the CREDIT PULSE

Spring 2022

GEOPOLITICAL INSTABILITY MOVES THE GOALPOSTS AGAIN

In this issue of the Credit Pulse, *we look at credit risk considering the macroeconomic and geopolitical uncertainties that continue to shape the financial services industry in the opening months of 2022. We assess lessons learned during the pandemic and how they're driving lenders to recalibrate operations to enable greater resiliency in the face of future contingencies.*

The global pandemic created operational challenges for financial institutions that changed the rules of the game for risk management professionals. Now, Russia's invasion of Ukraine has moved the goalposts again, as the conflict demands that actions to maximize resilience be taken beyond those already implemented over the last two years in response to fiscal stimulus, supply chain disruptions, inflation and work-model transitions.

While the war's reach and long-term economic implications remain fluid, risk management functions are immediately tasked with updating credit and lending operations' risk management plans for minimizing potential credit losses from:

- Balance sheet exposure to Russia, Belarus and other sanctioned entities;
- Declining consumer, commercial and corporate debt serviceability due to the impact of economic shocks on disposable incomes and profitability;

- Undermining of the U.S. dollar;
- The prospect of a global recession; and
- Deteriorating value of real assets.

Risk management functions will also want to monitor emerging credit products that may affect credit quality and lending operations, including buy now, pay later (BNPL) and crypto loans, and respective forthcoming regulations.

A recap of recent key credit and economic metrics is presented in the table below.

Key credit and economic metrics						
	3/31/2022	12/31/2021	9/30/2021	6/30/2021	3/31/2021	12/31/2020
Delinquency rates [1]	Not available	1.30%	1.28%	1.32%	1.48%	1.64%
Leveraged loan default rate [2]	0.6%	0.6%	1.1%	1.8%	3.9%	4.5%
U.S. Bureau of Labor Statistics unemployment rate [3]	3.6%	3.9%	4.7%	5.9%	6.0%	6.7%
The Conference Board Leading Economic Index® (LEI) [4]	119.8	120.1	117.5	115.1	111.6	111.2
The Conference Board Consumer Confidence Index® [5]	107.2	87.1	109.3	127.3	109.7	88.6
CBOE Volatility Index® (VIX® Index) [6]	21.48	17.22	23.14	15.83	19.40	22.75
S&P 500 [7]	4,530.41	4,766.18	4,307.54	4,297.50	3,972.89	3,756.07

Leading up to the conflict, financial institutions had shown comfort with reducing the allowance for credit losses (ACL) as reported under the Financial Accounting Standards Board's current expected credit loss (CECL) accounting standard adopted by most banks in January 2020, although loss reserves remain above pre-pandemic levels. Commentary from the largest banks' public filings and earnings calls for full-year 2021 results pointed to a strong macroeconomic environment and better-than-expected credit quality, coupled with relatively stagnant loan growth, as the drivers for releasing reserves.

1 Charge-Off and Delinquency Rates on Loans and Leases at Commercial Banks, Board of Governors of the Federal Reserve System, www.federalreserve.gov/releases/chargeoff/delallnsa.htm.

2 U.S. Leveraged Loan Default Index, Fitch Ratings, www.fitchratings.com/search/?query=U.S.%20Leveraged%20Loan%20Default%20Index.

3 Civilian Unemployment Rate, U.S. Bureau of Labor Statistics, www.bls.gov/charts/employment-situation/civilian-unemployment-rate.htm.

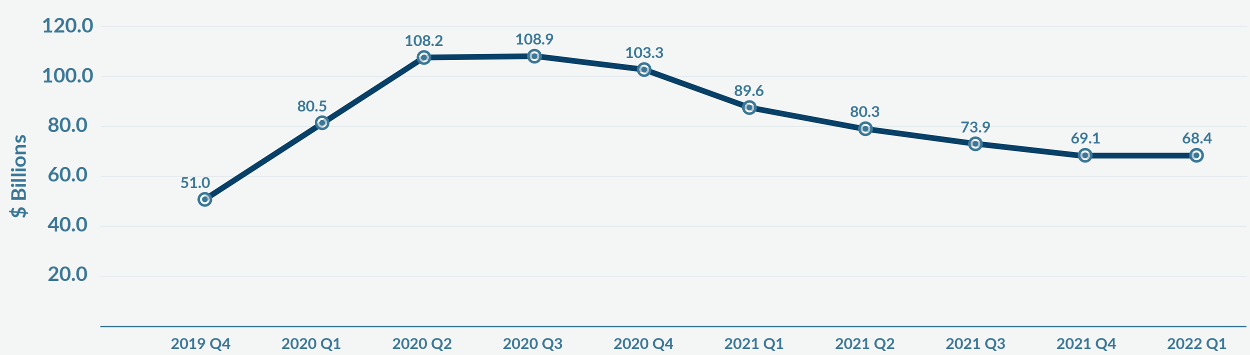
4 U.S. Leading Indicators, The Conference Board, www.conference-board.org/topics/us-leading-indicators.

