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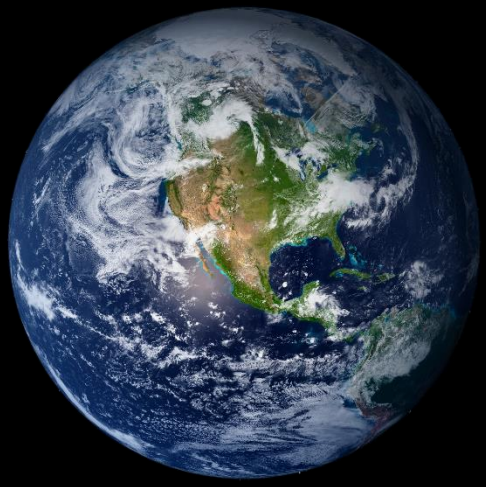

FSLN VIEWPOINTS

Unlocking the value of AI for financial services

April 2024

A technology as transformative as artificial intelligence (AI) has tremendous implications for financial institutions. However, as firms look to deploy the technology at scale, they must balance a host of implementation, partnership, regulatory, and policy challenges. *"I think generative AI is sort of like cloud investment. You know you have to do it, but it's much harder than you think it should be,"* said a director from a leading American insurance company.

On March 7 (London) and March 26 (New York), board directors and senior executives from across banking and insurance met with subject matter experts from Amazon Web Services, Databricks, EY, and other organizations to discuss emerging generative AI use cases and associated risks. This *ViewPoints* summarizes key themes arising from those discussions. A companion *ViewPoints* synthesizing separate discussions on market perspectives on financial institutions, the evolving regulatory climate, and the role of private capital in financial services is available here.

For a list of participants, please see Appendix (page 11).

This *ViewPoints*[1] highlights the following key themes that emerged from these meetings and related conversations:

EY Building a better working world

Generative AI will be transformative, but the path forward remains unclear

In his most recent letter to JPMorgan Chase shareholders, CEO Jamie Dimon states he is "completely convinced" that the impact of AI "will be extraordinary and possibly as transformational as some of the major technological inventions of the past several hundred years: Think the printing press, the steam engine, electricity, computing and the Internet, among others." He also acknowledged that "we do not know the full effect or the precise rate at which AI will change our business."[2] Many other large financial institutions are similarly grappling with just how transformative AI will be and what steps they need to take now, as they make that assessment.

"Have you seen any examples of generative AI genuinely solving new problems? This is what will fundamentally shift the business model."

— Executive

Use cases continue to emerge and mature

Financial services firms have now had well over a year since the launch of ChatGPT to experiment with new and powerful generative AI tools. An executive stated that consensus is starting to emerge around key areas in which generative AI can be helpful. *"There are three main AI use case buckets,"* explained the executive. *"The productivity stuff, where we are all focused, will give us a big boost in terms of capacity. There are hundreds of examples of that. The second bucket is, How do we discover things in our own data that we don't know? The third one is most interesting: problem solving. Have you seen any examples of generative AI genuinely solving new problems? This is what will fundamentally shift the business model."*

Most of the activity to date has focused on the first two buckets. Participants have experienced success in the following areas:

- **Enhancing customer service and insight.** Generative AI continues to show great promise in the call center environment. One executive observed, *"Now you can get real-time assistance for call centers, whether it's searching a knowledge base and generating answers or providing a summarization of all previous interactions with the customer before interacting with them."* The technology also enhances post-call analytics, which improves understanding of customer behavior. A participant said, *"By categorizing calls by topic [and] understanding the sentiment of calls and how long they last, we can have a better understanding of millions of calls. Right now, we often don't have a full view of all conversations we are having*

with customers, but we can do that with generative AI."

