THE GREAT UNBUNDLING

How technology is making financial services modular and what it means for inclusion

CGAP

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ACKNOWLEDGMENTS

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EXECUTIVE SUMMARY

Is retail banking changing at the core?

Innovation is profoundly transforming many economic sectors. New technologies and business models are upending long-established markets across virtually every major industry, including retail commerce, transportation, music, travel, and communication.

These same forces are now fully at work in financial services. While regulation has slowed things down, there is every reason to believe that over time these developments will be just as impactful on the financial sector.

What does this mean for the future of banking and for financial inclusion? What will be the implications for incumbents, for regulators, for investors, and for the many stakeholders working to make universal financial inclusion a reality?

In mid-2018, CGAP launched an effort to understand this change and identify the most promising business models arising from it.

This initiative has focused on three broad innovation spaces defined by three distinct sets of actors that have different origins and motivations:

1. **Digital banks**, from the startup "neobank" challengers to radically new business models like Banking-as-a-Service
2. **Fintech startups** and the funding and innovation ecosystems that enable them
3. **Platforms** like the big tech giants in the United States and China as well as local goods or services platforms in emerging markets

This deck summarizes our takeaways on how disruption across those three spaces is changing the very nature of banking.

To see all our work on the future of financial services, visit **www.cgap.org/fintech**.

EXECUTIVE SUMMARY

What you will take away from this report

This publication shares CGAP's perspective on how financial services are changing, through a business model lens. In so doing, it attempts to provide an understanding of all the key elements of change and their implications:

- **Which technology forces are driving the transformation** that is currently underway in financial services, much like in other sectors of the economy, and why they are important
- **How the production and consumption of financial services are changing** as a result of these forces, transforming both the front-end and back-end of banking at the same time
- **Which entirely new business models are emerging as a result**, including fintech, platform, and digital banking models that bring something genuinely new to financial services
- **How this is changing the nature of retail banking as we know it**, by enabling the unbundling, rebundling, and embedding of financial services into new contexts by new actors

Since our overriding focus is on financial inclusion, the report will also trace out the implications for customers — as well as for incumbents and financial authorities.

CGAP sees many reasons why this development could be positive for financial inclusion. We argue that it will result in an increasingly modular market for financial services, and we identify concrete ways in which this can improve the cost, access, fit, and experience of financial services for low-income customers.

At the same time, we also see that it will likely bring new risks that financial authorities and incumbents alike should be alert to and start to consider — soon. Toward the end of the report, we will share our view on what some of those risks may be.

This publication does not provide all the answers. But it tries to give a sense of the change that is underway and to outline the main questions this change poses, as well as the new choices and opportunities it can provide. We hope you will find this publication thought-provoking and look forward to continuing the conversation.

EXECUTIVE SUMMARY

The modularization of banking is already under way

Banking is already being de-constructed and reimagined. Digital technologies enable banking processes to be disassembled into their constituent parts and then reassembled in novel ways, in a similar fashion to what has already happened in music, transport, travel, etc.

This drives specialization on both the front end and back end of banking, as leading providers of solutions for very specific problems relentlessly translate a narrow focus into an ever deeper competitive advantage.

It is also catalyzing whole new categories of business models. Several new models for retail banking are emerging, including Banking-as-a-Service (BaaS), which is likely to have a profound impact on the sector, as well as entirely different models based on platform economics that have very different drivers and incentives.

This will create new winners and losers in financial services as successful innovators can scale with incredible speed and financial services grow increasingly available in digital channels and spaces that consumers, including the poor, are already active in.

Customers should broadly stand to gain from this modularization. Growing choice, competition, and gains from specialization should drive prices down and value up. Customers can assemble solutions based on their various needs and preferences. Providers are forced to keep up with innovation and the consumer experiences people are used to from the digital economy.

We believe it can help overcome key barriers to financial inclusion. Specifically, it can help us get past the “broad, but shallow” nature of inclusion today by putting a much deeper range of services within reach of the poor and underserved.

EXECUTIVE SUMMARY

The market structure itself may grow more modular

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

Product layer
Design and manufacture of individual financial products and services

Customer relationship layer
Customer acquisition, sales, servicing and permanent primary interface

Distribution layer
Physical touch points for distributing products and serving customers

The key pieces in banking need no longer go together. We identify four core market layers that play distinct functional roles in the provision of retail financial services. Historically integrated, a combination of new technological capabilities and age-old economic incentives is now driving a growing disaggregation of these layers.

This opens up entirely new business model choices and partnership opportunities. Different players have varying strengths across these layers and will as a result specialize and partner in different ways. Others may have similar strengths but make dissimilar strategic choices. Either way, the result is a more diverse financial sector.

Regulators should allow this unbundling, but have to stay abreast of the new risks it brings. Greater competition and innovation in financial services is badly needed, not least in developing economies. However, the changing nature of banking will put regulatory and supervisory practices to the test, with significant potential consequences.

Image credit: @ Noun Project

EXECUTIVE SUMMARY

What does the unbundling and embedding of financial services mean in practice? And what does it have to do with financial inclusion?

For a brief video that explains the central points, please click on image or visit **cgap.org/fintech.**

I. WHAT IS MODULARIZATION?

AND WHY SHOULD I CARE?

DIGITAL TECHNOLOGIES ARE CHANGING BANKING

New technologies and business models that have already fundamentally transformed other sectors are being increasingly applied to retail banking

Cloud is expanding competition

- Removing barriers to entry for new players
- Removing barriers to scaling up for good solutions

APIs are enabling more complexity

- Reducing time and cost of integration with third parties
- Reducing transaction costs for involving third parties even in real-time process flows

Rapid innovation is driving specialization

- New technology (notably machine learning) enabling specialized fintechs to push the leading edge fast
- Makes it increasingly hard for any generalized company to keep up with the specialized best-in-class providers of specific solutions

Platforms are showing new sources of value

- Dominating a product space without manufacturing any of the products
- Using the customer relationship as competitive advantage and ultimate revenue driver
- Leveraging on massively scalable and efficient delivery channels

SaaS models are enabling faster B2B adoption

- Reducing the investment cost, risk and time of acquiring new capabilities (Capex → Opex)
- Making it easy to switch when a better solution comes along

These are powerful forces that have profoundly disrupted retail commerce, transport, travel, music, and other sectors of the economy. While regulators are slowing down the pace of change, there is every reason to think these forces will be equally impactful in retail banking.

CUSTOMER RELATIONSHIPS WITH BANKS ARE EVOLVING

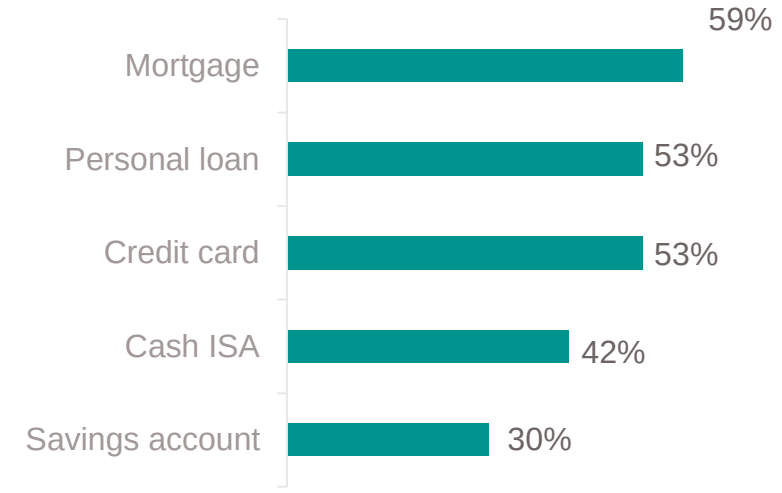
Today customers are increasingly likely to use multiple financial service providers

In the past, people tended to use one bank for most of their financial services needs. They often had a single, long-standing bank relationship through which they got most of their products and services. People were famously more likely to divorce than to change their bank.

Today, consumers are increasingly using different providers for different products. They may have current accounts with two or three banks, personal loans or credit cards with several others, mortgages with another, and their investment portfolio with other institutions still.

This fragmentation is accelerating thanks to digital technology, as fintechs specialized on forex and travel payments, point-of-sale financing, robo-investing, insurance, and other areas bring compelling products direct to consumers via web and app.

Share of UK clients who use another bank than their current account provider for various products



Source: PwC UK 2017

PAYMENTS MAY SHOW WHERE THINGS ARE HEADED

In developed economies, most people today use a range of different providers for specific use cases

This development can perhaps be seen most prominently in the payments arena.

Ten years ago, a typical customer might primarily use the checkbook or bank card issued by their (one) bank to make all their non-cash retail payments.

Today, a typical customer might use a long and growing list of providers in different contexts:

- PayPal when buying things online
- Venmo when sending money to friends
- LevelUp when having lunch or dinner
- Revolut when travelling internationally
- TransferWise when sending money abroad
- Apple Pay, Google Pay, or Samsung Pay for retail payments, depending on which phone they happen to use

THIS IS PUTTING THE “CUSTOM” BACK IN CUSTOMER

As financial *product* offerings grow unbundled, consumers gain options and greater choice

As a result, customers are today increasingly able to assemble their own personal suite of financial products and services.

This toolkit is configured to suit their particular needs and preferences in different contexts, based on the fit between a given product and a given use case—or just what they happen to like.

Moreover, the tools in this personal financial toolkit can be easily swapped out over time as cheaper or better options emerge.

By putting the “custom” back in customer, this should be beneficial for consumers by allowing more choice and better product fits to diverse circumstances—while deepening the competitive pressure on providers to offer genuine value.

Photo source: Anton Starikov / Shutterstock.com

SOMETHING SIMILAR IS TAKING PLACE ON THE BACK END

As banking *processes* grow unbundled, costs should fall even as capabilities grow

For financial service providers, the production of financial products and services is similarly becoming disassembled into components, thanks to the same underlying forces and the Cambrian explosion they are unleashing in the fintech space.

With technological capabilities growing and barriers to entry falling, large numbers of highly specialized companies are emerging that focus narrowly on improving specific parts of the banking value chain.

