# Better banking business models: embedded finance and the path to growth

# Contents

# Summary

**Banks' earnings growth has stalled.**

The traditional banking business model offers diminishing returns. And the pandemic has only made things worse.

**Ecosystems and platform business models have changed the game.**

Leading digital brands are partnering with adjacent businesses to serve customers better. Many are embedding finance into their customer propositions.

**BaaS offers new revenue opportunities for banks.**

Banking as a Service (BaaS) enables embedded finance, creating new growth and revenue opportunities for banks that act fast.

## The problem:

# Banks’ core business model is broken

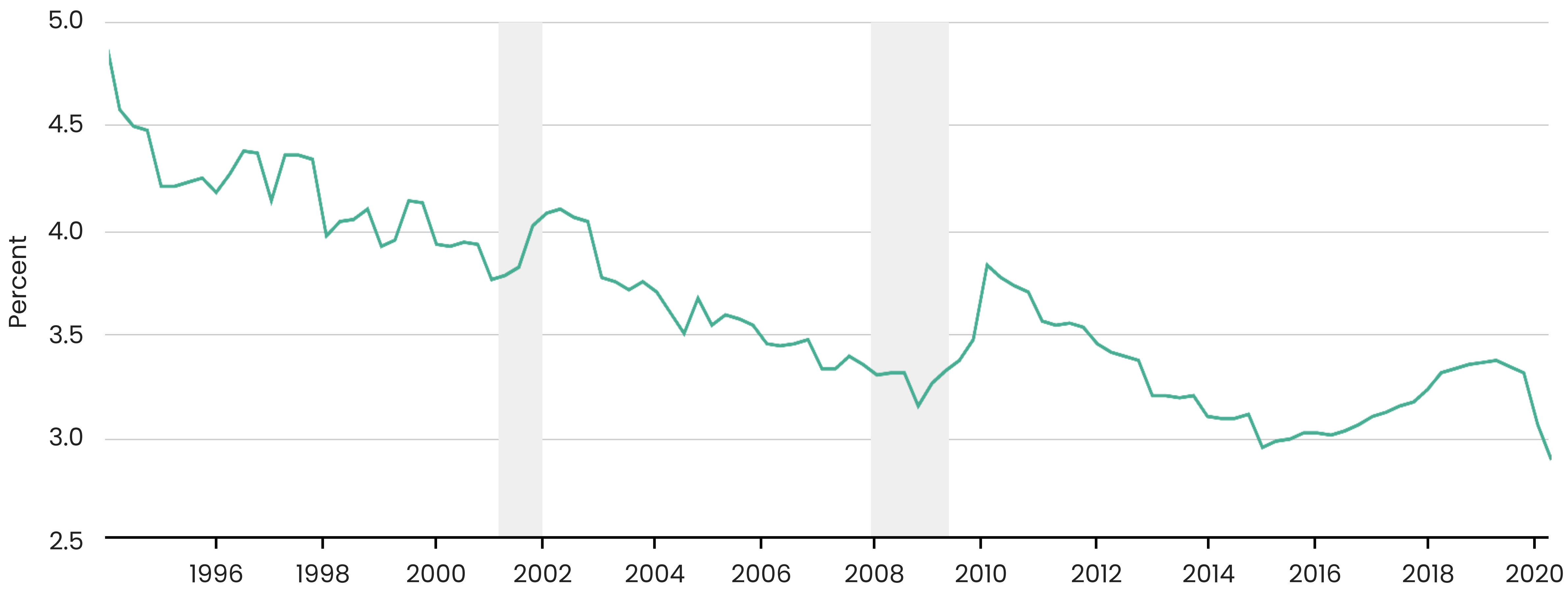
# The traditional banking business model is past its prime

The business model of using deposits as a cheap way to fund lending offers diminishing returns.

- **Net interest margins,** a key source of revenue, have been squeezed by rising competition and low interest rates.
- **Internet-driven transparency** and competition have forced banks to reduce prices and margins for commoditised products.
- **Regulatory, compliance and IT** maintenance costs remain substantial.
- **New competitors** have attacked profitable parts of the value chain, leaving established banks to run costly infrastructure.
- **Distribution patterns** have shifted from physical to digital, leaving many banks with obsolete infrastructure - like branches - that deliver diminishing returns.

Source: 11:FS

# Banks’ net interest margins have been falling for two decades




Net interest margin is a key way banks have made money, but it has fallen from an average of 4% to an average of 3% over the past two decades, and the likelihood is it will fall further in future

Source: 11:FS, Federal Reserve Bank of St. Louis

# Banks’ growth is weak compared with other industry sectors

Even before the pandemic hit, banks were under-performing by comparison with other industry sectors.

In the past year, only energy has performed worse than the banking sector.

This is a long-term trend, with US bank stocks falling 22% over 3 years, reflecting banks’ weak earnings.

**US industry sector stock price performance, October 2020**

| # | Sector | YTD | 1 Year | 3 Years |
|---|---|---|---|---|
| 1 > | Information Technology | 9.98% | 28.65% | 46.55% |
| 2> | Consumer Discretionary | 11.49% | 25.32% | 31.88% |
| 3> | Communication Services | 3.96% | 7.45% | 16.88% |
| 4 > | Materials | 11.78% | 6.44% | 16.37% |
| 5 > | Health Care | 4.18% | 4.90% | 19.45% |
| 6 > | Consumer Staples | 9.76% | 3.09% | 5.88% |
| 7 > | Industrials | 13.81% | -2.11% | 5.51% |
| 8 > | Utilities | 9.13% | -3.47% | -3.67% |
| 9 > | Real Estate | 2.02% | -5.93% | -7.40% |
| 10 > | Financials | 6.18% | -19.19% | -9.31% |
| 11 > | Banks | -35.18% | -23.95% | -22.27% |
| 12 > | Energy | -19.57% | -49.87% | -46.00% |

Source: 11:FS, Fidelity

# The pandemic has compounded the challenges banks were already facing

The internet brought greater transparency, shifts in customer behaviour, lower barriers to entry, increasing competition and reducing margins.

