TAPESTRY NETWORKS

VIEWPOINTS

Responding to rapid advances in AI in financial services

December 2023

Shortly following the launch of ChatGPT, Bill Gates proclaimed that artificial intelligence (AI) was "going to revolutionize our lives."[1] Certainly AI's rapid development has mesmerized the world, with some, like Mr. Gates, touting its promise while others focus on its perils. Senior financial services leaders see the potential for the technology both to create new opportunities and to introduce new risks for their institutions. *"AI is still in its formative stages but has taken a massive leap in the last 10 months. It has immense potential to transform the financial services industry,"* an EY executive said.[2]

On September 27 (New York) and November 8–9 (London), participants from across banking and insurance met with executives and subject matter experts from Google, Microsoft, EY, and other organizations to discuss the ongoing tech transformation within financial services, the prospects for emerging artificial intelligence applications, and the continuing evolution of the financial services ecosystem. This *ViewPoints* summarizes key themes emerging from the discussions on AI. A companion *ViewPoints* focuses on tech transformation and is available here.

For a list of participants, please see Appendix 1 (page 10).

This *ViewPoints* highlights the following key themes that emerged from these meetings and related conversations:

Assessing AI's potential impact in financial services

Enabling organizations to realize the potential of AI

Establishing governance and oversight frameworks for AI

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Assessing AI's potential impact in financial services

While large banks and insurers have used artificial intelligence for years, participants believe that the technology has taken a tremendous leap forward since the launch of ChatGPT and similar generative AI tools. *"You have the ability to process billions of data points with OpenAI, the processing power of machines has advanced, and the data available has transformed,"* observed one participant. Many see great potential for the technology. An executive declared, *"We are in the middle of an industrial revolution, and there will be huge efficiency gains to be had."*

Financial institutions are still in the early days of exploring how to apply these more powerful generative AI tools within their organizations. As they test new applications, participants offered several preliminary observations on the technology and its potential impact upon the industry:

- **Generative AI and traditional AI are suited to address different types of problems.** The introduction of ChatGPT brought AI into the mainstream, but the attention it has garnered has obscured important distinctions between generative AI applications like ChatGPT and more established AI technologies. *"With all this hype around AI, people are overusing the term,"* noted an executive. Traditional AI *"is about detecting patterns based on historical data"* while generative AI *"is about being able to generate insights by pulling lots of sources of information together"* according to a director. Understanding the distinction is important for firms when trying to assess how best to apply AI. An executive explained, *"GenAI is most useful for creative and probabilistic use cases. Most deterministic problems are best suited to machine learning, not GenAI."* While generative AI may represent a technical advance over traditional AI, its probabilistic nature raises concerns for some senior industry leaders. A participant acknowledged, *"The challenge will be how to ensure we have control over the probabilistic aspect … We aren't there yet."*

- **Financial institutions are exploring potential use cases for generative AI.** Large banks and insurers are still experimenting with these generative AI tools to see how they can be safely applied within their organizations. Some see real opportunities. Whether in credit underwriting, financial advising, or document review or customer service optimization, *"we are just scratching the surface,"*

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>
> — Participant

according to a participant. A director noted that AI *"can cut time in half"* when dealing with customer complaints because *"the model is sophisticated enough to look across lots of data, home in on the reason for the complaint, and determine how to deal with it."* An insurance executive sees potential in data analysis: *"Insurers have tons of expertise and information in documents and reports. Generative AI can unleash insights from all of that information that was previously inaccessible. GPT-4 is doing a good job of finding differences in wording across contracts and policies and can do so across many different languages."* Not everyone shares this enthusiasm. Many firms are reluctant to use these unproven tools for anything which directly touches the customer: *"We are years away from putting that in front of a customer,"* asserted one director. Others see no value at all. One executive relayed, *"We're not using generative AI, but we are still using machine learning to do all sorts of things … But definitely no uses for large language models or generative AI at this point."*

