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The implications of generative AI in Finance

A new frontier in artificial intelligence and for Finance



By the end of 2022, generative artificial intelligence (AI) had fully sparked public imagination about the future. Consumers and enterprises alike have been using artificial intelligence for years: speaking to voice assistants like Siri or Alexa, automating routine tasks, using algorithms to recognize patterns and correlations in data. But applications that could produce original text or digital art that quickly became household names, heralded a new age where AI can mimic human creative processes.

How much will generative AI impact our lives? That remains to be seen; however, research has suggested that breakthroughs in generative AI could increase global GDP by 7%—nearly \$7 trillion—and boost productivity growth by 1.5 percentage points.¹

Generative AI might start by producing concise and coherent summaries of text (e.g., meeting minutes), converting existing content to new modes (e.g., text to visual charts), or generating impact analyses from, say, new regulations. Producing novel content represents a definitive shift in the capabilities of AI, moving it from an enabler of our work to a potential co-pilot. It might augment human capability and then advance it.

CFOs and Finance leaders should start to develop strategies today for how generative AI will affect both their functions and their businesses tomorrow.



Getting to know generative AI

To consider the potential impact of generative AI in Finance, it's helpful to explore what generative AI is and how it operates. Generative AI:

- Creates original content such as text, images, audio, code, and video. Up until now, these types of content required solely human skill and expertise to create.
- Can add contextual awareness and human-like decision-making to enterprise and finance workflows, potentially dramatically changing how work is conducted.
- Is powered by foundation models, which run on deep-learning algorithms modeled on the organization of neurons in the human brain.

What does this mean for Finance?

A lot. Generative AI is powered by data. And since Finance draws upon enormous amounts of data, it's a natural fit to take advantage of generative AI.

Here we consider areas within Finance primed for generative AI-enabled transformation:



FP&A

Achieving strategic planning of tomorrow, today

CFOs may struggle to integrate financial, operational, and commercial data ... and deliver insights.

Generative AI-powered predictive models may review large data sets in fractions of the time, revealing immediate and ongoing trends, and enabling real-time monitoring and forecasting. With time, we are likely to see generative AI models capable of advanced scenarios and impact analyses—with the potential to run simulation after simulation, altering small variables along the way, to give leaders the insightful spark they need to move forward in new, productive, and profitable directions.



Transactional Finance

Augmenting autonomous finance operations

CFOs seek enhanced efficiency and reduced operational costs ... all while improving experience.

Activities like billing, payments, and collections may be largely automated through next-level portals, saving companies time and reducing costs. Transactional inquiries could be further transformed with generative AI-powered “agents” able to deliver tailored content based on personal needs and communication preferences. Generative AI could also further improve finance analyst efficiency by generating new standard operating procedures on the fly, capturing minor changes in process, and enabling conversational Q&A using models trained on enterprise data to support new employees through the procedures.



Controllership

Partnering on financial and management reporting

CFOs aren't likely to trust AI to produce audited financials anytime soon, but draft reports ... maybe.

Highly reliable, generative AI-produced drafts for internal and external financial reporting may save considerable time during month and quarter end. Generative AI could also be used to automate activities like reconciliations, journal entries, and financial consolidation—tying out financials with mathematical accuracy and balancing. Generative AI could also assist in drafting periodic management reports in both numeric and narrative formats—allowing organizations to be more efficient and potentially catching changes in costs, buying patterns, or market changes—earlier and faster than ever before.



Internal Audit & Compliance

Elevating continuous controls monitoring and detection

CFOs need to stay diligent in anticipating and mitigating risk ... now more than ever.

Generative AI may enhance risk management processes by enabling unlimited, simultaneous, continuous anomaly detection—analyzing transactions in real time and catching discrepancies immediately. Generative AI could monitor the connectivity between financial systems and data lakes to alert finance technology teams of issues. With time and development, generative AI-enabled systems not only could flag suspicious activity, but also might analyze it and implement response mechanisms. The systems could spot anomalies and take proactive security measures, such as creating action reports, providing recommendations, and notifying affected users.



Tax

Embracing a more-with-less mindset in tax

CFOs are seeking more out of their tax function—more agility, more flexibility ... to deliver more value.

Automation is creating more operational agility within tax—taking on routine compliance and reporting activities and freeing people to do more future-focused work. Generative AI solutions are likely to allow tax departments to unleash the power of data as structured and unstructured data sets will align closer to the point of transaction and flow through the financial systems with an emphasis on tax reporting. Taxability calculations, generation of tax documents – potentially customized to meet specific stakeholder and tax authority requirements, and impact analysis of new regulations may all be possible with generative AI solutions—enabling a more agile and dynamic tax department.



Investor Relations

Enabling strategy first in stakeholder engagement

Stakeholder management is becoming more complex ... leaving less time to focus on the strategic message.

Investor relations (IR) can be complex and time-consuming with new challenges, expectations, and stakeholders. Generative AI models trained on company-specific data—including historical finance data, business unit leadership reports, new business and marketing content, prior IR materials, and public regulatory and economic content—could generate draft stakeholder materials such as period-over-period results, earnings call scripts, earnings releases, and competitive analyses, and could even potentially provide earnings Q&A draft narratives. Time spent gathering data and inputs can be redirected to focus on strategy and delivering a consistent and impactful message to stakeholders.



