# Put AI to work

## for finance in financial services

IBM

# Contents

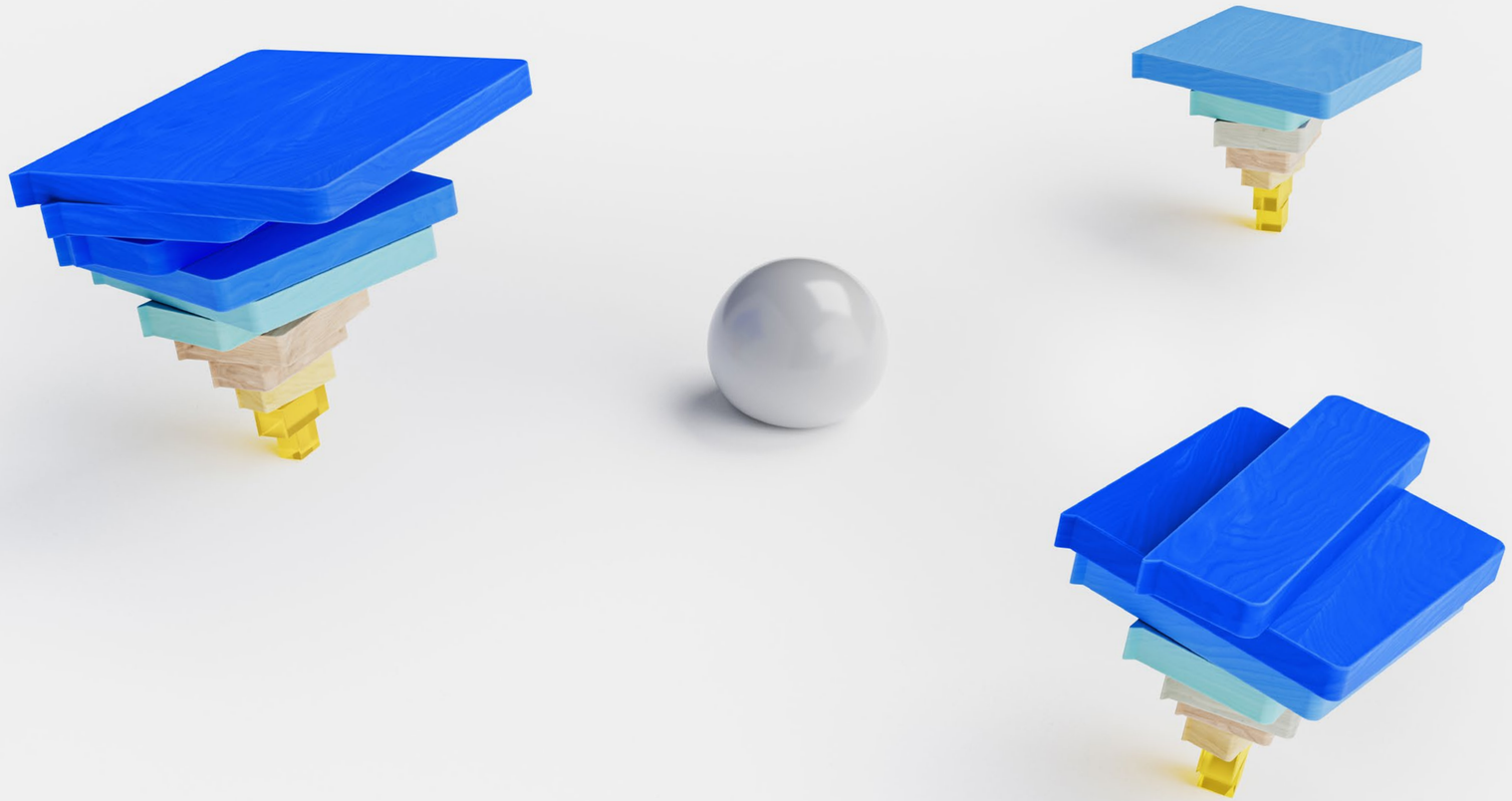
There’s a unique opportunity for AI in the enterprise finance function. Despite finance’s distinct restrictions and multiple overlapping responsibilities, bold firms have already realized ROI by applying AI solutions. We’ve learned from them to outline the why, what and how of getting real value from AI in finance.

