Banking and Fintech in 2022

A Recap of Cornerstone Advisors Research

Cornerstone ADVISORS

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Cornerstone Advisors

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From Strategy to Execution

Since 2002, banks, credit unions and financial technology firms have trusted Cornerstone Advisors to help them strategically align their objectives with their visions for competitive growth and success.

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220 Benchmarking / Process Improvement Engagements	**100** Digital Strategy Roadmaps	**50** Merger Integrations	

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Introduction

Most bank and credit union executives I talk with admit to wrestling with the following paradox: They want more information to help them make better decisions but feel like they experience information overload.

I'm conscious that Cornerstone Advisors may contribute to the problem. We publish about 20 research reports each year, write dozens of blog posts, and push out hundreds of tweets and post on social media channels during the course of a year.

This document—a compendium of our commissioned research efforts—is designed to counter the overload problem and condense a lot of information that's been published over the course of 2022 into a more digestible format.

The compendium doesn't incorporate all of the reports we've published in 2022, but the reports highlighted here reflect the content we believe addresses the key issues, challenges, and opportunities that bank and credit union executives are facing as they head into 2023.

I don't anticipate that you will read this document from cover to cover. Instead, I expect and hope that you will use this document as a resource—picking out and reading about the topics that resonate the most with you and forwarding it to your team members and colleagues to spur discussions in meetings and planning sessions.

The full reports are all available for free on the websites of the firms that commissioned these studies. Please visit www.crnrstone.com/research/commissioned-research to see our complete list of research reports.

And if you have any questions or comments (or critiques) about any of the research in this compendium, please don't hesitate to contact me at rshevlin@crnrstone.com.

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CORNERSTONE ADVISORS

COUNTERATTACK:

Banks' Field Guide to Fintech Disruption

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Counterattack: Banks' Field Guide to Fintech Disruption

As record levels of funding—$131.5 billion globally in 2021—pour into fintech[1], banks and credit unions are losing their status as the primary financial services providers to U.S. consumers. According to research from Cornerstone Advisors, since 2020, the percentage of Gen Z, Millennial, and Gen X consumers in the United States that consider a digital bank like Chime, Cash App, or PayPal to be their primary checking account provider has more than doubled.

The obvious answer is digital transformation—the rearchitecting of technology, revamping of processes, and retraining of people to facilitate the delivery of digitally native financial products and experiences.

The trouble is that, in practice, there's little evidence that banks and credit unions are close to achieving digital transformation. However, fighting back against fintech isn't an exercise in total war, but rather in carefully picking one's battles.

This report identifies five specific competitive threats and discusses what U.S. fintech companies are doing in these areas to gain traction in the market and what banks are doing (and, more importantly, should be doing) to counter them.

1. Overdraft

What Fintech is Doing

U.S. neobanks have made fee-free overdraft protection a central and highly visible product feature. Given that U.S. banks collected $15.47 billion in overdraft and non-sufficient funds (NSF) fees in 2019[2], this feature has provided neobanks with significant competitive differentiation in the market.

The Strategic Threat to Banks

Generating significant revenue from overdraft and NSF fees has become competitively and regulatorily unsustainable for banks.

How Banks are Responding

Some banks, like Capital One, are eliminating overdraft and NSF fees entirely (while continuing to offer overdraft protection to qualifying customers). Others, like PNC, are designing new features to help customers more easily avoid accidental overdrafts.

How Banks Should Respond

This shift presents opportunities for banks that are ready for it, as one executive elaborated, "For institutions that are really good at underwriting short-term consumer credit, this moves the battleground from an undifferentiated commodity to a space where you can meaningfully differentiate based on the relationship you have with the customer and the data that you can incorporate into your underwriting."

[1] https://techcrunch.com/2022/01/19/the-berserk-pace-of-fintech-investing-outshines-the-global-vc-boom/
[2] https://files.consumerfinance.gov/f/documents/cfpb_overdraft-call_report_2021-12.pdf

2. Saving and Investing

What Fintech is Doing

There are two "jobs to be done" in this area—helping consumers set more money aside for saving and helping consumers earn the best possible yield on that money (within their risk tolerances).

What's striking is that the specific fintech companies that are gaining the most traction with consumers are the ones that are combining these two "jobs to be done" into a single, streamlined experience.

The Strategic Threat to Banks

The threat posed by fintech savings and investment apps (and especially apps like Acorns and Stash that combine both of these functions) isn't the introduction of new competitors for banks' savings and investment products—banks are already flush with more deposits than they know what to do with—it's the potential for these apps to wrest control over the allocation decisions that fund those products.

How Banks are Responding

Today, most large banks either offer automated savings capabilities or are in a position to easily launch them, as the director of venture investing at a top-20 U.S. bank explained: "PFM and basic automated savings and money movement capabilities are table stakes for banks in our asset tier. If you don't have them already or want to build them yourself, you can easily get them through one of the core banking providers."

However, given the fact that only 12% of consumers are using an automated savings tool from their bank or credit union, there's clearly room for growth.

How Banks Should Respond

- **Refine the experience and insights provided by their savings tools**

> "Just simple stuff like pulling together all of our customers' accounts into one number that we can show them is hugely impactful, but it's challenging to make work on the back end. Then you have to start working on the harder stuff like figuring out the ideal experience for lower-income customers."

- **Blend savings and investing together**

Automating the process of setting money aside is useful to customers, but in a low-rate environment if banks aren't also offering them a variety of different yield-generating investment opportunities (across a wide spectrum of risks), then they are not offering a truly competitive alternative to fintech.

Enriching savings tools with more compelling opportunities to earn yield will also require banks to be less squeamish (although still responsible) about new investment asset classes such as cryptocurrencies, a step that many banks are still unwilling to take.

3. Buy Now, Pay Later

What Fintech is Doing

According to consumer surveys conducted by Cornerstone, the percentage of Gen Zers making purchases with BNPL plans grew six-fold between 2019 and 2021. Millennials' use of BNPL more than doubled over the same period to 41%, Gen Xers' adoption more than tripled, and even Baby Boomers got into the act.

The Strategic Threat to Banks

BNPL's superpower is the ability to significantly improve merchants' conversion rates and average order value without taking on excessive, long-term credit risk. This combination of traits has made BNPL extraordinarily popular with merchants and unusually accessible—for a mainstream credit product—to consumers across every credit score band, which makes it a dangerous competitor to banks' payment and unsecured lending products.

How Banks are Responding

The most common product response from banks (including American Express) is an incremental one: retroactive BNPL. This capability allows credit cardholders to retroactively convert large purchases (typically $100 or more) into a series of monthly installment payments for a small additional fee or additional interest.

How Banks Should Respond

Bolting BNPL capabilities to credit cards retroactively is an appealing approach for banks—it preserves existing interest and interchange revenue streams and doesn't require them to build direct partnerships with individual merchants. It's a short-sighted approach, however, because:

- **Today's credit invisible consumers are tomorrow's prime credit customers.**

Many of these credit-invisible consumers will eventually become profitable, prime banking customers, and the BNPL providers that helped them get there will have the inside track on earning and keeping their business—in lending and beyond.

Banks' customers need help using BNPL responsibly.

Over the past two years, 43% of BNPL users made late payments. However, only one-third of these consumers blamed the late payment on not having enough money to pay their bill. The majority (two-thirds) placed the blame on losing track of when the bill was due.

If banks care about acquiring younger customers or helping consumers manage their financial health, they can't sit BNPL out.

4. Niche Neobanks

What Fintech is Doing

The concept is straightforward—find a specific segment of consumers that share a common set of functional and emotional needs when it comes to money, build differentiated financial products for them, and leverage existing groups and communities that those consumers are a part of to distribute your products.

Fintech companies following this playbook—Daylight (LGBTQ+ consumers), Kinly (Black consumers), Purple (disabled consumers)—are trading a smaller total addressable market (the universe of potential customers) for a larger serviceable obtainable market (the share of that market that they can win with a differentiated product and distribution strategy).

The Strategic Threat to Banks

Differentiated products like Purple's ABLE account enable niche neobanks to "pick off" small portions of banks' customer bases, which is a threat that can seem trivial on an individual level but becomes far more serious in the aggregate.

How Banks are Responding

An early and unsuccessful strategic response from banks to this trend was the creation of digital bank spin-offs that were designed to appeal to younger consumers. There was no meaningful product innovation (emojis don't count) and the cannibalization threat that these spin-offs posed to their parent banks meant that there was little chance they would receive the long-term support and resources they would have needed to succeed.

How Banks Should Respond

Competing with niche neobanks will require banks to dramatically reduce the time and expense it takes to launch new products. With that agile product development ability unlocked, banks should then search out specific customer segments with financial needs that are either unmet or inadequately addressed and build products for them.

5. Open Banking

What Fintech is Doing

Open banking—which we will define here as the ability for consumers to share data from their financial accounts and providers in order to enable other products or experiences—is a core function of many fintech apps on the market today. As adoption of fintech has increased, the number of consumers that have used open banking capabilities to fund a new fintech deposit account or power ongoing financial management insights has increased as well.

