

# Democratisation of Credit and Banking



“Financial technology has democratised credit by removing the friction and bias of traditional banking, creating opportunities through digitalisation of processes and systems”

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# INNOVATE | FINANCE

In today's fast-evolving financial landscape, technological advancements are profoundly transforming the financial services industry. Digitisation is not merely an enhancement, it is a catalyst for creating a more inclusive and efficient ecosystem. As FinTechs across the world adopt innovative technologies, they are increasingly equipped to serve traditionally underserved customers. This shift signifies a powerful movement toward the democratisation of finance.

One of the most significant areas undergoing this transformation is the credit and banking sector. Banking and access to credit are essential for individuals and businesses seeking to save, invest, expand and overall manage finances more effectively.

Technology has the ability to improve banking products, streamlining operations, reducing production and distribution costs, enhancing affordability and servicing more consumers.

In particular, the adoption of Application Program Interfaces (APIs) can foster a more expansive credit and banking ecosystem by facilitating the rise of embedded finance players and enhancing both the accessibility and overall customer experience of credit and banking services.

We welcome the new report "*Democratisation of Credit and Banking*" by Apis Partners, a trusted partner of Innovate Finance, delving into critical themes and highlighting important changes shaping the future of finance. Together, we can harness these technological advancements to create more equitable, transparent and effective financial services that benefit us all.

**Roberto Napolitano, CMO, Innovate Finance**

## ABOUT APIS PARTNERS

UK-based Apis Partners is an ESG and Impact-native growth-stage private equity fund manager, which invests exclusively at the intersection of finance and technology in rapidly scaling mid-market businesses.

Over their careers, the senior investment team, led by Co-Founders Matteo Stefanel and Udayan Goyal, has developed an enduring edge driven by deep domain expertise and knowledge network in financial services built over 25 years (on average) of investing per investment team Partner.

By aligning its investment strategy with global impact goals, Apis aims to generate positive social outcomes while achieving long-term profitability, what it calls 'Returns with Responsibility'.

Find out more on our [website](#) or visit our [LinkedIn](#) company profile.

# 1. INTRODUCTION

Technological advancements are increasingly reshaping key elements of the financial services industry. The ongoing digitisation of financial services is playing a critical role in building a more inclusive and efficient ecosystem. The adoption of technological advancements across various segments of the financial services value chain is enabling firms to more efficiently and effectively serve customer segments that are typically underserved – **technology is driving the democratisation of finance.**

A key vertical that is undergoing significant reshaping is the credit and banking vertical. For background, banking is a broad term that embodies the two core functions vital to every economy: providing credit and managing savings. These functions are performed by both traditional banks and increasingly, by tech-forward players. Credit can enable customers to make investments in education, to create and expand businesses, to afford medical treatment, and to weather other setbacks. Similarly, savings (broadly divided into three inter-connected categories: households, companies, and government savings) provides the underlying liquidity for credit. Banking services help manage credit and savings together at the heart their capital intermediation role. Beyond helping to address these core purposes more efficiently, technology can improve banking product manufacturing and operations, lower distribution costs and enhance scope of banking services. Technology can ultimately lower production costs in banking and therefore improve affordability, thereby bringing a larger group of consumers into the banking system.

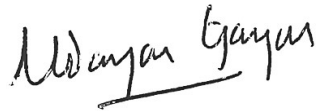
As a subset of a bigger whitepaper about the democratisation of financial services, other chapters of which can be found on the Apis website, this chapter is tackling **how the credit and banking industry is getting democratised.** In this paper, we will explore (1) key trends; (2) impact of key trends on changes in the credit and banking space; and (3) business model implications going forward.

This paper assesses the impact of technological advancements, specifically with regards to the increased adoption of Application Program Interfaces (APIs), on the unbundling of the banking value chain and the increased role of non-financial services players in credit and banking. We explore how the evolution of the banking value chain is expanding the credit and banking ecosystem and giving rise to embedded finance players - ultimately improving provision of credit and banking services in terms of both accessibility and customer experience.

**Matteo Stefanel**

Handwritten signature of Matteo Stefanel in black ink.

**Udayan Goyal**

Handwritten signature of Udayan Goyal in black ink.

## 2. KEY TRENDS AFFECTING DEMOCRATISATION OF CREDIT AND BANKING

The credit and banking space has witnessed significant technological innovation over the past years, which has driven a reconstruction of the banking value chain. Technological advancements have enabled banking processes to be unbundled into their constituent parts and reassembled in new ways promoting increased specialisation, efficiency and ultimately increasing access to credit and banking services.

In this section, we explore key technological trends in the credit and banking space, their impact on the evolution of the banking value chain and their implications on the regulatory environment.

### 2.1. Technology

Technological advancements have reduced the cost of creating and distributing of credit and savings products, thus expanding access to traditional banking services. We delve deeper into two key technology trends: the emergence APIs and the increased adoption of enabling technologies such as artificial intelligence and machine learning.

#### Emergence of APIs

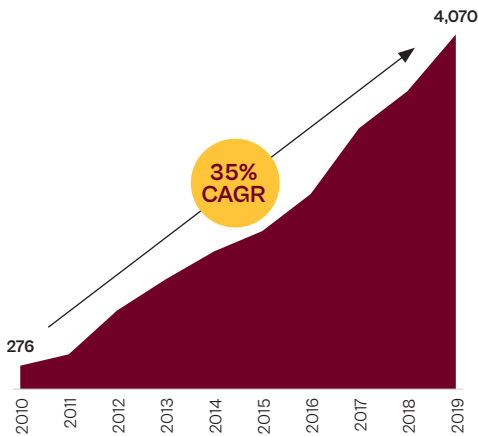
Over the last decade, customer expectations for banking experience have evolved faster than the banking industry. Modern, tech-savvy customers are requiring digital, personalised banking experience. This has resulted in a rise of digital players catering to customers' needs and operating at more efficient cost structures than incumbents - posing a challenge to traditional banks operating on legacy technology infrastructure.

In order to cope with the growing demand for digitisation, traditional banks are increasingly relying on Application Programming Interfaces (APIs) to embed digital features in their offering. APIs allow the banks' database to synchronise, link and connect to third party providers (i.e., digital players). This allows banks to seamlessly

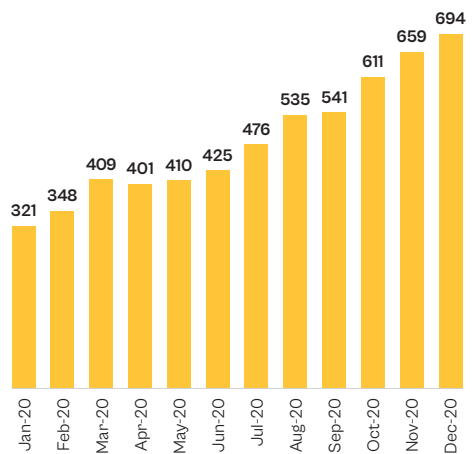
integrate digital offerings into their existing infrastructure. In doing so, traditional banks utilise their existing systems at the backend while customers engage with a digital frontend. Effectively, API adoption is allowing traditional banks extend the life of their legacy systems while at the same time, support the growing demand for digital transformation.

### The Rise of APIs - Total Financial Services APIs

The US Market



The UK Market



The use of bank APIs has given rise to Open Banking. Open Banking allows third party providers (i.e., payment service providers, financial service providers) to access transaction and other data from banks, promoting interoperability in the banking industry. A key use case of Open Banking is payment initiation, which allows third-parties to connect to customers' bank accounts and authorise payments directly resulting in quicker payments and lower costs.

Regulators are increasingly requiring financial institutions to provide access to their underlying data via Open Banking protocols. While in some markets, such as the United States and India, the drive towards open banking has been fuelled by industry change, Europe is amongst the few markets where open banking is promoted by rigorous regulatory change. There are three key regulatory actions to highlight that have paved the way for third parties to access and interact with user account data across Europe.

1. **PSD1:** Launched in 2009 with the aim of regulating payment services and their providers. This regulatory act introduced and regulated Payment Service Providers. Effectively, it enabled companies other than banks and government agencies to conduct financial transactions.
2. **PSD2:** Launched in 2018 with the aim of promoting interoperability between financial institutions and third parties. This act requires banks to provide access to data can accounts to third party providers.
3. **Open Banking Directive (UK):** This is a UK-specific directive that requires banks to open up their data in a secure and standardised format in order to improve security as well as ease of use.

