The Augmented Labor Market:

AI and the Future of Work

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All new groundbreaking technology sparks fear of labor market disruption—and often with good reason. Electric streetlamps made lamplighters obsolete at the turn of the twentieth century. The automobile upended the horse-drawn carriage industry. The internet disrupted entire sectors, including media, retail, and telecommunications. While new technologies can eliminate jobs in the short term, they also tend to create new industries and employment opportunities over time. Artificial intelligence (AI) is the latest transformational technological force.

In this commentary, we'll explore the evolution of the labor market, examine current trends, and look ahead to how AI may reshape the future of work.

The Speed Of Light

From the Ground Up. In 1878, Thomas Edison installed the first private electric system in his home. It took 50 years before half of U.S. households had electricity.[1] Similarly, it took more than 70 years for half of American homes to have a telephone following its invention in 1876.[1] Infrastructure challenges, particularly in rural areas, slowed the spread of these groundbreaking technologies. Today, technology adoption is accelerating rapidly, largely due to the widespread availability of electrical grids, internet and cloud infrastructure, and mobile networks. With this foundation, new innovations can scale faster than ever.

Digital Age. An established nationwide electrical grid laid the groundwork for the digital age to bloom. In 1984, only 8% of U.S. households had a personal computer. By 2000, that figure surged past 50%. Today, 97% of households have computing access.[2]

In Your Hand. Smartphones have seen near-universal adoption, with more than 90% of U.S. adults owning a smartphone, up from 35% in 2011.[6] Established internet and mobile networks accelerated the smartphone leap, placing a small computer in our hands.

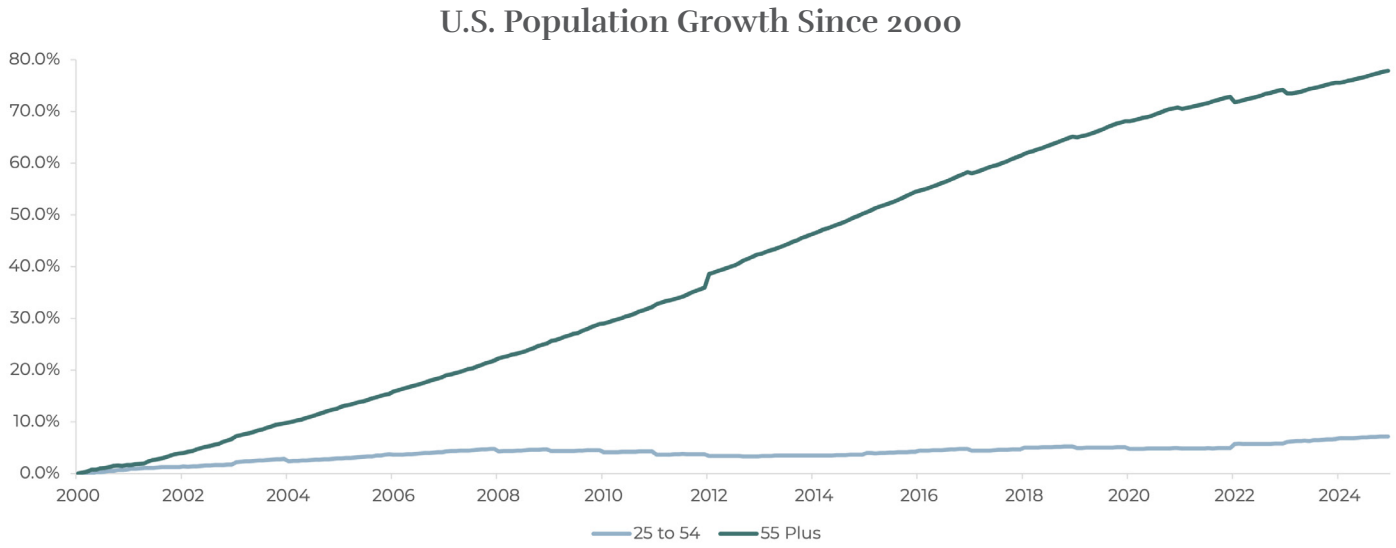
Information Superhighway. A major driver of computer adoption was the internet, which provided a gateway to the information superhighway. Just 14% of U.S. households had internet access in 1995,[3] before surging to 50% six years later in 2001.[4] Today, over 90% of households are online.[5]

Asleep at the Wheel? Advancements in AI-enabled driverless technology are speeding up quickly. Robo-taxi pilot programs in select cities like San Francisco, Phoenix, and Los Angeles have seen rapid adoption, with ridership climbing to 250,000 paid trips per week.[7] The Jetsons envisioned flying cars, but driverless cars are more likely becoming our new reality. AI's rapid acceleration is propelling us into a new technological frontier.

