WHAT'S GOINGON BANKING Rebounding From the Pandemic

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EXECUTIVE SUMMARY

S WHAT

- 2021 will be a mixed bag for the banking industry. On the whole, bank and credit union executives are more optimistic than pessimistic about 2021. The reality will be positive and negative. One pleasant surprise in 2021 will be lower loan losses than anticipated. Thanks to the new occupant of the White House, however, the industry will see two unpleasant developments: 1) slow economic recovery, and 2) re-regulation of the industry.
- Merger and acquisition (M&A) activity will restart. 2020 was an understandably slow year for mergers. In 2021, M&A activity might not get back up to the 2019 level but it will be substantially higher than last year—in particular, among credit unions. Nearly four in 10 credit union execs think it's somewhat or very likely that their institution will acquire another one in 2021 (a percentage that seems excessively high).
- Real estate is the new pariah. For the past few years, we've been telling banks to diversify their loan portfolios away from commercial real estate (CRE). It looks like 2021 might be the year that some of them finally do it. The percentage of banks putting a high priority on CRE lending drops from two-thirds in 2020 to a little less than half in 2021, and the percentage placing a high priority on home equity lending falls from 39% to just 9%.
- Fintech partnerships grow up. Bank and credit union directors often ask managers what their institutions are doing about fintech, and the exec team often points to a partnership the institution has (often around digital account opening). 2021 will be different. Boards will tire of not seeing results and realize that dedicating one or two people to fintech partnerships isn't sufficient to get real results. Well, at least that's what should happen.
- **Digital transformation initiatives accelerate.** Weakness in the lending markets will expose the reality that the gains FIs saw pre-pandemic had little to do with their digital transformation initiatives and were just the result of a rising tide floating all boats. In addition, banks will find out that if they don't replace their core systems, there may be no digital "transformation."
- **Digital account opening (DAO) stays hot.** For the fourth straight year, digital account opening is at the top of the list of technologies for which banks and credit unions will select a new or replacement system. It's also at the top of the list of bank/fintech partnerships. Hopefully this will be the last year financial institutions obsess over DAO and start focusing on other capabilities they've been ignoring.

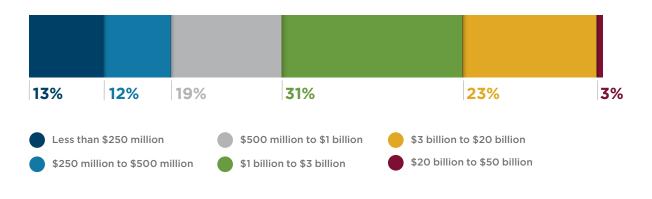
ABOUT THE DATA

In December 2020, Cornerstone Advisors surveyed 260 senior executives at U.S.-based mid-size financial institutions (FIs), 55% from banks and 45% from credit unions. One in five respondents is from an FIs with \$500 million to \$1 billion in assets; three in 10 are from FIs with \$1 billion to \$3 billion in assets; and 23% are from FIs with assets between \$3 billion and \$20 billion (Figure 1). Almost one in four respondents is a CEO and 39% are other C-level execs or executive vice presidents (Figure 2).

Percentages may not add to 100 in some graphics because of rounding.

FIGURE 1: Asset Distribution of Survey Participants

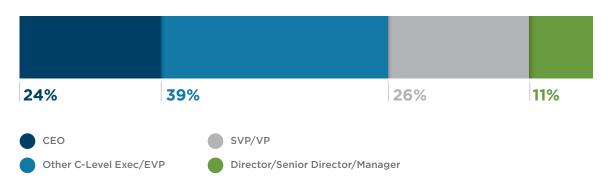




Source: Cornerstone Advisors survey of 260 community-based financial institution executives, Q4 2020

FIGURE 2: Titles of Survey Participants

Survey Respondents' Titles



THE OUTLOOK FOR 2021

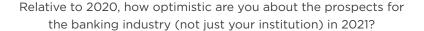
According to The Wall Street Journal:

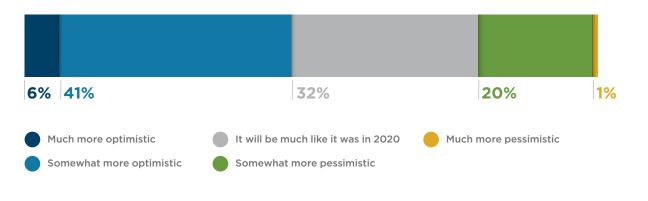
"Times are good for U.S. banks. The industry is highly profitable, lending is up and the number of problem institutions—those found to have deficiencies in their businesses—is the lowest since early 2007."

That didn't last long. As The Cars sang back in the '70s, "Let the good times roll, let them knock you around." And knock the banking industry around they did in 2020.

Looking ahead to 2021, many bank and credit union executives are cautiously optimistic. Four in 10 are "somewhat more" optimistic about 2021 relative to 2020, and 6% are "much more" optimistic about the upcoming year. About one in five are more pessimistic, however. Roughly a third think it will be much like it was in 2020, which can't be interpreted as an optimistic statement (Figure 3).

FIGURE 3: Outlook for 2021





Source: Cornerstone Advisors survey of 260 Community-based financial institution executives, Q4 2020

Among our survey respondents, optimistic executives had this to say:

"I am optimistic in the sense of more alignment with normalcy. However, I think the low-interest-rate environment and its impact on earnings are going to be a continued challenge. The ability to compete in a digital world is also going to be a challenge for the banking and credit union industries, especially with traditional institutions that think they can ride their yesteryear strategic plans a little longer."

Chief Executive Officer, \$2 billion credit union

"Our success with the Paycheck Protection Program (PPP) increased our visibility and brand recognition in our community and has created huge momentum for our bank. Our business model which includes a few unique competitive advantages is yielding great success."

- Chief Executive Officer, \$350 billion bank

"Because we quickly learned how to adapt in 2020 and are prepared to shift if there is another shutdown. We have also rolled out many new services and channels that allow our members to connect with us remotely. These have always been part of our ongoing eservices plan but COVID reinforced the importance of providing our members with options."

- Carol Minges, Chief Executive Officer, Alltru Federal Credit Union

"There is pent-up demand for travel and large purchases that will be key to growth in 2021. This assumes, however, that the vaccine is widely accepted and effective and that 'normal' business starts to resume in Q2."

- Jenna Lampson, President/CEO, Pacific Service Credit Union

"2020 was one of those years that sped up digital adoption. It will likely make us think about branches and branch strategy differently. Usually when you survive something like 2020, you come away a bit more optimistic."

- Tim Ryan, Chief Financial Officer, Monona Bank

"Many of the issues which 2020 presented have been worked out, we are working from home successfully, and customers are using digital services and drive-thru lanes without issue. We are living a new normal."

- Kelly A. Montefiori, Chief Operating Officer, Marquette Savings Bank

On the other side of the coin, execs explained why they're somewhat pessimistic:

"It's too early to know what the long-term impact of the Covid-19 pandemic and lockdowns will have on credit quality and losses. Add the shrinking interest margins to the equation and it appears that the banking industry could be in for a rough patch."

- Keith Knudsen, President/CEO, Security Bank

"First, low interest rates make for very tight margins. The industry is too inefficient (high expense ratios), and the tight margins mean low profitability. Second, the continuing impacts from the pandemic haven't fully hit yet. Delinquency and charge-offs will rise considerably in 2021. Combined with the low interest rates, FI's will take desperate actions to stay profitable."

- Douglas Ferraro, Chief Executive Officer, BellCo Credit Union

"Record low interest rates and declining non-interest income will make it more difficult to produce profit. Influx of deposits will reduce Capital Ratios further. Paranoid regulators will push edge cases and more mergers likely in the next 3 years."

