



THE FUTURE OF INVESTING

A radical transformation: Generative AI and cybersecurity

Rapidly advancing GenAI brings a revolution to the cybersecurity landscape.

“What’s changed is everything.”

– Danelle Barrett, retired U.S. Navy rear admiral & former director, Navy Cyber Security Division

The intersection of cybersecurity and generative artificial intelligence (GenAI) means navigating a dual impact: risks and opportunities.

Raymond James Investment Management’s latest examination of how artificial intelligence is changing the future of investing focuses on how AI’s integration into cybersecurity is expanding with increasing investments in AI-driven solutions and infrastructure.

As these technologies evolve, the cybersecurity landscape will also. While this offers new opportunities for growth and innovation, it creates an urgent need to reshape strategies and enhance defenses against ever-changing, sophisticated threats.

Investors must consider long-term strategies that incorporate emerging AI technologies and strategically manage risks to benefit from its transformative power and potential growth opportunities. By focusing on companies using and contributing to AI-driven cybersecurity solutions, investors could position themselves for the next wave of investment opportunities.

PANELISTS



Danelle Barrett

Retired U.S. Navy Rear Admiral & Former Director, Navy Cyber Security Division



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Head of Advisory Solutions and Market Strategy, Raymond James Investment Management



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Dr. Jules White

Senior Advisor to the Chancellor on AI & Professor of Computer Science, Vanderbilt University

WHAT IS GEN AI?

GenAI refers to deep-learning models that can generate high-quality text, images, videos, and other content based on the data they were trained on. New models have deep capabilities to solve a wide variety of problems by learning to reason without explicit programming.

Source: IBM Research

Transforming threats into opportunities

The truly transformational point of GenAI comes with convergence of the technologies as a gamechanger for how we do business. As we get to the point of convergence, business lines will be impacted from an opportunistic and cybersecurity perspective, along with the management of product delivery and generation, causing investors to rethink the landscape and secular growth drivers.

“Every single industry is affected by this – whether from a generative AI or automation and IT perspective,” Barrett said.

Emerging risks

With the rise of AI, cybersecurity threats pose significant challenges as they have become more sophisticated and easier to create and launch, even by bad actors with relatively little knowledge of coding. An understanding of these evolving threats and their associated risks must inform investment decisions.

“The good news is that the same technology that’s fueling these threats also holds the keys to combatting them.”

Matt Orton, CFA, Head of Advisory Solutions and Market Strategy,
Raymond James Investment Management

FROM
COWS TO
CUSTOMER
SERVICE



AI-generated efficiencies affect industries that span from dairy farm operations to physical call centers replacing employees with AI-driven modules.

Key takeaways



Transformative AI-driven innovations

Big data and AI technologies like machine learning, predictive analytics, and natural language processing will continue to advance in phases, reducing vulnerability, improving security efficiency, and providing enhanced threat detection and response capabilities.



Data as a strategic asset

Since compliance with data privacy regulations will become increasingly important, companies that prioritize data privacy and invest in compliance measures will gain a competitive edge. Companies with robust data analytics capabilities can also leverage sophisticated algorithms to enhance their security measures.



Economic and geopolitical impacts

Understanding broader economic and geopolitical risks is essential, especially as nation-state actors become more sophisticated in their cyber operations, which will drive demand for robust cybersecurity measures. This awareness can guide investments in advanced solutions designed to protect critical infrastructure and sensitive data.



Augmented intelligence

The future of cybersecurity involves a synergistic relationship between human oversight and AI capabilities, enhancing decision-making processes and operational efficiency. Augmented intelligence, where AI supports human decision-making, will increase the effectiveness of cybersecurity measures, leveraging human expertise and AI capabilities to provide comprehensive security solutions.



Long-term investment opportunities

The ongoing development of AI-driven cybersecurity solutions suggests substantial long-term growth potential for investors. Companies leading in these innovations may offer significant returns as the demand for advanced cybersecurity continues to rise.

“Generative AI can now detect threats with much higher accuracy rates than traditional methods,” said Jules White, senior advisor to the chancellor on AI and professor of computer science at Vanderbilt University.

Sophisticated attacks: As AI tools become more accessible, the risk of sophisticated cyber-attacks exponentially increases. Attackers can use AI for malicious activities like creating highly convincing phishing emails. Detection and prevention of cyber threats will become more challenging, with a significant impact for organizations.

Election security concerns: AI’s potential to influence elections, and to promote disinformation in general, poses significant risks. Effective cybersecurity measures are essential to protect election integrity.

Regulatory and compliance challenges: The fast-paced development of AI technology poses challenges for lagging regulatory frameworks, which creates a complex environment. Investors must be aware of evolving regulations and ensure that they invest in companies that proactively maintain compliance to minimize legal and financial risk.

Education imbalance: Since most organizations don’t really understand generative AI, or how to use it, they aren’t actively engaging with it. This creates a huge imbalance, making it increasingly hard for companies to keep up with cyber attackers who develop more sophisticated capabilities.

