Banking on AI

Banking Top 10 Trends for 2024
A quarter of a century ago we stood on the threshold of the Digital Age. Amazon had just made the bold decision to broaden its sales catalog beyond books, Google was launched to help us find our way around a rapidly expanding internet, and we were blissfully unaware that the dot-com bubble was about to burst. A few years earlier, expecting digital to displace our industry’s incumbents, Bill Gates famously declared: “The world needs banking, but it does not need banks.”¹

Digital didn’t disappoint us. The past 25 years saw a revolution in how companies work and the products and services they offer. Banks changed fundamentally. Their branches, which used to handle virtually all customer interactions, today deal with only a tiny proportion. The use of cash declined as new ways of paying emerged. With technology having become a critical differentiator, and with almost $550 billion² invested in the fintech sector since 2010 alone, the industry experienced an influx of digital-native competitors. These included both agile start-ups and bigtechs with deep pockets, huge customer bases, troves of data and unmatched technological expertise.

Yet despite their best efforts, no fintech has managed to break into the global top-250 list of banks by assets.³ It appears the world does need banks after all.

As we enter the Age of AI, many bankers feel the same sense of awe that their counterparts did a quarter of a century ago.

Introduction

The Digital Age revolutionized banking; expect even more from the Age of AI
Today, we again stand on the verge of transformational change. The ability to process and analyze vast stores of data, the enabling power of cloud, and the rapid maturation of artificial intelligence are combining to create a wealth of opportunities for enhancement and innovation across organizations’ operations, workforce, products and experiences.

As we enter the Age of AI, many bankers feel the same sense of awe that their counterparts did a quarter of a century ago. They know that, as with digitalization, very little will remain untouched. These technologies are unlikely to change what banking does, but they will dramatically transform how it does it.

Each of the trends we describe in this report is either caused or amplified by AI. We, together with most bankers today, are peering into the future: trying to figure out what this technology holds for the industry. We are confident the Age of AI will change banking and many other industries; exactly how, we will only know in retrospect. However, it is we who get to choose where and how we will use AI. The challenge is to ensure it’s a force for good that benefits all humankind.
Our Top 10 Banking Trends.

01  The rise of gen AI
02  Capturing the digital dividend
03  All the risk we cannot see
04  A whole new way of working
05  The power of pricing
06  Time to think cloud first
07  Regulation recalibrated
08  From technology to engineering
09  The key to the core
10  Beyond Six Sigma
The rise of gen AI

Banks are likely to benefit more from generative AI than any other industry. Our analysis of operational efficiency indicates a potential to boost productivity by 22-30%, while a further study found that revenue could be increased by 6%. To achieve these improvements, however, it will be necessary not only to utilize the cloud and data effectively, but also to fundamentally rethink work and talent.
Sweeping statements like this are usually given little credence in the sober world of banking. But that was before generative AI came along. Suddenly all bets are off, and bankers throughout the industry are wondering whether there is any part of the business that won’t sooner or later be affected, if not actually transformed.

With good reason. We recently analyzed 19,265 tasks across 900 job families in 19 industries, using data from the US Bureau of Labor Statistics and others. The study included a breakdown of the time spent on each task and an assessment of the potential for automation and augmentation by generative AI. We concluded that banking is likely to be more extensively impacted than any other industry, with almost three-quarters of all work being well-suited to automation or augmentation (Figure 1).
Figure 1. Banking is likely to be more profoundly impacted by gen AI than any other industry.

Work time distribution by industry and potential impact of LLMs.

<table>
<thead>
<tr>
<th>Industry</th>
<th>Higher potential for automation</th>
<th>Higher potential for augmentation</th>
<th>Low potential for automation or augmentation</th>
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</thead>
<tbody>
<tr>
<td>Banking</td>
<td>39%</td>
<td>34%</td>
<td>27%</td>
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<tr>
<td>Insurance</td>
<td>33%</td>
<td>37%</td>
<td>30%</td>
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<tr>
<td>Capital Markets</td>
<td>32%</td>
<td>37%</td>
<td>31%</td>
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<tr>
<td>Software &amp; Platforms</td>
<td>31%</td>
<td>37%</td>
<td>32%</td>
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<tr>
<td>Health</td>
<td>42%</td>
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<tr>
<td>Communications &amp; Media</td>
<td>34%</td>
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<td>Retail</td>
<td>36%</td>
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<tr>
<td>Life Sciences</td>
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<td>High Tech</td>
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<td>Travel</td>
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<td>Automotive</td>
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<tr>
<td>Public Service</td>
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<tr>
<td>Energy</td>
<td>35%</td>
<td>23%</td>
<td>42%</td>
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<tr>
<td>Utilities</td>
<td>34%</td>
<td>21%</td>
<td>43%</td>
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<tr>
<td>Industrial</td>
<td>33%</td>
<td>24%</td>
<td>43%</td>
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<tr>
<td>Consumer Goods &amp; Services</td>
<td>32%</td>
<td>24%</td>
<td>44%</td>
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<tr>
<td>Aerospace &amp; Defense</td>
<td>30%</td>
<td>26%</td>
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<tr>
<td>Chemicals</td>
<td>31%</td>
<td>22%</td>
<td>47%</td>
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<tr>
<td>Natural Resources</td>
<td>31%</td>
<td>19%</td>
<td>50%</td>
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Note: Weighted by employment levels in the US in 2022. Estimates are based on human + machine identification of the exposure of work tasks to the impact of generative AI. Source: Accenture Research based on US BLS and O*Net.
AI has of course been around for a long time; most tech historians credit the English mathematician and cryptanalyst Alan Turing with having developed the concept in 1950. What is new is that cloud-based generative AI engines have reached the point where they are surpassing human capabilities in important respects. These progressively adaptive engines are advancing at an unprecedented speed, arousing both wonder and alarm in most parts of business and society.