# 01

# Finance in financial services in the age of AI

With unique demands for dependability and accountability, finance professionals are feeling squeezed from all directions. AI has the potential to change this status quo.

# Today’s CFOs and finance teams are facing challenges in multiple areas.



To name a few, they need to drive digitization and make purchasing decisions for the entire enterprise. They’re tasked with maximizing returns on digital investments. And they need to adapt the enterprise to changing customer spending habits. CFOs surveyed rank the balance sheet as their top concern, but also face a triple squeeze of achieving profitable growth, managing inflation and navigating a talent shortage.[1]

Add these factors all together, and the task of a CFO can seem not only difficult, but impossible. And on top of it all, CFOs face unique challenges and expectations, even within the C-suite. Think about a few compliments you might hear about different C-suite executives:

- Our CEO is a real maverick.
- Our CTO encourages us to push the boundaries of what's possible.
- Our CMO changes the game by embracing disruptive technologies.

Are these examples still compliments when applied to a CFO?

CFOs are expected to be both innovative and stable; visionary and detail oriented. In short, where once CFOs reported on past activity and provided high-level strategic input, they're now expected to be very granular, weighing in at the tactical level. If you're a CFO today, everything is your problem.[2]

Generative AI (gen AI) offers finance teams a new tool for addressing this complex and challenging situation. It's clear that gen AI is going to have an impact in finance, as in virtually every enterprise function. This guidebook explores how CFOs in the financial services industry can get the most from gen AI, including how to prepare for it, where to apply it and what they need to make it a valuable addition to their finance function.

# 02

# Why AI in finance matters

In finance, as in every area of the business, AI technology can no longer be an add-on.

CFOs have a unique remit and good reason to be cautious, particularly when embracing new technologies. Perhaps that’s why most organizations, including those within the financial services industry, have only adopted AI within 1 or 2 of the 4 key finance workflows.[3]

Nevertheless, there remain many areas in finance where quicker and more accurate ingestion of information can mean major productivity gains and avoidance of errors. Gen AI has the potential to be applied to these hard-to-automate areas, empowering faster and better data-driven decisions based on historical data, market trends and AI foundation models that identify patterns and anomalies often missed by traditional analysis methods.

At its core, AI technology can support finance professionals so they can focus on higher-value activities. And surveys show that AI adoption means better performance by the finance organization.

For example, a finance organization that effectively supports the enterprise as a whole is 6 times more likely to have mature AI adoption than simply piloting AI.[3] And for all 4 key finance processes, a significantly higher percentage of organizations that have implemented AI end to end with an IT strategy that integrates AI, cloud and app modernization have achieved top quartile ROI—more than 30%—compared to other organizations.[3]

Financial analysis and reporting teams have long made use of AI tools and will be one of the areas most impacted by gen AI, bringing self-service capabilities into many new areas of the business. There are text-based productivity use cases in several areas where gen AI can be adopted now, and the benefits for mature AI adopters in finance are already significant. Benefits include 33% faster budget cycle time for planning and monthly close, a 43% reduction in uncollectible balances, and 25% lower cost per invoice paid.[4]

