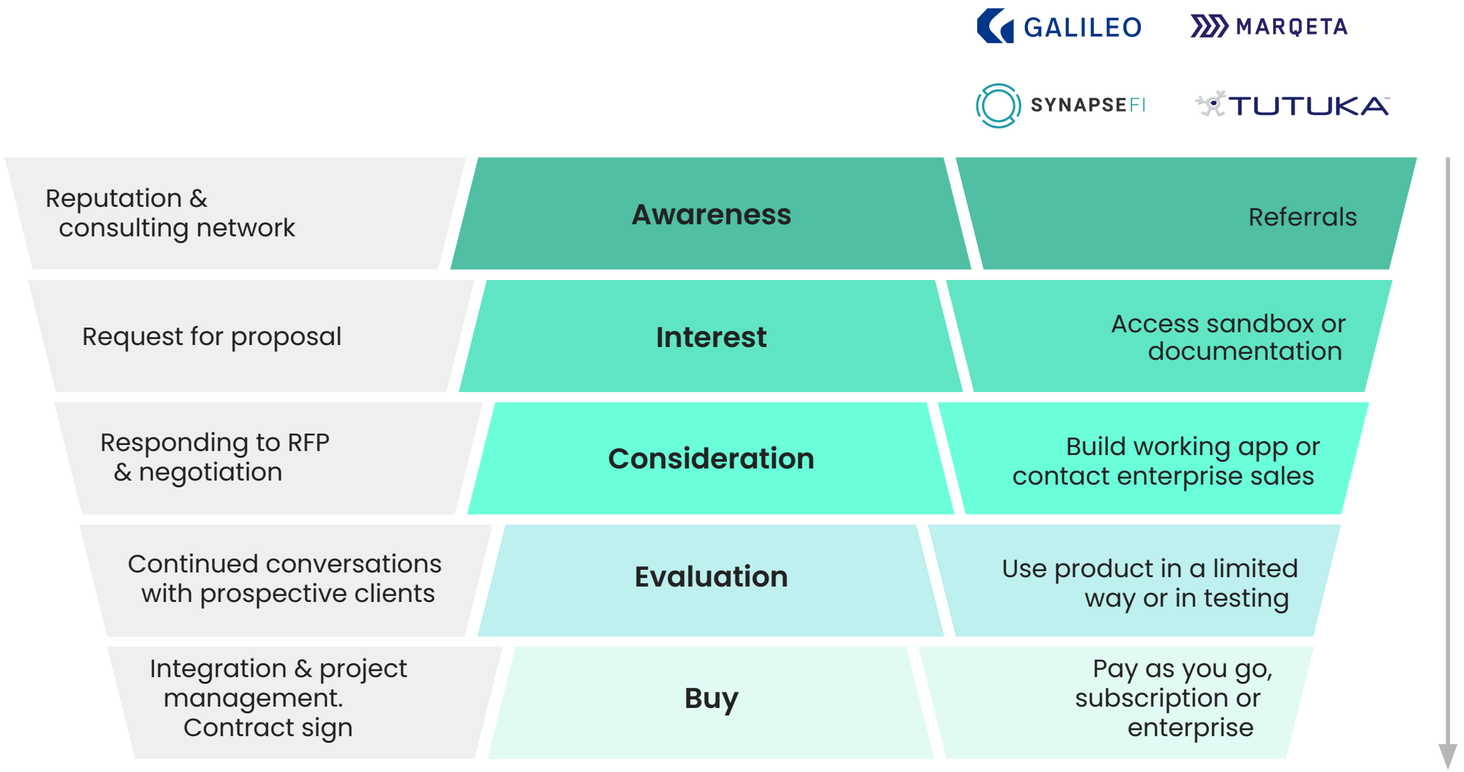
BaaS changes business and operating models

BaaS providers are easier to buy from and focus on developers as their core audience

These providers have built their platforms to be easy to use without having to speak to a sales person.

