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Risk & Resilience Practice

Banking on gen AI in the credit business: The route to value creation

Banks have taken steps to accelerate the adoption of gen AI in the credit business, but most remain on a long-term journey, according to a recent survey.

This article is a collaborative effort by Arvind Govindarajan, Filippo Maggi, and Kevin Buehler, with Jania Kesarwani and Maria Acuna, representing views from McKinsey's Risk & Resilience Practice.

July 2025

Transformative technologies don't come along very often, so when they do it pays to act quickly. When gen AI algorithms were launched in 2022, banks wasted little time exploring their potential in core commercial credit activities. But three years later, the results are mixed, with some institutions making good progress in putting the technology to work while others lag behind, a new study from McKinsey and the International Association of Credit Portfolio Managers (IACPM) shows (see sidebar, "Our methodology").

Gen AI is now a priority for many banks

To gauge banks' progress in adopting gen AI in the credit business, we interviewed and surveyed senior executives at 44 financial institutions globally. Across banks ranging in size from megaplayers to regionals, we asked about the factors affecting their adoption of gen AI, their most promising use cases, and their approaches to managing risks associated with the technology.

The responses were unequivocal on one point: Gen AI is starting to break through, with about half of senior leaders identifying it as a priority. Indeed, in key applications such as credit decisioning and pricing, rising numbers of institutions are rolling out one or more use cases. Moreover, credit applications often rank on a par or ahead of other applications, with executives seeing particular potential for gen AI in early-warning systems, credit memo drafting, and customer engagement activities.

That said, sentiment is not universally positive. Many banks are cautious about scaling amid continuing skepticism over the technology's financial benefits. As a result, only a few, mainly larger institutions are ahead of the curve, while most say progress has been slower than expected.

Survey respondents tell us there are several reasons for the industry's incrementalist approach. Many banks, for example, are still missing the skills, frameworks, and operational architectures they need to implement gen AI successfully. Underlying these challenges, we see two structural constraints: First, decision-makers are focused too narrowly on simple use cases rather than seeking to transform more complex workflows and end-to-end journeys. Second, we find that most banks have only recently started to deploy agentic AI, a version of the technology that uses decisioning algorithms to create cross-cutting impacts, for example, in the middle and front offices across lines of business. Banks that address these underlying challenges are creating competitive impetus ahead of their peers.

Our methodology

For the purposes of this article, McKinsey surveyed and interviewed decision-makers at 44 institutions globally in the second half of 2024. Our respondents included a roughly equal number of executives across megabanks, super-regionals, and core regionals. Megabanks comprised institutions with more than $1,000 billion in assets, super-regionals included institutions with $500 billion to $1,000 billion in assets, and core regionals were defined as having $100 billion to $500 billion in assets. We also connected with insurance companies/brokers and development banks.

Most institutions are testing credit use cases

Given a wide range of value creation opportunities, 52 percent of institutions have positioned gen AI adoption as a priority, our survey shows (Exhibit 1). That means senior leadership has prioritized developing gen AI use cases and backed that ambition through investment and hiring. Another 39 percent of institutions say they are interested in gen AI, but adoption is not yet a clear priority, and 9 percent admit that senior leaders are not actively engaged on the topic.

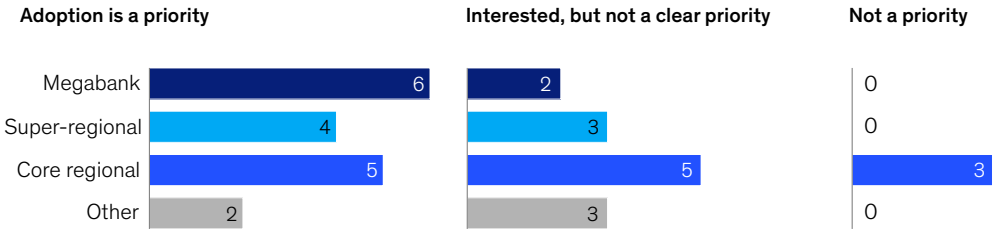
Exhibit 1

Leadership at a majority of institutions positions gen AI as a priority.