- **Accelerating programmer productivity.** Participants are finding success in utilizing generative AI to enhance efficiency in their technology development and legacy technology transformation. A director reported, *"Using generative AI for code generation is popping up across the board. We can get a 15–30% efficiency gain out of our developers."* One participant said, *"There's probably a lot of COBAL at the banks written in the 70s. With generative AI and working with partners, we are able to break the COBAL apart and understand its dependencies, which is the beginning of the modernization process."*
- **Facilitating content generation.** *"A big area is content generation for messaging and promotion. We ran a pilot where marketing content was customized based on customer profile for savings accounts using generative AI, and the response rate was a 400% increase in savings accounts openings. It was six times or something compared to normal,"* stated an executive. Generative AI can also be deployed in non-revenue-generating customer communications. A participant shared, *"Complex regulatory notices, such as a denial of coverage, are really intensive, tedious, and painful, and if they aren't well put together, they typically end up in litigation. We're solving this by training generative AI models on the best examples from our own existing teams, and it's democratizing the quality of claims documents."*
- **Augmenting business analytics.** Generative AI is also democratizing access to data and allowing firms to glean new insights about their businesses. An executive said, *"It's like Excel for unstructured data. All of a sudden you can run a programmatic large-scale analysis on proprietary data and use that to generate new decisions. You can aggregate data into an entirely new view."* Another participant concurred: *"It becomes a powerful analysis tool. Mining through legacy code, understanding how your business ran for the last 40 years, how the supply chain works, how specific regulations have been met. It accelerates a huge amount of problem solving."*

Firms are finding potentially transformative uses for AI may arise from applying numerous efficiency and productivity gain use cases simultaneously. An executive described their firm's utilization of machine learning and generative AI to potentially revolutionize the

"We're training generative AI models on the best examples from our own existing teams, and it's democratizing the quality of claims documents."

— Participant

underwriting process. With the application of machine learning, a process that previously required the time-consuming manual manipulation of data and the use of offshore vendors was transformed into one that is capable of cleansing a spreadsheet within seconds. This enhanced efficiency, combined with the use of generative AI models to augment risk analysis capabilities, has yielded striking results. Quotes that previously had typically taken more than three days to generate can now be generated in three minutes. *"In terms of benefits, we think we can do more, do it better, and do it cheaper. The time savings has freed up underwriters to spend more time on portfolio analysis or business development. By modeling 100% of risk, we will be able to spot things that we might not want to insure and reduce our loss ratio. And we save costs by not outsourcing."*

"We're still using old data; we aren't live; we're not actually sending out quotes. It's all about trying to implement and getting the models performing as we expect them to."

— Director

Firms must balance immediate gains against more dramatic but less certain future advances

While financial institutions are beginning to identify use cases that will significantly change the way they do business, they are struggling to move beyond the testing stage. For example, the underwriting use case described above remains a proof of concept. *"We're still using old data; we aren't live; we're not actually sending out quotes. It's all about trying to implement and getting the models performing as we expect them to. We have to have confidence the models will behave the way we expect."* Another director described being in a similar situation: *"We have a pathway to production for our use cases, but we are still in the testing stage. Given the technology and how it's changing so quickly, there are concerns, and you see examples in the press. But we have lots of proofs of concept, and I think we'll get there."*

Firms that really want to apply generative AI at scale will have to strike a balance between investing in use cases that offer clear improvements now, such as improved efficiency and productivity, and those that could be more impactful but require some patience and conviction before bearing fruit. One participant described that balance: *"Some firms have committed to generating hundreds of millions of dollars in enterprise value from AI. Typically, those firms are able to quickly recognize that investment in the automation-and-augmentation bucket, since the results are tangible. Those are easy and quick to prove out. The innovation bucket, however, has more lead time in the way you measure it. Those who are very cost concerned are probably behind their more innovative peers. Those who get ahead say, 'Let's augment*

and automate and take costs out,' but also say, 'We want to make better, different decisions.'"

AI presents implementation challenges

"You need to include creativity and innovation in your thinking about this."

— Director

As large banks and insurers look to move generative AI use cases from experimentation to deployment at scale, they face a number of implementation challenges. How much work should they do themselves, and when should they turn to partners or buy expertise? And the details of deployment—data security, effective resource allocation, training for employees, and the threat of cybercrime—all present difficulties.