The pandemic has exacerbated these trends, putting further pressure on bank earnings.

| | Old world (>2000) | Digital world (2000-2019) | Pandemic world (2020) |
|---|---|---|---|
| **Distribution** | Products are mostly sold in branches and serviced by telephone | Customers migrate to digital touchpoints; branch and ATM use slowly falls | Branch and ATM use plummets; digital use shoots up |
| **Net interest margins** | Banks make a healthy spread between deposits and lending interest rates | Customers shop around thanks to increased transparency, tightening margins | Margins tighten further as interest rates drop |
| **Fee income** | Banks generate healthy fees from cards and ATMs, and from sales of other financial products | Customers shop around for lower fees; regulators intervene to cap interchange | Card interchange and ATM fees drop sharply with consumer spending |
| **Trading income** | Banks generate substantial income from capital markets trading | Automation of trading reduces earnings for slow banks that fail to modernize | Trading commissions rise with volatility, then fall away |
| **Loan portfolio** | Large loan books give big incumbents a pricing advantage | Improved credit scoring enables digital banks to price risk more accurately | Loan loss provisions shoot up as entire sectors hit trouble; defaults rise as businesses fold |

Source: 11:FS

# Banks have set aside billions to cover expected loan losses

Bank loan loss provisions in the first half of 2020

$5.1 billion

£3.7 billion
($4.8 billion)

$7.9 billion

$1.5 billion

£5.3 billion
($6.9 billion)

$10.5 billion

$914 million

€7 billion
($8.2 billion)

$9.5 billion

Source: 11:FS, bank earnings reports

# Banks’ earnings are falling sharply despite a surge in deposits

$2 trillion
surge in deposits

**Banks have received a surge of deposits that they’re struggling to lend:**

- US banks alone received a record $2 trillion surge in deposits in the first six months of 2020 according to FDIC data.
- Lending has become far riskier as households and businesses reel under the impact of the pandemic, leaving banks struggling to find worthwhile opportunities to lend.
- Most banks are holding these deposits as cash to absorb any future shocks.
- This is further reducing banks’ net interest margins and profitability.
- As banks reduce lending to risky businesses, they must find new paths to growth and profitability.

Source: 11:FS, Trepp, American Banker, Federal Reserve

# By contrast, fintechs' earnings are growing rapidly

Some bankers may consider fintechs as part of a broader "tech bubble" and risk missing the real shift.

Many fintechs have exploited new business models and solved market problems by changing how they manufacture and distribute products.

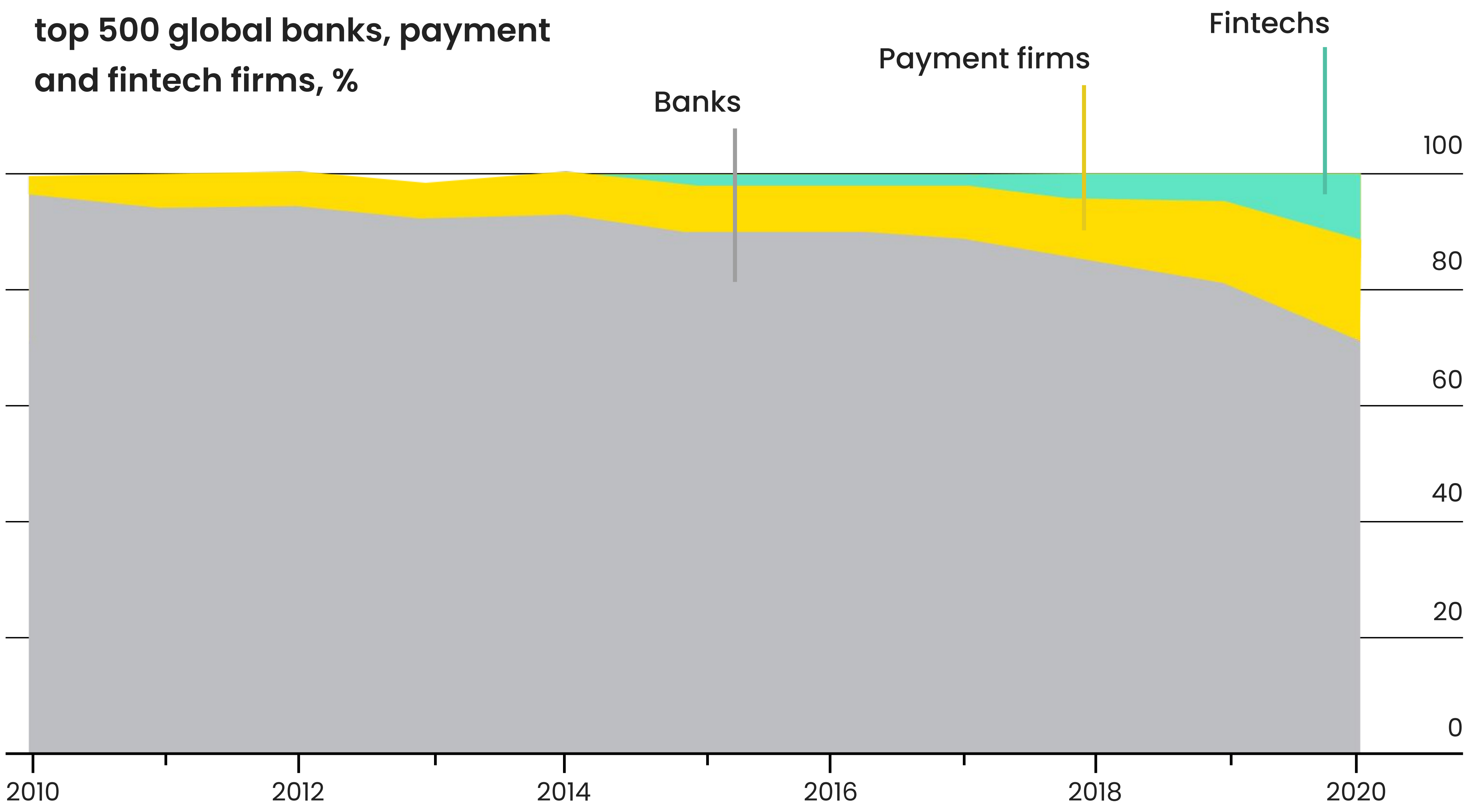
| | Square | PayPal | Bank of America |
|---|---|---|---|
| Market Cap | $61bn | $247bn | $222.5bn |
| P/E ratio | 303.8% | 96.7% | 12.3% |
| YoY Earnings growth | +64% | +22% | -5.3% |
| | Based on Q2 2020, and true as of September 2020 | Based on Q2 2020, and true as of September 2020 | Based on Q2 2020, and true as of September 2020 |