Mina Worthington, President/CEO, Solarity Credit Union

"Why somewhat pessimistic? Margin compression, delayed credit losses, higher employee and medical costs."

- Russell Rosendal, President/CEO, Salal Credit Union

"The spreads have compressed so much. Unless you have and retain a proven non-interest income source such as mortgage service, it would be a bleak year. Lobbies are closed in our area so it will be difficult to build membership in the traditional manner. Digital is the way to go."

Shay Santos, President/CEO, Dane County Credit Union

"Charge-offs will spike when forbearance is off, margin compression accompanying the historically low interest rates will be in full effect, the closure of so many small businesses from governors' unnecessary restrictions will be felt more fully. A Biden administration's re-regulation of the economy will push the United States into a fairly severe recession. Immigration policy changes will sharply increase illegal competition for low-wage jobs driving up minority unemployment. This will most negatively impact FIs serving smaller communities."

- David Merrell, Chief Financial Officer (retired), \$320 million credit union

"We still expect loan losses and bankruptcies to pick up as consumers assess the degree of financial wreckage and are expected to resume normal payment patterns. Likely a lot of suppressed payment problems and bankruptcies."

- Paul Meissner, Chief Financial Officer, CU of America

"Credit deterioration will manifest itself in 2021 and I doubt there will be similar secondary market volumes. Also, cost of funds is not likely to drop further."

- John Rigler, President and Chief Operating Officer, Peoples Bank

"I'm just waiting for the shoe to drop on delinquencies and foreclosures. I don't understand how the economy can keep pushing on in light of all the folks staying at home."

- W. Lee Mikell, Chief Operating Officer, First National Bank of Wauchula



In a normal year (if there is such a thing), economic uncertainties have the biggest impact on the optimism/pessimism of bank and credit union executives. The pandemic wasn't on anyone's radar going into 2020, but going into 2021, uncertainties regarding recovery from the pandemic create another level of ambiguity complicating the picture for the coming year.

CONCERNS AND THREATS

Among bank respondents, the interest rate environment and prospects for a weak economy are top concerns for 2021. Concern for credit quality/problem loans makes a big jump this year as it's cited by four times as many bank executives going into 2021 as going into 2020 (Table A).

TABLE A: Bank Execs' Top Concerns, 2019 to 2021

Q. What are your financial institution's top concerns for the coming year?

	2019	2020	2021
Interest rate environment	41%	43%	56%
Weak economy/loan demand	25%	24%	48%
Credit quality/problem loans	8%	10%	42%
Efficiency, non-interest expenses, costs	19%	32%	36%
Cybersecurity	34%	23%	28%
New customer growth	24%	25%	25%
Ability to attract qualified talent	NA	27%	19%
Regulatory burden	21%	22%	18%
Non-interest income	13%	11%	17%
Cost of funds	29%	15%	8%

 $Source: Cornerstone \ Advisors \ surveys \ of \ community-based \ financial \ institution \ executives, \ Q4\ 2018\ to \ Q4\ 2020$

Similar to their bank counterparts, a weak economy and the interest rate environment are at the top of the list of concerns for credit union execs. Although only 27% of credit union respondents mentioned non-interest income as a top concern, that percentage is up from 10% in 2020 (Table B).

TABLE B: Credit Union Execs' Top Concerns, 2019 to 2021

Q. What are your financial institution's top concerns for the coming year?

	2019	2020	2021
Weak economy/loan demand	24%	34%	57%
Interest rate environment	34%	32%	53%
New membership growth	33%	43%	40%
Credit quality/problem loans	2%	9%	33%
Non-interest income	14%	10%	27%
Cybersecurity	37%	19%	26%
Efficiency, non-interest expenses, costs	24%	34%	25%
Regulatory burden	20%	16%	20%
Ability to attract qualified talent	NA	19%	19%
Cost of funds	23%	13%	8%

Source: Cornerstone Advisors surveys of community-based financial institution executives, Q4 2018 to Q4 2020

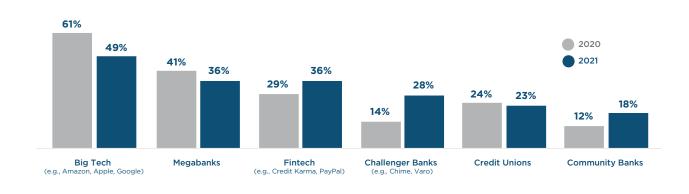
"While the rise in concern regarding credit quality was anticipated, it's encouraging that this did not rise to the top. Instead, executives are most concerned about the lost revenue from the rate environment."

- Steve Williams, President, Cornerstone Advisors

Bank and credit union executives' views of the competitive landscape shifted over the past year. The percentage of execs who see the Big Tech firms—e.g., Apple, Amazon, Google—as significant threats declined from 61% last year to 49%. Banks and credit unions must be feeling the heat from the challenger bank insurgency of 2020, though—the percentage of respondents rating challenger banks like Chime and Varo as significant threats doubled from 14% to 28% (Figure 4).

FIGURE 4: Competitive Threats

Percentage of Bank and Credit Union Executives That See the Following Types of Companies as Significant Threats in the Coming Decade



Source: Cornerstone Advisors survey of Community-based financial institution executives, Q4 2019 and Q4 2020

Despite the fact that many financial institutions see Big Tech firms like Google and Amazon as threats, some are partnering—or amenable to partnering—with them. Three of the survey respondents are among the 14 institutions partnering with Google in 2021 to launch the new Plex checking account. Eight percent of credit unions are talking or plan to talk to Google about partnering. In addition, nearly one in four credit unions is evaluating a potential Google partnership (Figure 5).

FIGURE 5: Interest in Partnering with Google

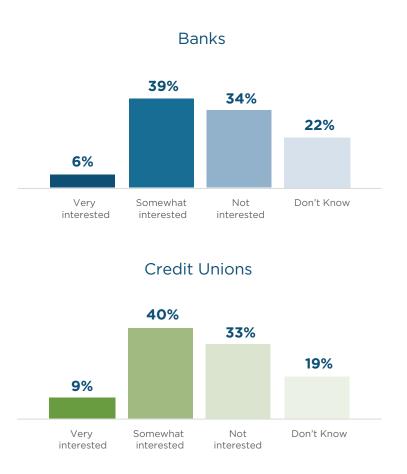
Which of the following statements best describes your institution's position on partnering with Google to offer the Plex account?



There's interest in partnering with Amazon, as well. Nearly half of credit unions and banks expressed interest in partnering with Amazon if the Big Tech firm opened its doors to financial institutions to lend to Amazon merchants (Figure 6). Amazon took a step in that direction with a partnership with Marcus in 2020.

FIGURE 6: Interest in Partnering with Amazon

If Amazon created a marketplace to enable financial institutions like yours to provide loans to Amazon merchants, how interested would your institution be?



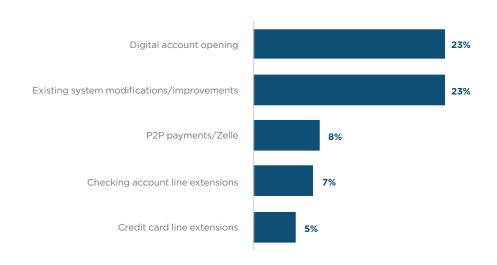
NEW PRODUCT DEVELOPMENT PLANS

Half of credit unions and 58% of banks intend to launch new products or services in 2021—or at least what they call new products or services.

Of the institutions planning to introduce new products or services, about a quarter cited enhancements to existing systems and digital account opening systems as new product launches (Figure 7). How is digital account opening a new product or service? It's just a new way of applying for an *existing* product or service.

