



2023 banking and capital markets outlook

A new global economic order seems imminent. Banks globally can chart a path through the current fog of uncertainty to reposition for a brighter future.

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KEY MESSAGES

- The global economy is in a fragile and fractious state. While most banks are on sound footing, Russia's invasion of Ukraine, ongoing supply chain and energy shocks, persistent inflation, and tightening monetary policy will be felt unevenly across the industry.
 - Meanwhile, escalation of geopolitical risks, deglobalization, and fracturing payments systems are pushing the world toward a new economic order.
 - These forces will likely have implications for global money flows: how, where, and when capital and liquidity are demanded; and the ways every actor in the financial system interacts with one another.
 - To navigate through these uncharted waters, banks should reassess traditional product, service, and industry boundaries to create new sources of value. Such opportunities may exist in a number of areas, including embedded finance, tokenized assets, financial technology, digital identity, or green finance. Some banks have begun this journey, but many could fall behind.
 - The pandemic tested banking leaders' conviction, and it is about to be tested again. Nonetheless, banks should not lose sight of their role as financial intermediaries in the new global economic order.
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Bracing for a more fragile and fractious global economy

THE GLOBAL ECONOMY remains fragile going into 2023. Uncertainties abound due to an unprecedented confluence of factors—Russia's invasion of Ukraine, supply chain disruptions, the meteoric rise in inflation, and tightening monetary policy across the world. And the potential for a mild recession or stagflation in certain economies is high.

Global GDP growth in 2023 is likely to be muted at best—barely above 3%, compared to 6% in 2021.¹ This growth will not only be uneven across countries but also more divergent than in the recent past. The US and Canadian economies may fare better than the Eurozone, which will probably feel the energy shocks more intensely. In Asia Pacific, the outlook will likely vary by country; economies most exposed to the global shocks will feel the worst effects. Developing countries will continue to deal with food and energy shortages, which may lead to socioeconomic turmoil.

While inflation has come down from its recent peak in some countries, energy prices could remain high

for a prolonged period, further denting consumer and business confidence. Irrespective of the efforts to become more energy-independent of Russian energy sources, the acute need to transition to a green economy quickly should also put pressure on long-term inflation.

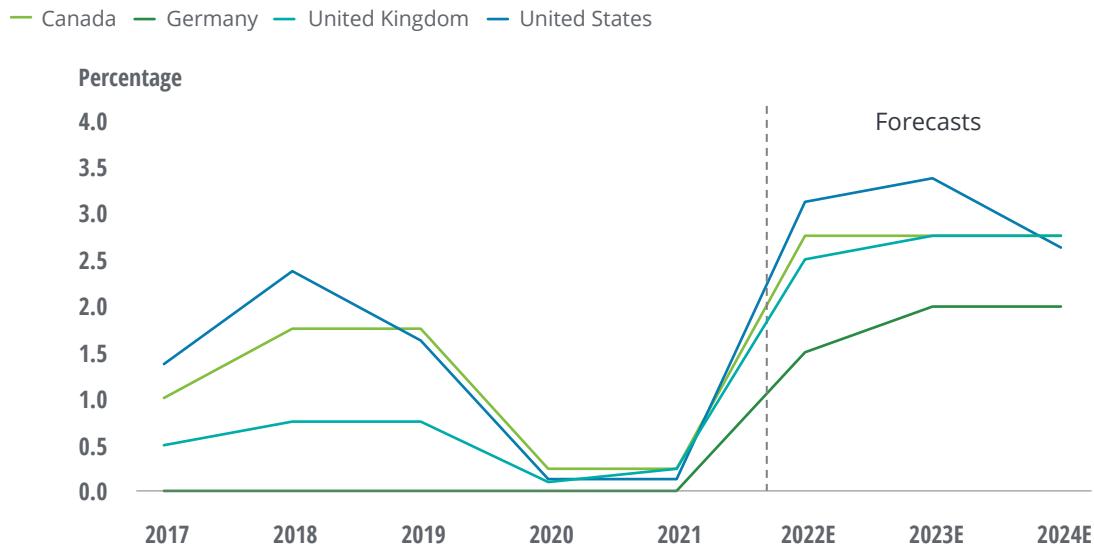
As a result, **the crystal ball for the global economy is murky**. No matter when and how the war in Ukraine ends, the ramifications for energy production, global trade, capital flows, cross-border payments, and supply chain finance are expected to be enormous. These dynamics will likely affect how and what banks do to collectively support and engage with economic agents globally.

As for interest rates, one can expect divergent trajectories across the globe (figure 1), with some countries like the United States either pausing, slowing down, or even decreasing rates later in 2023 or 2024, depending on macroeconomic conditions. Others may continue to raise rates because they were late to join the rate-hike cycle.

FIGURE 1

Policy interest rates are expected to vary across countries

Policy interest rates across different geographies



Source: Economist Intelligence Unit database.

What does the murky global macroeconomic environment mean for the banking industry?

The ripple effects, both direct and indirect, from a more fragile and fractious global economy will be felt disparately across the global banking industry. They will depend on the economic growth and interest-rate environment in the country/region, bank size, capital levels, and business models. Large, well-capitalized, diversified banks should weather the storms reasonably well.

Take GDP growth, for instance (figure 2). It is intricately tied to banks' performance, as measured by Return on Assets (ROA), in both advanced economies like the G7 countries and select developing economies (figure 3). The correlation between GDP growth and ROA in both instances is striking and further demonstrates the unique realities banks could face, depending on GDP growth in each country/region. This relationship should remain strong in the current environment as well and affect banks' performance.

FIGURE 2

There is a strong correlation between macroeconomic growth and banks' profitability for the G7 countries

GDP growth and Return on Assets of the banking industry for the G7 countries

— Real GDP (%) (LHS) — ROA (%) (RHS)



Note: G7 includes the United States, the United Kingdom, France, Germany, Italy, Canada, and Japan.

Source: Deloitte Center for Financial Services analysis of Economist Intelligence Unit database.

FIGURE 3

A similarly strong correlation can also be observed in developing countries

GDP growth and Return on Assets for the banking industry for select developing economies

— Real GDP (%) (LHS) — ROA (%) (RHS)



Note: Developing economies include Brazil, India, South Africa, and Mexico.

Source: Deloitte Center for Financial Services analysis of Economist Intelligence Unit database.

Generally, banks are coming into 2023 in a position of relative strength. Capital buffers are strong, and liquidity is adequate, as of the third quarter of 2022. And while there are signs of consumer and corporate balance sheets depleting, there doesn't seem to be much cause for alarm yet. In fact, the stress test that the US Federal Reserve conducted in June 2022 of large American and foreign banks domiciled in the United States found these banks to "have sufficient capital to absorb more than [US]\$600 billion in losses,"² which is higher than the cumulative loan losses during the 2008–2009 financial crisis.³ Meanwhile, the European Central Bank stress test in 2021 concluded that the "Euro-area banking system is resilient to adverse economic developments."⁴ Also, in anticipation of a potential slowdown, many banks have become stricter in their loan underwriting, and have built-up reserves against potential loan losses.

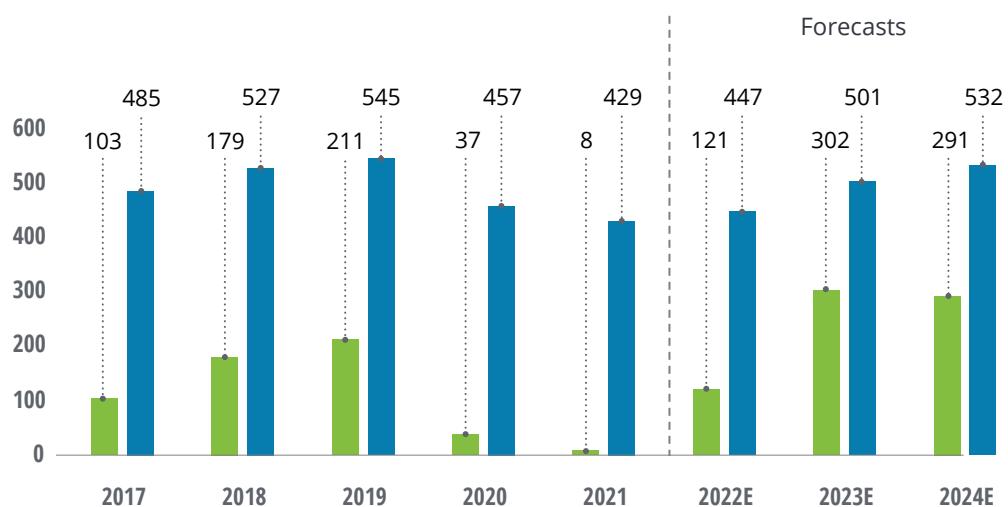
The hike in interest rates in almost every country—even those with modest-sized banking systems—should boost net interest income (NII) meaningfully in 2022 and the first half of 2023, until rates remain elevated. For nearly a decade, low/negative rates around the world have crimped banks' performance and hindered organic growth, leading to a sustained period of low net interest margins (NIMs). In the short term, a rise in loan yields will most likely outpace hikes in deposit rates, continuing the trend in the last few tightening cycles. This should result in **stronger NIMs**. US banks, in particular, may have higher NIMs compared to global peers due to higher rates domestically, and also experience stronger loan growth. Generally, banks with a portfolio skewed toward commercial & industrial (C&I) and consumer loans—especially floating-rate loans—should benefit the most in the upcoming rate-hike cycles.⁵

FIGURE 4

Loan yields in the United States should remain high

Loan yields for the US banking industry

■ Effective Fed funds rate (bps) ■ Yield on loans (bps)



Source: S&P Market Intelligence database.

Higher rates should also benefit banks in countries outside the United States. European banks, for example, are witnessing their first rate hikes in 11 years.⁶ But given the divergence in the levels of deposit rates across countries (figure 5), the impact on net interest margin may vary considerably. Nevertheless, the era of cheap money is over, and the **cost of funding, from deposits or other forms of borrowing, will likely stay elevated**, at least for the foreseeable future.

As for noninterest income, revenue prospects are less straightforward. In the last decade or so, noninterest income as a proportion of operating revenues for US banks has been declining, from a high of 43% in 2006 to around 35% in 2021.⁷ Trading divisions should continue to generate solid results amid higher market volatility.

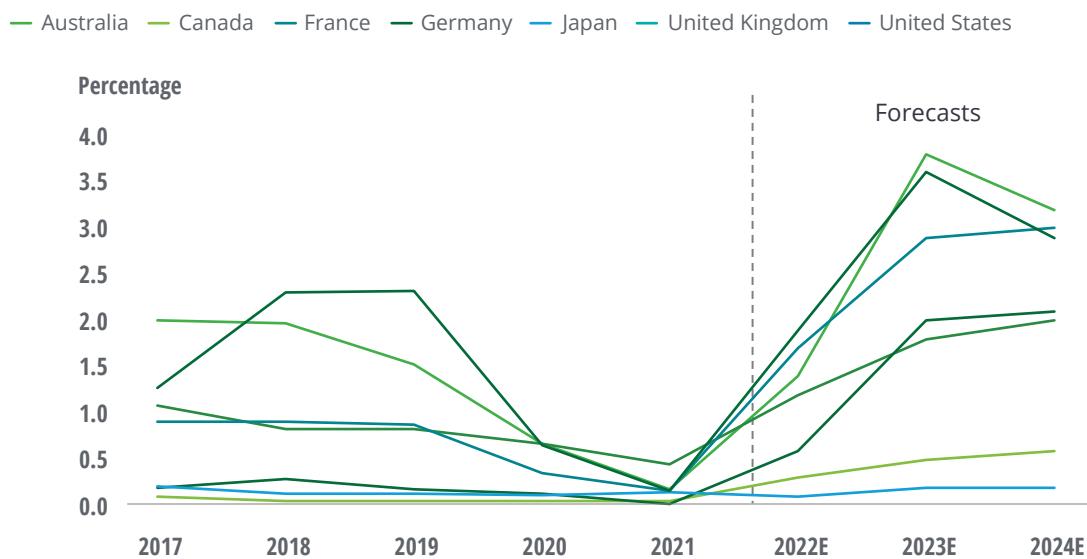
However, other fee-based revenue could vary and be more susceptible to the economic slowdown. Mergers and acquisitions (M&A) advisory and underwriting will likely face some headwinds. Other fees, such as service charges, and overdraft fees, may also experience a decline, in part from regulatory pressure.

In such a volatile revenue environment, a **focus on cost controls becomes paramount**. Banks should redouble their efforts to identify greater efficiencies, whether through better use of capital, advanced technologies, rationalizing the branch footprint, or creating service centers in low-cost locations, and increased reliance on service providers. Workforce optimization should become a greater focus in 2023.

FIGURE 5

Deposit interest rates should vary greatly across countries

Forecast for deposit interest rates in select countries



Source: Economist Intelligence Unit database.

Future prospects

Looking forward, though, the outlook for the global banking industry appears muddled in the near term. These prospects should improve over time but could differ across countries (figure 6).

Notably, various businesses within banking and capital markets will likely experience the macro forces differently as well. Retail banking, for instance, should fare well in 2023, due to higher net interest income from rising rates, but investment banking performance will probably be mixed due to languishing underwriting and M&A advisory activities.

Nevertheless, over the long term, there are certain common themes permeating the different businesses,

such as the pursuit of new sources of value beyond product, industry, or business model boundaries.

The new economic order that will likely ensue over the next few years will require bank leaders to forge ahead with conviction and remain true to their purpose as guardians and facilitators of capital flows. Banks should be bold, and stay ahead of the curve, and proactively shape emerging forces, and envision the possibilities beyond the current fog of uncertainties.

In the following chapters, we analyze how various factors are expected to influence *retail banking*, *consumer payments*, *wealth management*, *commercial banking*, *transaction banking*, *investment banking*, and *market infrastructure*. We also highlight how banks and capital markets firms should respond to chart a new path.

FIGURE 6

Bank profitability will remain subdued and vary by country

ROA forecasts for different geographies



Source: Deloitte Center for Financial Services forecast using Economist Intelligence Unit database.

Retail banking: Envisioning new ways to serve and engage with customers

KEY MESSAGES

- As macroeconomic uncertainties intensify, the retail banking industry is contending with a number of deep, fundamental shifts.
- In the near term, consumers are clamoring for hands-on guidance and support during stressful economic times. Being there for customers should be critical to maintaining trust.
- As customers access services across multiple channels, organizing around end-to-end customer experiences instead of narrow product lines should be a priority.
- As banks become more forceful in advancing environmental, social, and governance (ESG), retail banks should be bold and inventive in solving pervasive problems, such as housing inequity.
- The fast pace with which operational risks and regulatory expectations are evolving will require banks to adopt new methods of managing risks, such as transitioning from periodic reviews to continuous monitoring, and limiting the use of third-party data.

In the near term, retail banks will have to deal with higher rates, inflation, and lower growth.

Nevertheless, they should prioritize developing customer experience strategies that are data-driven, consistent across channels, and offer consumers personalized advice to navigate difficult economic conditions. This may require front- and back-office harmonization, as well as an overhaul of branch infrastructure. Banks should also be prepared to deal with potential challenges from the housing and auto lending markets, heightened regulatory scrutiny on fees, and data security. In the long

term, they should develop inventive new applications for ESG, embedded finance, and digital assets.

A visual summary of the impact and timing of factors influencing the retail banking business is presented in figure 7. And in the subsequent narrative, we illustrate how such factors could manifest, and recommend actions retail banks can take to leap ahead of the competition.

FIGURE 7

Factors influencing the retail banking industry

Sources

- ▲ Macroeconomic ≡ Technology and talent ■ Regulatory ⚒ Customer and competitive forces
- Disruptive market dynamics

Directionality of impact

- Positive impact ■ Negative impact ■ Mixed impact



Source: Deloitte Center for Financial Services analysis.