The Strategic Threat to Banks

Bottom line: banks that make it difficult for customers to share data are putting those customer relationships at risk and painting a regulatory bullseye on their back.

How Banks are Responding

Recognizing, perhaps, that open banking is inevitable in the United States, many banks have begun to work with data aggregators to replace screen scraping—the method that has historically been used to access banking data using consumers' bank account credentials—with more secure and performant application programming interfaces (APIs).

How Banks Should Respond

Building common standards and streamlining technical integrations is a necessary first step.

However, the second step, which is one that few if any banks have taken, is to leverage these APIs (and consumers' willingness to permit access to their data) to build new products and services.

Preparing for the Battles Ahead

Specifically, Cornerstone recommends the following steps:

- Build more comprehensive customer data profiles. Banks must ensure that they have a comprehensive view of their customers' financial behavior, across all the providers those customers choose to work with.
- Invest in more sophisticated risk decisioning. Sharpen risk decisioning capabilities (leveraging more comprehensive customer data) to compete effectively.
- Prioritize software development agility. Banks must invest in structural changes to accelerate software development and deployment cycles.
- Build for developers. "Banks' customers are now developers. You have to modularize your capabilities so that developers, inside your bank and outside of it, can assemble new products and experiences quickly and inexpensively."
- Adopt a competitive mindset. Banks should view the disruptions introduced by fintech as opportunities to innovate and improve their competitive position in the market.

CREATING A FINTECH SUBSCRIPTION ENGINE

How Embedded Fintech Can Help Banks and Credit Unions Combat the Revenue Recession

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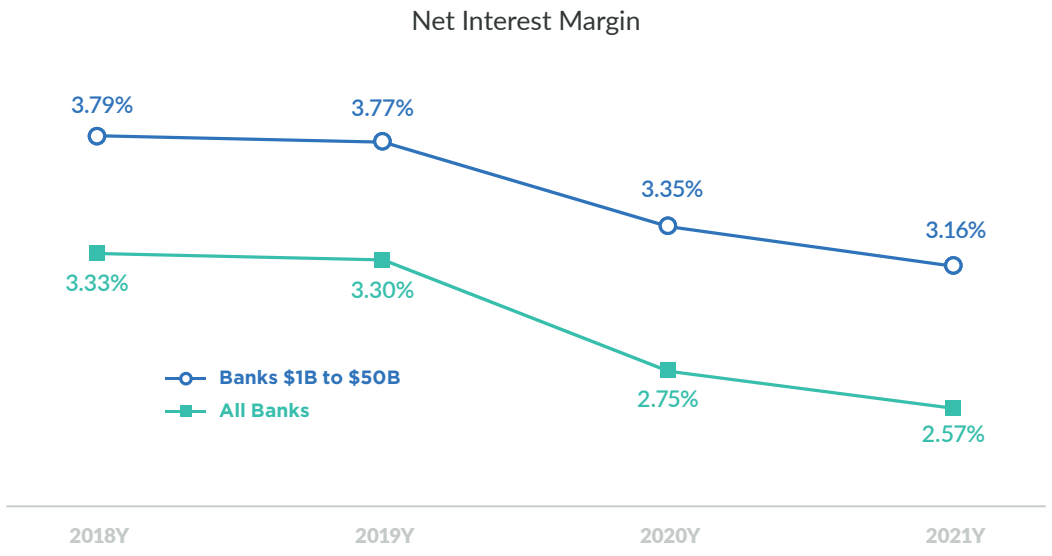
Creating a Fintech Subscription Engine

The Revenue Recession in Banking

As the U.S. economy continues its recovery from the lockdown in 2020, the banking industry hit record profits in 2021 with net income of $259 billion, surpassing the previous 2018 high by 18%. While on the surface this seems like great news, digging further paints a different picture. Cornerstone has identified five factors causing a revenue recession:

- **Margin compression.** In the past three years, the banking industry saw a drastic reduction in net interest margin, which dropped from 3.33% in 2018 to 2.57% in 2021, the lowest level on record (Figure 1). In just three years, the average yield on the 10-year Treasury bond went from 3.15% in October 2018 to 1.45% in December 2021. This influx of liquidity in the banking system, coupled with flat to declining loan growth (excluding PPP loans), has caused a shift in balance sheets to a higher mix of lower-yielding assets as bankers try to put their excess cash to work in some fashion. In 2021, 59% of community bank assets were comprised of loans, compared to 69% in 2018. This shift negatively impacted revenue by about $10.7 billion.

Figure 1: U.S. Banking Industry Net Interest Margin, 2018-2021



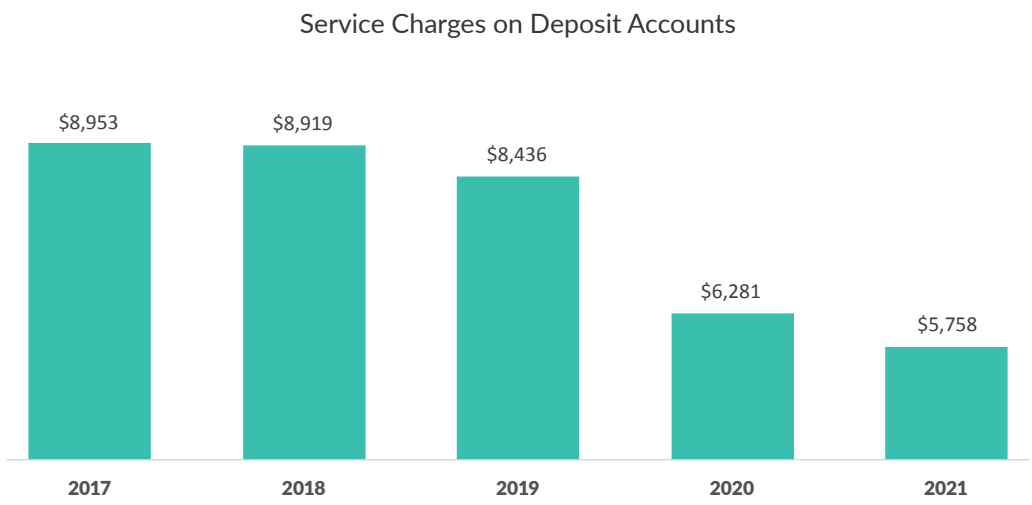
Source: S&P Global

- **Unsustainable gain-on-sale income.** Record lows on the yield curve translate to record lows for the mortgage industry with the average 30-year fixed mortgage falling below 3.0% for the first time, hitting an all-time low of 2.65% in January 2021. The result: mortgage origination volumes hit record levels in 2020 and maintained that momentum through 2021.

This translates to an enormous boost to mortgage gain on sale (GOS) revenue for community banks, with GOS revenue more than doubling from previous years. This short-term "perfect storm" for the mortgage industry has temporarily paused a trend that had been declining for years. This slowdown in activity combined with continued competitive pressures of nonbank lenders capturing additional market share presents another revenue challenge for community banks.

- **Declining checking fee income.** Checking account-related revenue has been a reliable source of non-interest income. That has changed as competitive pressures have reduced or eliminated fees, reducing the income stream by roughly 35% from 2018 (Figure 9). Currently, overdraft/NSF fees account for about 65% of checking fee income. Eliminating fees and adopting more consumer-friendly programs will result in billions of lost revenue dollars for financial institutions.

Figure 9: Service Charges on Deposit Accounts, 2017-2021



Source: S&P Global

- **Waning interchange income.** Representing, on average, roughly 14% of noninterest income for community banks, interchange income has steadily declined for the last five years. In 2021, the average community bank generated $1.5 million less in annual interchange income than in 2017 (Figure 10). Overall, mobile wallets, merchant apps, BNPL, and cryptocurrencies resulted in more than $200 billion in displaced payments in 2020, causing more revenue challenges for community banks.

Fintech's Subscription Engine

What—or better yet, who—keeps bankers up at night is changing. In 2021, half of bankers saw big tech firms like Amazon and Google as significant threats. In 2022, that percentage dropped to 35%. Today, nearly half of bankers see fintechs like PayPal and Square as big threats.