- **It will be several years before generative AI's potential transformative promise is realized.** *"The architecture that enables you to use generative AI at scale doesn't exist yet in the way that we want it to,"* noted a director. Another observed, *"We're at the absolute peak of the hype cycle with generative AI, and there's a lot of confusion between hype and value."* Despite widespread experimentation, most financial institutions are not currently deploying generative AI in a production capacity, with the possible exception of Morgan Stanley, which launched a generative AI tool to assist financial advisers earlier this year.[3] However, many senior industry leaders believe that generative AI will have a tremendous impact on their businesses in the coming years: *"I don't believe industries will be completely changed or uplifted in the short term, but they absolutely will be in the long term,"* asserted a participant. A director agreed, stating, *"I think we are at the stage where we overestimate the short-term impact and underestimate the long term."*

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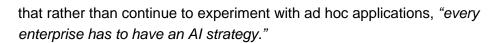>
> — Director

Enabling organizations to realize the potential of AI

With advances in AI pushing the bounds of what machines can and should do, boardroom discussions on generating value through AI implementation have become more common. One executive insisted

that rather than continue to experiment with ad hoc applications, *"every enterprise has to have an AI strategy."*

Take a strategic approach to AI

Boards and management teams need to align deployment of AI with their organizational objectives and focus on how the technology can solve key business challenges. Participants identified how they are thinking about developing an AI strategy and building institutional support for its implementation:

- **Focus on how AI can address core business challenges.** Developing an enterprise AI strategy means looking across the business holistically to determine where and how AI can add value and have the greatest impact. An executive commented, *"You need to determine, What is the one thing that is going to move the needle for our business? Is it solving the credit underwriting decision of who to give a loan to and how to manage that loan? Is it managing fraud? Is it helping with marketing?"* An EY subject matter expert shared a similar perspective, noting, *"In insurance, it's about underwriting: can I write a better risk or be more efficient in underwriting the risk. If you can assess the risk more cheaply, this will impact the bottom line."* The goal, as one director noted, is to *"take the biggest revenue driver and the biggest cost driver in the business and use AI to dramatically increase revenues and dramatically reduce costs."* The same director observed, *"None of my companies are there yet, and that to me is the real conversation."*

- **Recognize the bar AI needs to clear and highlight cases where that is possible.** An EY executive emphasized, *"Boards really need to be thinking about applicability for the use cases and then experimenting within a controlled environment where you can see the value of use cases before you scale those applications."* Concerns about risks of AI abound. Potential applications need to clear a high bar to overcome those inhibitions: *"AI has to be immeasurably better than humans, not just a little bit better,"* according to one executive. Particularly for core business functions, like underwriting, demonstrating the superiority of AI is the challenge: *"When you say AI is better than a human, you need to be able to explain why and how the AI is better … If 'better' just means it perpetuates what a human would have done more rapidly or at greater scale, that is not good enough."* Part of overcoming

"AI has to be immeasurably better than humans, not just a little bit better."

— Participant

discomfort is addressing the fear that AI will displace workers. One participant said, *"It is not that the algorithm replaces humans, it gives humans a superpower."* In support of that notion, a participant described a study that determined a machine-learning algorithm on its own was only slightly better than a human doctor in predicting patient outcomes, but the algorithm and the doctor working together produced exponentially better results than a doctor alone.

Equip organizations to maximize value from AI

Developing the expertise, talent, and organizational capacity necessary to implement AI technologies effectively and safely in core business functions presents a significant challenge. Participants discussed several approaches to meeting this challenge:

- **Ensure organizations are primed to capitalize on their proprietary data.** The key to unlocking the power of AI lies in using proprietary data: *"Data is more valuable than ever, and value will go to the companies that hold the data,"* according to an executive. Another concurred: *"Data is now democratized, and everyone has access. So, the real advantage is proprietary data, and the second advantage is culture. If everyone has access to data, you need those two aspects to be competitive."* Understanding these differentiators is imperative, but many organizations are not prepared to exploit these competitive advantages. *"The technology is great, but if you haven't sorted your proprietary data, then you're nowhere, because data drives everything,"* stated an executive.