5 U.S. Consumer Confidence, The Conference Board, www.conference-board.org/topics/consumer-confidence.

6 Cboe Volatility Index, Cboe Global Markets, www.cboe.com/tradable_products/vix.

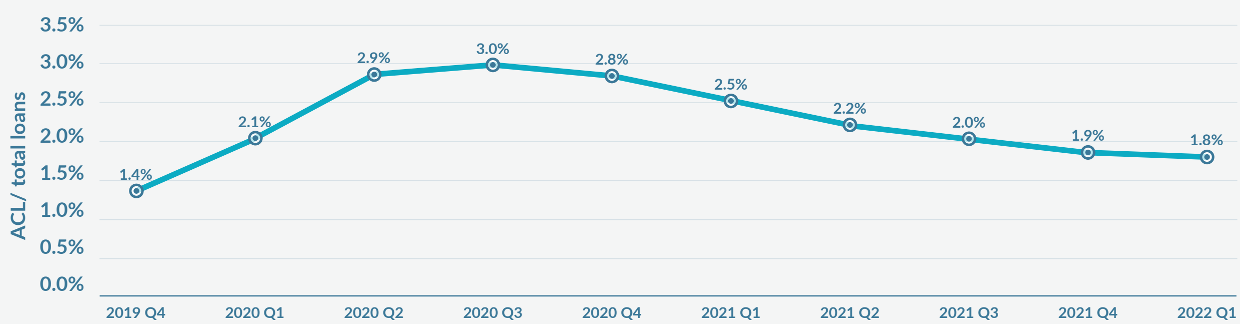
7 S&P 500, S&P Dow Jones Indices, www.spglobal.com/spdji/en/indices/equity/sp-500/#overview.

Proxy large bank group ACL



Total group = JPMorgan Chase, Citigroup, Bank of America, Wells Fargo and Goldman Sachs

Proxy large bank group ACL coverage



Total group = JPMorgan Chase, Citigroup, Bank of America, Wells Fargo and Goldman Sachs

First-quarter 2022 earnings releases from the large banks comprising the proxy group in the tables above exhibit an inconsistent ACL trend. For some institutions (JPMorgan Chase, Goldman Sachs), the ACL has increased due to anticipated inflation impacts and fallout from the Russia-Ukraine conflict. For others (Citigroup, Wells Fargo and Bank of America), it has remained flat or continued to decrease slightly, despite a reserve build, due to a release of reserves as pandemic-related uncertainty wanes.

FDIC-insured commercial bank loan portfolios			
	12/31/2021	12/31/2020	12/31/2019
Total loans (in billions)	$10,561	$10,204	$9,863
Nonperforming loans/total loans	0.81%	1.07%	0.85%
Loss reserves/noncurrent loans	1.92x	2.01x	1.36x
Net charge-offs/total loans	0.20%	0.41%	0.52%

YoY % change	
12/31/2021	12/31/2020
3.50%	3.46%
-24.30%	25.88%
-4.43%	48.35%
-51.22%	-21.15%

As indicated in the table above, FDIC-insured commercial banks experienced modest loan growth during the pandemic. Similar to the ACL coverage ratio, shown in the table above, the loss-reserves-to-noncurrent-loans coverage ratio increased from 1.36X as of year-end 2019 to 2.01X as of year-end 2020, reflecting concern over the ongoing pandemic conditions and inherent uncertainty over how loans would perform. As of year-end 2021, loss reserve coverage has modestly declined, although it is still well above pre-pandemic levels. More recent developments could prove problematic for lenders as pandemic-related economic uncertainty and inflation concerns persist alongside the potential impact from the conflict in Ukraine. However, non performing loans (NPL) and net charge-offs as a percentage of total loans have fallen below pre-pandemic levels, illustrating that loan performance since the onset of the pandemic wasn't as troubling as banks initially feared.