**Given the outlined benefits of APIs as well as the regulatory pressure supporting Open Banking, we expect the adoption of APIs across various segments of the banking value chain to sustain.**

## Case Study: Utilising Technology to Enhance Product Offering and Distribution Reach



### Value proposition

- As a leading provider of financial services to under-banked populations at scale, Baobab provides credit, savings and payment products to underserved entrepreneurs in poorer rural and semi-rural areas that is used to fuel investment into their businesses and thereby help them escape poverty.
- Leveraging its digital credit scoring techniques and alternative distribution channels, Baobab continues to improve loan disbursement and loan renewal timelines.

### Business description

- Baobab S.A.S. ('Baobab') is a leading financial institution providing high quality financial services that are accessible and adapted to the needs of financially underserved customer segments, and is focused on micro, small and medium entrepreneurs ('MSME') across 7 markets in Africa: Madagascar, Senegal, Nigeria, Ivory Coast, Mali, Burkina Faso and DRC.
- Baobab's key product is the MSME lending product. These loans are typically working capital or investment loans. Target customers are either very small entrepreneurs (loan size less than US\$ 3,000, repayable in less than 12 months) or SMEs (loan size up to US\$ 200,000, repayable in up to 36 months).

Tech allows Baobab to evolve from a brick-and-mortar MFI player towards a hybrid financial services provider for entrepreneurs

### Where we come from...



Brick-and-mortar approach

- **Agency network**
- **Micro/nano loans**, with paper study, local presence
- User of **agents**
- Very **manual** processes

Today

### Where we are going to...



**360° approach:** Baobab is the partner of choice for entrepreneurs, regardless of channel

- **Physical approach**, with customer preferred channel, all channels being available (agency, correspondent, CRC, mobile, messaging, web...)
- **Full range of financial products** (directly or through partnerships): loans, savings, current account, payments, insurance
- **Process optimisation** (automation, focus on added value)
- **Value chain integration** (beyond financial products)

Tech is the main enabler

### **Enabling Technologies: Artificial Intelligence, Machine Learning and Blockchain**

While legacy data systems are typically siloed and built to assist human decision-making, credit providers are increasingly integrating enabling technologies such as artificial intelligence and machine learning models in their credit underwriting processes enabling a shift towards dynamic data processing. This allows lenders to efficiently discover patterns, generate insights, make predictions, and effectively move towards an automated decision-making process. As of 2020, the global AI in banking market was valued at US\$ 3.9 billion and is expected to grow at a 2020-2030 CAGR of 32.6% to reach US\$ 64.0 billion.<sup>1</sup>

Key use cases of these enabling technologies include: (1) credit scoring, (2) loan monitoring, and (3) underwriting automation.

- 1. Credit Scoring:** AI/ML models allow credit providers to use alternative data sources (i.e., employment history, smartphone data, etc.) to assess borrowers' credit worthiness. This allows credit providers to complement traditional credit scoring of banked borrowers to increase credit scoring accuracy as well as identify potential borrowers who are typically overlooked by the traditional credit scoring processes due to their lack of credit history. Moreover, AI/ML technologies support dynamic credit scoring as they can quickly adapt to external factors (i.e., interest rate movements, changes in average household income) and internal factors (i.e., changes in borrowers' behaviour) allowing credit providers to maintain accurate, up-to-date credit scores.
- 2. Loan Monitoring:** Post loan issuance, the amount of borrower information increases significantly. Credit providers can utilise AI/ML technologies (i.e., predictive data mining models) to analyse such data to track loan performance and identify potential delinquencies early-on and implement required precautionary measures.

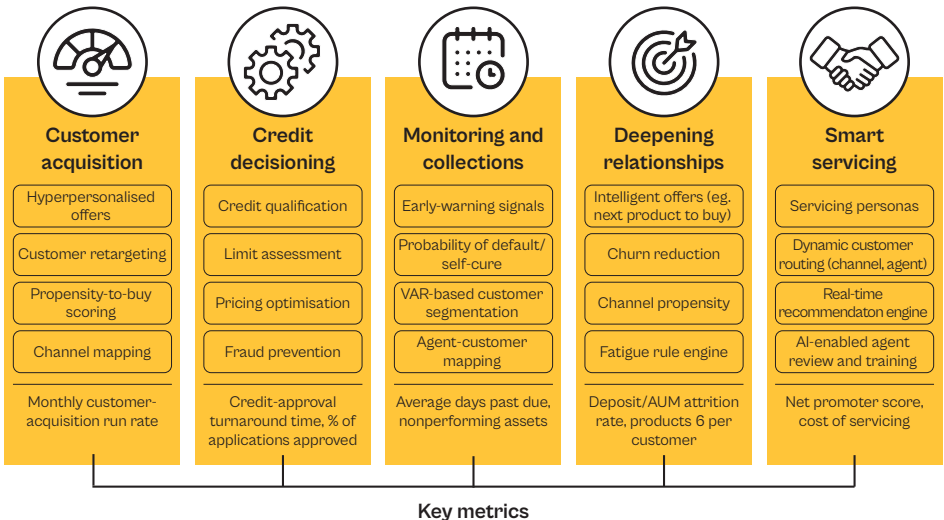
1. Businesswire (2022). AI in Banking Market by Component, Enterprise Size, Applications and Technology: Global Opportunity Analysis and Industry Forecast, 2021-2030

- 3. Underwriting Automation:** Credit providers are increasingly utilising AI/ML models to develop rule-based underwriting. This can be applied to first time credit approvals or credit limit extensions/renewals for existing borrowers. These models continuously upgrade themselves as more customer data is assessed. Automating such processes augments the decision-making process, increases efficiency, and reduces required manpower.

These enabling technologies result in cost savings for the credit providers as they benefit from increased automation. Moreover, they increase access to credit as (1) the use of alternative credit scoring methods assesses creditworthiness of borrowers not captured in traditional credit scoring and (2) reduced costs allow credit providers to profitably serve traditionally overlooked segments – SMEs and retail borrowers.

### The bank of the future: AI-powered decision making

Advanced Analytics and Machine Learning across the customer life cycle



Source: McKinsey

## 2.2. Modularisation of the Banking Value Chain

With rapid innovation and increased digitisation, new technologies are enabling increased specialisation resulting in the reshaping of the banking value chain. Specialisation is driving players to focus on certain segments of the value chain, addressing inefficiencies and emerging as market leaders in specific segments. Banking APIs allow specialised players to partner with other players across the banking value chain, to collectively provide credit and banking products.

The banking value chain can be unbundled into four key market layers:<sup>2</sup>

1. **Balance sheet:** the provision of capital, both at the wholesale and retail level
2. **Product:** the manufacturing of financial products and services
3. **Customer relationship:** customer acquisition, sales, support and the primary interface
4. **Distribution:** physical touchpoints for the distribution of products and the serving of customers.

Historically integrated in the traditional retail banking model, new technological advancements are now driving a disintegration of these layers. As players focus on building competitive moats in specific layers, multiple business models are emerging. Different players specialise in layers where they can develop competitive moats and partner for the others.

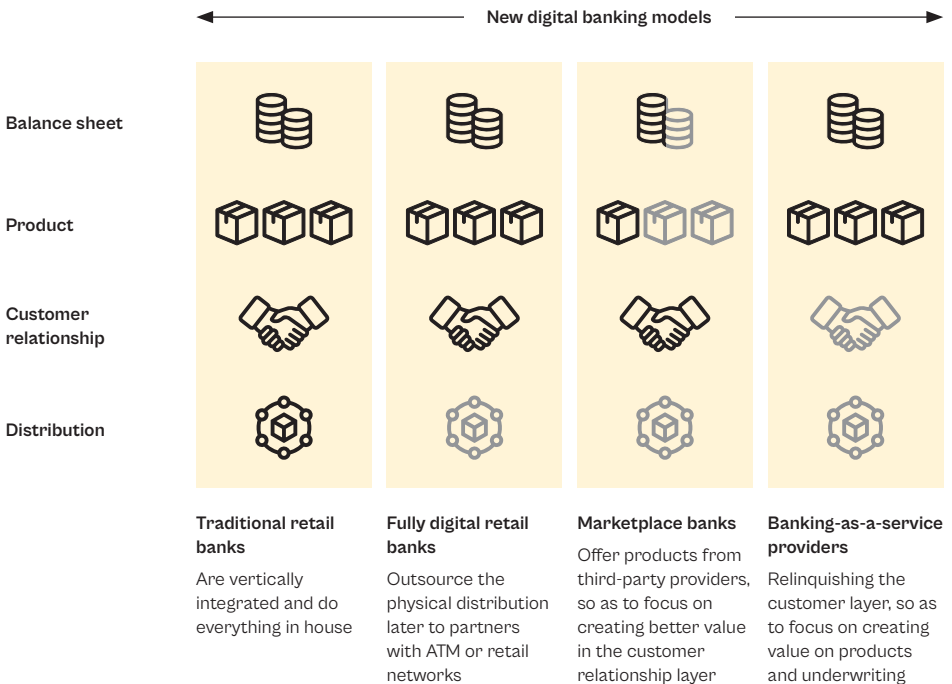
While traditional outsourcing and partnerships have existed for many years, technological innovation and increased specialisation have resulted in the evolution of outsourced offerings to become increasingly more customisable, flexible and

2. CGAP (2021). The Great Unbundling: How Technology Is Making Financial Services Modular and What It Means for Inclusion

effectively *'plug and play'*. This is referred to as the **modularisation of the banking value chain**.<sup>3</sup> We explore examples of modular offerings below.