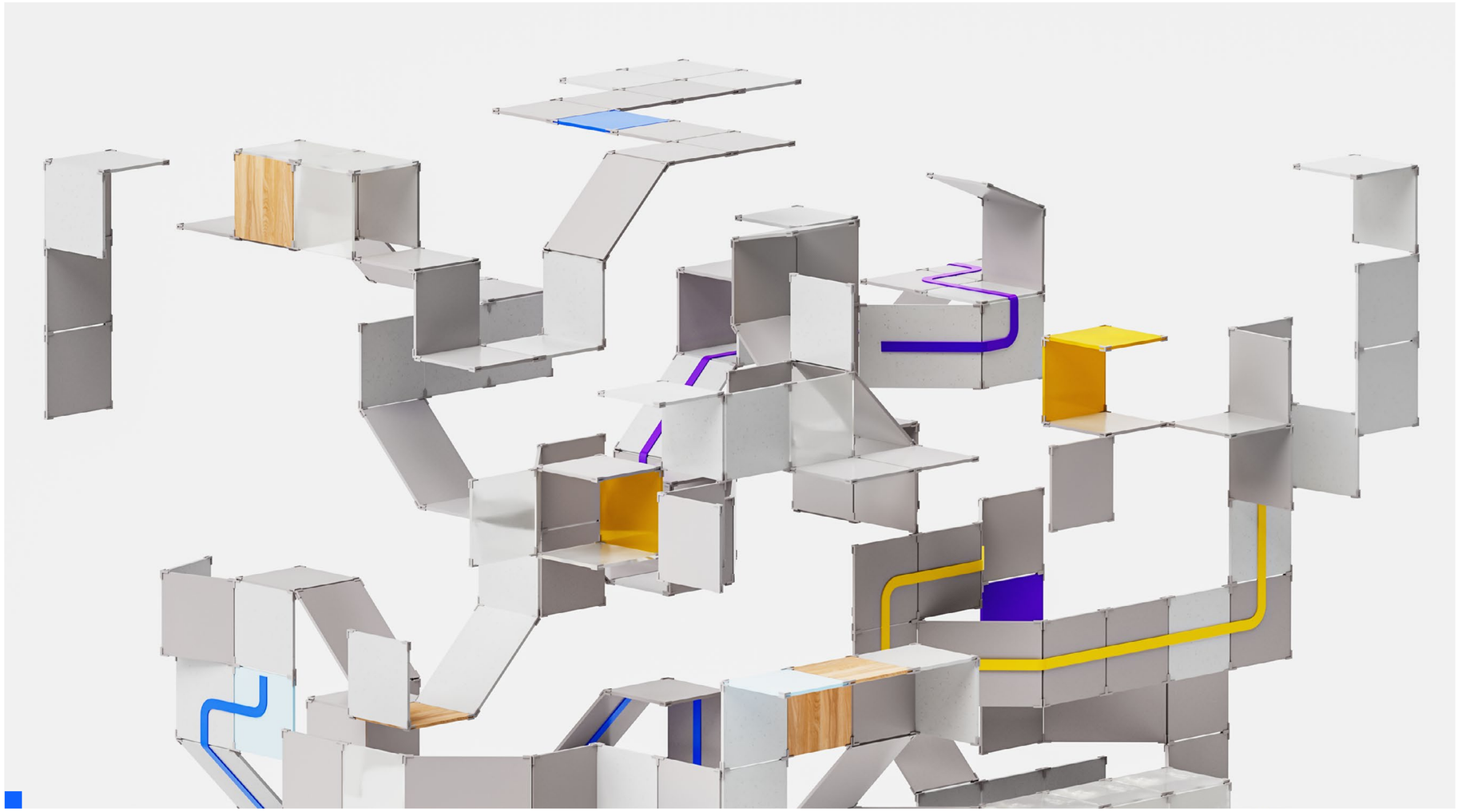
These benefits are so compelling that the opportunity cost of not adopting AI is significant. Organizations that adopt a wait-and-see approach risk rapidly falling behind.

The benefits are expected to compound as gen AI is applied to more ambitious use cases in areas, such as regulatory compliance, forecasting and designing new accrual methods. Recently, 600 surveyed global finance managers agreed that gen AI can expand the reach of AI in finance; the graphic shows their answers when asked “where do you see generative AI impacting finance processes?”

The potential is clearly there. But to be successful, finance leaders will need to get actively involved in the analysis process; weigh risks, materiality and potential financial exposures; and partner with other business units from the beginning.

# Scaling AI across the enterprise, safely

Despite the widespread enthusiasm for using gen AI for business, especially from board members and investors, many business leaders still have concerns about gen AI adoption.



In a recent study, the IBM Institute for Business Value found that responding executives have 4 top concerns about gen AI adoption.[3]

61% have concerns about data lineage or provenance.

57% have concerns about data security.