Thanks to this singular focus as much as to cutting-edge technology, these startups are often able to create solutions that traditional financial service providers—being spread across a wider range of products and locked into legacy tech stacks—struggle to match.

Photo credit: © Todd McLellan, Things Come Apart.

THIS IS WHAT WE MEAN BY "MODULAR FINANCIAL SERVICES"

It means that a substantial number of different providers are seamlessly involved in meeting individual customers' demand for financial products and services, front end or back

Business-to-business (B2B) side:

Financial processes shift away from full vertical integration, where everything is done in-house, toward extensively outsourcing or partnering for pieces of the value chain to highly specialized third-party fintechs.

Customers may be unaware of the involvement and role of these third parties, who typically offer white label services and solutions.

Banks can thus retain the front-end relationship with retail customers, while taking advantage of the value added and efficiency gains offered by the partner fintechs.

Business-to-customer (B2C) side:

Customers use many different providers for different financial products and services—or to satisfy different needs or use cases even within a given product or service category.

Products may be integrated and rebundled in different ways, including by non-financial service providers as embedded finance.

This presents a direct competitive challenge to incumbent banks for the front-end customer relationship and could result in those banks growing increasingly disintermediated.

THIS IS NOT JUST A RICH WORLD PHENOMENON

Startups in developing markets are busy creating new solutions for the underserved

Global investment flows into fintech, digital banking and platform models tend to be concentrated mainly in more developed countries, notably the United States and Europe. These tend to be markets with broader and deeper financial sectors, richer startup ecosystems and more enabling regulatory environments.

That said, there is no shortage of startup activity around financial services in emerging markets and developing economies. There are plenty of fintechs in these markets, including those creating solutions specifically for underserved, low-income customers.

CGAP has written extensively about what those fintechs have to offer financial inclusion as well as how the funder community can best support the development of healthy fintech ecosystems.

WHY DOES CGAP CARE ABOUT MODULARIZATION?

We believe this shift can help expand inclusion in several ways

Direct impact	Market impact	Inclusion impact
Lower barriers to entry Higher scalability	Increased competition	Better value propositions Lower end-user prices Interest in the underbanked
Greater diversity of providers and models	Wider product range	More consumer choice Better niche offerings
New technical capabilities	Increased specialization	Lower cost to serve New and better products
“Non-bank” tech business models	More transparent and better aligned revenue models	More consumer control Less overcharging
Lower cost structures	Pressure on pricing	Greater financial access Better value for money
Easier integration Real time exchange	Greater flexibility	Better product fit to varied consumer needs
Better analytics at the customer level	More bespoke and proactive advisory	More informed choice Better financial outcomes

WE EXPLORE INCLUSION IMPACT IN FOUR DIMENSIONS

Cost

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

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

Access

Does modularization make financial products or services more accessible to underserved customers?

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

Fit

Does modularization make financial products better suited to the needs and wants of underserved customers?

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

Experience

Does modularization make financial products easier for underserved customers to use and to understand?

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

Image credit: @ Noun Project

II. MODULAR PRODUCTS

HOW OUR CONSUMPTION OF FINANCIAL SERVICES IS CHANGING ON THE FRONT-END

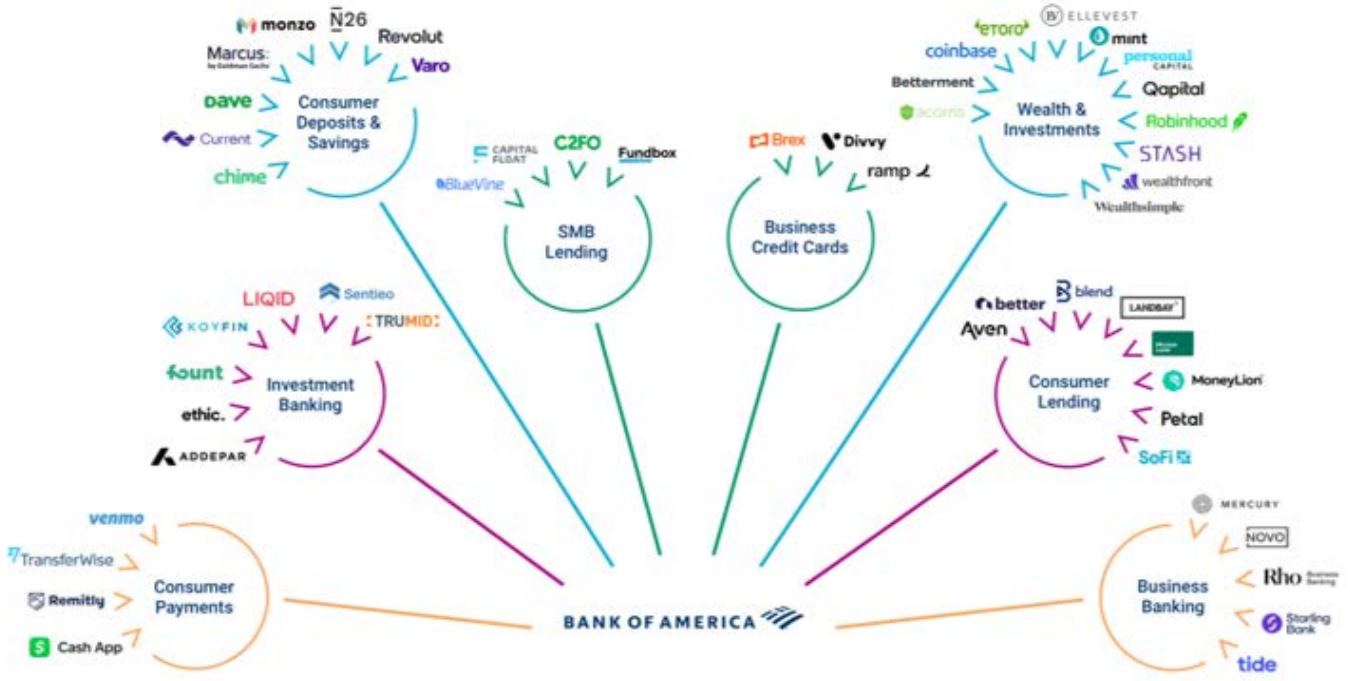
PRODUCT MODULARIZATION MEANS GREATER COMPETITION

As people get more options, they increasingly pick and choose multiple providers that fit their needs

Modular demand implies that customers are using a greater number of different providers for different products, needs, or use cases.

One way to describe this modularization is the sheer number of new entrants to financial services and the range of products that they collectively offer.

For every part of what a bank does, there are now myriad startups and upstarts that challenge the incumbents for end customers.



Source: CB Insights

THIS LETS USERS ASSEMBLE THEIR OWN SUITE OF FINANCIAL TOOLS

A bespoke set of financial solutions that work well for their particular circumstances

By taking advantage of the value propositions that various providers offer for different use cases, customers are increasingly able to assemble their own personal combinations of financial products and services. They are no longer restricted to the bundle of products offered by their main bank.

This ability to build a customized toolkit improves the fit and relevance of financial services, since the combinations in this toolkit will vary between each customer. With switching and onboarding becoming ever easier, the toolkit will also change over time as cheaper or better options emerge that customers want to substitute in.

This unbundling of the consumer facing offering is what we mean by financial products growing more modular.

Source: Anton Starikov / Shutterstock.com

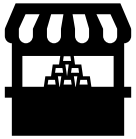
SOME OF THE CHALLENGERS ARE THEMSELVES BANKS

CGAP has identified three genuinely new digitally native business models for retail banking

Fully digital retail bank

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

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



Marketplace bank

Digital-only banks responding to the intensifying competition at the product level by actively enabling their customers to access a wide range of third-party products.

Recognizing that the best way to retain customers is to help them access any product they want, marketplace banks embody the idea of an increasingly modular demand for financial services.

Banking-as-a-service

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

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

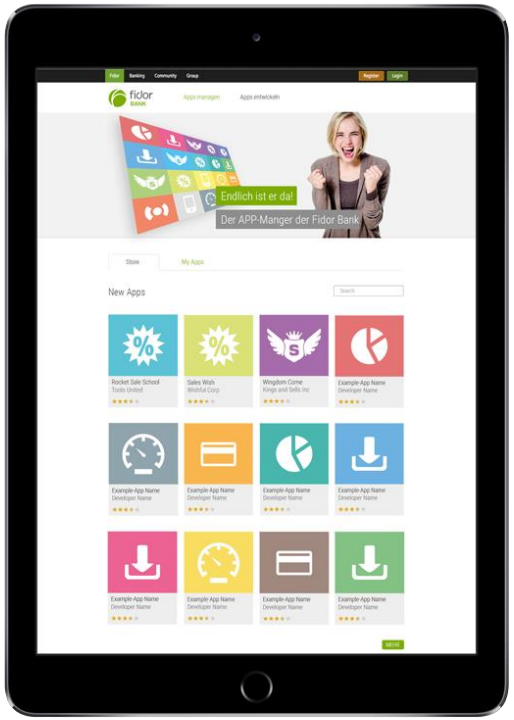
NEW TYPES OF FINANCIAL MARKETPLACES ACCELERATE THIS TREND

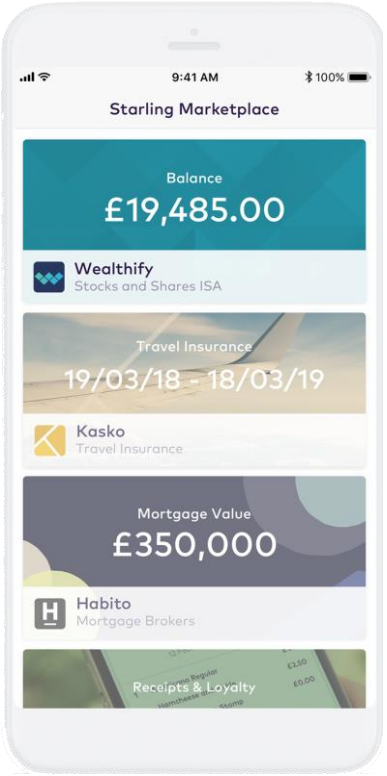
These build a business around giving access to either a wide or a tightly curated range of third-party providers

Among the new digitally native players are a subset of providers who focus specifically on aggregating third-party financial service providers and brokering their relationships with end customers. These are a form of financial marketplaces, some of which are banks (see previous slide), and some of which are not.

