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Market Perspectives: The Artificial Intelligence Revolution

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MARKET PERSPECTIVES: THE ARTIFICIAL INTELLIGENCE REVOLUTION

"Artificial intelligence and generative AI may be the most important technology of any lifetime."

~ Marc Benioff, Chair, CEO, and Co-Founder, Salesforce

- Market performance has been strong in the last several years with companies perceived as leading the artificial intelligence ("AI") revolution generally experiencing outperformance.
- AI as a technological revolution appears to be here to stay, with rapid, and at times expensive, technological advancements.
- The opportunity exists (and is already occurring) to alter the future of work, need for human labor, consumer behavior, businesses, governments, healthcare, leisure and more.

Forty years ago, a movie was released which at the time seemed wildly distant and futuristic, while at the same time real enough to capture the imagination of generations. When a 37-year-old Arnold Schwarzenegger uttered the famous phrase "I'll be back," the viewer believed that not only would he be back, but at some point, in our lifetimes, this type of AI interaction could be possible. Still, while society appears to be years away from fully interactive "cyborgs," and the feared "Skynet," an artificial technology that gained self-awareness, AI is closer than ever to altering how humanity functions. The dystopian movie points out the obvious risks of AI; however, the potential for benefits, such as speeding up life-saving pharmaceutical treatments, workplace efficiencies and improvements in our way of life are countless.

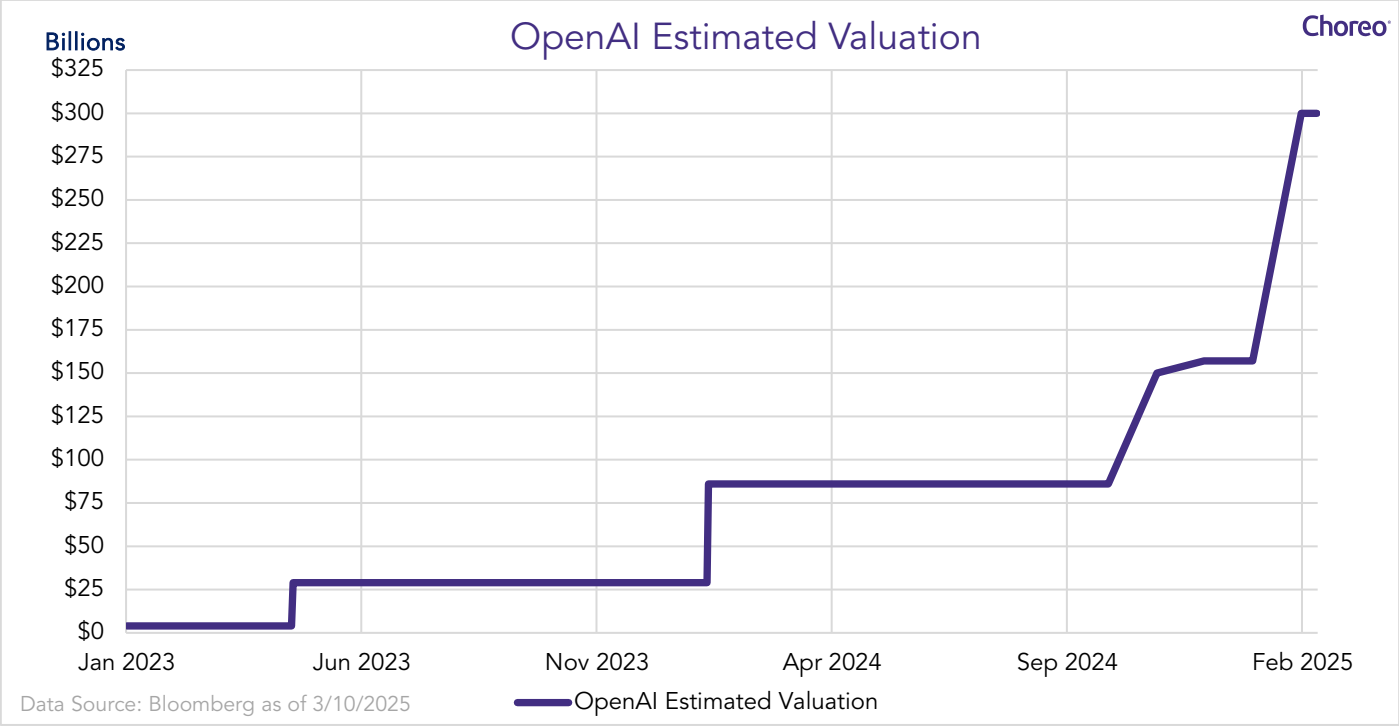
As has been the case with any emerging technology throughout history, the path to full implementation and efficiency is often inconsistent, littered with failures, and the winners are difficult to predict in advance. The ultimate beneficiaries, however, are typically far more widespread and other advancements occur that were not part of the original plan. As an example, microwave ovens were developed during World War 2 during testing for improved radar technology. The original invention was in 1945, although they did not gain in popularity for nearly 30 years, and it took until 1986 for even ¼ of households to have one. A decade later that number was nearly 90%[1]. More recent examples include the internet and smartphones. Both started with years of great advancements and failures but grew over time to become ubiquitous. AI likely is still in the "muddling along" phase, but the advancements that have already occurred, as well as those expected to materialize in the coming years, will likely become embedded in the lives of most humans over time.