Disruptive Force

Two major transformations are reshaping the labor market: the rise of artificial intelligence and an aging workforce. A demographic shift, driven by declining birthrates and an aging population, is slowing the labor force's growth potential. As shown in **Figure 1**, the population of individuals aged 55 and older has increased by 78% since 2000, while the prime-age workforce population (25 to 54) has risen by only 7% over this span. In the prior 25-year period, from 1975 to 2000, the 25–54-year-old population increased by 56%.

Figure 1: Aging Population

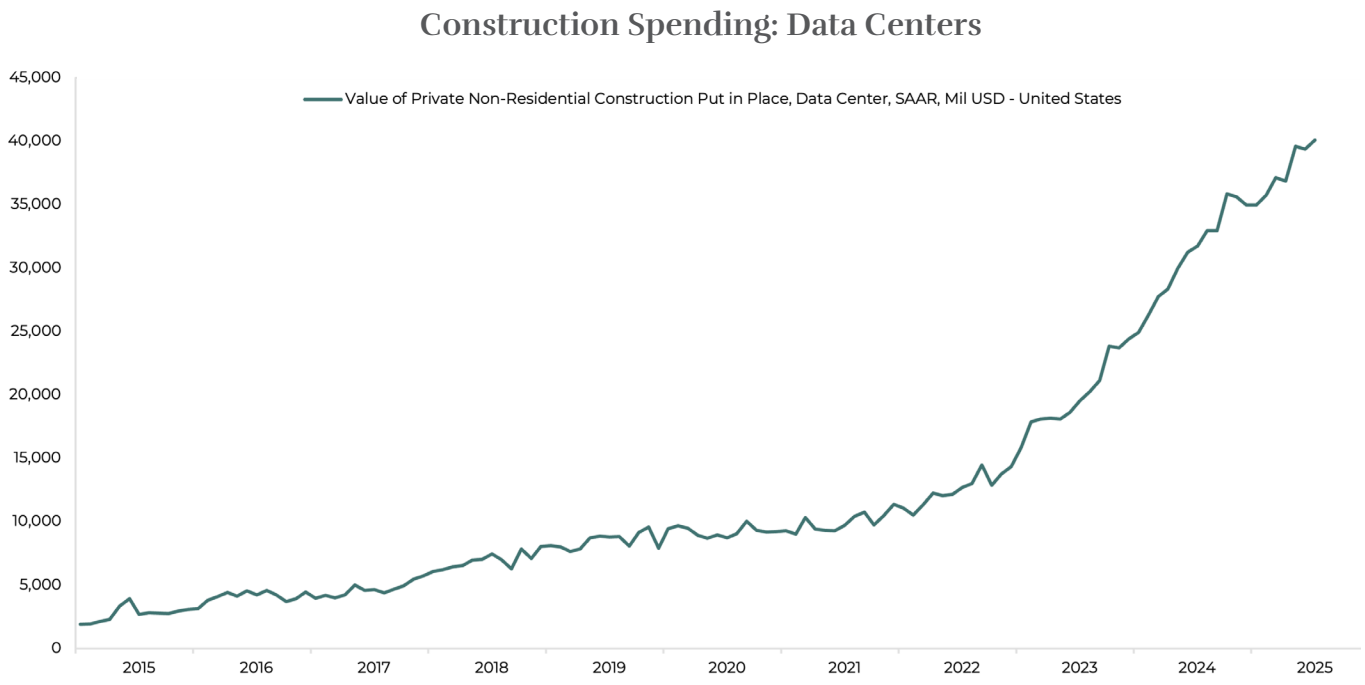


Source: Cetera Investment Management, Federal Reserve Bank of St. Louis, U.S. Bureau of Labor Statistics. Data as of 12/31/2024.

A boost in productivity is essential to offset demographic headwinds and sustain economic growth. Historically, technological progress has accelerated productivity gains, and artificial intelligence may fill that gap in the years ahead. AI can augment employee capabilities by automating routine tasks and enhancing efficiency—complementing, rather than replacing, existing skill sets. While AI cannot fully replace retiring workers or their wealth of industry experience, it may help mitigate some of the impact.

Businesses are ramping up investment in AI, with leading tech firms planning to spend hundreds of billions on infrastructure this year alone, including data centers and microchip factories to power AI innovation. Utility companies are also increasing capacity and investing in grid modernization to meet the surge in electricity demand from AI-powered data centers.