53% have concerns about the constraints introduced by regulations and compliance.

45% have concerns about data privacy.

How your organization succeeds with gen AI is influenced by how you select, govern, analyze and apply data across it. Huge volumes of data from different sources are used to train gen AI models, so, implementing governance, management and ethical frameworks that operate end to end is key if you wish to adopt AI safely and responsibly.

IBM has long followed core principles grounded in commitments to trust, transparency and fairness to guide how we handle client data and insights—and how we develop and deploy new technologies.

To continue this practice in the age of AI, IBM has developed a multidisciplinary, multidimensional approach that embeds ethical principles into AI applications and processes. With IBM's Principles for Trust and Transparency and Pillars of Trust as the foundation for our AI ethics initiatives, we're helping people and organizations adopt AI responsibly, and with clear purpose.

IBM’s guiding principles for AI ethics

## Principles for Trust and Transparency

**The purpose of AI is to augment human intelligence**
We believe AI should make all of us better at our jobs, and the benefits of the AI era should touch the many, not just the elite few.

**Data and insights belong to their creator**
Clients’ data is their data, and their insights are their insights. We believe government data policies should be fair and equitable, prioritizing openness.

**Technology must be transparent and explainable**
Companies must be clear about who trains their AI systems, what data is used and what goes into their algorithms’ recommendations.

## Pillars of Trust

**Explainability**
Good design does not sacrifice transparency in creating a seamless experience.

**Fairness**
Properly calibrated, AI can assist humans in making fairer choices.

**Robustness**
As systems are employed to make crucial decisions, AI must be secure and robust.

**Transparency**
Transparency reinforces trust, and the best way to promote transparency is through disclosure.

**Privacy**
AI systems must prioritize and safeguard consumers’ privacy and data rights.

In the past, enterprises have approached AI as an add-on, with the end goal being digital transformation.

Now, AI is becoming the centerpiece of business transformation—75% of business leaders surveyed believe competitive advantage will depend on who has the most advanced gen AI.[4] But harnessing the potential of AI to fundamentally transform finance requires a mix of vision and technology. Enterprises need to put AI to work at the strategic core of the business—not just add it on to existing systems—to solve challenges and help achieve their business objectives. It's time to move from +AI to AI+.

So, does this shift in technology mean you need to replace your traditional AI solutions with the latest gen AI for finance? IBM AI leaders say no.

Traditional AI models that use conventional machine learning (ML) and rules-based models have different capabilities and serve different functions: predictive analysis, security and compliance, automation, and more. Gen AI models, on the other hand, use foundation models to autonomously generate content based on the data they were trained on.

# The AI Ladder®
# in the modern day

Gen AI and traditional AI are, in fact, complementary technologies; use them together to help accelerate and achieve your strategic goals.

# Traditional AI

**Applies predefined rules and algorithms to specific sets of data to help solve problems, make predictions and automate tasks**

**Potential IT tasks using traditional AI**

- Predictive maintenance
- Problem detection
- Incident response
- Service desk automation
- Process automation
- Intelligent workflows
- Capacity planning

# Generative AI

**Uses both small language models (SLMs) and large language models (LLMs) to generate new content based on patterns learned from the data they were trained on**