Leadership commitment to the adoption of gen AI,[1] % of respondents

Adoption is a priority	Interested, but not a clear priority	Not a priority
Senior leadership promotes developing gen AI use cases as a priority and supports through investments and hiring and demonstrates through tone and actions that there will be setbacks given the technology is nascent	The organization is encouraged to learn about gen AI and is supportive of use case proofs of concept; however, there is less commitment to investments or hiring without a "proven" ROI and knowledge of potential setbacks	Senior leadership does not seem to proactively engage with the topic; the message is rather to approach with caution based on the associated risks

Commitment to implementation of gen AI, by type of institution,[1] number



[1]Question: How would you describe your institution's leadership commitment to the adoption of gen AI? (select one).
Source: IACPM and McKinsey study on the use of generative AI in credit portfolio management

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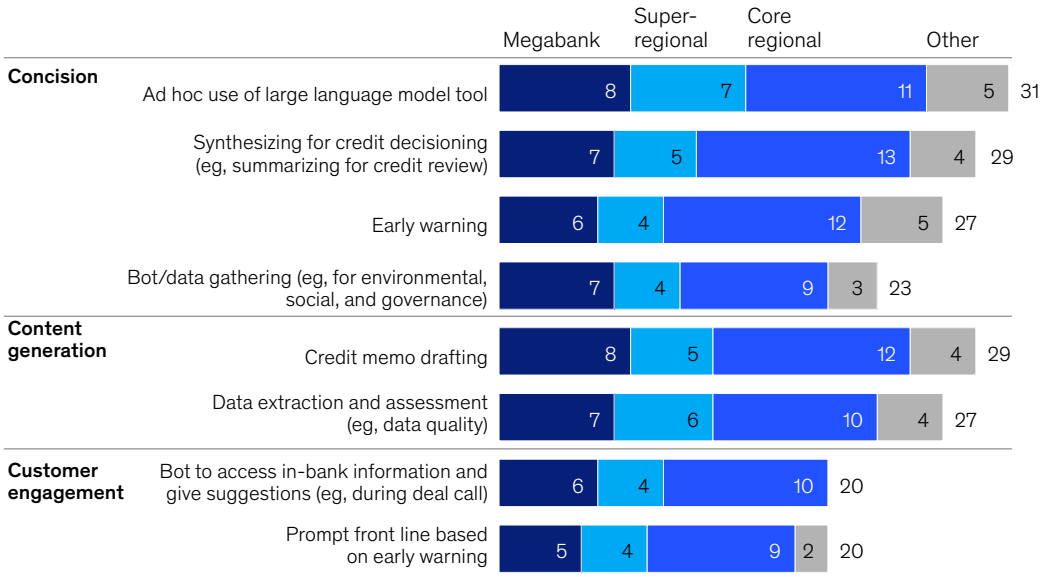
Gen AI offers financial institutions three highly useful capabilities: concision, meaning the ability to summarize large volumes of data into digestible nuggets; content generation; and customer engagement, mainly seen in the use of bots to support relationship managers and others. Of the three, the largest number of institutions in our survey have made the most advances in concision, with the majority of institutions trying out gen AI applications in activities such as early-warning systems and credit decisioning (Exhibit 2). In one example, a multilateral development bank is exploring a gen AI tool to find the right credit-assessment documents, read and synthesize them, and draw conclusions.

Exhibit 2

Gen AI use cases in commercial credit vary by the size of the institution.

Factors for prioritizing gen AI use cases,[1] % of respondents



[1]Question: Which gen AI use cases are your institution currently implementing in commercial credit and what are their development stages? (multiple choice).
Source: IACPM and McKinsey study on the use of generative AI in credit portfolio management

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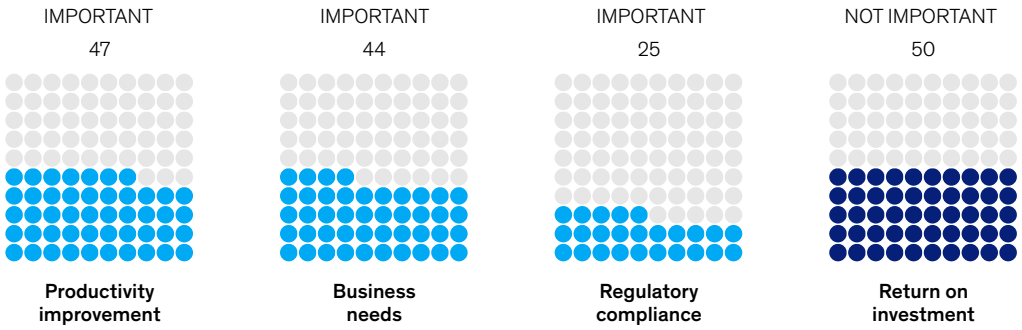
When initiating or developing use cases, 47 percent of institutions say the most important factor is the promise of uplifts in productivity, followed closely by business needs and regulatory compliance, cited by 44 percent and 25 percent of respondents, respectively (Exhibit 3). Notably, half of institutions do not see return on investment as a major consideration, ranking it as the least important factor in making prioritization decisions. One reason may be that there are no easy ways early in the process to quantify financial impacts.