FIGURE 7: New Product/Service Plans

What new products or services does your institution plan to launch in 2021?



Source: Cornerstone Advisors survey of 260 community-based financial institution executives, Q4 2020

There are some interesting (and legitimate) new product/service plans in the works, however. A few respondents indicated they'll roll out new treasury management services in 2021. We also heard of plans to launch airplane and yacht loans, checking and savings products tied to financial health, a teen/youth app, and products for underserved consumers.

M&A OUTLOOK

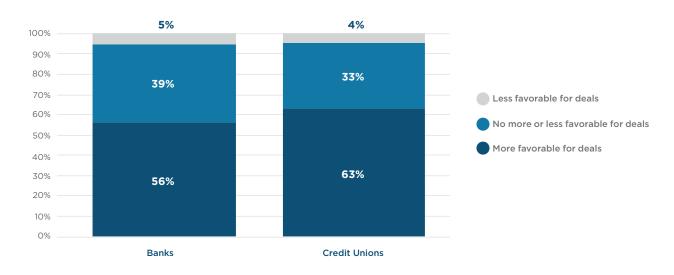
Bank merger volume was down significantly in 2020 from 2019. What a surprise, eh? According to <u>S&P Global</u>:

"During 2020, only 112 deals were announced for an aggregate \$27.67 billion, compared with 258 deals worth \$55.05 billion in 2019. The median deal value to tangible common equity ratio for deals announced in 2020 was 132.4%, down from 158.1% in 2019."

Many financial institution executives are anticipating a more favorable M&A environment for 2021. More than half of bank execs and nearly two-thirds of credit union execs expect the environment to be more favorable for deals in 2021. Just a handful expect it to be less favorable (Figure 8).

FIGURE 8: M&A Outlook



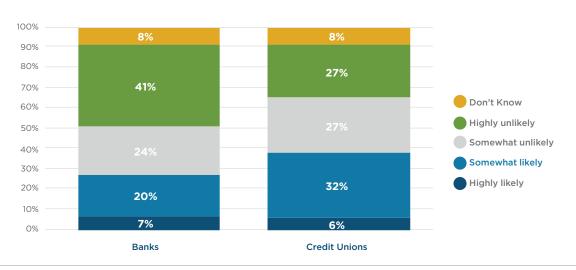


Source: Cornerstone Advisors survey of 260 community-based financial institution executives, Q4 2020

Among bank execs, 27% say they're either "somewhat" or "highly" likely to make an acquisition in 2021. On the credit union side, that percentage is even higher at 38% (Figure 9). Few executives anticipate that their institution will be acquired, however (Figure 10).

FIGURE 9: Acquisition Expectations

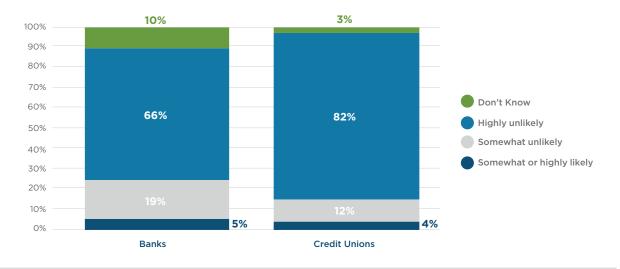




Source: Cornerstone Advisors survey of 260 community-based financial institution executives, Q4 2020

FIGURE 10: Expectations to be Acquired

How likely is your institution to be acquired by another institution in 2021?



"The historical drivers for M&A—economies of scale to drive higher earnings, accelerated development of new strategic capabilities—will be more important than ever. This will require institutions to be highly prepared to both do a deal and then achieve the value drivers via integration, including how to do a merger without compromising the timing and effectiveness of their planned strategic initiative."

- Vincent Hui, Managing Director, Cornerstone Advisors

"Larger bank stocks will recover more quickly than regional and community banks making it easier for them to acquire healthy regionals. Banks that want to remain independent will need to improve their return on assets ratio up and their efficiency ratio down. With no improvement in loan and security yields in sight, banks have to focus on lowering cost of funds, increasing fee income and managing non-interest expense."

Brad Smith, Partner, Cornerstone Advisors

LENDING PRIORITIES

Commercial C&I loans continue to be a top lending priority for banks for 2021. The percentage of banks placing a high priority on commercial real estate loans, however, drops sharply from 2020, from 76% to 45%. Another big decline for 2021 involves home equity loans, which were cited as a high priority by 39% of banks going into 2020, but by just 9% heading into 2021 (Table C).

TABLE C: Banks' Lending Priorities, 2019-2021

Percentage of Banks Citing Loan Type as a High Priority

	2019	2020	2021
Commercial C&I loans	77%	70%	63%
Small business loans	68%	66%	60%
Mortgage/refi loans	33%	56%	47%
Commercial real estate loans	65%	76%	45%
Home equity loans/lines of credit	22%	39%	9%
Auto loans	7%	13%	6%
Loan participations	NA	NA	5%
Other personal loans	9%	15%	5%
POS/BNPL loans	3%	3%	1%
Student loans	2%	1%	0%

Source: Cornerstone Advisors surveys of community-based financial institutions, Q4 2018 to Q4 2020

As with prior years, mortgages and auto loans are top lending priorities for credit unions. Commercial loans—both C&I and real estate—dropped in importance to credit unions for 2021. Other personal loans and point-of-sale (POS) loans will be lower priorities in 2021 (Table D).

TABLE D: Credit Unions' Lending Priorities, 2019-2021

Percentage of Credit Unions Citing Loan Type as a High Priority

	2019	2020	2021
Mortgage/refi loans	70%	84%	79%
Auto loans	61%	69%	72%
Home equity loans/lines of credit	60%	64%	41%
Commercial real estate loans	34%	57%	30%
Small business loans	28%	33%	23%
Other personal loans	44%	43%	16%
Loan participations	NA	NA	16%
Commercial C&I loans	16%	21%	6%
Student loans	6%	5%	3%
POS/BNPL loans	12%	12%	1%

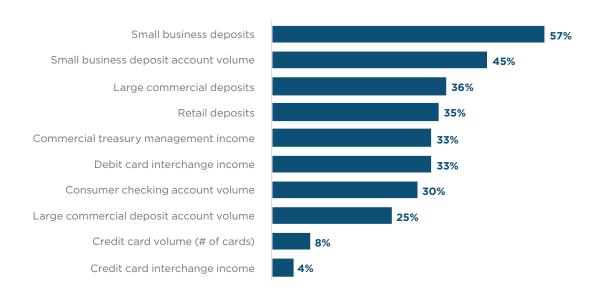
Source: Cornerstone Advisors surveys of community-based financial institutions, Q4 2018 to Q4 2020

PAYMENTS AND DEPOSITS PRIORITIES

With the influx of deposits resulting from the pandemic and government stimulus programs, retail deposits are no longer a high priority for banks. Instead, small business deposits were the most-frequently cited payments and deposits priority for 2021 (Figure 11).

FIGURE 11: Banks' Payments and Deposits Priorities for 2021

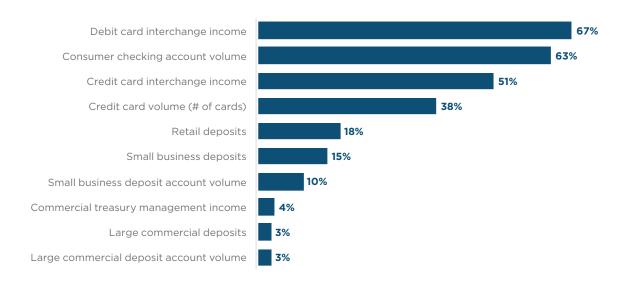
Percentage of Banks Citing Payments or Deposit Type as a High Priority



Similar to the banks, retail deposits will not be a high priority for credit unions in 2021. Instead, debit card interchange income and consumer checking account volume will be top payments and deposits priorities for 2021, followed by credit card interchange and volume growth (Figure 12).