FDIC-insured commercial bank loan portfolios by segment			
	12/31/2021	12/31/2020	12/31/2019
Nonperforming loans/total loans			
RE loans	1.15%	1.44%	1.04%
C&I loans	0.67%	0.99%	0.79%
Consumer loans	0.62%	0.85%	0.98%
Net charge-offs/total loans			
RE loans	0.01%	0.07%	0.02%
C&I loans	0.13%	0.48%	0.42%
Consumer loans	0.91%	1.50%	2.31%

YoY % change	
12/31/2021	12/31/2020
-20.14%	38.46%
-32.32%	25.32%
-27.06%	-13.27%
-85.71%	250.00%
-72.92%	14.29%
-39.33%	-35.06%

As shown above, further segmentation of NPL-to-total loans and net-charge-offs-to-total loans illustrates that the longer-term pandemic effects are primarily concentrated in real estate secured loan portfolios, with real estate NPL-to-total loans increasing from 1.04% at December 31, 2019, to a high of 1.44% at December 31, 2020, and declining to 1.15% at December 31, 2021, remaining above pre-pandemic levels. While net-charge-offs-to-total loans by segment reflect an increase in charge-offs for real estate and C&I loans from 2019 to 2020, net-charge-offs-to-total loans at year-end 2021 are below pre-pandemic levels across all three segments.

Economic outlook

For credit risk managers, concerns about inflation and the implications for profitability among clients, loan repayments and volume sustainability have weighed heavily. To be sure, the Federal Reserve had been planning, prior to the war, to raise its benchmark interest rate for the first time in four years. But an inflation figure in February at its highest level in four decades, fanned by the sanctions and export controls tied to the war, all but affirmed that the central bank may be behind the curve on tightening the money supply, changing the policy calculus. As expected, at its Federal Open Market Committee (FOMC) meeting on March 16, the Federal Reserve raised interest rates by a quarter percentage point, with the fed funds rate increasing to a range of 0.25% to 0.50%. The Fed also projected that the benchmark rate would end 2022 at 1.9% (via increases at the Fed's six remaining meetings in 2022) before climbing to 2.8% by the end of 2023.[8] But at a conference hosted by the National Association for Business Economics on March 21, Fed Chair Jerome Powell struck a more aggressive tone, saying that "if we think it's appropriate to raise 50 basis points at any meeting or meetings, then we will do so," adding, "I don't have a test here for what will trigger that." Even more recently, during a panel at the International Monetary Fund's spring meeting on April 21, Powell said, "I would say 50 basis points will be on the table for the May meeting." The futures market now implies the fed funds rate will reach 2.555% at year-end and 3.0% by December 2023.[9]

The anticipation of higher interest rates and their impact on economic growth has been accompanied by increasing volatility in financial assets, including stocks and cryptocurrencies, and a pullback in demand in interest-rate sensitive sectors such as autos — which was already facing dislocation given inflationary pressures in procurement and gasoline prices — and residential real estate as new mortgage applications and refinancing volume begin to fall. In March, U.S. light-vehicle sales declined by 4.6% month over month and 24.4% year over year, although they are up 54.7% from a pandemic low in April 2020, according to data from the Bureau of Economic Analysis; weekly mortgage applications increased 10% month over month but decreased 5% year over year, according to the Mortgage Bankers Association.

Meanwhile, multifamily commercial real estate showed strong signs of recovery by late 2021, as measured by multifamily loan volume. For its part, office-leasing activity has shown mixed results as adoption of hybrid work models balances against demand for retail space. Despite remaining above 10% at the start of the year, retail vacancies moved downward throughout 2021, suggesting that consumers still want to visit stores and restaurants even after the pandemic boosted e-commerce activity.[10]

8 Summary of Economic Projections, Board of Governors of the Federal Reserve System, March 16, 2022, www.federalreserve.gov/monetarypolicy/fomcprojtable20220316.htm.

9 CME Group, April 26, 2022, www.cmegroup.com/markets/interest-rates/stirs/30-day-federal-fund.quotes.html.

10 "Bouncing Back: 2022 Commercial Real Estate Outlook", by Al Brooks, JPMorgan Chase, January 21, 2022, www.jpmorgan.com/commercial-banking/insights/2022-commercial-real-estate-market-trends.