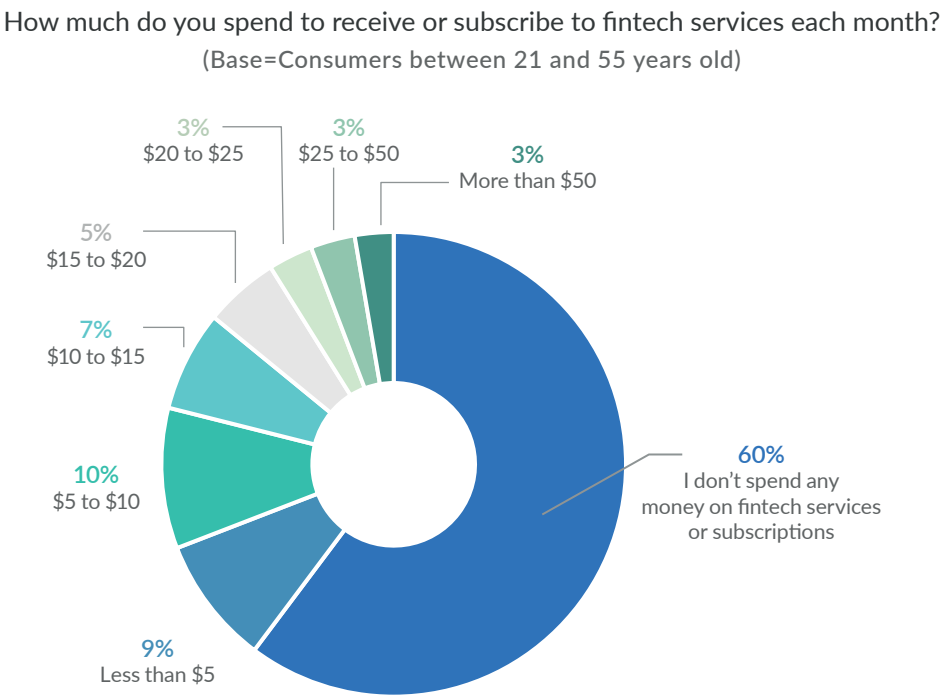
And for good reason. The percentage of consumers who have their primary (i.e., most important) checking account with a digital bank has increased dramatically since 2020, with roughly three in 10 Gen Zers and Millennials now calling a digital bank their primary checking account provider.

Fintechs aren't displacing traditional financial institutions, however. It's not unusual for a Gen Z or Millennial couple to have 30 to 40 financial relationships that span traditional institutions and fintechs.

Fintech fees are often positioned as a subscription charge. Acorns, for example, says "rather than surprise fees, we bundle our products into simple, transparent subscription tiers that support your financial wellness."

On average, Gen Zers and Millennials spend more than $6 per month to access fintech services, with Gen Xers averaging close to $5 per month. On an annual basis, that means Gen Zers are spending $4.45 billion each year on fintech, with Millennials spending $4.73 billion, and Gen Xers spending $3.29 billion. ***All told, fintechs are generating $13.3 billion in annual revenue from fees and subscription charges.***

Figure 15: Monthly Spend for Fintech Services



Source: Cornerstone Advisors survey of 3,030 U.S. consumers, Q1 2022

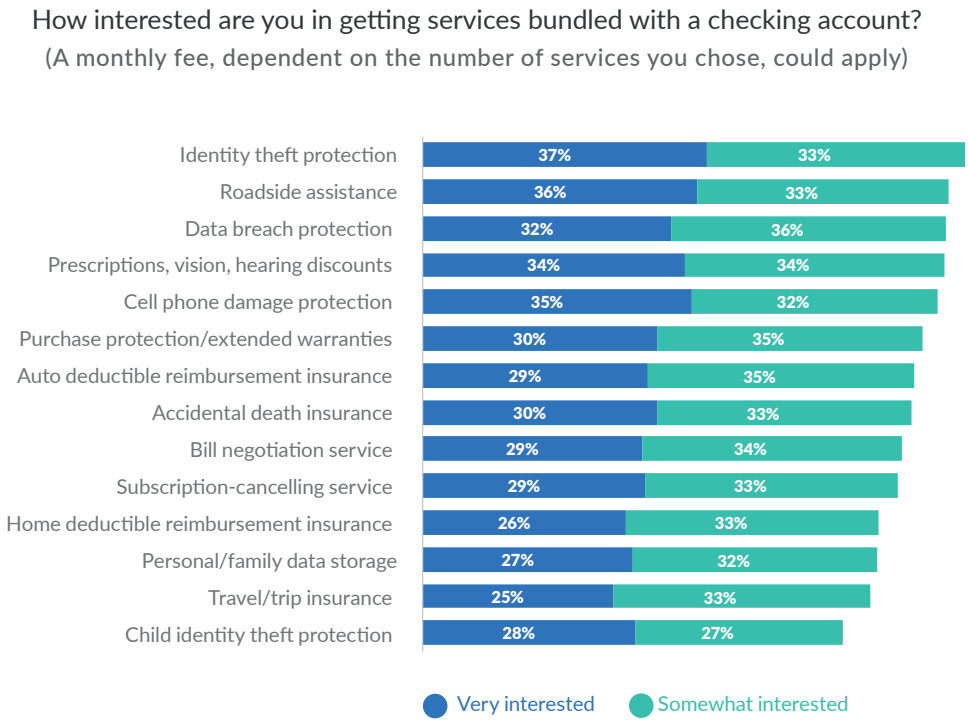
Embedded Fintech

To create new revenue streams from new products and services, banks and credit unions should pursue embedded fintech, which Cornerstone defines as:

> The integration of fintech products and services into financial institutions' product sets, websites, mobile applications, and business processes.

Why is this important for banks and credit unions? Because more than half of consumers between 21 and 55 years old are interested in getting these services from a financial institution, bundled with a checking account (Figure 19).

Figure 19: Demand for Value-Added Services Bundled with a Checking Account



Source: Cornerstone Advisors survey of 3,030 U.S. consumers, Q1 2022

To maintain deposit account profitability, community-based institutions need to offset a declining revenue stream without resorting to punitive fees. The solution: bundling value-added services that consumers already have or say they want into checking account offerings and mobile banking apps.

The Embedded Fintech Revenue Opportunity

In practice, we don't anticipate that financial institutions will price (and charge for) each value-added service individually, instead opting to create bundled packages or pricing tiers like what Acorns offers.

To estimate the revenue potential from an embedded fintech strategy, Cornerstone built a model that contains the following assumptions:

- Financial institutions will create two subscription tiers: Tier 1 with six to eight bundled fintech services, and Tier 2 with three to four services, priced at $10 and $5 per month, respectively.
- A certain percentage of accounts will be exempt from a monthly fee based on the scope of their relationship (i.e., number of accounts, balances, spending levels). This percentage will grow over time, which depresses the subscription revenue but produces revenue for other lines of business in the institution. These indirect revenue benefits are not captured in the model.
- Financial institutions will share 50% of the revenue with fintech partners and 10% of the subscription total with a partner that manages the program.
- The baseline checking account growth rate will increase based on the improved attractiveness of the account offering.

Based on the assumptions above—and the assumption that in the first year of an embedded fintech strategy, 2.5% of checking account holders will migrate to a Tier 1 subscription and 7.5% will opt for a Tier 2 subscription—a financial institution with 100,000 checking accounts will generate nearly $750,000 in incremental revenue for a gross profit of almost $450,000 in the first year. With embedded fintech subscription adoption growing to 50% of checking accounts by the fifth year, total subscription revenue will grow to nearly $6.2 million, yielding $3.7 million in profits.

Conclusions

Combating the revenue recession in banking requires banks and credit unions to fundamentally reconsider the sacred cows of the industry. Increasing marketing's budget by 10% or finding a new agency to design a new ad campaign is not going to address the challenges laid out in this report. What are the sacred cows to be reexamined?

- **Overdraft is experiencing its "Blockbuster" moment.** The business model for checking accounts will never be the same. These changes will trickle down to community banks and credit unions.
- **Primary institution status ain't what it used to be.** Consumers have primary account providers—but not necessarily a single primary financial institution.
- **Consumers are looking for a different kind of account.** It's inaccurate to call what the fintechs offer "checking accounts." They're more like mashups from what have traditionally been separate accounts.
- **Fintech partnerships are the new strategic competency for banks and credit unions.** Financial institutions can't combat the revenue recession alone—they need partners.
- **Community financial institutions need a chief revenue officer.** The time has come for mid-size banks and credit unions to create a chief revenue officer position—someone to: 1) create and instill a new product design and development process, 2) focus on creating a sales process for non-lending products and services, and 3) be accountable for non-lending (but not just non-interest) income in the institution.

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Banking as a Service: A $25 Billion Revenue Opportunity for Banks

The Growth of Banking as a Service

Bank-fintech partnerships take many different forms. One, which receives a lot of attention from the press but is deployed by relatively few banks, is "banking as a service" (BaaS), which we define as:

> A strategy where a financial institution partners with a fintech or other non-financial institution (i.e., brands) to provide financial services to the partner's customer base, leveraging the financial institution's charter and capabilities like account management, compliance, fraud management, and payment and/or lending services.

For all the discussion and confusion surrounding the concept, BaaS really comes down to being a distribution channel play. According to consultancy Oliver Wyman:

> "For a financial institution, BaaS is an opportunity to reach a greater number of customers at a lower cost. The cost of acquiring a customer is typically in the range of $100 to $200. With a BaaS technology stack, the cost can range between $5 and $35. For the distributor, offering financial products opens up new revenue lines at attractive margins and can deepen its relationships with customers, and can then capitalize on cross-selling opportunities."[3]

These companies are simply potential distribution channels for banks, enabling the banks to reach a broader range of customers than they could have on their own.