Bright spots in the storms ahead

Despite the uncertain macroeconomic backdrop, retail banking business performance should be favorable. Rising interest rates around the world should boost net interest income, even as concerns about stagflation or a recession in the United States and other regions persist. Banks are already benefitting from higher deposit betas (i.e., the percentage of rate changes passed onto savers), despite greater pressure to increase deposit rates that are awash with liquidity. The average savings

account paid out just 0.06% at the end of July 2022, and any increases will likely be modest, at best.⁸

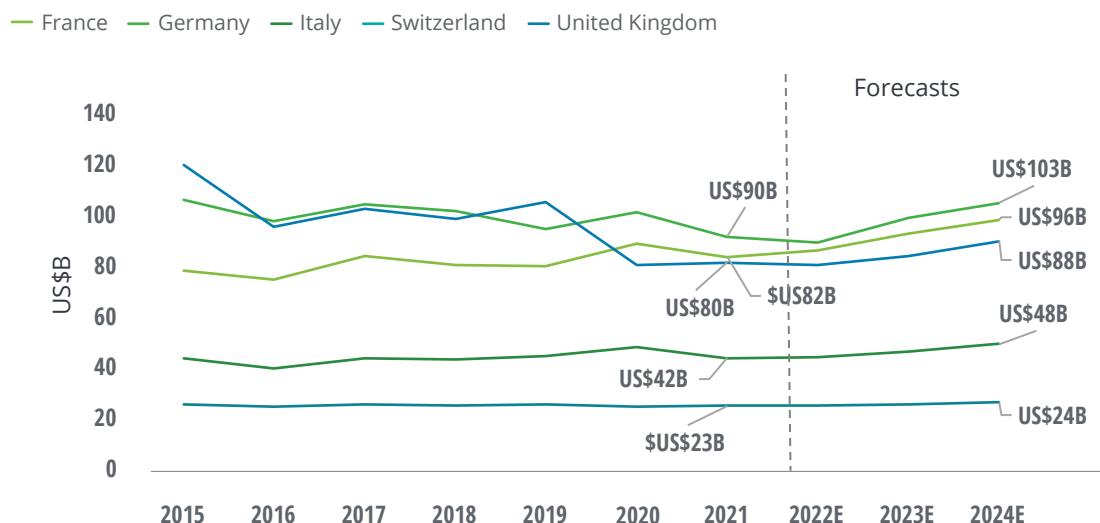
Globally, the total industry's net interest margin grew steadily in the first half of 2022 thanks largely to rising interest rates, steady growth in loan volumes, and low levels of charge-offs.

Similarly, rate hikes should act as a shot in the arm for European banks' lending business. Banks in five of the continent's biggest economies should see their overall net interest income increase by roughly US\$23 billion in 2023, followed by a bump of nearly US\$20.3 billion the following year (figure 8).

FIGURE 8

Net interest income to grow at European banks

Net interest income for banks in select European countries



Source: Economist Intelligence Unit database.

Asia Pacific banks also expect to see moderate upticks in earnings, although some economies in the region are battling rising property costs and household debt. Housing market stress could prove detrimental to bank performance in Australia and New Zealand, where real estate commands a large share of the economy.

In the United States, consumer loan growth has been relatively resilient, but mortgage business revenues are taking a hit as rates and inflation soar. At the start of 2022, mortgage originations declined by 32%, the largest year-over-year (YoY) plunge in nearly a decade.⁹ In addition, subprime auto-loan defaults are expected to climb, further denting banks' balance sheets. Most major banks are expecting only a modest rise in loan losses, although many are adding to reserves.

Falling fee income could also squeeze revenues for American banks, in part because of the heightened scrutiny on "junk fees," an umbrella term regulators use to describe costs passed onto consumers. US consumers paid more than US\$15 billion in overdraft fees in 2019.¹⁰ Many banks are actively cutting or eliminating overdraft fees, late fees, and insufficient funds fees, which can together account for a significant share of noninterest income, especially for small and midsized banks. A handful of banks and lenders are developing new offerings to help customers with low account balances, such as small-dollar loans that can be accessed with a flat fee and accounts that impose a maintenance fee but do not charge for overdrafts.¹¹

Being there for customers through financial uncertainty

Retail banking customers are expecting more from their banks. When asked what influences their satisfaction most, many banking customers say *hands-on guidance during challenging times* is their top priority—not speed, convenience, or efficiency.¹² There may be no better time to extend this support: In a recent survey, nine out of 10 Americans report that rising prices of everyday items due to inflation are a significant source of stress in their lives.¹³

At the same time, many customers say grappling with a poorly designed mobile banking platform could motivate them to switch banks.¹⁴ This should be a wake-up call for retail banking leaders. Customers now not only expect a superior experience, but one that's tailored to their unique needs, even on a mobile app. Banks can demonstrate their unique value proposition by aligning distribution models and delivering advice-driven offerings.

“Many banks have multiple touchpoints with their own set of contact center agents. Modernizing each channel could require moving protocols, communication scripts, and workflow/case management into one singular system. It’s a digital play to be better, faster, smarter and more consistent from a customer experience perspective.”

— Thomas Nicolosi, principal, US Retail banking leader, Deloitte & Touche LLP

While banks have made significant advances in upgrading customer-facing systems, many are still struggling to align front- and back-office systems.

The end result is a subpar user experience. Continued investment in front-to-back modernization—aided by cloud migration, low-code/no-code application platforms, and robotic process automation—can link customer-facing businesses with operations and back-end servicing to reduce inefficiencies.

Some banks have been able to personalize services by developing an omnichannel view of the customer using multiple sources of data. Seacoast Bank, a community bank in Florida, developed machine learning (ML) models that estimate a customer’s lifetime value, inputting data on everything from teller costs to probability of attrition.¹⁵ The system then flags opportunities to lower costs or boost customer engagement.

Organizing around customer experience instead of narrow product lines

While customers have grown more digitally savvy over the past few years, they typically do not start and complete a task in the same place. In fact, retail banking customers expect to use an average of 2.7 channels every time they interact with their financial institution, up from an average of 2.2 channels during the pandemic.¹⁶

Banks should work to make these varied channel experiences as consistent as possible, whether customers use one interface or hop from mobile app to chatbot to call center to a local branch. To do so, they will need to identify where customers encounter the most pain points and track where users abandon the process in frustration. Banks can designate a group of senior-level employees who are each responsible for the entirety of a customer experience, such as the process of

becoming a homeowner, instead of tackling individual products or initiatives. These experience leaders may continue reporting to the heads of their respective business lines, but retain cohesiveness by sharing firmwide plans, goals, and priorities.

These improvements may be a huge endeavor for banks, but they might be necessary—satisfied customers will often rate an institution highly even if they encountered delays or “handoffs.” There are several things banks can do to reduce frictions while they work to improve tech systems, including training employees to communicate which channel will work best for a customer at the onset of a task and setting expectations for each step that will be involved.

“The shift to a greater percentage of volume being handled by digital agents will mean the issues left behind are the most challenging to address. Other elements such as agent upskilling, organizational redesign, and data analytics must also evolve to enable banks to provide a seamless experience.”

— Kristin Korzekwa, managing director, US Retail Banking leader, Deloitte Consulting LLP

Banks should also reevaluate how branches fit into their distribution models, since brick-and-mortar locations are likely to rebound after a period of low foot traffic. In fact, 75% of PNC’s retail sales in the first quarter of 2022 took place in a brick-and-mortar location.¹⁷ Branches can be altered and enhanced to fit into the multichannel customer experience more seamlessly. For example, interactive teller machines or ATMs that include video capabilities can offer customers tailored advice and recommendations alongside routine transactions, even after hours.

Making the leap from “community banking to community building”¹⁸

Banks have dramatically increased their ESG commitments, but there is still much more they can—and should—do. For example, according to Citi, if Black Americans had been offered better access to housing credit over the past 20 years, there could be an additional 770,000 Black homeowners in the United States today.¹⁹

Banks can take several steps to reduce housing finance disparities. They can diversify their mortgage sales force and partner with realtors, builders, and influential figures on local outreach. The Biden administration is expected to continue to scrutinize the racial housing gap; it has authorized federal agencies to eliminate bias from home appraisals and valuation processes. In addition, the Consumer Financial Protection Bureau recently expanded its umbrella of “unfair, deceptive, or abusive acts or practices” (UDAAP) to include discriminatory practices of any kind, not just those related to credit decisions.²⁰ The UK government is also striving to address racial disparities by scrutinizing how lenders can spur more participation among ethnic minorities.²¹

Many individuals are also becoming more vigilant about how their purchasing power contributes to climate change. Most banking customers now say they would leave their bank if they knew it was causing environmental harm.²² Retail banks can appeal to these groups by following through on concrete actions that promote sustainability.

Some global banks, for example, are extending flexible financing terms for electric vehicles, transitioning debit and credit cards to recycled plastic or sustainably sourced wood, and planting trees when consumers complete certain actions, such as referring a friend or hitting a spending

target. Retail banking is also playing a bigger part in advancing net-zero goals. The Netherlands' ING Bank²³ and the United Kingdom's NatWest²⁴ Group, for example, are providing financing and advice to consumers who seek to improve energy efficiency in their homes. ING has also committed to making its mortgage portfolio net-energy-positive by 2050.²⁵

But innovation can bring about new legal and regulatory risks

Banks are eager to seize the seemingly limitless potential of new and disruptive technologies, but they must be vigilant about minimizing emerging risks. Take digital assets, for example. Retail banks have been building out the infrastructure to support nascent markets and laying the groundwork for retail opportunities in stablecoin adoption, nonfungible token (NFT) marketplaces, and cryptocurrency loans/deposit accounts. These efforts have not gone unnoticed by global regulators, who are increasingly flagging novel risks that could undermine consumer safety.

Banks can put regulators at ease by finding new ways to monitor transactions and mitigate risks. Legacy processes may no longer be sufficient to manage new types of currency and the growing speed and volume with which transactions take place. They should strive to transition away from periodic, point-in-time reviews to more continuous monitoring of key risk, controls, and performance indicators. For example, financial crime compliance teams can use artificial intelligence (AI) tools to perform “perpetual know your customer” (pKYC) processes that consistently look for unusual changes in customer profiles using real-time data.

Data privacy will be a huge undertaking in the years ahead. Many large banks are beginning to pivot from third-party cookies that track users

across the web to first-party data collected by the bank, such as information on transactions and mobile-device behavior.²⁶ Not only will this switch make it easier to comply with consumer protection rules, but it can facilitate more automation on modernized platforms.

Banks can't lose sight of the prospects that lie ahead

Banks will likely be bombarded with challenges and opportunities over the next two to three years. For example, the market for embedded finance—the integration of financial services into the backend of third-party tech platforms—is set to explode. Revenues are expected to increase tenfold between 2020 and 2025, reaching a total of US\$230 billion.²⁷ While many applications currently revolve around payments and lending, banks can incorporate additional financial services into nonfinancial platforms. For example, they may be able to supplement shopping experiences with personal financial management tools or integrate credit options into health care apps.

The metaverse could also transform how customers experience banking services in the future, further blurring the lines between human interactions and virtual reality. A handful of banks are beginning to establish a presence on the metaverse: JP Morgan, for example, opened a lounge where users can interact with one another and listen to specialists discuss crypto markets,²⁸ while New York-based Quontic Bank erected an outpost where it plans to offer virtual banking services.²⁹ Commercial operations are still in their infancy, but there could be enormous potential for banks to leverage their expertise in identity verification, secure checkouts, and cross-border transactions to bring metaverse economies to scale.

Consumer payments: Unlocking deeper financial relationships beyond transaction flows

KEY MESSAGES

- Higher interest rates, inflation, and low GDP growth portend mixed fortunes for consumer payment firms.
- Institutions across the value chain, including issuers, acquirers, and payment networks, should expand their roles beyond transactions to unlock new value and deepen customer relationships.
- They should realign their business models to capture new value from innovations, such as digital assets and faster payments, in the long term.
- Meanwhile, payment fintechs could see a wave of consolidation and rightsizing, with the focus shifting from revenue growth to profitable growth.
- An active year in payment regulations worldwide is expected in the areas of consumer protection and digital assets, with a particular focus on clear and consistent standards to foster innovation.

There are only a handful of industries as dynamic, innovative, and competitive as consumer payments. The breakneck pace of innovation in digital payments, the plethora of payments options, and gradual mainstreaming of crypto payments are revolutionizing how consumers pay.

In the short term, digital payments should not only accelerate but transform the payments experience on multiple fronts. Yet, where money goes, so could fraud. Digital identity is expected to evolve as a counterbalancing force to mitigate fraud risks in the long run. Meanwhile, the way money is created, stored, valued, and exchanged via digital currencies

could have profound implications for consumer payments in the long term. Issuers, card networks, acquirers, and fintechs across the value chain need to demonstrate an unwavering commitment to elevate their roles and become the top-of-mind choice among consumers and merchants.

A visual summary of the impact and timing of these factors influencing the consumer payments business is presented in figure 9. And in the subsequent narrative, we illustrate how such factors could manifest, and recommend actions payment institutions should take to leap ahead of the competition.

FIGURE 9

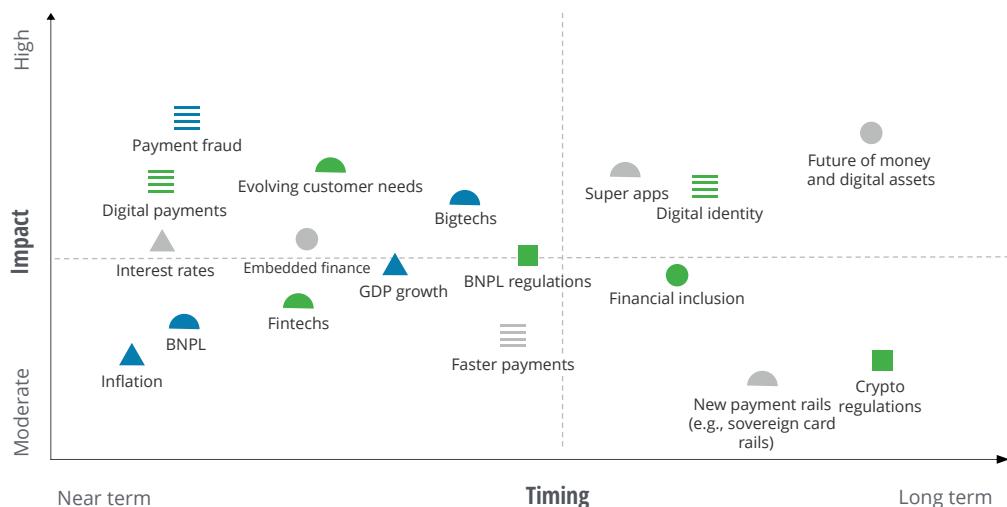
Factors influencing the consumer payments industry

Sources

- ▲ Macroeconomic ≡ Technology and talent ■ Regulatory ● Customer and competitive forces
- Disruptive market dynamics

Directionality of impact

- Positive impact ■ Negative impact ■ Mixed impact



Source: Deloitte Center for Financial Services analysis.

A mixed environment: Higher credit card balances and higher delinquencies

Card issuers and payment networks reported strong payment volumes and card revenues in the second quarter of 2022 (2Q22), after stellar growth in consumer spending in 2021.³⁰ For instance, branded card revenues at Citi grew 10% YoY to US\$2.2 billion in 2Q22,³¹ as travel and leisure became a large share of consumer spending.

Looking ahead, the macroeconomic picture for 2023 portends mixed fortunes for consumer payment players. Higher rates should boost banks' net interest margins for card portfolios, but persistent inflation, depletion of savings, and a potential economic slowdown could weigh on consumers' appetite for spending. Nonetheless, these same conditions may increase net new debt. For instance, credit card debt in the United States grew by US\$100 billion year over year to US\$887 billion at the end of Q2 2022, marking the largest YoY increase in outstanding balances over the last two decades.³²

Future of digital payments: Spanning convenience, speed, and financial access

Despite the uncertainties stemming from the macroeconomic environment, there is one inevitability: the onward march of digital payments on multiple fronts.

Some developed economies, such as Norway, Sweden, and the Netherlands, are expected to soon become cashless, while the United Kingdom, Canada, and the United States have seen higher use of contactless tap-to-pay cards and digital wallets. In countries such as Mainland China and India, QR code technology has amplified the usage of digital payments, mobile wallets, and super apps, a one-stop shop for consumers' shopping needs. **Speed, immediacy, and convenience have become the defining elements of the digital payments experience**, whether the interactions occur remotely or in person. Faster payments, already a reality in many Asian and European countries, are expected to go live in the United States with FedNow in 2023.³³

But that is not all. Digital payments are also helping governments and private entities broaden financial inclusion. For instance, the Brazilian instant payment platform Pix, launched in November 2020, has seen one of the fastest adoption rates among all real-time payment systems globally. It tripled its user base from 41 million to over 124 million between 2020 and 2022.³⁴ The Central Bank of Brazil's integral role in owning, developing, and implementing Pix to promote financial inclusion should be a case study for other countries.

Yet, where money goes, so could fraud

An unfortunate reality of the accelerated pace of digitization of payments is that identity theft, social engineering scams, and other types of fraud have also become pervasive. Digital and faster payments necessitate not only faster mitigation and risk management measures but also a wider set of tools to combat fraud.

This need to bolster security is important to maintaining consumer trust. But doing it in a manner that neither infringes on consumers' privacy nor creates excess friction in user experience will be a tricky balancing act. Using behavioral biometrics for digital authentication is one way organizations can make payments risk management more dynamic. For instance, the fintech Callsign uses digital "muscle memory" technology to authenticate users based on their unique patterns of speed, swipes, keystrokes, and how they hold their device, among other measures.³⁵

More broadly though, digital identity holds substantial promise to support authentication in many applications beyond payments. While it's still too early to empirically analyze the impact of digital identity on fraud reduction, it is encouraging to see several strategic initiatives in progress. For instance, the European Commission is working with member states on a framework for an EU Digital Identity Wallet.³⁶ Yet, a truly harmonized, interoperable, global digital ID capable of authentication anytime, anywhere in the world remains the holy grail for the payments industry.