Addressing the build-buy-or-partner question

Bringing a new technology into a heavily regulated financial institution presents a host of challenges. Many firms have already reached the conclusion that trying to build and deploy large language models on their own at this stage is not the right approach. Even customizing existing foundation models may be cost prohibitive: *"We aren't sure whether the cost of training the models will trump the benefits. Companies have to determine if we even have the resources to do it at all,"* said a director. The alternative is to search the market for existing solutions while simultaneously reinforcing internal expertise. An executive commented, *"You can get a lot of benefits right out of the box with off-the-shelf tools. I wouldn't suggest putting a ton of money into training or developing until you push the boundaries of off-the-shelf models."*

To support their tech transformation efforts, large financial services institutions already partner with big technology providers like Google, Amazon, and Microsoft as well as smaller data management companies and start-ups. Generative AI presents a whole new ecosystem of vendors to investigate. Participants discussed several areas of concern as they begin to explore generative AI partnerships:

- **Identifying the right partners and tools.** The success of any tech transformation initiative depends on selecting the right partners, especially in the case of an emerging technology like generative AI, which presents both great promise and real risks. However, identifying the right partner is not easy, and the choice may be driven by the specific business problem that needs to be solved. *"Yes, we're working with the usual suspects,"* reported a director. *"But we're also looking at the platforms we already use and the generative AI capabilities there, as well as looking at in-house*

generative AI. We're getting a lot of inspiration from start-ups and the wider tech community. You need to include creativity and innovation in your thinking about this." Ultimately this may mean collaborating with a variety of partners who bring different AI models to the table. An executive noted, *"Clients are finding that the bigger the model, the higher the costs, and the greater the possibility of contamination. But if you have a narrower use case, you can use a very specific and much smaller model … Enterprises are starting to realize that sometimes you need something specific and sometimes you need something general. You might work with different partners, just as you might plug and play different types of models."*

"We don't know which models are going to win. It's probably not going to be one model that wins and wins forever."

— Participant

- **Addressing intellectual property (IP) and data concerns.** Firms need more clarity around the ownership and control of proprietary data and how their data interacts with providers' AI models. A director acknowledged that they found it difficult to understand *"how to establish boundaries"* with partners. Establishing ownership of the insights, features, or other forms of IP emerging from the interaction between a firm's data and technology and the partner's AI models presents a significant challenge. One director cautioned, *"One of most complicated parts we find in potentially working with a large provider is the IP discussion. Their ability to capture second-order information is quite sophisticated."* However, one executive was of the opinion that these issues are manageable. *"All of the IP is ours. The way we've talked about it is that it's a jigsaw puzzle, and six pieces are ours, six pieces are theirs. How you put them together is the critical piece. The entire puzzle is owned by us, but our partner owns their pieces. We have access to their models, but data stays with us. It's not going to their models that everyone else can use. Our data is completely locked down."*
- **Managing the implications for overall technology strategy.** Institutions need to better understand how partnering on AI will affect their overall technology strategies going forward. *"One of our issues is that [deploying AI] has prompted us to go multicloud. It was quite a big decision to do that, given where we were committed before,"* stated a director. The rapid evolution of generative AI technology means that flexibility is crucial. *"We don't know which models are going to win. It's probably not going to be one model that wins and wins forever,"* observed a participant. *"By next month it might be another model that's better for that particular use case. We want to test and learn and keep our options open at this point."*

Deploying the technology at scale is complicated

Financial services companies still have much work to do to prepare for implementation at scale. At present, very few firms have deployed generative AI across their organizations in any meaningful way. Participants identified several difficulties they have encountered in trying to move from proof of concept to deployment at scale:

- **Managing data security.** Senior financial services leaders remain concerned that moving forward too quickly with a powerful but still relatively nascent technology could compromise data security. *"The main challenge of implementation is that the data security has to be in place, and the data privacy has to be all locked down,"* said a director. Another director added, *"The biggest risk to me is that we get it wrong, and we lose customer data. Management and the board are having to learn at the same time as having to execute."*
- **Investing wisely.** *"It is a huge challenge for those at the top of the house to determine how much time and money to put into generative AI,"* admitted an executive. In deciding where to invest, firms must avoid getting caught up in the AI hype wave and neglecting other tech transformation efforts. The task of allocating investment is particularly difficult for companies that continue to struggle with legacy technology. A participant noted, *"In my experience, there are a lot of firms who need to spend a lot of money on technology just to do the basics every day. There's lots of tech debt out there, which only makes generative AI investment harder."*
- **Equipping the workforce and identifying the right talent.** Generative AI is so new that very few people are truly comfortable with it. Any successful deployment will require assessing the technology's impact on the workforce and then training the right people to bring them up to speed. One executive remarked, *"It's an entirely new curriculum to train the workforce on. Like any other new curriculum, it's about meeting people where they are and helping them. The people who are good at these jobs are the people who can use the technology, and who those people are might change."* A director noted, *"It's generative AI, data, and talent. The one that gets that trifecta right will be the one that wins—not just the one that gets generative AI right."*
- **Combatting the threat of AI-augmented cybercrime.** Generative AI presents bad actors with powerful tools. Some foresee the

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— Director

technology's potential sinister uses limiting its application within heavily regulated industries like financial services. A participant reported, *"Our firm had active proofs of concept to detect voice authentication, and the government told us to pause. Deepfakes of voice and video are a real threat that we're looking to solve*." Others believe newly empowered cybercriminals will simply create more work for large banks and insurers. A director stated, *"The moral from my perspective is we as an industry are going to spend as much time and energy defending against these fraudsters as we are on improving the efficiencies of our organizations.*

"Generative AI may be fundamentally a nonstarter for financial services."

— Participant

Many senior financial services leaders question the suitability of generative AI in an industry that requires certainty. *"The people who make these models can't explain them, and that's a real issue for financial services. Generative AI may be fundamentally a nonstarter for financial services,"* said one participant. Concerns about the technology's inclination to hallucinate (i.e., fabricate information) also persist. One participant said, *"The risk is just if you get it wrong. Every single day you see stories about real-life examples of where generative AI models are getting it wrong. I'm incredibly excited about the benefits, but we've only played with it in a safe environment. We haven't taken that step yet, so it's around the risk of it going wrong when live."*

AI regulation and governance remains relatively immature

It is still early days for regulators, boards, and senior management when it comes to generative AI oversight and governance. As one director commented, *"Model risk management processes for generative AI are just not that well defined in financial services."* Regulators and companies alike continue to assess the implications of these powerful generative AI models on the financial system, financial institutions, and the customers those institutions seek to serve.

AI policy and regulation varies by market

Regulators in the United States and the United Kingdom are adopting a cautious approach, attempting to utilize existing frameworks to regulate the use of generative AI in financial services. One regulator explained, *"We've got regulation that covers the necessary ground. We don't need bespoke financial services policies for AI. Our existing regulations cover the space, and we just need to work with firms to make sure it develops*

in a controlled fashion." Another agreed but acknowledged further changes may be necessary: *"We have guidance on model risk management, and it would be applicable for AI, but the challenge gets amplified with generative AI. Does existing data create bias? How do you actually explain the data result and whether it's accurate and reliable? How do you make it understandable and make sure it's a reasonable outcome? Understanding the data is quite important. It is an amplification rather than a new risk so far. We continue to observe and are being deliberate about what additional guidance is needed."*

The European Union (EU) has gone further in developing AI policy, approving landmark AI legislation in March.[3] *"The EU has taken a very different approach in how they want to legislate and regulate. I think the two jurisdictions [the EU and the United States] have historically had different approaches,"* observed a participant. *"Even with cloud, [the Europeans] have taken a much more assertive role than in the US. That approach wouldn't work in the US in general. But what the EU has done wasn't just new regulation. It required legislation."*

"We've got regulation that covers the necessary ground. We don't need bespoke financial services policies for AI."