Opportunities

As the cybersecurity landscape evolves, AI presents abundant opportunities for investment. Companies that are early adopters of AI-enhanced security measures are likely to see significant growth.

GenAI advances

- Innovative threat detection: Generative AI enhances threat detection and response – a critical capability in sectors where data breaches can have severe consequences, such as finance, healthcare, and retail.
- Key players: Investing in companies developing or leading AI development and AI-driven security solutions may offer substantial growth potential.

Data centers and infrastructure

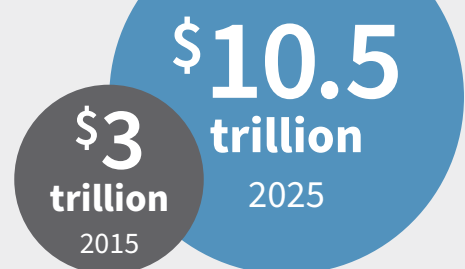
- Infrastructure expansion: The growing demand for AI capabilities necessitates phased infrastructure expansion, including servers, equipment, and semiconductors.
- Key players: Companies involved in building and maintaining AI infrastructure are prime investment candidates.

Cybersecurity solutions

- Advanced security software: A focus on resilience, detection, and threat event management is a critical growth area.

Predicted increase:

Annual global
cybercrime
costs



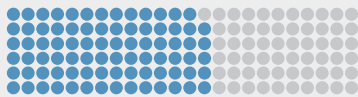
Source: Cybersecurity Ventures; <https://www.forbes.com/sites/forbestechcouncil/2023/02/22/105-trillion-reasons-why-we-need-a-united-response-to-cyber-risk/>

“We rely on trust built on our language, and GenAI changes our ability to trust what we read and see.”

Dr. Jules White, Senior Advisor
to the Chancellor on AI &
Professor of Computer Science,
Vanderbilt University

“We’re well under the number of data centers that we need – it’s not too late to invest in the semiconductors and servers building out GenAI capabilities.”

Mark Tindall, CFA, Portfolio Manager,
Equity Investment Team,
Chartwell Investment Partners



68% of CIOs indicate generative AI was their top IT priority for the fourth quarter of 2023.

Source: <https://softwareanalyst.substack.com/p/cybersecurity-in-2024-startling-insights>; AlphaWise, 4Q23 Domain Survey (N=60), 4Q23 CIO Survey (N=100), 4Q22 CIO Survey (N=100), Morgan Stanley Research

- Key players: Companies that offer enhanced security measures are seeing increased demand from high-growth sectors like finance and healthcare. Demand is also increasing for companies that can help businesses with backup and recovery, developing response plans, and conducting risk assessments.

Augmented intelligence

- Training and development: There’s a growing need for specialized training to ensure that workforce skills keep pace with technological advancements.
- Key players: Firms that provide augmented intelligence solutions and AI training are likely to experience growth as more industries seek to implement these technologies responsibly and effectively.

Actionable insights

Navigate the evolving cybersecurity landscape effectively and capitalize on emerging opportunities by:

- Seeking integrated, AI-enhanced cybersecurity capabilities
- Focusing on companies with strong data analytics capabilities
- Prioritizing firms with proactive regulatory compliance
- Monitoring investments in infrastructure supporting AI and cybersecurity
- Exploring opportunities in AI training and development
- Leveraging augmented intelligence

Positioning for a new era

The integration of AI into cybersecurity creates a dynamic landscape filled with opportunities and challenges. Investors who understand these trends and make strategic investments in key areas such as generative AI, data infrastructure, and AI-enhanced cybersecurity solutions could position themselves for significant growth. By adopting augmented intelligence and enhancing training programs, organizations can better navigate evolving threats and leverage AI for their competitive advantage.



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Growth companies are expected to increase their earnings at a certain rate. When these expectations are not met, investors may punish the stocks excessively, even if earnings showed an absolute increase. Growth company stocks also typically lack the dividend yield that can cushion stock prices in market downturns.

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Definitions

Generative artificial intelligence (GenAI) is a form of artificial intelligence that can create new content that includes text, audio, code, video, and images.

Natural language processing (NLP), a branch of artificial intelligence (AI), applies to written text and speech. It enables computers to understand user's requests and respond in natural language by comprehending, generating, and manipulating the language. Tools powered by NLP include virtual assistants, web search, email spam filtering, automatic translation of text or speech, document summarization, sentiment analysis, and grammar/spell checking.

About Raymond James Investment Management

Raymond James Investment Management is a global asset management company that combines the exceptional insight and agility of individual investment teams with the strength and stability of a full-service firm. Together with our boutique investment managers – Chartwell Investment Partners, ClariVest Asset Management, Cougar Global Investments, Eagle Asset Management, Reams Asset Management (a division of Scout Investments) and Scout Investments – we offer a range of investment strategies and asset classes, each with a focus on risk-adjusted returns and alpha generation. We believe providing a lineup of seasoned, committed portfolio managers – spanning a wide range of disciplines and investing vehicles – is the best way to help investors seek their long-term financial goals.