Breaking out of the payments box to deliver new value

Competition among card issuers seems to be growing fiercer. This is perhaps inevitable as consumers have multiple, perhaps equally attractive card choices. According to the Deloitte 2021 Payments survey, 23% of US consumers were likely to switch their primary cards over the next two years.

Not only are issuers competing among themselves to win customers' wallet share, but also with providers of noncard payment options, such as buy now, pay later (BNPL). Card issuers, such as American Express and Citi, have introduced BNPL products,³⁷ while Barclays US partnered with a fintech to roll out its BNPL offering.³⁸ (See sidebar, "Enduring lessons from the BNPL market", for a more detailed analysis of the BNPL market.)

"We are still in the middle of a big bang moment in consumer payments. Players that understand how to competitively position themselves post the big bang with the agility and ability to create more personalized experiences for consumers and merchants will likely be more successful."

— Zach Aron, principal, Global Payments leader, Deloitte Consulting LLP

While not in direct competition, the growing popularity of super apps threatens to push card issuers into the background, where they could lose control of the customer experience. Prompted by the success of super apps like WeChat (in Mainland China), Grab (in Southeast Asia), and PayTM (in India), Western bigtechs are also experimenting

with new offerings. But it appears card issuers have yet to make any significant forays in this space. It's not clear yet whether super apps will become the dominant platform, especially in the West. However, card issuers cannot stand idle as this trend intensifies across the world.

Consumers' use of crypto and other digital currencies as an alternative payment method remains in its infancy. Nonetheless, this may change, and merchants, acquirers, and fintechs are already preparing for it. A 2022 Deloitte survey of US retailers indicates that nearly three in four respondents plan to accept digital currency payments in the next two years, and a vast majority believe in their future (figure 10).³⁹

Given the above dynamics, what should card issuers do to promote greater customer loyalty and deepen share of wallet? **Issuers should think outside the (payments) box and expand their value beyond transactional card payments** (figure 11). They could offer value-added features, such as controls to limit spending, budgeting advice to manage debt, and personalized rewards, to elevate the customer experience.

Collaboration and/or acquisition of fintechs could help payments firms expand their value proposition. In a rising rate environment, issuers are likely to have a competitive advantage over fintechs due to their low cost of funding and scale of operations.

FIGURE 10

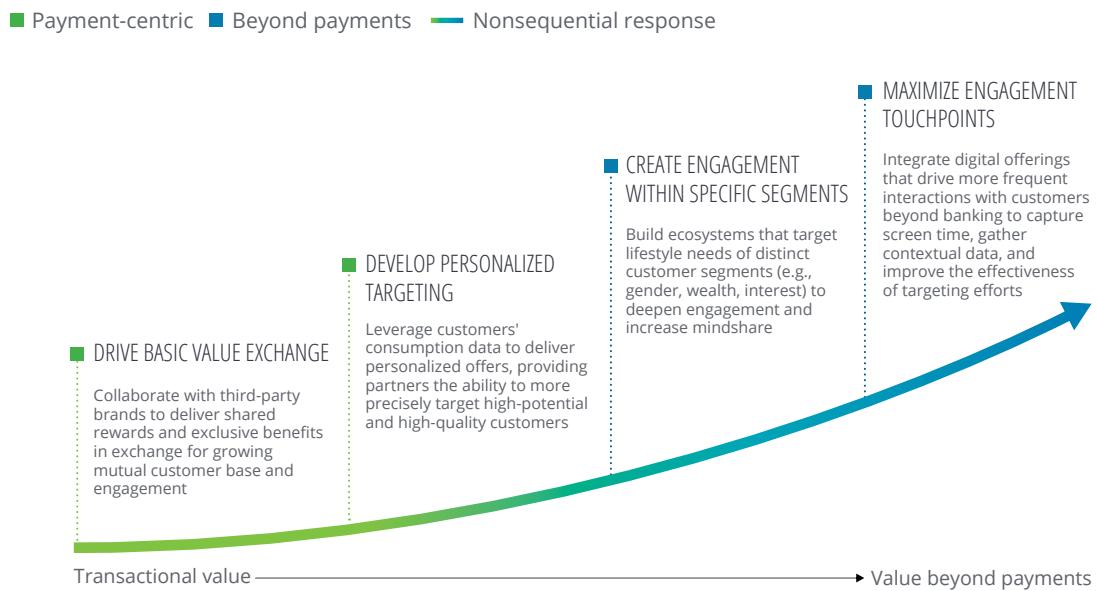
Retailers are getting ready to accept digital currency payments



Source: Deloitte Merchant Adoption of Digital Currency Payment Survey.

FIGURE 11

Deepening relationships by delivering value beyond payments



Source: Deloitte Consulting analysis.

ENDURING LESSONS FROM THE BNPL MARKET

The BNPL market, despite being relatively young, has already demonstrated its value in several ways. It improved credit access to a group of consumers that otherwise probably relied on high-priced credit products. BNPL issuers also exemplified how digital infrastructure can be deployed to provide instant credit at the point of sale, thus enhancing the purchasing experience.

Low rates and a favorable macroeconomic environment solidly contributed to the growth of this segment. But as interest rates shot up and consumers' balance sheets felt pressured, the valuations of BNPL firms plunged in recent quarters. This raised concerns about the viability of BNPL offerings.

One might consider this a time of reckoning for the BNPL industry; some fintechs have already shifted their focus from revenue growth to profitability, while others have exited the space entirely.

Nevertheless, the brief history of **BNPL can offer some useful lessons.**

First, card issuers could embrace the elements that BNPL fintechs got right: the convenience of digital credit issuance; the agility to design new products and meet customers where they are in the shopping journey; and the flexibility in how consumers pay. If the risks are well managed, these attributes could position issuers to offer new value and deepen their customer relationships.

Next, credit bureaus are realizing the value of integrating BNPL data with traditional datasets to assess consumers' overall creditworthiness. Leading American credit bureaus are collecting BNPL data as an alternative dataset, which is a good step in this direction.⁴⁰

Pure-play BNPL firms are also seeing the benefits of having a more disciplined underwriting process. Additionally, educating consumers to make responsible financial decisions and build their credit scores with BNPL should become an integral part of their value proposition.

Lastly, BNPL firms are diversifying and reducing concentration risk. For instance, the Swedish BNPL fintech Klarna announced the launch of a physical card for its US customers. The card is designed to offer customers the option to BNPL or even pay instantly (a debit proposition) for digital and in-store purchases.⁴¹

New competition in payment rails

Large global card networks have enjoyed relative dominance over payment rails for decades. But more recently, they are facing a new threat **from national governments** in developing economies, where there are efforts to build sovereign card payment rails to reduce dependence on Western networks. For instance, RuPay has emerged as a thriving local competitor in India. Its market share has grown.⁴²

On the legislative front, the US Congress is deliberating a new bill, the Credit Card Competition Act of 2022, which aims to promote competition in the payment network market.⁴³

To combat these challenges, global card networks may need to either partner with these governments or go on the offensive to position themselves as infrastructure providers of all types of payments, including card, account-to-account transfers, BNPL, and perhaps crypto payments, and not just for a narrow set of applications. They could also target growing fee-based, nontransactional

revenues with services around loyalty offers, fraud management and biometrics, connected commerce, social payments, application program interface (API) platforms, and blockchain, to name a few. To achieve this goal, the incumbent card networks may continue with their acquisition spree to bolster their portfolio of value-added services.

Making global, regulatory compliance more efficient

Innovations in the payments industry have outpaced regulatory developments, and 2023 is expected to be no different. In Australia and the United Kingdom, regulators are contemplating new rules to protect consumers from BNPL products.⁴⁴ The European Union is aiming to expand PSD3 to include payments fraud, international payments, and supervision of fintechs' and bigtechs' financial offerings.⁴⁵ Many regulators around the world are ramping up their oversight of crypto markets, customer privacy, data protection, and localization.⁴⁶ These are only a sample; there are many more regulations payments firms will have to contend with in the near future. What's even more daunting is the fragmented nature of regulations across countries.

"To stay on top of the fragmented nature of regulations worldwide would remain burdensome for many institutions. Even institutions with mature regulatory management processes are yet to fully integrate the specificity of their new, innovative payments products into the compliance protocols."

— Jade Shopp, partner, US Payments leader, Deloitte & Touche LLP

Complying with these new rules will likely be costly, and unavoidable. But inefficiencies and risks can be present in regulatory compliance activities due to patchy technology systems and/or insufficient data. Addressing this problem should be a priority. For instance, AI/ML solutions that provide a holistic, global view of firms' regulatory obligations and their business impact could not only make businesses become more robust in compliance monitoring but also be a source of competitive advantage for payment firms.

Wealth management: Creating a new recipe for greater success

KEY MESSAGES

- The prospects for the wealth management industry appear generally bright. However, a confluence of forces are redefining how financial advice is generated, delivered, and consumed.
- Democratization of advice and convergence across domains, within and outside consumer finance, should push wealth managers to offer holistic solutions.
- Front-to-back digitization is paramount to achieve greater efficiency and superior customer experience.
- In the United States, Regulation Best Interest (Reg BI), Department of Labor (DOL)'s Fiduciary Rule, and a number of regulatory priorities across topics such as cybersecurity and ESG are driving big shifts across firms, requiring them to revisit products, processes, and workflows.
- Wealth managers can no longer rely on the old playbook. They should be bold in reshaping their business models and building a franchise that's defensible, scalable, and cost-efficient.

The wealth management industry is at an inflection point. The boundaries of investment advice are becoming more holistic, and include financial well-being, prompting a shift from a product focus to client-centricity.

The market dynamics are being shaped by multiple short-term forces, including slowing GDP growth, rising interest rates, and regulator priorities. Further, product optimization strategies are becoming increasingly important to win the war for assets. On the other hand, long-term trends, such as democratization of advice and demographic shifts, including generational wealth transfer, exist, which are upending established business models

and existing ways of serving customers. As a result, wealth managers now need to take bold actions. These changes, however, are coming at a time when the industry is in relatively good health.

A visual summary of the impact and timing of these factors influencing the wealth management business is presented in figure 12. And in the subsequent narrative, we illustrate how such factors could manifest, and recommend actions wealth managers should take to leap ahead of the competition.

FIGURE 12

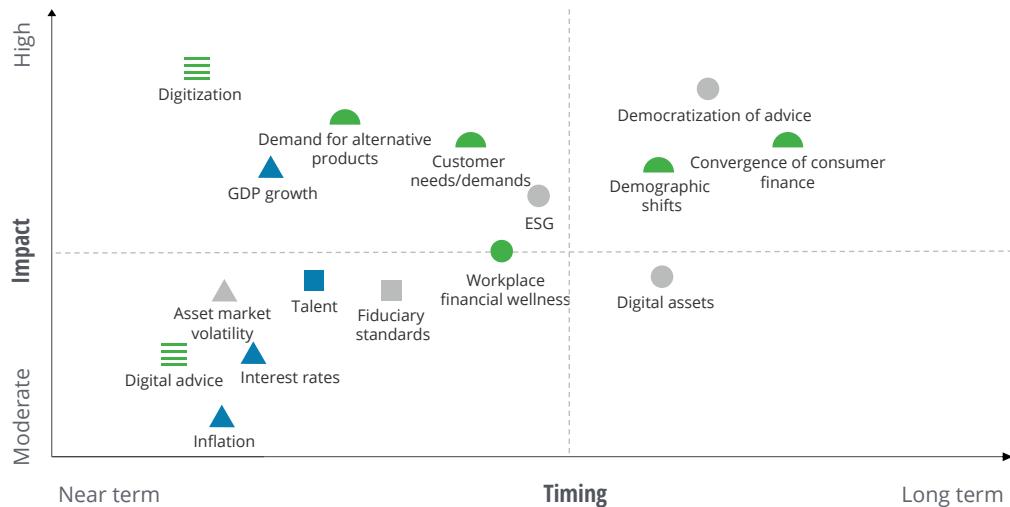
Factors influencing the wealth management industry

Sources

- ▲ Macroeconomic ≡ Technology and talent ■ Regulatory ▷ Customer and competitive forces
- Disruptive market dynamics

Directionality of impact

- Positive impact ■ Negative impact ■ Mixed impact



Source: Deloitte Center for Financial Services analysis.

A brighter future for wealth management

Despite persistent inefficiencies, a high degree of fragmentation, and excessive structural costs, wealth management remains a key source of profitability in the banking industry. Looking into the future, **prospects seem bright**. Total global wealth surpassed US\$400 trillion in 2020⁴⁷ and high net-worth households (HNWHs) are expected to grow at a CAGR of 7.0% to 52 million by 2026 (figure 13). The beneficiaries of this spectacular growth span the spectrum—from large, global wealth management firms to independently operated boutiques. The industry is also attracting increased attention from law firms, private equity firms, and venture capitalists.⁴⁸

“Wealth management is at an inflection point. We’ve seen a gradual pivot, accelerated by the pandemic, to make advice more experiential, i.e., bringing it to clients when they need it, where they need it, how they need it.”

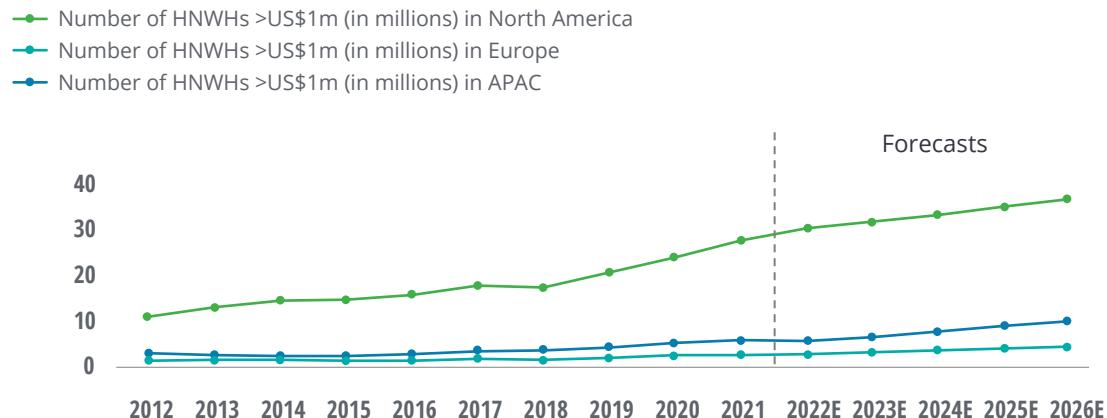
— Jeff Levi, principal, US wealth and asset management leader, Deloitte Consulting LLP

Geographically, each region is in a different place in terms of maturity. APAC has more mass affluent households (figure 14), but it is also experiencing rapid expansion among the affluent. North America, on the other hand, has more HNWHs (figure 13). As a result, how wealth managers serve customers in each region varies *and* has implications for profitability.

FIGURE 13

Number of HNWHs greater than US\$1M (in millions)—North America to lead through 2026

Number of HNWHs (in millions)



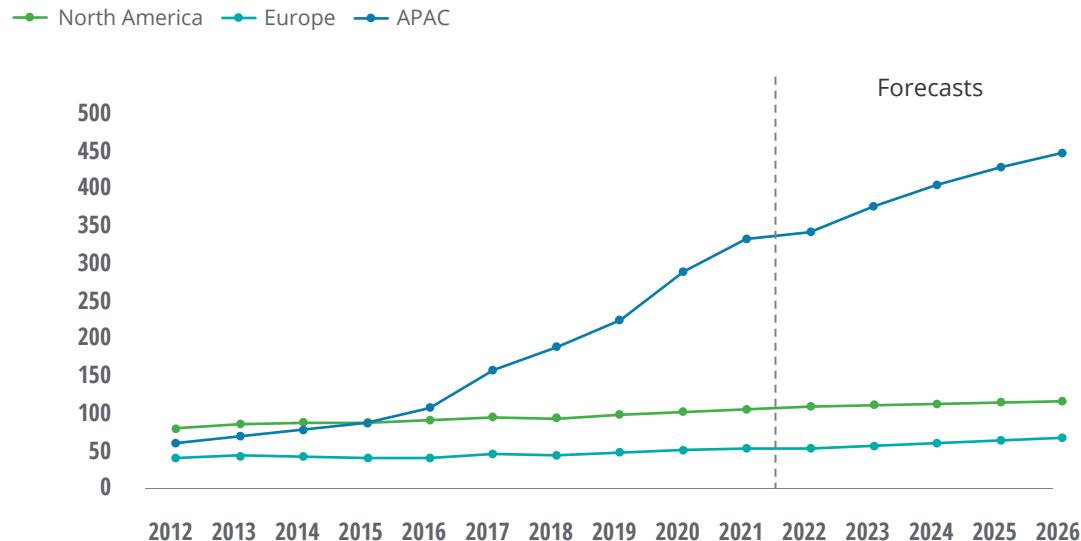
Notes: 1) High-net-worth households (HNWHs) are households with net financial wealth of more than US\$1M; 2) Mass affluent households are households with net financial wealth of more than US\$100k; 3) North America includes the United States and Canada; 4) Europe includes France, Germany, Switzerland, and the United Kingdom; 5) APAC includes Australia, Mainland China, Hong Kong SAR, India, Japan, and Singapore.