According to Google Cloud[2]:

"Artificial intelligence (AI) is a set of technologies that enable computers to perform a variety of advanced functions, including the ability to see, understand and translate spoken and written language, analyze data, make recommendations, and more. AI is the backbone of innovation in modern computing, unlocking value for individuals and businesses. For example, optical character recognition (OCR) uses AI to extract text and data from images and documents, turns unstructured content into business-ready structured data, and unlocks valuable insights."

[1] https://www.whirlpool.com/blog/kitchen/history-of-microwave.html
[2] https://cloud.google.com/learn/what-is-artificial-intelligence

There are plenty of signs that AI is beginning to have a material effect on the world. One of the early signals may be the valuation of AI-related private companies such as OpenAI. Investors are willing to pay up for what they believe could be a potential leader in the field. The ChatGPT maker's most recent funding round in the private markets valued the company at $300 billion. At current markets as of 3/3/25, this would place it as the 27th largest company in the S&P 500, a staggering valuation for a private entity.



Artificial intelligence (AI) has taken center stage – not just in stock markets, but across economies and geopolitics. The current assimilation of the technology is astonishing, considering that the first widely available large language model (LLM), OpenAI's ChatGPT, was released just over two years ago in November 2022. Since then, AI's capabilities, adoption, and economic impact have advanced at an extraordinary pace.

To start, the capabilities of these technologies have advanced rapidly. In just a few years, AI has gone from struggling with basic comprehension to performing at near-expert levels. For example, early AI models would have struggled to pass a high school exam. Today, the latest models can score in the top percentiles on advanced tests like the SAT, LSAT, and even sections of the bar exam — achievements once thought to be beyond machines.

Perhaps more striking than AI's intelligence gains is its adoption rate. According to McKinsey Research's *State of AI* reports[3], the percentage of companies using AI for at least one function has risen to 65%, with 92% expecting to invest in AI over the coming three years[4]. This rapid adoption is fueling massive economic shifts. PwC estimates that AI could contribute $15.7 trillion to the global economy by 2030, $6.6 trillion to come from increased productivity and the rest to come from consumption[5]. To put that into perspective, in