Exhibit 3

Productivity improvement is the most important factor when initiating or developing use cases.

Prioritization and importance in the initiation of gen AI use cases,[1] % of respondents



[1]Question: How would you rank the following factors in terms of their prioritization/importance in the initiation/development of gen AI use cases in your institution? (rank order).
Source: IACPM and McKinsey study on the use of generative AI in credit portfolio management

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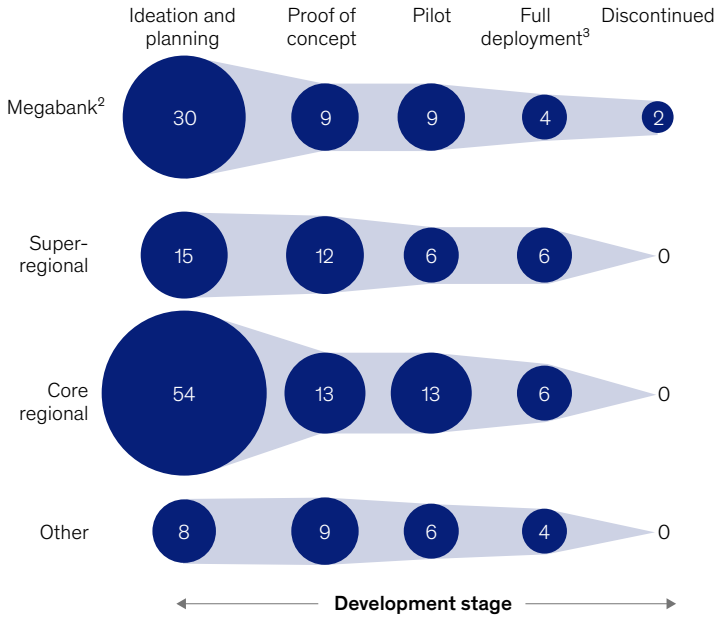
Somewhat surprisingly, the group most advanced in deployment is regional banks, which are ahead of megabanks in number of use cases (Exhibit 4). In addition, core regionals are most advanced on ideation and planning.

Very few use cases have reached the stage of full deployment, our survey shows. However, some are further advanced than others. For example, 24 percent of institutions have fully deployed use cases for "ad hoc" applications (Exhibit 5). In that context, several banks report having launched virtual LLM assistants to support use cases such as document processing (PDF conversion, digitizing) and quick QA. And while no bank has yet reached full deployment on synthesizing information for credit decisioning, 27 percent are at the piloting stage. Content generation use cases such as the drafting of credit memos and data assessment are also among the most piloted.

Exhibit 4

Regional banks are leading deployment.

Gen AI adoption, by development stage and size of institution,[1] number



[1]Question: Which gen AI use cases are your institution currently implementing in commercial credit, and what are their development stages? (multiple choice).
[2]Megabank includes institutions with >$1,000 billion in assets; super-regional includes institutions with $500 billion to $1,000 billion in assets; core regional includes institutions with $100 billion to $500 billion in assets; other includes insurance companies/brokers and development banks.
[3]Includes optimization and maintenance and expansion and scaling.
Source: IACPM and McKinsey study on the use of generative AI in credit portfolio management