A key offering emerging from the evolution of the banking value chain is embedded finance, which refers to non-financial services players offering financial services products on their platforms. We address this in detail in section 3.1 *Impact on Product Design*.

### Modularisation of the Banking Value Chain



Source: The Great Unbundling: How Technology Is Making Financial Services Modular and What It Means for Inclusion (CGAP, 2021)

3. CGAP (2021). The Great Unbundling: How Technology Is Making Financial Services Modular and What It Means for Inclusion

## Examples of Modular Offerings and Use Cases

### Use Case: Mass-Market Banking



Balance sheet

- With access to cheap capital (CASA deposits) and solid risk management capabilities, traditional banks are best placed to be the ultimate balance sheet providers and underwriters.
- Modularization is providing traditional banks with opportunity to provide the underwriting offering at scale.



Product

- Traditional banks offer a wide range of services that are internally manufactured. However, their legacy infrastructure make it challenging to consistently meet their customers innovation and digitization demands.
- Open APIs allow banks to further expand product offering by integrating digital products into their own offering.



Customer relationship

- Traditional banks typically have longstanding customer bases.
- While this is currently being disrupted by digitally native banks, traditional banks can reduce risk of customer loss by embracing a marketplace model. This allows them to offer their customers access to products from a wider fintech space within a trusted banking environment.



Distribution

- Traditional banks typically operate small, expensive, physical distribution networks that are increasingly becoming cost burdens.
- A partnership with retail players provides banks with cheap and easy access to large distribution reach.

### Use Case: Mobile Money Operators



Balance sheet

- MMOs do not typically pursue financial licenses as they do not have access to the cheap capital or risk management skills required to underwrite products.
- As such, MMOs have preferred to partner with banks to play role of balance sheet providers.



Product

- MMOs have typically offered a very narrow range of financial services products.
- Modularization enables MMOs to expand their offering by partnering with third party providers who bear the cost and risk of developing and manufacturing the products.



Customer relationship

- MMOs benefit from a strong consumer brand and large existing customer base.
- Modularization provides MMOs with an opportunity to further monetize the existing customer base by generating revenue from the distribution of financial services products - typically a high margin revenue stream and increase customer retention.



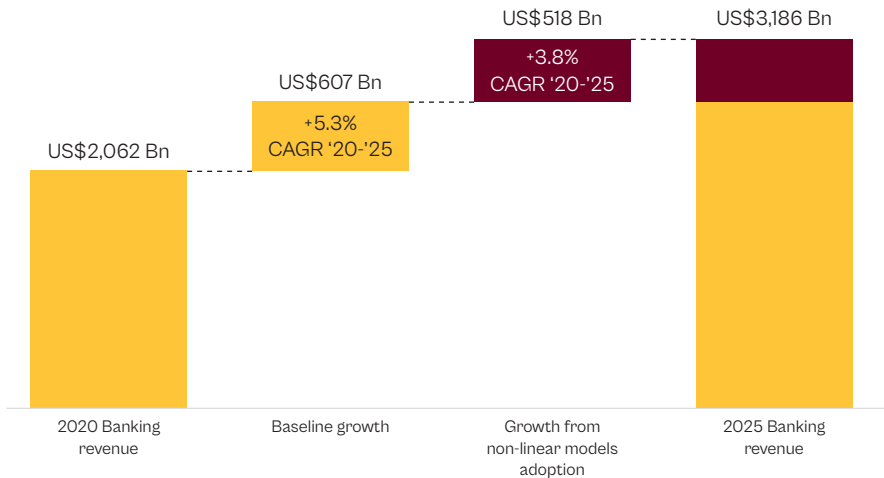
Distribution

- MMOs operate large physical distribution networks as they have built a vast network of agents to cater to the cash-in/cash-out services.
- MMOs can leverage the existing physical presence and their agent networks to act as third-party distributors to manufacturers of financial services products.



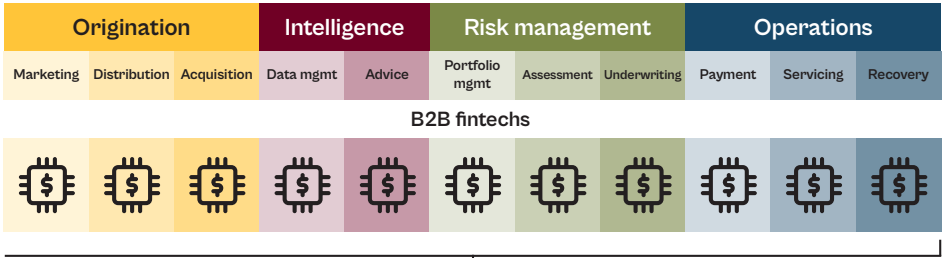
Adapting to value chain changes will allow incumbent banks to unlock new revenue streams as they leverage non-bank platforms with deep customer reach to widen distribution of their products.

### Evolving banking business models will allow banks to capture revenue



Source: Accenture. The Future of Banking

**The banking value chain is also unbundling on the back-end.** Historically, banks have relied on vertical integration to provide back-end processes internally. However, a growing number of these processes are now being outsourced to specialised third-party B2B providers that have proven to be highly customisable, lower-cost, and more efficient. Illustrated below is banking back-end value chain as well as various examples of third-party B2B providers.



Modular banking, driven by increased specialisation and the disintegration of the banking value chain, increases financial inclusion by reducing costs and increasing customer reach.

More specifically, as credit providers leverage non-bank platforms to lower operating costs and increase distribution reach, they are able to more appropriately cater to underserved segments at lower costs of marketing, sales and distribution.

## 2.3. Regulation

With rapid innovation and evolving banking business models, regulators' approaches to technology are accelerating rapidly. Regulators are now playing a role to promote technology adoption, collaborating with the industry, and changing their supervisory capability to catch up to the industries they supervise. These actions are effectively reinforcing the necessity of banks to have strong core IT infrastructures, governance frameworks, third party risk management practices (TPRM), and robust data infrastructures.

As the banking value chain unbundles and banks continue to outsource to third party providers, **regulators are increasingly making TPRM a key element of supervision given the heightened use of outsourcing. Outsourcing has been identified as raising issues relating to risk transfer to unregulated players.** We are seeing a rise in more stringent regulations and guidelines with regards to TRPM across multiples markets – select examples below:

- **UK:** In March 2021, the Prudential Regulatory Authority (PRA), the United Kingdom's financial services regulatory body, published its final policy regarding outsourcing and third-party risk management, with the aim of facilitating greater resilience and adoption of cloud technologies and augmenting the existing guidelines regarding outsourcing activities.<sup>5</sup>
- **USA:** In July 2021, Federal Reserve, FDIC and OCC published proposed interagency guidance on managing risk of banks' third-party relationships with the aim to help banks identify and address risks incumbent in third party vendor, outsourcing and other business relationships.<sup>6</sup>

5. Bank of England (2021). SS2/21 Outsourcing and third party risk management.

6. Eversheds Sutherland (2021). Focus on Fintech: Federal Banking Regulators Shine Light Again on Third-Party Risk Management

- **Singapore:** In August 2022, the Monetary Authority in Singapore (MAS) published a paper setting out supervisory expectations, good practices, improvement areas and case examples with regards to third party risk management controls for banks.<sup>7</sup>

**As the banking ecosystem continues to evolve to include players/segments traditionally excluded from traditional banking, we expect that regulation will similarly evolve to expand beyond the traditional borders of banking. Regulators will continue to adjust the policy frameworks to cope with the risks that the new products and ecosystem players pose.**

7. Monetary Authority of Singapore (2022). Operational Risk Management - Management of Third Party Arrangements.

## 3. IMPACTS OF THE CHANGES ON THE SUB-SECTOR

Technological advancements and modularisation of the banking value chain have in turn influenced the evolution of the market environment and business models in the credit and banking sector. We discuss below some of these changes before delving into the evolution of business models.