Leveraged lending outlook

In the leveraged loan market, risks remain high, according to the Shared National Credit (SNC) Program, which assesses the quality of large syndicated loans. The number of loans with limited creditor protections is increasing, according to the most recent SNC report released in February. "Leveraged loans comprise half of total SNC commitments but represent a disproportionately high level of the total special mention and classified exposures. SNC reviews have found that many leveraged loans possess weak structures. These structures often reflect layered risks that include some combination of high leverage, aggressive repayment assumptions, weak covenants, or terms that allow borrowers to increase debt, including draws on incremental facilities," the report states. While the report notes that the volume of leveraged loans is increasing, it also contains some positive news: The percentage of the weakest non-pass loans improved over the previous year.[11]

Still, increased leveraged loan exposure is likely to put credit risk managers on alert for a potential uptick in defaults as financial conditions tighten and spreads on the floating-rate debt rise. In addition to the impact higher interest rates and a slowing economy — and the serviceability challenges for borrowers that result — could have on loan loss allowances, leveraged loan portfolios containing asset-based and cash flow loans may have already begun to experience elevated loan-to-value ratios as inflation and its drag on the economy reduce asset coverage and cause equity cushions and enterprise values to contract.

Accelerating the application of pandemic lessons

The global pandemic's acceleration of preexisting trends — including business-to-consumer and business-to-business e-commerce, digital transformation, and the embrace of new work models — provided a rich learning laboratory across all industries, including financial services. Our engagements with large and midsize financial institutions affirm that credit and other risk management professionals have accrued plenty of takeaways that they are committed to implementing as soon as possible. Many of these lessons center on talent management with respect to evolving hybrid work models and a secular labor crunch. Others are catalysts for critical process and technology improvements aimed at enhancing organizational and operational resilience.

Credit risk functions highlight several tactics that should be effective in preparing for extraordinary events going forward, including:

- *Regularly reviewing credit policies and procedures;*
- *Designing governance models for government stimulus programs or other programmatic changes in credit risk management practices; and*
- *Decentralizing aspects of institutional risk-appetite decision-making to more quickly adapt to changes in the macroeconomic environment and borrower demand.*

[11] *Shared National Credit Program: 1st and 3rd Quarter 2021 Reviews*, February, 2022, www.federalreserve.gov/newsevents/pressreleases/files/bcreg20220214a1.pdf.

Its human toll and economic hardships notwithstanding, the pandemic produced numerous practicable business learnings due to the unprecedented government interventions and adaptations to business models that ensued. Financial institutions were tasked with adjusting to the short- and long-term economic impacts of government stimulus programs as well as to their more explicit implications for lending activities.

Lenders needed to adjust processes and supporting technology to manage surges in underwriting and forgiveness while grappling with the accuracy of credit scores of consumers who received COVID-19 relief. Government relief also masked the extent of financial hardships many smaller businesses experienced in 2020 and 2021, prompting underwriters to look beyond tax returns, financial statements and other traditional indicators of creditworthiness. Many institutions adjusted scorecards and perspectives (e.g., viewing stimulus-driven liquidity as a reason not to downgrade) as credit risk managers increased and enhanced communications with borrowers.

Rethinking talent

Nearly every credit risk professional we spoke with emphasized that the pandemic triggered a combination of game-changing and people-related insights. The massive remote-work mobilization increased the value of maintaining an agile, resilient and digitally skilled workforce. This need has become difficult to meet through traditional recruiting, development and retention activities as demand for talent with technological proficiency intensifies due to competition from new entrants in fintech and other industries.

Most credit risk managers experienced significant resourcing challenges in 2021 and currently remain concerned about wage inflation. While some banks have so far eluded the brunt of the Great Resignation, they report that the talent pool in many markets remains constrained — especially for experienced professionals who understand business trends and have acquired expertise to drive digital and operational transformation.

The shift to remote work posed deeper challenges within certain areas of lending operations. Relationship managers experienced challenges balancing relationship-building with credit risk management during the pandemic as communications transitioned to virtual meeting and digital channels. Collections teams, which rarely worked remotely prior to COVID-19, also encountered difficulty adapting to remote-work models, according to credit risk practitioners.

Credit risk officers who successfully navigated challenges related to remote models and the talent crunch indicate that they did so by deepening collaborations with third-party resource providers, increasing investments in third-party information providers and expanding their use of automation and advanced technology tools.