**Potential IT tasks using gen AI**

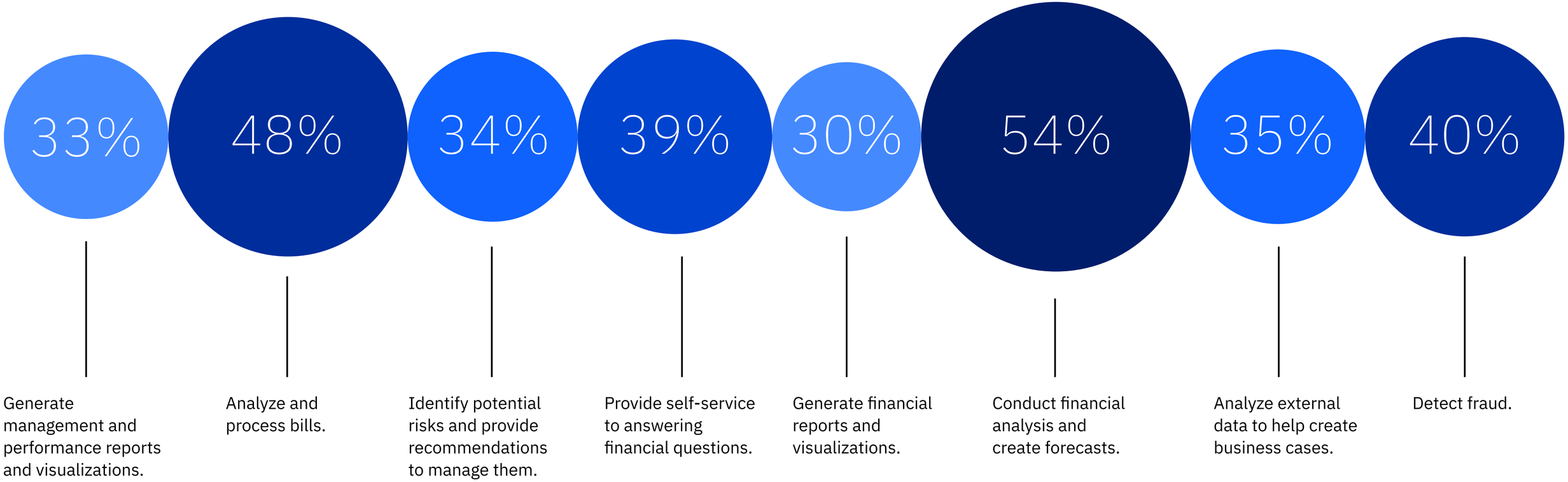
- Issue summarization
- Action recommendations
- In-depth conversation
- Code generation
- Insight extraction
- Classification
- Testing and debugging

# 03

# Put AI to work for finance in financial services

Gen AI is a new tool, not a magic wand. It has a role to play in finance departments. If you understand what each type of AI is best suited to, you'll know how to get the most value from it.

# Where surveyed finance managers see gen AI impacting finance processes[3]



# Put AI to work for finance in financial services

Different finance workflows have different areas of applicability for gen AI. An experienced partner can help you identify areas where gen AI can have the most valuable impact and can link together the technology pieces needed to support those use cases.

For example, in the case of financial services organizations, long-term operations and profits absolutely depend on adept risk management, carried out by practically every employee. Yet these organizations tend to have complex IT environments, built during decades of reactionary investments and tactical decisions. This complexity creates a consistent drag on innovation, challenge for regulatory compliance and obstacle to using IT to support nimble operations.

AI has the potential to accelerate modernization efforts and software development but, if deployed on top of weak IT foundations, may only end up intensifying these longstanding problems with complexity and expanding the potential attack surface.

Based on IBM’s experience through the whole combined ecosystem of finance and AI transformation services, the following are the applicable areas, key processes and benefits in each of the 4 key finance workflows.

1

**Order to cash (O2C)**
AI-driven innovations in O2C help with credit scoring, pricing decisions and the prevention of payment frauds. AI collects, prepares and distributes data from documents and unstructured data, surfacing insights at key moments to optimize decision-making and accuracy. In the key metric of uncollectable balances, half of AI adopters credit AI with a decrease of at least 2% and one-quarter credit AI with a decrease of at least 8%.[4]

2

**Financial planning and analysis (FP&A)**
AI and advanced analytics rank as key components of the FP&A process, galvanizing and orchestrating planning and performance management. AI can partially automate the labor-intensive process by parsing through data on the market, company performance, competitor information, pricing and operations. The AI model can identify anomalies, enhance forecasting, optimize pricing and provide recommendations, as well as apply trend analysis, correlation analysis—including pattern and anomaly detection—and neural networks for financial forecasting. With neural networks, AI determines the relationship among data and uses it to predict new data, resulting in higher forecast accuracy. When AI is used for market performance comparison, FP&A teams can factor in more variables and internal and external influences.