### 3.1. Impact on Product Design

Technology and the shift to digital business models have led to a review of product design and services in the banking sector. With the modularisation of the banking value chain, new specialised players are emerging across different layers of the value chain, new products are being developed to provide greater access to financial products and enhance customer experience, **primarily through embedded finance solutions.**

Open APIs and the modularisation of the banking value chain have enabled the rise of embedded finance, whereby financial services products (including lending products) are embedded into the customers journeys. Effectively, non-financial services players with large customer bases are leveraging their distribution network to expand product offering and provide their customers with financial services products.

On the supply side, this allows non-financial institutions to expand offering and generate revenue through the distribution of financial services products. It also allows legacy financial institutions to expand customer reach as they leverage distribution channels of non-financial institutions. On the demand side, there is increasing adoption of financial services offered via embedded solutions driven by younger generation of users (i.e., SME and retail borrowers) preferring taking loans for specific purposes (point-of-sale lending) vs. rolling credit card balances. Adoption of such products is also accelerated by the rise in eCommerce.

A key example of embedded finance solutions for SMEs is invoice financing, which provides businesses with an opportunity to convert unpaid invoices into cash to facilitate working capital needs. We illustrate this business model by presenting a case study of Sonovate.

### Demand for embedded finance is already growing in deposits, payments, issuing, and lending

Embedded-finance distributors		Embedded-finance products	
<b>Traditional retailers</b>	Offer attractive financial products to enrich the customer checkout experience and incentivise brand loyalty and spending	<b>Deposits</b>	<b>Transaction and deposit accounts</b> that merchants and consumers can open and use from within an app or software platform
<b>Software firms</b>	Strengthen the platform value proposition to drive merchant adoption, retention, and revenues	<b>Payments</b>	<b>Money movement</b> from within nonbank apps or software
<b>Marketplaces and platforms</b>	Offer tailored financial products to improve the customer experience and increase merchant adoption, retention, and revenues	<b>Issuing</b>	<b>Prepaid, debit, and credit cards</b> for customers and employees, issued from within business management software or apps
<b>Telecom companies</b>	Increase customer engagement and enhance the value of smartphone software and hardware with money-movement capabilities	<b>Lending</b>	<b>Unsecured lending</b> embedded in business management software (eg, merchant cash advance) <b>Secured lending</b> for large purchases with underwriting and origination at point of sale
<b>OEMs</b>	Simplify ownership and financing through subscription and other financing services		

## Case Study: Embedded Invoice Financing



### Value proposition

- Created to challenge traditional invoice finance products on offer from the banks, Sonovate is revolutionizing the market through its technology and AI capabilities.

#### Key benefits for clients:

1. Access to capital - having access to capital helps companies complete projects on time, pay expenses and grow their businesses
2. Startup friendly - provides SMEs and start-ups, who may not be eligible for bank financing, with access to easy, quick, credit
3. No more chasing - supporting small businesses by eliminating hassle of invoice collection

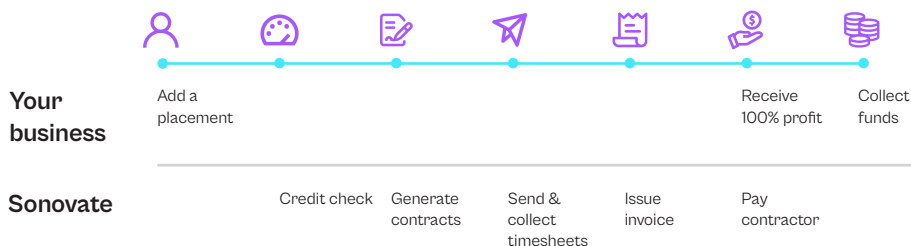
### Business description

- Established in 2013, Sonovate is the UK's leading alternative invoice finance and back-office technology provider to businesses. Sonovate provides finance and tech solutions to recruitment agencies, consultancies, labor marketplaces and other businesses that engage contractors and freelancers.
- Sonovate is an invoice finance platform designed to reduce admin, save time, and let companies focus on growing their business. It offers a funding and back-office platform for an all-in-one solution, or a standalone funding solution to complement existing systems.
- The Company has funded over GBP 3 billion to 3,300 businesses in 40+ countries.

### A complete tech-driven solution

Sonovate's tech is simple to use, the company handles all admin and back-office work streams.

Once a business adds a placements, Sonovate handles credit checks and credit control, timesheets, invoicing clients, collecting payments and paying the business and the contractor on time.



The emergence of APIs, coupled with rising customer digitisation needs, have driven the modularisation of the banking value chain. This has given rise to embedded finance as new tech-driven platforms are able to leverage existing banking infrastructure to better serve digitally native customers.

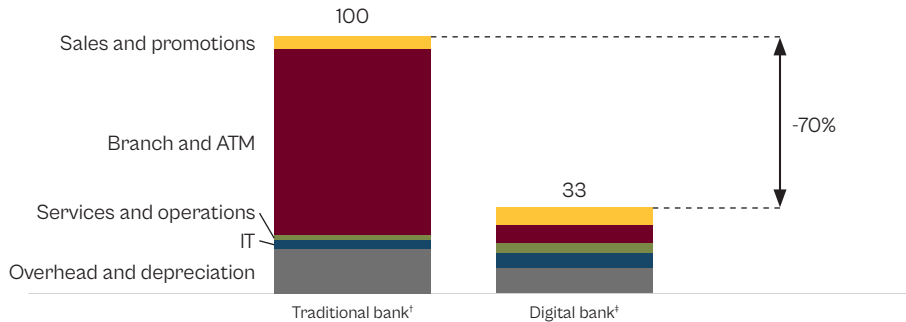
## 3.2. Increased Access to Credit

Traditional banks and financial institutions continue to underserve SMEs and small retail clients, despite their growth potential given their significant contribution to economic growth. Incumbents face multiple challenges in serving SME and small retail clients including: their limited distribution reach, their legacy software systems that are not apt to serve SMEs, as well as the limited credit history of SME and retail clients. Incumbents are struggling to find the optimal balance between providing the desired customer experience while managing cost-to-serve SMEs.<sup>8</sup>

As such, digital non-banking lending – primarily to consumers and SMEs, has expanded significantly to fulfil credit needs not appropriately serviced by existing institutions. These non-bank lenders often rely on alternative data, sophisticated analytics, and convenient digital distribution to target customers. The use of alternative data increases eligibility for products and allows alternative lenders to extend credit to previously excluded borrowers. Importantly, digital players benefit from significantly lower costs than traditional peers allowing them to serve the SME and retail segment profitably.

8. McKinsey (2019). Beyond Banking: How banks can use ecosystems to win the SME market

## Operating expenses/deposit balance, indexed



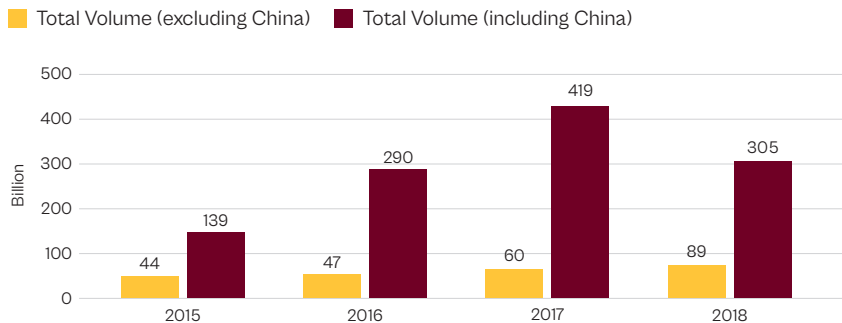
† Estimate of a comparably sized retail bank serving same size segment (2 million customers)

‡ Year-5 projections at steady state operations (not growth model); no transaction subsidies, minimum branch network and no out-of branch RM