Website documentation is developer - or expert - focused, and allows a prospect or client to try the service before they buy.

A prospect can even “pay as they go” and use the service in production with almost zero additional effort by the provider.



The time to first transaction can be as little as a few hours, and to operating at scale just a few days.

Source: 11:FS

BaaS changes business and operating models

BaaS broadens the business model for banks

This is “and” not “or” (meaning you can have both new and old revenue models)

Pay as you go

Pay per API call or successful swipe

SaaS subscription

Flat-rate, agreed in partnership terms

Interchange split

Banks offer a percentage of interchange to partners

Deposits received

Licence holders receive the deposits from their partners, earning net interest

Typical BaaS revenue streams

- Start “pay as you go” while testing
- No need to speak to sales
- Move to a standard “subscription” model (more stable revenue)

Traditional bank white-label revenue streams

- Interchange can be capped by regulators
- Getting here requires RFP and contract, resulting in a high cost of sale
- Variable revenue

Banks that partner with BaaS providers are able to turn cost centres into profit centres

Partner banks are able to do “only what they’re great at”, and don’t have to absorb cost of doing business unless their offering is something they want to sell.

Source: 11:FS

BaaS will alter the business and operating model of financial services for the long term...

Source: 11:FS

BaaS changes business and operating models

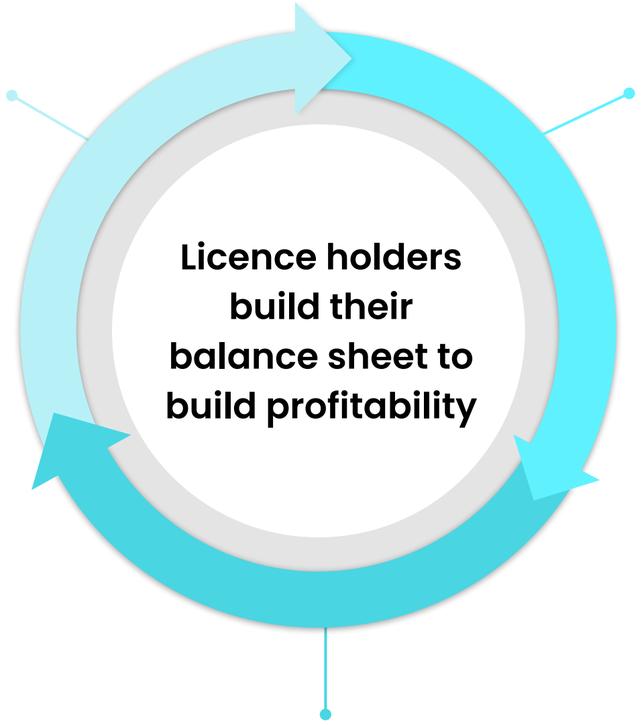
The old banking business model had network effects – larger balance sheet, larger net interest margin

Licence holders' primary business model has historically been to grow balance sheet by attracting deposits and making loans.

Digital touchpoints have been seen as another distribution channel for their existing processes and services.

The business model is still profitable, but has been weakened by new customer expectations shaped by digital brands.

Key insight: Banks have a high cost of operation and customer acquisition vs digital brands.



Lending generates profits

As banks lend more, their profits grow, allowing them to scale operations and marketing, which attracts more deposits

Attract deposits

A banking licence or charter allows banks to hold customer deposits that are insured and protected

Increasing ability to lend

The licence allows banks to create profits through lending, charging higher interest on loans than they pay on deposits

Source: 11:FS

BaaS changes business and operating models

The new network effect: customer experience

Digital brands have a variety of business models. However, their customer acquisition routes are usually well proven.

Digital brands are experts at solving a customer problem in a truly digital way, differentiating on ease of setup and a frictionless experience. Digital brands typically attract 30% to 50% of customers through referrals, compared with about 1% at traditional banks.*

Many are struggling to reach profitability (e.g. ride hailing or digital banks that have not built balance sheet), driving them to seek additional revenue sources.