Banks' Interest in Banking as a Service

Why the strong interest in BaaS? Growth and return. In addition to providing banks with new sources of revenue, the returns on assets and equity for banks (often referred to as "partner banks") pursuing a BaaS strategy exceed the industry averages for all banks (Figure 5).

[3] http://www.oliverwyman.com/our-expertise/insights/2021/mar/the-rise-of-banking-as-a-service.html

Figure 5: Return on Assets and Equity for BaaS Banks

Source: Andreessen Horowitz

Barriers to Banking as a Service

Why do so many banks dismiss the BaaS opportunity?

- **Fear of losing the customer "relationship."** If a bank can generate more revenue and profits by being a "dumb pipe" than as a "smart provider," then why is the former an inferior strategy?
- **Lack of technology capability.** There are a growing number of companies in the market that can help banks bridge this gap and become partner banks.
- **Confusion around the term.**

Banking as a Service: A $25 Billion Opportunity

BaaS offers mid-size banks a faster path to growth than traditional strategies do. But the space is getting hot, and early-movers are gaining valuable experience into the workings of this new space.

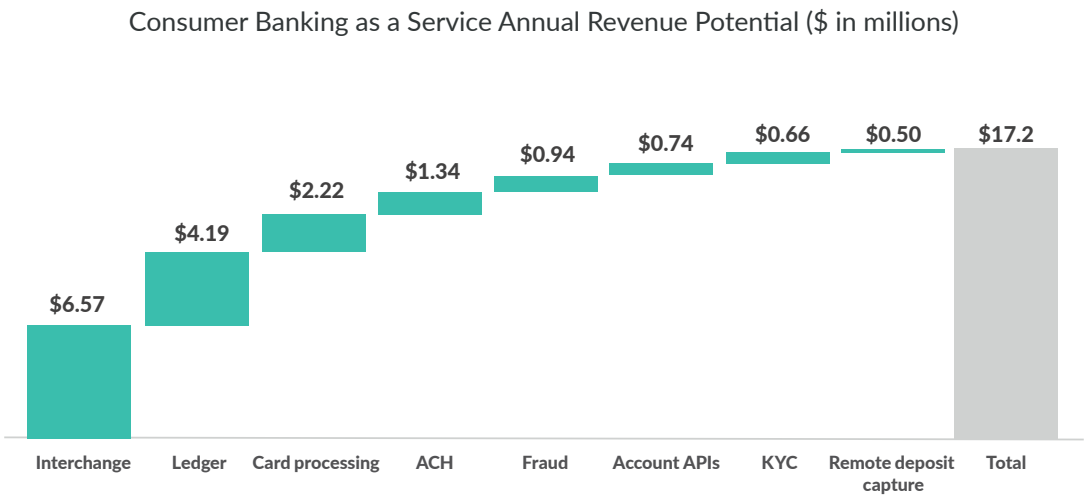
Providing BaaS-related services enables banks to disaggregate the sources of revenue, and although they may have to share interchange revenue with the sponsoring brand (and third-party platform provider, if they use one), many of the banks pursuing or planning to launch a BaaS strategy view fees generated from ACH, fraud management, know your customer (KYC), account verification, and card issuing and processing services as very important to their efforts.

Banking as a Service Revenue Model

To estimate the revenue potential, we created a model for a sponsor bank with one million consumer accounts, growing at 2% per month, that shares revenue for most revenue sources with a BaaS infrastructure provider and shares interchange revenue with the sponsoring fintech or brand.

With these assumptions, a sponsor bank would generate roughly $17.2 million in annual non-interest income from providing consumer-related BaaS (Figure 7).

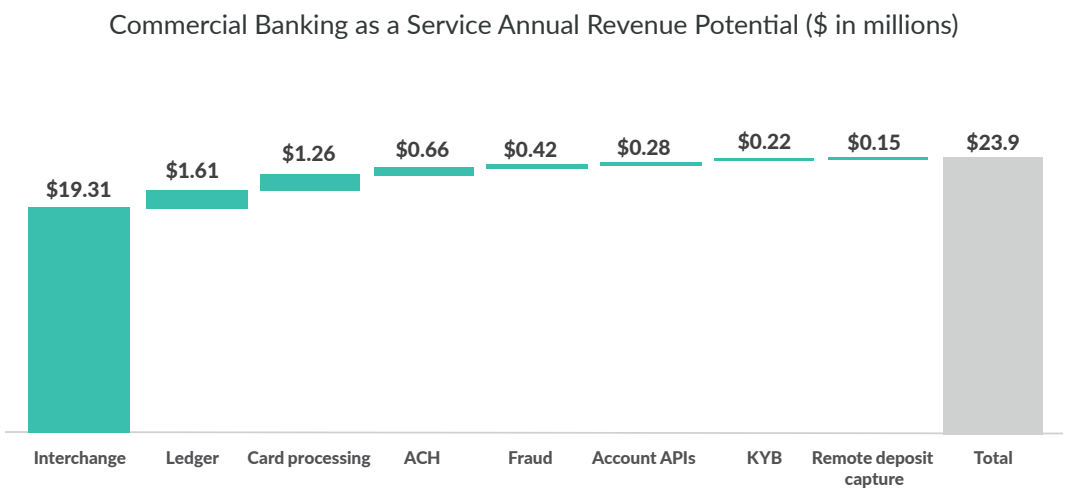
Figure 7: Consumer BaaS Annual Revenue Potential Per Sponsor Bank



Source: Synctera, Cornerstone Advisors

With a starting point of 300,000 commercial accounts supported, growing at 2% a month, a sponsor bank could generate nearly $24 million in annual revenue from BaaS (Figure 8).

Figure 8: Commercial Banking as a Service Annual Revenue Potential Per Sponsor Bank

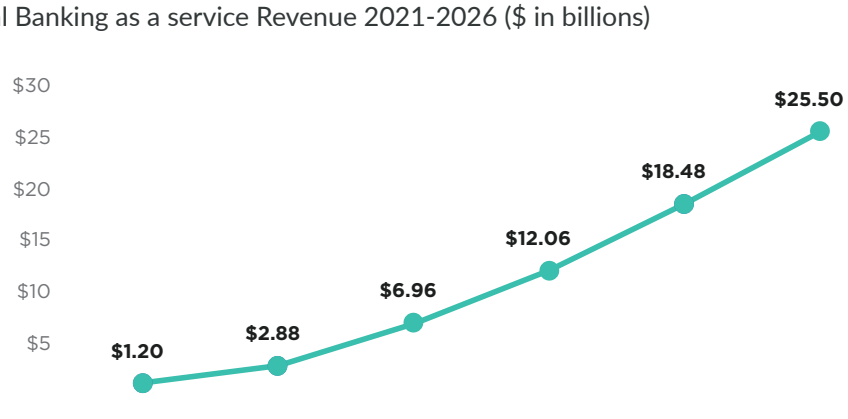


Source: Synctera, Cornerstone Advisors

Overall, a sponsor bank supporting one million consumer accounts and 300,000 commercial accounts could generate more than $40 million in revenue on an annual basis—roughly $15 per consumer account and $71 per commercial account.

Industry-wide, Cornerstone estimates that the BaaS market could grow to more than $25 billion in annual revenue in 2026 (Figure 9). This would go a long way to replacing the inevitable loss of overdraft fees the banking industry will face over the next five years.

Figure 9: BaaS U.S. Banking Industry-Wide Annual Revenue Potential



	2021	2022	2023	2024	2025	2026
Total BaaS revenue ($ in billions)	$1.20	$2.88	$6.96	$12.06	$18.48	$25.50
# of banks offering BaaS services	30	60	120	180	240	300
BaaS revenue/bank ($ in millions)	$40	$48	$58	$67	$77	$85

Source: Cornerstone Advisors

Launching a Banking as a Service Offering

A BaaS strategy can enable a bank to capitalize on its existing product offerings and strengths. Realistically, however, it's not that fast or easy.

A bank could develop a BaaS platform itself from scratch, and most of the early entrants in the space did just that because alternatives didn't exist at the time. For most banks entering—or planning to enter—the space today or in the near future, this won't be a viable option because of the time and cost requirements.

To support future growth, many are now turning to banking as a service platform providers like Synctera, Unit, and Treasury Prime that productize services like payments, lending fraud management, compliance, and account management that are typically buried in banks' core systems.

Working directly with a bank typically requires 15 to 18 months and roughly $2 million to launch, with ongoing annual costs of about $2.5 million. Working with BaaS platform providers can help fintechs reduce implementation time to less than two months and initial costs to $50,000, with ongoing annual expenses around $50,000, as well.