— Regulator

Financial institution AI governance structures are evolving

When it comes to policies regarding AI use, to date many firms are strongly emphasizing processes that involve keeping a human in the loop. A participant noted, *"Nobody puts anything into production at our firm unless humans have gone through and checked it."* Others are implementing guidelines which govern how generative AI will be applied. An insurance director explained, *"We're on the other side of this. We insure people for their exposure to AI. We are also working on guidelines for what we expect from our customers going forward if we insure them. We have to make sure we take those guidelines and apply to them to ourselves."* Some of these guidelines strictly limit employee access to the new generative AI tools commonly available via the internet. One firm, however, has embraced ChatGPT, albeit with controls: *"We have a compliance process to be approved and get access to it. There is also an obligatory feedback loop, which has been very helpful."*

Boards are still establishing oversight structures, determining which committee should have primary oversight responsibility, and deciding how to ensure the board has the expertise necessary for effective oversight. One director's board has *"just formed a formal committee for tech, including AI."* Another director expects their board to take a similar

approach: *"I think we'll have a debate about whether we form a tech committee. Do we take the AI risk out of the risk committee and have a different approach? Where can we make sure that we have the right people in the room and the right people around the table?"* An executive, however, questioned if creating yet another committee is the right approach: *"Looking at how financial services boards are evolving, one theme has been board advisory committees or subcommittees. We have not found a consensus on this, but those in favor say it allows firms to attract the skills of people who don't want to be on a board. Others say once you've stood a committee up, how do you take them down? It can compromise the uniform nature of boards. Or boards are stuck with committees they may find difficult to unwind."*

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The current hype surrounding generative AI shows no signs of subsiding. If AI does prove to be as transformational as the printing press or the internet, large banks and insurers will ultimately need to place some real bets. Doing so will necessitate foresight and courage. At least one director is skeptical that the industry is prepared to take the leap: *"With innovation and problem solving, are we ever going to take risks in financial services, given our need for control and governance? For really interesting use cases, if we see a weak signal in data, we'll ignore it because we are conservative."* Financial services leaders will also need to address the many concerns of the workforce and society at large. One EY executive said, *"The biggest challenge in use case adoption is the pace of acceptance and bringing colleagues along. Everyone says AI is going to revolutionize everything. If it becomes pervasive, how do we ensure everyone goes on this journey?"*

"With innovation and problem solving, are we ever going to take risks in financial services, given our need for control and governance?"

— Director

Appendix: Participants

The following members participated in all or part of the meeting:

Participants

Homaira Akbari, Non-Executive Director, Santander

Jeremy Anderson, Senior Independent Director, Prudential plc and UBS

Nora Aufreiter, Human Capital and Compensation Committee Chair, Scotiabank

David Bailey, Executive Director, Prudential Policy, Bank of England

Colin Bell, Chief Executive Officer, HSBC Bank plc and HSBC Europe

Kristen Bennie, Group Head of Partnerships and Innovation, Barclays

Sarah Beshar, Non-Executive Director, Invesco

Jonathan Bloomer, Chair of the Board, Hiscox and Morgan Stanley International

Craig Broderick, Risk Review Committee Chair, BMO Financial Group

Doug Caldwell, Executive Vice President and Chief Risk Officer, Corebridge Financial

Jan Carendi, Non-Executive Director, Lombard International Assurance

Stefan Claus, Technical Head of Division, General Insurance, Bank of England

Jay Clayton, Chair of the Board, Apollo Global Management; Senior Policy Advisor and Of Counsel, Sullivan & Cromwell

Rodge Cohen, Senior Chair, Sullivan & Cromwell

Greg Coleman, Senior Deputy Comptroller for Large Bank Supervision, Office of the Comptroller of the Currency

Pierre-Olivier Desaulle, Non-Executive Director, Beazley

Bill Dudley, Former President and Chief Executive Officer of the Federal Reserve Bank of New York; Non-Executive Director, UBS

Ulrika Ekman, Non-Executive Director, Société Générale

Ruben Falk, Global Lead, Generative AI and Machine Learning for Financial Services, Amazon Web Services