Key insight: Digital brands' Customer Acquisition Cost (CAC) is orders of magnitude smaller than traditional banks. Referred customers have a $0 marketing cost.

Grows user base

The user base grows exponentially as referral network effects drive acquisition

Great user experience

Digital brands build world-class digital experiences

Increases referrals

The delight these experiences create dramatically increases referrals / organic acquisition and changes customer expectations

* Source: 11:FS interviews with CEOs of challenger banks and incumbent financial institutions

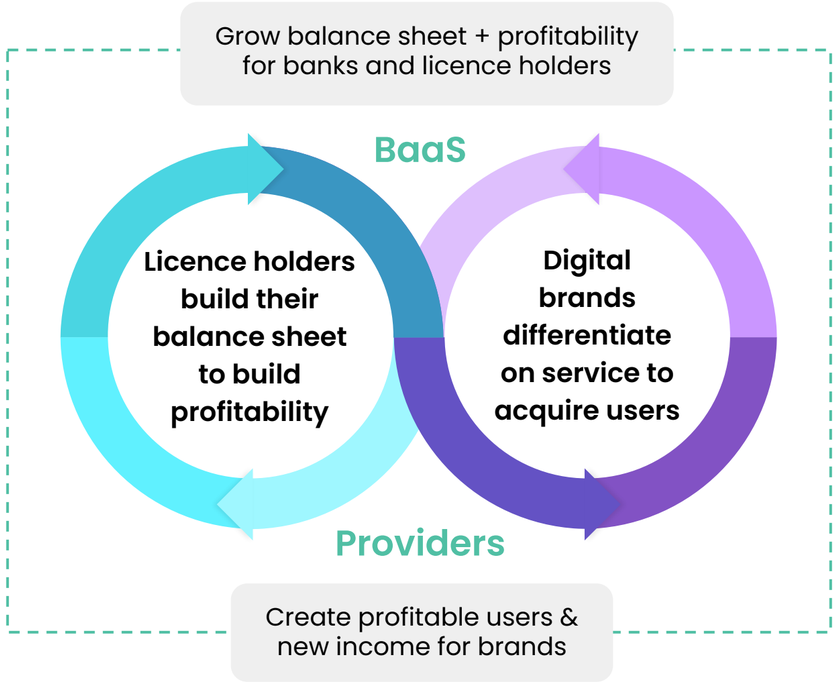
BaaS changes business and operating models

For both licence holders and brands the right BaaS strategy creates network effects to get the best of both balance sheet and user acquisition

Licence holders have already started to deploy their licences on behalf of brands (increasingly via BaaS).

- Beyond co-branded cards, enabling brands to create their own experiences.
- Licence holders usually lack the depth of consumer data that big tech brands hold.

BaaS helps banks win customers and grow their deposits and lending (balance sheet).



Brands have already leveraged other licences for basic financial products (increasingly via BaaS Providers).

- BaaS offers new services revenue for brands and the ability to deploy financial products in a customer context.
- Digital brands typically have better data about consumers than licence holders.

BaaS helps brands improve experiences and generate revenue from their existing customers.