Source: 11:FS, Square Q2 Shareholder letter, Alphastreet, CNBC

# Fintechs account for a growing share of industry market capitalisation

Fintechs and banks may not always compete directly. There are, however, parallels between this chart and -for example - the advertising industry in 2003, when digital advertising changed the landscape.

**Share of market capitalisation, top 500 global banks, payment and fintech firms, %**




Source: 11:FS; Originally published by The Economist | Top 500 global banks, payment and fintech firms. Estimated value used for private fintech firms, as of Oct 7th 2020. Bloomberg; CB Insights; CNBC; Finextra Research; Reuters; Economic Times of India; Wall Street Journal; The Economist

# Because fintechs start with the customer

Banks tend to start at their business model: to take deposits and lend. Then, they look for technology to reduce the cost of distributing this existing business model.

| | Starting point | Process of delivery | Outcome |
|---|---|---|---|
| **Banks historically** | Existing business model | Digitised technology | Customer problem may or may not be solved |
| **Consumer fintechs** | Customer problem | Digital technology | New business model |

Fintechs start with the customer problem and then solve a number of other adjacent problems with digital tools. In turn, they build new business models around this joined-up problem solving.

Source: 11:FS

# Fintechs demonstrate the principles of embedded finance and BaaS

Consumer and business expectations have shifted. While established banks have upgraded their digital user experiences over the past two decades, the services that they deliver and their business model have not changed to match customers' shifting expectations.

For example, in "Designing digital finance services that work for SMBs" we found that US SMBs believe brands like Intuit and Shopify are solving their most important business problems better than their banks are.

Embedded finance demonstrates this changing perception. It's the idea that finance appears at the point of need, rather than as a standalone product (e.g. lending at the point of sale).

Embedded finance is enabled by the new and more modular provider landscape, known as "Banking as a Service".

Source: 11:FS

## More reading from 11:FS

**Banking as a Service: reimagining financial services with modular banking**

In our previous report, 11:FS discussed how the rise of "Banking as a Service" was enabling a more modular set of specialist B2B providers to change the market.
Read it here.

**Designing digital financial services that work for US SMBs**

We published some research that explores what US SMBs are looking for in their financial services, what's currently available, and what the opportunities are for FS providers to better serve SMBs.
Read it here.

The context:

# Ecosystems and platform business models

# Digital business platforms are replacing traditional distribution channels as business moves online

- Digital business platforms like Alibaba, Amazon, Apple's App Store, Salesforce AppExchange and Xero offer retail and business customers goods and services from a huge variety of suppliers.
- As customers shift to digital touchpoints, online marketplaces are taking a growing share of both retail and business trade.
- Marketplaces are adding capabilities, including payments, financing and insurance, to support both buyers and sellers.
- Marketplaces and other platform-based business models will play a growing role in financial product distribution, taking market share from other distributors as both business and retail customers shift to digital touchpoints.

Source: 11:FS

# Brands can embed finance into customer journeys, building on the layers below, because they are closer to the customer context

This diagram illustrates the layers of digital financial services businesses can operate in. The further up a brand operates, the better, as they're closer to the customer's needs.

| | | | | | | | |
|---|---|---|---|---|---|---|---|
| Customer contexts | Retail | Car | Home | Health | Wealth | Business | |
| Embedded journeys | Buy, insure, service and run my car | Find, buy and protect my home | Protect my family's health | Plan my retirement | Start and run a small business | | |
| Intelligent services | What holiday can I afford? | Help me build a savings pot | Plan for buying a home | On-demand insurance | Auto switch utilities | Automate my investing | Pay bills when I get paid |
| Financial products | Loans | Cards | Deposits | Funds | Insurance | | |
| Capabilities | Know Your Customer | Credit scoring | Card issuing | Payment processing | Securities trading | Identification & authentication | |
| Transactional rails | Domestic payments | Card networks | International Payments | Bond markets | Equity markets | Treasury | |

Risk, control & compliance

Source: 11:FS

# Depending on where you play in this stack, different strategy options are available

Below we have plotted (roughly) where example brands are currently playing.

Businesses that play in different layers have different strategy options and challenges. Value is accruing to those closest to the customer. Growth opportunity for lower layers in this model  is accruing to those best able to enable the layers above them.

| Customer contexts | Retail | Car | Home | Wealth | Business | |
|---|---|---|---|---|---|---|
| Embedded journeys | | | 中国平安 PING AN 保险 · 银行 · 投资 | 蚂蚁金服 ANT FINANCIAL; WeChat | shopify | Package many services and products to "embed" finance at the point of need |
| Intelligent services | PayPal | | monzo; chime | quickbooks | | Solve customer problems with digital solutions (may or may not provide financial products) |
| Financial products | PayPal | citi | monzo | BARCLAYS | | Provide financial products, either directly (via their own distribution) or indirectly -usually regulated |
| Capabilities | onfido; alloy | | MARQETA | | | Provide capabilities that are required to deliver a financial product to a customer |
| Transactional rails | VISA; mastercard | | | SWIFT | | Transactional rails focused on enablement and data to add value to the entire market |

## The opportunity:

# Embedding finance offers new paths to growth

# Customers want finance embedded at the point of need

The financial product is becoming less important than customer context.