Figure 2: Data Center Construction Spending



Source: Cetera Investment Management, FactSet, U.S. Census Bureau. Data as of 6/30/2025.

According to the World Economic Forum, AI could lead to a net gain of 78 million new jobs globally by 2030,[8] with more roles created than it displaces. Despite these forecasts, the precise impact remains uncertain. While hypothetical, history has shown that technological innovation can create change and disruption in relatively short order. Most businesses, including nearly every major corporation, are already using AI across a range of functions, including fraud detection, contract review, healthcare diagnostics, supply chain optimization, energy grid optimization, as well as generative AI for content creation. Businesses are introducing AI tools to increase both productivity and innovation.

A transitional period may emerge during which job displacement initially outpaces job creation, resulting in a rise in unemployment before the labor market adjusts. A skills mismatch could follow, requiring training and education to help workers adapt to evolving technological demands. The impact will be felt globally. How this transformational shift unfolds is uncertain, but as Yogi Berra once said, “The future ain’t what it used to be.”

A Changing Workforce

Today's labor market already bears little resemblance to the past, largely because of a shift away from an agricultural and manufacturing focus and toward broader economic diversification and technological innovation. More than 30% of the U.S. labor force worked in manufacturing 75 years ago compared to just 8% today. Manufacturing employment reached its peak in 1979 with 19.6 million workers but has since declined to 12.7 million.

Figure 3: Multi-Decade Manufacturing Employment Decline

Source: Cetera Investment Management, FactSet, U.S. Bureau of Labor Statistics. Data as of 7/31/2025.

Offshoring has played a role, but advancements in automation, robotics, and process optimization have also boosted productivity and reduced demand for manufacturing employment. The recent trend of onshoring more manufacturing production to the U.S. to address supply chain concerns may reverse part of this shift. However, a significant rebound in manufacturing employment is unlikely given the continued rise of automation and robotics.

Going back even further, nearly 40% of the labor market worked in agriculture in 1900.[9] Even as the U.S. population grew from 76 million to over 340 million in the past 125 years, far fewer people work in farming today, with agricultural employment now representing less than 1% of the labor force.[10]

While factory and farm employment has declined, there has been a surge in employment in service-providing jobs. In 1950, 21 million people worked in service jobs. Today, that number has skyrocketed to 114 million **(Figure 4)**.

Figure 4: The Rise of Service Employment

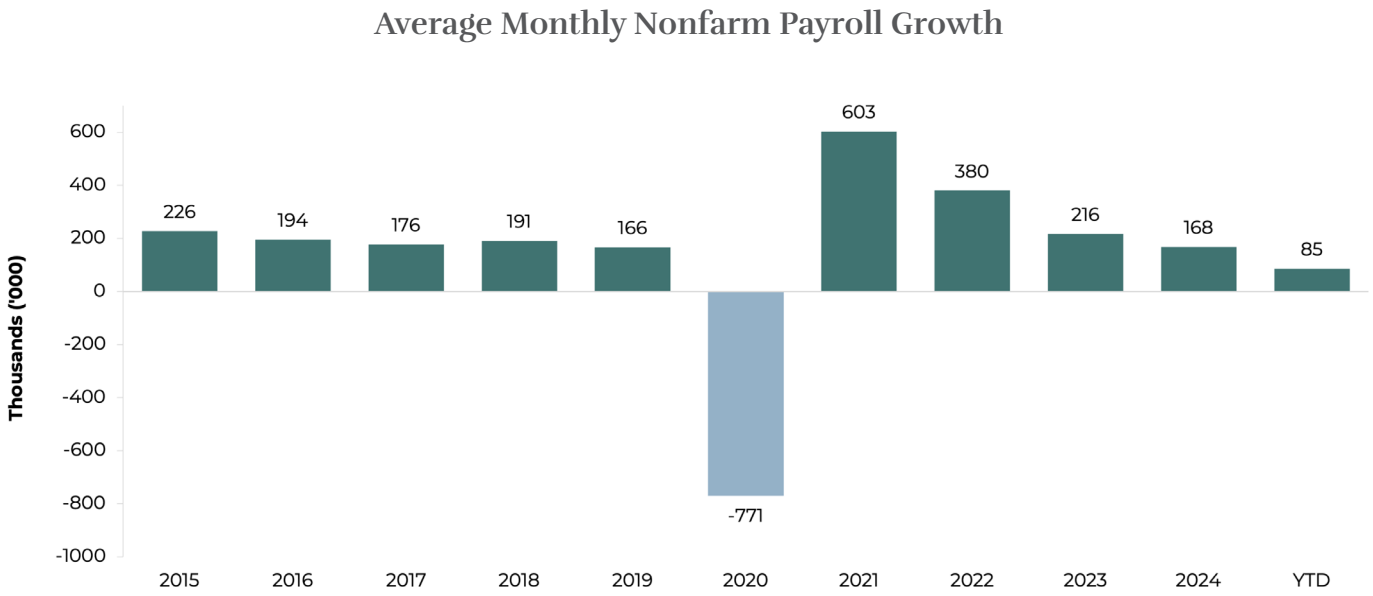
Source: Cetera Investment Management, FactSet, U.S. Bureau of Labor Statistics. Data as of 7/31/2025.