Within months of the launch of ChatGPT at the end of 2022, early adopters in the banking industry were exploring the most promising use cases. Today, little more than a year later, virtually every bank has a generative AI strategy of some description and is running a variety of proofs of concept. Many are reporting impressive results. The next 12 months will see scaled adoption across multiple parts of the organization, with the more ambitious banks using it as the foundation for what we call Total Enterprise Reinvention.

Our analysis indicates that there are hundreds of use cases for generative AI in banking. Productivity is the most obvious benefit. As Figure 2 shows, there is greater potential to boost output in banking than in any other industry.

<table>
<thead>
<tr>
<th>Industry</th>
<th>Potential % Impact</th>
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<tr>
<td>Banking</td>
<td>30%</td>
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<td>Chemicals</td>
<td>14%</td>
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<tr>
<td>Consumer Goods &amp; Services</td>
<td>13%</td>
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<tr>
<td>Natural Resources</td>
<td>12%</td>
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</tbody>
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Figure 2. Banks can improve their productivity by up to 30% by adopting generative AI.

Potential hours saved by industry, valuated at US annual occupation headcount and wages of 2022. US value only.

Note: Estimates are based on human + machine identification of work tasks exposure to the impact of generative AI.
Source: Accenture Research based on US BLS and O*Net data.
Functions other than sales, marketing and customer interaction that are likely to receive early attention are risk management and compliance, technology, HR and legal.

Generative AI offers CEOs the chance to reshape their bank, empower their people, amplify their productivity and increase profitability. But most executives recognize that it cannot do this on its own; to realize its full potential it needs to work in tandem with human ingenuity. For this reason alone, any AI strategy needs to have the workforce at its core. The successful deployment of AI not only demands a set of skills that few banks have in sufficient numbers, but also requires significant changes in what people do and how they do their work. Banks that manage this aspect effectively will have a big advantage as they explore and unravel the exciting possibilities of AI.
Capturing the digital dividend

While most banks have mastered digital, its focus—more often than not—has been on servicing. Turning even a modest number of digital interactions into opportunities holds immense potential. To do that, banks will need to find ways to have meaningful conversations with customers across digital channels. AI may hold the key.
Virtually every bank has a mobile app that works effectively: it manages the majority of customer interactions, is typically rated well over 4 out of 5 by customers and—together with digital enhancements elsewhere in the organization—continues to deliver big efficiency gains and convenience for customers.

Yet there have been unwelcome side-effects. By shifting customer engagement out of the branch and onto their digital channels, banks’ experiences have become functionally correct but emotionally void. And at the same time as their personal connection with customers has weakened, so has banks’ ability to differentiate themselves: Accenture’s Life Trends 2024 survey found that 42% of consumers find it hard to distinguish between financial services brands. In the process, customer loyalty has weakened. The average consumer has 6.3 financial services products, only half of which are from their primary bank—73% acquired at least one financial services product from a new provider in the past 12 months. Digitalization has improved banks’ ability to solve customers’ most basic needs, but conversations about their financial aspirations and how the bank can help them achieve their goals have become increasingly rare. Yet the goal of increasing the proportion of digital sales depends on it.

The good news is that customers still trust banks and are sending them clear signals of what they want. To capture the full potential of digital, banks need to improve their ability to respond to these signals. This includes shifting their thinking about digital from “servicing” to “conversations”.

BBVA is one bank that has succeeded at this. By 2017 it was using its digital channels for most of its customer servicing, but for only 25% of product sales. Five years later the picture had changed: 61% of its sales were closed on the bank’s digital channels, and its cost-to-income ratio had fallen from approximately 50% to 43% (see also page 13).

To increase their percentage of digital sales, banks are getting better at personalizing their interactions. Like many service providers, Bank of America asks customers for feedback every time they engage with the organization. It now has more than 50 million responses. But instead of just aggregating that data to gain a better understanding of its customer base as a whole, the bank’s primary aim is to focus on individual customers: how they feel, what they want, and how their experiences could be improved.

* Measured by the percentage of total lifetime economic value of all products sold.
Currently, as our 2022 analysis of 41 leading banks across ten markets shows, less than 15% of them provide comprehensive rewards for customers who increase the number of products and services they use or the transactions they conduct with the bank. The ability to treat each customer as an individual can make a big difference to both the customer and the bank, but too often personalization goes little further than delivering banner advertisements.

In 2024, a growing number of banks will seek to realize a greater return on their investment in digital by using their vast stores of customer data and advanced analytics and AI capabilities to move beyond basic demographic segmentation and start treating customers as individuals. This will not only make customers feel more special, increasing their loyalty. It will also allow these banks to gain a better understanding of each customer’s circumstances, and to reach out proactively with empathy, timely advice and relevant offers. We call this approach ‘life-centricity’. When you feel recognized and appreciated, why would you buy elsewhere?