Finance is becoming embedded, leading fintechs have oriented their business and distribution models around this insight.

Flexible finance at the point of sale (retail)

Payments embedded into a taxi app (transport)

On-demand car insurance when hiring a car (transport)

Travel insurance when booking a flight (travel)

Health insurance when you visit a doctor (healthcare)

Mortgages offered inside a home buying app (real estate)

A tailored credit line on a business trade platform (business trade)

Source: 11:FS

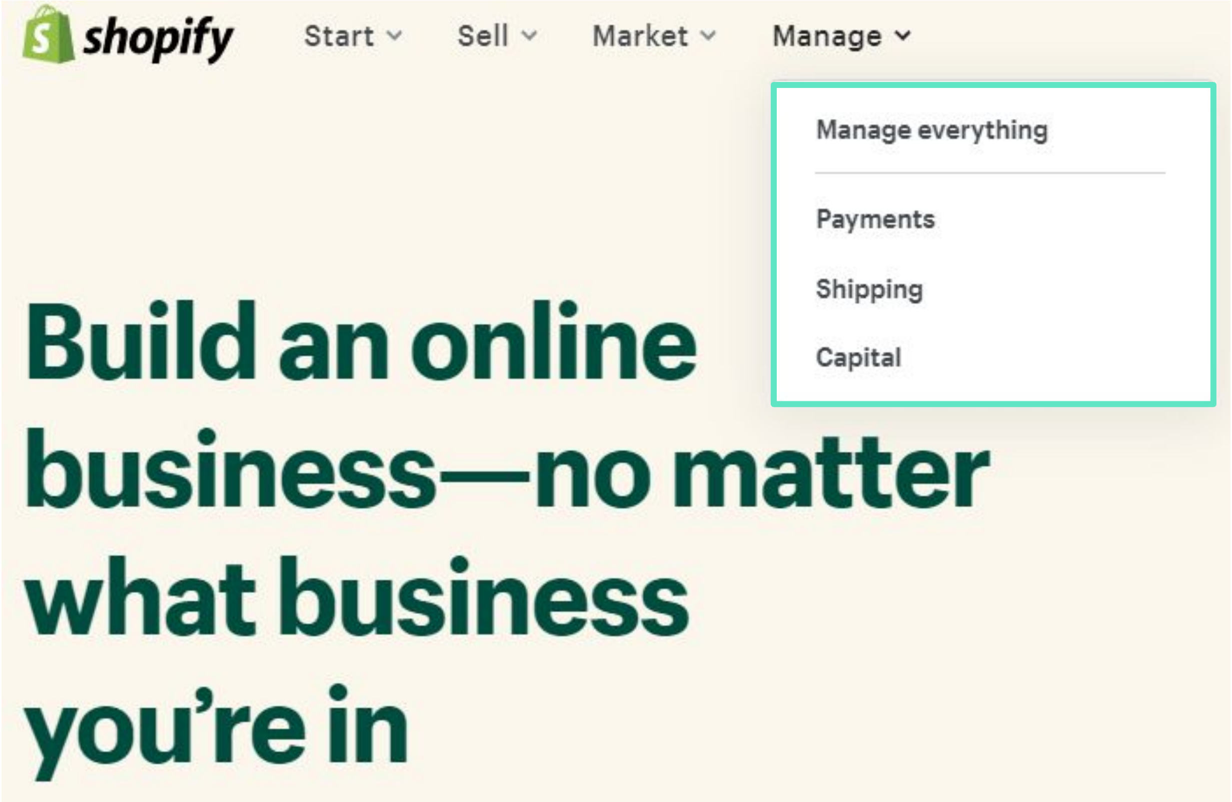
# Leading brands embed finance into their propositions

Leading brands like Amazon, Apple, Grab, Samsung and Uber are "embedding" payments, loans and insurance directly into their own customer experiences.

Compared with traditional white-label solutions, modern API-driven platforms offer brands more control over the customer experience and higher conversion rates.

Brands sometimes have additional data and insights about their customers that can help to price risk.

**Shopify provides the tools for merchants across their lifecycle**




Shopify "embeds" finance into its products by offering payments and lending capabilities at the point of need. Shopify is distributing financial products to small businesses that would otherwise have worked with a bank or specialist lender.  Behind the scenes, Shopify works with a number of suppliers, but the customer cannot see that brand.

Source: 11:FS, Shopify

# Embedding finance helps brands grow revenue and increase engagement

These are key corporate client concerns that banks are less able to solve for than a new type of BaaS provider that sits in between banks and their corporate customers.

### Grow revenue

- SaaS Businesses: 2x to 5x their revenue  when they embed finance
- E-commerce merchants embedding lending at checkout are able to increase conversion by 50% at checkout

### Increase engagement

- Tencent's WeChat uses fintech primarily to increase engagement
- Epic Games is using its own payment platform for Fortnite and attempting to bypass Apple.

These brands are not banks (with the exception of fintechs like Varo that are in the process of becoming banks).

So they partner with banks in a new way: through BaaS providers.

Source: 11:FS, Andreessen Horowitz, Affirm founder Max Levchin, a16z, Max Levchin, Epic Games, The conversation

# Embedded finance creates new growth and distribution opportunities for banks

Finance historically had to be sought out: customers went to a bank and applied for a loan or signed up for an account.

In the world of real-time, digital products, payments, loans and insurance can be offered in context at the point of customer need.

The classic example is point-of-sale lending.  When a customer is at an e-commerce checkout, using 0% APY lending makes it more likely to increase conversion.

For providers of financial products (e.g. banks, insurers, lenders), embedded finance creates new distribution opportunities.