This year, many plan to focus on digital skilling, ramping up training and development activities and fostering more cross-functional collaborations and training among lending operations teams. The additional functional and institutional knowledge should enable full-time resources to quickly and more effectively take on new roles and responsibilities as needed, they say.

Credit risk management process resilience

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- Decentralizing aspects of institutional risk appetite decision-making to more quickly adapt to changes in the macroeconomic environment and borrower demand.

Most current process improvements are aimed at strengthening agility and resilience, credit risk officers point out; moreover, resilience must be embedded in the design of new and upgraded processes to help futureproof operations for contingencies, they emphasize.

For example, redefining key credit deterioration indicators will ensure that they signal distress with sufficient lead time; digital contact enhancements will drive collections improvements and Regulation F compliance; and integrating data previously used exclusively for managerial reporting into financial reporting will enable analysts, shareholders and other stakeholders to evaluate the organization's ability to adapt to exogenous disruptions, as well as advance Environmental, Social and Governance (ESG) reporting and enhance credit risk modeling.

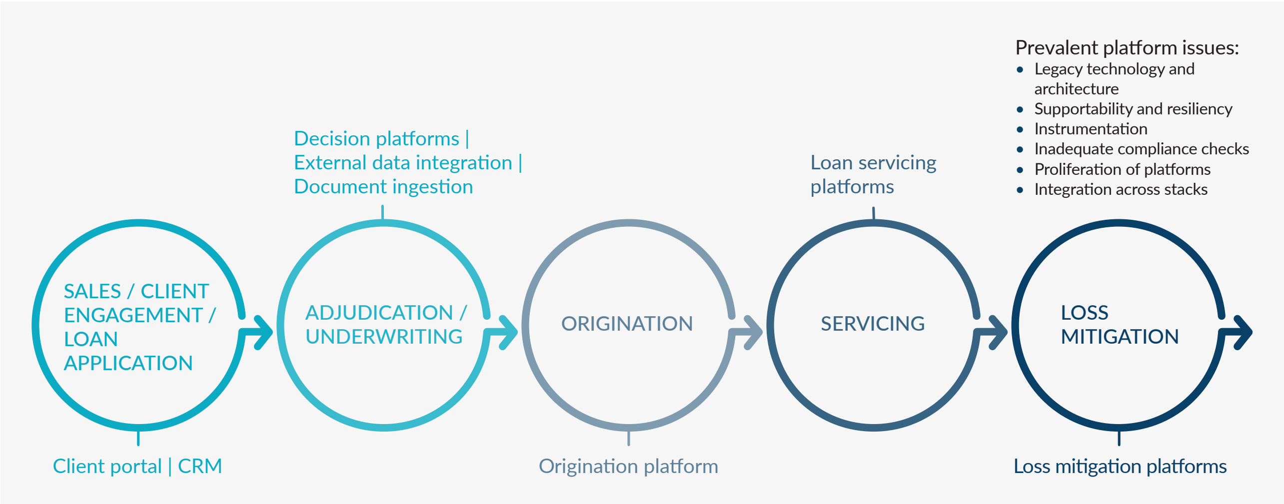
Digitization in lending operations drives resilience

Credit risk officers gained important insights about talent and technology as COVID-19 took hold. In the early stages of the pandemic, commercial and consumer lending demand grew across several sectors (e.g., residential mortgages and segments of commercial real estate such as warehouses and data centers), forcing financial institutions to adjust and/or boost capabilities across the front end of their lending value chains in applications, underwriting and originations. Most organizations responded to this surge in loan demand by rapidly increasing headcount — through a combination of full-time employees and support from third-party partners, both domestically and offshore — along with limited piecemeal digitization efforts in some parts of originations. The majority of the lenders did not focus on overarching or end-to-end solution digitization.

While both approaches provided relief, they demonstrated limitations. In the past 12 months, many lenders endured significant and costly inefficiencies due to technology ecosystems that are rarely integrated. Similarly, institutions that did not have a flexible staffing model that leverages a pool of full-time and contract workers, consultants, and managed services and outsourcing providers responded to pandemic-driven disruptions with less agility and efficacy than those with a next-generation labor model.[12]

[12] "Skills and Scale – The New Finance Labor Model Proves Its Real-World Value," Protiviti, November 9, 2020, blog.protiviti.com/2020/11/09/skills-and-scale-the-new-finance-labor-model-proves-its-real-world-value/.