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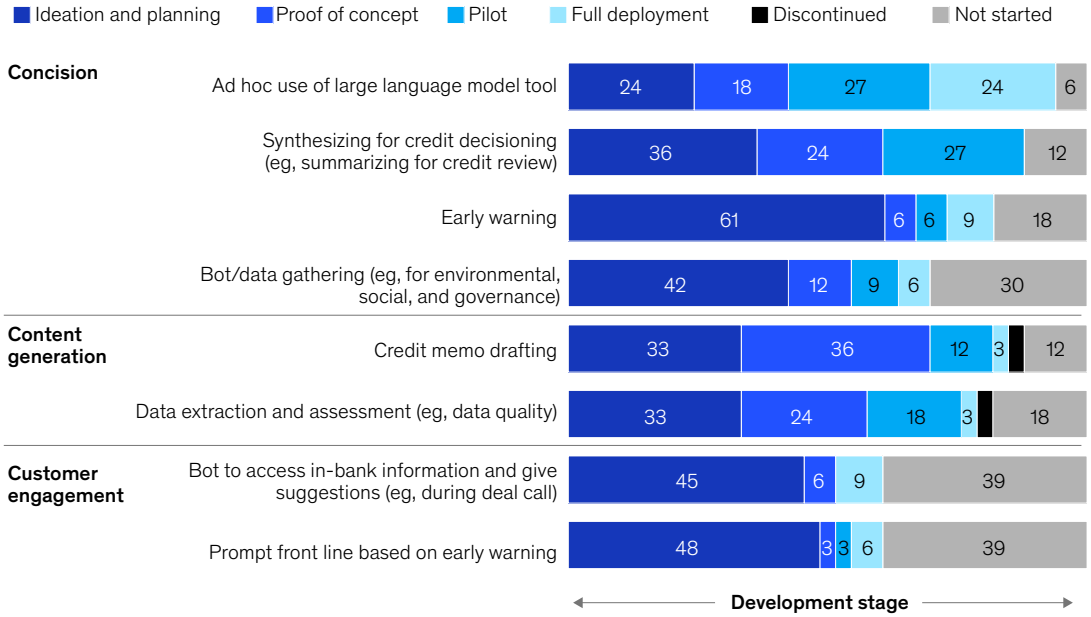
Exhibit 5

Full deployment is rare across use cases.

Gen AI use cases in commercial credit and their development stage,[1] %



[1]Question: Which gen AI use cases are your institution currently implementing in commercial credit and what are their development stages? (multiple choice).
Source: IACPM and McKinsey study on the use of generative AI in credit portfolio management

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Why banks are taking a conservative approach

Many senior bankers, especially at regionals, are convinced that gen AI applications can create efficiencies, but there is a common gap between attitudes and implementation. Indeed, just 12 percent of North American survey respondents have deployed any use case at all.

At a McKinsey-hosted chief risk officer roundtable in 2023, we asked decision-makers what was holding them back on gen AI adoption. Sixty-seven percent highlighted shortages of gen AI capabilities, while 50 percent pointed to difficulties including defining uses cases and value at stake. A related point was that institutions putting an emphasis on early ROI from the technology were in fact more likely to give up on it, while others that pushed on through had started to see success.

Over the interim period, not too much has changed. Caution is still widespread, reflecting concern over risks that include data security breaches, model hallucinations (faulty outputs), cost-related risks, lack of validation, model and data bias, and latency issues. More than two in five institutions say they have slowed use case development because of disappointing outcomes. Reasons include insufficient accuracy and a lack of articulation on benefits. Indeed, where business scenarios require close to 100 percent accuracy, hallucinations are seen as a significant issue, while some leaders are concerned about the amount of work required to marshal data.

Forty one percent of survey respondents say that model validation issues are holding them back; one reason cited for this is the lack of historical data to assess model performance. Other constraints include too many stakeholders being involved in projects and underlying challenges that include the time and budget required (for example, to create computational intensity for development and maintenance). Upstream data risk and compliance obligations are also commonly cited as headwinds. In that context, and especially where use cases produce marginal outcomes, the path of least resistance is to proceed slowly.

All told, more than a third (36 percent) of survey respondents say they recognize gen AI's long-term potential but believe in incremental adoption. That thinking is mainly characterized by deploying smaller pilots and use cases, alongside a focus on risk mitigation ahead of scaling. Another 27 percent describe themselves as balanced but risk aware, meaning they recognize gen AI's transformative potential but remain vigilant over risks.

A final, deeper challenge goes to the fundamental issue of scope. Rather than pursuing domain-wide transformation, many banks are experimenting at a micro level and focusing on isolated use cases. In short, they underestimate gen AI's potential to reshape operations, customer engagement, and risk management.

Tackling challenges and building capabilities

Where banks are making progress is in laying the foundations for deeper gen AI adoption. Our survey shows, for example, that most institutions are in the process of attracting talent (87 percent of institutions said they are hiring technology experts, while 60 percent are training leadership teams on gen AI and its applications) and establishing secure environments and processes.