As banks commit to having conversations with customers, the logic of life-centricity rather than product-centricity becomes more compelling, and we expect to see corporate structures changing to reflect this. This will have many benefits, for both parties. When the banking app—consumers’ second-most important consumer technology after their car—becomes more than just a means of checking account balances and making payments but provides a steady flow of valuable, tailored advice and propositions, the relationship between the two becomes more trusting, durable and productive.

Bank customers, in the past 12 months, used branches more than any other channel to open accounts, get advice and acquire new products. Almost 2 out of 3 turn to branches to solve specific and complicated problems.

BBVA is a good example of a bank that has transformed its operating model to (among other things) develop an end-to-end personalization capability, optimize its customer experiences, and improve the effectiveness of its customer acquisition and cross-selling. Just one of the metrics it has announced is a 30% improvement in its conversion rate for auto-loan sales.\textsuperscript{11}

The ultimate objective is to offer the same authentic, personal experience through digital channels as banks have always done face-to-face in their branches. Commerzbank believes its new mobile virtual assistant will do this, enabling private and small-business customers to have natural and engaging conversations on general topics as well as for financial advice.\textsuperscript{12} By combining the convenience and efficiency of digital with the contextual relevance that comes from a deeper and more timely understanding of each customer, banks will be able to shift a growing proportion of their sales to digital while simultaneously reinforcing trust and loyalty.

This is the digital dividend they have been pursuing for so long.
Trend: 3
All the risk we cannot see

In 2024, banks will be confronted by a variety of risks: some familiar, others less predictable. We have identified five that we think deserve attention. Planning for the unplanned will pay dividends.
With hindsight, all risks are obvious. Yet as we entered 2023, no one foresaw that a bank failure in California would escalate into a regional banking panic and ultimately lead to the merger of Switzerland’s last two major banks.

Given the far-reaching consequences of events such as these, banks need to improve their planning for risks we cannot always see. This is especially true as stability continues to elude the industry and the markets it serves. In our latest Risk Survey, 72% of senior banking risk professionals said their organization’s risk management capabilities and processes have failed to keep pace with the rapidly changing risk landscape.
It’s obviously impossible to know exactly what risks 2024 will bring, but here are a few ideas to get the conversation started:

01

Banks have invested vast amounts in bolstering their cyber defences.

However, in November last year, a ransomware attack on the US subsidiary of the Chinese bank ICBC nearly crashed the US 30-year Treasury auction and forced participants to trade by using USB pen drives. The advent of generative AI has handed hackers another potent weapon, enabling them to attack all of banks’ surfaces with deep fakes that can deceive voice analysis and other defences, amplify phishing attacks, and create much more complex and elusive viruses. In 2024, as the likelihood of such attacks succeeding edges toward the inevitable, banks will shift the focus of their strategies from prevention to resilience.

They too will use generative AI—not only to detect attacks but also to increase the frequency, depth and scope of their scenario planning, and to look not only at the immediate implications of a cyber breach but also the second- and third-order effects—and how they should prepare and respond.
There is a growing risk of stressed customers defaulting on their mortgages as rates remain high and salary increases fail to offset consumer price inflation. In a sample of Western markets, the rise in the price of houses has significantly exceeded the average growth in household disposable income since 2015 (Figure 3). As rates remain elevated and low pre-Covid mortgages roll off, the risk of stressed consumers defaulting rises, even where unemployment is low.

The question then is: will governments allow large numbers of employed but hard-pressed home-owners to lose their properties or will we see some interesting public/private partnerships—the Canadian government is already talking about interventions to help citizens crushed by rising rates. In our 2023 Global Risk Survey, only 35% of 172 banking executives said their organization is fully able to assess the risks associated with interest rate increases. This alone suggests a low level of readiness to intervene if the situation turns ugly.

Figure 3. The average house price has risen more than personal disposable income.

Almost 17 years of near-zero rates has caused house prices to rise strongly.

Evolution of house prices and personal disposable income across selected major economies*
Indexed: 2013 Q1 = 100

*Overall indices calculated as simple averages of house price and personal disposable income indices for: Australia, Belgium, Canada, Germany, Spain, France, UK, Italy, Switzerland, Netherlands and US

Source: Accenture Research based on Federal Reserve Bank of Dallas
03
The status of commercial real estate (CRE) is similarly precarious.

A lot has been written about it recently, and the bankruptcies of Signa Development and WeWork have highlighted what may be the most publicized risk in waiting. As with mortgages, 15 years of near-zero rates followed by a sudden rise, combined with a shift to work-from-home, has left many commercial property developers and real-estate owners in a perilous position. It is a global risk, and CRE debt and equity are held not only by banks but also by other players throughout the financial industry—often beyond the scope of regulators (see Figure 4).
The rise in shadow banking.

In the aftermath of the 2008 Financial Crisis, off-balance-sheet lending became a priority for regulators, who introduced waves of Basel regulations as well as many local measures. This caused banks to dial back their risk. But the question is: has that risk gone, or have we just moved it out of sight? Banks hold less than 50% of financial assets (Figure 5) and the share of US non-bank mortgage origination has ballooned from 9% in 2010 to 62% in 2022. Is anyone monitoring that risk, and what would the inevitable fallout be for banks, insurance companies and pension funds should this turn bad?