3

**Record to report (R2R)**
In the general accounting and reporting area, AI-powered workflow and data models could include a reconciliation module that helps users aggregate subledger transactions and perform risk-based reconciliations and cognitive forecasting.

4

**Procure to pay (P2P)**
An AI-powered workflow, underpinned by data models, optimizes touchless processing and provides a unified interface for buyers, suppliers, procurement and finance staff. Invoices are validated against business rules, coded and matched to the purchase order automatically. Spend and pricing intelligence provides insights during sourcing. AI automates procurement operations and manages inquiries from buyers and suppliers. Automating P2P with AI has been shown to increase productivity and permit finance to detect more fraudulent invoices.

| | Key processes | Benefits[4] |
|---|---|---|
| **O2C** | – Manage sales orders.<br>– Process customer credit.<br>– Invoice customers.<br>– Process accounts receivables.<br>– Manage and process collections.<br>– Manage and process adjustments and deductions. | – 43% reduction in uncontrollable balances<br>– 32% decrease in days sales outstanding (DSO)<br>– 28% decrease in the cycle time from transmission of invoice to receipt of payment |
| **FP&A** | – Perform integrated financial planning.<br>– Perform planning and budgeting.<br>– Perform management and performance reporting.<br>– Perform forecasting and modeling. | – 25% lower cost for planning, budgeting and forecasting<br>– 33% faster budget cycle time<br>– 4% higher overall forecast accuracy<br>– 57% lower sales forecast error |
| **R2R** | – Process journal entries.<br>– Reconcile the general ledger.<br>– Post and reconcile intercompany transactions.<br>– Perform consolidations and process eliminations.<br>– Close the books.<br>– Perform fixed assets accounting.<br>– Perform financial reporting. | – 31% lower cost per journal entry<br>– 33% faster cycle time for the monthly close<br>– 2% more journal entries that are error free first time |
| **P2P** | – Procure products and services.<br>– Process accounts payables. | – 25% lower cost per invoice paid<br>– 32% faster cycle time from receipt of invoice until approved and scheduled for payment<br>– 3% more purchase orders processed error free first time |

# 04

# Take the next step

Once you understand what to do with gen AI, understanding how to do it is another thing entirely. We recommend focusing on these 3 tasks: defining the right business case, selecting high-value tasks for automation, and applying FinOps.

As enterprises transition from the *hype* to the *how* of gen AI, it becomes even more critical to understand the costs of—and the value derived from—investments in the technology. CEOs and their CFOs know they need to tread carefully while adopting it, but they also feel the need to act fast. Still, according to an IBM Institute for Business Value study, 60% of organizations surveyed have not yet developed a consistent, enterprise-wide approach to gen AI.[5]

AI and gen AI initiatives can only be as successful as the underlying data permits, so enterprises undertake a variety of data initiatives to support their AI strategy, ranging from process mining to data governance. Respondents were asked "which initiatives has your finance organization undertaken to support its AI strategy?"

**Initiatives finance organizations have undertaken to support their AI strategy[3]**

47%

used process mining to research how existing finance processes operate, where gaps exist and identify opportunities for AI.

44%

identified the structured and unstructured data that's needed to accomplish finance processes.

46%

invested in governed data lakes.

42%

standardized data preparations.

45%

automated data acquisition for internal and external data.

40%

installed data management solutions.

In addition, finance departments deploying AI should follow a structured approach to identify and assess potential risks:

- Comply with privacy and security regulations, policies and practices to ensure that data collection and usage practices meet requirements.
- Establish clear governance structures, including the definition of roles and responsibilities of all stakeholders involved in AI implementation.

But even as you lay this data, infrastructure and process groundwork, how can you be sure your approach to gen AI will accommodate organizational and technology changes?

Here's where you can benefit from a solid strategy based on experience drawn from thousands of successful AI engagements. We've provided 3 tested recommendations to get you started.

# 1

**Define a business case for your AI improvement initiatives.**
This business case should include 3 justifications:

- Prioritize potential benefits and risks.
- Ensure that there's alignment with the broader strategy.
- Secure funding.

To quantify these justifications, you'll need to use project-specific, high-level operational and financial metrics that measure cost, speed and quality. Tracking and reporting the appropriate metrics are key to demonstrating the ROI from AI.