- **Identify ways to access limited AI expertise.** Despite the explosion of activity around AI in the last year, highly specialized AI expertise remains in short supply. One executive asserted, *"In the world of AI, there are 800 people who really know what's going on, and these people are at start-ups. Boards need to ask, Do we have access to the 'brain trust'?"* While technology firms will offer off-the-shelf applications, developing custom models to address central business functions or solve targeted challenges will require deeper expertise. An executive suggested that organizations have three means of gaining access to the limited AI talent pool: *"building in-house, acquiring, or partnering."* This executive pointed to the example of a major bank that acquired an AI start-up, which gave the bank access to AI applications in credit underwriting and fraud management. In light of this, perhaps the question directors should be asking is *"Who is our AI partner?"*

"Data is more valuable than ever, and value will go to the companies that hold the data."

— Executive

- **Educate business leaders throughout the organization on AI.**
  Bringing technical talent into an organization is insufficient;
  Education of those already present is also necessary for success.
  Board members, executives, and employees need to be able to ask
  the right questions and understand the opportunities and risks
  associated with emerging AI technologies. A participant observed,
  *"As a board member, I will never be an AI expert. The basics for me
  are governance, risk, and cost assessment. But I need a level of
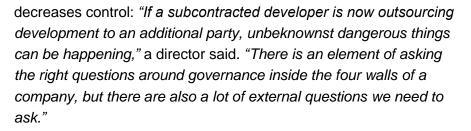 familiarity and education to fully understand those things."*

Assess and mitigate risks

While having a strategy and expertise in place can provide more
comfort with and structure for AI in financial services, participants
identified a range of risks to be managed:

- **Opacity concerns.** Explainability continues to limit trust in AI. One
  executive admitted that AI models cannot be fully explained: there
  are too many data inputs in advanced models to determine precisely
  how they produce a given outcome. This executive stated, *"We
  have to accept the fact that it is opaque, but it's better."* One
  approach to simplifying output verification is *"reducing the number of
  inputs going into the model so that you can statistically show how
  inputs influenced the outcome."* But that is limiting. Ultimately, one
  participant said, institutions need to focus on ensuring they
  understand the sources of data: *"Explainability and safety are key.
  We understand that you can't follow a neural network, but
  explainability of where the data sets come from is key. Saying that it
  came from the web is not acceptable."*

- **Cybersecurity dangers.** Advances in AI have only elevated
  concerns about cybersecurity. *"Cyber is what keeps me awake at
  night,"* stated one director. *"Things like generative AI and quantum
  computing are really powering this peril of cyber."* AI will also be
  integral to combatting cyber risk: *"Not using AI is going to be more
  harmful than using it. The bad guys are smart and are using AI in
  large volume. We won't be able to fight that using traditional tools,"*
  a participant said.

- **Third-party vulnerability.** Financial institutions' increasing reliance
  on third parties for core cloud services and AI technologies is
  generating new risks. One participant asked, *"How do you know if
  the third-party suppliers of these models have the same values you
  want to adopt?"* Moreover, the use of third-party suppliers

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decreases control: *"If a subcontracted developer is now outsourcing development to an additional party, unbeknownst dangerous things can be happening,"* a director said. *"There is an element of asking the right questions around governance inside the four walls of a company, but there are also a lot of external questions we need to ask."*

- **The potential for bias.** The implicit biases of the developers can result in biased models, and biased training data can generate inequitable outcomes. Organizations have the responsibility to ensure their data is as clean as possible through methods such as data preprocessing and anonymizing, and to foster diversity among the individuals who compile the data and develop the AI models. A participant stated, *"You need to be able to say, 'These are my developers, and they come from different backgrounds,' because regulators like the [Equal Employment Opportunity Commission] will be looking for bias."*

- **Legal ramifications.** Generative AI is creating new regulatory, litigation, and policy risks. A director noted, *"We have to be careful not to sleepwalk into using these tools and inadvertently create a large asset base of potentially litigious material that could be used against the company."* Generative AI increases litigation risk by raising questions about the ownership and value of data and the outputs from AI tools, creating tensions among the interests of companies, their employees, customers, and partners. Trademarks and copyright infringement lawsuits are already underway, and while financial services firms are not currently facing litigation, one participant cautioned, *"Lawsuits will really start when we get an official regulatory framework."* Another participant added, *"Financial organizations need to consider that private-action lawsuits could fall on directors' liability, and firms may need to redo their directors and officers insurance."*

Establishing governance and oversight frameworks for AI

To use AI effectively and safely, organizations need more than an AI policy. An EY executive observed, *"Organizations have policies, but most lack a governance framework."* Firms need a framework that outlines internal and external uses, establishes ethical use guidelines, identifies key individuals and experts, aligns roles, responsibilities, and

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— Director

accountability, and sets the investment strategy. *"The first thing to focus on is the need for a governance framework, because it will help you be consistent across the board and protect you going forward,"* stated one participant.