The business models of these market-places is often based on either revenue share or commissions on referral, both of which are paid by the third-party FSP. For end customers, the service is often free of charge.

By aggregating large numbers of FSPs and making them easy to find and sign up for, these marketplaces contribute significantly to the modularization of B2C financial services.





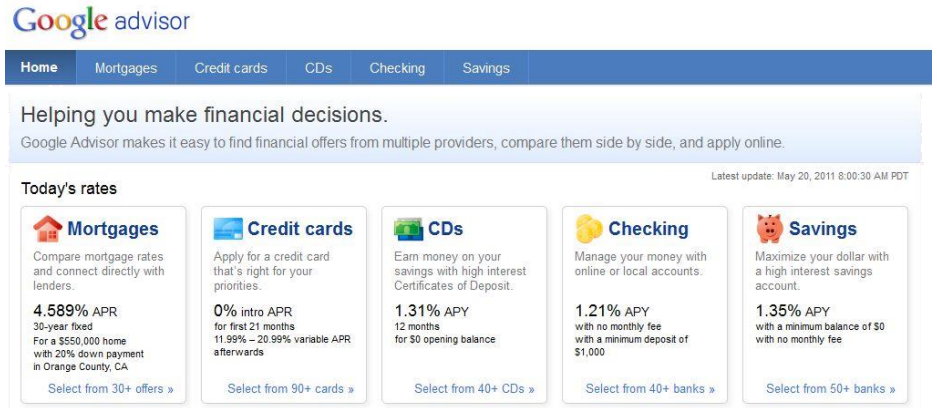
Sources: Fidor Solutions, Starling Bank

THIS IS BEFORE THE BIG TECH GIANTS HAVE REALLY ENTERED

But several (including Google and Amazon) have been exploring it in different forms for many years and are likely to keep trying until they get it right

Google Advisor offered a marketplace for a wide range of financial services from over 50 banks as early as 2011, followed by Google Compare in the UK. Neither took off the at the time, probably because it was too early.

Modularization makes this type of service far easier to offer and create customer value from, potentially creating a Google Financial Assistant helping users find, compare, and buy financial products.



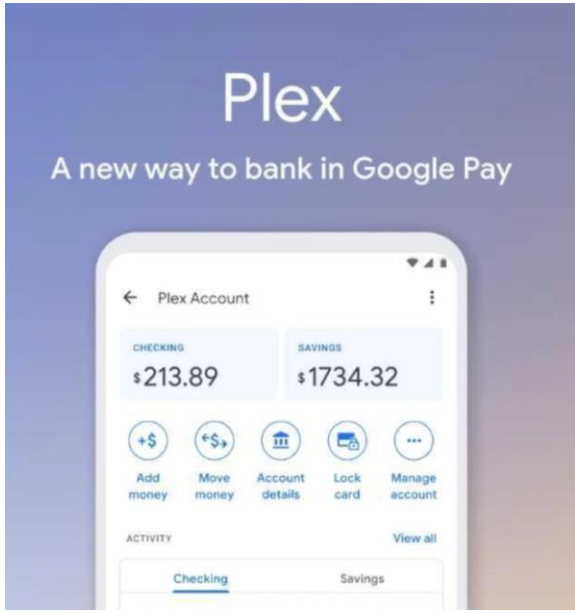
Source: Google

See more on YouTube

Ten years later, we are in 2021 expecting the launch of **Google Plex**, which in the words of the company is "a new way to bank."

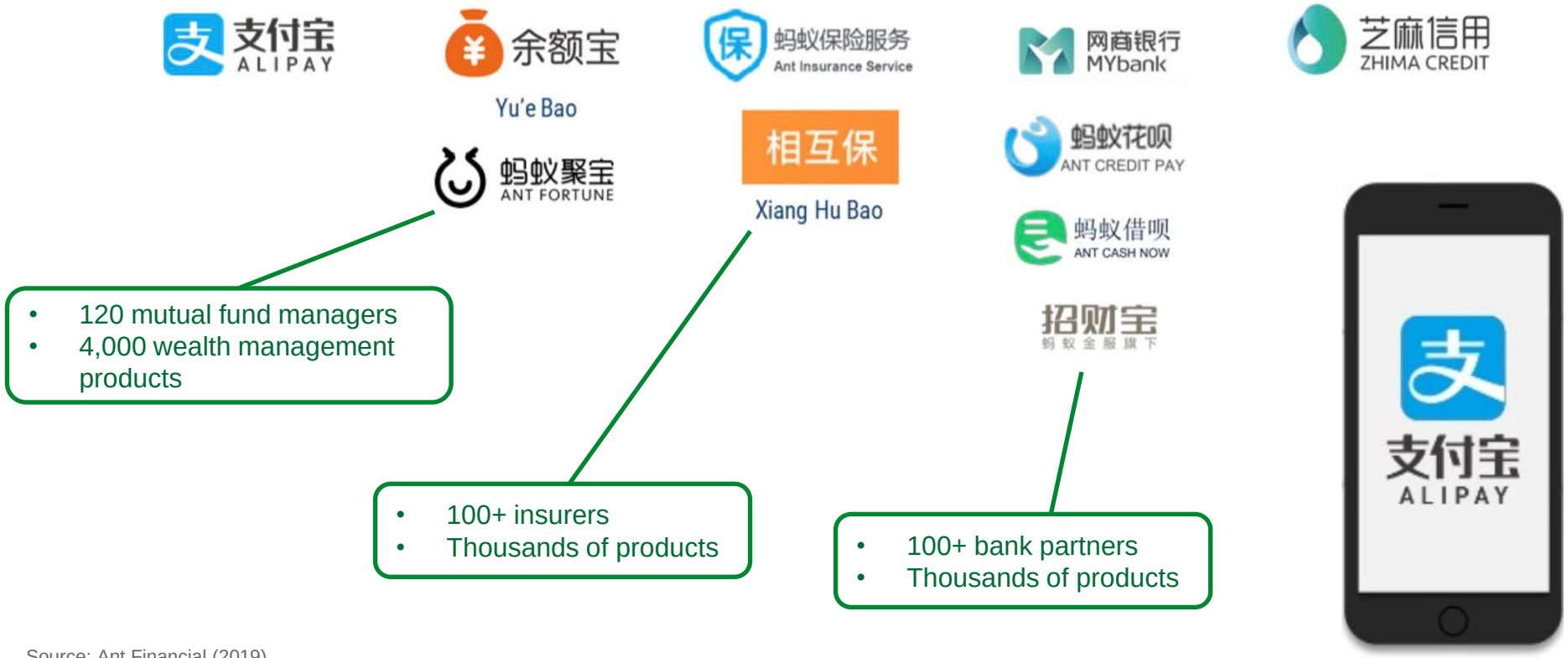
It purports to bring the regulated capabilities of a dozen banking partners into the modern era, "with Google intelligence built in […] to reimagine the entire banking experience around Plex."

With many false starts, we don't know precisely what Google and other tech giants will end up doing in financial services. But given the data and revenue at stake, they seem likely to keep trying until they get it right.



CHINESE BIGTECHS HAVE ALREADY BUILT VAST FINANCIAL ECOSYSTEMS

These place thousands of products at users' fingertips and draw on rich user data for analytics



Source: Ant Financial (2019)

HOW SCARED SHOULD INCUMBENTS BE ABOUT TECH PLATFORMS?

The primary concern for banks and insurers should probably be around the customer relationship

Big tech platform companies like Google, Amazon, Facebook, Alibaba, and Tencent have significant assets they can bring to bear on financial services, including large user bases, vast amounts of data, sophisticated technology, and strong design skills.

These players are also making heavy investments in various types of AI and automation, including chatbots, voice-based interfaces, image recognition, and machine learning.

This makes them increasingly well placed to become personal financial assistants that sit between end customers and financial service providers, providing insights, projections, recommendations, personalized nudges, and seamless experiences to consumers.

Pivoting into that space would make sense for many platforms whose core business revolves around relationships with, and data on, end customers. Hence, it would seem quite likely to happen.

PLATFORMS DO HAVE STRONG REASONS TO OFFER FINANCIAL PRODUCTS

This should expand access to services and grow the total market—including for the un- and underbanked

That said, most tech platforms have shown themselves averse to getting a banking license, which is often cumbersome and expensive to acquire as well as to maintain. Hence few are likely to manufacture financial services themselves—most will likely prefer to partner with licensed financial service providers.

And partner they will, because for many platform companies there are clear synergies for financial services with their core business. These are the result of three business models drivers that are very strong for platforms: (1) the strong drive for scale; (2) the need for continuous engagement with users; (3) an abhorrence of any friction in transactions.

SCALE

ENGAGEMENT

FRICTION

These drivers give platforms powerful reasons to offer financial services, including to the un- and underbanked.

- Since they create value via scale and engagement, platforms have good reason to offer financial services to expand and deepen participation in the network. This may be notably true for the financially underserved, who are the most likely to otherwise not participate.

- The need to keep friction in the core business to a minimum gives the platform strong incentives to keep pricing on financial products and services low, since that generates greater use and higher turnover.

In addition, financial products and services are themselves a type of merchandise that commerce platforms can sell through their hyper-efficient marketplaces, putting further pressure on end user prices.

Image credit: Stefan Traistaru and Adrien Coquet @ Noun Project

THIS COULD BE GOOD FOR SOME BANKS, BUT POSES DANGERS FOR THE LONGER TERM

Demand for various types of payments, credit and insurance will grow—but margins for FSPs may also erode

Product marketplaces

Service marketplaces

Social and comms

These drivers result in different combinations of financial services, depending on the type of platform:

- For **product marketplaces**, working capital to vendors should lead to higher engagement and turnover while point-of-sale financing reduces friction in transactions.
- For **services marketplaces**, financing assets needed to participate (such as car leasing for Uber drivers) drives scale, which is key to success.
- For **social or communications platforms**, integrating payments drives engagement and generates data that can be used to support targeted advertising.