FIGURE 12: Credit Unions' Payments and Deposits Priorities for 2021





Source: Cornerstone Advisors survey of 260 community-based financial institution executives, Q4 2020

"The merchant/bank battle has shifted from interchange to engagement and value. Merchants want customers to engage with their apps, to steer payments to their financial advantage, and to mine the data. Banks are pushing commercial relationships based on a foundation of cash management, merchant services, and the business operating account tied to C&I lending which is directly tied to commerce. The question is who wins the value and talent battles to provide the value, mine the data, and create the influence."

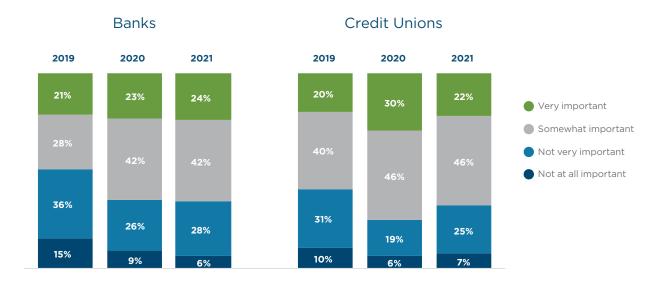
- Sam Kilmer, Senior Director, Cornerstone Advisors

FINTECH PARTNERSHIPS

Roughly half (48%) of banks and about four in 10 (42%) credit unions have partnered with fintech startups over the past three years. Surprisingly, the percentage of credit unions indicating that these partnerships will be very important to them in 2021 declines from 2020 (Figure 13).

FIGURE 13: Importance of Fintech Partnerships

How important are fintech partnerships or investments to your organization?

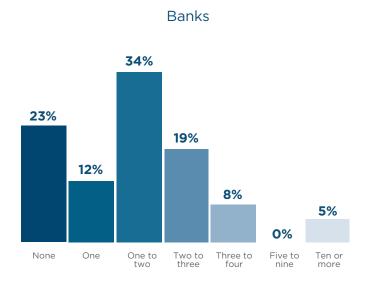


Source: Cornerstone Advisors survey of 260 community-based financial institution executives, Q4 2020

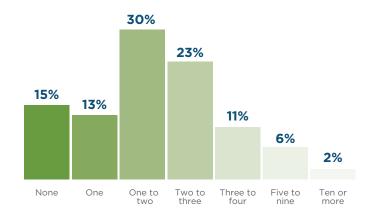
About a quarter of banks and 15% of credit unions have no personnel dedicated to fintech partnerships. On average, however, banks and credit unions have roughly two full-time equivalents (FTEs) dedicated to finding, vetting, negotiating and deploying fintech partnerships (Figure 14). The institutions with 10 or more FTEs tend to be those with more than \$10 billion in assets.

FIGURE 14: Number of Fintech FTEs

How many full-time equivalents (FTEs) does your institution have working on finding, vetting, negotiating and deploying fintech partnerships?



Credit Unions

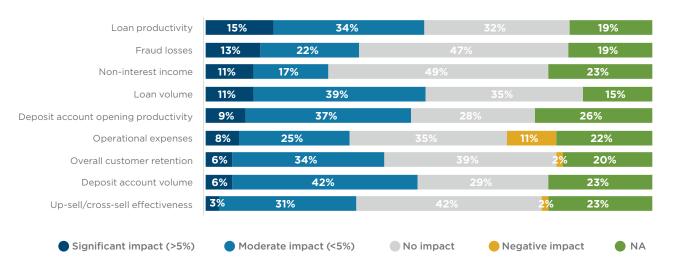


IMPACT OF FINTECH PARTNERSHIPS

Among banks that have partnered with fintechs over the past few years, 15% of banks said they've seen a greater than 5% improvement in loan productivity from their fintech partnerships and 13% said fraud losses have dropped by more than 5% as a result of their partnerships (Figure 15).

FIGURE 15: Impact of Banks' Fintech Partnerships



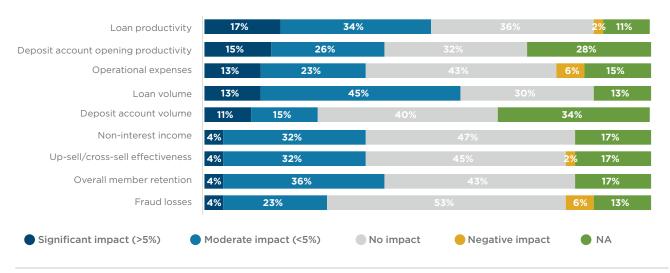


Source: Cornerstone Advisors survey of 260 community-based financial institution executives, Q4 2020

It's a fairly similar story among credit unions, where 17% said their fintech partnerships have yielded a better than 5% gain in loan productivity and 15% said deposit account opening productivity improved by more than 5% (Figure 16).

FIGURE 16: Impact of Credit Unions' Fintech Partnerships

To what extent have your fintech partnerships impacted the following metrics?



Source: Cornerstone Advisors survey of 260 community-based financial institution executives, Q4 2020



Overall, most banks and credit unions that have partnered with fintech firms have either seen moderate gains (i.e., less than 5% improvement) or—disturbingly—have seen no impact at all. This points to a greater need to monitor and scale fintech partnerships and will require financial institutions to allocate more dedicated resources to partnering.

FINTECH INTERESTS

For both banks and credit unions, digital account opening has been the most popular type of partnership as roughly three in 10 institutions have "partnered" with a fintech for this type of technology.

Looking ahead, that won't change, as 42% of banks and 35% of credit unions are "very" interested in "partnering" with fintechs for digital account opening (Figure 17, Figure 18). We put quotes around the words "partnered" and "partnering" because we don't believe that what financial institutions are doing here really qualifies as partnerships. They're vendor relationships—not partnerships.

FIGURE 17: Banks' Interest in Fintech Partnerships

How interested is your institution in fintech partnerships that provide the following capabilities, products, or services?

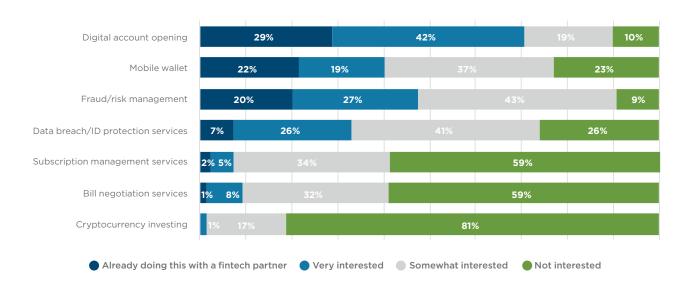
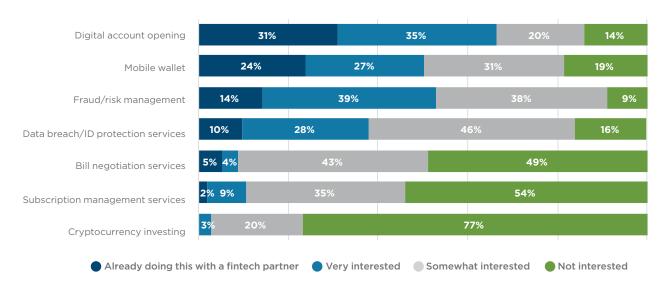


FIGURE 18: Credit Unions' Interest in Fintech Partnerships

How interested is your institution in fintech partnerships that provide the following capabilities, products, or services?



