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Separating AI hype from investment opportunity

The artificial intelligence hype cycle has kicked into hyperdrive.

Newsfeeds bring daily reports of generative Al's promise to accelerate medical and scientific discovery, drive leaps in productivity and eliminate jobs on a mass scale.

Businesses and individuals have rushed to adopt AI tools. OpenAI, developer of the ChatGPT chatbot, has reported that the tool had 100 million weekly users by the start of 2024, including two million developers and 92% of Fortune 500 companies.

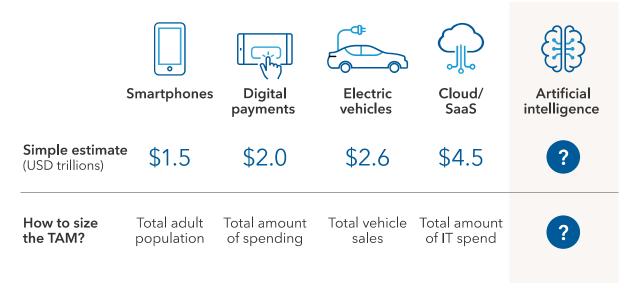
Investor excitement has turbocharged share prices for the most visible enablers of generative AI, including NVIDIA, Meta Platforms and Microsoft, an investor in OpenAl. From 2023 through February 2024, the three tech giants soared 519%, 304% and 77%, respectively.

The question for investors: Has generative AI (GenAI) – which is defined as platforms and tools that can generate new content, including text, images, video and sound – launched a lasting megatrend, or has its potential been greatly exaggerated?

We believe generative AI represents a transformational shift that will lead to unprecedented investment opportunities. The challenge for investors today is to separate the hype from what matters: the pace of adoption, improvements in the models and price declines.

The size of the market for AI is difficult to measure

How big is Al's total addressable market (TAM)?



Sources: Gartner, Statista, United Nations, World Bank. Smartphone market size estimate: total global population ages 15-64 (United Nations) multiplied by estimated average smartphone selling price of \$291 (as of 2022). Digital payments market size estimate: total global GDP (World Bank) multiplied by estimated average take rate of 2% (as of 2022). Electric vehicles market size estimate: global automotive industry revenue (as of July 2023). Cloud/SaaS market size estimate: worldwide IT (information technology) spending (as of January 2023). SaaS: software as a service.



The Long View: 4 megatrends to watch

The AI market may be bigger than you think

With AI still in its infancy, it is difficult to estimate how large the market will be. The consulting firm McKinsey estimates that the AI market could reach \$13 trillion by 2030, while PricewaterhouseCoopers assesses it could be \$15.7 trillion by 2030. Meanwhile, Goldman Sachs has estimated it could boost GDP by 7%.

We believe the ultimate addressable market for AI is the hardest of any we've tried to size. After all, what is the "value" of better intelligence – or having more

knowledge about everything? Simply put, AI has open-ended potential to generate a market many multiples larger than those of previous technological advances.

When the smartphone was popularized 15 years ago, combining internet and mobile phone technology, few could have predicted it would lead to new app-based business models like Uber and DoorDash. The breakthroughs in artificial intelligence represent similar potential.

What's more, GenAl can analyze vast amounts of information and use pattern recognition to teach itself new tasks. This unlocks the potential to solve complex problems, uncover new insights and potentially lead to the creation of new business models.

Four ways early adopters are using Al

Companies are still in the experimentation phase with AI. Some IT consulting businesses, such as Accenture, have launched an initiative to help clients identify use cases for generative AI, adopt AI tools and integrate them into organizations.

Businesses are already seeking to tap into the efficiency and productivity gains Al can deliver. As much as 30% of hours worked in the U.S. could be automated by 2030, according to the McKinsey study.

Here are just a few ways companies are integrating Al into their businesses.

1. Scientific and medical discovery

Al will likely accelerate discovery across various disciplines. Artificial intelligence can potentially process the totality of all know mathematics or physics or medicine in a very short time. For example, biopharma company Regeneron is harnessing GenAl tools to scour its massive database at its genetics center to identify disease targets, understand disease progression, develop drug therapies and track how individuals respond to treatment.