Since the big tech platforms are mostly unwilling to underwrite financial products themselves, due to the licensing and oversight requirements that would trigger, this development should be good for FSPs in the near term. Thanks to the sales and distribution effort of the platforms, total volumes in the market will grow.

However, this may play out unevenly, if platforms prefer to partner with a small number of FSPs who have sufficient balance sheet to underwrite much or all of the financial products they want to offer: a few could be winners, while other providers are left out.

Even the winners could see margins erode. An FSP that is tapped to partner with a platform will have much to lose from being replaced and hence a weak bargaining position. Coupled with the strong incentive for platforms for keep pricing low, this is likely to result in significant cost pressure on balance sheet partners.

III. MODULAR PROCESSES

HOW BANKING VALUE CHAINS ARE UNBUNDLING ON THE BACK-END

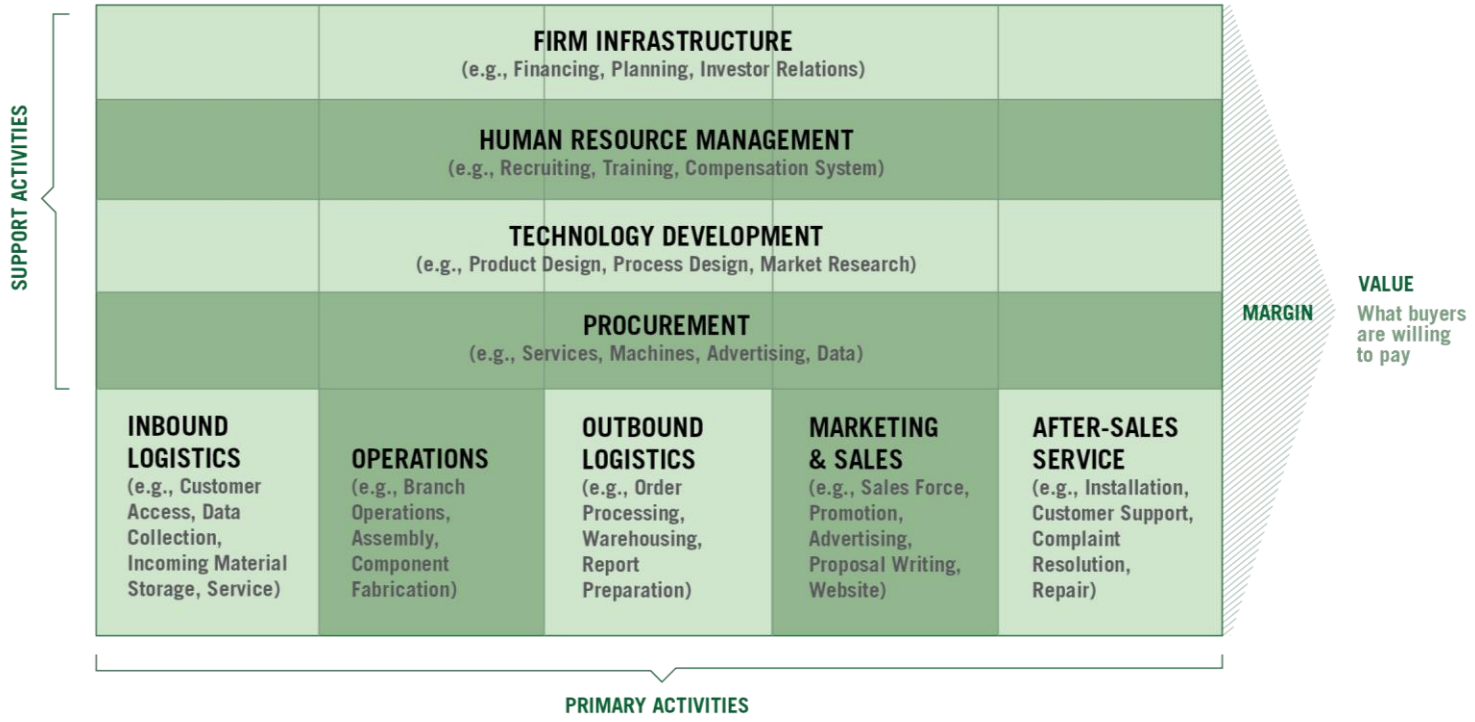
WHAT IS THE VALUE CHAIN IN FINANCIAL SERVICES?

It is a useful tool for describing the back-end processes in banking and understanding what it means that they are unbundling

The traditional notion of the value chain conceived by Michael Porter at Harvard Business School. It defines a series of **primary activities** that a business uses to create value. These are often grouped into the five categories at the bottom.

These activities are enabled in turn by a set of **support activities** at the corporate level that operate across the primary activities. The primary and support activities jointly create value that customers pay for.

In a **vertically integrated** value chain, these primary and support activities are all undertaken in-house by the company selling the product or service.

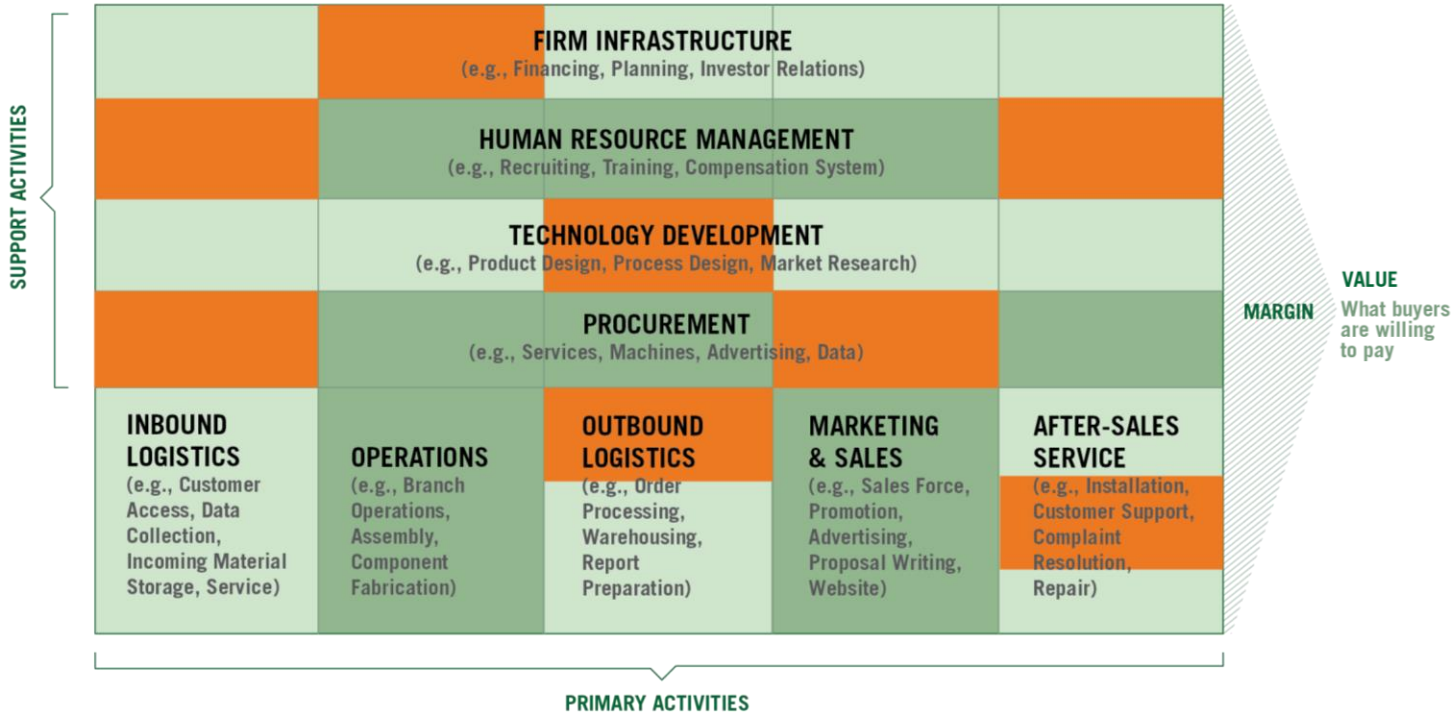


WHAT IS A MODULAR VALUE CHAIN?

But back-end value chains are themselves increasingly being managed like discrete modules, some of which are outsourced end-to-end to third-party suppliers that can provide them at lower cost, higher speed, better quality, etc.

This can include any number of customer facing processes, such as user identification and authentication, chatbots, or claims management. It can also include internal processes like analytics, risk scoring, underwriting, or fraud detection. And it can include corporate administrative processes like payroll and logistics management.

This unbundling of the value chain is what we mean by the modularization of financial services processes.



MODULARIZATION REPRESENTS A NEW TYPE OF PARTNERSHIP

While related to traditional outsourcing, modular value chains represent a significant departure

One question is whether and how modularization of the value chain is different from traditional outsourcing or partnerships.

The way we understand and define it in the financial services context is that modularization is **a new form of outsourcing or partnership arrangement** that typically has three characteristics (right).

This creates a spectrum on which different value chains are more or less modular in these three dimensions.

Customizable

- A range of different features or options are available.
- Various combinations of these features can be selected.
- Combinations can changed flexibly, potentially even in real time.

Flexible

- The service can be easily turned on/off as needed.
- It is highly scalable, meeting low and high demand with ease.
- There are few minimum scale requirements.