But unlocking these new distribution opportunities will require an entirely new manufacturing and distribution model for the financial services industry.

Financial institutions need to understand how they fit into other ecosystems, platforms and the changing customer landscape.

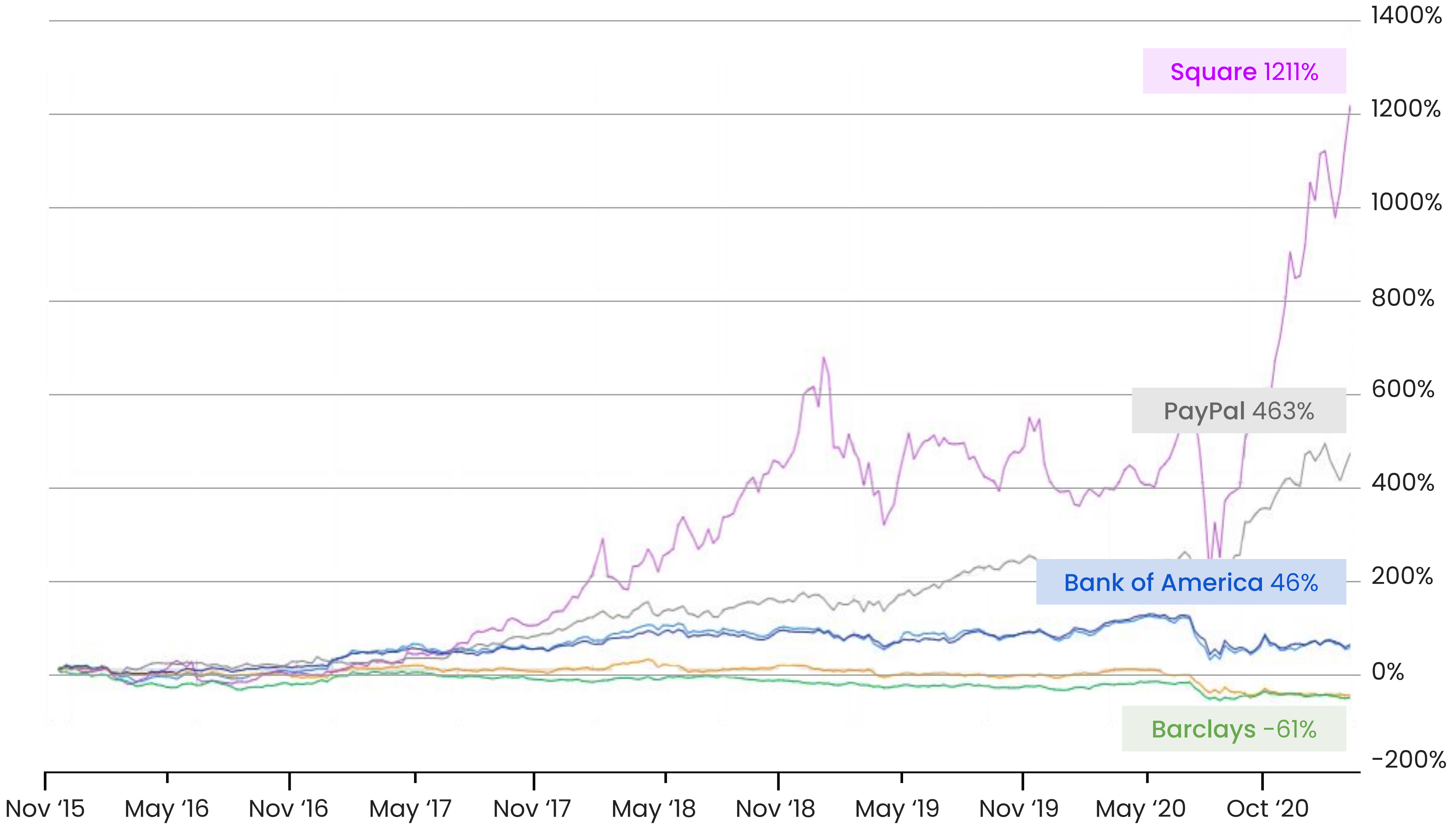
Source: 11:FS

# Growth in financial services is coming from new business models

PayPal and Square have outperformed the market by focusing on customer problems first and foremost.

These organisations are not bound to traditional business models or distribution models.