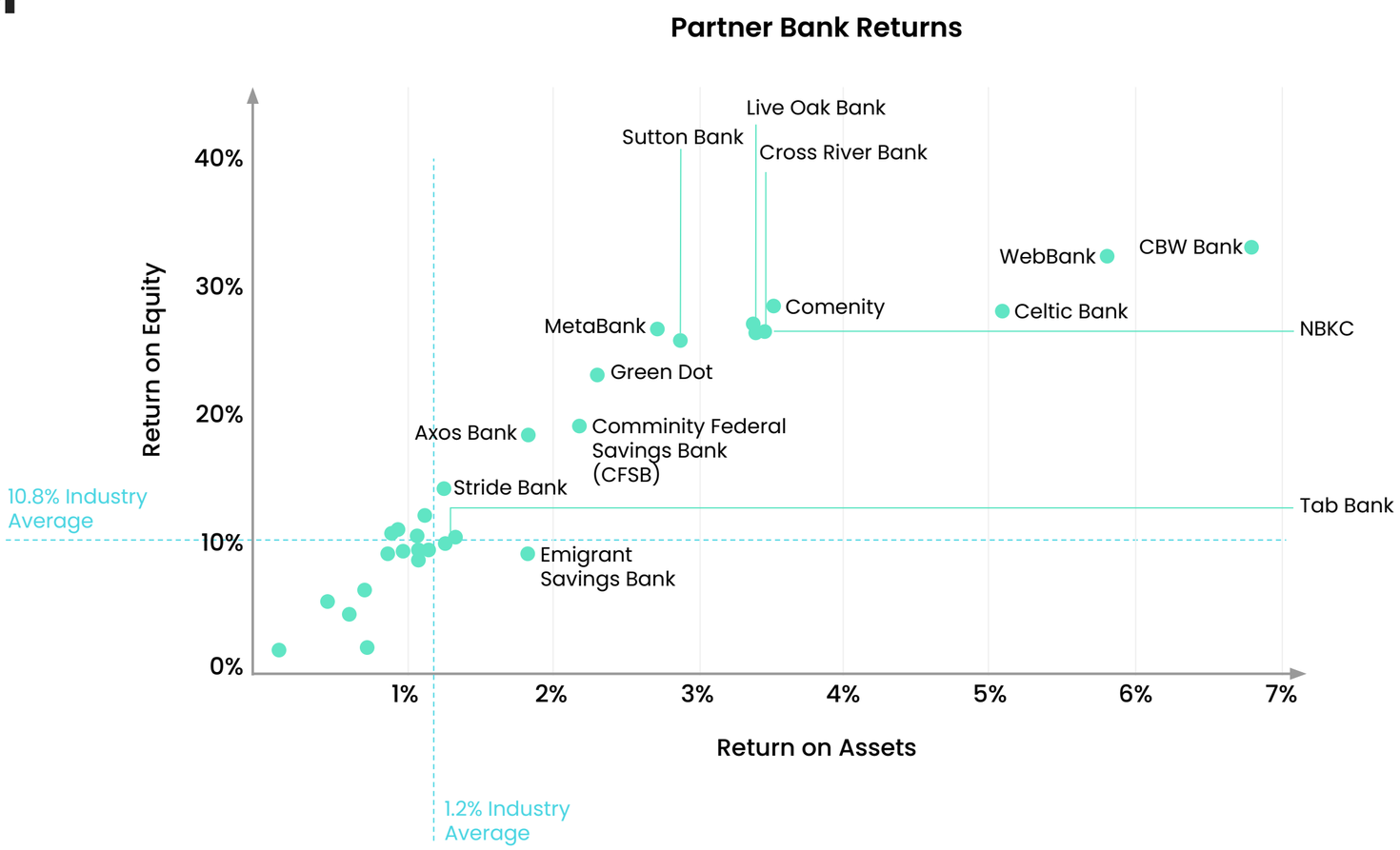
Source: 11:FS

BaaS changes business and operating models

US banks using the partner model are experiencing 2-3x the industry average return on assets

Licence holders that are acting in a partner bank capacity in the USA report substantially above-market returns than their peer group, according to analysis by a16z.