However, AI has evolved so quickly that standards and best practices for frameworks, board oversight, and governance have not kept pace. A director acknowledged, *"Some large, very valuable companies are at early adolescence in their governing."* Another added, *"We don't have trained people, we don't have the governance, and we don't even know who is responsible."* This can have serious implications: *"It's a big risk for board members because regulators put a lot of pressure on boards to know where the risks are. Board responsibility is huge when people don't know the answers yet,"* cautioned a director. Participants identified some of the oversight issues complicating governance:

- **Keeping up with the pace of change.** The speed of AI development makes it challenging for directors to maintain their understanding of the technology, make timely decisions, and ensure that management teams have the skills necessary to navigate changes. The impact of this, as one director noted, is that *"when you're moving too fast and you're being pushed or pulled in a certain direction, you're not always going in the direction that you think you should go. We do not have the technological maturity yet, or enough understanding of how the technology works and how it has to evolve, in order to be able to anticipate how to control it."* Building and getting access to expertise at the board level will be critical. *"It's not enough to just get people thinking … It's up to all of us directors to get smart about this and form a point of view."* Another participant reminded the group to balance specialized knowledge with pragmatic experience: *"Specialists have a role to play in a board's understanding and learning. But we also need advice from people who have run businesses."*

- **Determining the right level of oversight.** Participants debated how detailed board oversight of AI should be and where to draw the line between board and management responsibility. Some believe boards should have an in-depth understanding of AI utilization and probe accordingly: *"Use cases are a board-level issue. Asking what the problems are, what are we deploying this to solve, is it saving time, who owns this, who makes decisions,"* said one director. *"Those are the right questions to ask, and it's good for the board to get involved here."* Another agreed, saying, *"There is a need for*

boards to be fully aware of where AI will be used in the organization." However, others feel that this is not appropriate. *"In the end, as board directors, we can't know everything, and we shouldn't second-guess management,"* opined a director. *"It's about getting the right people in the right places doing the right things and getting governance in the right place, rather than asking questions about use cases, which is not the territory we should be in."*

- **Engaging in the evolving policy environment.** Policy and regulation will play a crucial role in guiding the responsible development of AI, but policymakers are struggling to keep up with the speed of developments. British Prime Minister Rishi Sunak noted the lack of a global regulatory framework at the United Kingdom's inaugural AI Safety Summit, saying, "Until now the only people testing the safety of new AI models have been the very companies developing it. We shouldn't rely on them to mark their own homework."[4] Some believe the fragmented and fluid policy and regulatory environment presents an opportunity for boards to engage on policy. *"There is a significant role for boards to play in influencing the public-policy debate,"* stated a participant. *"The way government determines policies on this will drive everything. Setting a road map for the AI outcomes we want is something boards can influence, and should."*

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It remains early days for how AI, and specifically generative AI, will affect financial services. We will continue to have discussions in the Financial Services Leadership Network that focus on maximizing use cases, mitigating the inherent risks, and building more mature approaches to oversight and governance.

> *"There is a significant role for boards to play in influencing the public-policy debate."*
>
> — Director

Appendix 1: Participants

The following individuals participated in these discussions:

Participants

Joud Abdel Majeid, Senior Managing Director, Global Head of Investment Stewardship, BlackRock

Jeremy Anderson, Senior Independent Director, Prudential plc and UBS

Giles Andrews, Transformation Oversight Committee Chair, Bank of Ireland

Nathan Attrell, Head of Financial Services EMEA, Snowflake

Nora Aufreiter, Human Capital and Compensation Committee Chair, Scotiabank

Alastair Barbour, Chair of the Board, Phoenix Group Holdings

Rohit Bhat, Director, Capital Markets, Digital Assets, and Exchanges, Google Cloud