Service-providing jobs represent more than 70% of total employment, led by health care and social services (23.4 million), professional and business services (22.6 million), and leisure and hospitality (17.0 million). The shift toward service employment mirrors the path of the economy, where consumer spending on services has risen from roughly 40% of total spending in 1950 to around 70% today.

Signs of AI's Emergence: The New Normal for the Labor Market?

The labor market has cooled notably this year. As of July, job growth has slowed to a monthly pace of only 85,000 new jobs year-to-date, down from 168,000 per month in 2024 and 216,000 per month in 2023.

Figure 5: Slowing Employment Growth



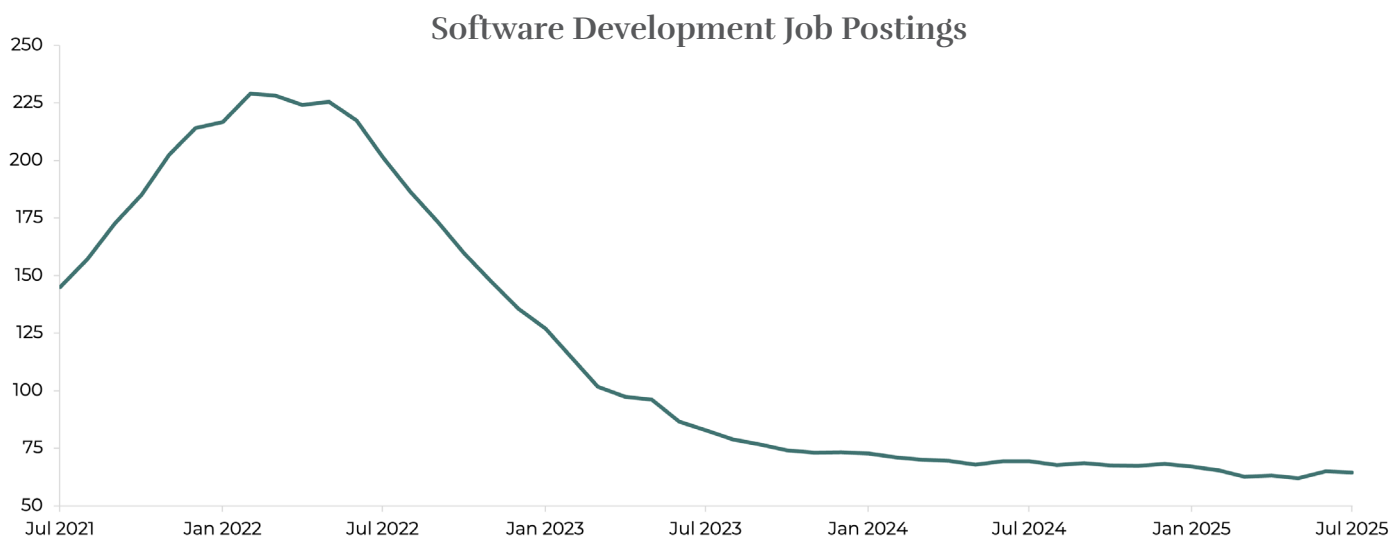
Source: Cetera Investment Management, Federal Reserve Bank of St. Louis, and U.S. Bureau of Labor Statistics. Data as of 7/31/2025.

Nearly 94% of jobs created this year have been concentrated in health care and social assistance, and state and local government – sectors that are typically more stable and less sensitive to economic cycles. In contrast, employment in cyclical sectors like manufacturing and professional and business services (proxy for office-based roles including analysts, consultants, and legal services) has seen a drop in total employment this year.