Source: Economist Intelligence Unit.

FIGURE 14

Number of mass affluent HHs greater than US\$100k (in millions)—APAC number to grow at CAGR 6%

Number of mass affluent households (in millions)



Notes: 1) High-net-worth households (HNWHs) are households with net financial wealth of more than US\$1M; 2) Mass affluent households are households with net financial wealth of more than US\$100k; 3) North America includes the United States and Canada; 4) Europe includes France, Germany, Switzerland, and the United Kingdom; 5) APAC includes Australia, Mainland China, Hong Kong SAR, India, Japan, and Singapore.

Source: Economist Intelligence Unit.

Embracing democratization of advice and convergence within personal finance

The idea that financial advice is a luxury only the wealthy can afford is being challenged, and democratization of advice should accelerate in the coming years. This is an outcome that everyone, including the affluent, should encourage. A society that has more equal access to financial advice will likely be more prosperous in the long run.

Serving the growing mass affluent market (figure 14) is not a new goal, but the economics have hobbled many a wealth manager. The client-advisor ratio needs to be high to profitably serve this segment, which, in turn, can limit the ability to personalize advice. More wealth managers are adding digital advice capabilities to serve the mass affluent market. A popular approach in this regard has been acquisitions, such as JPMC-Nutmeg and Lloyds-Embark.

The rise of digital advice is showcasing the importance of hybrid models that encompass both advisors and digital channels at varying points in a clients' journey. Hybrid models should make the economics of serving the mass affluent more favorable. As a result, there is a concerted effort to adopt the hybrid digital advice model, using technology and data, to deliver scalable customer journeys and personalized advice.

Some banks like Wells Fargo have even lowered the minimum investment threshold for its robo-advisory platform from US\$5,000 to US\$500 to capture a larger pool of clients. And others are taking a serious crack at workplace financial planning, a ripe domain for wealth managers to serve the mass affluent.

Meanwhile, as the delivery of financial advice evolves, so are clients' latent needs for holistic advice. According to a recent survey, 59% of retail bank customers said they expect their financial institutions to help them improve their financial health.⁴⁹ Increasingly, it's not just about investments or taxes (in the case of high-net-worth clients). Clients are seeking health, wealth, and retirement planning all in one place.⁵⁰ As a result, convergence across domains in consumer finance (loans, mortgage, and insurance) with advice at the core seems inevitable.

Delivering holistic advice, especially to mass affluent clients across the bank, is an efficient and effective way for wealth managers to win greater wallet and mind share. In fact, assets under management (AUM) for holistic wealth planners is likely to grow at a faster pace than other wealth managers.⁵¹

Optimizing offerings to meet client demands for alpha and social impact

Product optimization has been a perennial challenge for wealth managers. Until recently, it made sense to stick to the knitting, and focus on stocks and bonds. But there is increasing pressure to offer more diverse and complex investment products. This need is further exacerbated by the modest outlook for traditional assets in the near future. In addition, the increased prevalence of passive investment products is pushing wealth managers to scout for new revenue streams.

As clients rebalance their portfolios, advisors are shifting more money into alternatives such as real estate and private equity.⁵² This phenomenon, however, is not limited to very high-net-worth individuals (VHNWIs) (figure 15).

FIGURE 15

Mass affluent and VHNWIs have similar needs for some complex products and services

Products/services	Mass market/ affluent	VHNW
Alternatives	69%	65%
IPOs	44%	51%
Tax-exempt investments	59%	41%
Commodities	48%	44%
Real estate, REITs	32%	36%
Structured products	26%	28%
Art advisory and investing	16%	17%

Notes: 1) The table depicts "plan to use, mass market/affluent vs. VHNW;" 2) Mass market/affluent comprises investors with a wealth level of US\$25k to US\$1M; 3) Very high net worth individuals (VHNWIs) comprise investors with a wealth level of US\$10–30M.

Source: Deloitte and Thought Lab's Wealth and Asset Management 4.0.

"Every single wealth manager will have a suite of ETFs and undifferentiated products, which bring little revenues now. So, wealth managers are looking for more sophisticated products."

— Jean-François Lagassé, partner, Global wealth management leader, Deloitte AG, Switzerland

But are wealth management firms' alternative investment capabilities robust and efficient enough to seize this opportunity? Currently, most wealth managers, except for the largest institutions, lack these capabilities in house. They would need to work with third-party platforms to gain product

access. In addition, providing advisors with the right resources, platforms, and training in the alternatives space is an important step in driving better outcomes for clients and increasing loyalty.

ESG is another area demanding more of wealth managers' attention. They should have greater transparency in portfolio construction and monitoring and alignment with marketing materials and disclosures. To this end, wealth managers should engage with asset managers offering ESG-focused funds and regulators and press the ESG investing industry to consider using more quantitative and outcome-oriented metrics to track and report on funds.

Streamlining wealth platforms for greater efficiency and superior experience

Wealth managers have made significant investments to modernize front offices, yet only 18% of clients surveyed globally say they are *very satisfied* with the digital experience offered by their primary providers.⁵³ This may be because digitization has only happened in pockets and has yet to be pervasive in the middle- and back-office environment, thereby limiting the ability to fully realize the impact of front-office investments.

"Wealth managers globally see digitization and automation as an opportunity to reduce operating expenses and create capacity for growth."

— Kendra Thompson, partner, National wealth and investment management leader, Deloitte Canada

So, how should wealth managers approach the challenge of simplifying the middle and back office?

There is no one solution, perhaps. But creating an optimal mix of internally built and externally sourced technology capabilities should help. Many external vendors, recognizing this need, are expanding their scope beyond point solutions to platform-based solutions. Traditional wealth managers also continue to learn from leading fintechs to up their game on how to build and deploy technology solutions and serve customers.

Meanwhile, as clients expect advice at their convenience, providing an **intuitive and frictionless customer experience across channels should be nonnegotiable**. Further, as firms transition to a team-based advice-delivery model, supporting advisors with the right set of digital tools should help them drive more revenue. Wealth managers are increasingly appreciating how standardized data can serve as fundamental building blocks to creating personalized client experiences. It can also help launch new advisor dashboards with integrated tools that can leverage AI for greater productivity.

In a nutshell, wealth managers' digital transformation agenda should be centered around experiences for all stakeholders (customers, employees, third-party distributors, and vendors) across the service value chain.

Adapting to higher regulatory standards

“No one in the industry is pulling back on risk and compliance. In fact, they are streamlining their control models and designing and developing digital controls. Wealth managers are also trying to leverage data and analytics and AI to make their processes cheaper, smarter, and faster.”

— Karl Ehrsam, principal, US Investment management leader, Deloitte & Touche LLP

The regulatory headwinds facing the global wealth management industry are intensifying, especially around areas such as cybersecurity, operational resiliency, and privacy, transparency, ESG, and digital assets. In the United States, **Reg BI and DOL's Fiduciary Rule are driving big shifts across firms**, requiring them to revisit their products, processes, and workflows. Goldman Sachs, for example, has taken some products off the shelf for brokerage clients as well as created the necessary infrastructure to oversee recommendations to prospective clients.⁵⁴

Although there haven't been any major fines so far, regulators are increasingly focused on investor protection. Wealth managers should educate advisors on how to maintain extensive documentation on available alternatives; it's no longer just a good practice. While technology can help absolve advisors' pain, concerted efforts by legal, compliance, and operations departments will likely be necessary to adjust to these regulatory changes.

Transforming the family office

Family offices continue to grow their influence globally. In Europe, for instance, 58% of family offices reported an increase in AUM over the last 12 months.⁵⁵ There are also new dynamics at play, with many ultra-wealthy clients looking for new jurisdictions (such as Luxembourg) to grow their wealth. Further, the operating models are evolving with more family offices serving multiple clients. Clients, on the other hand, want more diverse and sophisticated solutions, such as digital assets, and are more geographically dispersed.

That said, family offices may need to refine their operations to keep pace with these developments. Most appear to be dragging their heels on digital transformation, with only 26% of firms in middle or advanced stages of digital development.⁵⁶ Further, as generational wealth transfer gathers

pace, there is a new generation of clients waiting to take over from their benefactors. This highlights the importance of succession planning and next-gen coaching.

Rationalizing offshore booking centers

Globally, as wealth managers rationalize their booking centers and legal entities, they are looking to serve clients from a hub in one location—a center of excellence, perhaps. In addition, there's growing polarization among offshore wealth management centers, with established centers such as Switzerland, the United States, and the United Kingdom continuing to attract new assets, while smaller centers such as Panama and the Caribbean are losing market share.⁵⁷

Commercial banking: Designing a new service model bolstered with insights and digital tools

KEY MESSAGES

- Despite a loyal client base, commercial banks will likely face fierce competition to win a greater share of corporate clients' wallets.
- High inflation, recessionary concerns, supply chain challenges, and the minimum corporate tax rate could decelerate corporate demand for capital investments, but demand for working capital could remain robust.
- Corporate clients' demands for bespoke digital solutions, data-rich solutions, and specialized advice will likely require banks to excel at a new client service model.
- The fight against climate change presents a massive opportunity for banks to mobilize finance to aid corporate clients' transition to net-zero carbon emissions.

In the short term, commercial bankers will need to respond to evolving macroeconomic forces and corporate customers' needs, including digital solutions and financing for liquidity and capital. Meanwhile, lending opportunities and credit risks arising from financing the transition to a carbon-neutral future could require banks to realign their business models to fuel growth.

A visual summary of the impact and timing of factors influencing the commercial banking business is presented in figure 16. And in the subsequent narrative, we illustrate how such factors could manifest, and recommend actions commercial banks should take to leap ahead of the competition.



FIGURE 16

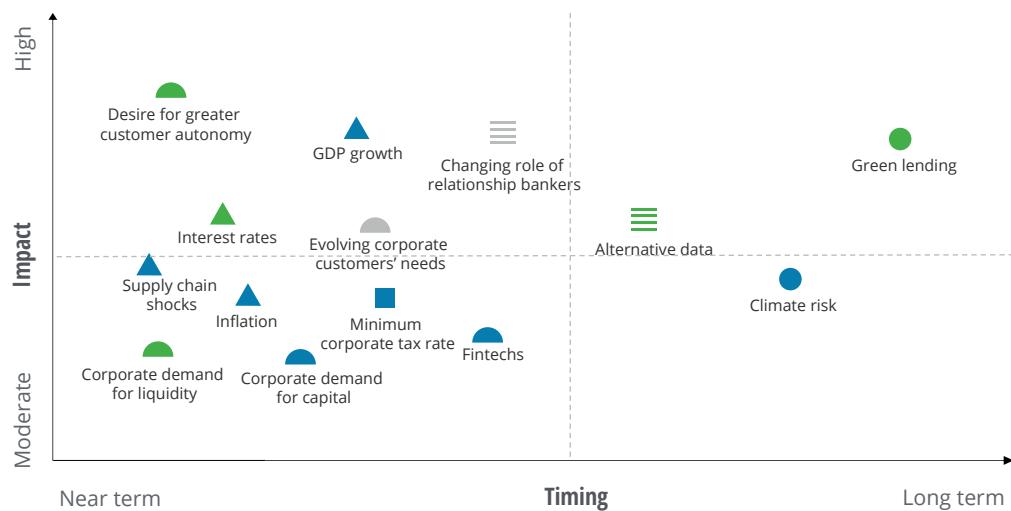
Factors influencing the commercial banking industry

Sources

- ▲ Macroeconomic ≡ Technology and talent ■ Regulatory ▴ Customer and competitive forces
- Disruptive market dynamics

Directionality of impact

- Positive impact ■ Negative impact ■ Mixed impact



Source: Deloitte Center for Financial Services analysis.

Maintaining the focus on business growth

Most corporate CFOs did not have to worry about accessing bank credit over the last couple of years. Cash balances were at historic highs, and bank underwriting standards had been relaxed since the beginning of 2021.⁵⁸

But inflation, higher rates, persistent supply chain shocks, and a potential recession portend a more stressful environment for corporates. In the United States, the new 15% minimum corporate tax rate on domestic income, and the global push toward a 15% minimum corporate tax rate on multinationals' foreign income, could dampen corporates' after-tax profits in 2023.

The signals for banks are hard to ignore, and probably more acute for European banks, which remain the largest financiers for Euro area's private nonfinancial companies, with US\$12.9 trillion of bank loans.⁵⁹ Banks in the Eurozone have tightened their underwriting standards in 2Q22, largely because of higher perceived risks and lower risk tolerance.⁶⁰ And only 9% of UK small- and mid-sized surveyed businesses applied for a loan in 1Q2022, while just 43% got their loans approved, both record lows from historical levels.⁶¹ US banks have also adopted a cautious stance by tightening standards for both C&I and commercial real estate (CRE) loans.

While commercial bank NII should improve as central banks raise rates, banks may also be forced to raise rates on deposit products to retain clients seeking higher interest-earning opportunities.

Institutions with low deposit betas—that have the ability to reprice loans faster than deposits—could enjoy higher NIMs compared to the competition.

As for credit risk, commercial loan losses could rise somewhat from current levels, but are still expected to remain modest. Companies with weaker balance sheets, still reeling from the pandemic shock and facing supply chain bottlenecks, could pose higher default risk. US banks' US\$2.7 trillion CRE loan exposure⁶² could attract regulators' attention, due to concerns around credit quality and vulnerabilities related to macroeconomic uncertainties.

Relying solely on interest income may not be enough. Banks should expand their share of wallet with nonlending, transaction banking products (for example, cash management) as an anchor to retain corporate deposits and deepen relationships. Robust forecasting models powered by alternative data and AI/ML technologies could help banks predict deposit outflows and identify at-risk clients. For instance, Oak North, a UK-based bank founded in 2015, uses AI in credit decisioning for corporate clients.⁶³

Going all-in on data and customer service to grow wallet share

Since most corporate clients have a strong relationship with their primary bank, growing share of wallet may be easier said than done. Our survey of 109 corporate executives suggests that clients have a median average of 10 years of relationship with their primary bank, and only 7% of respondents are likely to switch. This is probably due to the fact that there is often enormous friction associated with switching products from one bank to another.

Yet, the primary bank is not the only institution in the mix. About one-third of corporate clients in our survey with US\$1 billion or more in annual revenues had a relationship with 10 or more banks for their varied financial needs. And fintechs entering the commercial banking space at the lower end have added to the competition.

For pragmatic reasons, the notion of corporates having multiple banking partners may never go away. But gaining greater share of wallet should remain a core goal for any commercial bank. Attractive pricing and superior products can go a long way in capturing more revenues, but banks cannot ignore the power of data and customer service.

Data presents a perennial challenge. Sometimes there is a lot, sometimes it's not enough, and at other times the quality is lacking. This conundrum often prevents banks from offering timely and richer insights. Our interviews of commercial banking executives suggest that most banks have yet to effectively use alternative data, including ESG data, to make better credit decisions and tap new business opportunities.

Meanwhile, only 14% of corporate executives in our survey rate the quality of data and analytics capabilities at their bank as *excellent* or *very good*. And about one-half of respondents mention that their primary bank did not even offer them (near) real-time data and reporting services.

Commercial banks should redesign their data architecture to bolster data quality and improve data access, freeing the data that is currently compartmentalized in organizational silos. Moreover, collaboration between commercial banking, data, and technology units could usher a deeper, cultural shift in the organization; it could transform data into a strategic asset that generates actionable insights.

Customer service is another area that demands continuous improvement. Less than one-half of executives in our survey consider their primary bank's overall service quality to be *excellent* or *very good*. Identified areas of improvement span from offering self-service options to providing a seamless experience to offering quality advice. While banks may be satisfied with their own service levels, these blind spots can sour healthy relationships, and possibly impede growth.

Economic uncertainty may also drive changes in risk appetites, switching behaviors, and the need for more attentive customer service. Those banks that have been “courting” corporate clients may have a higher degree of success in winning net-new business in this new environment. Also, when times are tough, CFOs and treasurers will likely be under more pressure, and mediocre customer experience associated with meeting financial needs or solving issues tends to be the trigger for switching banks. As a result, banks should over-index on elevating customer experience now. Commercial banks should revisit their talent and digitization strategies (discussed in detail below) to raise the bar on customer service.

Clients expect relationship bankers to blend a solution-oriented mindset with specialized advice

Relationship managers are the heart of the commercial banking business, and rightly so. Whether it's getting a new line of credit or mitigating foreign exchange (FX) risk, relationship bankers have been responsible for connecting clients' diverse product needs to banks' offerings. Many have also been at their jobs for years; some, for decades. They thrive on in-person interactions and solving client problems. This is why the

pandemic and the remote/hybrid work environment have been a challenge to many.