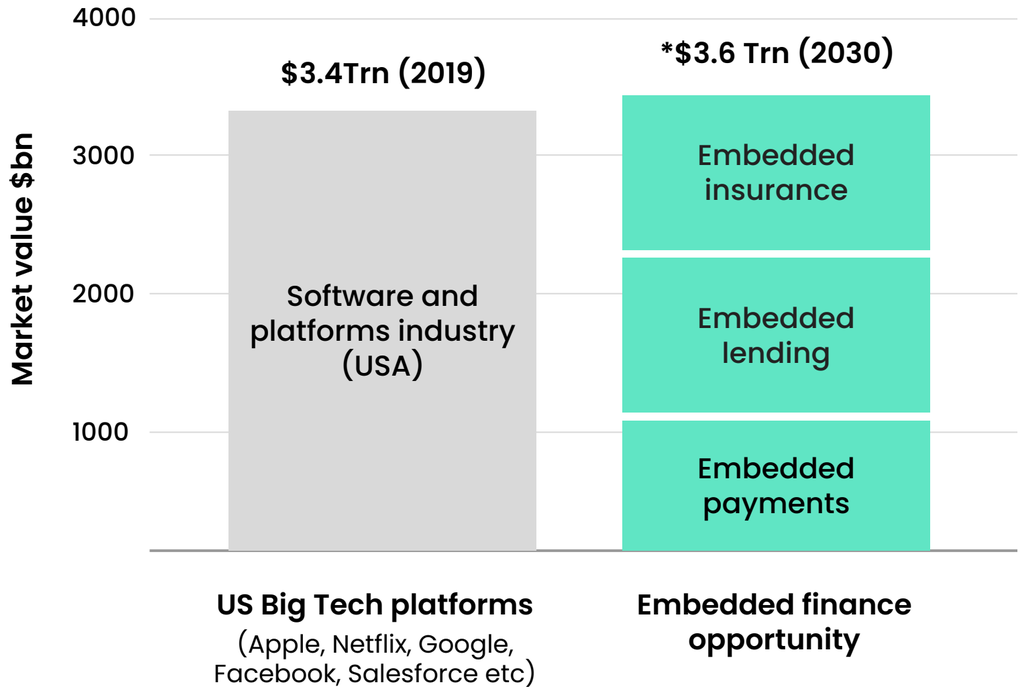
Key insight: By working with BaaS providers the partner banks in the USA do not have to build the marketing and distribution capabilities that many of the BaaS players offer. This reduces their cost of distribution even while growing their balance sheets.



Sources: a16z; 11:FS

BaaS changes business and operating models

Embedded finance is a massive opportunity similar in scale to the entire US software and big tech market



The technologies, businesses and operating models that created the big tech wave are coming to finance.

The market opportunity for embedded finance is massive. As brands like Shopify (ecosystems) partner with providers like Affirm (embedded lending platform), entirely new value will be unlocked. This could be worth $3.6 trillion by 2030 - more than the value of the US big tech platforms today and roughly equal to the market cap of the top 30 banks globally.

*Based on current adoption trends continuing, and assuming that 40% of payments volume, 20% of lending volume and 20% of insurance volume moves to an embedded finance model by 2030.

Source: Simon Torrance Analysis, Bain Capital Ventures

What does this mean for my business?

Things to think about

BaaS has four core issues and challenges

Provider lock-in

Brands often get locked into a payment provider, especially if their internal tech is not designed to manage many BaaS end points.

01

Geographic limits

Most (not all) BaaS providers are limited by geographic coverage. This means brands have additional cost and cannot launch globally.

02

Flexibility vs speed

Brands have to trade off speed to market for flexibility. Underlying BaaS providers with more flexibility are more expensive and require more work.

03

Product configuration gaps

Brands are ultimately limited by what the underlying partner bank can offer to the BaaS provider. You can have anything so long as it's a card.*