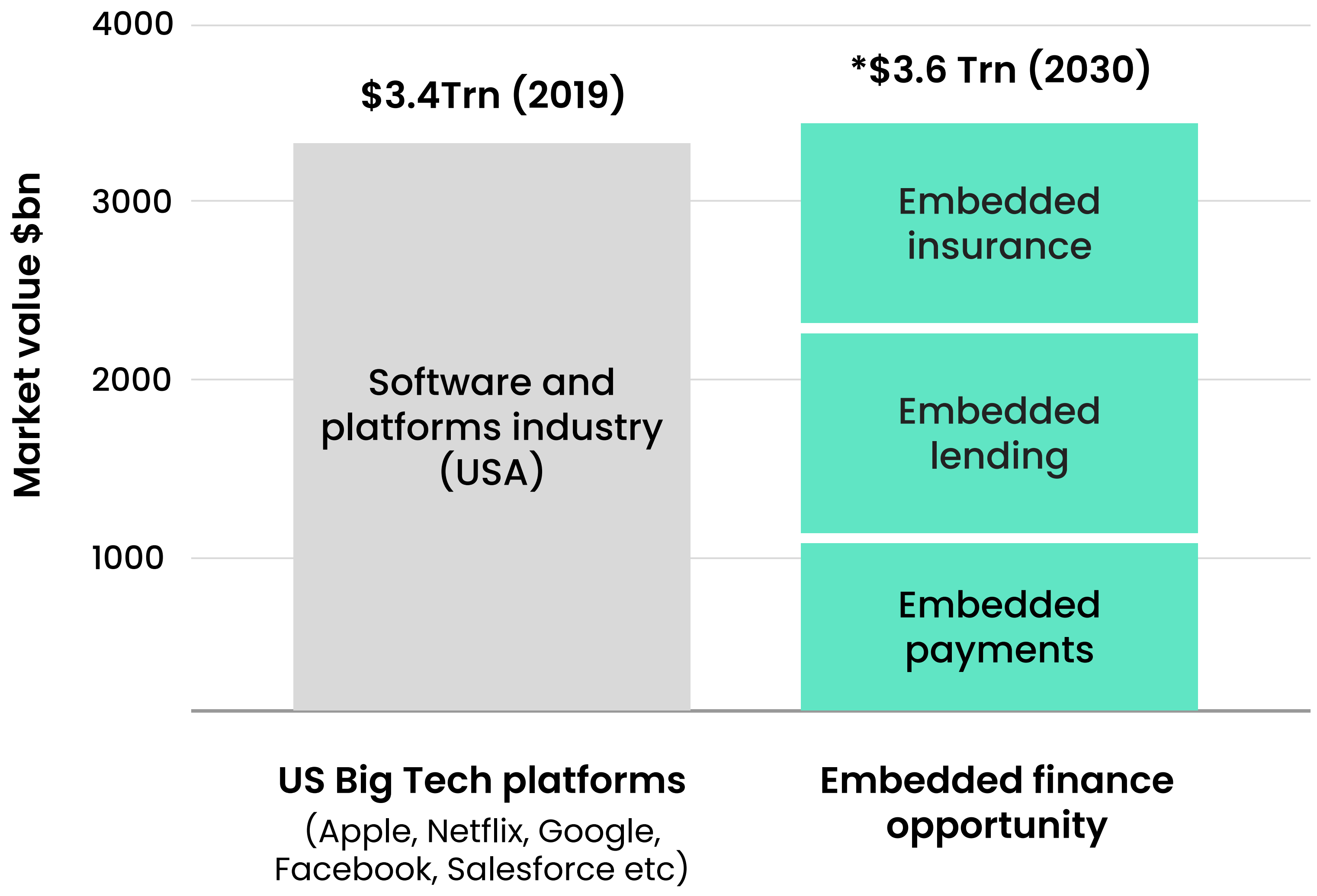
Stock price performance, 2015-2020




Source: 11:FS, barchart.com

# Embedded finance offers massive potential growth

- Currently no capture by mainstream banks
- By 2025: $230bn of revenue opportunity in the USA
- By 2030: $3.6trn market cap embedded finance opportunity




Source: 11:FS, Simon Torrance Analysis, Bain Capital Ventures

The strategy:

# Banking as a Service (BaaS)

# Brands can embed finance by picking and choosing modular BaaS capabilities

**Brands**

**BaaS providers**

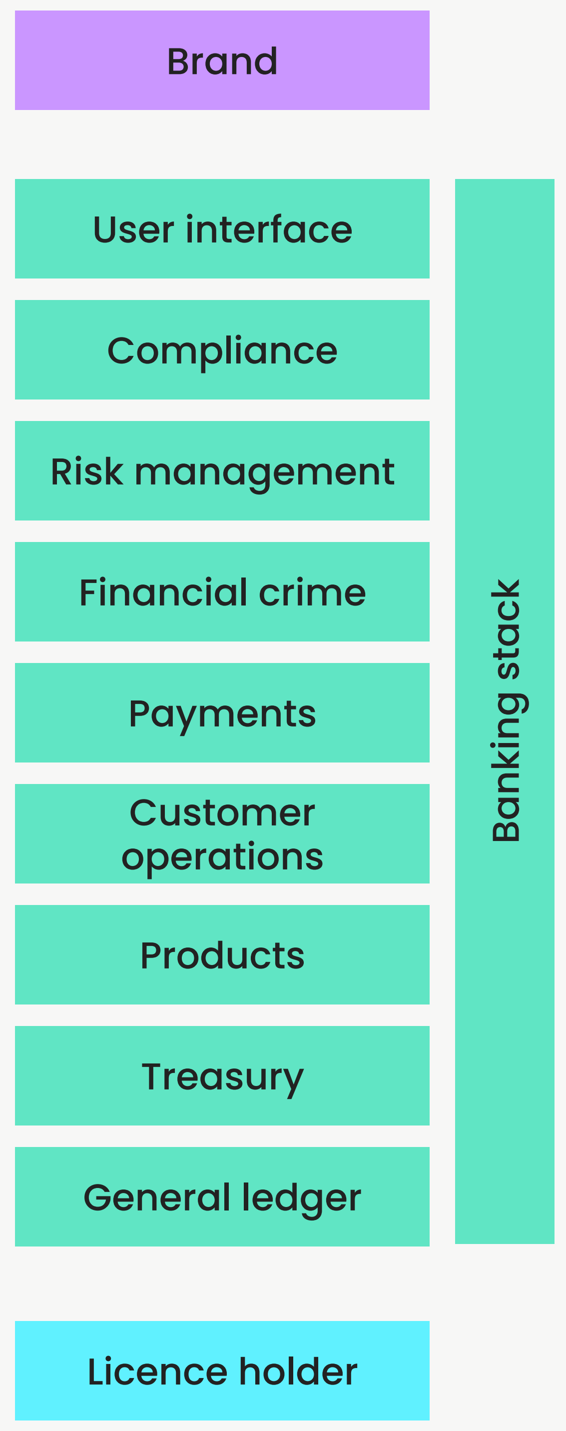
**Bank licence holders**

The picture on the right is the 11:FS BaaS 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 **BaaS providers**...
- ...and **bank licence holders** in a modular fashion.