• • • Figure 1 : Lending value chain



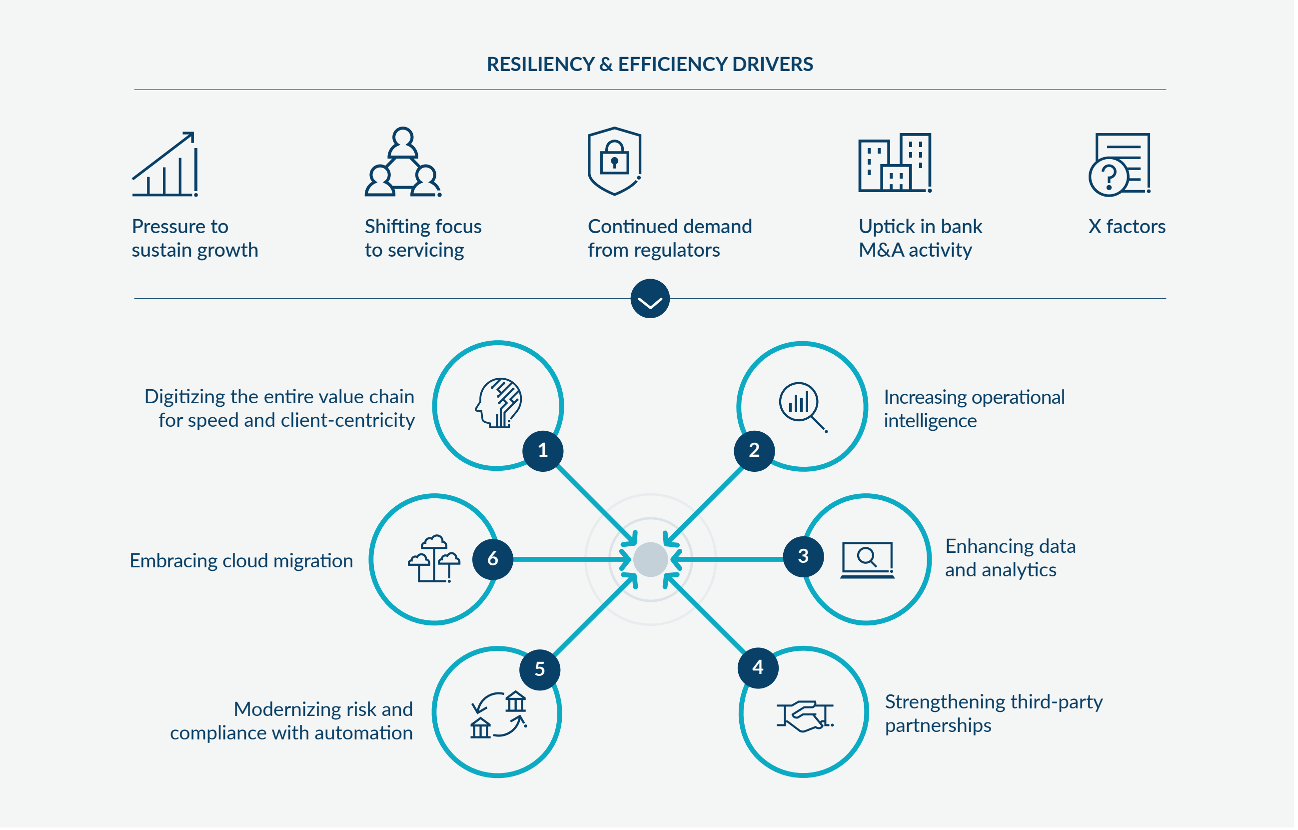
As shown in the figure above, the lending value chain is made complex by distinct technology platforms supporting the underwriting, origination, servicing and loss mitigation link levels. The proliferation and nonintegrated nature of the platforms, which respectively may suffer varying degrees of architecture, instrumentation and compliance constraints, significantly increases the risk of operational bottlenecks.

Rather than launching technology upgrades on an ad hoc basis, financial institutions should create a sense of urgency around initiating a systematic and comprehensive digital transformation of the lending value chain as a foundation for resilience. Risk managers should consider high-level steps to act on this imperative as the case for greater resiliency continues to build.

Resilience and efficiency drivers, and focal points

Several influences drive the need for lenders to dedicate resources to strengthen operations. Our experience with banks and lenders has helped us to identify six areas to focus improvement based on these drivers.