2. Product development

Consumer products giant Procter & Gamble has begun using GenAl to improve molecular discovery, enabling it to develop, for example, 100 fragrance options at

a time rather than one. As a result, they can respond to new product trends within months instead of years.

Among consumer tech offerings, Meta has developed Al sunglasses equipped with cameras that see what the wearer sees and microphones to hear what the wearer hears. The glasses enable users to take and share photos and videos and to listen to music. Users can also ask questions of the glasses like "what meals can I make with the ingredients on this table" or "who is the architect of the church I'm looking at."

3. Industrial automation and robotics

Amazon, which has long used industrial robots in its fulfillment centers, is applying Al to improve their efficiency and functionality. What's more, robotics company Figure has harnessed ChatGPT to create a "humanoid" robot with audio and video inputs that can converse with and work alongside humans. Schneider Electric is developing a generative AI tool to communicate with customers about their carbon emissions. Construction and mining equipment manufacturer Caterpillar is investing in AI to boost productivity of its autonomous machines.

4. IT services

Companies were already shifting several of their IT needs to the cloud and outsourcing more of their tech support. This trend is being amplified by the proliferation of GenAl, which has spawned a host of smaller companies that offer larger enterprises consulting and IT services that can evaluate and score the quality of content being created through the Al process, which can generate false or misleading information, known as hallucinations.

Other companies have been using GenAl to support call centers, improve financial models, create marketing and advertising content, analyze legal contracts, and develop employee training materials.



Al investment opportunities and risks webinar CE credit available

Al investment opportunities

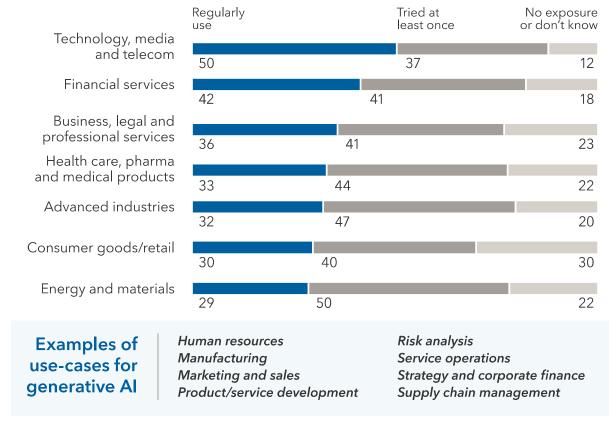
While GenAl adoption has been most aggressive in the tech and media industries, its use has spread across industries and organizations.

Businesses worldwide invested an estimated \$19.4 billion in 2023 to integrate Al into their processes, according to a *Wall Street Journal* report. While many are in the experimentation phase, Al has the potential to create massive productivity gains, reduce costs for companies and generate insights that provide a competitive edge for early adopters.

A unique U.S. Census data set released in March shows AI adoption at 5% in U.S. firms but expected to increase by 50% in 2024. That suggests we are still in the early stages of adoption. While the headlines may talk of mass unemployment and job loss, 95% of AI adopting firms reported no job loss and 65% reported no task loss. Other data in the report showed that firms that enable AI exposed to consulting, training and cloud could benefit from the transition.

Workers across industries have been regular users of Al

Percent of respondents who are using generative AI by industry



Sources: Capital Group, McKinsey Global Survey on Al. Figures may not sum to 100% due to rounding. Advanced industries include automotive and assembly, aerospace and defense and advanced electronics industries. Survey was conducted in April 2023 and included responses from 1,684 participants.

Wider adoption can fuel continuous improvements that build upon each other, setting in motion a virtuous cycle of innovation and adoption. As more enterprises adopt GenAI, new and more sophisticated uses will likely emerge.

Rather than focus on attention-grabbing headlines about massive job loss or concerns about the coming of sentient robots, investors should focus on declining costs of Al adoption, advancements in models and identifying early adopters that may use the technology to gain a competitive advantage.

As active investors, that's where we're spending our time to uncover investment opportunities that might match the vast potential of generative AI.

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