The following are some examples.

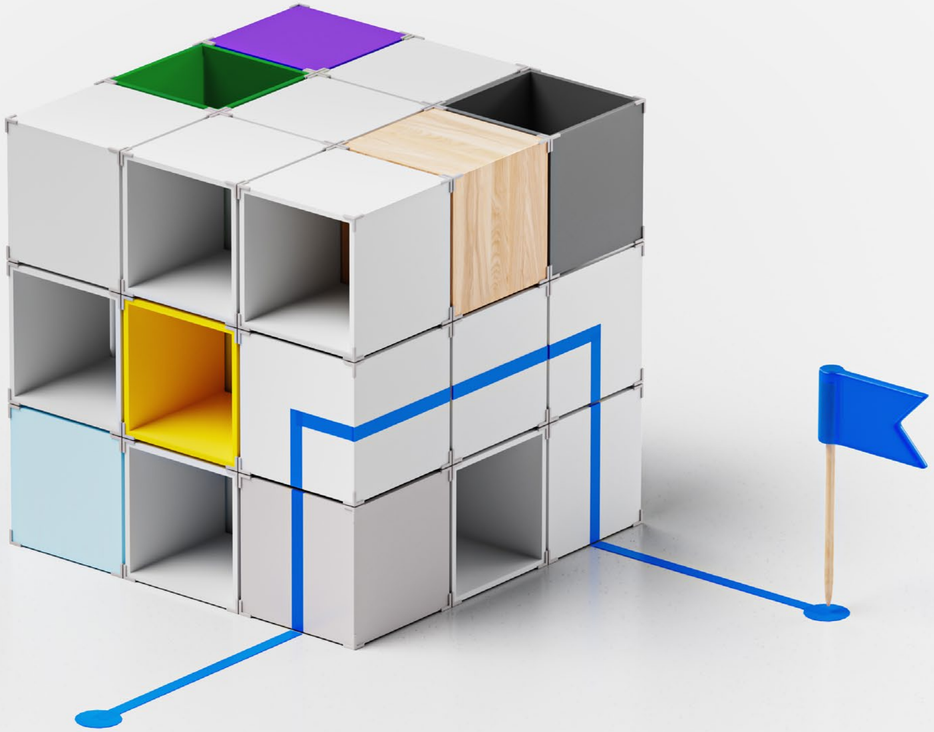
**O2C** metrics include total cost, cost as a percent of revenue, payment processing time, collections efficiency, customer satisfaction, days sales outstanding (DSO), percent of invoices processed without error, average revenue per customer and delinquency rates.

**FP&A** metrics include margins, budget cycle time, accuracy of forecasts for sales and volume, and compliance.

**R2R** metrics include ROI, close cycle time, query response time, accuracy of financial statements, percent of manual journal entries, percent of error-free journal entries and the intercompany reconciliation rate.

**P2P** metrics include cost per invoice, working capital, cycle time to process an accounts payable (AP) invoice, credit cycle time and percent of error-free purchase orders.

Finance leaders noted significant results against performance metrics which improved over time.



2

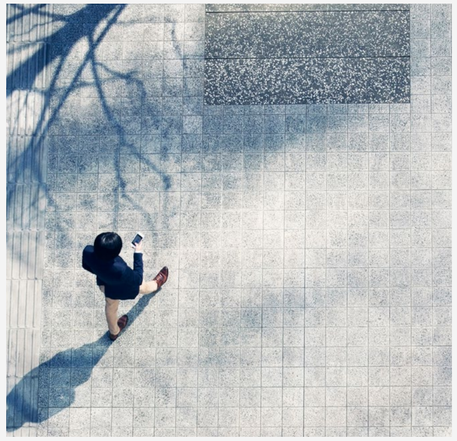
**Attack labor-intensive tasks that are ripe for gen AI automation.**
Use gen AI tools that automate manual and mundane tasks. Focus on use cases that identify and mitigate risks before making investments that might impact core finance functions.