Alessia Falsarone, Non-Executive Director, Assicurazioni Generali

Karen Fawcett, Non-Executive Director, Aegon

Karen Gavan, Audit Committee Chair, Swiss Re

Shyam Gidumal, Non-Executive Director, Renaissance Reinsurance

Karen Green, Sustainability Committee Chair, Phoenix Group Holdings

Karl Guha, Chair of the Board and Nomination and Corporate Governance Committee Chair, ING

Ashok Gupta, Risk Committee Chair, Sun Life Financial

Bob Herz, Audit Committee Chair, Morgan Stanley and Fannie Mae

Sheila Hooda, Nominating and Corporate Governance Committee Chair, Enact Holdings; Non-Executive Director, Alera Group

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

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

John Liver, Non-Executive Director, Barclays UK

Paula Loop, Non-Executive Director, Robinhood

Nicholas Lyons, Chair of the Board and Nomination Committee Chair, Phoenix Group Holdings

Michel Madelain, Non-Executive Director, China Construction Bank

John Maltby, Audit Committee Chair, Nordea

Kate Markham, Chief Executive Officer, Hiscox London Market

Hazel McNeilage, Human Capital and Compensation Committee Chair, Reinsurance Group of America

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

Liz Mitchell, Non-Executive Director, Principal Financial

Gustav Moss, Partner, Cevian Capital

Katie Murray, Group Chief Financial Officer, NatWest; Audit Committee Chair, Phoenix Group Holdings

Ed Ocampo, Risk Committee Chair, JPMorgan Securities

Lewis O'Donald, Non-Executive Director, HSBC Bank plc

Sally Orton, Non-Executive Director, Nationwide Building Society

Bill Parker, Non-Executive Director, Synchrony Financial

Marty Pfinsgraff, Risk Committee Chair, PNC Financial

Russ Rawlings, Regional Vice President of Financial Services and Public Sector, UK, Databricks

Philip Rivett, Audit Committee Chair, Standard Chartered; Non-Executive Director, Nationwide Building Society

Lisa Ryu, Senior Associate Director, Federal Reserve Board

Manolo Sánchez, Non-Executive Director, Fannie Mae

Arvind Sontha, Co-Founder and Chief Executive Officer, Kyber

Bob Stein, Audit Committee Chair, Assurant and Talcott Resolution

Patrick Tannock, Chief Executive Officer, Insurance XL Bermuda Ltd; Non-Executive Director, Fidelity

Paul Taylor, Non-Executive Director, Morgan Stanley International

Nick Turner, Group Chief Executive, NFU Mutual

David Wildermuth, Chief Risk Officer for the Americas and Consolidated US Operations, UBS

Dael Williamson, EMEA Chief Technology Officer, Databricks

Elaina Yallen, Head of Product, Hebbia AI

EY

Omar Ali, EMEIA Financial Services Regional Managing Partner

Jan Bellens, Global Banking and Capital Markets Sector Leader

David Lambert, Global Insurance Strategy and Transactions Leader

Ed Majkowski, Americas Insurance Sector and Consulting Leader

Nigel Moden, EMEIA Financial Services Banking and Capital Markets Leader

Isabelle Santenac, Global Insurance Leader

Marc Saidenberg, EY Americas Financial Services Regulatory Lead, Principal US Financial Services Consulting

Phil Vermeulen, EMEIA Financial Services Leader

John Walsh, Americas Banking and Capital Markets Leader

Sophia Yen, Principal, Insurance Strategy and Innovation Leader, Financial Services

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Dennis Andrade, Managing Director

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Brenna McNeill, Associate

Tucker Nielsen, Managing Director

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.

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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] *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.

[2] Jamie Dimon, "Chairman & CEO Letter to Shareholders," JPMorgan Chase & Co., April 8, 2024.

[3] Karen Gilchrist and Ruxandra Iordache, "World's First Major Act to Regulate AI Passed by European Lawmakers," CNBC, March 13, 2024.