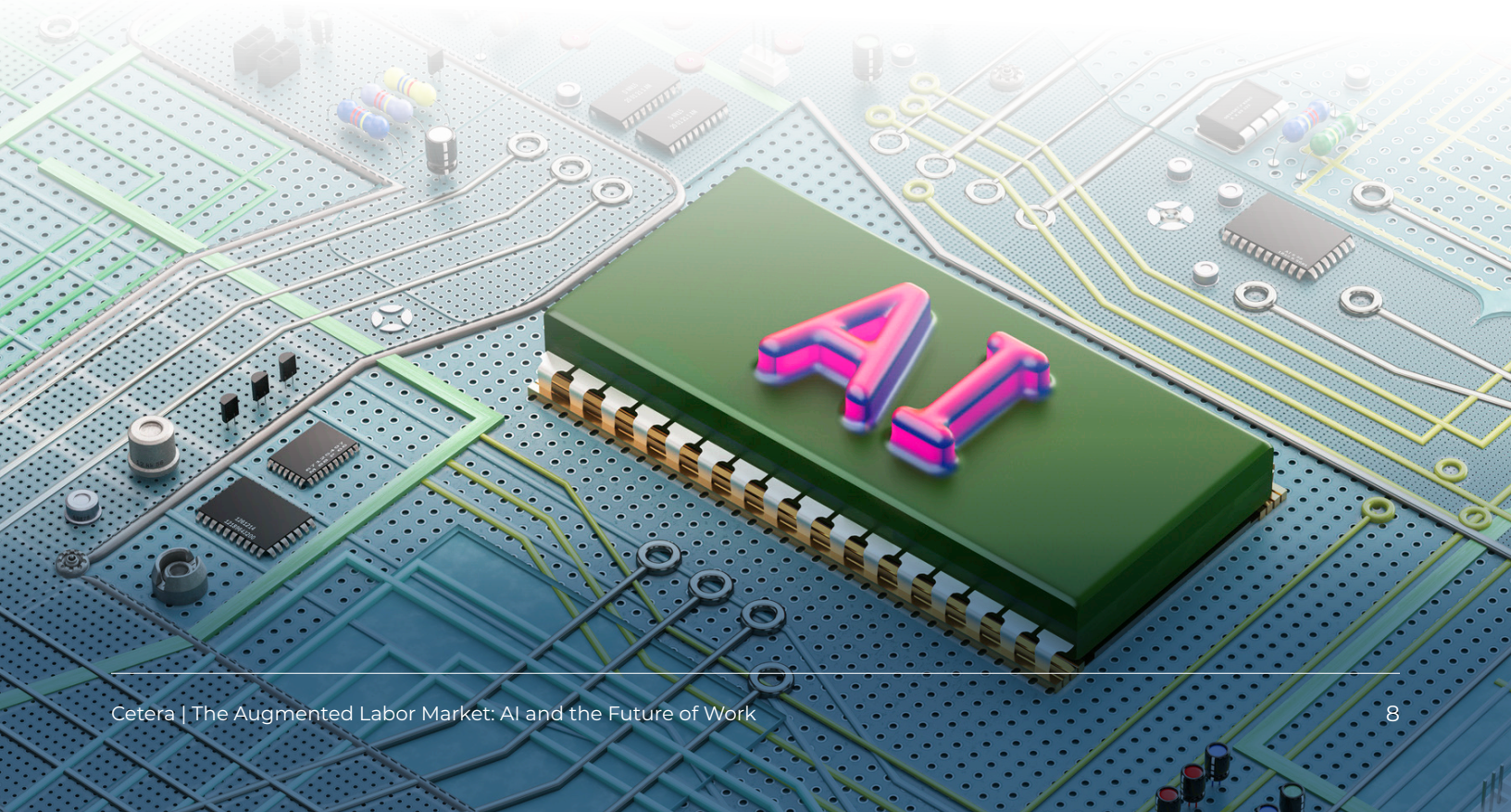
While the pace of hiring isn't as robust as it was in recent years, layoffs remain low. It's a relatively good labor market for those who are already employed, but a more challenging environment for job seekers. Continuing jobless claims reached their highest level since November 2021 this summer, and the unemployment rate for 20-24-year-olds has risen from a cycle low of 5.5% in 2023 to a cycle high of 8.2% this year.

Although cyclical labor market trends are contributing to the slowdown, there are potential structural signals tied to AI adoption that may be emerging. For example, rising unemployment for recent college graduates could reflect weaker demand for entry-level roles where tasks are increasingly performed by AI. Automation and efficiency gains might be contributing to the slower pace of hiring across industries. Total employment in professional and business services is now lower than it was three years ago, and software developer job listings have declined significantly **(Figure 6)**. AI has become increasingly capable of coding, debugging, and generating documentation, suggesting less demand for junior-level developers.