Source: McKinsey Analysis

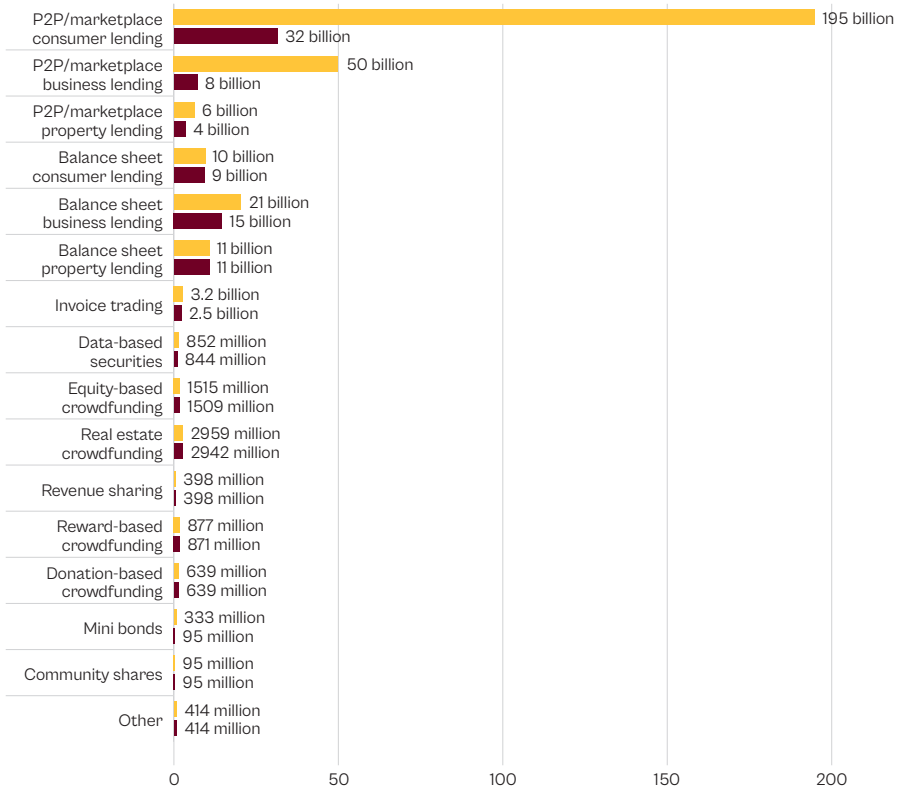
Globally, the impact and role of alternative finance has been growing significantly, with alternative finance platforms having facilitated USD \$304.5 billion in 2018. The largest model globally in 2018, by a significant margin, was P2P/Marketplace Consumer Lending – raising \$195.29 billion, equating to 64% of the overall volume of alternative finance lending. This indicates the strong demand for credit from segments that are currently overlooked by traditional banks and facilitated by alternative non-bank lenders.

## Total alternative finance volume (2015-2018), US\$



## Global volume by model in 2018, US\$

■ 2018 including China ■ 2018 excluding China



**SMEs and retail customers are key beneficiaries from the increased digitisation across credit and banking. Increased adoption of enabling technologies by incumbents as well as the rise of non-bank lenders increases credit availability to a large, but historically underserved, segment.**

We illustrate examples of how alternative lending models increase access to credit by presenting case studies of CreditVidaya and MNT-Halan.

## Case Study: AI driven alternative credit scoring increases access to finance



### Value proposition

- **Expand borrower base:** CreditVidya allows lenders to assess the vast new-to-credit and thin-file segment of applicants
- **Reduce decisioning time:** through its digital scoring model, CreditVidya reduces decision-making time from days to minutes
- **Lower default rate:** accurate assessment of creditworthiness based on both alternative data and traditional bureau reports reduces default rates

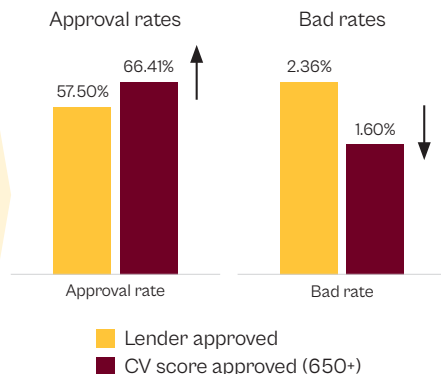
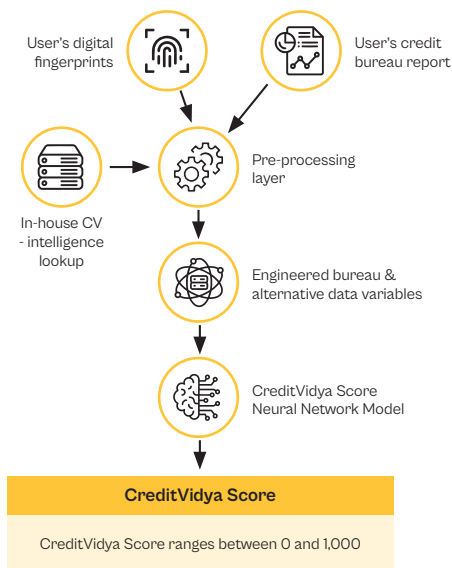
### Business description

- Established in 2012, CreditVidya is an India-based AI-based credit scoring platform that uses big data analysis to help lenders make credit decisions. CreditVidya aims to help lenders in approving more loans as currently a large percentage of applicants are denied credit due to lack of information.
- CreditVidya's software development kit (SDK) is embedded in the application of the lender, and relies on data from the applicant's smartphone assess creditworthiness

### An alternative credit scoring approach resulting in increased access to lending products

CreditVidya amalgamates alternative data and traditional bureau reports to assess creditworthiness...

...an approach that has proven to increase approval rates and simultaneously reduce defaults



## Case Study: The rise of digital non-bank lenders



### Value proposition

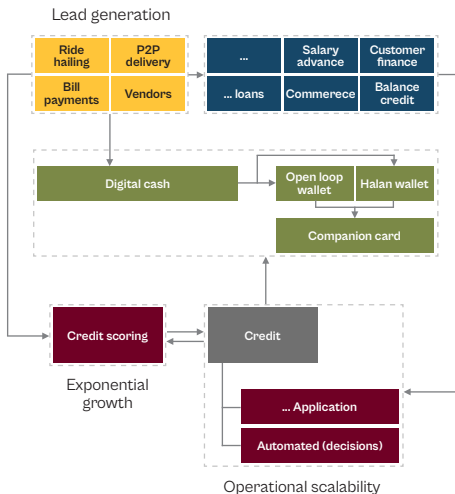
- Committed to bringing seamless financial services to the tens of millions of unbanked and underserved customers in Egypt and the surrounding region, MNT-Halan has developed its fintech ecosystem in-house, connecting consumers, vendors and micro-enterprises through its consumer financing app, merchant app, core banking system and payment solutions.

### Business description

- Founded in 2009, MNT is the leading diversified non-bank lender in Egypt, offering microfinance, asset finance and various other financial services to the unbanked masses through both digital and offline channels
- Catering to retail and MSME customers, MNT supports financial inclusion through a nationwide network of c.700 branches, helping c.650k micro-entrepreneurs generate higher returns to improve their living standards, while offering valuable services to c.1m users in underserved communities via its digital channels

## A comprehensive fintech ecosystem connecting all stakeholders, driving digitisation and financial inclusion

### Digital lead originations through alternative channels increases MNT's reach



### A highly digital operating model, with apps catering to all stakeholders

User app	Driver app	Halan-360
<p>Main consumer-facing app where users have full access to halan verticals</p> <ul style="list-style-type: none"> <li>E-commerce</li> <li>Apply for a loan / loan tracking / loan payments</li> <li>Bill payments</li> <li>Ride hailing</li> <li>Delivery</li> </ul>	<p>Driver app used for fulfilling</p> <ul style="list-style-type: none"> <li>Ride hailing</li> <li>Delivery requests</li> </ul>	<p>Web portal used by our clients for delivery</p> <ul style="list-style-type: none"> <li>Dispatching and stacking orders to driving</li> <li>Live tracking for drivers and riders</li> </ul>
Customer finance	Core banking system	Loan officer app
<p>Web portal used by our vendors for financing customers for purchasing products by</p> <ul style="list-style-type: none"> <li>Checking customer eligibility</li> <li>Submitting purchasing requests</li> </ul>	<ul style="list-style-type: none"> <li>A back-end to support our expansion plans</li> <li>Intact security (zero trust security)</li> <li>Easy integrations with our payment solutions</li> </ul>	<ul style="list-style-type: none"> <li>Receiving loan requests</li> <li>Lead creation</li> <li>Customer assessment</li> <li>Tracking loan payments</li> <li>5.8k - number of active agents</li> </ul>
Payments app	Vendors app	
<p>E-wallet app where users have access to</p> <p>Wallet balance Bill payments Payroll lending Money transfer Payroll disbursement</p>	<p>Similar to the user app but with tailored features for our vendors</p> <ul style="list-style-type: none"> <li>Delivery (dispatching and stacking orders to Halan's driver)</li> <li>Apply for a loan / loan stacking / loan payments</li> </ul>	

### 3.3. Impact on Pricing Structure

There are two elements to be discussed when assessing the impact of the aforementioned key trends on the pricing structure in the credit and banking space: (1) the impact of the modularisation of the banking of value chain on pricing and (2) the impact of digitisation on pricing.