Paul Bishop, Audit Committee Chair, AXA XL and Zurich Assurance, Chair of the Board MetLife UK

Amanda Blanc, Group Chief Executive Officer, Aviva

Sally Bridgeland, With Profits Committee Chair, Royal London; Risk Committee Chair, Pension Insurance Corporation

Craig Broderick, Risk Review Committee Chair, BMO Financial Group

Nanci Caldwell, Corporate Governance Committee Chair, CIBC

Jan Carendi, Non-Executive Director, Lombard International Assurance

Bill Coen, Non-Executive Director, China Construction Bank

James Cole, Nominating and Corporate Governance Committee Chair, AIG

Michael Cole-Fontayn, Non-Executive Director, JPMorgan Securities

Martha Cummings, Nomination and Governance Committee Chair, Marqeta

Pierre-Olivier Desaulle, Non-Executive Director, Beazley

John Dugan, Chair of the Board, Citigroup

Mike Eberhardt, Managing Director, BlackRock

Harriet Edelman, Information Technology Committee Chair, Assurant, Inc.

Theresa Fallon, Founder and Director, Centre for Russia Europe Asia Studies

Alessia Falsarone, Non-Executive Director, Assicurazioni Generali

Ian Fantozzi, Chief Executive Officer, Beazley Digital

Shyam Gidumal, Non-Executive Director, Renaissance Reinsurance

Jill Goodman, Non-Executive Director, Genworth Financial

Tobias Guldimann, Risk Committee Chair, Edmond de Rothschild

Ashok Gupta, Risk Committee Chair, Sun Life Financial

Sheila Hooda, Nominating and Corporate Governance Committee Chair, Enact Holdings

Joe Hurd, Non-Executive Director, Lloyd's of London

Leslie Ireland, Non-Executive Director, Citigroup

Arlene Isaacs-lowe, Non-Executive Director, Equitable Holdings

Shonaid Jemmett-Page, Senior Independent Director, ClearBank, Customer and Sustainability Committee Chair, Aviva

Phil Kenworthy, Non-Executive Director, ClearBank

Devika Kornbacher, Technology Law Partner and Co-Head of Tech Group, Clifford Chance

Joan Lamm Tennant, Chair of the Board, Equitable Holdings and AllianceBernstein

Christine Larsen, Non-Executive Director, CIBC

Derek Leatherdale, Founder and Managing Director, GRI Strategies

Nick Lee, Head of Regulatory and Government Affairs, OakNorth

John Lister, Actuarial Committee and Risk Committee Chair, Old Mutual; Risk Committee Chair, Phoenix Life

John Liver, Non-Executive Director, Barclays UK

Andrew Lowe, EMEA Head of Business Development for Technology, Bank of America

Ben Luckett, Chief Innovation Officer, Aviva

Michel Madelain, Non-Executive Director, China Construction Bank

Jason Mallinder, Client Partner, EMEA, Istari

Roger Marshall, Senior Independent Director and Audit Committee Chair, Pension Insurance Corporation

Marcus Martinez, Worldwide Financial Services, EMEA, Microsoft Industry and Partner Sales, Microsoft

Tom Mildenhall, Managing Director, Global Head of Technology Partnership Development, Bank of America

Liz Mitchell, Non-Executive Director, Principal Financial

Barbara Novick, Non-Executive Director, New York Life

Sally Orton, Non-Executive Director, Nationwide Building Society

Andy Ozment, Executive Vice President, Chief Technology Risk Officer, Capital One

Doina Palici-Chehab, Non-Executive Director, AXA (several entities)

Bill Parker, Non-Executive Director, Synchrony Financial

Marty Pfinsgraff, Risk Committee Chair, PNC Financial

Tomi Poutanen, Co-Founder, Radical Ventures

John Reizenstein, Audit Committee Chair, Beazley

John Rhea, Non-Executive Director, State Street

David Roberts, Chair of Court, Bank of England

Sabahat Salahuddin, Director, Investment Stewardship, BlackRock

Mohit Sarvaiya, International Chief Information Officer, BNY Mellon

Agnes Bundy Scanlan, Nominating and Governance Committee Chair, Truist

David Sidwell, Nominating and Governance Committee Chair, Chubb

Nick Silitch, Former Chief Risk Officer, Prudential Financial

Kate Stevenson, Chair of the Board, CIBC

Scott Stoll, Audit Committee Chair, Farmers Group and Farmers New World Life Insurance Company