04

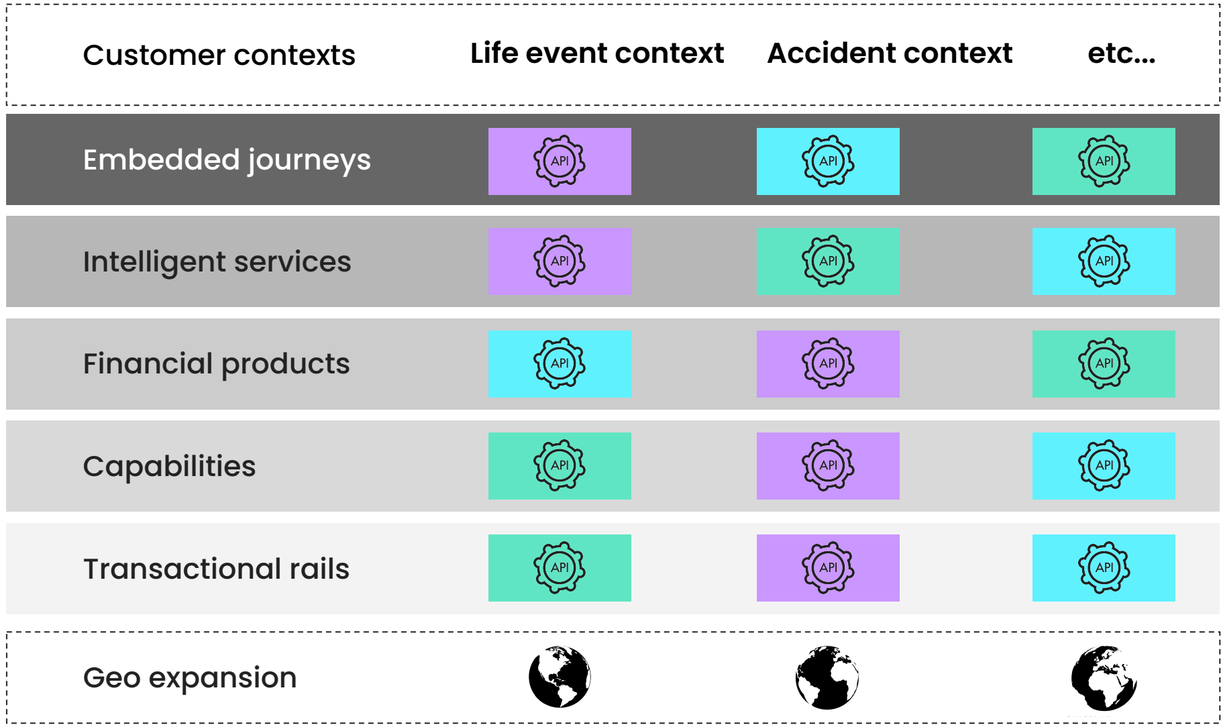
BaaS is not "one provider fits all"

Brands at different levels of maturity will feel these challenges at different phases of their development. BaaS remains a significantly more modular approach for brands to provide embedded finance. By understanding different provider limitations brands can take sensible steps to manage these challenges.

Source: 11:FS. * There are BaaS providers who offer non-card products, but outside of China, BaaS is cards and payments dominant historically

Things to think about

One solution is dedicated banking software. This too comes with its own challenges.



Many larger fintechs have resolved the limitations of their **partner banks** or **BaaS provider** by becoming a bank and putting in a banking software platform.

This is a very challenging route for most other **brands** and an expensive and complex bottleneck that only a handful will overcome.

The effort required by **brands** to de-couple their UX, services and products from their **BaaS provider** is significant. They would also have to plumb their banking software into new (or existing) underlying providers, creating vendor lock in. Ultimately, this makes it difficult for them to be able to provide consistent services across a number of geographies.

There are lessons we can learn from the best digital banks' approaches to doing so.

Source: 11:FS

Things to think about

Therefore brands need the right software platform to get the most out of BaaS

Brands at different levels of maturity have different goals.

Often organisations build this software bespoke in house or rely on a banking software provider to do it.

Many banking software platforms have not been built as modular software for a world of Banking as a Service.

Smaller digital finance brands	Large digital non -finance brands	Large traditional finance brands
Digital challenger brands reach a scale where they progress beyond a single provider of BaaS.	Non finance digital brands may need to manage a network of BaaS partners and move further from their core business.	Traditional finance brands often suffer vendor lock-in because payments providers are welded deep into their core infrastructure.