Evaluating Banking as a Service Platform Providers

Banks evaluating BaaS platform providers should consider the following:

- **Fintech-bank fit.** A bank should choose a BaaS platform provider that supports fintechs whose customer base aligns with its own. In fact, a bank should evaluate a platform provider's ability to help it find fintechs that fit the bank's unique capabilities, risk tolerance, and end customer profile.
- **Product specialization.** A bank should choose a platform provider that aligns with (or enhances) its own product priorities and capabilities.
- **Bank-fintech relationship.** With a direct relationship, the bank has more oversight, control, and flexibility in program terms.
- **Economics.** Those that enable a direct relationship between the bank and the fintech necessarily provide the bank with more control over the economics, allowing it the flexibility to negotiate potentially more favorable deal terms.
- **Core integration.** Selecting a provider that doesn't require integration to the core can prove to be a lower-cost and faster-to-implement solution.

Developing a Partner Due Diligence Process

- **Review the current due diligence process against proposed guidance.** Assess the current diligence process along six key dimensions of an effective due diligence process (Table C).

Table C: Six Key Dimensions of Fintech Due Diligence

Key Area	Description
Business experience and qualifications	Operational history, experience (e.g., client references, complaints), legal and regulatory actions, and strategic plans for new products, arrangements, etc.
Financial condition	Financial analysis of the fintech's ability to remain as a viable business operation and market considerations (e.g., client base, competition, geopolitical risk)
Information security	Infosec framework including documented and enforced data security controls, incident response, breach notification processes, and information systems programs and design
Legal and regulatory compliance	Compliance and training for privacy, consumer protection, fair lending, anti-money laundering, etc.
Operational resilience	Business continuity planning and incident response (disaster recovery, tolerances around downtime, failover data centers and replication sites) service level agreements
Risk management controls	Effectiveness of risk policies, procedures, process, training, reporting, and general ability to align with the bank's risk appetite, appropriate laws, and regulations

Source: Synctera

- **Tailor the due diligence process to the maturity of the potential partner.** Existing financials and projections may be more credible, while understanding its historical control environment could be a helpful leading indicator on its approach toward risk and compliance.
- **Have a clear understanding of when to say no.** Each bank should have principles and criteria regarding the types of fintechs it is willing to partner with, which may be based on factors such as product types, industry/sectors, maturity, and sophistication of controls.

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Leveraging Cloud to Accelerate Digital Transformation

Overview

Cloud-based applications enable banks of all sizes to use enormous computing capacities and state-of-the-art software—and to leverage economies of scope and scale in the process. For small and regional banks in particular, cloud usage can increase participation in new technologies.

All of the challenges wrapped together empower the unprecedented opportunity to accelerate digital transformation.

The Struggles of Digital Transformation

While cloud technology acts as a key enabler, this move alone is not synonymous with digitization. The transformation is not just a matter of replacing the existing on-premise data centers with cloud capabilities, but rather establishing a change throughout the entire company—technology, people, process, partners and governance.

And this opportunity is more than just a technological decision. It was clear from our interviews with banking executives that their institutions face escalating obstacles across several fronts:

Fragmented and Complex I.T. Application Environments

Many modern user interfaces are a facade. Financial institutions try to hide their outdated technology on the back end by using contemporary applications on the front end.

Without effective data and systems integration, delivering today's desired customer experience is a constant struggle.

Data and behavioral analytics can help organizations understand potential friction points in the customer experience—but this is near impossible with a fragmented application environment and causes internal friction between departments that are interacting differently and independently with customers. Bottom line: a fragmented IT environment is synonymous with a fragmented customer experience. Over time, cloud migration can be an important strategy in addressing this painful fragmentation.

For years, banks have attempted to execute with a "two-speed architecture"—attempting to improve and refine the front-end customer experience quickly while supporting it with a slow-moving back end of legacy systems. Executives know detailed analysis, planning and rigorous execution is the only path to shed the constraints of legacy technology over time.

Siloed Data

Most bankers' data is stored across hundreds of separate fragments, or siloes, making data management difficult and inefficient and thus compromising the business insights central to growth.

Additionally, data silos are often reinforced by organizational silos, within which teams utilize incongruent tools that rarely—or never—interact with one another.

Without a singular data universe, financial institutions will continue to struggle to properly leverage tools that rely on compiled data to predict fraud and consumer behavior and provide their customers with the experiences and data safety they demand.

Unfortunately, this trend is one that many financial institutions are not adequately prepared for. This is often due to concerns of regulators and the effort of FIs to address these concerns by demonstrating end-to-end security of sensitive customer data and strategy to address the potential impact on the FI if the cloud provider suffers a significant adverse advent.

Legacy Integration Efforts

Integrating legacy systems with open banking platforms seems like the easy solution—but it is not.

More often than not, financial institutions face issues integrating newer platforms with legacy software systems and tools. For cloud programs to run successfully, they require access to the full breadth of a firm's data kept within multiple systems, especially their core system.

If legacy systems are no longer future-proof due to a lack of adaptability, sticking with them involves incalculable risks. In this case, comprehensive modernization is inevitable.

In-House Capacity and Availability of Specialized Expertise

Experts with knowledge in the area of technology and in dealing with data (big data, unstructured data, data analysis and much more) will be needed in-house.

Building and deploying an open API ecosystem relies on specific expertise often scarce or altogether absent from smaller financial institutions. This is most often due to two factors.

1. The in-house capacity of existing IT teams lacks the skills and knowledge of cloud based or embedded technologies.
2. Rural markets lack the qualified talent. FIs in larger markets have a larger pool to pick from, giving gives them an advantage over a more rural market.

While modernizing attracts younger workers who don't want to work with legacy systems, talent burden can be lighted with help from external IT vendors with the adequate experience and resources to help FIs succeed.

Managing Multiple Partners for Execution

The advent of APIs and middleware have become more prolific in bringing more vendors into the digital market. These technology vendors can be embedded quickly and often at reduced cost and provide an opportunity to innovate on top of their legacy integration layer.

But as banks integrate more and more systems into their core in order to modernize, this means more partners to manage.

Having a dedicated vendor manager within the organization is also now mission critical to manage all of the new relationships as well as designating someone within the FI to sit in the captain's chair to manage multiple partners for a successful execution.

How the Cloud Enables Digital Transformation

From a business standpoint, it is clear that cloud offers the scale to deliver real-time services across multiple platforms and devices that allow access to advanced business capabilities.

Cloud adoption has generally lagged in banking due to the sheer amount of sensitive data and monetary transactions that drive the business. The vulnerability felt by financial executives has been significant. However, momentum and widespread acceptance around cloud has clearly accelerated in a post-Covid world.

CIOs are hastening their cloud efforts with an eye towards five key benefits where cloud enables digital transformation.

The Intelligent Enterprise

Increased agility and scalability improve the time-to-market of apps and banking products. In addition, the cloud serves as the technological basis for data analyses or the use of artificial intelligence.

By hosting workloads in various public cloud infrastructures, banks can remain nimble in creating new business solutions while still having the capability to view the tech stack in a more holistic and advanced fashion.

Persistent Solution Availability

By accessing the steady flow of new code from the cloud, banks are seeing an opportunity to reduce complexity and avoid the technical debt that grew in their organizations and hindered transformation.

Now, as banks look to fintech not only as competitors but more as partners, the world of cloud becomes vital: cloud becomes the platform to connect banks and fintechs effectively in the future.

Burstable Capacity and Costs

With minimal hardware investments and more predictable software expenses, executives see cloud structures as helpful in facilitating cost transparency around specific business solutions.

Innovation and Speed to Market

The cloud represents a vast ecosystem of products, capabilities and integrations that can be accessed and combined to improve current operations and even create new businesses.

By avoiding the temptation to customize and de-leverage business solutions and install diverse generations of technology platforms, life in the cloud mitigates the threat of technical debt and keeps the business more agile. Banks are optimistically looking to a cloud future as a means of moving from "legacy speed" to "innovation speed."

Reduced Risk

Although managing cloud environments requires a strong enterprise risk management rigor, the cloud does in fact provide banks an opportunity to demonstrate greater resilience in continuous operations, information security, and meeting demanding regulatory requirements.

Cloud service providers can help to arm banks more strongly with best practices against some forms of cybercrime due to consistent security and maintenance reviews, security analytics and cross-enterprise visibility, as well as delivering compliance certifications important to the financial services industry.

Keys to a Successful Cloud-Based Digital Transformation Strategy

In talking to technology and digital executives of larger financial institutions, five key mandates have emerged to effectively make the transition to cloud.

Embrace a Multi-Cloud and a Hybrid-Cloud Reality

Bank CIOs have the challenging task of building a technology road map that ich prioritizes and optimizes changes to the tech stack in a manner that strives toward a cloud future while addressing the realities of today's pressing technology operations. The technology road map must encompass a detailed long-term tech vision coupled with various stages of designed deployment during the migration.

Build the Tools to Manage a Hybrid I.T. Environment

Banks have ultimate responsibility to make sure their overall I.T. environment can be managed effectively to control the business, costs, and risks.