 $Source: Cornerstone \ Advisors \ survey \ of \ 260 \ community-based \ financial \ institution \ executives, \ Q4 \ 2020$



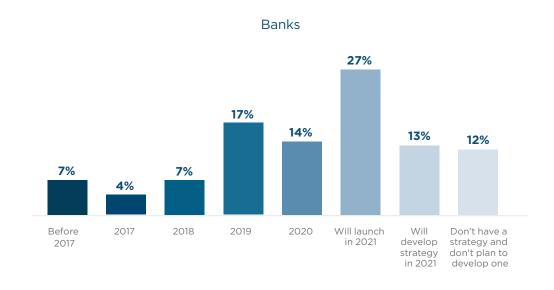
By prioritizing digital account opening for their fintech partnerships, banks and credit unions are missing new revenue opportunities. For example, few financial institutions expressed an interest in partnering with fintechs to provide services like bill negotiation or subscription management services. This could be a missed opportunity as a recent Cornerstone Advisors survey of U.S. consumers found that roughly 50% of consumers are interested in getting these services from their bank or credit union.

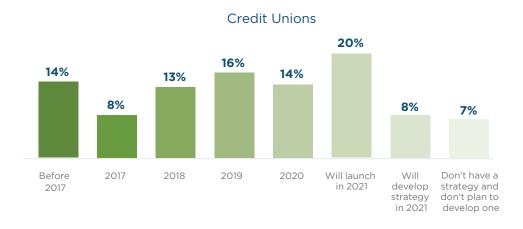
DIGITAL TRANSFORMATION

Credit unions got a head start on banks with 22% launching a digital transformation strategy in 2017 or earlier—twice the percentage of banks that had launched a strategy by then. A little more than a quarter of banks will launch their transformation strategy in 2021, leaving one in four that will not have launched a strategy by the end of 2021. Among credit unions, just 15% will not have launched a digital transformation strategy by the end of 2021 (Figure 19).

FIGURE 19: Digital Transformation Strategy Launches

When did your institution launch its digital transformation strategy?





Just a handful of institutions say they've completed their digital transformation strategy, and quite frankly, we have our doubts about that as all of them didn't even launch a strategy until 2019. Based on the survey responses, we would estimate that most institutions have a six- to eight-year timeframe to complete their digital transformation journey (Table E).

TABLE E: Digital Transformation Progress

How far along in your digital transformation strategy is your institution?

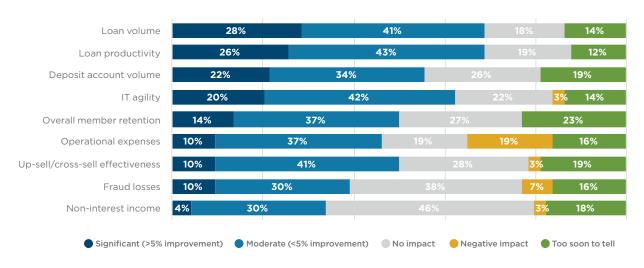
	Digital transformation strategy launched in				
	2020	2019	2018	2017	Before 2017
Nowhere	3%	0%	0%	0%	0%
10% or less	46%	21%	4%	7%	8%
25% through	31%	52%	54%	64%	16%
50% through	11%	17%	29%	14%	24%
75% through	6%	5%	8%	7%	36%
Almost done	3%	0%	4%	7%	16%
Completed	0%	5%	0%	0%	0%

DIGITAL TRANSFORMATION IMPACT

Loan volume and productivity have been the primary beneficiaries of credit unions' digital transformation efforts, followed by deposit account volume (Figure 20).

FIGURE 20: Impact of Credit Unions' Digital Transformation Strategies



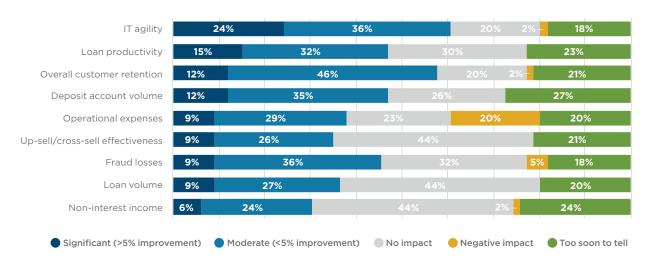


Source: Cornerstone Advisors survey of 260 community-based financial institution executives, Q4 2020

Because they generally launched digital transformation strategies later than credit unions did, fewer banks reported significant improvements in loan volume and productivity. Nearly a quarter of banks, however, said they've achieved significant gains in IT agility as a result of their transformation efforts (Figure 21).

FIGURE 21: Impact of Banks' Digital Transformation Strategies

What impact has your digital transformation strategy had on the following business metrics?



Source: Cornerstone Advisors survey of 260 community-based financial institution executives, Q4 2020



Weakness in the lending markets is going to expose the reality that the gains banks and credit unions saw pre-pandemic had little to do with their digital transformation initiatives and were just the result of a rising tide floating all boats. Smart CEOs (and boards) will put new pressures on the organization to accelerate their digital transformation plans and hold the executive team accountable for tangible results.

"Many banks that were taking an incremental approach to digital were shocked into reality during 2020, and executives realized greater investment and faster transformation is needed to stay relevant."

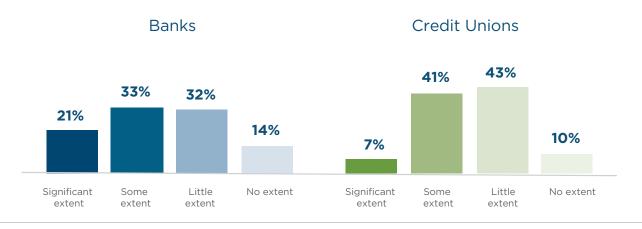
-Steve Williams, President, Cornerstone Advisors

DIGITAL TRANSFORMATION SYSTEMS REPLACEMENT

Banks and credit unions differ in their perceptions regarding the contributions of their core systems vendors to their digital transformation efforts. One in five banks said their core vendors have made "significant" contributions in contrast to just 7% of credit unions (Figure 22).

FIGURE 22: Core System Vendor Contributions to Digital Transformation

To what extent is your core system vendor contributing to the digital transformation of your business?

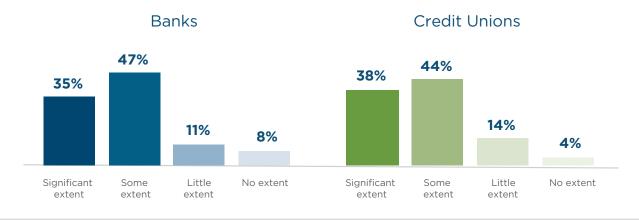


Source: Cornerstone Advisors survey of 260 community-based financial institution executives, Q4 2020

There was greater parity when it came to digital banking platform vendors, however, where 35% of banks and 38% of credit unions said those vendors have made significant contributions to digital transformation (Figure 23).

FIGURE 23: Digital Banking Platform Vendor Contribution to Digital Transformation

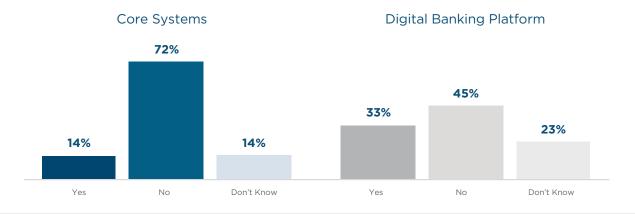




Just 14% of banks and credit unions plan to replace their core system as part of their digital transformation efforts, while a third intend to replace their current digital banking platform (Figure 24).