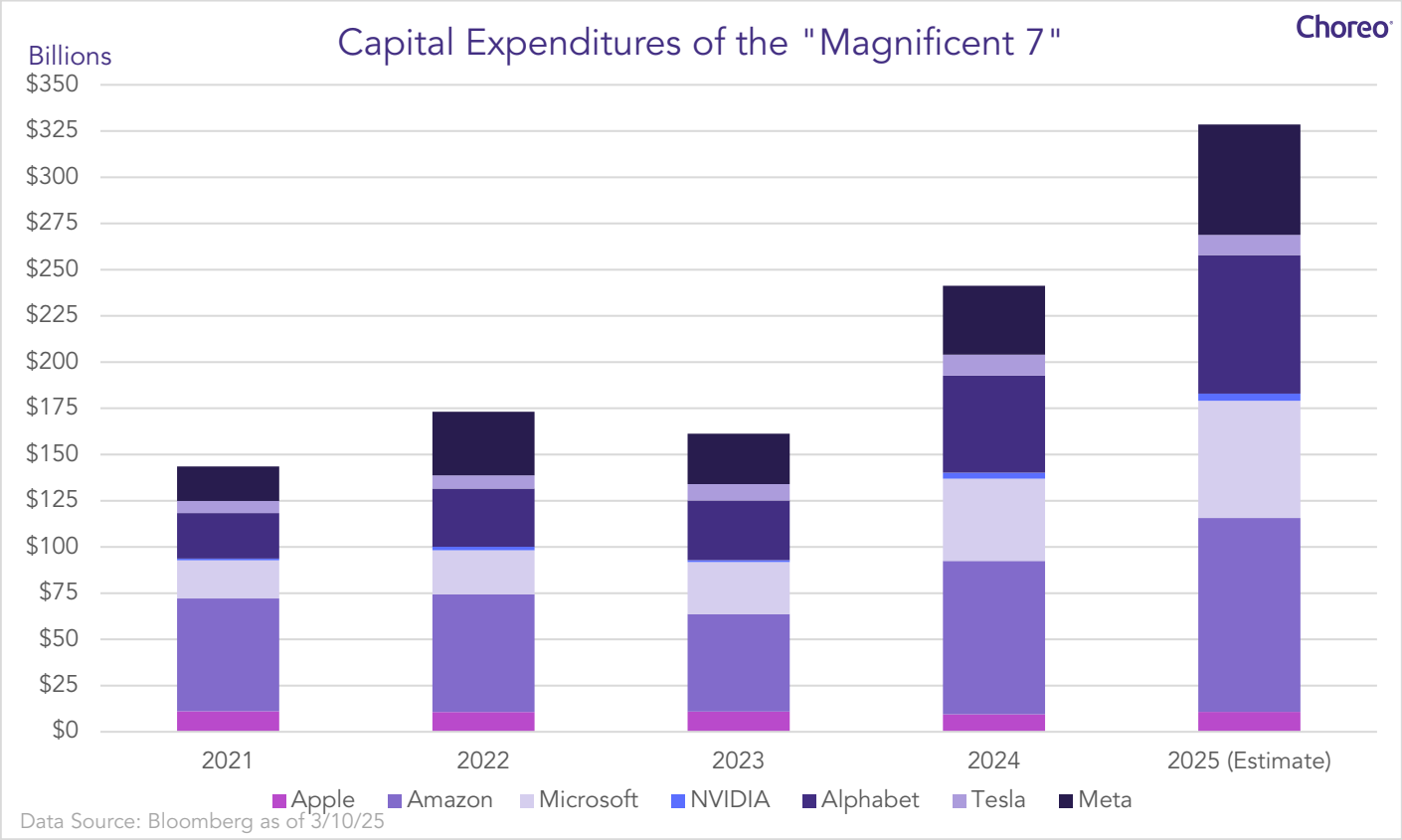
[3] https://www.mckinsey.com/capabilities/quantumblack/our-insights/the-state-of-ai
[4] https://www.mckinsey.com/capabilities/mckinsey-digital/our-insights/superagency-in-the-workplace-empowering-people-to-unlock-ais-full-potential-at-work
[5] https://www.pwc.com/gx/en/issues/artificial-intelligence/publications/artificial-intelligence-study.html

roughly five years, the world could add what is equivalent to one-half the U.S. economy (U.S. GDP $29 trillion as of 2024).

These trends are taking place through a massive deployment of capital expenditures. In the U.S. alone, major AI players are slated to spend $325 billion in 2025. For reference, this scale is equivalent to:

- 65 SoFi stadiums (the most expensive NFL stadium ever built)
- Nearly half the amount the U.S. contributed to defense spending in 2024 ($840 billion)
- Of the 500 companies in the S&P 500, just 10 generate more revenues

A sample of some of the largest companies shows the increase in deployment of funds largely to focus on AI (and the cloud) over the last several years and projected for 2025. In 2025, the Magnificent 7, the nickname for the largest companies comprised of Apple, Amazon, Microsoft, Meta, Nvidia, Alphabet and Tesla, are set to spend $325 billion in capital expenditures, a portion of it earmarked for building out AI.