Many banks are building centers of excellence, which are tasked with developing and maintaining the architecture for gen AI applications, managing platform and deployment processes, and creating frameworks, playbooks, and guardrails. On infrastructure and technology, 31 survey respondents say they are developing and maintaining secure environments and sandboxes for experimentation. Others are running workshops, engaging outside experts, and putting in place protocols and governance frameworks as they balance experimentation and risk management.

On risk, many institutions are emphasizing data security, including establishing guardrails to prevent data exposure. They are setting up comprehensive training programs to educate users on prompt libraries and result validation. In parallel, they are embracing dedicated change management programs, human oversight of AI- and gen-AI-generated results, and stringent approval processes for use cases involving internal data or external outputs. Where use cases may impact clients or require regulatory compliance, many banks are erecting demanding approval barriers. Finally, to address hallucinations, they are conducting performance evaluations and back testing, as well as soliciting continuous user feedback.

Almost universally, institutions are engaging with third-party technology providers. Indeed, 80 percent say they have access to external solutions, with most putting in place guardrails to protect themselves, for example, by restricting access to a subset of colleagues or through internal guidelines and data security training.

More than a third (36 percent) of survey respondents say they recognize gen AI's long-term potential but believe in incremental adoption.

Taking action: Five steps to accelerate the journey

While many of the challenges first identified in 2023 are still relevant to banks' engagement with gen AI, there are signs at the margins that leading institutions are finding a way to balance risk and reward. Many banks are taking a twin approach, working both to establish basic foundations and prioritize actions that will drive adoption. Here we present five key steps in that process:

— *Align with stakeholders.* An early priority for leading institutions is to ensure that they are fully aligned with all relevant stakeholders. Externally, they proactively engage, while internally they are clear on the importance of gen AI adoption and back their views with investment in capabilities to build tools and infrastructure.

— *Standardize data to streamline deployment.* On data, leaders work hard to standardize and unify data resources, so that teams can access unstructured data, such as text documents, in one place. They also make efforts to support end-to-end experimentation and deployment, meaning they think carefully through the process—for example, to ensure optimal functionality and data flow from start to finish. They don't move forward until the application works as expected.

— *Install modular solution architecture.* To maximize the productivity of use case development and rollout, some gen AI trailblazers are putting in place modular solution architecture, meaning they are designing products with clearly defined and interchangeable components. Through this standardized approach they can pursue multiple use cases in parallel and create customizable connections across different layers.

— *Pick low-hanging fruit.* To get early wins and encourage buy in, leading companies focus initially on the least risky use cases. For example, they prioritize development of bots for internal use only, adopting a test-and-learn approach to ensure feasibility before scaling up.

— *Roll out agentic AI.* Finally, to harness real value, agentic AI can play a significant role, helping firms move from static applications such as memo drafting to compelling domain transformation. In domain transformation, an interactive orchestrating agent guides users on the process and refines outcomes based on their input. For example, in the underwriting journey, an AI agent can notify a relationship manager (RM) about a new application and generate a personalized email draft to engage the client within seconds. In client

conversations, the agent can transcribe key takeaways in real time, surface relevant analytics or documents, and provide actionable insights. And post-conversation, the agent can generate a tailored to-do list, enabling the RM to efficiently prepare material for review with the credit team. When applied across the entire loan approval journey, there are even more impacts, enabling banks to optimize customer and employee experiences and drive efficiency and effectiveness at scale.

Banks have taken steps to accelerate adoption of gen AI in the credit business, but the results of our survey show that most remain on a journey. Indeed, at many institutions, there is considerable skepticism over the technology's potential to boost productivity, often reflecting previous experiences where tech rollouts did not achieve the expected gains. For that reason, leading banks are embracing a more strategic approach, ensuring they have put in place technology, talent, and operational building blocks to win the trust of stakeholders ahead of scaling. Many are also embracing agentic AI's decision-making capabilities and are seeing positive results, not just in individual business lines but across the organization.

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The International Association of Credit Portfolio Managers (IACPM) is a professional organization dedicated to advancing the field of credit portfolio management. Founded in 2001, the IACPM has 144 member institutions across 32 countries, including major commercial banks, investment banks, insurance companies, and asset managers. The organization focuses on research, education, and advocacy to improve the understanding and management of credit risk within financial institutions.

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