FIGURE 24: Intention to Replace Core System and Digital Banking Platform as Part of Digital Transformation

Will your institution replace its core system or digital banking platform as part of your digital transformation strategy?



Source: Cornerstone Advisors survey of 260 community-based financial institution executives, Q4 2020



How can banks and credit unions with 20- to 30-year old (if not older) core systems achieve "digital transformation"? Not replacing the core will require expensive core integration and workaround strategies and tactics.

EMERGING TECHNOLOGY

For all the hype surrounding artificial intelligence (AI), just a handful of banks have deployed machine learning, chatbots or other types of AI to date. The percentage that plans to invest in or implement these technologies in 2021 is roughly double or triple the current level. Over the past few years, however, the number of banks that actually deploys these technologies is lower than the number that plans to.

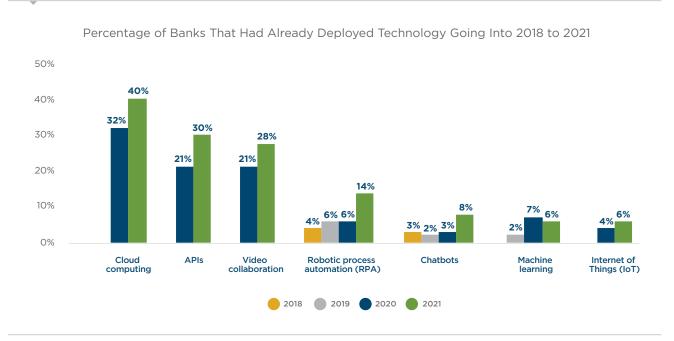
Among the banks, roughly a third have already deployed cloud computing, and one in five has deployed application programming interfaces (APIs). Both of these technologies are at the top of the list of technologies planning to be deployed in 2021 (Table F).

TABLE F: Banks' Emerging Technology Plans for 2021

	Have already deployed	Planning to invest and/or implement in 2021	Have discussed at board or exec team level	Not on the radar
Cloud computing	40%	17%	36%	7%
APIs	30%	25%	25%	20%
Video collaboration/marketing	28%	24%	25%	24%
Robotic process automation (RPA)	14%	14%	20%	53%
Chatbots	8%	15%	30%	47%
Internet of Things (IoT)	6%	4%	37%	53%
Machine learning	6%	13%	37%	44%
Artificial intelligence (AI)	4%	12%	38%	45%
Voice technologies (e.g., Alexa)	4%	3%	46%	47%
Virtual (or augmented) reality	1%	2%	17%	80%
Blockchain	0%	1%	28%	71%

Banks are making gains, however, in cloud computing, APIs, video collaboration and robotic process automation (RPA) (Figure 25). We suspect, though, that respondents to past surveys didn't realize their organizations had already deployed RPA tools.

FIGURE 25: Deployment of Emerging Technology at Banks



 $Source: Cornerstone \ Advisors \ survey \ of \ community-based \ financial \ institution \ executives, \ 2017 \ to \ 2020$

Credit unions have been more active with a number of emerging technologies—in particular chatbots, where 18% have already deployed some form of chatbot and another 18% plan to in 2021. Another (somewhat) hot area for credit unions in 2021 will be voice technologies like Alexa as 17% plan to invest in or implement these tools (Table G).

TABLE G: Credit Unions' Emerging Technology Plans for 2021

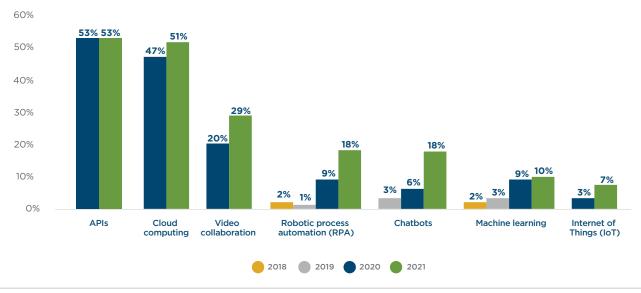
	Have already deployed	Planning to invest and/or implement in 2021	Have discussed at board or exec team level	Not on the radar
APIs	53%	24%	12%	12%
Cloud computing	41%	24%	22%	13%
Video collaboration/marketing	29%	25%	35%	12%
Robotic process automation (RPA)	18%	13%	25%	45%
Chatbots	18%	18%	44%	20%
Machine learning	10%	14%	45%	31%
Artificial intelligence (AI)	9%	16%	51%	24%
Internet of Things (IoT)	7%	12%	44%	37%
Blockchain	4%	2%	39%	55%
Voice technologies (e.g., Alexa)	4%	17%	46%	34%
Virtual (or augmented) reality	1%	5%	26%	68%

Source: Cornerstone Advisors survey of 260 Community-based financial institution executives, Q4 2020

Despite getting a head start on banks on the deployment of APIs, the percentage of credit unions adopting APIs didn't change between 2020 and 2021. Responding to the impact of the pandemic, credit unions made gains in the use of video collaboration and chatbots in 2020 (Figure 26).

FIGURE 26: Deployment of Emerging Technology at Credit Unions





Source: Cornerstone Advisors survey of community-based financial institution executives, 2017 to 2020



If banks invest where they say they will in 2021, then going into 2022, less than 60% of banks will have deployed cloud computing or APIs. The lagging banks may be more focused on the commercial than the retail market, but the lack of connectivity and agility barriers facing these institutions will start to impede their competitiveness.

"Despite the holdouts that still haven't implemented them, 2021 should be the last year either cloud computing or API integration should be considered 'emerging.' Cloud and API integration technologies continue to evolve and improve at a rapid pace, but it's time they are considered mature, mainstream technologies."

- Quintin Sykes, Partner, Cornerstone Advisors

"Bankers are going to soon realize the shift to cloud is not just about technology, but rather about speed to market with new capabilities needed to match the fintech innovators."

- Terence Roche, Partner, Cornerstone Advisors

2021 TECHNOLOGY PLANS AND SPENDING

Banks' and credit unions' technology priorities don't tend to alter very much year over year, but one notable change is the increase in both types of institutions that cited increasing revenue generation opportunities as a top priority for the coming year (Table H).

TABLE H: Banks' and Credit Unions' Technology Priorities

What are your institution's most important technology priorities for the upcoming year? (select three)

	Banks		Credit Unior		ns	
	2019	2020	2021	2019	2020	2021
Improve customer experience/ service delivery	75%	67%	67%	75%	78%	70%
Get more value from existing technologies and vendor relationships	42%	51%	53%	26%	34%	43%
Improve efficiency	53%	36%	41%	49%	47%	40%
Increase revenue generation opportunities	21%	17%	25%	20%	17%	31%
Invest in new systems	26%	29%	30%	33%	31%	30%
Better address fraud and risk management	19%	15%	13%	17%	13%	16%
Evaluate and possibly replace critical systems	15%	12%	17%	23%	5%	15%
Invest in internal system development and integration capabilities	8%	12%	14%	11%	21%	15%
Invest in infrastructure upgrades	16%	21%	17%	17%	12%	13%
Migrate applications and systems to the cloud	NA	10%	7%	NA	16%	12%

The percentage of banks planning "significantly higher" budget increases for IT jumps back up from 16% in 2020 to 22% in 2021 as the percentage that will spend less drops from 9% to 6%. Fewer credit unions, on the other hand, will significantly increase their IT budgets in 2021 than did so in 2020 (Table I).

TABLE I: Banks' and Credit Unions' Technology Spending Change

How will your institution's tech spending change in the upcoming year compared to the prior year?