With the shortage of talent, particularly in a heavily “relationship” oriented business such as commercial banking, attracting and retaining the best relationship bankers is important to long-term sustainability for commercial banks. Investments in new technology to support the bankers, along with training and upskilling in nontraditional skill sets (softer capabilities) should be a higher priority.

Another reality of today's commercial banking business is that manual, inefficient processes abound. Banks continue to implement new digital tools to aid relationship managers in their jobs. These efforts extend to the product specialists who play an important role in supporting the relationship managers. But not everyone welcomes these improvements. In our interviews with bank executives, we heard that **relationship managers are ambivalent about digitization**. They recognize that digital tools can help them be more efficient and serve customers better, but some expressed concern about losing control over client relationships.

“Relationship managers continue to be the silent heroes of our modern economies. On the one hand, they serve as brand ambassadors and risk assessors for the bank, and on the other hand, they are client advocates, being the empathetic ear for entrepreneurs/CFOs/treasurers—investing to support these heroes is critical for economic resilience.”

— Raman Rai, partner, Global Commercial Banking leader, Deloitte Canada

But digitization appears here to stay. Clients appreciate the efficiency, speed, and self-service nature of digital tools. They find the choice and control more empowering.

So, how can bank leaders bring skeptical relationship managers along on the digital journey? Many institutions are considering classic change management programs, labs to redefine their target operating model, and behavioral psychology to make relationship managers feel that they are in control of their relationships. Some are also implementing “scaled agile” approaches, which can help bankers feel like they played a part in implementing digital solutions. Learning and development programs and new incentive structures should also help. At the same time, banks should make the career path more attractive

for younger talent to join and grow within the system.

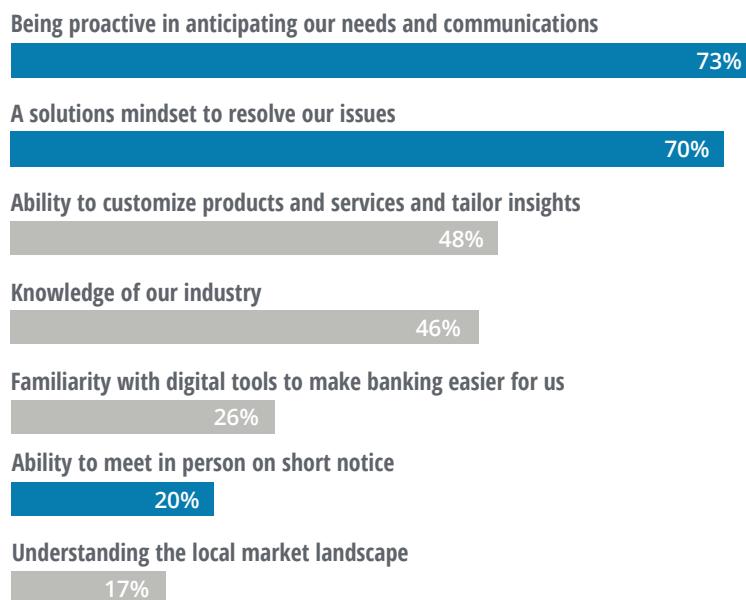
Another advantage of digital self-service channels is the time it frees up for bankers to engage in more impactful activities, such as providing advice and insights on clients’ strategic issues. This is one of the top attributes corporate clients value in a trusted relationship (figure 17). About four in 10 corporate executives in our survey say they’d like their relationship bankers to bring them more tailored insights about their industry. But only 26% of executives surveyed consider their bankers’ specialization to be excellent or very good.

FIGURE 17

Soft skills (e.g., being proactive, having a solutions mindset) are the most important attributes in a trusted relationship manager

Most important attributes in a trusted relationship manager (top 3)

■ Soft skills ■ Hard, technical skills



Source: Deloitte Center for Financial Services analysis.

Digital solutions are integral to client relationships, but they are not a panacea

While banks have traditionally served the digitization demands of large clients, the pandemic expanded their attention to providing self-service digital options for small- and mid-sized businesses. But even within these self-service options, **there's scope for banks to elevate the customer experience.** In a global survey, 70% of construction companies indicated that their expectations for a seamless lending experience are largely unmet.⁶⁴ Similarly, in our Deloitte survey, only 28% of respondents say they were satisfied or very satisfied with the loan origination experience (figure 18).

In addition, **corporate clients have new expectations for how they want to be serviced.** Many clients, especially large companies with sophisticated needs, are demanding digital banking experiences on their terms. Instead of coming to banks' platforms, many want banks to go to them and integrate digital solutions through APIs into their systems

and workflows. Banks, therefore, should be able to adapt their operating models to provide service to clients who prefer to access digital solutions through API integration.

"Frictionless digital experience has now become synonymous with trust and rapport in commercial banking. Clients not only want somebody they trust to oversee the account, but also digital features and capabilities that make it super easy to do business with the bank. You cannot have one without other."

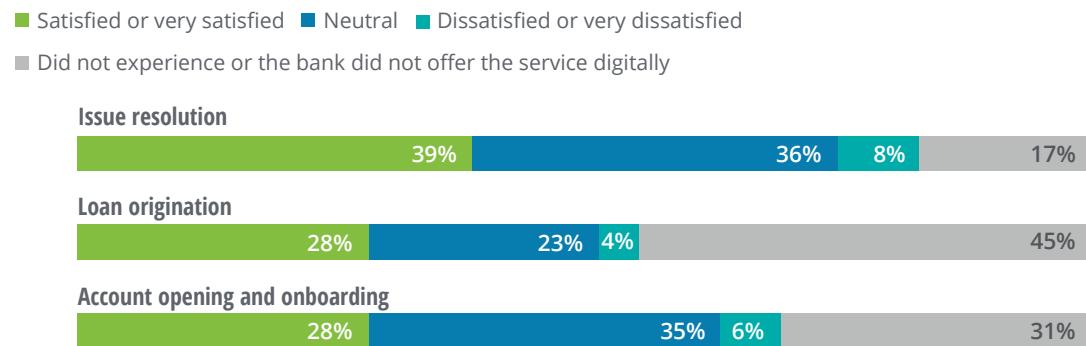
— Tim Partridge, principal, US Commercial Banking leader, Deloitte Consulting LLP

Nonetheless, bank leaders should be careful not to see digitization as a panacea to all their challenges. Sometimes, **digital projects tend to take on a life of their own**, so they should be implemented only after objectively assessing if they would improve the customer experience or bolster efficiencies. For instance, adding too many features and services to clients' digital portals may hamper usability, instead of improving the experience.

FIGURE 18

Corporate executives are only moderately satisfied with digital self-service channels—some have not even experienced them yet

Satisfaction with digital self-service options at the company's primary bank in the last year



Source: Deloitte Center for Financial Services analysis.

Transitioning to net-zero is a clear business opportunity, but should entail embedding climate risk into credit risk management

Banks have a historic opportunity to meet their net-zero commitments and help commercial banking clients transition to a greener economy. Within the Net-Zero Banking Alliance, 100+ banks, comprising 38% of global banking assets, have committed to mobilize lending and investments toward a net-zero state by 2050.⁶⁵

A more challenging macroeconomic environment could decelerate sustainability-linked loans to corporates. But this will only make it harder to reach banks' long-term commitments. In April 2022, Bank of America released its 2030 financing targets, with emission reductions planned in the automotive manufacturing, power generation, and energy sectors.⁶⁶ But to get to these long-term

targets, banks will need to be more disciplined in setting interim goals.

Integrating climate risk into the credit risk life cycle could be pivotal for effective risk management and getting to a carbon-neutral future. At first, banks will likely need to obtain clients' ESG data to effectively assess projects' exposure. In our US corporate executive survey, about one-third of respondents say their companies are willing to share ESG data with their primary bank to inform credit decision-making. Next, establishing consistent standards, taxonomy, and frameworks to assess emissions in credit portfolios against set targets could encourage more banks to join the green lending wave.

Furthermore, **bankers should be trained to understand their clients' ESG positions**. This can help them anticipate client needs and can enrich the quality of advice, strengthen trust, and help clients transition to net-zero.

Transaction banking: Shaping the future of global money flows

KEY MESSAGES

- The impact of macroeconomic forces will likely vary across the transaction banking businesses. While cash management and trade finance should witness strong demand, the outlook for treasury is mixed and somewhat weak for prime brokerage. Custody business should remain steady.
- On the technology front, the focus should be on building a modern, efficient, scalable technology platform to provide a holistic, real-time view of client transactions, and enable insights and innovation to serve clients better.
- In corporate payments, SWIFT's move to ISO20022 should begin a new wave of payments modernization. However, emerging alternatives to SWIFT could risk fracturing the international payments system.
- Supply chain transformation should create new opportunities for banks, in the form of greater advisory, analytical, and risk management support, in addition to new ways of financing.
- Meanwhile, treasurers will have to juggle multiple priorities around risk management, liquidity and funding optimization, business and legal entity rationalization, cost control, and recruiting and retaining quality talent.

Transaction banking businesses are standing firm despite recent market uncertainties. For many banks, these divisions, which include treasury and cash management, corporate payments, trade finance, asset servicing, and prime brokerage have been a steady source of revenues and profits.

In the short term, however, macroeconomic uncertainties and geopolitical risks are expected to test their resilience. While these businesses have significantly benefitted from international flow of funds, trade, services, and capital, in the long term, they would have to contend with new fragmentation risks to their revenue pools and

operating models. Meanwhile, the relatively slow pace of digitization can diminish their potential. But there are some bright spots, including migration to the new ISO20022 standards, that promise to provide banks with richer data to achieve their digital aspirations.

A visual summary of the impact and timing of these factors influencing the transaction banking business is presented in figure 19. And in the subsequent narrative, we illustrate how such factors could manifest, and recommend actions transaction banks should take to leap ahead of the competition.

FIGURE 19

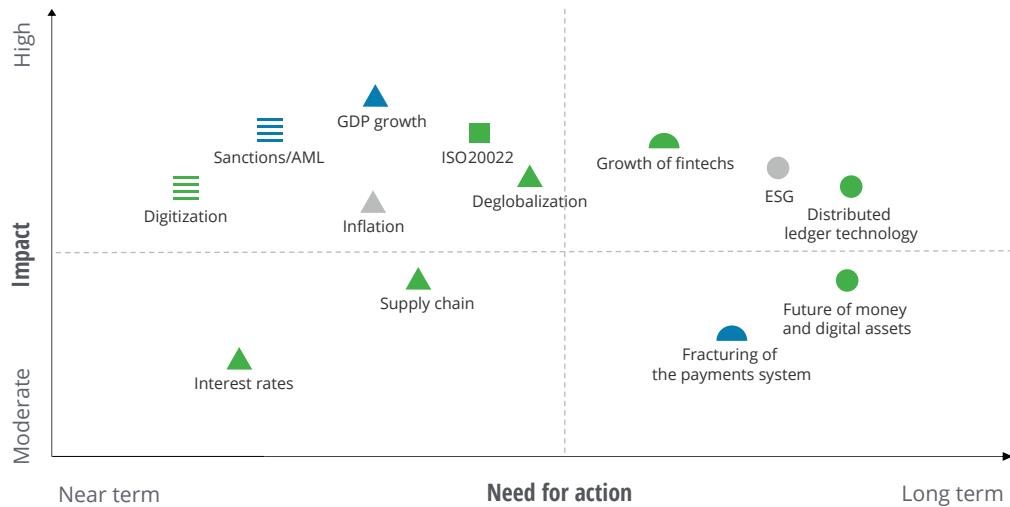
Factors influencing the transaction banking industry

Sources

- ▲ Macroeconomic ≡ Technology and talent ■ Regulatory ▴ Customer and competitive forces
- Disruptive market dynamics

Directionality of impact

- Positive impact ■ Negative impact ■ Mixed impact



Source: Deloitte Center for Financial Services analysis.

Global transaction banking's outlook is mixed

The impact of macroeconomic forces will likely vary across transaction banking businesses. Our survey of 109 US corporate executives reveals strong demand for cash management services: 73% of respondents cite *managing liquidity* as their biggest pain point. The business should also benefit from higher yields. Trade finance may experience decent growth in 2022, after years of subdued performance, driven by record commodity prices and higher interest rates (figure 20). Treasury services, on the other hand, may have a mixed performance, depending on the offering. Volatility

in FX and commodities should keep demand high. Custodial services are likely to remain a steady business; securities lending should offer opportunities for increased revenues. Prime brokerage may suffer, however, if hedge funds are unable to match market performance in a high-rate environment.

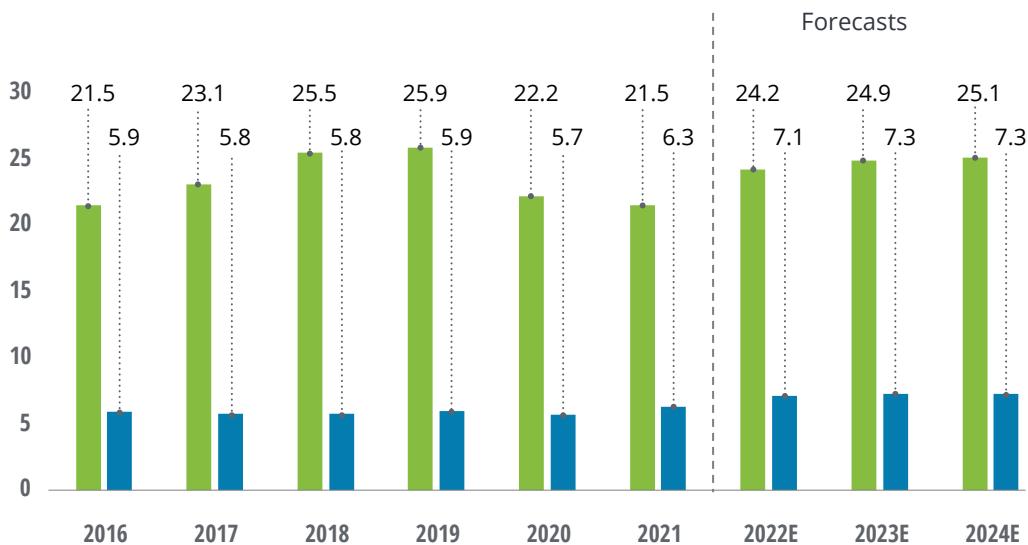
In addition, **the current geopolitical crisis has altered the cross-border payments landscape and highlights the need for banks to add more checks and balances**. New sanctions, if they occur, could further test banks' compliance programs.

FIGURE 20

Cash management and trade finance revenues are expected to rise through 2024

Revenues in US\$B

■ Cash management ■ Trade finance



Source: Coalition Greenwich, Deloitte Center for Financial Services analysis

The treasurer's job is getting more complex and multidimensional

“It’s becoming increasingly hard for banks to sell their treasury services to clients because of the infrastructure at client’s end. For banks to digitize, they have to connect with their clients—some are digitally native, and some are digitally naïve.”

— Michelle Gauchat, principal, US Transaction Banking leader, Deloitte Consulting LLP

The recent economic and geopolitical events have put most **corporate treasurers at the center of efforts to build resilient enterprises**. They are actively participating in strategic decision-making, but more is expected of them. Juggling

multiple priorities around risk management, liquidity and funding optimization, business and legal entity rationalization, cost control, and recruiting and retaining quality talent is making the treasurer’s job more interesting and challenging.

Banks should help their corporate treasurer clients embrace their new role. For instance, they could help companies evaluate the applicability of stable coins or other digital assets for their treasury function, as well inspire clients to practice all aspects of sustainable finance.

However, aging technology can make it difficult for banks to serve corporate clients, and the increasing divergence in clients’ digital maturity can also be an obstacle. Digitally naïve clients still rely on manual treasury management systems, often built on legacy enterprise resource planning systems; they need banks’ support in their treasury

transformations. Digitally native clients, on the other hand, have learned to leverage digital technology and make decisions based on data-driven insights. They are technically fluent and typically embrace and experiment with new technologies. Banks need to sort out how best to manage both digitally naïve and digitally native client groups. This can require many banks to fundamentally rearchitect their operating models.

Meanwhile, banks themselves will likely look to their treasury function to help address gaps in operating models and governance, process and controls, and data and reporting, especially amid the diverging global regulatory landscape. It will, therefore, be important for bank treasurers to meet the greater demands placed on them.

Building a modern, efficient, scalable technology infrastructure

Banks have been modernizing the technology infrastructure that supports transaction banking businesses for a while, but the outcomes are still somewhat disparate and patchy. **The end goal should be to build a modern, efficient, scalable technology platform** to provide a holistic, real-time view of client transactions, and enable insights and innovation to serve clients better. Further, transaction banks are competing on price and service. Digitizing operations enables banks to be cost-efficient, especially amid margin contractions, and compete effectively in a price-sensitive market.

