

CIO VIEWS: STRATEGY AND PORTFOLIO CONSTRUCTION

AI rallies the tech troops as equities march higher

Bottom line up top

Decoding the data. Last week's calendar of economic releases was relatively light. In terms of macro data points, unexpected rate hikes of 25 basis points (bps) each by the inflation-vigilant central banks of Canada and Australia reverberated through global bond markets, reinforcing efforts to use monetary policy to tamp down rising prices. In the U.S., market odds generally still favor a pause rather than an increase at the Federal Reserve's June meeting this week. U.S. economic data remains mixed, however, complicating the Fed's path and mystifying market participants seeking greater clarity. For example, continuing unemployment claims (1.7 million) came in well below expectations, while weekly first-time claims (261K) was its highest since October 2021. Despite such uncertainty, the S&P 500 Index has posted gains in each of the last four weeks.

Is recent equity market performance real, or artificially generated? Skeptics point out that the rally is extremely narrow, driven by megacap tech names (Figure 1). Indeed, the breadth of S&P 500 gains is the lowest in more than 30 years, concentrated in companies that are closely associated with the advent of artificial intelligence (AI) and its hypothesized impacts on the global economy.

How much and how quickly AI will change the world around us remains to be seen. But its impact on markets has been swift and powerful, even as higher-for-longer interest rates are a headwind for growth-oriented stocks like those in the AI space.



Saira Malik, CFAChief Investment Officer

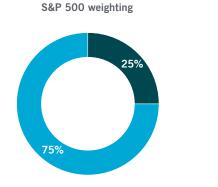
On behalf of Nuveen's Global Investment Committee

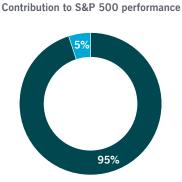
As Nuveen's CIO and leader of our Global Investment Committee, Saira drives market and investment insights, delivers client asset allocation views and brings together the firm's most senior investment leaders to deliver our best thinking and actionable investment ideas. In addition, she chairs Nuveen's Equities Investment Council and is a portfolio manager for several key investment strategies.

In the near term, investors should temper any euphoric expectations they may have about AI's current market leadership, while not dismissing the potentially transformative potential of this secular trend. Following are our thoughts on how best to incorporate technology — and AI in particular — as an investment theme in portfolio construction.

FIGURE 1: LARGEST TECH COMPANIES HAVE DRIVEN PERFORMANCE IN 2023, DUE TO AI EUPHORIA







Data source: FactSet, 01 Jan 2023 - 05 Jun 2023. **Performance data shown represents past performance and does not predict or guarantee future results.** Tech companies: Apple Inc., Microsoft Corp., NVIDIA Corp., Alphabet, Inc., Amazon.com, Inc., Meta Platforms, Inc., Tesla, Inc., Broadcom Inc., Advanced Micro Devices, Inc., Salesforce, Inc.

Portfolio considerations

Blockbuster potential, with some caveats. Part sci-fi cautionary tale, part celebration of the human capacity to love, Steven Spielberg's *A.I. Artificial Intelligence* was released on a day in 2001 when the tech-heavy Nasdaq Composite Index closed 57% lower than its dot-com bubble peak. At the box office, the movie's financial performance, like that of downtrodden tech stocks at the time, disappointed despite media hype.

Today we're in the midst of another big tech rally, and Hollywood is still producing movies about the risks of pushing AI too far (*The Artifice Girl* opened in April). For investors with multiasset portfolios, the decision to take profits after a long run-up in a specific sector or asset class or remain allocated to capture further upside potential is a central dilemma with AI-related stocks.

We believe tech outperformance has further to run, as AI technologies and software have the potential to upgrade companies' products and services (resulting in higher revenue) and improve operating cost efficiencies

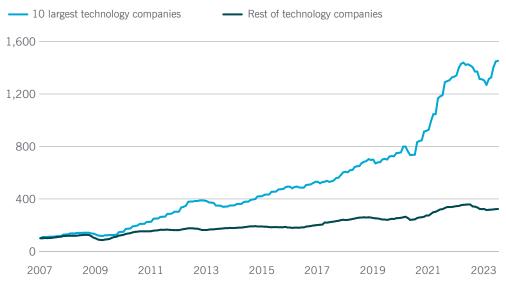
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(leading to more attractive margins). Businesses are therefore making AI a critical focus for driving growth and financial performance — and their success could bolster the broader economy.

Technology stocks have outperformed the broader equity market for several decades. Importantly, for the largest tech companies, this durable trend is not due solely to rising valuations. These firms have also significantly increased earnings growth over time (Figure 2). The 10 largest technology companies enjoy a dramatic advantage in earnings before interest and taxes (EBIT) versus the other companies in the index.

FIGURE 2: LARGEST TECH COMPANIES HAVE SEEN OUTSIZED EARNINGS GROWTH

EBIT estimates (indexed to 100)



Data source: FactSet, MSCI World Information Technology Index from 31 Dec 2006 -- 30 Jun 2023. **Performance data shown represents past performance and does not predict or guarantee future results**. 30 Jun 2023 EBIT estimate as of 07 June 2023. Tech stocks noted are: Apple Inc., Microsoft Corp., NVIDIA Corp., Alphabet, Inc., Amazon.com, Inc., Meta Platforms, Inc., Tesla, Inc., Broadcom Inc., Advanced Micro Devices, Inc., Salesforce, Inc.

Not everyone can be an AI winner. The rapid development of generative AI, which creates algorithms to produce new content (audio, software code, images, text and more) will ultimately result in a major technology platform shift. Advances will not come cheap, as infrastructure (foundation models) for AI applications has high upfront costs and requires intensive human, capital and other resources that may be scarce for some would-be AI leaders. That means the largest companies with huge cash balances and access to proprietary data platforms should have a meaningful competitive advantage in AI development. In contrast, some legacy technology businesses may struggle as AI adoption continues over the next few years. Those with strong user access and distribution capabilities will likely fare better.

Businesses are making AI a critical focus for driving growth and financial performance.

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Regular meetings of the GIC lead to published outlooks that offer:

- · macro and asset class views that gain consensus among our investors
- insights from thematic "deep dive" discussions by the GIC and guest experts (markets, risk, geopolitics, demographics, etc.)
- guidance on how to turn our insights into action via regular commentary and communications

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Endnotes

Sources

All market and economic data from Bloomberg, FactSet and Morningstar.

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