	Banks			Credit Unions		
	2019	2020	2021	2019	2020	2021
Significantly (>10%) higher	26%	16%	22%	25%	25%	19%
Somewhat (1%-10%) higher	59%	56%	51%	66%	63%	58%
No change	12%	19%	22%	7%	6%	15%
Somewhat (1%-10%) lower	2%	9%	5%	2%	5%	5%
Significantly (>10%) lower	1%	0%	1%	0%	1%	2%

Source: Cornerstone Advisors survey of 260 Community-based financial institution executives, Q4 2020

Robert Palmer may have sung that "there's no telling where the money went," but survey respondents are mostly clear about where their institutions will be putting their technology dollars in 2021 and where the money went over the past few years.

On the bank side—surprise, surprise—digital account opening (both consumer and commercial) tops the list of planned new selections or replacements for 2021. If the 44% of banks that said they'll replace their consumer digital account opening system in 2021 actually do so, by the end of the year roughly eight in 10 banks will have selected a new digital account opening system in the past four years.

Customer relationship management (CRM) and digital loan origination systems (both consumer and commercial) will be popular new selection/replacements for banks in 2021 (Table J).

TABLE J: Banks' New System Selection or Replacement Plans

	Select new or replace in 2021	Selected new or replaced 2018-2020
Consumer digital account opening	44%	34%
Commercial digital account opening	30%	12%
Customer relationship management (CRM)	25%	22%
Consumer digital loan origination system	23%	12%
Commercial digital loan origination system	22%	13%
Person-to-person (P2P) payments	21%	37%
Commercial online banking platform	17%	26%
Commercial mobile banking platform	17%	24%
Call center system	14%	14%
Consumer mobile banking platform	13%	22%
Document imaging/workflow	13%	22%
Consumer online banking platform	12%	22%
Data analysis/business intelligence	12%	10%
Mobile bill payment	10%	21%
Fraud/BSA/AML	10%	20%
Marketing automation	10%	14%
Interactive teller system	10%	11%
Online bill payment	8%	20%
Debit card processing	8%	14%
Credit card processing	8%	9%
Core processing system	8%	11%
Core integration/middleware platform	7%	4%
Payments hub	6%	1%
Enterprise risk management	4%	9%
Card self-service	4%	9%
ATM processing	3%	14%
NONE	16%	12%

Source: Cornerstone Advisors survey of 260 community-based financial institution executives, Q4 2020

Digital account opening and digital loan origination systems will be popular in 2021 with credit unions as well, but the top system for new selection/replacement will be person-to-person (P2P) payments (Table K).

TABLE K: Credit Unions' New System Selection or Replacement Plans

	Select new or replace in 2021	Selected new or replaced 2018-2020
Person-to-person (P2P) payments	27%	27%
Consumer digital account opening	26%	35%
Consumer digital loan origination system	18%	25%
Customer relationship management (CRM)	17%	21%
Consumer online banking platform	15%	35%
Marketing automation	12%	19%
Consumer mobile banking platform	12%	35%
Debit card processing	12%	19%
Data analysis/business intelligence	11%	23%
Credit card processing	11%	20%
Commercial digital account opening	10%	5%
Core processing system	10%	14%
Call center system	8%	16%
Fraud/BSA/AML	8%	20%
Commercial mobile banking platform	7%	12%
Mobile bill payment	7%	13%
Core integration/middleware platform	7%	9%
Card self-service	7%	4%
Commercial digital loan origination system	6%	11%
Commercial online banking platform	6%	12%
Interactive teller system	6%	11%
Enterprise risk management	6%	12%
Online bill payment	5%	18%
Payments hub	5%	6%
Document imaging/workflow	4%	12%
ATM processing	3%	16%
NONE	24%	12%

Source: Cornerstone Advisors survey of 260 community-based financial institution executives, Q4 2020

"With improvements to consumer account opening complete, banks recognize that commercial account opening and onboarding are one of the biggest pain points remaining in the digital experience. It's not surprising as they complete consumer account opening improvements that they are tackling commercial next."

- Quintin Sykes, Partner, Cornerstone Advisors

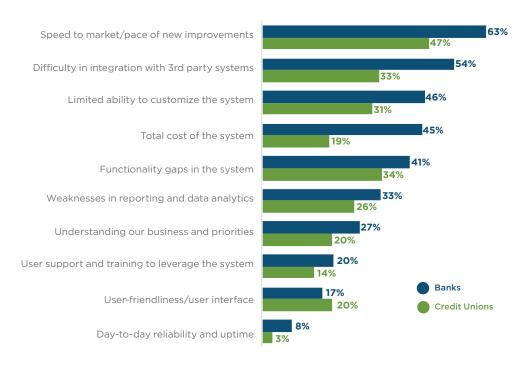
"Looking at the top add/replace technologies, there is a consistent focus: deliberate, systematic, digital-fueled organic growth capability. The pandemic forced many banks and credit unions to make their ability to sell and advise digitally as good as digital servicing capabilities. Funding and mastering the martech + contact center model is essential for most financial institutions going forward."

-Sam Kilmer, Senior Director, Cornerstone Advisors

Survey respondents expressed frustration with their current core system vendors. At the top of the list: speed to market/pace of new improvements (or lack thereof) and integration challenges (Figure 27). Interestingly, 45% of banks said cost was a big frustration in contrast to just 19% of credit unions.

FIGURE 27: Issues with Core System Providers





 $Source: Cornerstone \ Advisors \ survey \ of \ 260 \ community-based \ financial \ institution \ executives, \ Q4 \ 2020$

RON SHEVLIN'S TOP TRENDS FOR 2021

I've never been a big fan of "Year of the [fill-in-the-blank]" proclamations. Search for the term "year of the customer" and you'll find that every year for the past 15 years has been heralded as the year of the customer.

And past claims of "disruption" in financial services have centered on changes at the customer interaction level—i.e., digital account applications, user interfaces, etc. That didn't really result in much true disruption because there is a whole value chain of activities that occur leading up to the point of customer interaction—and little of that has changed to date.

That said...



Changes (or disruptions) to the value chain have certainly been in the works for a while now, but 2021 is going to shine a much brighter spotlight on those activities—making 2021 the year of value chain disruption in banking and fintech.

Here are the five trends supporting that thesis.

#1: The Battle for Small Business Moves Up (and Down) the Value Chain

2020 saw three important developments in the battle for small business relationships:

- 1) PPP loans. The Paycheck Protection Program (PPP) was important because it enabled many mid-size and small banks and credit unions to lend to small businesses overlooked or turned away by the bigger banks where those small businesses hold their deposit accounts.
- 2) Marcus/Amazon partnership. Amazon finally cracked open the door to third parties to directly lend to the platform's merchants. It's an important move because Amazon issued \$1 billion in cash advances to its merchants a couple of years ago.
- 3) Stripe's announcement of Stripe Treasury. According to Stripe's press release:

"Stripe Treasury will enable platforms like Shopify to offer merchants access to financial products. Platforms can offer users interest-earning accounts eligible for FDIC insurance and enable customers to have near-instant access to revenue earned through Stripe, and then: 1) spend it directly with a dedicated card, 2) transfer it via ACH or wire transfer, or 3) pay bills."

PPP loans were important for many mid-size financial institutions because they gave them direct access to a new set of potential customers. But to the extent that the small businesses were involved as Amazon merchants or Stripe customers, that direct connection is meaningless.

Amazon's and Stripe's ability to embed banking services (deposit accounts and loans) into their existing services gives them (and their partners) a major advantage because they have ongoing access to data about those merchants and a near-zero cost of acquisition for those products.