Bank executives should note that most cloud data breaches have come from the misconfiguration of systems; therefore the expertise and the methodologies to manage this environment become critical, either via sophisticated staff support or the continuous usage of specialized outside partners.

Sharpen the Focus on Governance Risk And Compliance

Real-time governance based on real-time measurement and control systems is necessary to quickly remedy any security gaps. Through digital transformation and cloud services, banks can centralize data, gain greater control of IT resources, use analytics to detect anomalies, and automatically install updates with the latest security features. As a result, information risk is significantly reduced. Managing cloud is not merely about managing security risk, but rather a wide set of critical enterprise risks.

Transform the it Talent Stack

This has forced bank executives to look for talent more aggressively in key areas including specific cloud platform configuration (AWS, Azure, Google), server virtualization and app containerization, API integration, DevOps, cloud security and orchestration, and disciplined change management.

Importantly, CIOs are viewing training and upskilling as significant priorities to meet the realities of the cloud labor market, especially since the major cloud providers have all developed robust upskilling and certification programs.

With digitization, every company is now essentially a technology company, and organizations must be more intentionally aligned with this new reality.

Partner for Speed and Precision

An integrated program must come to fruition through the use of a strong program management office and often a strategic, third-party partner who can oversee the build of the new environment and the roles of each vendor in the transformation.

Being intentional about governance, security and integration during these years of transition is vitally important to leadership.

Importantly, bank executives stressed the need for partners who understand the complexity of their industry from a business requirements and compliance standpoint. Hybrid cloud is a reality that needs to be effectively managed for the indefinite future.

Finally, executives want strategic partners to play the role of "scout," looking ahead to new technologies and solutions and helping banks understand the potential impact.

Through Today's Complexity to a New Era

The quest for agility and speed-to-market improvements will prove elusive to banks unless leadership more intentionally maps out a future technology vision and plans for how cloud technology can accelerate the pace. This technology road map must effectively integrate the demands for business capability, integration, security, compliance, and resiliency—a challenging task that will only be mastered by banks that can attract the right talent and partner effectively to drive outcomes.

Digital transformation will only be achieved by banks that have the discipline and leadership commitment to soldier through a complex and challenging time of technology and business model migrations.

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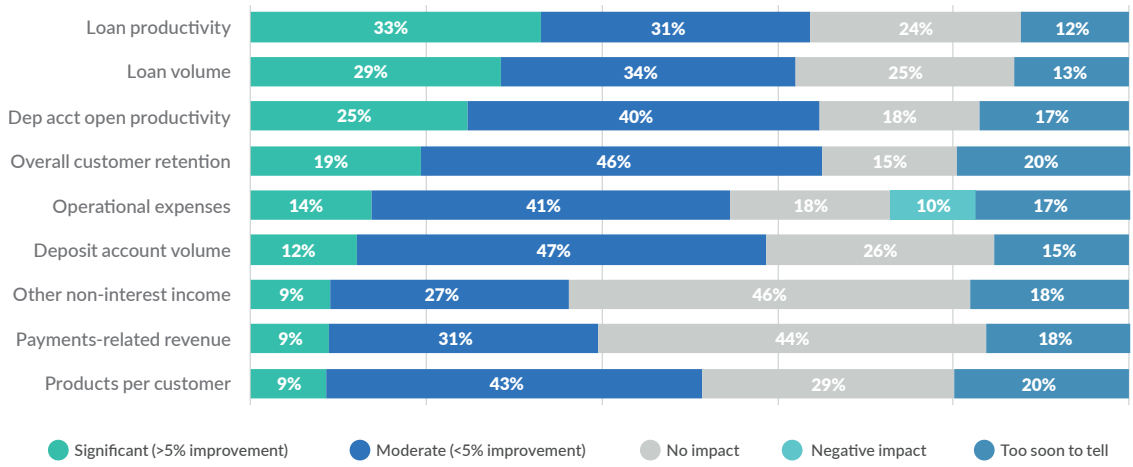
The Payments Modernization Imperative

Digital Transformation Realities

Financial institutions are holding a loaded gun pointed at their feet. The name on the gun is "digital transformation." They're deluded into believing they're digitally transforming their organizations when all they're doing is deploying new tools for yesterday's industry.

Just 9% of financial institutions say they've seen a better than 5% increase in payments-related revenue, non-interest income, or products per customer resulting from their digital transformation efforts (Figure 1).

Figure 1: Digital Transformation Impact



Source: Cornerstone Advisors survey of 300 community-based financial institution executives, Q4 2021

The Payments Revenue Recession

Although banks reported spectacular profits in 2021, the results mask a deeper problem: a "revenue recession." Consider the following:

- Citi's Q2 per-share earnings of $2.85 exceeded analysts' expectations by 89 cents. But consumer banking revenue declined 3% in Q2 2021 from the prior quarter and was down 7% from the same period a year ago.

This revenue recession is occurring on a number of fronts, with one of the most important areas being payments revenue.

The Payments Displacement Effect

The flat-lining of revenue comes at a time when banks are experiencing displacement in payments volume—and interchange revenue—from:

- **Mobile payments.** The growth of mobile apps providers like PayPal and CashApp has cannibalized payments volume from traditional financial institutions.
- **Merchant mobile apps.** In total, roughly $3.2 billion moves in and out of the 10 leading merchants' mobile apps every week. The loads generate interchange fees for banks, but the banks lose the revenue on the subsequent purchase transactions.
- **Buy Now, Pay Later.** The choice to use a BNPL service cannibalizes debit and credit card use, reducing interchange revenue for banks and credit card issuers.
- **Cryptocurrencies.** Crypto owners used Bitcoin to make $3 billion in retail purchases in 2020 (that FIs didn't collect interchange fees on).

The Coming Focus on Faster Payments

The topic of "faster payments" is hardly new. The Clearing House (TCH) launched the RTP® network in November 2017.

While many of the largest U.S. banks are in TCH's RTP network, the vast majority of small and mid-size banks and credit unions aren't. 2022 will find many of them launching a real-time payments strategy.

How will financial institutions go about deploying RTP? Many don't know yet—37% of banks and 42% of credit unions said they haven't determined their RTP strategy. About a quarter of banks and one in five credit unions say they'll wait for FedNow to deploy before rolling out real-time payments.

B2B payments and account-to-account transfers were the most-frequently cited use cases by banks. Among credit unions, account-to-account transfers, recurring bill pay, and last-minute consumer payments were the most-frequently mentioned use cases.

Cornerstone Advisors Senior Director of Payments Tony DeSanctis observes:

> "…While real-time payments offers benefits to commercial clients, it is more important to have a robust cash management offering that replaces manual and paper processes with automated, integrated, and real-time data and processes."

Financial institutions have concerns regarding faster payments with risk at the top of the list, followed by cost and core functionality.

The Payments Modernization Imperative

A rejuvenation or revival of financial institutions' payments strategies will require the modernization of their payments infrastructure.

In addition, according to Cornerstone research, nearly 30% of mid-size FIs have replaced or selected a new person-to-person (P2P) payments application in the past three years and roughly one in five intend to replace their existing P2P payment system in 2022. Furthermore, 16% replaced their online bill payment app between 2019 and 2021, and about 10% plan to do so in 2022.

Payments Modernization is About Revenue, Not Just Technology

According to McKinsey Consulting:

> "New revenue streams will be the primary source of return on investment in a modernized payments infrastructure."[4]

McKinsey identified five payments modernization-driven revenue streams for banks in both consumer and commercial payments:

- **Person-to-microbusiness payments.** A faster back-end infrastructure would further improve the convenience of these apps (e.g., Square and PayPal card readers).
- **Consumer bill payments.** A real-time infrastructure combined with a ubiquitous merchant biller directory—integrated into mobile banking apps—could create a frictionless bill-payment experience involving push notifications and real-time confirmation of payment receipt.
- **Commercial just-in-time payments.** For small businesses that need to tightly manage cash flow, faster clearing with real-time notification of payment offers a way to avoid late payments and adopt just-in time business models.
- **Direct deposit for temporary and hourly workers.** A faster payments system would allow more businesses to pay weekly workers through direct deposit.
- **Automated e-invoicing solutions.** Converting invoices from paper to electronic yields a cost savings of up to about 70% per invoice; the value of automated invoicing, then, is indeed significant.

[4] www.mckinsey.com/~/media/McKinsey/Industries/Financial%20Services/Our%20Insights/Faster%20payments%20Building%20a%20business%20not%20just%20an%20infrastructure/Faster%20payments.ashx

Payments Modernization is Needed to Deliver Banking as a Service

Providing banking as a service enables banks to disaggregate the sources of revenue, and although they may have to share interchange revenue with the sponsoring brand (and third-party platform provider, if they use one), many of the banks pursuing or planning to launch a BaaS strategy view fees generated from ACH, fraud management, know your customer (KYC), account verification, and card issuing and processing services as very important to their efforts.