No doubt, leading banks are increasingly modernizing their tech stacks, based on cloud technology, microservices, and open API-based architecture. Australia-based Westpac Bank, for

instance, plans to launch a new, cloud-native transaction banking platform with access to advanced liquidity management, cash flow forecasting, and real-time payments processing.⁶⁷

Globally, 85% of surveyed banks are working on rationalizing their client portals to improve customer experience.⁶⁸ While globalizing platforms ensures uniformity, consistency, and efficiency for banks, they should recognize and incorporate local and cultural nuances, in addition to business considerations, to create better, more personalized experiences.

“In the transaction banking space, competing on price and service can lead to margin contraction. Here is where technology can be an enabler—it can make banks’ transaction banking business more competitive.”

— Nitish Idnani, principal, US transaction banking leader, Deloitte & Touche LLP

Meanwhile, it's well known that **distributed ledger technology (DLT) can solve some of the pernicious problems with outdated, manual, inefficient processes** in trade finance or custody services. In fact, according to Juniper Research, blockchain technology is expected to enable savings of as much as US\$10 billion on cross-border settlement transactions by 2030.⁶⁹ As pilots such as Contour and Trusple are now turning into full-scale production, the promise of DLT seems closer to realization than ever.⁷⁰ In India, Reserve Bank of India has partnered with top banks to pilot a blockchain project to digitize documents such as letters of credit.⁷¹ However, to ensure interoperability and development of end-to-end solutions, globally accepted digital standards will need to be developed.

Accelerating the shift to the new ISO20022 messaging standards

A common dictionary. A standard structure. Richer data. The ISO20022 messaging standards promise all of these and more. SWIFT's cross-border payments and reporting (CBPR+) system is set to be the first to go live in November 2022 (and is planned to coexist with the legacy standards until complete migration by November 2025). EU's TARGET2 also has a go-live target for November 2022, US FedWire and CHIPS plan to complete their phase 2 in November 2023, and Hong Kong's CHATS will wrap up in October 2023. While challenging, institutions with global operations may have to contend with multiple standards until ISO20022 achieves mass adoption.

Migration to ISO20022 will be a massive undertaking. To meet SWIFT's November 2022 deadline, banks should complete testing of new messaging applications, and a "no-harm" testing of all the other legacy systems, to ensure the new plumbing does not disrupt business-as-usual processes. Limited predictability around day one payment volumes on the new system makes scenario planning critical.

Some banks are adopting a hybrid model with ownership distributed at both the enterprise and business line levels to ensure effective migration. Yet, **specialists who genuinely understand ISO20022 appear to be in short supply** in the industry. Training professionals across business

lines and processes to create "skill at scale" will likely be one of the top priorities. Upskilling on ISO20022 knowledge could also support client engagement efforts.

Bridging payments fragmentation will be no easy feat

Business-to-business cross-border payments are expected to grow to US\$42.7 trillion in 2026, from US\$34 trillion in 2021, despite current macroeconomic uncertainties and geopolitical risks.⁷² However, legacy platforms and infrastructure make these payments slow, expensive, and opaque.

There's a heightened urgency to address these inefficiencies. The Russia-Ukraine war has elevated the risk of the world fragmenting into multiple economic blocs, with competing alternatives to SWIFT. This fragmentation could dampen cross-border exchanges of capital, trade, and technologies, especially in low-income and developing countries.

Therefore, there's a broader need for a more resilient and efficient cross-border payments infrastructure. For instance, the Banque de France and the Swiss National Bank collaborated with the Bank for International Settlements (BIS) Innovation Hub to create a platform to exchange euro and Swiss franc wholesale central bank digital currencies (CBDCs) and tokenized securities.⁷³

The importance of rejigging supply chain finance to keep pace with massive shifts

Recent disruptions to global supply chains have intensified, prompting most businesses to take a much closer look at how they ensure resilience. Inventory management practices, in response, are shifting back from *just-in-time* to *just-in-case*. In fact, inventories at the world's 3,000 biggest companies have risen by an equivalent of 1% of global GDP since 2019.⁷⁴ Further, there's a gradual shift from offshoring to reshoring or nearshoring as companies look to local suppliers to minimize supply shocks. Together, these developments will be a tailwind for trade flows (figure 21).

Such supply chain transformation should create new opportunities for banks, in the form of greater advisory, analytical, and risk management support, in addition to new ways of financing. HSBC, for instance,

witnessed a 50% uptick in the number of suppliers it added to its supply chain financing programs in Asia.⁷⁵

While transaction banking is a global business, a strong regional franchise is equally, if not more, important, especially amid growing deglobalization. As corporates double down on local suppliers and partnerships, banks' deep knowledge and understanding of these markets and businesses, along with access to strong networks, could be paramount.

In addition, clients are closely examining the ESG impact of their supply chains. Responding to client demand, Standard Chartered launched a cash management account designed to offer access to cash for day-to-day liquidity requirements, while using surplus funds to support the UN sustainable development goals.⁷⁶ **Being able to provide new, innovative, sustainable supply chain solutions is increasingly becoming a competitive advantage.**

FIGURE 21

Merchandise trade volumes are expected to rise through the next year

Merchandise trade volumes (US\$T)



Source: WTO, accessed April 12, 2022.

Digital asset custody is a clear market opportunity

Custody is a relatively stable business. However, in addition to defending their core business, banks should keep an eye on the horizon. Enter digital assets.

Despite the crypto turmoil in the first half of 2022, investor interest in digital assets is unlikely to wane. However, the asset class is still operationally difficult for large institutional investors to access.

There's a need for new operational capabilities to minimize the risks around custody and counterparty services related to digital assets. Acknowledging the growing

relevance of emerging digital asset classes, banks such as Citi, Goldman Sachs, and Nomura are already developing their digital asset capabilities.⁷⁷ Meanwhile, fintechs, such as Bequant and BitPanda, are also making progress. Bequant recently launched a custody-agnostic DeFi platform for institutional clients.⁷⁸ That said, stablecoins, CBDCs, NFTs, and other tokenized financial assets are other potential opportunities on the horizon. Banks can bring a high level of trust and stability to these asset classes.

Beyond digital assets, custodians and asset servicers should continue their digitization agenda. Using technology, they can provide clients with data-rich insights and customized reporting.

Investment banking: Weathering the storms with patience and ingenuity

KEY MESSAGES

- Investment banks will face a growing series of uncertainties in 2023. Not every bank may have the scale and capacity to weather the unique market dynamics at play.
- Market volatility should offset the downward draft in advisory and underwriting businesses, as trading continues to be a reliable source of revenues.
- Investment banks should preserve their role as capital market intermediaries in the wake of deglobalization, the rush toward a green economy, and the rise of private capital.
- Cost controls could become more of a priority given the current macroeconomic environment, tight labor market, and rising talent costs.
- Accelerating digitization will remain key to unlocking future sources of value for investment banks.

Investment banking businesses will likely face a unique set of challenges in 2023. In the near term, the banking institutions will likely be preoccupied with how best to react to macroeconomic conditions, including divergent interest rate trajectories across the globe. As client demands evolve, they should also bolster customer experience by enabling front-to-back modernization. Banks should also be agile and decisive in responding to the new talent dynamics

and rising cost pressures. These challenges will likely test most investment banks' patience and ingenuity.

A visual summary of the impact and timing of these factors influencing the investment banking business is presented in figure 22. And in the subsequent narrative, we illustrate how such factors could manifest, and recommend actions investment banks should take to leap ahead of the competition.

FIGURE 22

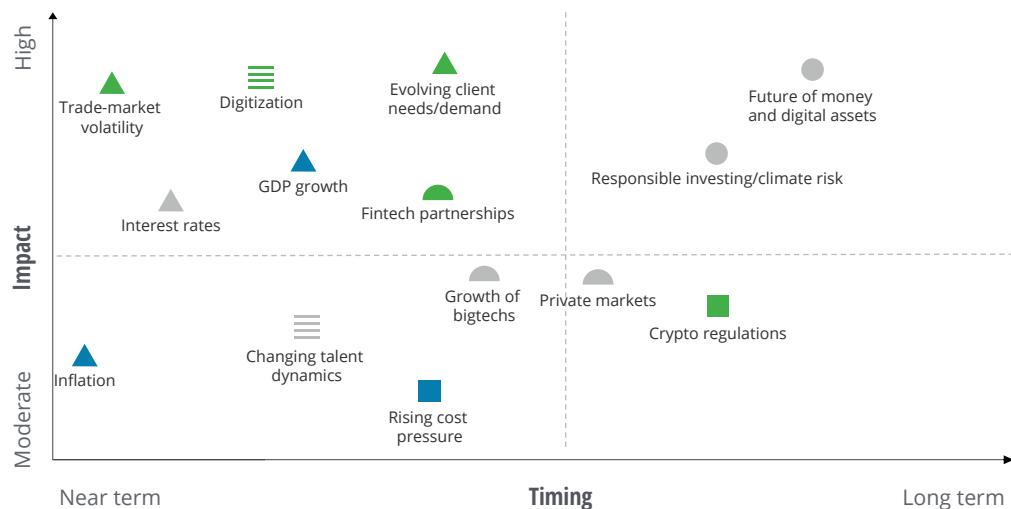
Factors influencing the investment banking industry

Sources

- ▲ Macroeconomic ≡ Technology and talent ■ Regulatory ● Customer and competitive forces
- Disruptive market dynamics

Directionality of impact

- Positive impact ■ Negative impact ■ Mixed impact



Source: Deloitte Center for Financial Services analysis.

Volatility to the rescue, again

While investment banks are no strangers to market uncertainty, the current macroeconomic environment is unlike any witnessed in the last few decades. On the one hand, volatility across asset markets may bode well for the Fixed Income Clearing Corporation and equities divisions. On the other hand, the same market unpredictability could create headwinds for prospective deal-making and underwriting and also stress capital and liquidity buffers (figure 23). These dynamics

are in sharp contrast to the last two years, when investment banking divisions posted record profits.

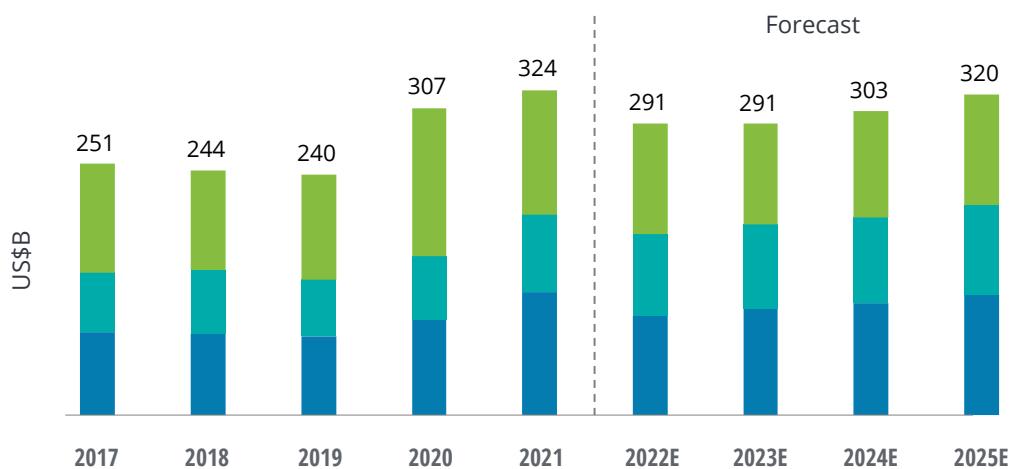
Close to US\$100 billion worth of M&A deals in Europe have been withdrawn in H1 2022—more than the full-year withdrawal during 2020 and 2021.⁷⁹ Equity and fundraising have also dropped significantly. On the flip side, there has been an increased demand for hedging and risk management at the corporate level.⁸⁰ But these products may not offset the revenue losses from deal-making.

FIGURE 23

Investment banking revenues are expected to decline with lower M&A, DCM, and ECM issuances

Global investment banking revenues (US\$)

■ M&A and underwriting revenues ■ Equities ■ Fixed income



Source: Deloitte Center for Financial Services forecast based on Coalition Greenwich Analytics dataset.

Catching up with American investment banks

The aftermath of the financial crisis paved the way for US investment banks to leap ahead of European banks, and this gap seems to have widened in recent years. European banks garnered just 23% of the global advisory fee pool in 2021, compared to 57% by US banks.⁸¹ This is European banks' smallest share ever, from a high of around 39% over the past decade. What may be more concerning is that they are also losing their dominance on domestic turf, with only a 50% share in the European market—their smallest ever.⁸² With the Russia-Ukraine war in their backyard, the ongoing energy crisis, and a bleaker economic outlook, European banks may be saddled with more challenges.

In contrast, APAC investment banks, particularly the Japanese banks, witnessed strong growth over the last two years, stemming from robust demand for debt capital markets services.⁸³

European investment banks may face stark choices. To counter the expanding share of American banks, they should be even more creative in how best to deploy their capital. One such strategy is joint ventures and partnerships. For example, In the partnership between Commerzbank and ODDO BHF group, the banks expanded their expertise and coverage across the “DACH” region (Germany, Austria, and Switzerland) while consolidating their investor reach both across European and North American markets.⁸⁴ And with rising regulatory interest, focus on green finance could be another area where European banks can build scale and become more competitive, both domestically and globally.

Accelerating front-to-back modernization

Investment banking groups have embraced digital transformation with the same gusto as other parts of the banking system. They have been the bellwether of technology adoption in the banking industry. Citi, for instance, is fully digitizing the client experience from pretrade analytics to execution.⁸⁵

Nonetheless, the journey is far from complete. **Modernizing technology infrastructure**, when legacy systems and manual processes still persist, increases the risk of operational failure, and typically is a multiyear effort.

But in the current environment, as banks rationalize cost strategies, technology functions may be forced to show stronger ROIs and, consequently, may put long-term projects on the back burner to focus on short-term wins. Banks with large technology debt could further fall behind.

Many investment banks also struggle with weak front-office operations such as onboarding and client servicing.⁸⁶ Copper Run, a middle-market investment bank, has invested in front-office, deal-sourcing technology.⁸⁷ Such technology upgrades can have enormous benefits, including enabling a singular, integrated view of the client for cross-selling and superior client experience.

“Banks are trying to find overlap of where they can buy/plug in innovation, and where partnerships make sense. Banks can’t figure it out on their own, because new developments happen so fast.”

— Sriram Gopalakrishnan, principal, US Consulting Capital Markets leader,
Deloitte Consulting LLP

Going forward, continuing to invest in technology, especially through cloud-based solutions, could be a key differentiator. But such transformation will not go far if banks do not set up a more robust data architecture. This will likely be needed to deploy advanced applications such as ML and natural language processing.

Revamping talent models

In response to the surging demand for investment banking services, many banks went on a hiring binge and boosted compensation at every level. But as the market showed signs of weakening, banks recognized that increased costs due to higher head count could become a burden.⁸⁸ However, they continue to hire for positions that are in great demand such as in risk, compliance, and technology.

Irrespective of how the workforce is rationalized in 2023, one reality will likely persist: competition for talent from private equity firms and hedge funds. There are some new realities, though. The lure of fortunes in the technology world, particularly among crypto fintechs, even though they have gone through tumultuous times, are hard to resist for those with unique talents and big dreams. Consequently, many banks are struggling to find the right talent, especially related to technical skills.

The more **challenging paradox could be conflicting signals regarding hybrid work**. Some banks state that having junior talent in the office full time gives them their competitive advantage. There are variations in how banks view the ideal back-to-the-office scenario. Goldman Sachs and JPMorgan, for instance, have asked most employees to come in five days a week, while Credit Suisse and UBS expect their workforce to come in two to three days a week.⁸⁹

"I do think ongoing competition for talent is going to force an evolution of the investment banks and influence how fast they can adapt to the changing environment."

— Nina Gopal, partner, Deloitte MCS Limited, UK

But anecdotal evidence suggests the expectation that employees return to the office is not universally appreciated by the rank and file. It remains to be seen how this dynamic will play out

as employers regain their upper hand. However, deal makers increasingly need the right mix of technical and human-centered skills to advise their clients on the ever-changing landscape. Leaders should pay attention to the evolving signals and remain focused on attracting and retaining the talent they need to succeed. In addition, banks should focus on managing compensation targets while still maintaining a high level of employee productivity and morale.

PARTNERING WITH THE FINTECH ECOSYSTEM IN THE INSTITUTIONAL SPACE

The IB world has always had a larger moat, with high barriers to entry. In the past, fintechs have only nibbled at a few select spots along the value chain where prowess in data analytics and AI gave them unique advantages. But fintechs' role has been limited to enablement rather than becoming direct competition. This is unlikely to change.

So how should investment banks engage with fintechs? They should selectively seek out startups that can bolster posttrade operations such as reconciliation and settlement. The transition to T+1 should be an additional incentive to partner with fintechs. For example, Citi, Credit Suisse, Goldman Sachs, and JPMorgan have partnered with AccessFintech to standardize the settlement workflow,⁹⁰ which they report has helped reduce trade fails.⁹¹

In addition, **partnering with fintechs can open up opportunities** in markets that have been difficult to penetrate. For example, Goldman Sachs is developing a banking-as-a-service (BaaS) tool for its fintech partners to build on that will cater to small and medium enterprises (SMEs), which the bank didn't have access to previously.⁹²

"Given the resource constraints, investment banks are likely to rely more on ecosystem partners to drive modernization."