- All brands need a tech and operating model that enables them to route transactions between multiple payment providers
- All want to avoid vendor lock-in
- Many want the option to move to multiple countries at pace
- Ideally they want a single infrastructure where much of the product configuration is uniform and managed

If brands had these capabilities they could offer the same current account, savings, loans or other products across multiple BaaS providers from a single platform. Many have started to build this, but the effort and cost is high. Most banking software platforms do not allow for this type of abstraction from BaaS providers and payments gateways.

11:FS believes the combination of provider abstraction and product configuration will be key for brands in the coming decade to take advantage of the $3.6trn embedded finance opportunity.

Source: 11:FS

Imagine a world where almost anyone could build and launch innovative, regulated financial products as easily as they can create a Shopify page

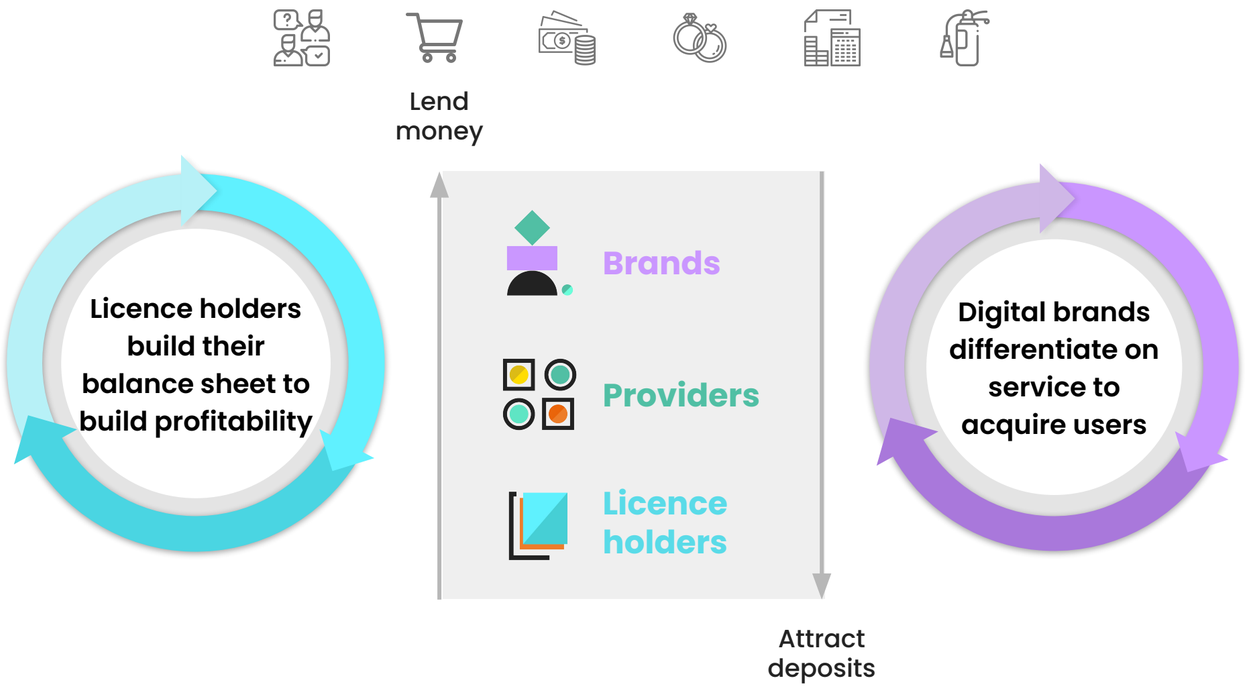
Source: 11:FS

Competitive advantage will shift to providing and configuring financial services for customer contexts and providing brands with the tools to manage many providers

An opportunity for licence holders is to distribute their balance sheet to as many brands via as many providers as possible. There is some cannibalisation risk of their retail brand in the short term, but this risk already exists via fintechs and big techs.

Providers would benefit from a wider range of financial products to package to the market and brands.

Brands can generate new sources of income and become more relevant to their customer base, leveraging their data assets, but need to be able to manage relationships with many providers.