#### **Impact of the modularisation of the value chain on pricing: revenue sharing between multiple players**

As explained in earlier sections of the paper, the banking value chain is being unbundled. This unbundling is giving rise to embedded finance solutions, where multiple players partner to provide a financial service to the customer – a financial service that traditionally was fully provided by banks. In this unbundling, fees and value capturing are also unbundled between the different players – albeit not equally. Revenue primarily accrues to the risk takers and to the distributors that own the customer relationship. For example, according to McKinsey research, the majority of revenues from embedded-finance lending products (c. 55% in 2021) accrued to the balance sheet provider – the firm bearing the risk of credit default, while distributors earned c. 33% of revenues. However, where payments and deposit products were concerned, the distributors who owned the end-customer relationship benefited most.<sup>9</sup>

#### **Impact of the digitisation on pricing: lower cost structures drive competitive prices**

The most digital banking business model is that of neobanks. These are fully digital banks that do not operate any physical branches. As such, they are not spending on rent, infrastructure, or other expenses typical of traditional physical banks. These

9. McKinsey (2022). Embedded finance: Who will lead the next payments revolution?

savings are passed on to the customers in the form of lower fees and higher interest rates. **Fully digital, neobanks are typically associated with lower, competitive pricing relative to traditional banks.**

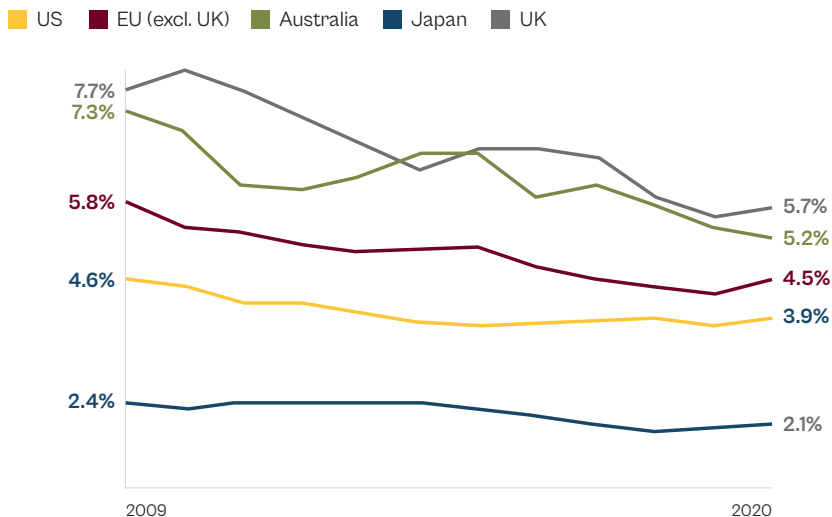
In terms of fee structures, **traditional banks are typically associated with opaque complex pricing while neobanks provide transparent, simple fees.** Amongst neobanks there are four classifications of pricing structures: free, tiered, freemium, and flat.

### Fee Structures: Neobanks vs. Traditional Banks

Neobanks (fee structure)	Free	<ul style="list-style-type: none"> <li>• No monthly or account opening fees</li> <li>• Potential charges for transfers and specific features</li> <li>• Neobanks offering this pricing model typically make money from a mixture of interchange, fees paid by merchants to the neobank's cards, and interest on deposit.</li> </ul>
	Tiered	<ul style="list-style-type: none"> <li>• Providing users with multiple subscription options, differentiated by the features</li> <li>• Subscribing to a membership tier gives the user a set amount of transactions alongside other benefits for a specific fee</li> </ul>
	Freemium	<ul style="list-style-type: none"> <li>• This is simply a free pricing structure with a premium option</li> <li>• The free option typically has entry-level access to product features with additional fees required for higher-level features</li> </ul>
	Flat	<ul style="list-style-type: none"> <li>• A singular monthly fee for all users, with all users having the same access to the platform's features</li> <li>• Similar to other pricing structures, miscellaneous fees would apply</li> </ul>
<b>Traditional Banks</b> <i>'Complex and Opaque'</i>		<ul style="list-style-type: none"> <li>• Traditional banks charge a mix of recurring and transactional fees including: maintenance fees, transfer fees, online access fees, account changes fees, notification alerts, etc.</li> <li>• Complex fees structures make it challenging for users to track actual fees paid to banks</li> </ul>

The two impacts on banking pricing structures discussed indicate pressure on traditional banks fees as modularisation results in the flow of banking revenues to new players and as asset-light neobanks continue to offer significantly lower fees – this is reflected in declining bank revenue as a share of GDP.<sup>10</sup>

### Banks' revenue as a share of gross domestic product



Note: UK banks' revenue based on unconsolidated reporting to BoE and excludes non-UK business for some banks

Source: Accenture Research analysis on data from ECB, FDIC, IMF, APRA, JBA, BoE

10. Accenture (2022). The Future of Banking: It's time for a change of perspective

## 4. BUSINESS MODEL IMPLICATIONS GOING FORWARD

The proliferation of banking technology and the industry-wide emphasis on digital transformation will open new pathways for traditional banks and technology-led players to collaborate and for customers to gain increased access to credit and banking products.

A key theme that will sustain as the credit and banking ecosystem continues to evolve is customer centricity. Customer experience will be a defining competitive differentiator in the banking industry. We believe that players within the credit and banking space will have to adjust their business models to tackle the numerous changes affecting their industry to remain competitive.

### 4.1. Rapid Digitisation of Offerings and Operations

As banks continue to face intense pressure from new entrants, it is crucial they embrace the emerging technologies, remain agile to adopt evolving business models and put customers at the centre of every strategy in order to remain successful.<sup>11</sup>

Traditionally built with 'fit-for-purpose' processes and products, banks need to transition to 'customer centric offerings'. This will require banks to simultaneously reduce their reliance on people in operational roles, invest in automation, redesign processes, and augment their digital front ends. To compete with asset-light new entrants, banks will need to emphasise automation to optimise their cost structures.

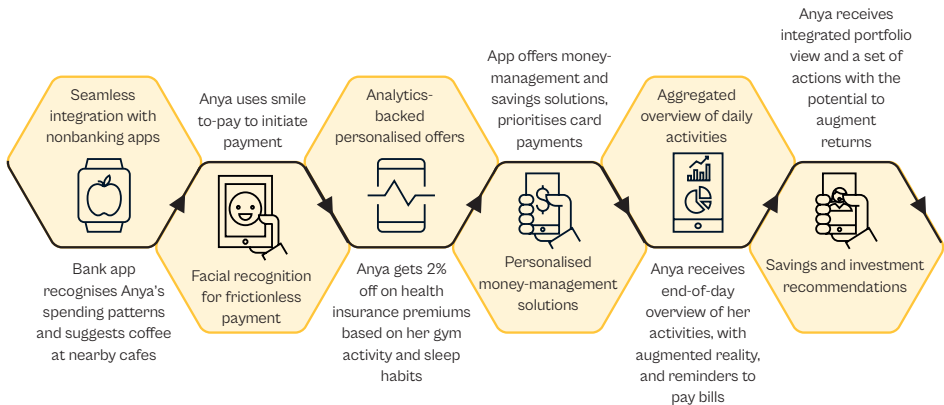
**Rising customer expectations and increased competition will require incumbents to expand use of digital, AI-enabled technologies to improve customer experiences and back-office processes to remain competitive.**