Figure 6: Declining Software Developer Demand



Source: Cetera Investment Management, Federal Reserve Bank of St. Louis, Indeed. Software Development Job Postings on Indeed in the United States, Index Feb, 1 2020=100, Monthly, Seasonally Adjusted. Data as of 7/31/2025.



It's too early to confirm if an AI-driven structural shift is already occurring, but there are signals worth watching, particularly in entry-level jobs. For now, layoffs remain low, and the labor market continues to grow, albeit at a slower pace. As AI adoption accelerates, some roles may fade away, but new opportunities are likely to emerge.

What's Not Artificial

Technology can only go so far. If the pandemic taught us anything, it's the power of human connection. Technology helped us adapt, but social distancing strained our social bonds and sense of community. For client-facing jobs like financial advisors, lawyers, and sales professionals, AI will enhance efficiency and streamline tasks, freeing up more time to focus on what matters most: managing relationships.

We are social creatures. We gather for dinner, celebrate milestones at parties, sing with the crowd at concerts, and cheer for our favorite teams from the bleachers. We did that 100 years ago and will continue to do so 100 years from now. AI won't change that. Technology makes our lives easier, but it's our human connections that make our lives meaningful. As the great character Michael Scott from *The Office* once said, "It's the people." And that remains true no matter how advanced technology becomes.

Market Impact

Megacap tech-oriented stocks have fueled market growth for more than a decade. These companies are leading the charge in artificial intelligence, digital infrastructure, and cloud computing. Looking ahead to the next chapter, we may see broader participation across sectors and companies that successfully integrate AI and new technologies to spur innovation, boost efficiency, and uncover new growth opportunities.

In the meantime, market valuations have reached elevated levels, driven by tech-oriented stocks. Since this bull market began in October 2022, the S&P 500 has a total return of 84.8%, the Nasdaq is up 107%, and the S&P 500 tech sector has gained 161% (as of 7/31). Tech outperformance has pushed market concentration higher in large cap indexes. The S&P 500's top 10 holdings now represent 39% of the index, with key megacap tech stocks dominating the top. This level of supercharged growth is unlikely to be sustained over the long term. With high valuations and expectations rising, there is risk if earnings growth does not meet lofty expectations in the quarters and years ahead.

Diversification can help mitigate volatility risk, as we saw in the first quarter when large cap value stocks outperformed large cap growth stocks by the widest quarterly margin in 24 years. While optimism around AI and its economic impact remains high, the growing influence of a handful of large tech companies underscores the importance of diversification, a time-tested strategy for managing portfolio risk.

Adapting to What's Next

Every industry evolves with technology. More than 170 million people make up the American labor force. Some of today's jobs will disappear, while entirely new industries will likely emerge, creating new job opportunities and driving transformation.

We are likely to see productivity gains from AI augmenting the workforce, even as some roles become obsolete. Change is constant and those who embrace adaptation will thrive, for both employees and businesses alike. Reskilling initiatives, increased AI literacy, and workforce adaptation will be essential to navigate this seismic shift. After all, adaptation and innovation are the hallmarks of great businesses.

The innovative spirit is why U.S. stock market performance has been exceptional over the past century. To sustain that momentum, further technological breakthroughs and cost-saving productivity gains will be needed to propel the stock market in the decades ahead.

We remain optimistic that a better tomorrow awaits, though history has shown that speed bumps are an inevitable part of the journey. For investors, diversifying across industries, countries, and asset classes can provide a smoother path for your portfolio. As always, consult with your Cetera Investment Professional for personalized investment guidance.

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Glossary

The S&P 500 is a capitalization-weighted index of 500 stocks designed to measure performance of the broad domestic economy through changes in the aggregate market value of 500 stocks representing all major industries.

The Dow Jones Industrial Average is a price-weighted average of 30 U.S. blue-chip stocks traded on the New York Stock Exchange and NASDAQ. The index covers all industries except transportation, real estate and utilities.

The NASDAQ Composite Index includes all domestic and international based common type stocks listed on The NASDAQ Stock Market. The NASDAQ Composite Index includes over 2,500 companies, spanning all 11 sector groups.

The Russell 2000 index is comprised of 2000 small-capitalization companies. It is made up of the bottom two-thirds in company size of the Russell 3000 index.

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