— Sachin Sondhi, principal, Global Capital Markets leader, Deloitte Consulting LLP

Capitalizing on the opportunities in responsible investing, digital assets, and private markets

The race to net-zero has opened up tremendous opportunities for investment banks. Sustainable finance bond issuance surpassed US\$1 trillion for

the first time in 2021.⁹³ In fact, green bond issuance alone surpassed the half-trillion mark (figure 24). European issuers accounted for the largest regional market with 54% of market share, followed by the Americas and Asia Pacific.⁹⁴ M&A and equity issuances for sustainable companies also reached all-time highs in 2021.⁹⁵ These numbers are expected to continue to grow as more corporates and sovereigns join the transition in a meaningful way.

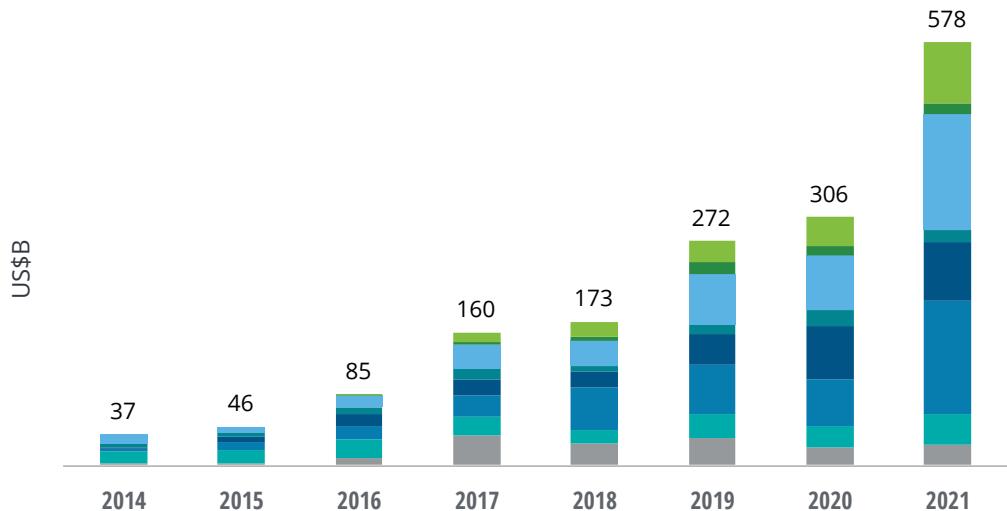
Banks are uniquely positioned to create a stronghold by changing their operating model and the products they offer to both corporate and investor clients. This could entail **rejiggering**

FIGURE 24

2021 was a bumper year for green bonds—and overall sustainable bond issuance

Green bond issuance by issuer type

■ Sovereign ■ Loan ■ Nonfinancial corporate ■ Local government ■ Government-backed entity
 ■ Financial corporate ■ Development bank ■ ABS



Source: Green bond issuance, Climate Bonds Initiative.

product portfolios, targeting new customers, and modifying their geographic exposure.

Digital assets are another revenue

opportunity that has, so far, eluded banks.

Despite significant interest from institutional and retail investors, banks have remained on the sidelines due to lack of regulatory clarity, limited transparency, and concerns about reputational risks. However, regulators increasingly want to make it easier for banks to engage in trading, custody, and risk management services of digital assets, similar to the stability and safety embedded in the traditional infrastructure.

Competing with existing crypto natives will likely be difficult, but banks have a key differentiator in their strong balance sheets and appetite to take inventory and counterparty risk. Recently, Nomura announced plans to establish a digital asset subsidiary to offer new products and services related to cryptocurrencies, stablecoins, decentralized finance, and NFTs.⁹⁶ The recent “crypto winter” should not deter banks from investing in the right technology and talent. As regulations become clearer, banks should be ready to seize opportunities by building scalable infrastructure and partnering with fintechs/bigtechs.

“Digital assets should have permanent and profound consequences for capital markets, and for the global payment systems.”

— Vishal Vedi, partner, UK Banking and Capital Markets leader, Deloitte LLP

As **demand for private capital** thrived in an environment dominated by low rates and investors’ search for yield, banks generated an additional source of fee income from both sponsors and corporates through private markets. Domestic investment banks, particularly, may continue to benefit from existing relationships with mid- and small-sized corporates as uncertainty thrives. There are limitations, though—as interest rates and volatility rise, there is a possibility that the cost of funding rises substantially and offers reduced returns. Growth in private markets may also give rise to “shadow banking” and nonbank transactions, impacting banks’ market share in the long run.

Market infrastructure: Carving a new identity by creating differentiated sources of value

KEY MESSAGES

- Market infrastructure providers are reimagining the services they provide to buy- and sell-side institutions across the value chain.
- But significant challenges lie ahead, including increasing competition from boutiques and specialist providers and mounting pressures from global regulators.
- Massive investments in tech upgrades could be necessary to accommodate rising customer expectations. Cloud-enabled microservices, flexible access and pricing for real-time data feeds, and tools that automate trading workflows all appear ripe for growth.
- The industry should continue to build out infrastructure that can usher in transformative forces, such as the transition to the net-zero economy and tokenization of financial assets.

Market infrastructure providers should reimagine the services they can provide to buy- and sell-side institutions across the value chain. The most urgent priorities for large exchanges include bringing new technologies to scale, including cloud-enabled microservices, market data tools and analytics, and digitized trading processes. In the near term, they should work to differentiate their offerings from specialist providers, through M&A or by developing new capabilities internally. Meanwhile, they face heightened calls for fee transparency from global regulators.

Exchanges should also seize medium- to long-term opportunities in carbon trading, crypto markets, and the mass tokenization of financial assets. A visual summary of the impact and timing of these factors influencing the market infrastructure business is presented in figure 25. And in the subsequent narrative, we illustrate how such factors could manifest, and recommend actions market infrastructure providers should take to leap ahead of the competition.

FIGURE 25

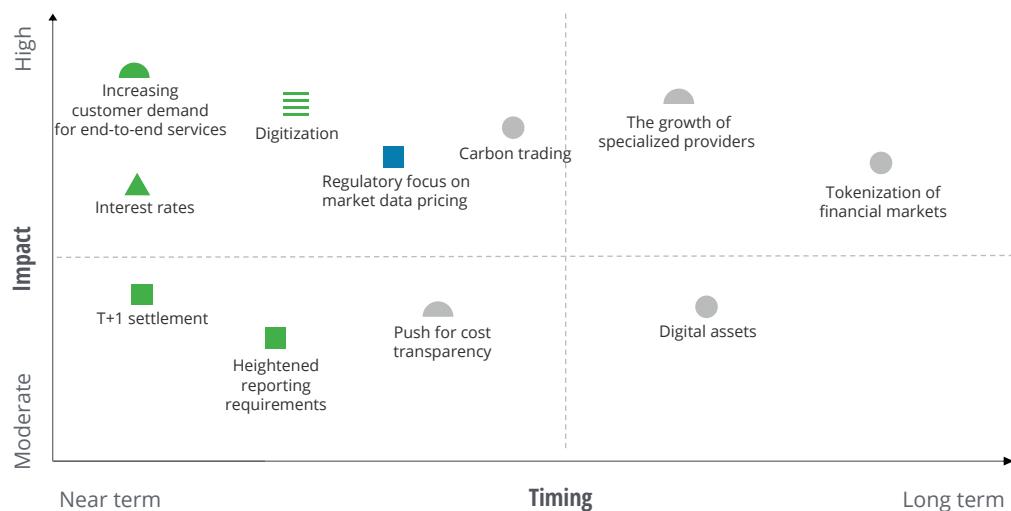
Factors influencing the market infrastructure industry

Sources

- ▲ Macroeconomic ≡ Technology and talent ■ Regulatory ● Customer and competitive forces
- Disruptive market dynamics

Directionality of impact

- Positive impact ■ Negative impact ■ Mixed impact



Source: Deloitte Center for Financial Services analysis.

Going above and beyond to create new sources of value for customers

Until recently, buy-side and sell-side customers mostly cared about best execution, low latency, and cost. But clients now expect more from exchanges. Most want a **bundle of services across the trading life cycle** to simplify their workflows and give them a competitive edge.

Exchanges also see their role as going beyond facilitating transactions. For instance, they are expecting their listed companies to adopt more robust ESG practices, and improve reporting of board diversity metrics, executive compensation, and climate-related disclosures.

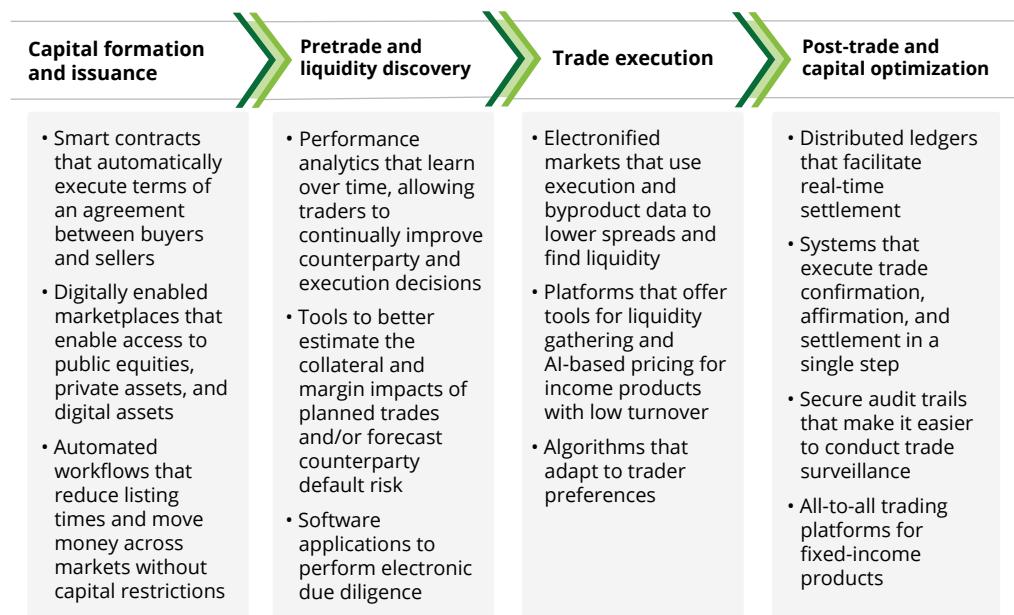
In addition, many large exchanges groups are creating new sources of value. One of the top

priorities in recent years has been to shift focus from trade execution to offering end-to-end services that run the gamut, from pretrade analytics to posttrade processes (figure 26). By diversifying the capabilities and support offered to clients, exchange operators expect to be more resilient to fluctuating trading volumes. Typically, profit margins for exchanges' data businesses are twice as high as third-party market data vendors, for instance.⁹⁷

Other new sources of recurring revenues include AI-powered software for anti-financial crime monitoring and tools that generate investor-grade reports on a company's ESG profile. Exchanges are also deploying technology that can automate tasks, such as KYC procedures, trade reconciliation, or processes underlying mortgage loan transactions.

FIGURE 26

Opportunities for innovation across the trade life cycle



Source: Deloitte Center for Financial Services.

Over the next five years, building out cloud-based infrastructure and expanding the applications available through proprietary APIs should be the top priority. While exchange operators have prioritized these efforts for years, technical challenges related to latency and colocation have prevented them from migrating major workloads to cloud platforms. Large exchanges are now beginning to move entire markets to the cloud.⁹⁸ In a recent survey of chief information officers, global market infrastructure providers say they plan to increase the number of cloud-ready applications by 27% before 2025.⁹⁹

The speed and agility gained by cloud adoption can enable exchanges to develop new microservices, such as event-driven notifications or tools that allow for more flexible data consumption and pricing models. They should continue working to minimize latency in the cloud and to assure regulators of its safety and security.

“There are advocates out there who say market data is the exhaust of the trading process, but in my view, it’s the fuel.”

— Bob Walley, principal, Global market infrastructure leader, Deloitte & Touche LLP

Facing off against small but mighty competitors

As the bigger exchanges increasingly become one-stop-shops, more specialized exchanges are acquiring market share by offering deeper expertise on niche segments or evolving markets, such as crypto trading or carbon futures.

Among these new and fast-growing entrants are green exchanges that support futures trading for carbon offsets. Singapore’s AirCarbon carbon exchange, for example, is launching in partnership

with the European Energy Exchange. In addition, independent exchanges such as MEMX have been founded to provide more transparency on execution quality and pricing,¹⁰⁰ while the Long-Term Stock Exchange requires its listing companies meet certain corporate governance standards.¹⁰¹

Despite the recent crashes in crypto trading markets, the proliferation of digital assets could also continue to give rise to new exchanges and business models for these exchanges. Some securities regulators say they plan to start regulating crypto trading platforms like traditional stock exchanges, however.

“Crypto exchanges have been flooding the market with fungible currencies and riding a lot of hype. Changing the rules to regulate them like a registered investment exchange will really separate the wheat from the chaff.”

— David Myers, partner, National Banking and Capital Markets leader, Deloitte Australia



Over time, crypto and traditional asset trading could become increasingly interwoven as operators race to provide clients with a full suite of products in one frictionless experience (see sidebar, “Crypto markets: room for maturity”). Deutsche Börse, for example, recently partnered with a crypto market data aggregator to offer consolidated data feeds for their customer base.¹⁰² On the other hand, FTX, founded as a crypto exchange, is now offering stock trading, and plans to expand into options trading as well,¹⁰³ while other crypto exchanges plan to build scale by consolidating with regulated entities.¹⁰⁴ FTX has also asked the CFTC for permission to perform direct clearing of listed futures contracts on Bitcoin and Ethereum.¹⁰⁵

CRYPTO MARKETS: ROOM FOR MATURITY

Trading venues for digital assets have become more sophisticated in recent years, prompting many banks to build platforms that can carry out cryptocurrency transactions. Despite these advances, the crypto markets still lack many of the characteristics of more mature and traditional exchanges. For example, price efficiency and liquidity can suffer for extensive periods of time in these markets.¹⁰⁶ Meanwhile, trading conditions can vary between different types of cryptocurrencies, depending on factors such as fluctuations in crypto asset supply and the extent to which value is derived from underlying technology. The dearth of crypto market data and lack of a reliable and regulated mechanism for calculating bids and offers can also impede markets’ functioning and efficiency.

Continued demand for institutional services will likely bring more consistency and assurance to many crypto functions. In addition, greater coordination among global regulators can provide clearer guardrails for crypto operations, as well as heightened monitoring and enforcement of market manipulation and fraud. As these regulatory frameworks evolve, the crypto industry could develop self-regulatory organizations responsible for setting governance standards and policing bad behavior.

Building the plumbing for a tokenized world

While exchanges and market infrastructure firms have made significant strides improving the speed, breadth, and quality of trading practices, transactions remain far from instantaneous and are fraught with inefficiencies. To address this challenge, exchanges, custodians, fintechs, regulators, and auditors should work together to develop infrastructure that supports tokenization. This should enable seamless execution of real-time, ultra-low-cost trading, clearing, and settlement.

In addition, tokenizing real-world assets such as real estate, precious metals, and intellectual property would open up new opportunities for retail investors—they would be able to acquire fractional interests in assets that were previously unavailable.

Financial institutions are beginning to chart the way forward. Nasdaq's Market Technology group, for example, plans to develop technology to track tokenized assets after the point of inception and improve processes for embedding asset characteristics into smart contracts that clarify ownership, payout, and distribution terms.¹⁰⁷

JPMorgan Chase recently completed the transfer of tokenized money market fund shares as collateral. Over time, the bank expects to instantaneously transfer and settle "previously trapped and hard-to-finance assets"¹⁰⁸ that have been tokenized for use as collateral. JPMorgan Chase has also been testing the feasibility of tokenization in wholesale funding markets. Similarly, the Swiss National Bank, along with the BIS Innovation Hub and STX, the Swiss Exchange, conducted an experiment to "settle transactions using tokenized commercial bank money."¹⁰⁹

There are several hurdles to overcome before these tokenization prototypes can be brought to scale, however. The industry may need to adopt more real-time processes to oversee transactions and

accelerate the movement of collateral on blockchains to reduce settlement risk.¹¹⁰ In addition, the industry may need to implement new protocols for authenticating digital identity and upholding KYC obligations.

T+1: Getting there in time

The move to T+1 settlement in the United States is expected to be a game-changer. In addition to lower margin requirements, which would free up liquidity and improve pricing for the investor, faster settlement also promises to curtail credit, counterparty, and operational risks across the financial system, since it would drastically reduce the volume of unsettled trades moving across markets.