Generative AI has the potential to transform Finance, and business, as we know it. It will take upfront investment in time and money. According to a Gartner study, 80% of CFOs surveyed in 2022 expected to spend more on AI in the coming two years.² With that investment, however, around two-thirds think their function will reach an autonomous state within six years.

To make sound decisions, it will be crucial that leaders consider the use of generative AI from an enterprisewide approach with a clear understanding of where this technology will have an impact on operating expenditures, capital expenditures, market capitalization, and a lot more.

CFOs and Finance leaders can play a pivotal role in driving strategic collaboration among key C-suite leaders to enable greater success—and return on investment—of AI deployment and adoption. The journey should begin with a sound strategy and a few use cases to test and learn with well-governed and accessible data. It doesn't have to be perfect, but it should be controlled.

While the future looks promising, generative AI has some current limitations that Finance professionals should consider.



Amplification of bias

Humans train the foundation models that power generative AI, and humans bring to the work inherent biases. Bias in equals bias out. If the underlying training data is skewed (e.g., an over- or underrepresentation of a population cohort), then these biases may be amplified in the content generated with results counter to an organization's diversity, equity, and inclusion commitments. Other types of bias, such as anchoring bias in forecasting, where training data relies too heavily on certain pieces of information to make subsequent judgments, can specifically affect finance processes using generative AI.

Finance leaders must remain on guard for biases in training data and regularly evaluate content. As detailed in our [Trustworthy AI™](#) framework, organizations can design new processes to break down bias and utilize audit trails that can trace the lineage of data used to generate content.



Reliability of output

Foundation models may produce incorrect but confident responses to prompts. Referred to as hallucinations, the incorrect content arises from the models still learning. But they are like overconfident humans: They don't recognize when they could be wrong. This is less likely in simple equations, but when subjectivity is introduced, when the model must make choices, the potential for generative AI to produce inaccurate content may increase.

One expects that this will improve with time. You may want to restrict initial usage to increase accuracy of inferences and then expand and scale models. Perhaps, one day, models will even have to pass a certification test to provide finance-related insights, advice, and engagement. Regardless, Finance leaders would do well to remain vigilant in validating and certifying content.



Security of information

Today, most generative AI applications do not guarantee privacy of data. Public consumer applications use existing content and prompts as part of their ongoing learning process. Information shared might show up again with another user altogether.

Many enterprises may end up with private models trained in secure environments that can help negate this risk. Regardless, safeguarding sensitive financial information will be critical. Finance leaders should partner with their enterprise technology teams to ensure that generative AI security approaches align to companywide standards.



Sovereignty of data

Generative AI does not use discretion in how it shares content. Nor can it necessarily comply with different company policies and country privacy laws, especially for global companies where those might differ widely. For example, enterprises might have contracts that restrict the types of third-party data they can use. By itself, generative AI cannot necessarily comply with these terms; however, user controls might offer safeguards in restricting access to data.

So, leaders must continuously ask themselves: Is generative AI being used in a manner consistent with its purpose?

Implications on finance talent

For all its tantalizing potential to automate and augment processes, generative AI will still require human talent.

But workers are skeptical. In a recent Harris Poll of workers, about half do not trust the technology.³ Finance leaders should consider change management carefully, leaning into the idea that generative AI can support our lives, transforming from an enabler of our work to a potential co-pilot.



Certainly, roles and responsibilities will change, and new types of workers may be needed. But enduring human capabilities like curiosity, empathy, critical thinking, teaming, and more will still be needed. Finance professionals may need to develop new generative AI fluency and enhance skills such as:

- How to engineer prompts (i.e., ask good questions) to get desired results.
- How to recognize potential bias.
- How to confirm the quality and validity of generated output and monitor performance of models over time.

Generative AI has quickly cemented its foothold in the public consciousness. It has sparked excitement around productivity increases and cost savings but also warrants caution. Yet, generative AI may completely transform the Finance function. Leading organizations have launched pilot programs and are scaling fast.

In the short term, generative AI will allow for further automation of financial analysis and reporting, enhancement of risk mitigation efforts, and optimization of financial operations. The impact is unlikely to stop there, though. With its ability to process vast amounts of data and quickly produce novel content, generative AI holds a promise for progressive disruptions we cannot yet anticipate.

Generative AI is here, and it's adapting and learning.

CFOs and Finance executives who adapt and learn with it can lead the future.

Ready to discuss generative AI in Finance? Contact us to learn more.

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Endnotes

1. Goldman Sachs, "[Generative AI could raise global GDP by 7%.](#)" April 5, 2023.
2. Gartner, "[Gartner predicts three ways autonomous technologies will impact the FP&A and Controller functions in Finance.](#)" press release, March 1, 2023.
3. Andrew Laningham, "[What's missing in the conversation about generative AI and jobs.](#)" The Harris Poll, February 6, 2023.

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