Figure 5. Non-bank financial institutions hold nearly 60% of the private sector’s total global financial assets.

$ trillions. Financial assets held by central banks and public financial institutions are excluded.

Our aim is not to be a banking Nostradamus, implying that we can see and evaluate all major risks. We’re simply making the point that banks face a large and varied array of risks, some of which have been publicly scrutinized while others are hidden in plain sight. Many have the potential to cause extensive damage. To protect themselves and their customers, banks need to improve the frequency, depth and scope of their scenario planning, using real-time data.

We believe that in 2024, these scenarios will inform more board conversations and guide more strategic decisions.

China’s growing involvement in the economies of most countries, and its concerted effort to attract foreign investors, is another risk that warrants scrutiny.

The government has worked hard in recent years to strengthen its regulatory regime, but the fact that its residential property sector in particular is so heavily leveraged, and that developers like Evergrande were allowed to run up liabilities of approximately US$300 billion, show that the risk is very real. If the mounting debt burden is a bubble, and if the authorities fail to deal with the threat, the fall-out for global banks as well as economies worldwide could be severe.
Trend: 4
A whole new way of working

The way banks work is about to change radically. New skills, approaches and mindsets will be needed, not only in IT but—more critically—in every function and level of the bank. The challenge is way bigger than recruitment alone can solve. An entirely new strategy is called for.
There is no doubt competition for high-end technical skills will intensify in 2024 as every financial institution, and indeed every organization on the planet, advances its strategy to capitalize on AI, cloud, and data analytics.

Some leading banks, including Lloyds Banking Group and Banco Santander, are investing heavily in their captive IT organizations. They are recruiting and training aggressively to acquire the experts they need as they scale the roll-out of AI. However, demand is likely to greatly exceed their availability. In addition, the most talented among them will prefer to work for firms that can offer careers leading to leadership roles. Most banks will therefore need an alternative approach.

The challenge goes beyond this, however, and is different than during the Digital Age. With digital, banks hired specialist teams to develop their online and mobile banking applications. Because AI will impact nearly every job in every bank, recruitment simply won’t work. Banks will need to create a culture of curiosity, receptiveness to change and continuous development—one that encourages and enables all employees to reinvent their roles and, indeed, themselves.

The Digital Age saw IT teams designing and building websites and mobile apps, but it barely changed the work that most banking professionals did. Generative AI, on the other hand, will change what people do and how they do it. In the process it will open a world of possibilities for banks to generate new value for customers, more rewarding work for employees, and growth for the organization. To seize this opportunity, leaders need to reimagine the future of human + machine work, starting with a blank slate. They are starting to think about how generative AI should be integrated into every role and function, and how their workforces and culture will change as the technology automates much of the necessary work and elevates human skills such as strategic and creative thinking, judgement and relationship building.
Our 2022 Future of Work survey\(^2\) found that only 26% of bank CEOs had a future-ready strategy that was holistically focused on changing how, why and where their people work. This is sure to change swiftly as organizations develop ambitious plans around AI. It is important that this strategy concentrates not only on the necessary changes in roles, tasks and skills, but also on how generative AI is likely to change the soul of the organization.

We have been warning for years that banks, in their well-intentioned drive to digitalize, have become remote, impersonal and undifferentiated. Generative AI could exacerbate that. As banks define the objectives of their generative AI transformation, they are envisaging new human roles that include the introduction, management and governance of this innovation. Less obvious, but just as important, is how people will work alongside the machines to preserve the human face of the bank: be available to customers, maintain relationships, and show genuine empathy as they help to address their concerns.

It is only when the human + machine workforce is expanded and enhanced in such a holistic and human-centric way, and when HR and change professionals are fully involved in shaping the transformation, that the full potential of generative AI will be within banks’ reach.
OCBC putting gen AI to work

Singapore’s OCBC Bank, a generative AI trailblazer, has completed a six-month trial of an intelligent chatbot and is now rolling it out to all its 30,000 employees to help them write, translate, research and innovate. Participants said they were able, on average, to do their work 50% faster—which included the time taken to check the accuracy of the bot’s output. An earlier trial, to develop code, summarize documents, transcribe calls and create an internal knowledge base, boosted productivity by a similar amount. The bank currently uses AI to make more than four million decisions daily in risk management, customer services and sales—and expects this to increase to 10 million by 2025.
Banks have always known that optimized pricing can have a huge impact on their top and bottom lines. This year, they are starting to combine intuition with generative AI and more current and comprehensive data to turbo-charge scenario planning and move closer to personalized pricing.
In banking, all things being equal, a 1% increase in revenue translates into a ~40 bps improvement in pre-tax ROE. A 1% improvement in cost, however, only improves ROE by ~25 bps.24

The challenge, however, has always been to predict the impact of a price change on revenue. Economists can plot graphs showing the price elasticity of demand, but they can seldom take account of all the relevant variables and offer more than an averaged view of a customer base or market. Which means that a banker who sets a price will hope that it works for most customers but will know that for a significant proportion it is too high, and there’s a risk of attrition, while for another group it is less than they would be willing to pay, which represents a revenue forfeit.