11:FS Banking as a Service stack




Source: 11:FS

# Truly digital businesses create partnerships with adjacent businesses to better serve their customers

**Digital businesses turn to partnerships to:**

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

**Partnerships between brands, BaaS providers and bank licence holders:**

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

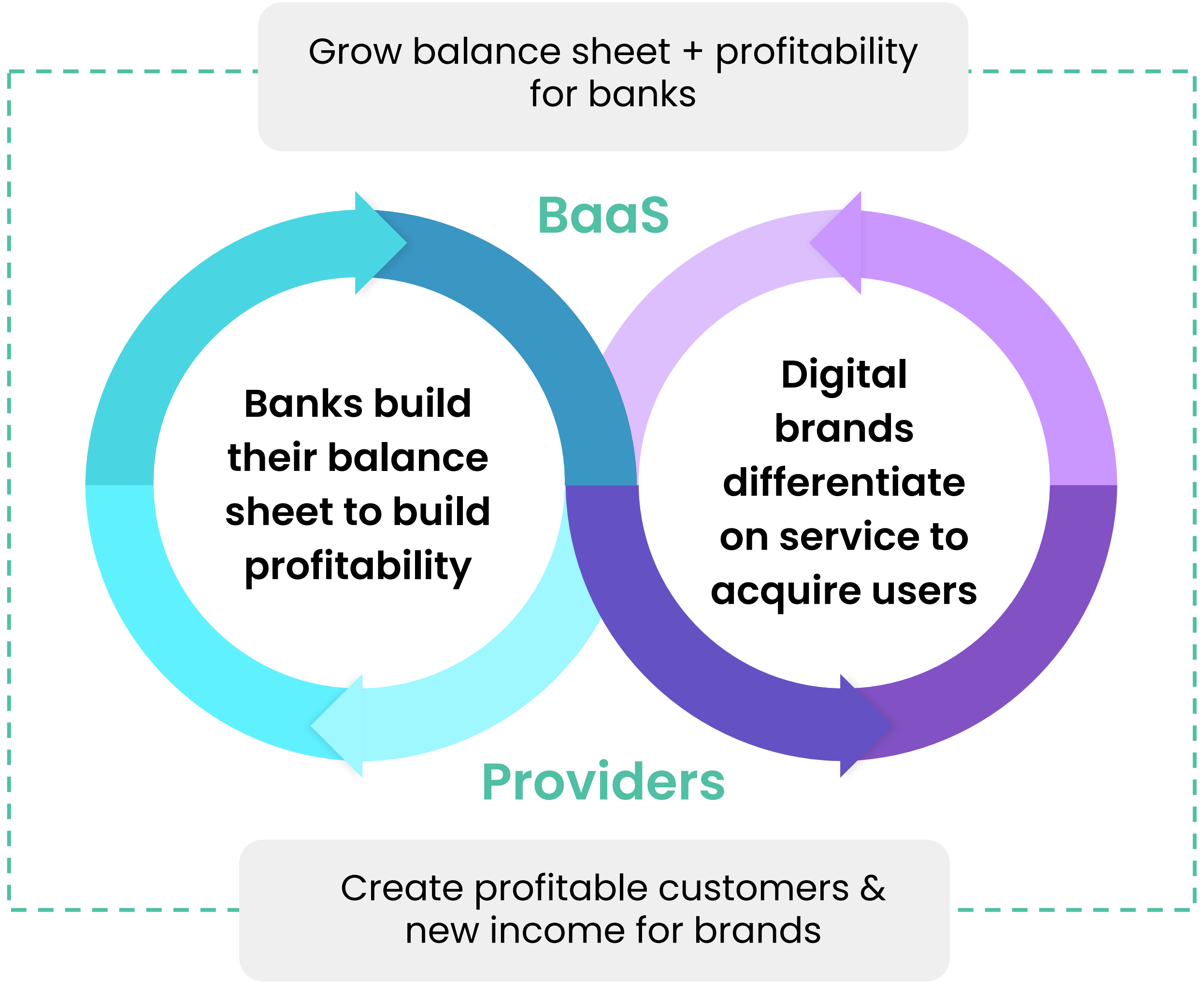
Source: 11:FS

# The right BaaS strategy creates network effects to harness the best of both balance sheet and customer acquisition

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

- BaaS enables banks to offer embedded finance, helping brands to create their own experiences.
- Banks usually lack the depth of customer data that big tech brands hold.

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




**Brands** have already used partnerships 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 customers than bank licence holders.