Source: 11:FS

Whatever your scale, there are some common gotchas to watch out for as you scale with BaaS

Size	Just starting	1k customers	100k customers	1m+ customers	1m+ customers Multi product	1m+ customers Multi product Multi geo
Biggest risk	Product market fit	Raising capital	Provider outage	Scaling effectively	Becoming stagnant	Innovators / Big techs
Common gotchas	• Start-ups pick the wrong regs or rely on someone else's • Early coding and architecture sins create tech debt	• Not nailing the beach head opportunity or "hook" • Not creating virality • Not doubling down on what works • Not being able to change what fails fast	• Not expanding into revenue generating products • Over reliance on one provider • Impacting the customer experience via increased automation	• Picking the wrong international expansion • Not expanding into revenue generating products • Over reliance on one provider • Losing the ability to change quickly	• Provider lock-in to long contracts • Not expanding into revenue generating products • Losing ability to change products quickly (or in real time)	• Provider lock-in to long contracts • Not expanding into revenue generating products • Losing ability to change quickly • Often takes months / years to change a product

Source: 11:FS

What does this mean for my business?

We work with clients across the world with our award-winning products and services, and a smorgasbord of industry-leading specialists. Reach out to our team, who are also the brains behind this report, to have a conversation about how **you** can leverage BaaS to grow **your business.**

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11FS Foundry.

11FS Consulting.

British Bank Awards CONSULTANCY OF THE YEAR WINNER 2020

Source: 11:FS

We partner with global financial institutions to design, build, and launch truly digital financial service ventures.

Source: 11:FS

Products

11:FS Foundry

11:FS Foundry allows almost anyone to build, edit and deploy financial products to production in real time.

11:FS Foundry features a simple General Ledger, so you can run a modern checking, savings or lending account. And it has a powerful product configuration engine so brands and licence holders can embrace the embedded finance opportunity with context driven financial services. This intelligent service creation allows finance to work seamlessly in the lives of customers.

Source: 11:FS

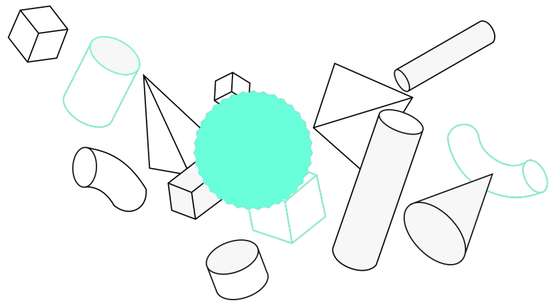
Services

Consulting

11:FS Consulting builds financial services that work better for everyone. We work with clients to research, design and build new propositions that customers love.

We enjoy helping clients answer questions like where should I invest? How do I get more from digital? How do I move the needle for customers and growth?

Through strategy, research, product, engineering, and design support we help our clients level up.



Glossary

Glossary of terms & definitions

Term	Definition
Application Programming Interface (API)	An Internet interface for direct computer-to-computer integration that defines interactions between software programs. APIs enable end-to-end customer journeys through the integration of data and digital services from different partners.
API banking	Embedded financial services delivered exclusively by API.
BaaS provider	A new breed of product API providers that partner with regulated banks to deliver financial products, such as loans, payments or deposit accounts, through APIs.
Banking as a Service (BaaS)	Banking as a Service is the provision of complete banking processes, such as loans, payments or deposit accounts, as a service using an existing licensed bank's secure and regulated infrastructure with modern API-driven platforms.
Core banking platforms	Core banking platforms are the back-end systems of a bank that process transactions, including transfers, deposits and loans.
Embedded finance	The integration of financial services into other (non-financial) services and experiences.
Open banking	Open banking is the use of open APIs to enable third-party providers to access a customer's banking data with that customer's explicit consent.
White-label financial services	The provision of white-label financial products and services to other, non-financial, brands. This often locks the brand to a single supplier for that product.

Source: 11:FS