Despite years of talk about “hyper-personalization”, banks’ pricing has always been characterized more by consistency and simplicity than the ability and willingness of individual customers to pay. What’s more, with interest rates having been stuck virtually at zero for the past 15 years, there was little benefit to be gained by improving the sensitivity of pricing.

In 2024 we will see the beginnings of a change in all this; a different approach to pricing and sales that could be one of the most important contributions of generative AI to corporate profitability—as well as customer value. In theory there is a perfect price for each combination of customer, product, and channel. Ideally, banks would like to price customers in increasingly smaller and smaller groups to find the perfect solution—similar to how Isaac Newton used calculus to measure the area under a curve. Unfortunately, until now, banks haven’t been able to approximate Newton’s precision as he conceived of infinitely smaller spatial figures. This has meant that, for many customers, their prices were wide of the mark.

In the future, AI will play a major role in bringing pricing to perfection. It will consider thousands of variables to rapidly come up with a perfect price for retail and commercial customers—either individuals or small segments with very similar needs. It will measure the outcome, feed it back into its calculations along with competitive data and other changes, and adjust in real time.
The new prices can be delivered automatically to all customers, together with tailored incentives for saving more or subscribing to more products. These could be promoted through personalized marketing scripts, also crafted by generative AI. With millions of iterations, and the ability to learn from each, banks should soon be able to zero in on the perfect price.

They will also be able to execute their business strategies with more precision: set prices that find the ideal balance between profit, growth and customer value, and between short-term and longer-term objectives. By testing different strategies, banks will be able to optimize their deposit betas and maximize lending rates in the retail, small business and commercial segments.

Banks will also be able to reward loyalty, not just with uniform schemes that target the entire customer base but with tailored incentives. For example, South Africa’s Discovery Bank tracks customers’ actions that reduce risk and improve their financial health, and then shares the value this creates through personalized interest rates and other rewards. “It’s simple,” the bank states. “We believe that we’ll do well when our clients do well, and society will benefit too.”

Dynamic pricing has always been possible, but it has mostly depended on intuition. In the future, banks will price their services with a greater understanding of how each variable affects the outcome in relation to each customer. Some may use the ability to maximize short-term profits, while others will test innovations and drive growth; another group will pursue a happy medium between the interests of the bank and those of its portfolio of customers.

Despite its past limitations, banking has always been an industry where competitive advantages have been efficiently hunted down and negated by rivals. This is one reason why, over the past 40-50 years, the ROE of banks in developed markets has rarely exceeded 15%. What may ultimately happen, as all industry players become adept at price optimization, is that the benefits are mostly passed back to the customer. In this case, the race to perfection will initially advantage the early adopters and ultimately the banking customers. However this plays out, pricing is likely to receive a lot more attention as generative AI matures.
Most banks’ early experiences of cloud were like that of a novice driver put behind the wheel of a Ferrari: they tried to drive it like the family sedan they were accustomed to. Lately they have become more confident, are moving up through the gears, and are discovering what cloud can really do for them.
For this reason, the initial impetus to move to the cloud came mostly from their IT organization. Recognizing the security, variable pricing and scalability advantages, they started to move their less critical applications to the cloud. By 2022, the average bank had migrated 15% of its workloads, up from 8% the previous year. Some benefits were achieved, but there was a clear divide between the transformative outcomes claimed by cloud leaders and those experienced by most financial services firms.

The main reason for this under-performance was that when banks first started moving to the cloud they kept their operating models largely unchanged. Instead of ramping up to cloud speed, they forced the cloud to operate at bank speed. It was never allowed to get out of second gear.

Today, many banks are on their second or third journey to the cloud. Most of the impetus now comes from the business, which recognizes that the road to capturing the value of data, generative AI and other emerging technologies runs through the cloud. And that the cloud is not just a different place to locate their data and applications, but a different way of working and thinking—a cloud-first way.

When fully implemented, cloud alters the character of the organization: its innate flexibility, the speed at which it operates, and its openness to change and innovation. It requires the reassessment and remodeling of the bank’s processes, architecture, skillsets, roles, and corporate structure and culture—with cloud at the center.

Moving to the cloud was always going to be an unnatural act for banks—since their earliest days they have kept their most valuable assets locked up on-premise.
As the appreciation of this grows, we expect to see four major changes to banking in the cloud in 2024:

01 As the business benefits become more apparent, the IT organization will increasingly be joined by enthusiastic business leads in support of a fully-fledged migration.

02 A growing number of banks will adopt a cloud-first approach for their on-premise operating model, rather than projecting their on-premise model onto the cloud.

03 Banks will move increasingly to a common, open operating system. Cloud today is in a similar position to networking in the early nineties—it wasn’t until TCP/IP was adopted as the standard internet protocol that the internet really took off. In the same way, cloud performance will be transformed when providers adopt a standard, open operating system. Only then will banks enjoy seamless connections between on-premise and cloud, making the migration of applications as easy as sending an email. With regulations like DORA in Europe becoming more of a priority than ever, this capability will be vital.

04 Operating in a mixed mode of environments has stressed the resiliency of banks. In the year ahead we will see an increased focus on resiliency, with banks adopting many of the features of cloud to ensure availability.