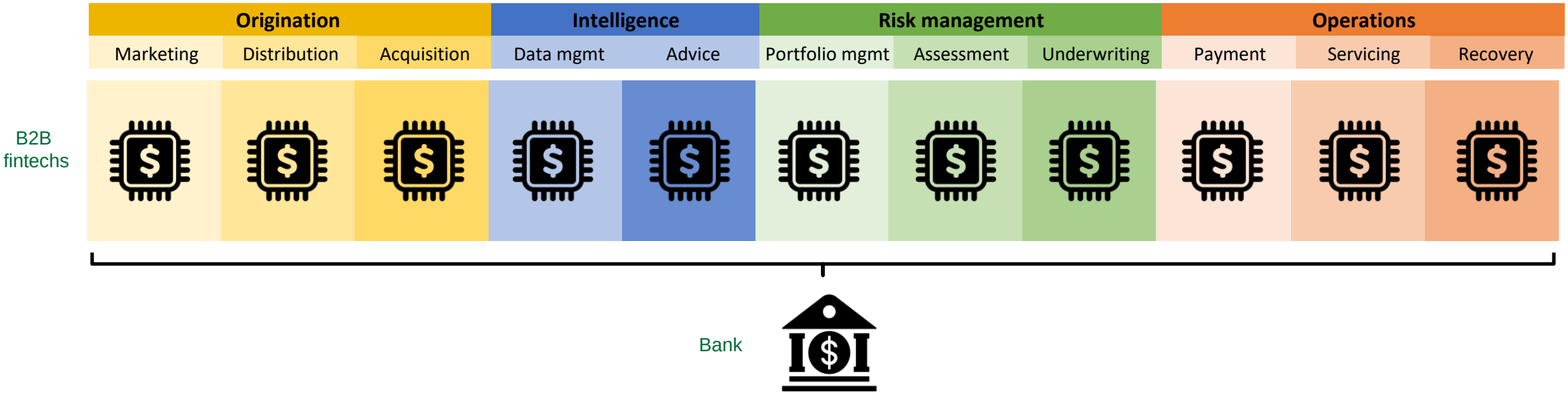
Plug and play

- It offers a turnkey solution with little integration required, enabled by APIs.
- The service covers a specific process end-to-end.
- Pricing is closely linked to scale (i.e., pay per use).

THIS CAN LEAD TO THE UNBUNDLING OF THE ENTIRE VALUE CHAIN

As this process plays out across different parts of the back-end processes in financial services, the value chains come increasingly unbundled. Whereas banks historically have done nearly everything in-house through vertical integration, a growing number of processes start to rely on third-party B2B providers offering highly specialized and sophisticated solutions.

While we are still in relatively early days, there are clear signs of this unbundling starting to happen. B2B providers are emerging across virtually every link in a generic value chain. In some areas they are now common (chatbots, remote customer identification, risk scoring, etc.). This is most pronounced in advanced economies, but there are various examples in developing and emerging markets as well (see next slide).



THERE ARE VARIOUS EXAMPLES OF B2B VALUE CHAIN PLAYERS IN EMERGING AND DEVELOPING MARKETS AS WELL

DISRUPTION AND MODULARIZATION

Clayton Christensen on disruption and modular value chains

Clayton Christensen at Harvard Business School coined the term “disruptive innovation”. He has written specifically about modular value chains in the context of disruptive innovation. According to this view, in early markets providers often compete on some primary attribute (for example, the top speed of a car).

In that market, custom solutions are better at pushing the limits of performance on that attribute. Hence, integrated value chains create a competitive advantage.

Over time, thanks to innovation, most people become satisfied with the primary attribute on an average product (few people need cars that go over 125 mph). They start choosing products instead on some secondary attributes (fuel economy or safety features).

At that point, standard solutions suffice to meet customer demand for the primary attribute. Modular value chains can then deliver inputs more quickly, cheaply, and flexibly than integrated ones. Minor losses in performance on the primary attribute from this is no longer important to customers.

Market leaders often fail to realize this shift and focus too long on the primary attribute, which remains important only to a highly profitable, but shrinking, group of hardcore customers. If new entrants emerge who instead compete on secondary attributes, they will grab market share away from the leaders, which are “disrupted.”

Fortunes change within value chains too, as the revenue drivers shift from suppliers of primary attributes (which now become increasingly commoditized) to those of the (now important) secondary attributes.

Source: Christensen (1997)

DISRUPTION AND MODULARIZATION

What if we apply this lens to the realm of financial services?

Many financial products today are typically quite commoditized in developed markets:

- Customers broadly have access
- Products broadly look the same
- Pricing is broadly the same
- Few people switch banks, largely because offerings are so similar
- People are starting to care more about other attributes:
    a) user experience (including interface)
    b) speed and responsiveness
    c) transparency and control
    d) digital / omnichannel access
    e) seamless integrations

Going forward, competitive advantage may derive more from offering superior value-added services, such as:

- Digital interface and sign-up process
- Chatbots to onboard customers, explain the product, and answer questions
- Analytics to power innovative products, produce real-time offers, enable customization of products, etc.
- AI-driven advisory services to give users personalized recommendations and nudges for financial wellbeing
- Visualization tools to show customers the implications of different choices
- Middleware to stitch it all together

THIS HAS SEVERAL IMPLICATIONS FOR BANKING

Extrapolating from Christensen's perspective

The commodification of basic financial services will grow, spurred on by new business models:

- New Banking-as-a-Service (BaaS) players are emerging that offer white label financial products to non-banks. They offer the product, software, license, and balance sheet as a single solution that integrates easily with clients.

- This strategy is based explicitly on financial services growing entirely commoditized. It pursues margins from economies of scale, by making products available across a much wider range of providers, including non-banks.

Revenue will shift towards players who offer the value-added services that customers desire:

- Consumer-facing brands will increasingly compete on offering services that are the most frictionless, intuitive, transparent, seamless, proactive, intelligent, etc. Players that excel in these areas will gain market share from others.

- In back-end value chains, B2B fintech solution providers that offer such capabilities will gain bargaining power vs. the financial services providers (FSPs) that need them. Best-in-class fintechs may extract significant rents as consumer expectations raise the "table stakes" qualities needed to contest the market.

- Already, large numbers of such fintechs have emerged and are growing to significant scale with highly sophisticated, specialized solutions. Some examples are provided in the Annex.

IV. IMPLICATIONS FOR INCLUSION

WHAT WILL THIS MEAN FOR THE UNDERBANKED?

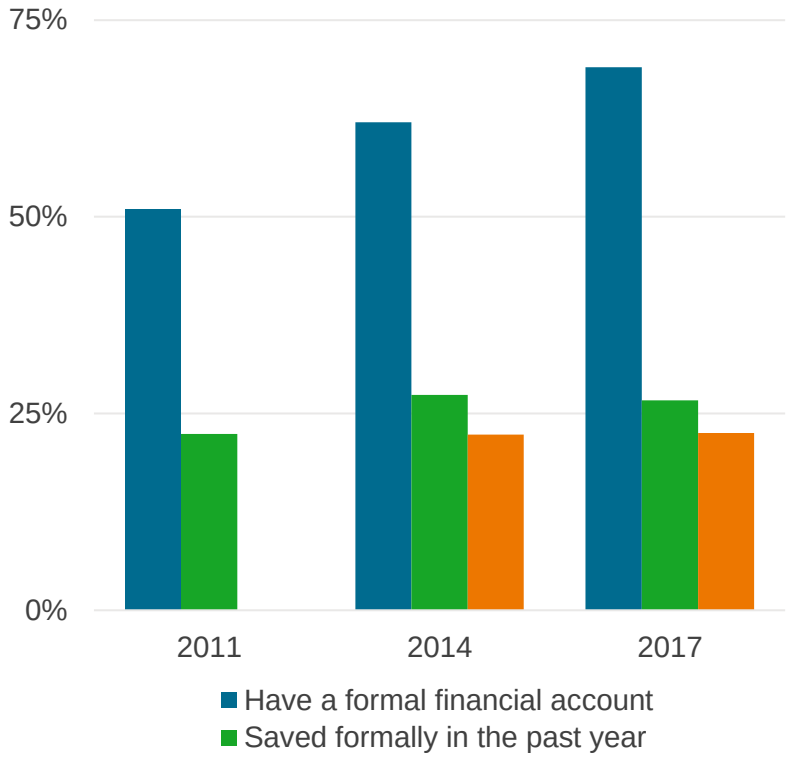
FINANCIAL INCLUSION PROGRESS SO FAR HAS BEEN BROAD, BUT SHALLOW

We've solved how to get accounts to poor people—but not how to make them truly useful

About 1.2 billion adults gained access to formal financial accounts for the first time between 2011 and 2017, representing a 35% increase in just six years. This achievement is thanks largely to digital financial services, including the mobile money revolution as well as government initiatives to expand access to bank accounts.

But progress on savings, credit and insurance has been far slower, barely rising at all even as accounts become more commonplace. This lack of financial depth limits the usefulness of the accounts, resulting in low usage and impact.

Moreover, despite this progress, 1.7 billion people remain excluded even from basic accounts.



Source: Findex (World Bank 2017)

THIS SHALLOWNESS IS PARTLY DUE TO CONSTRAINTS ON PROVIDERS

The core business models of different types of providers each tend to have their limitations

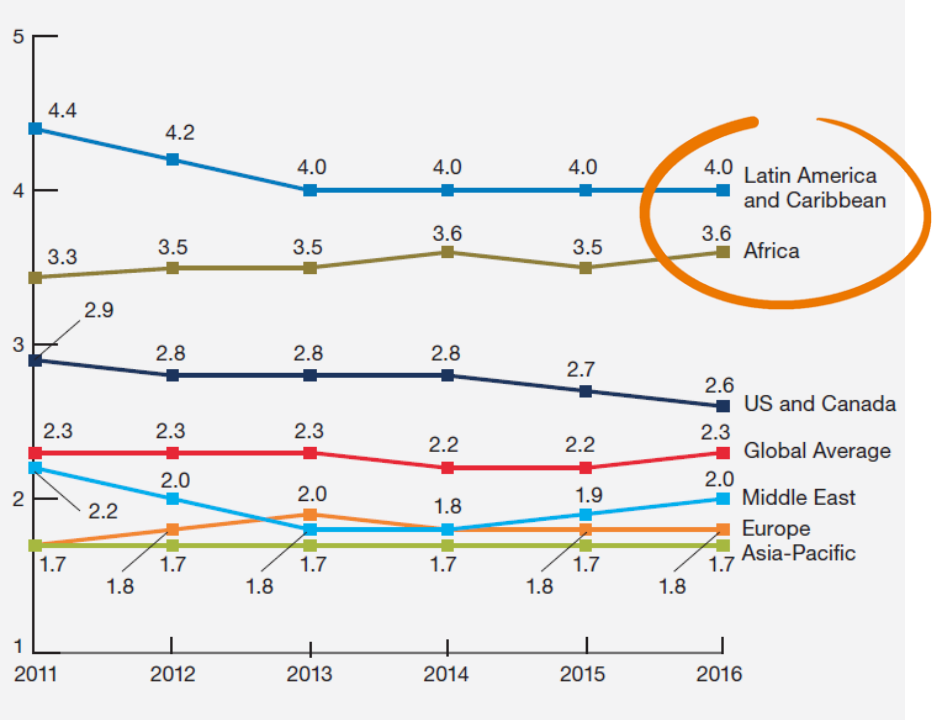
For **incumbent banks** in emerging markets and developing economies (EMDEs), a central barrier to serve low- or even middle-income clients tends to be high **operational cost.** This is particularly true in Africa and Latin America (see right).