• • • Lending and operational resilience



As shown above, resilience and efficiency investments are driven by a lending operation's vulnerability to changes in market conditions and emerging risks, including:

- **Pressure to post growth:** Anticipated interest rate hikes from central banks likely will contain lending volumes and growth, but even in a rising rate environment, banks will be expected to generate continued growth.
- **Shifting focus on servicing:** As the pandemic stimulus programs and regulatory moratoriums conclude, lenders will need to address a spike in servicing and loss mitigation efforts (for the large volumes of loans originated in 2020 and 2021).
- **Continued demand from regulators:** In November 2021, the Consumer Financial Protection Bureau (CFPB) instituted new rules pertaining to the Fair Debt Collection Practices Act's (FDCPA) Regulation F, which addresses communications between collectors and debtors. The CFPB will also likely weigh in on the explosive growth of BNPL services with new rules for their oversight and has issued a notice of proposed rulemaking for the collection of additional data related to small-business lending decisions.

- **Uptick in bank M&A activity:** Quick and effective merger integration across the increasing number of deals will remain imperative to drive anticipated operational and business process synergies.
- **X factors:** Financial institutions are increasingly being asked to have the capability and infrastructure to comply with emerging ESG and digital currency (e.g., crypto and central bank digital currency) guidelines while adhering to economic sanctions and managing cybersecurity threats.

Lender resilience and efficiency initiatives generally derive the most value from the following tactics, as outlined above:

1. **Digitizing the entire value chain for speed and client-centricity:** Digital transformation enables banks to boost their client experience, streamline their business processes, build a holistic view of their operations, and address and prioritize needs in critical areas (e.g., originations, servicing or loss mitigation). Capabilities such as workflow automation, robotic process automation and application programming interface-led integrations accelerate speed of operations and speed to market while allowing lenders to integrate rapidly and effectively with innovative partners.

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2. **Increasing operational intelligence:** By instrumenting operations supporting critical services, banks can develop a sense-and-respond capability that can monitor the performance of these services and address resiliency needs as soon as they arise. Banks can leverage digital telemetry, business activity monitoring, process mining, and operational reporting tools and capabilities for such instrumentation. Protiviti partners with technology companies including Celonis to deliver capabilities such as process mining to banking clients.
3. **Enhancing data and analytics:** Strengthening data and analytics allows lenders to serve their clients better, increase cross-selling in relevant areas, provide value-added information services to clients for better decision-making, and be more compliant. Investments and improvements in areas like data ingestion, data management and analytics can be monetized by efficiencies in areas like regulatory reporting and product innovation.
4. **Strengthening third-party partnerships:** Banks need to evaluate and strengthen their approach to partnerships and associated risk management constantly. Partners can help accelerate deployment of critical capabilities, while at the same time present challenges in the face of new sanctions compliance, directives to develop more resilient and secure supply chains, and cybersecurity threats. Strengthening these relationships includes prioritizing suppliers based on their service criticality and risk magnitude, reviewing and resetting objectives for supplier engagement, assessing opportunities to expand managed services and accountabilities, and reviewing and recalibrating service-level agreements (SLA).

5. **Modernizing risk and compliance with automation:** This work often involves instrumenting processes to evaluate risk and compliance measures (e.g., leveraging workflow automation and integrated content management to manage disclosures, or deploying specific real-time operational reporting and analytics to track risks and compliance). Additionally, lenders and banks can strengthen their disaster recovery/business continuity planning with enhanced automation, enhanced sense-and-respond capabilities and rigorous risk-based testing.

6. **Embracing cloud migration:** Cloud service providers can significantly enhance operational resilience by enabling lending operations to scale up and down usage and associated costs quickly and easily. The expanding collection of cloud-based ecosystem solutions (i.e., applications with preconfigured integrations with larger systems) also can speed up innovation while strengthening operational effectiveness and efficiency.

In closing

While the pandemic qualifies as a once-in-a-generation occurrence, black swan events have appeared more frequently in the current century than they did in the previous century. Russia's invasion of Ukraine provides a painful illustration of this trend, which demands greater resilience — not only within credit risk management and lending operations, but also across the organization. The pandemic and the snap decisions it necessitated have been a call to action for financial institutions. For credit and other risk management professionals, that means harnessing the lessons that have followed to build defenses sufficient to withstand emerging risks, maximize operational efficiency, and enable ongoing growth.

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