Game over? Not quite.

From a small business value chain perspective, Amazon, Stripe and even Square are involved at the point of sale or payment activity—which are at the middle of the value chain.

Activities at the beginning of the value chain—production, inventory management, payroll, etc.—and after payments in the value chain like invoicing, accounts receivable, etc., are often invisible to Amazon, Stripe and Square. According to our study of small businesses, small businesses accept, on average, 11 forms of payment—most of which are not supplied by Stripe or Square.

Small businesses spend more than \$500 billion on accounting/bookkeeping, invoicing, bill payment and payment acceptance services from third-party providers. Many of these small businesses would consider obtaining accounting and payments services from a bank—as would many that don't currently use third-party services and, instead, incur internal expenses for their accounting and payments functions.



To compete with Amazon, Stripe and Square, financial institutions must be embedded into small businesses' value chains.

#2 Payroll Fintech (Finally) Gets Some Attention

To date, the battle for consumers' money has centered on payments—either in the form of the spending account (e.g., challenger banks) or the payment itself (e.g., P2P, mobile payments). This battle, too, is going to move up the value chain to the point of payroll. Payroll fintech includes:

- 1) Salary On-Demand. Fintechs in this category partner with corporations, HR software providers and payroll systems to enable flexible access to earned wages.
- **2) Salary Advance.** Fintechs in this category provide short-term credit to employees based on their salary and avoid the exorbitant rates charged by payday lenders.
- **3) Early Direct Deposit.** This feature, largely provided by challenger banks, enables account holders to receive paychecks up to two days in advance from standard payday.
- **4) Crypto Payroll.** This is the newest category that enables firms to make wage payments through multiple cryptocurrencies.

Advocates of payroll fintech often talk about these services from a financial wellness perspective, but, analogous to the small business battle, payroll fintech is really a battle to move up the deposits and payments value chain.

Payroll fintech firms offer banks and fintechs the ability to redirect paychecks away from incumbents' checking accounts (i.e., deposit displacement) and provide payment and lending services.

Large payroll providers like ADP have been struggling for years to broaden their relationships with the consumers who receive paychecks from them. I'm surprised that the Big Tech firms haven't acquired one of the payroll providers yet.

Expect payroll fintech to get more attention in 2021—although a lot of the discussion will be couched in wellness terms. Don't let that fool you.

As Anish Acharya, Seema Amble and Rex Salisbury wrote in a blog post titled "The Promise of Payroll APIs," the use cases include: 1) income and employment verification, 2) direct deposit switching, 3) payroll-attached lending, and 4) B2B HR and payroll access.



Payroll is a new battleground for fintech in 2021. And that's not good news for banks and credit unions that have relied on direct deposits as a path to relationship building.

#3 Financial Health Gets Political

Each year, financial health advocates exhort the industry to focus on consumers' financial health, relying, however, on nonsense like "half of Americans can't cover a \$400 emergency expense."

Financial health will take center stage in 2021 for a few reasons that have nothing to do with what the advocates talk about:

- Banks and credit unions will raise their virtue signaling to unbearable decibel levels. Fintechs have been telling us (inaccurately, in many cases) about how much they're concerned about consumers' financial health. Incumbents have paid lip service to it, but with a new administration occupying the White House, demonstrating their social conscience and contribution—to more than just low-income consumers—will be a top priority for incumbents.
- Financial health scores are emerging. The topic of financial health is often dominated by discussions of financial literacy—which is virtually useless. Quantifying financial health has been a challenge because self-reported measures are unreliable. But some companies—like Financial Health Network and MX—have developed robust financial health scores that rely on actual account data.
- Financial health will be regulated. Look for the new administration to require banks to monitor and improve their customers' level of financial health. What could this look like? Todd Baker and Corey Stone recently proposed some ideas. The first of their three-stage proposal would require providers to "make available to regulators data that regulators can use to analyze and measure changes in customer financial health."



The combination of these three factors will spur innovation in the fintech community to build financial health platforms.

#4 Fintech-as-a-Service Platforms Emerge

And speaking of platforms...

There's a supply and demand imbalance in the market today. Lots of fintechs want to partner with banks—but few banks are equipped to partner with fintechs. Enter fintech-as-a-service platforms.

Fintech-as-a-service isn't a new term, but when I've seen it used, it's usually by a fintech talking about how it can use an API to integrate its service into incumbents or other fintechs. But that's not a fintech-as-a-service platform.

Banking-as-a-service has become a popular term (and service) and refers to enabling a company—usually a platform—to embed banking services into its offerings. But what about the hundreds of mid-size banks and credit unions that want to partner with fintechs?

The path is difficult: resources to develop partnerships are limited, integrating into the core is a massive job, and developing other approaches from scratch is time-consuming.

Companies like Moov, Unit and Synctera are emerging to enable banks to provide a range of services —e.g., ACH processing, transaction processing—to fintechs in a more modular way.



Fintech-as-a-service providers will make it easier and—more importantly—faster for banks to partner with fintechs.

#5 Banks Step Up Fintech-Powered Core Workarounds

And speaking of the hassles of core integration...

A lot of bank and credit union CEOs think the biggest barrier to innovation is their core system. Hardly any, however, are planning to replace their core—too painful, slow and expensive. Finding core system workarounds isn't new. According to Cornerstone Advisors partner Quintin Sykes:

"There are banks and credit unions comfortable with integration with best-of-breed solutions that pursue this strategy. I call it 'turning the core into a glorified adding machine.' It's a viable approach for institutions good at—and comfortable with—integration and managing a lot of vendors."

What about those that aren't? While a number of fintechs have emerged over the past few years to help financial institutions execute on this strategy, expect 2021 to see strong demand for three types of fintech providers in particular:

- Core integration providers. Core integration platforms have emerged over the past few years enabling banks and credit unions to better integrate with—but potentially migrate away from—their core systems.
- **Payment hubs.** Fintechs like Payrailz and Finzly don't just enable financial institutions to intelligently route payments to the optimal payment mechanism—they help them offload transactions from their core systems.
- Digital cores. A number of banking technology vendors have been helping financial institutions deploy
 digital banks. For some of these institutions, these are weak attempts to recreate the success of some of
 the challenger banks. The smart ones, however, recognize that the digital cores are good ways to create and
 deploy new products and services that would take years if they tried to do it with their existing core system.

Core workarounds may not be new, but, in some respects, they are—like the first two trends—a disruption of the value chain. In this case, banks' and credit unions' technology value chains.



Overall, the banking and fintech story for 2021 will be the disruption of the value chain.

FINAL WORDS

In the Final Words section of the 2020 What's Going On in Banking report, I wrote, "2020 is likely to be a good year for the banking industry." In the 2019 report I said, "I hope I'm wrong about this, but 2019 is shaping up to be a challenging year for the banking industry."

That makes two years in a row I was wrong—2019 turned out to be a good year, and, well, we all know how 2020 turned out.

My take on 2021 is that it will be a mixed bag for the banking industry. One pleasant surprise will be lower loan losses than anticipated. Two unpleasant developments will be: 1) slower economic recovery, and 2) re-regulation of the industry—both the result of the policies of the new White House occupants.



Ron Shevlin *Director of Research*Cornerstone Advisors

ABOUT CORNERSTONE ADVISORS



AFTER 20 YEARS IN THIS BUSINESS, Cornerstone Advisors knows the financial services industry inside and out. We know that when banks and credit unions improve their strategies, technologies and operations, improved financial performance naturally follows. We live by the philosophy that you can't improve what you don't measure. With laser-focus measurement, financial institutions can develop more meaningful business strategies, make smarter technology decisions, and strategically reengineer critical processes.

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