It may take some time for banks to become cloud-first, but whereas three years ago most were asking “why public cloud?”, today the question is “how can we get there quickly?” Nonetheless, the understanding banks have gained of how to make cloud work to their best advantage will prove to be a tipping point. In 2024 we’ll see bold strides, not only in migrating more workloads but also toward becoming cloud-first in every way.
The sheer volume of regulation that banks need to comply with has ballooned since the 2008/9 Financial Crisis. Yet only a small proportion of this increase directly addresses the reasons why banks fail. We expect to see more collaboration between banks, central banks and regulators to find a more effective approach.
The volume of regulation which banks have had to deal with has increased significantly over the past decade and a half.

From the introduction of the Comprehensive Capital Analysis and Review and (by our assessment) the doubling of the Code of Federal Regulations Title 12, to Basel IV, Europe’s General Data Protection Regulation and its Payment Services Directive, the compliance burden has become onerous and costly.

Nor is it likely to ease anytime soon. With new legislation targeting AI and sustainability in the pipeline, it’s no surprise that the majority of banking executives see regulatory compliance as one of their top three priorities.\(^\text{27}\)

When President Obama signed the Dodd-Frank Act into law in 2010 the stated aim was to protect customers against bank failures; much of the regulation since then has had similar goals. Yet it hasn’t directly addressed the main reasons why banks falter: credit risk, liquidity, and fraud. The recent failures of SVB and Signature Bank and the merger of UBS and Credit Suisse, and the market turmoil generated by these events, have shown that more pages of regulation don’t necessarily mean more safety.

What this proliferation has done, by focusing on process and technology, is massively increase the compliance burden. Jamie Dimon, in his letter to JPMorgan Chase shareholders in 2022,\(^\text{28}\) said “it has become an enormous, mind-numbingly complex task about crossing t’s and dotting i’s.” In our own 2022 study, the majority of banking compliance executives said they expected compliance operating costs to escalate by more than 10% in the next two years, with some even saying they would rise by more than 30%.\(^\text{29}\)
Some cynics go so far as to claim that the medicine has caused more harm than the ailment it was intended to cure. It has certainly moved a lot of risk outside the banking industry. This is evidenced by the growth of private equity players, especially in leveraged loan markets and private debt. The Financial Stability Board has noted that while hedge funds held no credit assets in 2009, 12 years later their holdings exceeded $4 trillion.30 This shadow bank system has grown to be larger than the formal, regulated banking system (Figure 5).

It’s no coincidence that banking is not only one of the most regulated industries, but also the most difficult for new businesses to penetrate. While most other sectors have seen digital-native innovators setting up shop, capturing market share and, in some cases, becoming the dominant players, in banking not one neobank has managed to become a significant player and challenge the incumbents. As mentioned on page 2, even the most successful contenders have been unable to break into the top-250 global ranking of banks by assets.31 The chilling effect of regulation has also, in recent decades, resulted in a decline in the number of firms applying for a banking license in the US (Figure 7).

Figure 7. The number of new banks in the US has plummeted since the Global Financial Crisis.

Number of new banks chartered in the USA, including commercial banks and savings institutions

Source: Accenture Research analysis based on FDIC.
We expect a shift in the conversation about and the approach to regulation in the next year and beyond. Regulators and banks will work together to recalibrate the balance: focus their measures more efficiently on the causes of bank failures while responding more nimbly to the unintended effects and minimizing the cost to banks. We also believe financial institutions and their associations will urge regulators to work more effectively with their counterparts in other countries—the disparity in objectives and approaches is hampering international trade and impairing the efficiency of cross-border markets, not to mention making it more difficult for each regulator to achieve its goals.

Central banks and other regulators around the world are transforming their data and AI capabilities to gain a better and more immediate understanding of the dynamics of their markets, including the impact of their actions. They are basing more of their decisions on current if not real-time information, improving their scenario planning and forecasting, and honing their regulations for more precise outcomes. The ECB, for example, is digitalizing and introducing other measures to facilitate reporting by banks in the euro area. Its system will facilitate policymakers’ analysis and comparison of such data.

We believe regulators can take this further by partnering more closely with banks on data standards and accessibility. If they could draw the data they need from each bank, as and when they need it, they would succeed in making compliance a lot more transparent, continuous and efficient.

Conversely, market efficiency could be improved by governments opening up their data to banks. Open Data—a logical extension of Open Banking—encourages holders of consumers’ income, tax and other data to make it available to approved parties.

Regulation is an indispensable part of financial services, but more regulation isn’t always a good thing. 2024 will be the year in which this issue is debated more earnestly than ever.
A subtle change, with major organizational implications, is starting to emerge in several leading banks: the shift from a technology management to an engineering mindset. Building with technology is increasingly recognized as an imperative of the C-suite.
It starts with the cloud. As more and more workloads are moved from banks’ premises to shared computing centers, the impact goes beyond the benefits laid out in the business case. In addition, it changes the structure of banks’ technology estates and the work that is required to maintain them.

Application portfolios are increasingly composable, comprising a variety of different parts that are inexpensively bought and quickly and easily assembled to provide the desired features. And they are just as easily modified when circumstances demand. Banks’ data centers require much less maintenance, planning and development. Their networks are a lot thinner. Generative AI is taking over a bigger share of programming, with code automatically generated from specifications into any language. Testing is a much simpler and quicker process. The familiar 70:30 run vs. new cost allocation is changing as “keeping the lights on” becomes a much less onerous task.