Currently, many banks aren't thinking beyond interchange and card processing for BaaS-related revenue. Many fintechs, however, are looking for sponsor bank support for bank transfer payments (account-to-account or A2A) including RTP/FedNow to fund accounts, subscription payments, eCommerce payments, bill and loan payments, and more. A2A payments that avoid middlemen and unnecessary interchange fees are gaining momentum. Banks can put their payment rails (ACH, wires, RTP, FedNow, SWIFT) to good use under the BaaS model by being sponsor banks for fintechs and embedded treasury that are looking at A2A payments.

Payments Modernization Requires a Core Workaround Strategy

Payments modernization—and digital transformation, for that matter—can't be achieved without addressing the shortcomings of legacy core systems. The blame can't be totally pinned on the vendors, however. Seven in 10 banks don't plan to replace their core systems as part of their digital transformation.

Banks Must Pick a Strategy to Deal with the Core

There is no question that a financial institution's core system needs to be part of its digital transformation journey. To help banking executives choose a course of action that will accommodate different budgets, business cases, and visions for the future, we present four core improvement approaches: 1) commoditization, 2) optimization, 3) transformation, and 4) workaround.

1. Commoditization Strategy

Many banks and credit unions have a value prop that doesn't require a strong core. Maybe they're executing on a low-cost or specialized product strategy. Commoditization enables these financial institutions to minimize the importance of the core vendor and therefore lower their core spend.

There are typically two keys to a successful commoditization strategy. The first is maximizing the cost savings from the core vendor using effective contract negotiations. The second is based on whether and how the institution needs to integrate with third parties.

2. Optimization Strategy

Many FIs are on perfectly serviceable cores, but they haven't maximized the value of those investments. An optimization strategy enables an institution to increase the ROI on its core spend without the time and expense of replacing the system—essentially, it's transformation "lite" without the conversion.

The key to success for most optimization strategies is a focus on process improvements driven by functionality, workflow, or integration that ideally come from core but sometimes from third-party CRM, analytics, and RPA systems.

3. Transformation Strategy

Transformation is a high-cost, high-benefit, high-risk enterprise initiative that has the potential to make an institution nimble, improve its customer and user experiences, and realize advanced process efficiency.

Transformation strategy success is measured by customer-facing key performance indicators (KPIs) such as five-minute-or-less account opening across digital, call center, and branch channels; efficiency KPIs such as a 50% reduction in ACH exception processing times; and risk management KPIs such as 95% compliance on the FI's check hold policy.

4. Core Workaround Strategy

Unlike a middleware layer, which still turns to the old and tired legacy systems for backend processing, a core workaround approach offloads workload from the legacy core. With no more dependency on the core providers for innovation, banks can confidently offer APIs to talk to other vendor applications, banking as a service APIs to fintech partners, virtual/FBO accounts, operated outside the core.

The advantages to a core workaround approach include:

- Customer experience
- Speed
- Simplification

A core system replacement may not be in the cards for every institution. At least, not right now. But it is definitely time to make a strategic decision and move forward with a payments modernization plan.

Selecting an Open Banking Data Aggregation Vendor

A Roadmap for Fintechs and Financial Institutions

CORNERSTONE ADVISORS

Ron Shevlin
Chief Research Officer
Cornerstone Advisors

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Selecting an Open Banking Data Aggregation Vendor

The New Data Realities in Banking

The discussion about open banking and open finance in the United States typically revolves around statements like, "We need to enable consumers to move their data wherever they want." Much of the conversation, however, ignores how data is shared and for what purposes. The most common use case is account verification, and data is typically shared one of three ways:

1) **Tokenized APIs.** Data platforms from companies like MX and Plaid are developing libraries of open-source API documentation that match FDX guidelines to help financial institutions connect without having to develop their own APIs.

2) **Screen scraping.** This is fast becoming an unacceptable approach because regulations in some countries prohibit it, there is a lack of traceability, data quality isn't very strong, and there are security concerns, particularly around sharing login credentials.

3) **Manual data entry and verification through microdeposits.** Speed of the process is the biggest drawback here as it can typically take one to three days to verify an account.

While the term may be overused and misused, banking industry constituents—which include financial institutions, fintechs, and end customers (whether they be consumers or businesses)—have three underlying needs regarding open banking: the need to 1) acquire, 2) use, and 3) analyze data.

The common thread that runs through those three needs is the reliance on third-party partners or vendors (sometimes referred to as data aggregators) to meet those needs.

Making these choices will require financial institutions to make tough decisions about their 1) strategy in a changing industry, 2) the role they need to and want to play in a highly interconnected network of providers, and 3) the business and technical capabilities they need to build to operate in the ecosystems in which they participate.

The Open Banking Imperative

Conventional wisdom holds that open banking in the United States is lagging. According to an American Banker article titled, "U.S. way behind the curve on open banking":

> "Policymakers, fintech companies, and financial services firms are finally beginning an earnest dialogue about open banking. It's good because the U.S. has a lot of catching up to do. In the U.S., there's no legal requirement stipulating a financial institution must make a consumer's financial data available to a third party if a consumer provides affirmative consent."[5]

[5] www.americanbanker.com/opinion/us-way-behind-the-curve-on-open-banking

Instead of embracing the benefits of open banking, U.S. banks have fought against it and the data aggregation providers that have worked to enable it. As the CEO of a North American bank recently expressed:

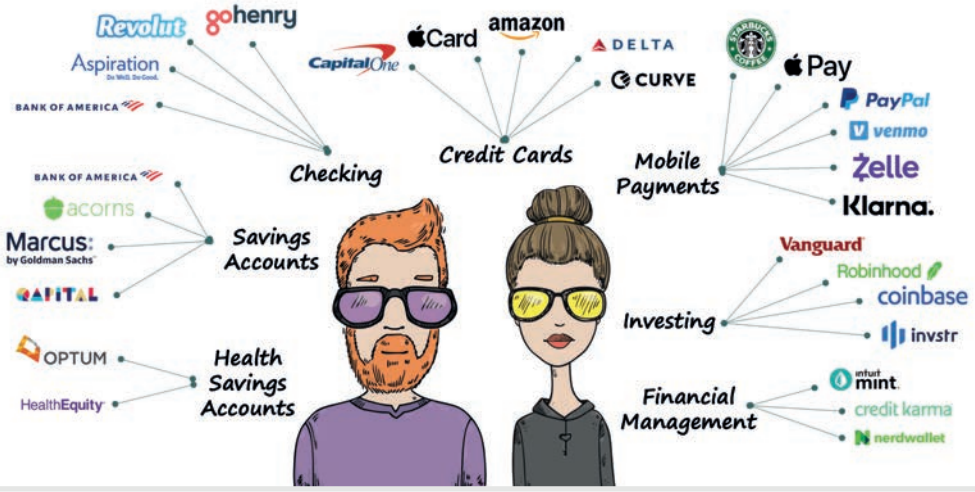
> "I truly believe it is my data and I don't have to share it, and I don't have to give it to my customers if I don't want to."

However, this anti-competitive attitude is increasingly at odds with the sentiments of consumer advocates who preach that consumers should own and be in control of their own data, and with regulators like the Consumer Financial Protection Bureau (CFPB), which views open banking as a critical tool for leveling the competitive playing field.

Consumers' Increasingly Complex Financial Lives

But consumers aren't "voting with their feet." The new reality is that fintechs co-exist with—not replace—traditional providers. It's not uncommon for a young couple to do business with 30 to 40 financial providers (Figure 2).

Figure 2: Consumers' Shadow Financial Lives



Source: Cornerstone Advisors

- **Financial products—not the banks—have been unbundled.** It's the product that's been unbundled, not the institution.
- **Financial advice and guidance has been compromised.** As personal financial management (PFM) and credit management tools have been unbundled from checking account and credit cards, consumers —and their providers—get an incomplete view of their finances.
- **Primary status is meaningless.** Ask a Gen Zer or Millennial who their primary financial institution is and you're likely to get a blank stare.
- **Managing money is more important than moving money.** Today's consumers need more help managing their money—and they need the ability to manage and view their entire financial life in one place.

This fragmentation of consumers' financial lives increases the urgency for financial institutions to create—either by building or buying—open banking data aggregation capabilities. Without these capabilities, they're left with an increasingly narrow view into their customers' financial lives, which makes it more difficult to provide those customers with financial advice and relevant cross-sell offers.

As the financial services industry embraces open banking and works with third-party data aggregators to create new capabilities and offerings, it will need to address an important question: How should financial institutions select an open banking data aggregation vendor?

Selecting an Open Banking Vendor

To better understand how to make a smart open banking data aggregation vendor decision, Cornerstone Advisors spoke with bank and fintech executives who have gone through the process of evaluating open banking data aggregation vendors.