- Acknowledge the short-term limitations of gen AI while planning to capitalize on its full potential. While gen AI isn't proficient at numeric analysis yet, it likely will be soon. Develop value-adding use cases now to prepare for this future gen AI capability.
- Drive targeted gen AI adoption in day-to-day activities. Get individuals to use gen AI in specific daily tasks. Aligning gen AI adoption to real-world responsibilities will help overcome employee resistance and prove the value of this transformative technology.

IBM research shows that the finance areas poised to realize the greatest value from generative AI include predicting anomalies (47%), explaining variances (41%), generating scenarios (40%), creating reports (39%) and managing accounts—both payables (38%) and receivables (38%).[5] Potential use cases abound, but could include:

- Capture and leverage institutional knowledge such as recommending accounting treatments.
- Streamline audits by analyzing data to identify discrepancies and anomalies.
- Aid in contracts and negotiations by analyzing legal language to identify potential issues, risky clauses or opportunities for improvement.

# 3



**Fine-tune your FinOps practices with gen AI and apply them widely.**
Apply FinOps across the enterprise to make technology even more valuable. FinOps, or financial management for cloud-based investments, should play a big part in gen AI investment decisions. It increases visibility into cloud-related financial data, finding operational efficiencies and measuring returns. It formalizes and structures what might otherwise be a largely random process—and reduces the potential for unexplained cloud expenses.

Gen AI offers you an opportunity to improve value along two axes at once: fine-tuning FinOps with gen AI and applying FinOps across the enterprise. Gen AI can make FinOps more accurate and efficient, improving cost-benefit analyses and helping teams prioritize use cases.

- Apply FinOps practices to your gen AI investments by implementing a cost estimation and tracking framework that provides clarity on the costs of gen AI projects.
- Use gen AI to enhance FinOps capabilities. Simulate financial data and scenarios that can help increase the accuracy of financial models, improve risk management and support strategic decision-making.

Most organizations that have activated a FinOps model using AI-powered software report cost savings greater than 20%.[7]

# 05

# Ready to begin?

Get ahead by working with a partner that can help you pilot, adopt or scale AI across the finance function.

Now is the time to solidify competitive advantage by working with a partner that can help not just pilot and adopt but scale AI across the finance function. The right partner can help, from financial planning through record to report, to optimize productivity and innovation while prioritizing compliance and governance.

**Join an IBM AI strategy briefing for finance**

IBM has the technology and the consulting expertise to help you move forward quickly with AI.

In just a single 1–4-hour session you'll learn:

- How to adopt and scale AI safely yet efficiently across your enterprise
- How organizations such as yours are gaining business value from gen AI in priority use cases
- How IBM technology and consulting expertise is helping clients in industries such as yours transform with AI
- How to progress to a pilot

Request to join→

**AI expertise**

IBM Consulting® can help you strategize, modernize, build and manage applications with the power of AI and hybrid cloud. IBM has formed a center of excellence (CoE) for gen AI, specialized in applying the IBM watsonx™ platform and IBM ecosystem partner technologies to rapidly create coherent strategies and accelerate how we solve business problems. The CoE complements more than 21,000 IBM data and AI consultants with a strong track record in AI who are already collaborating with thousands of global clients and partners to shape the future of AI.

**AI platform**

IBM watsonx is our data and AI platform, native to hybrid cloud, that's designed to provide you with the ability to train, tune and deploy gen AI across your organization, using your critical, trusted data wherever it resides.

IBM watsonx Orchestrate™ makes it easy to design scalable AI assistants and agents, automate repetitive tasks and simplify complex processes.

IBM Garage™ provides a framework and expertise to help co-create, co-execute and co-operate solutions that deliver measurable, meaningful outcomes for your business.

To discover how IBM helps finance leaders deploy and scale AI confidently, visit ibm.com/consulting/finance.

IBM Cloud for Financial Services
A cloud designed to serve the challenging needs of regulated industries with laws, rules and regulations built in from the outset. With built-in security and controls informed by the industry, IBM Cloud for Financial Services® can help you optimize your infrastructure and demonstrate compliance so you can focus on what matters most: delivering value for your clients.

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