Banks’ tech teams will naturally move closer to and may eventually merge with the business. Their priorities will change from maintaining the IT infrastructure to helping invent, scope and build the new offerings. Their skillsets will evolve too as they shift their internal focus outward toward the bank’s customers and competitors.

Non-technical staff will also experience a change in purpose. As generative AI becomes as commonplace as email is today, and as workers are relieved of many of their most tedious duties, they will gravitate naturally toward helping develop better products and experiences. Initially this may take the form of transferring their expertise to, and testing, the contact center bots and co-pilots that will become an everyday feature of banking. Later, many of them will harness the capabilities of these tools for more than their mundane tasks—to tailor customer interactions and craft innovative new products.

BBVA, one of the early movers in this regard, long ago changed the title of its IT lead to head of engineering.33 J.P. Morgan refers to its team of 40,000 computer scientists and technologists as engineers.34 In both cases, the roles have evolved from managing to designing and building. Bankers may not think of themselves as becoming engineers, but their shift in focus from maintenance to design and development is a positive change that will greatly benefit the bank’s long-term growth prospects.
“This is the attitude across Nubank, but in engineering it is especially important because we don’t want the traditional IT group that sits in a different building and receives a list from the business areas of what they want to do. We want engineers to be actively involved in the same team, providing inputs and their point of view around the product, going beyond the code to be builders and owners of that product.”

David Velez, CEO, Nubank.
Trend: 9
The key to the core

New approaches and technologies—not least of which is gen AI and its ability to swiftly convert outdated code—are combining to finally free banks from the limitations of their aging core systems.
While innovation flourished in many parts of the organization, the foundation remained fundamentally unchanged. The enhancements that were introduced to banks’ core systems had a perverse effect: they invariably increased the coupling, complexity and fragility of these systems and architectures (where little decommissioning took place) and often introduced vulnerabilities that were not present in the original version. Adding to the problem is the millions of lines of COBOL code that handle most banking data and processing—it is not only outdated; it also tends to be poorly documented and difficult to change.

It didn’t help that, as banks digitized their front ends and client engagement layers, processing volumes (especially at peak times) increased significantly. A final factor contributing to this perfect storm was the pool of professionals familiar with the legacy core—mainframe experts and COBOL engineers and programmers—has for years been drying up. The time, effort and risk involved in a full-scale digital core modernization was therefore daunting, and left banks in a cycle of bare maintenance that hindered the adoption of new technologies that would enable the business and improve productivity.

Proof of this could be seen in the market. When Commonwealth Bank of Australia replaced its core banking system, it took five years and cost almost US$750 million.36 It’s hardly surprising that many a CEO would have opted to put off a project of this scale, preferring to leave it to their successor.

Today, the capabilities, scalability and increasing maturity of next-gen technologies may offer the key to breaking the traditional cycle. Composable and coreless architectures and approaches that use thinner next-gen core banking platforms enable the integration of best-of-breed solutions and the co-existence of legacy and modern core systems. This hybrid approach dramatically reduces the risk of core modernization while enabling timely business outcomes, and control over the modernization speed and path.

In 2024 generative AI will join this impressive arsenal, help unlock the shackles of banks’ legacy systems, and allow them to transition more swiftly and securely to a modern, fit-for-purpose digital core.

If there’s a single theme that has dominated discussions about banks’ technology over the past few decades, it is the constraints of their digital core.
In the few months it has been around, generative AI has demonstrated a remarkable ability to reverse-engineer and untangle banks’ COBOL code to derive the original requirements, and then forward-engineer it to a more modern and versatile language. Whether it is with Microsoft’s GitHub Copilot or IBM’s watsonx Code Assistant, the technology is emerging and improving every week that can slash the time required for a major modernization project. This has obvious cost benefits and dramatically reduces disruption to the business. In addition, by being able to document what the code does, it helps immensely with regulatory compliance.

Goldman Sachs reports that, in some cases, it has been able to write as much as 40% of its code automatically using generative AI. At Accenture, we have already tested these tools to rewrite millions of lines of our own COBOL code, surprisingly quickly and with great success. As with all generative AI output at this early stage, it does require careful checking to ensure any security gaps and unintended bias are found and eliminated.

But we are confident that, together, these new technologies remove the biggest obstacles to banks’ resolving their legacy burden. There is no longer a good reason for any organization to be beholden to its legacy systems and code. Our prediction is that, before too long, many banks will be reaping the fruits of a modern, agile digital core.

Trend 9 | The key to the core

Taking the effort out of core system renewal

One of the obstacles to modernizing mission-critical mainframe applications is the lack of adequate functional and technical documentation. At Accenture, we used our legacy Alnova code—developed decades ago—to show how generative AI can resolve the problem.

Our team created a GenAI Retrieval Augmented Generation framework that leveraged GPT-4 and a vector database to reverse-engineer the legacy code. This gave us a clear understanding of the system’s functionality and technical interdependencies, enabling us to generate a complete set of the documentation required by system architects and developers to accelerate the modernization and forward-engineering of the code.