The rapid advancement of AI has led to an increasing number of important questions. How will it reshape industries, economies, and daily life? How will this affect the need for human labor? Will AI unlock efficiencies or will its rapid adoption lead to unforeseen disruptions? How will companies and governments adapt? How will the technology be utilized in the military realm? At this stage, no one has definitive answers. What we do know is that AI is already influencing markets, corporate strategy, and investment portfolios.

Regardless of the answers to those questions, it is likely we are in the very early days of the AI revolution. At this stage, the technology and infrastructure providers are spending hundreds of billions of dollars and can be lumped into several important constituencies:

Artificial Intelligence Key Players Today

	Hyperscalers	Semiconductors	Models	Regulators
Who are they?	Alphabet (Google), Amazon, Meta, Microsoft	Nvidia, Advanced Micro Devices, Taiwan Semiconductor Manufacturing Co., ASML	ChatGPT (OpenAI & Microsoft), Google Gemini, xAI, DeepSeek	U.S. (Free Trade Commission), EU (AI Act), China (AI regulations)
What do they do?	Provide massive cloud computing infrastructure, integration of AI services, and enable AI model training	Design and manufacture high-performance chips essential for AI workloads	Develop, train, and optimize cutting-edge AI models	Establish legal and ethical AI guidelines, and regulate data privacy and market competition

As AI moves beyond the early innings, the landscape may shift. Once AI adoption extends beyond the core players to other sectors such as healthcare, finance, manufacturing, consumer services, etc. and they integrate AI into their operations in more meaningful ways, we could see substantial efficiencies develop, possibly boosting profitability and overall growth. The companies that integrate AI into their operations to streamline and make their businesses more efficient may be the ultimate winners.

There are risks abounding in the technology itself and the rapidly evolving investment landscape surrounding AI. Often with new technology, the initial spend is high as an arms race of sorts ensues. Also of note, the first companies and technology paths are often not the ultimate winners. A recent example is the emergence (or at least headline emergence) of DeepSeek, a Chinese-based AI platform which is thought to have been developed on the backs of several other AI technologies at a fraction of the cost. One might look back towards the "tech bubble" when simply having ".com" in the company name initially led to a rapid rise in the security valuation of that company, only to later dissolve in most cases. Capital was deployed inefficiently as the "land grab" took place.

In addition, there are significant geopolitical tensions and supply chain risks. For example, chip shortages have become a notable concern, with ASML (a Netherlands-based company) acting as a key bottleneck in the semiconductor supply chain given its role as a producer of the machinery needed to produce semiconductors. Furthermore, regulatory risks are rising, including the EU's AI Act, U.S. executive orders (which can be reversed by future administrations), and China's emerging AI restrictions. As with the tech bubble, valuations have reached extreme levels in some instances, fueled by hopes that growth will outpace expectations driven by secular changes. There are also societal risks to consider, such as cybersecurity threats, AI-driven deepfakes, and potential job displacement. Moreover, the immense energy demands to power AI computing could lead to a rise in overall energy consumption when the nation's energy grids are already taxed. However, all—or at least most—of these risks also present opportunities for companies to step in and address these challenges.

Conclusion

Secular trends often take long periods to develop, potentially measured in decades rather than years. Predicting the winners and losers is extremely challenging, even when it looks obvious in the early years. Our diversified approach to portfolio construction allows for our clients to participate in broad market trends tied

to the build-out of AI, while not placing too many eggs in the proverbial basket. It also creates a method of participation in other companies likely to benefit from the adoption of AI-related technologies to drive enhanced growth and profitability in their respective businesses. Overall, we believe a measured approach to new trends will help to ensure portfolio risk and reward remain balanced. Our team continues to monitor these trends. As always, please reach out with any questions and we thank you for the opportunity to serve.