Banks also tend to struggle with physical **distribution**, mostly relying on small and expensive branch networks. Some banks have developed agent models, but few have done so successfully or at significant scale. Often these agents aim more to serve existing customers than to drive access among new and lower income segments.

IT systems are often outdated and expensive, limiting their capability and flexibility to improve existing products or develop new ones, while also tying up significant resources for maintenance.

Banks' **product practices** have often been slow to adopt more agile approaches, making them less nimble and responsive to customer needs. Many EMDEs bankers are happy to avoid risky new ideas and keep making safe margins on legacy products.

Bank cost-to-assets by region, 2011-16



Source: McKinsey (2018)

THIS SHALLOWNESS IS PARTLY DUE TO CONSTRAINTS ON PROVIDERS

The core business models of different types of providers each tend to have their limitations

Mobile money operators (MMOs) have typically been successful at driving uptake on accounts by virtue of strong distribution models (large agent networks), large existing customer bases, and a deep understanding of how to create and sell consumer products to the mass market.

However, MMOs largely offer only a narrow set of payments products and have only gradually begun to expand their range of services.

This is partly due to **regulations**, which typically limit the ability of MMOs to directly offer services beyond payments. Yet almost none have acquired a full banking license. Instead, they have begun to incrementally add new products in partnership with incumbent banks. Such partnerships have however proven to be very slow to mature and have yet to result in significantly expanded product ranges.

In addition, the **revenue model** that virtually all MMOs rely on revolves very heavily around transaction fees. This is in keeping with the payments focus of the business and is in many ways the simplest path to revenue. But it creates inherent limitations for MMOs, curtailing their options for creating certain types of offerings where transaction fees stand in the way of user uptake.

For instance, despite significant efforts to encourage customers to use mobile wallets as a savings account, average balances have been slow to rise. This makes sense, since savers are charged the usual cash-out fee, typically on the order of 1%.

Similarly, an insurance product might not make obvious sense to an MMO since it typically does not generate any transactions worth speaking of. While some microinsurance products have been developed that use a loyalty mechanic to drive transactions, these have not proven themselves sustainable commercially.

THIS SHALLOWNESS IS PARTLY DUE TO CONSTRAINTS ON PROVIDERS

The core business models of different types of providers each tend to have their limitations

Microfinance institutions (MFIs) have been very significant in expanding access to credit for small entrepreneurs across the world. Put simply, they have done so largely by finding effective models to overcome the lack of formal information that tends to beset small businesses in developing economies.

However, these models tend to rely on **high-touch** engagements by loan officers through in-person visits that are costly and difficult to scale sufficiently to meet demand.

Because of the complexity in executing on this core business in challenging markets, most MFIs tend to also be **fairly narrowly focused** around a small set of (or even a single) credit products. They (and their investors) often have low appetite to expand the offering by taking on additional lines of business.

In many cases, MFIs are also restricted in their activities by purpose-built **licensing** regimes that are aimed at extending credit financing specifically, while safeguarding the integrity of the wider sector without putting significant demands on already overburdened supervisors.

Many MFIs operate with rudimentary **IT systems** at the lower end of the spectrum, including simple spreadsheets. Even the more advanced organizations often have bespoke systems that are good at what they do but are very limited in their flexibility and ability to integrate with other systems.

Only a relatively small number of well-resourced MFIs have developed digital channels that enable low-cost and real-time transactions and interactions with customers.

MODULARIZATION COULD HELP OVERCOME THESE BARRIERS TO INCLUSION

Cost

Lower costs of marketing, sales and distribution by leveraging players with new types of extant digital and physical channels.

Lower costs of customer acquisition and onboarding by incorporating cutting-edge automated approaches (for example, using machine vision).

Lower costs of customer risk assessment by incorporating AI-based risk modeling and new sources of alternative data.

Access

Reduced physical distance by utilizing new distribution forms (for example, e-commerce delivery or ride hailing drivers).

Reduced digital distance by embedding of financial services into digital contexts where customers already are.

Greater eligibility for products, thanks to new sources of alternative data and AI-based risk modeling.

Improved customer support availability via advanced chatbots (including fully automated voice services).

Fit

Better fit with diverse needs, thanks to a greater diversity of products and features as a result of faster innovation and sharper competition.

Easier search and switching of financial products, helped by facilitator models expressly assisting with this.

Greater personalization of products and features, through innovative approaches using alternative data, AI-based analytics, and modular product design.

Higher value / sophistication of products, thanks to better technical capabilities and sharper competition.

Experience

More seamless and intuitive financial services, thanks to embedding in familiar digital environments and integration of different pieces.

Greater user understanding of and comfort with products, thanks to simplified and/or interactive user interfaces.

Better customer grasp of their finances, thanks to very simple graphical tools enabled by analytics.

Better experiences for weakly literate customers, thanks to more advanced audiovisual interfaces, including fully automated voice chatbots.

V. IMPLICATIONS FOR INCUMBENTS

WHAT WILL THIS MEAN FOR THE CURRENT FINANCIAL SERVICE PROVIDERS?

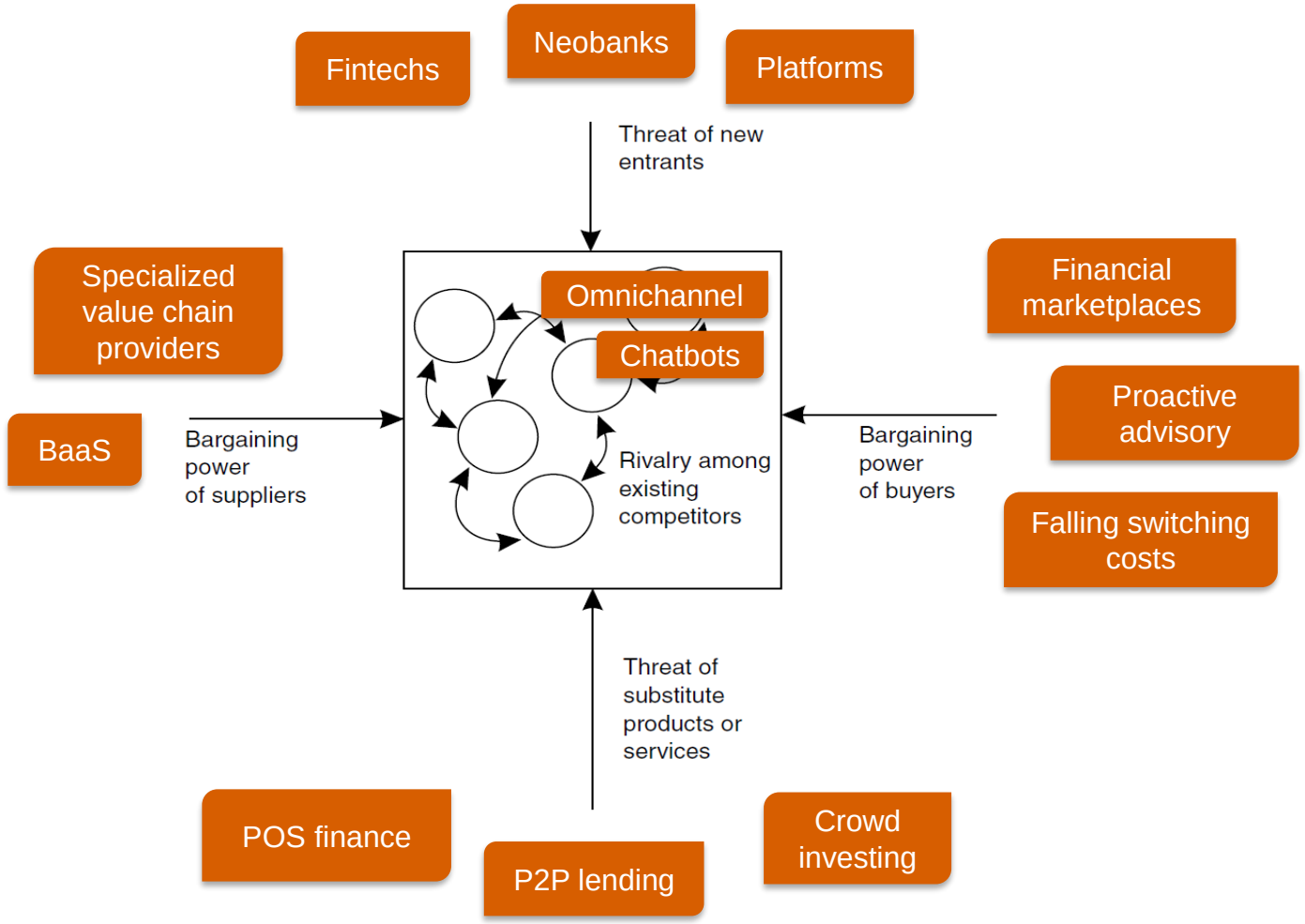
CLEARLY THE HISTORICAL RETAIL BANKING MODEL IS UNDER PRESSURE

Porter's five forces of competition

In a seminal paper, Michael Porter of Harvard Business School outlined the five key forces of competitive pressure on incumbents in a given market.