Pia Tischhauser, Non-Executive Director, Swiss Re

Tim Tookey, Audit Committee Chair, Royal London

Cathy Turner, Senior Independent Director and Remuneration Committee Chair, Lloyds Banking Group

Cathy Wallace, Senior Vice President and Chief Risk Officer, State Farm

Nigel Walsh, Managing Director, Insurance, Google Cloud

EY

Omar Ali, EMEIA Financial Services Regional Managing Partner

Jan Bellens, Global Banking and Capital Markets Leader

Alok Bhargava, Principal, Financial Services, Data and Analytics

Ed Majkowski, Americas Insurance Sector and Consulting Leader

Peter Manchester, EMEIA Insurance Leader and Global Insurance Consulting Leader

Preetham Peddanagari, EMEIA Digital Insurance Leader; UK Financial Services Technology Consulting Leader

Isabelle Santenac, Global Insurance Leader

Phil Vermeulen, Global Client Service Partner

John Walsh, Americas Banking and Capital
Markets Leader

Sophia Yen, Senior Partner/Principal, Insurance
Strategy and Innovation Leader

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Dennis Andrade, Partner

Eric Baldwin, Principal

Tiffany Luehrs, Associate

Brenna McNeill, Associate

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About this document

The Financial Services Leadership Network (FSLN) is a group of financial services board members, executives, and stakeholders, together with other subject matter experts committed to addressing pressing problems and enhancing trust in financial markets. The network is organized and led by Tapestry Networks with the support of EY as part of its continuing commitment to board effectiveness and good governance.

ViewPoints is produced by Tapestry Networks to stimulate timely, substantive board discussions about the choices confronting audit committee members, management, and their advisers as they endeavor to fulfill their respective responsibilities to the investing public. The ultimate value of *ViewPoints* lies in its power to help all constituencies develop their own informed points of view on these important issues. Those who receive *ViewPoints* are encouraged to share it with others in their own networks. The more board members, members of management, and advisers who become systematically engaged in this dialogue, the more value will be created for all.

About Tapestry Networks

Since 2004, Tapestry has been the premier firm for building collaboration platforms with leaders of the world's foremost organizations. Tapestry Networks brings senior leaders together to learn and to shape solutions to today's most pressing challenges. We are a trusted convener of board directors, executives, policymakers, and other stakeholders, connecting them with information, insight, and each other. Top experts join our discussions to learn from the leaders we convene and to share their knowledge. Our platforms help educate the market, identify good practices, and develop shared solutions. We call this the power of connected thinking.

About EY

EY is a global leader in assurance, tax, transaction, and advisory services to the financial services industry. The insights and quality services it delivers help build trust and confidence in the capital markets and in economies the world over. EY develops outstanding leaders who team to deliver on our promises to all of our stakeholders. In so doing, EY plays a critical role in building a better working world for its people, for its clients, and for its communities. EY supports the networks as part of its continuing commitment to board effectiveness and good governance in the financial services sector.

Endnotes

[1] Bill Gates, "The Risks of AI Are Real but Manageable," GatesNotes (blog), July 11, 2023.

[2] *ViewPoints* reflects the network's use of a modified version of the Chatham House Rule whereby comments are not attributed to individuals or corporations. Quotations in italics are drawn from conversations with participants in connection with the meeting.

[3] Hugh Son, "Morgan Stanley Kicks Off Generative AI Era on Wall Street with Assistant for Financial Advisors," CNBC, September 18, 2023.

[4] Prime Minister's Office (UK), Department for Science, Innovation & Technology (UK), Michelle Donlan, and Rishi Sunak, "Top AI Companies Set out Plan for Safety Testing of Frontier as First Global AI Safety Summit Concludes," news release, November 2, 2023.