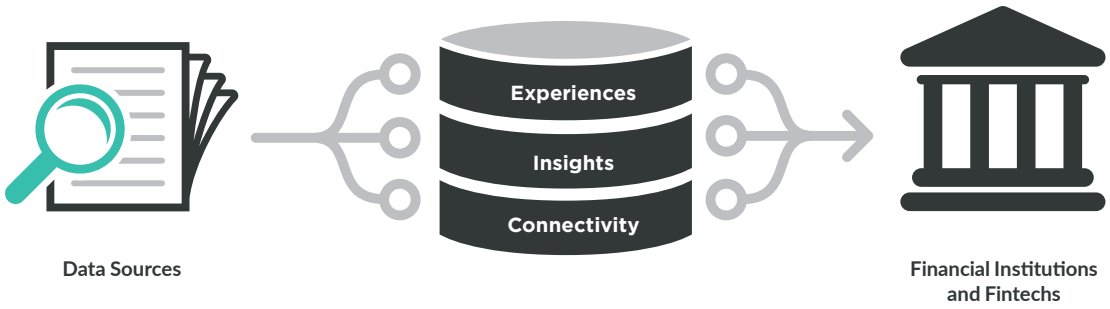
We've distilled the hard-earned wisdom of these executives—which was shared with us candidly and anonymously—into six recommendations for banks and fintechs to follow when embarking on this selection decision.

#1: Understand Each Aggregator's Capability Stack

A bank or fintech building or buying open banking data aggregation capabilities should start by understanding what product or service experience (or experiences) it's trying to build and what role open banking or data aggregation plays in that experience (or experiences).

To understand what different aggregators are good at, let's unpack exactly what they do and define the open banking data aggregator capability stack, comprised of three capabilities (Figure 4).

Figure 4: The Open Banking Data Aggregator Capabilities Stack



Source: Cornerstone Advisors

- **Connectivity.** The foundational layer of capabilities involves connectivity—the ability for an aggregator to acquire data. Across various types of financial institutions, consumers experience connectivity failures 40% to nearly 50% of the time they first attempt to link their accounts to these third-party tools.

Connectivity-related questions that banks, credit unions, and fintechs need to address include:

- How many non-financial organizations do they partner with?
- What is the breadth and depth of the industries they serve?
- Is their ecosystem open and accessible to all—even their competitors?
- Are they truly open or do they just create a broader, more modern closed system with perimeters of who is allowed to participate?

- **Insights.** The insights layer is where much of the innovation in open banking data aggregation is happening. Open banking data aggregation helps create new insights regarding consumers':

  - **Income.** Estimating income is important for financial institutions lending to gig workers, which is difficult because the inputs often come from various data sources.
  - **Cashflow-based credit worthiness.** The UltraFICO score builds on the traditional score by securing linking to checking, savings, and/or money market accounts to including indicators of sound financial behavior. Doing this requires an aggregator to be a consumer reporting agency.
  - **Financial health.** Assessing someone's true financial health can't be done by analyzing a single checking or investment account—most consumers have multiple credit cards, debit cards, and investment accounts.

To evaluate a data aggregation vendor's insights capability, fintechs and financial institutions should determine:

- Once an aggregator has collected a customer's data, what can they do with it?
- How good are they at cleaning and enriching the data (and do they even enrich the data at all)?
- Can they accurately provide simple attributes like current account balance and more complex calculated attributes like total income?
- Can they look across the data in their network and generate scores to evaluate the risk of default for a new loan or fraud for an ACH payment?
- Can they wrap their insights around capabilities provided by partners to deliver services like account-to-account (A2A) payments or direct deposit switching?

- **Experiences.** The next layer of capabilities is focused on giving financial institutions the building blocks required to assemble experiences for customers, using data provided by the aggregator. These experiences tend to revolve around personal financial management (budgeting) and customer engagement (chatbot) experiences.

Open banking data aggregation can help financial institutions integrate subscription management capabilities into their mobile banking apps, enabling consumers to manage the entire subscription lifecycle including: 1) purchasing new subscriptions, 2) tracking how much is spent, 3) comparing and switching providers, and 4) canceling unwanted subscriptions.

#2: Evaluate Aggregators' Buyer and Supplier Relationships

A good test for understanding how an aggregator is trying to build trust within its network is to ask about its APIs.

Aggregators will say they're moving away from screen scraping towards APIs. But what types of API integrations are they building? Is it a proprietary API that limits the visibility and control that data suppliers have? Or is it an open, interoperable API that balances benefits between data buyers and suppliers and provides suppliers with visibility and control over the data being shared? Proprietary APIs benefit the narrow interests of the aggregator. Open, interoperable APIs benefit the whole ecosystem.

#3: Assess Customer Service (Because Things Will Go Wrong)

The banking world may be moving from screen scraping to APIs, but most of today's connections provided by data aggregators are facilitated by scrapers.

This is both an operational and reputational problem. And it is, according to the executives interviewed for this report, the inevitable and unavoidable byproduct of an open banking ecosystem dependent on screen scraping. So, what should a financial institution evaluating data aggregation vendors do about it?

- Dig deep on vendors' customer support reputations
- Build a good translation layer

Assessing customer service capabilities is particularly important because when consumers can't connect their account to a fintech app, they don't call the fintech—or the aggregator, for that matter—they call their financial institution.

#4: Gauge API Quality and Fit

How far along a data aggregator is in its screen-scraping to API migration journey doesn't give a financial institution or fintech insight into the quality of the vendor's APIs, however. Making a data aggregation vendor decision requires the buyer to:

- Assess the quality of third-party APIs
- Fill in core vendors' API shortcomings

Being able to do these two things will require many financial institutions to establish new organizational roles and teams that span IT and the lines of business.

#5: Focus on Pricing Model, Not Price

According to the executives interviewed for this report, all of the established data aggregation vendors in the United States are fairly comparable, and pricing is highly dependent on the specifics of the deal.

The more important distinctions lie in the pricing models. There are three primary models used by aggregators:

1. **Per transaction.** An individual price is assessed for each distinct transaction executed by the client and transactions correlate to use cases (account verification, for example).
2. **Per user.** A price is assessed per user, meaning that the financial institution pays an all-you-can-eat price for each customer that is using any open banking capability that it offers.
3. **Per login.** A price is assessed for each financial institution that the end customer logs into.

Across all three of these pricing models, aggregators will offer lower per-unit pricing for larger volumes. Negotiating a favorable price, regardless of the model, requires some contracting creativity given that financial institutions are often unable to deliver high volumes on day one.

#6: (Try to) Avoid Vendor Lock-in

Executives interviewed for this report stressed the importance of building an open banking strategy that isn't dependent on a single data aggregation vendor. The trouble with this advice is that most data aggregators try to lock in their customers and make it difficult for them to switch to or even use multiple providers.

Financial institutions should prioritize working with aggregators that allow their clients to fully control the consumer-facing experience and branding, as third-party experiences also lead to lock-in by building brand familiarity directly with consumers.

Conclusions

Whether or not a financial institution or fintech believes in the concept of "open banking" or "open finance," today's reality is that all players in the banking industry need to look beyond their own four walls to acquire, deploy, and analyze data.

In general, aggregators provide capabilities across the connectivity, insights, and experiences layers of the capabilities stack, but they tend to be stronger in some areas and weaker in others. Understanding these relative strengths and weaknesses are critical because they determine the success of the use cases for which fintechs and financial institutions want to use the data.

Rather than trying to parse websites and grill salespeople, we recommend taking a more holistic look at each company's history. As we were told by multiple executives interviewed for this report, the "DNA" of each company is the best predictor of the company's core competencies and R&D priorities.

To best assess each vendor's strengths, financial institutions and fintechs need to first understand their own needs and priorities and determine which data aggregation capabilities are most important to them.

Financial institutions and fintechs need a more rigorous process for selecting a data aggregation provider. We believe the six recommendations elaborated on in this report can help them make a more informed and better decision.

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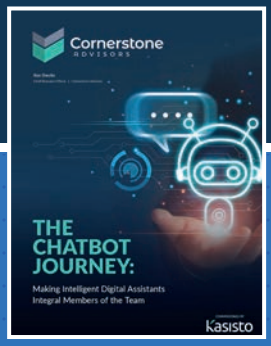

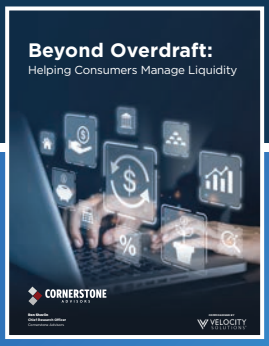

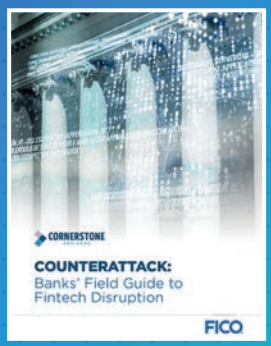

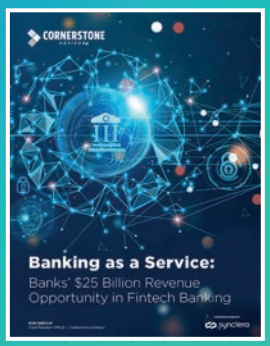

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Have questions regarding this report?

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