11. Deloitte (2022). Bank of 2030: Transform Boldly

## A Customer-Centric, Seamless Banking Experience

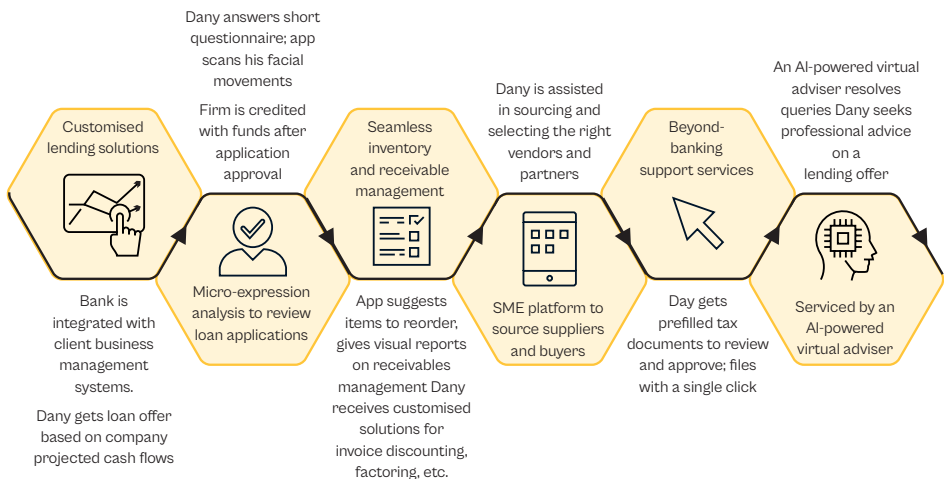
### How AI transforms banking for a retail customer

Name: Anya | Age: 28 Years | Occupation: Working professional



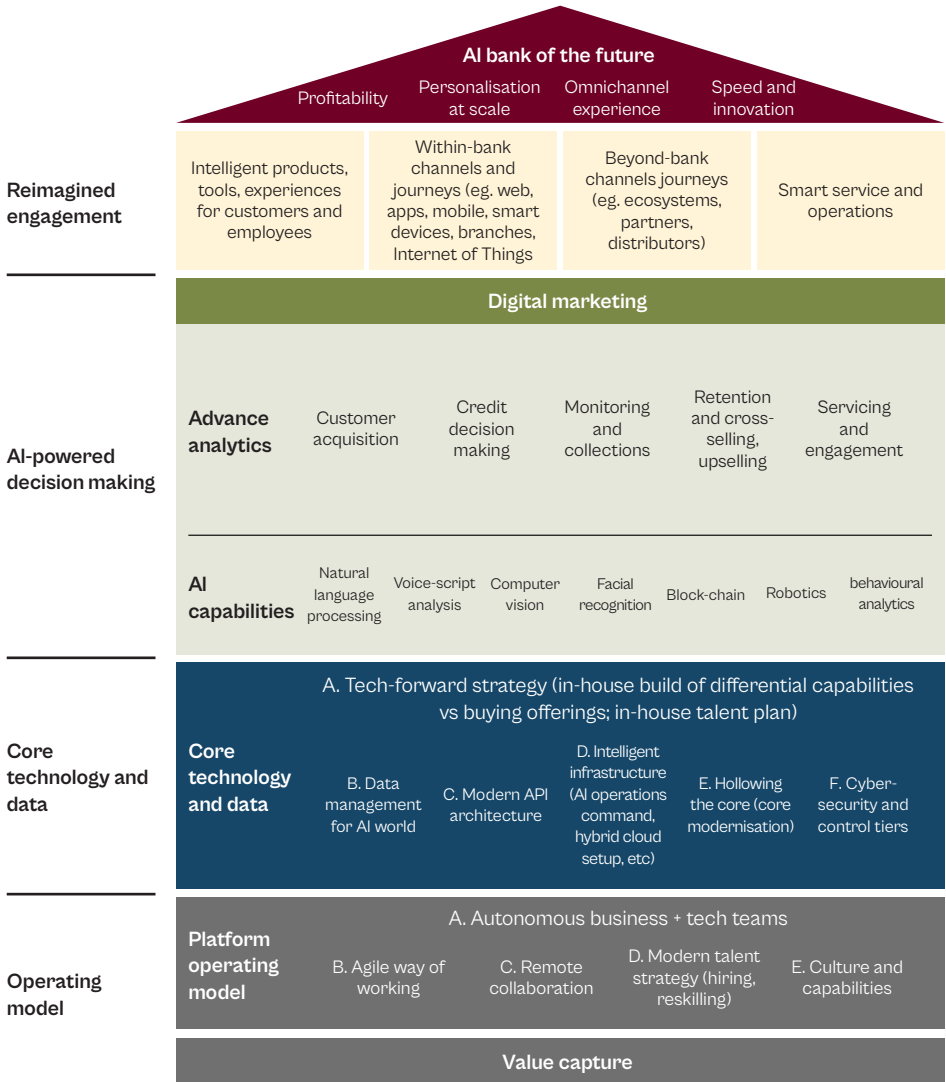
### How AI transforms banking for a small- or medium-size-enterprise customer

Name: Dany | Age: 36 Years | Occupation: Treasurer of a small manufacturing unit



**Automation across the banking valuation**

**To become an AI-first institution, a bank must streamline its capability stack for value creation**



## 4.2. The Rise of BaaS: Partnerships between Technology-led Players and Traditional Incumbents

With the unbundling of the banking value chain, we are seeing a rise of Banking-as-a-Service (BaaS). BaaS is an end-to-end model that allows third parties to connect with bank systems directly via APIs to allow them to build banking offerings on top of the providers' regulated infrastructure. Not to be confused with embedded finance, BaaS is more defined by its back-end banking functionality while embedded finance is defined by its front-end access to financial services. A BaaS provider is essentially a company with a banking license offering white labelled mix of tech solution and regulated banking capabilities to third party companies on a commercial basis.

BaaS provides legacy banks with an opportunity to generate new revenue streams by allowing third parties to utilise their underlying infrastructure and banking licenses in return for a recurring fee. At the same time, through BaaS, non-financial institutions as well as non-regulated neobanks are able to focus on customer experience without investing in regulatory licenses, banking infrastructure, etc. For incumbent banks to capitalise on this opportunity, they would need to transform their infrastructure to allow for API functionality.

Taking a deeper look at BaaS models, there are two distinct BaaS models: a two-tier and a three-tier model.

- 1. Two-tier model (Direct Bank Partnership Model):** In this model, a non-bank fintech player would partner directly with a bank to design and operate a financial product. Common products include bank accounts, debit cards and lending products.
- 2. Three-tier model:** In this model, there is a 'middleware' layer that sits between the non-bank fintech player and the licensed, regulated bank. This 'middleware' layer arose to address the slow, expensive process of building on top of the bank's legacy tech stacks. The companies mainly comprise of product managers and software engineers focused on launching financial products.

## Case Study: Griffin Bank the next generation BaaS



### Value proposition

- A leading B2B/B2C embedded finance platform as a bank in the UK in March 2023
- Through the provision of financial products and infrastructure, clients are able to expand revenue streams, strengthen engagement, and simplify their banking operations
- Clients benefit from the speed and margins of a tech company and the capabilities and resilience of a fully regulated bank

### Business description



Earn interest on all deposits



Access to all major UK payment schemes



Unlimited safeguarding and client money accounts

### Full-stack purpose-built bank to power the embedded finance revolution

**Direct banking**  
Services for direct customers



**Operational account**  
Unlimited GBP business current accounts



**Credit and lending**  
Tailored lending such as overdrafts and credit lines



**Interest-bearing accounts**  
Competitive interest rates on deposits



**Bank accounts**  
Client money, Safeguarding and Savings accounts



**Payments**  
Access to major payment rails



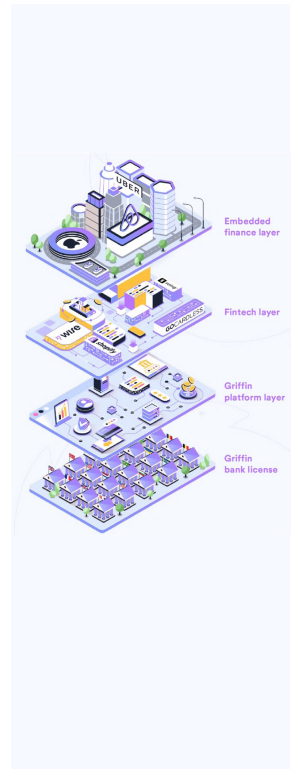
**Cards**  
Prepaid, debit and eventually credit card issuing