Beside incumbent rivals, these include the entry of new players or substitute products and the growing bargaining power of customers or suppliers to companies operating in that market.

Applying this lens to financial services shows clearly how retail banking is now under pressure from all sides. Each of the five forces is assailing incumbents, in each case catalyzed by new technologies and business models.



Adapted from Michael Porter (1985)

WHAT WILL THIS MEAN FOR INCUMBENTS?

Considering a few potential outcomes and their implications for the financial sector

Given the scale and depth of these competitive forces facing incumbents, which might the future hold for today's household brands?

Will they inevitably succumb to unbundling and see the many tightly interconnected parts of their business models picked off one by one by digital challengers with a laser focus and superior tech?

Will they be overrun wholesale by banks that have a similar product suite but vastly different operational models, revenue models, user engagement standards?

Or will they weather the storm, by virtue of their resources, experience, and long-standing relationships, long enough to successfully adopt the tools and strategies of their challengers and prevail?

Next, we consider three possible scenarios and what they would mean for the financial sector in general. We then explore several specific examples relevant to the financially underserved in emerging markets and developing economies.

SCENARIO 1: REJUVENATION

Rejuvenation

In the most conservative scenario, incumbent FSPs are able to **rejuvenate themselves** and remain dominant.

They might do this by successfully applying digital transformation to their existing business, as DBS has done in Singapore.

They might launch greenfield "flanker brands" that are digitally native and become successful, like Marcus by Goldman Sachs, Chase by JP Morgan, Pepper by Bank Leumi, and TMRW by UOB.

Or they might simply buy a competing digital challenger.

In any case, incumbents gain the new digital capabilities and business models—and can thus fend off the challenge from neobanks and fintechs.

Implications:

- Only a few of the largest FSPs have the financial and other resources required to execute any of these strategies.
- Even among these, some will struggle and fail in the execution of the strategy, for any number of potential reasons.
- As a result, retail banking markets grow even more concentrated than they are today, and a small number of large incumbents serve the vast majority of customers.
- Some digital challengers go mainstream but are relatively marginal in market share.
- Consumer effects are mixed as gains from new technologies are diluted by weakening competition among providers.

SCENARIO 2: REPLACEMENT

Replacement

N26

In the second scenario, incumbents are **gradually replaced** by the digital challengers like N26, Monzo, or Starling in Europe, as well as Nubank in Latin America, Open in India, Tyme Bank in Soutrh Africa, and Kuda or Carbon in Nigeria..

This may be because incumbents just aren't able to keep up with the pace of innovation that challengers are driving.

Meanwhile digital transformation projects prove too difficult, too slow and too costly for incumbents to implement.

Flanker brand initiatives occasionally work but are mostly hampered by legacy mindsets and processes—or simply too late to market.

Meanwhile challengers are well funded by venture capital and IPOs, enabling them to resist buyout offers by incumbents.

With a combination far superior price, product, and user experience, the challengers rapidly take market share from incumbents.

Implications:

- As a result, the B2C landscape for retail financial services gradually changes and new brands come to dominate the market.
- Markets may get more competitive, as these new incumbents compete against each other and are themselves challenged by new entrants that enjoy the same advantages they do.
- For consumers, this brings direct gains from new technology and business models as well as indirect benefits from growing competition that spurs firms to continually improve on cost and customer value.

SCENARIO 3: DISINTERMEDIATION

Disintermediation

In the third scenario, incumbents and digital challengers alike are disintermediated by big tech platforms like Google, Facebook, WhatsApp, WeChat, or Line in the social space; Amazon, Alibaba, Mercado Pago, Paytm, or Bukalapak in the e-commerce space; or Uber, Grab, Rappi, Ola, or Bolt in the ride hailing space.

Neither old nor new FSPs can match the user experience design, the machine learning, the data, and the sheer resources of the big techs. These create vast ecosystems of FSPs made available to customers through AI-powered personal financial assistants.

Fintechs compete by creating innovative and/or highly specialized niche products aggregated in the platforms' ecosystems.

Banks are increasingly relegated to being back-end providers of balance sheet and underwriting for those products as well as commoditized access to banking rails and rules for the big tech firms.

Implications:

- Basic financial services are increasingly commoditized and providers compete largely on price.
- Consolidation creates a small number of large banks that offer balance sheet as a B2B service to underwrite products at large scale but with low profit margins.
- B2C fintechs do well by creating unique and compelling value propositions in the ecosystem, but struggle to build loyal customer bases as the platforms have an iron grip on end user relationships.
- Customers gain from seamless integration in the ecosystem as well as lower costs and better value due to product level competition, but face greater concerns on data privacy and market level competition.

EXAMPLE A: MOBILE MONEY OPERATORS (MMOs)

What might modularization mean for the 1 billion holders of mobile money accounts worldwide?

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

Where such products are offered, MMOs typically do not get involved with balance sheet or risk management aspects, partnering instead with banks who do this.

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

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

Thanks to modularization, MMOs could:

- Widen their offering at low cost and risk by plugging select products from third-party providers into existing accounts.
- Adopt a marketplace model, giving customers easy access to a wide range of safe and curated third-party products.
- Create their own branded products with BaaS partners, gaining a higher share of revenue from the expanded offering.
- Integrate with tech platforms to provide payments and other financial services with their growing ecosystems.
- Create new revenue from agent networks by renting access to other providers.
- Reduce or eliminate bespoke agent networks by partnering with retail players with large footprints.

EXAMPLE B: MASS-MARKET BANKING

Could modularization enable more banks to truly scale among low-income clients?

Most banks offer a broad range of financial services, but only to a small portion of the addressable market in a given country.

A significant reason for this is expensive cost structures that make many low- and middle-income customers unprofitable to serve.

In addition, many banks are struggling to keep up with tech driven innovation, due to legacy product development processes and IT stacks that (despite being costly) are clunky and inflexible.

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

Thanks to modularization, incumbent banks can:

- Offer their customers access to cutting edge fintech products by plugging select products from third-party providers into their existing offerings.
- Build a stronger moat around customers by adopting a marketplace model, offering extensive access to the fintech universe from within the safe and trusted banking environment.
- Scale up customer reach by adopting a BaaS model to embed white label products within mobile money providers, e-commerce players, ride-hailing companies, and other tech platforms.
- Scale up physical distribution reach by partnering with retail players that have large footprints, including mobile money providers, e-commerce players, and ride-hailing companies

EXAMPLE C: DIGITAL PLATFORMS

The embedding of financial services into e-commerce, ride hailing, and delivery platforms can transform access, cost, and relevance

E-commerce, ride hailing, and delivery services are growing rapidly across developing and emerging markets. Some are big global brands, but most are local and regional players that know their markets well. A few have grown to formidable sizes, like Grab and GoTo in Southeast Asia, Paytm and Ola in India, Mercado Libre and Rappi in Latin America.

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

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

Thanks to modularization, digital platforms can:

- Offer a broader range of financial services to their customers, seamlessly embedded into the user interface, process flow, and design language people are used to.
- Create financial products that are better tailored to the needs of specific users, with bespoke offerings for e.g. the small businesses that sell over their platform, the delivery drivers, and the consumers themselves.
- Make thin-file clients more serviceable by financial service providers by making platform data available for due diligence and risk scoring (provided the customers consent)
- Adopt financial products as another category on their marketplace, giving customers easy access to a wide range of safe and curated third-party products as well as the tools to compare them to find the best price and fit.
- Create new revenue from drivers and other physical distribution networks by renting access to financial service providers to do cash-in and cash-out transactions with customers.

Icon: : "Motorcycle by Cuputo", the Noun Project

VI. IMPLICATIONS FOR MARKET STRUCTURE

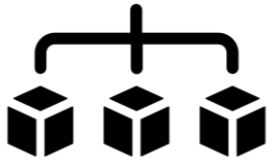
HOW MODULARIZATION MAY RESHAPE THE WAY MARKETS ARE ORGANIZED

THE MARKET ITSELF MAY GROW MORE MODULAR AS A RESULT OF THIS

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

Product layer
Design and manufacture of individual financial products and services.

Customer relationship layer
Customer acquisition, sales, servicing and permanent primary interface.



Distribution layer
Physical touch points for distributing products and serving customers.

We can identify four core market layers that play distinct functional roles in the provision of retail financial services (left).

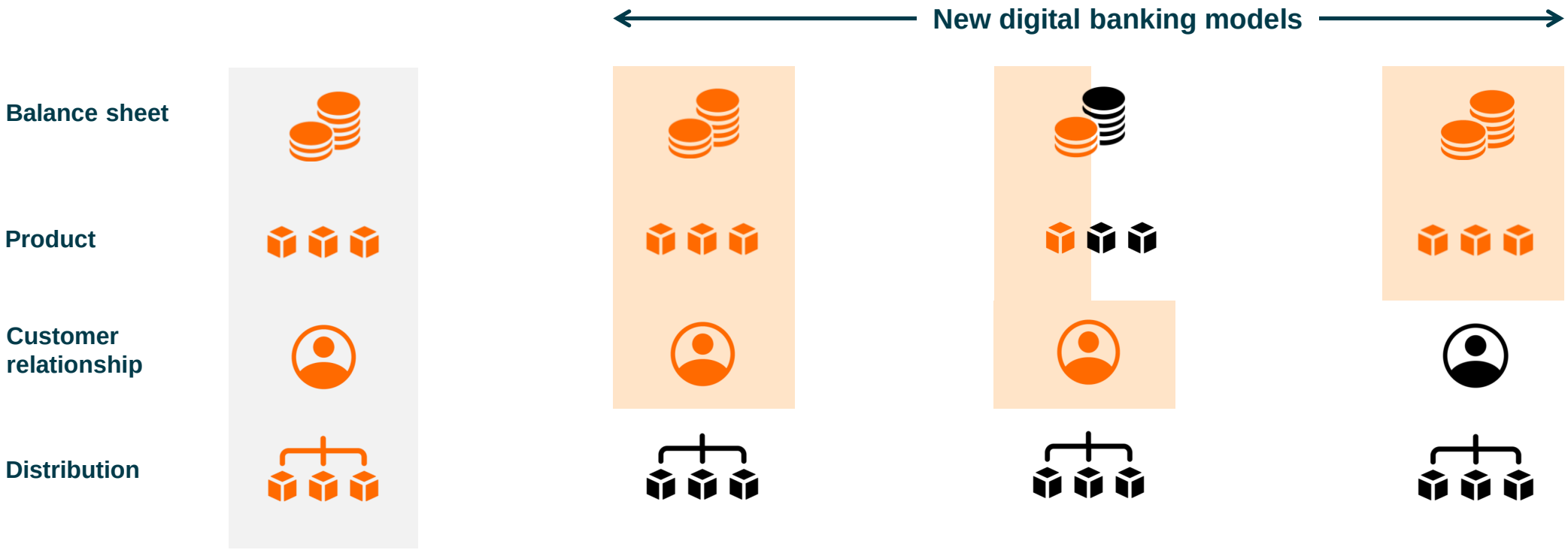
Technology is clearing the way for growing disaggregation of these layers by radically reducing operational obstacles, including the time, cost, complexity, and risk of partnering.