But those that haven't developed a game plan to update their technology, processes, and behaviors for one-day settlement could be in for a rude awakening by early 2023. As a recent implementation playbook released by Depository Trust & Clearing Corporation, the Investment Company Institute, Securities Industry and Financial Markets Association, and Deloitte highlighted, there is a lot that needs to be done, including updates to service agreements, internal controls documentation, and customer education and staff training materials. Securities lending, for example, would require more streamlined procedures among lenders, borrowers, custodians, and broker-dealers to prevent settlement fail rates and potential buy-ins.¹¹¹

Similar efforts are underway in other jurisdictions. Canada is shortening its securities settlement cycle in tandem with the United States. Mainland China already operates on a shortened settlement cycle (To/T+1), and India is transitioning to one-day settlement.¹¹² The European Union, in the meantime, will likely stick with a T+2 settlement cycle for the foreseeable future.¹¹³

Achieving these efficiencies will be a tall task for back-office teams, who will have much less time to resolve trade exceptions and transactions. A single, joint record of trades, for example, can resolve posttrade inefficiencies and eliminate the need for additional reconciliations. Developing these networks will require industrywide collaboration, as exemplified by the Cobalt system for FX trading.¹¹⁴ Batch cycles should also fall by the wayside in favor of more streamlined capabilities, such as Straight Through Processing and “match to instruct” solutions that allocate and confirm trades instantaneously.¹¹⁵

In addition, firms may need a new approach for managing capital, along with a more robust analysis of intraday funding needs and cash availability. Business lines may also need to address logistical issues relating to foreign exchange management. Global investors and counterparties could have more difficulty confirming trades on the trade date, which may trigger the need for prefunding or other arrangements to secure margin.¹¹⁶ Many firms will likely need to adopt technology that automates trade processing, prime broker customer onboarding, and collateral processing.

The year ahead could be critical for evaluating whether new processes and technology infrastructure are adequate. Organizations should plan to allocate six to eight months to test their platforms and procedures internally before industrywide piloting takes place in 2024.¹¹⁷

Greater transparency could create new market dynamics

Regulators around the world are increasingly focused on cost transparency and payments for order flow (PFOF), particularly on dark pools and

alternative trading systems. In response to these concerns, clearing firms are developing new solutions, such as designing auction markets where exchanges can compete to match customer orders.¹¹⁸

Market data pricing is another priority for regulators in the United States, the United Kingdom, and Europe. They are investigating whether exchanges should offer more equal access and fairer pricing arrangements for transaction data and other information services.¹¹⁹ New rules that prohibit exchanges from integrating their data business with market service lines could drastically reduce demand for data offerings, including ESG information services.

In the United States, the consolidated audit trail (CAT) is expected to be fully operational in 2023, more than a decade after receiving SEC approval. The CAT is expected to process 58 billion records for the equities and options markets each day and grow to 21 petabytes of data within a few years.¹²⁰ It should bring transparency and accountability to data and information systems that can be complex, disjointed, and highly automated. Financial institutions should anticipate that the SEC will continue performing cause exams and inquiring about the accuracy of data reported to the CAT.

The EU may also launch a consolidated tape of centralized data from more than 470 exchanges and trading venues. But it is much more onerous to establish a single source of truth for trade information in the EU due to market fragmentation and the difficulty of standardizing data across jurisdictions.

The CAT is a good example of what can be achieved when regulators, exchanges, SROs, broker-dealers, and third parties come together to address a complex undertaking.

METHODOLOGY

In determining the factors influencing banking and capital markets businesses, the Deloitte Center for Financial Services analyzed a multitude of factors and their impact. Conclusions were based on the following three-step process:

- Identifying factors arising from various sources, including macroeconomic, technology and talent, regulatory, customer and competition, and disruptive market dynamics.
- Assessing the impact of these factors primarily through three lenses: the magnitude (moderate to high), the directionality (positive or negative), and the urgency for business segments to act (in the near term or long term).
- Placement of factors in two-by-two matrices is subjective, gleaned from interviews with subject matter specialists, literature review, and economic analysis. These factors and their impact remain unique to each segment, which is why each chapter has its own two-by-two matrix.

Endnotes

1. International Monetary Fund, *Gloomy and more uncertain*, July 2022.
2. Board of Governors of the Federal Reserve System, "2022 federal reserve stress test results," June 2022.
3. DCFS analysis of S&P Global Market Intelligence database.
4. European Central Bank, "Stress test shows euro area banking system resilient under challenging macroeconomic scenario," press release, July 30, 2021.
5. Harry Terris and Nathan Stovall, "Competition will hold back loan betas, but margins will still expand," S&P Global Market Intelligence, April 26, 2022.
6. European Central Bank, "Monetary policy decisions," press release, July 21, 2022.
7. DCFS analysis of S&P Global Market Intelligence database.
8. Shubham Saharan, "Banks used to provide relief from inflation. Now they profit big," Bloomberg, July 31, 2022.
9. ATTOM, "Mortgage lending plummets across U.S in first quarter amid sharp drops in purchase and refinance activity," June 9, 2022.
10. Éva Nagypál, *Data point: overdraft/NSF fee reliance since 2015-evidence from bank call reports*, Consumer Finance Protection Bureau, 2021, p. 3.
11. Jennifer Surane et al., "Myth of 'free' checking costs consumers over \$8 billion a year," Bloomberg, July 26, 2022.
12. J.D. Power, "U.S. retail banks struggle to differentiate, deliver meaningful customer experience as economy sours," press release, April 7, 2022.
13. American Psychological Association, "Stress in America," accessed August 29, 2022.
14. Peter Pearce, Malte Borkenhagen, and Maggie Gross, *Digital banking redefined in 2021*, Deloitte Digital, 2021.
15. Jeff Lee, "Customer analytics and marketing to maximize value," Seacoast Bank, accessed August 30, 2022.
16. Gartner, "Key customer engagement factors that will affect retail bank channel technology strategy," July 28, 2021.
17. Lauren Seay and Umer Khan, "US bank branch closures slow as industry grapples with talent, wage pressures," S&P Global Market Intelligence, June 23, 2022.
18. JP Morgan Chase & Co., *Annual report 2021*, April 4, 2022.
19. Dana Peterson and Catherine Mann, "Closing the racial inequality gaps," Citi GPS: Global Perspectives & Solutions, September 2020.
20. Consumer Financial Protection Bureau, "CFPB targets unfair discrimination in consumer finance," press release, March 16, 2022.
21. Emily Ashton, "U.K. plans to make it easier to spot racism in banking," Bloomberg, March 17, 2022.
22. Deloitte UK, "Making an impact: ESG factors are a priority for customers when choosing a bank," press release, December 22, 2020.
23. ING Bank, "Financing change in the world," accessed August 18, 2022.

24. NatWest Group, “£17.5bn of climate-friendly funding and financing provided in 2021,” press release, February 18, 2022.
25. ING Bank, “Financing change in the world.”
26. Miriam Cross, “M&T’s plan to use in-house data rather than cookies in messaging,” American Banker, January 28, 2022.
27. Ron Shevlin, “Embedded fintech versus embedded finance: Jumpstarting new product innovation in banks,” *Forbes*, April 12, 2021.
28. Michelle Shen, “JP Morgan is first bank to enter the metaverse with a virtual ‘Onyx lounge’,” *USA Today*, February 15, 2022.
29. Quontic Bank, “Quontic Bank opens metaverse outpost,” press release, May 17, 2022.
30. Citigroup, “Second quarter 2022 results and key metrics,” press release, July 15, 2022.
31. Ibid.
32. Federal Reserve Bank of New York, *Household debt and credit report*—Q2 2022, accessed August 3, 2022.
33. Pymnts, “Federal reserve: American anxieties amplify value of safe, efficient instant payments,” July 15, 2022.
34. World Economic Forum, “Brazilians are adopting digital payments faster than anyone else—what lessons can we learn?” May 19, 2022.
35. Paypers, *Financial crime and fraud report* 2022, April 21, 2022.
36. European Commission, “Digital identity for all Europeans,” accessed August 24, 2022.
37. PhocusWire, “Buy-now-pay-later is an opportunity credit card issuers can’t afford to pass up,” April 4, 2022.
38. Yizhu Wang and Ali Shayan Sikander, “Banks outsource buy-now, pay-later to new class of fintech firms,” S&P Global Market Intelligence, October 5, 2021.
39. Deloitte and PayPal, “Merchants getting ready for crypto,” June 8, 2022.
40. Steve Cocheo, “BNPL is now officially mainstream: What it means for lenders,” Financial Brand, March 8, 2022.
41. Ibid
42. Ishan Shah and Tarika Sethia, “All about RuPay, India’s payments network,” *Economic Times*, August 2, 2021.
43. Dick Durbin United States Senator Illinois, “Durbin, Marshall introduce bipartisan Credit Card Competition Act,” press release, July 28, 2022.
44. James Evers, “UK toughens BNPL regulations, will require ‘affordability checks’,” *Financial Review*, June 21, 2022.
45. Pymnts, “EU regulator launches PSD3, open financial consultations,” May 18, 2022.
46. Munjal Kamdar, “The Great Indian Data localization puzzle,” *Economic Times*, February 24, 2022.
47. Credit Suisse, “Global wealth report 2021,” press release, June 22, 2021; Includes nonfinancial wealth.
48. Katherine Burton and Sarah McBride, “Andreessen Horowitz seeks to manage fortunes of tech founders,” Bloomberg, August 2, 2022.
49. J.D. Power, “Retail banks miss the mark on financial advice as customer expectations grow, J.D. Power finds,” press release, June 23, 2022.

50. Daniel Rosshirt and Michelle Canaan, *Closing the gap in US retirement savings*, Deloitte Insights, April 25, 2022.
51. Melissa Henderson, "Understanding holistic financial planning and its impact," eMoney, November 9, 2020.
52. Global Wealth & Investment Management Survey, BofA Securities, February 24, 2022.
53. Gauthier Vincent et. al., "Wealth and asset management 4.0", Deloitte and ThoughtLab, accessed August 29, 2022.
54. Tobias Salinger, "SEC's Reg BI 'evolution' leaves industry wondering what's next," FinancialPlanning, May 19, 2022.
55. Deloitte Private and Campden Wealth, *The European Family Office Report 2021*, accessed August 29, 2022
56. Vincent et. al., *Wealth and asset management 4.0*.
57. Jean-François Lagassé et al., *The Deloitte International Wealth Management Centre Ranking 2021*, Monitor Deloitte, accessed August 29, 2022.
58. Board of Governors of the Federal Reserve System, "Senior loan officer opinion survey on bank lending practices," May 9, 2022.
59. Bank for International Settlements (BIS), "Credit to the nonfinancial sector," June 13, 2022.
60. European Central Bank, *Bank lending survey*, accessed August 29, 2022.
61. William Schomberg, "Lending to small businesses dries up as outlook darkens, survey says," *Reuters*, May 16, 2022.
62. Board of Governors of the Federal Reserve System (US), "Real estate loans: Commercial real estate loans, all commercial banks," accessed August 18, 2022.
63. Pymnts, "5 EU fintechs using AI to support consumers, businesses," June 24, 2022.
64. NTT DATA, *Corporate Banking Outlook 2022*, March 30, 2022.
65. United Nations Environment Program, "Net-zero banking alliance," accessed August 29, 2022.
66. Bank of America, "Bank of America announces 2030 financing activity targets as part of net-zero commitment," press release, April 13, 2022.
67. Westpac, "Westpac to build new institutional banking platform," May 17, 2022.
68. NTT DATA, *Corporate Banking Outlook 2022*.
69. Juniper Research, "Blockchain to facilitate savings of \$10 billion globally in cross-border payments, as operational efficiencies take effect," press release, November 8, 2021.
70. Deepesh Patel and Emmanuelle Ganne, *Blockchain & DLT in trade: Where do we stand?*, World Trade Organization and Trade Finance Global, November 2020.
71. *Business Today*, "RBI to collaborate with Indian banks on blockchain-based financing project," June 24, 2022.
72. Juniper Research, "B2B cross-border payment values exceed \$42 trillion in 2026," August 31, 2021.
73. BIS, *Using CBDC's across borders: lessons from practical experiences*, June 2022.
74. *The Economist*, "Why the structure of the world's supply chains is changing," June 15, 2022.
75. Chris Wright, "Asia trade finance bounces back," *Euromoney*, January 25, 2021.

76. Asset, "StanChart unveils corporate Sustainable Account," June 7, 2022.
77. Private Banker International, "Japanese investment bank Nomura to establish digital asset subsidiary," May 17, 2022.
78. Bequant, "BEQUANT launches industry-first DeFi platform for institutional clients," June 28, 2022.
79. DCFS analysis of Refinitiv Eikon database.
80. Juliet Chung and Amrith Ramkumar, "Hedge funds' commodity bets soar after Russia's invasion of Ukraine," *Wall Street Journal*, March 13, 2022.
81. Paul Clarke, "Wall Street banks are crushing European rivals in \$128bn deal boom; A record deal boom has played into the hands of larger Wall Street banks," *Financial News*, January 4, 2022.
82. Ibid.
83. Refinitiv Eikon, FY21 global investment banking review.
84. ODDO BHF, "ODDO BHF and Commerzbank join forces," May 11, 2021.
85. Hayley McDowell, "Citi launches project to digitalise electronic trading platforms," *Trade*, May 19, 2020.
86. Sriram Gopalakrishnan et al., *Client-facing technology modernization in the investment banking industry*, Deloitte, December 2020.
87. Sourcescrub, "Copper run improves time to market 3x," March 8, 2022.
88. Hugh Son, "Wall Street layoffs likely ahead as two-year hiring boom turns to bust," CNBC, June 27, 2022.
89. Paul Clarke, "London bank bosses are split on return to office: 'It's a shock to the system'," *Financial News*, November 18, 2021.
90. Finextra, "Big banks partner AccessFintech to standardise settlement workflow," December 9, 2019.
91. AccessFintech, "Citi, J.P. Morgan and AccessFintech achieve operational efficiencies through data and workflow collaboration," June 2022.
92. Goldman Sachs at the Wolfe FinTech Forum 2022, Conference Transcript via AlphaSense.
93. Refinitiv Deal Intelligence, *Sustainable finance review full year 2021*.
94. Ibid.
95. Ibid.
96. Private Banker International, "Japanese investment bank Nomura to establish digital asset subsidiary," May 17, 2022.
97. Octavio Marenzi, "Exchanges and market data—How much money is being made," Opimas, February 27, 2020.
98. Magnus Haglind, "2022 Outlook: The key technology trends impacting market infrastructure operators globally," Nasdaq, February 2, 2022.
99. Brad Bailey, *CIO Market Infrastructure Survey 2021*, Celent report commissioned by Nasdaq, June 1, 2021, p. 6.
100. Shanny Basar, "New exchange MEMX details 'smart' pricing structure," *Traders magazine*, September 15, 2020.
101. Bob Pisani, "New stock exchanges are ready to launch to compete for your trading dollar", CNBC, September 9, 2020.

102. Markets Media, "Deutsche Borse and Kaiko extend crypto market data," June 21, 2022.
103. Yueqi Yang and Katherine Doherty, "Crypto exchange FTX US expands stock trading, plans options next," Bloomberg, July 27, 2022.
104. Shanny Basar, "Exchange deals highlight acceleration of innovation," Markets Media, February 23, 2022.
105. Commodity Futures Trading Commission, "CFTC seeks public comment on FTX request for amended DCO registration order," press release, March 10, 2022.
106. Vu Le Tran and Thomas Leirvik, "Efficiency in the markets of cryptocurrencies," *Finance Research Letters*, Volume 35, July 2020.
107. Nasdaq, "Nasdaq decodes tokenized assets," video, 5:11, accessed August 30, 2022.
108. Yueqi Yang, "JPMorgan finds new use for blockchain in trading and lending," Bloomberg, May 26, 2022.
109. BIS, SIX Group, and Swiss National Bank, *Project Helvetia Phase II – settling tokenised assets in wholesale CBDC*, January 2022.
110. FTX US, "FTX presentation to the U.S. Financial Stability Oversight Council," July 26, 2022.
111. Depository Trust & Clearing Corporation (DTCC) et al., "T+1 securities settlement industry implementation playbook," August 2022.
112. Sriram Krishnan, "India trumpets T+1 settlement," *Flow*, March 23, 2022.
113. DTCC, "Global settlement: implications for T+1 in Europe," November 9, 2021.
114. John D'Antona Jr., "Cobalt signs Standard Chartered for post trade FX system," *Traders magazine*, February 27, 2020.
115. Ibid.
116. Securities Industry and Financial Markets Association et al., *Accelerating the US securities cycle to T+1*, December 1, 2021.
117. Broadridge, "T+1: Answers to pressing questions about accelerated settlement," accessed August 30, 2022.
118. Kate Rooney, "Brokerage industry looks for alternatives to payment for order flow amid SEC's threatened crackdown," CNBC, June 10, 2022.
119. Tom Groenfeldt, "Regulators continue reviews of market data pricing, little action," *Forbes*, December 18, 2020.
120. Commissioner Luis Aguilar, "Being a responsible steward: ensuring that the SEC implements effective cybersecurity protocols for its data gathering efforts," US Securities and Exchange Commission, December 16, 2015.

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