Manual analysis of mainframe code is an onerous and time-consuming task—a single functional subset would normally take an expert programmer five days. We were able to complete the task in an hour.
For at least 30 years, banks have employed classical re-engineering and cost-out thinking to optimize their operations and experiences. The limitations were obvious—our methods worked well with quantitative problems but broke down against more qualitative challenges and shades of grey. Generative AI, with its ability to learn from intuition and experience, will break this barrier and usher in a new way of thinking about operational efficiency that goes beyond Six Sigma.
Looking back over the past quarter of a century, it’s striking that banks’ cost-to-income ratios (CIRs) have remained in a tight band (Figure 8). There are subtle differences across the world, but for most the 50-60% range seems to be the equivalent of terminal velocity for CIR.

This is not for lack of effort or impact by banks. The Japanese in the latter part of the last century changed the thinking on waste, cost and efficiency by introducing methods such as kaizen and kanban. And for almost 30 years now, banks have adopted these and similar tools such as Six Sigma, process re-engineering and more to improve their efficiency. These tools all had one thing in common: they depended on empirical inputs.

Figure 8. Banks’ cost-to-income ratios have barely shifted during the Digital Age.
Cost-to-income ratios across selected economies, based on aggregated cost and income data for the respective banking systems.
If you couldn’t measure something, it was difficult to factor it into the system. Learning from intuition and experience—the shades of gray—was often asking too much of these methods.

We believe we will see significant changes in this area in 2024. Whereas cost reduction in the past was often akin to amputation—a painful but necessary step that everyone knew would cause injury—in the future it will be a much more creative approach. Careful pruning will be used to reshape the organization and stimulate growth.

A few leaders are taking an even more fundamental approach: reimagining what the business should ideally look like a few years from now, and then working backwards, re-engineering every aspect—from the operating model and workforce through to products and experiences—to deliver the required outcomes as productively as possible. By targeting and capturing value they are not only eliminating waste; they are also reinventing their cost profile and setting a new performance frontier for the bank.

Generative AI will play a crucial role in this process. Its remarkable ability to understand and capture institutional intuition and to learn perpetually lead us to believe we will see a quantum leap in banks’ capacity to tackle the problems left behind by Six Sigma.

This new approach will not only deliver the efficiencies banks seek today, but will also permanently bend the cost curve.
Another example is mortgage processing. VeloBank, a Polish bank, built a generative AI capability that allowed its loan officers to analyze loans against requirements in just seconds. This dramatically increased their productivity. More importantly, it increased the bank’s share of market by reshaping the customer experience.38

The key to this is a shift in mindset and approach. This includes a commitment to developing new muscles—training teams on this way of thinking, becoming adept at using generative AI and other emerging tools, and changing the culture of the bank to one that is more open, fluid, and willing to re-examine old challenges in a new light.

By adopting this new approach, banks will not only achieve the efficiencies they seek today but will also succeed in permanently bending the cost curve by taking waste out and building value in, for customers and shareholders.
2024 will be a watershed year for banks, as it will for most other organizations.

This is not the first time the industry has faced such a critical moment; the introduction of online and then mobile banking is only the most recent. But while other tipping points have revealed themselves unhurriedly, gradually winning over the skeptics, the adoption of generative AI is happening with almost frenetic haste. This is a testimony to its disruptive potential—in our 2023 Technology Vision study, 95% of the almost 5,000 C-level executives we surveyed worldwide agreed that advances in generative AI will lead to a new era of enterprise intelligence.39

It goes without saying that the impact will be disruptive. It’s no accident that every one of the trends we believe will help shape the future of banking in the next 12 months and beyond is influenced, to a greater or lesser degree, by the adoption of generative AI. We’re confident that most of this disruption will be positive. Our most recent survey on the topic—involving 1,600 C-suite executives at many of the world’s largest companies—found that 42% of those that are leading the way have achieved a return on their AI initiatives that exceeds their expectations.40

But as that report concludes, the secret to these outcomes isn’t AI; it’s how it’s being used. It’s as much about people as it is about technology, and as much about strategy as implementation. That’s a lot of balls to keep up in the air.

Banks that master this juggling act will look back in years to come and toast 2024.
References

1. QuoteFancy, Top 500 Bill Gates Quotes.
3. Accenture analysis based on publicly available financial data.
5. Accenture analysis based on interviews with experts and case studies.
7. Accenture analysis based on interviews with experts and case studies.
11. Accenture case study, Banking on BBVA’s bold new future, 2023. BBVA, 2022 Results presentation.
14. CNBC, China’s ICBC, the world’s biggest bank, hit by cyberattack that reportedly disrupted Treasury markets, 10 November 2023.
15. Now, Canada has a new measure to help homeowners pay their mortgages, 22 November 2023.
17. Euromoney, Signa is a harbinger of the pain to come in CRE, 30 November 2023.
20. Lloyds Technology Centre website, 1 November 2023.
23. Finextra, OCBC rolls out ChatGPT-based bot to all employees, 24 October 2023.
24. Accenture Research analysis of aggregated last 12 months (Q4 2022 to Q3 2023) results of 150 leading global banks sourced through S&P Capital IQ Pro.
31. Accenture analysis based on publicly available financial data.
33. BBVA website, Organization Chart.
34. SiliconAngle, JPMorgan Chase convenes first global conference for its data scientists and software engineers, 28 September 2022.
35. Nubank website, 1 June 2022.
36. Increment.com, It’s COBOL all the way down, April 2018.
37. CNBC, Goldman Sachs is using ChatGPT-style A.I. in house to assist developers with writing code, 22 March, 2023.
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