**Lending**  
Overdrafts or lines of credit for our customer's customer



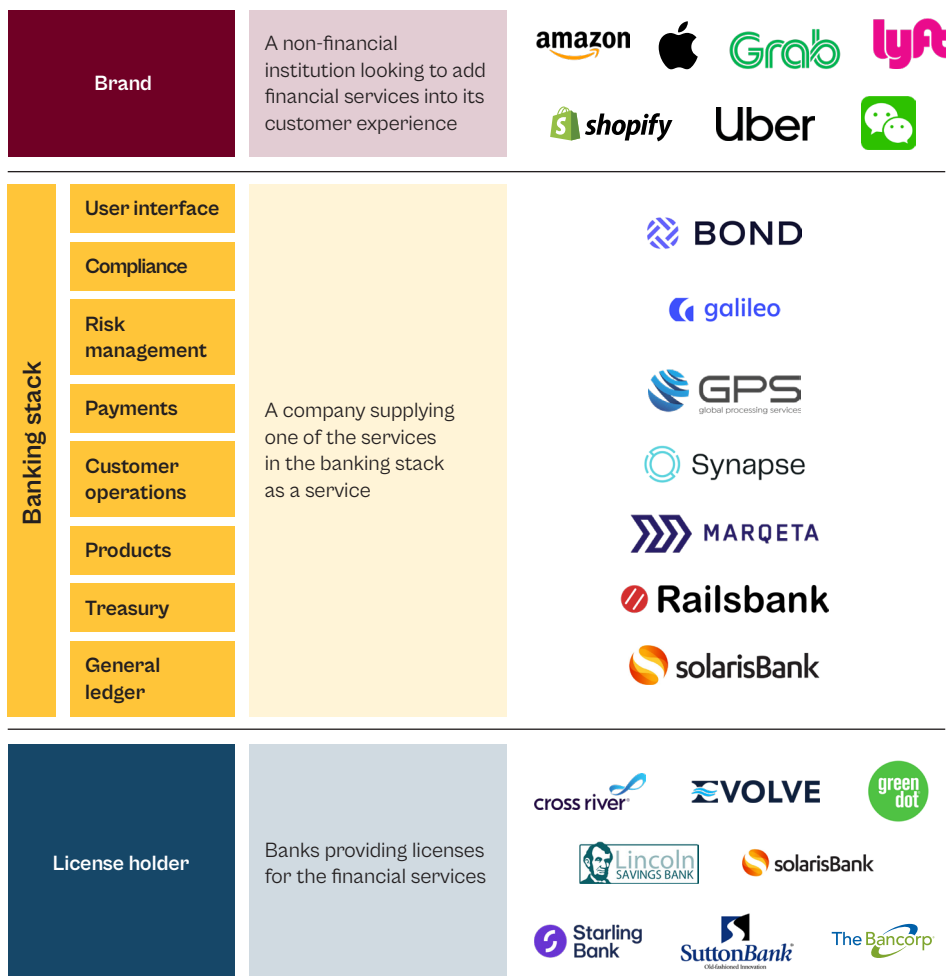
**Fincrime prevention**  
Customer onboarding, reviews and transaction monitoring



**Embedded banking**  
What Griffin's customers can offer their customers

As both banks and non-banks capitalise on this opportunity, there is a rise in BaaS partnerships between front-end providers and sponsor banks. We illustrate these partnerships in the case study of Chime.

## Unpacking the BaaS Stack



## Case Study: Emerging Partnerships between Fintechs and Traditional Banks



### Value proposition

- Chime was created with the mission to make financial peace of mind a reality for millions of Americans. Chime helps its users improve performance and health in their financial life by offering banking services that are helpful, easy, and free.

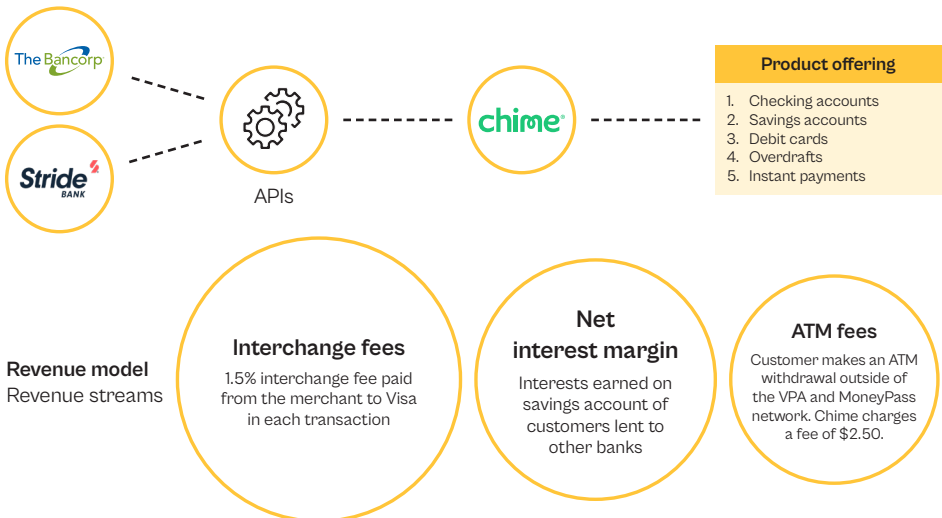
#### Key benefits for clients:

- Simple, easy to use at attractive fees
- Smart ways to save with competitive interest rates
- Credit building solutions for users
- Top customer service and support

### Business description

- Founded in 2013 by Chris Britt (CEO) and Ryan King (CTO), Chime is the United State's leading neobank serving over 12 million customers through its mobile application.
- As a neobanking company, Chime does not operate any physical locations, and is a solely online. Chime works with banking partners to offer no-fee bank accounts with no overdraft, monthly service, minimum balance, or other consumer fees.
- In FY2021, Chime generated revenue of US\$ 950 million, and served c. 12 million customers (c. 8 million of which using Chime as their primary bank).

### Chime partners with The Bancorp and Stride Bank to extend financial service product to its customers



Revenue model  
Revenue streams

#### Interchange fees

1.5% interchange fee paid from the merchant to Visa in each transaction

#### Net interest margin

Interests earned on savings account of customers lent to other banks

#### ATM fees

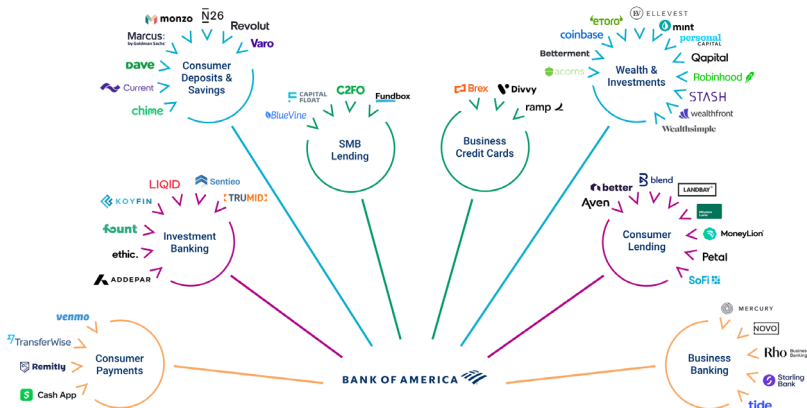
Customer makes an ATM withdrawal outside of the VPA and MoneyPass network. Chime charges a fee of \$2.50.

### 4.3. Product Modularisation to Evolve the Customers' Relationships with Banks

With the modularisation of banking and the rise of non-bank platforms as distributors of financial services products, a critical question is posed – will traditional banks continue to own the customer relationship?

Traditionally, people typically used one bank for the majority of their financial services' requirements. They often had a single, long-standing bank relationship. However, this is rapidly changing, and consumers are increasingly using different providers for different products. This fragmentation is accelerating due to digital technology. Non-bank platforms are increasingly managing the customer relationship layer and the distribution layer of the banking value chain.

**Modularisation resulting in an increasing number of providers for services initially all offered by banks**



Source: cbinsights.com

While incumbents have developed trust with customers given their track record of operations and the associated regulatory assurance, they are losing customer engagement as their legacy systems do not support a customer centric experience.

## 5. CONCLUSION

Similar to other verticals of financial services, the credit and banking industry is rapidly changing. Over the last decade, customer expectations for banking experience have evolved significantly faster than the banking industry. Customers are prioritising digital, personalised experiences and are demanding optionality in products and providers. These needs have driven a wave of digitisation across all segments of the banking value chain and resulted in the emergence of new digital players (banks and non-banks).

Faced with a reconstruction of the value chain driven by changing customer expectations and accelerated digitisation, it is imperative for traditional banks to remain agile and adapt to the changing business models in order to continue capturing value. We expect future banks to shift from operating as a single, vertically integrated business into operating multiple, non-linear businesses through partnerships with new digital market entrants.

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