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

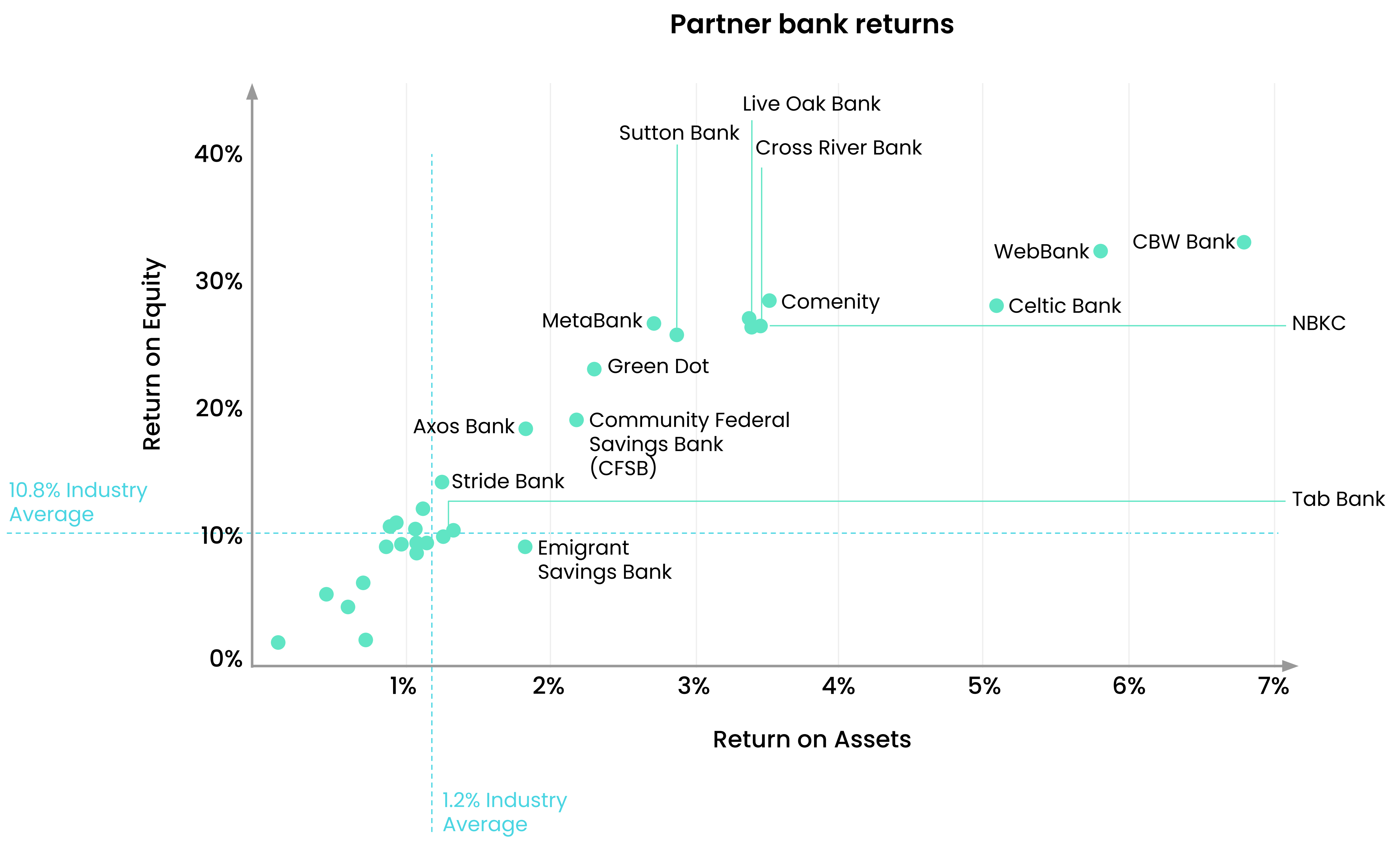
Source: 11:FS

# Banks that have embraced BaaS and embedded finance are generating higher returns

According to a16z, banks that have embraced BaaS are experiencing 2-3x above-market return on equity (RoE).

By offering their balance sheet, compliance and financial products via partnership to BaaS providers, these banks are growing.  In turn, the providers allow brands to serve their own ecosystems.

Understanding ecosystems becomes key.



The solution:

# Banks can capture the $3.6trn opportunity

# How do you thrive when the game has changed?

A change in mindset could transform the way banks make money.

Instead of competing on digitisation and UX, banks could play the role of enabling new market entrants.

To not just survive but thrive, they must find their place in the future of financial services.

Embedded finance could be an opportunity more than a threat. If banks could enable this change, could they be the “Intel inside” of finance? Could they create new ecosystems and start at the customer problem? How do banks become “smart pipes”?

**Banks need to understand:**

1. What their assets are
2. How these assets are valuable to non-bank brands and BaaS providers
3. How BaaS enables them to add value and drive growth
4. Where this fits within the embedded finance future
5. How platform business models work
6. What gives banks a right to win

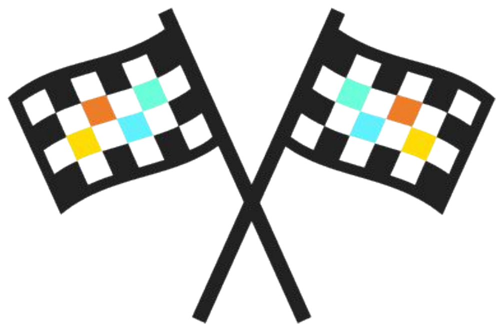
**Unlocking this opportunity will require:**

1. A market-sizing of the opportunity
2. Commitment from the executive team
3. Identifying the right partners and route to market

Source: 11:FS

# The race has already started

Not only are smaller banks working on their BaaS and embedded finance strategy, larger banks are getting in on the act too.



## 1

BBVA

**The world's most innovative established bank**

Spanish banking group BBVA introduced a BaaS proposition in the 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 through its developer portal.

BBVA provides banking capabilities to some leading US fintechs including Azlo, Catch, Digit, Modo and Wise. They partnered with Uber in Mexico, offering BaaS APIs as both a provider and licence holder.

## 2

Goldman Sachs

**A financial powerhouse with everything to play for**

Goldman Sachs' 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 Sachs is also an investor in BaaS provider Bond.tech.

Source: 11:FS

“

Former Citi CEO Michael Corbat warned that banks risk becoming “dumb pipes” if fintechs and Big Techs take away customers.

**11:FS believes the banks that deliver Banking as a Service will become the *smart pipes* for the 21st century.**

Source: 11:FS

# Final thoughts

### A bold future for banks

Banks cannot turn off the lights of their core business. But nor can they ignore the emerging threats and opportunities.

Capturing the platform business model opportunity that embedded finance presents will require:

- An understanding of the macro market shift
- An understanding of the embedded finance business models
- Clarity on the path to execute through 2021

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Source: 11:FS

# Glossary

# Glossary

| 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. |
| Digital business platform | A modular technology infrastructure built around business APIs that can be built upon by third parties. A digital business platform orchestrates interactions between a network of people, businesses and assets that it does not necessarily own or control. |
| Embedded finance | The integration of financial services into other (non-financial) services and experiences. |
| Platform business model | A digital business that generates revenue by enabling producers and consumers to exchange value on its platform. It sits at the heart of a network of people, businesses and assets that it doesn’t necessarily own or control. |
| White-label financial services | The provision of financial products and services that are manufactured by one company, and then rebranded and sold by a different company. |

Source: 11:FS