Once these operational obstacles fade away, standard **economic forces push towards greater specialization**.

Different players have different strengths across these layers. This trend enables them to make different business model choices across the four layers—**choices they did not have before**.

Image credit: @ Noun Project

THE NEW DIGITAL BANKING MODELS REPRESENT DIFFERENT CHOICES FOR STRATEGIC FOCUS ACROSS THE LAYERS



Traditional retail banks

Are vertically integrated and do everything in-house.

Fully digital retail banks

Outsource the physical distribution layer to partners with ATM or retail networks.

Marketplace banks

Offer products from third-party providers, so as to focus on creating better value in the customer relationship layer.

Banking-as-a-Service providers

Relinquish the customer layer, so as to focus on creating value on products and underwriting.

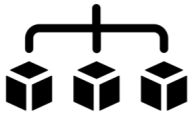
Image credit: @ Noun Project

THIS UNBUNDLING INTO A MORE MODULAR STACK HAS BENEFITS

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

Product layer
Design and manufacture of individual financial products and services.

Customer relationship layer
Customer acquisition, sales, servicing and permanent primary interface.



Distribution layer
Physical touch points for distributing products and serving customers.

Specialization drives players to focus on layers where they have comparative advantage.

Scaling up to serve a broader customer base within a given layer drives volume up and cost down through economies of scale.

This further deepens their respective comparative advantage in each layer and hence the "**gains from trade"** within the value chain.

That in turn improves the **end-to-end economics** of providing financial services and probably also the value created for consumers.

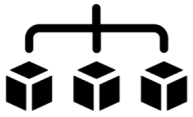
Image credit: @ Noun Project

IT COULD ALSO RESOLVE SOME STRUCTURAL MARKET INEFFICIENCIES

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

Product layer
Design and manufacture of individual financial products and services.

Customer relationship layer
Customer acquisition, sales, servicing and permanent primary interface.



Distribution layer
Physical touch points for distributing products and serving customers.

Can banks' balance sheets be deployed more effectively through third-party product providers?

Can innovative product providers and strong customer holders find synergetic partnerships?

Can strong physical distribution players rent touch point access for third-party product providers?

Image credit: @ Noun Project

EXAMPLE A: MOBILE MONEY OPERATORS (MMOs)

Balance sheet layer

MMOs typically do not pursue a financial license of their own due to the arduous capital and technical requirements. They typically do not have access to the cheap capital or risk management skills required to underwrite products. Hence, they have preferred to partner with banks to play this role. The advent of BaaS models may however change this calculation, as it enables MMOs to play a greater role in this part of the value chain—not least by intermediating customer float to finance lending portfolios.

Product layer

MMOs have typically only offered a very narrow range of payments products, sometimes complemented by one-off credit, savings, or insurance products offered through cumbersome bank partnerships. Modularization will enable MMOs to expand their offerings relatively quickly and easily by plugging in third-party providers who bear the cost and risk of developing and manufacturing the actual products. Alternatively, BaaS can let them create a full range of own branded products with greater control and revenue share.

Customer relationship layer

MMOs typically have a strong consumer brand and large existing customer base built up for voice, text, data, and payments services. Since customer acquisition is already a sunk cost, they can generate high margins on additional products to those customers. Rather than develop those products themselves, they can enable access to its customers for third-party providers in return for revenue share.

Distribution layer

MMOs typically have a large existing physical distribution network for cash-in/out, built out and maintained at great expense. Since agent acquisition is already a sunk cost, they can generate high margins on additional products offered at those agent, potentially turning distribution from a cost center to a profit center. Alternatively, MMOs could outsource part or all their cash in/cash out to retail players that have large physical footprints, potentially including e-commerce and ride hailing companies.

Image credit: @ Noun Project

EXAMPLE B: MASS-MARKET BANKING

Balance sheet layer

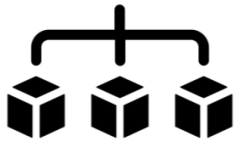
Banks typically have access to large amounts of cheap capital and deep expertise in risk management. They are therefore well placed to be the ultimate underwriters of product risk, whether at the retail or wholesale level. Modularization is creating pressures and opportunities for them to provide this function at greater scale, albeit potentially at lower margins over time, through BaaS models that allow them to efficiently and effectively deploy capital to vastly increased number of people.

Product layer

Most banks offer a full range of services that are internally manufactured. However, they don't always have the skill set or technological capabilities required to deploy these in a digitally native way that meets customer expectations and competes convincingly with best-in-class products by fintech providers. Open API models enable them to instead integrate such products into their own offering, gaining revenue share without the time, cost, or risk of developing competing products.

Customer relationship layer

Incumbent banks typically have longstanding customer bases and well-known brands with high trust. However their legacy technology often makes them increasingly vulnerable to disintermediation from digitally native banks as well as from any big tech platforms that move into financial services. One way to reduce that risk is to embrace a marketplace model, offering customers a way to unlock value from the wider fintech space within the safe and trusted banking environment.



Distribution layer

Banks typically have a small and very expensive physical distribution network that is increasingly a cost center that the business is trying to reduce. While agency banking offers one route, most banks do not have the desire to build their own agent network. A partnership with retail players that gives the bank cheap and easy access to a large physical distribution network can therefore be very attractive.

Image credit: @ Noun Project

VII. EMERGING RISKS

WHAT WILL THIS ALL MEAN FOR REGULATION AND SUPERVISION?

MODULARIZATION WILL ALSO BRING NEW AND INCREASED RISKS

The changes to the functioning of the financial services market outlined in this report will likely be beneficial in various ways, but they will also contribute to an evolving risk environment.

Some of the high-level areas in which regulators and supervisors will need to be particularly alert include:

- Third-party risk management
- Concentration risk
- Interconnectedness risk
- Accountability and oversight
- Due diligence and compliance
- Solvency and financial stability
- Consumer protection

As the number of companies that are involved in the provision of services increases, **oversight may grow more challenging**, and questions of where risk and liability resides could become increasingly complicated to answer.

If left unmitigated, the consequences of unbundling can be severe, as shown by the 2008 Global Financial Crisis which originated with a lack of clarity on risk exposure across actors in the mortgage value chain.

As with all financial innovation, the **imperative to ensure consumer protection** is crucial. Modularization will present new risks around liability and transparency, not least around the security and appropriate use of customer data.

Whether they use fintechs in back-end value chains or customer facing product offerings, the **onus on FSPs to manage third party risk will increase significantly**. This will of course be particularly pronounced for marketplace models involving large numbers of third-party products as well as FSPs that rely heavily on third-party services in their value chain.

Beyond the risk to individual banks, a growing reliance across multiple banks on the same set of highly specialized providers of various banking processes **can also create concentration risk across the banking sector**. This is something regulators will have to consider and may need new registration, licensing and oversight responsibilities.

MODULARIZATION WILL ALSO BRING NEW AND INCREASED RISKS

Banks moving into BaaS models will need to have **exceptionally strong due diligence and compliance functions** to manage risks around how client companies onboard new customers and the way they treat them. This risk may be compounded by difficulty in seeing end-to-end transactions that happen on the client companies' platforms.

The importance of economies of scale in BaaS models **may also create competition and "too big to fail" concerns**, as unit costs decline with scale and become an effective moat against potential competitors.

Price competition with players that have far leaner cost structures and whose motivations in financial services may not primarily revolve around direct revenue may erode the profitability of some banks. Customer disintermediation may exacerbate this risk and pose a **threat to the soundness of some institutions**

If multiple incumbents are impacted by such trends at the same time, **it could risk growing into a broader financial stability concern**. While this does not negate the potential consumer gains from lower cost and higher competition, it may create periods of transition that need to be carefully managed by financial authorities.

The modularization trend is closely linked to technology and business model innovation. As a result, it will be **essential for regulators and supervisors to keep their own capabilities up to date**. This may include updating staff training and composition as well as developing new supervisory tools and practices that are more fit to purpose.

In that process, technology may also **offer new ways for financial authorities to fulfil their mandates**, thanks to innovation in "RegTech" and "SupTech". However, it is not clear whether financial authorities in most EMDE have the capacity to adopt and effectively use such tools.

RESOURCES

THE GREAT UNBUNDLING: How technology is making financial services modular and what it means for inclusion

Relevant CGAP Collections

Fintech and the Future of Banking: cgap.org/Fintech

Open APIs for Digital Finance: cgap.org/OpenAPI

Distribution: cgap.org/AgentNetworks

Digital Finance Regulation: cgap.org/Regulation

Digital Finance Supervision: cgap.org/Supervision

Related CGAP Research

[Focus Note] Fintech and Financial Inclusion: A Funders' Guide to Greater Impact

[Working Paper] Inclusive Digital Banking: Emerging Market Case Studies

[Slide Deck] Digital Banks: How Can They Deepen Inclusion?

[Slide Deck] Platform Business Models

[Blog Series] What Makes Digital Banking Inclusive? A Look at the Emerging Evidence

[Blog Series] Livelihoods and Financial Services

[Blog Series] Africa's Gig Economy and the Role of Digital Finance

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