Spotting Trends
Sector and Industry

January 2024

Sector Opportunities for Q1 2024

Anqi Dong, CFA, CAIA
Senior Research Strategist

- Biotech: The first FDA approved CRISPR-based human therapeutic treatment could be a game changer for the biotech industry.
- Technology: An equal-weighted exposure of Tech leaders across AI enablers and early adopters targets areas with positive fundamentals and lower concentration of the Magnificent Seven stocks.
- Cybersecurity: Spending is set to increase in cybersecurity in 2024 driven by regulatory, technological, and geopolitical tailwinds.

With lowered rate expectations driven by disinflationary surprises and the Federal Reserve's dovish pivot, the S&P 500 Index nearly reached a record high in the last two months of 2023, led by Real Estate and Consumer Discretionary.[1] Soft landing optimism and the sharp decline in long-term yields attracted investors to cyclical areas with depressed valuations such as small-cap stocks.

But we expect heightened equity volatility in 2024 as geopolitical and rate uncertainties and macroeconomic headwinds continue to test economic resilience. And, given the gap between market implied rate cuts and the Fed's December dot plot, rate expectations may continue driving volatility in the first half of the new year.

Even so, secular industry trends that emerged over the past few years — increasing adoption of AI technology, CRISPR gene editing technology, and cybersecurity — remain intact and look likely to accelerate in the coming years, providing attractive long-term growth opportunities.

Biotech: The CRISPR Revolution Begins

A decade after scientists first adapted the CRISPR gene editing technology to edit human DNA, the biotech industry welcomed the first FDA approved human therapeutic treatment, known as "exa-cel," based on this revolutionary technology. Unlike the older generation of gene editing, CRISPR gene editing is precise, adaptable, efficient, and scalable. The FDA approval opens the door for the biotech industry to commercialize this technology breakthrough for medical use to treat a wide array of illnesses.

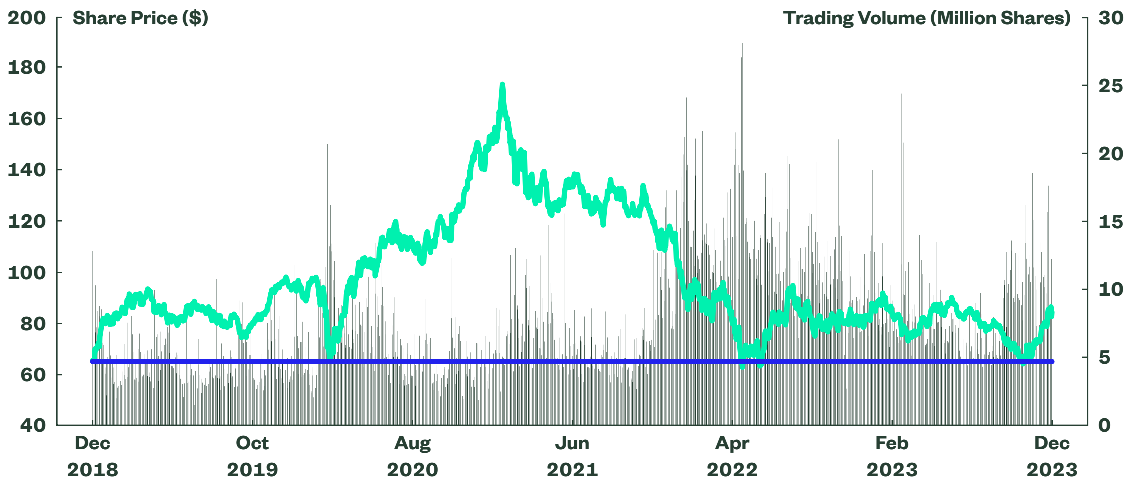
Therapeutic treatment is one of many applications of the CRISPR technology in the drug development value chain. It also can be used to diagnose infectious disease, facilitate drug discovery, and improve existing therapies. Neuroscientists have used CRISPR to discover why certain genes may protect brain cells from degeneration. Cancer drugmakers have used it to improve the efficacy of traditional chemotherapies and more advanced CAR-T cell therapies.

Large drugmakers and venture capital investors have seen its potential and invested millions to secure intellectual property. In 2021, venture capitalists invested $1.08 billion in 31 CRISPR startups, compared with $173 million in 2020.[2] Most recently, Eli Lilly agreed to spend up to $600 million to acquire the rights to co-develop base editing programs for cardiovascular diseases from Beam Therapeutics.[3]

Despite biotech's long-term potential driven by the CRISPR revolution, the industry has been out of favor over the past two years as rising interest rates weighed on small biotech valuations, wiping out billions of dollars of market value. Even given the strong rebound in the risk-on rally since November, prices of **the SPDR S&P Biotech ETF (XBI)** are more than 20% lower than they were two years ago and 50% below their peak in early 2021.[4] Additionally, a solid price bottom seems to have formed around mid-$60 as XBI share prices rebounded and volume increased after its prices fell to around $65 (Figure 1).

Figure 1
A Solid Price Bottom for XBI Seems to Have Formed Around Mid-$60

Trading Volume
Share Price
$65



Source: Bloomberg Finance, L.P., as of 12/20/2023. **Past performance is not a reliable indicator of future performance.**

Near-term rate expectations may continue driving the biotech industry performance given its -0.7 correlation with 10-year yields.[5] But secular innovation trends may transcend monetary cycles, offering investors greater capital appreciation potential than the broad market over long-term investment horizons.

To capture a potential innovation boom in the biotech industry driven by the CRISPR technology, investors who can stomach near-term volatility may consider **the SPDR S&P Biotech ETF (XBI)**.

Technology Leaders: Identifying Growth of Early Beneficiaries of AI

While earnings growth and profit margins of broad US equities may be challenged by weakening demand and higher financing costs, AI-related tailwinds may continue to provide growth opportunities for high margin technology leaders in 2024.

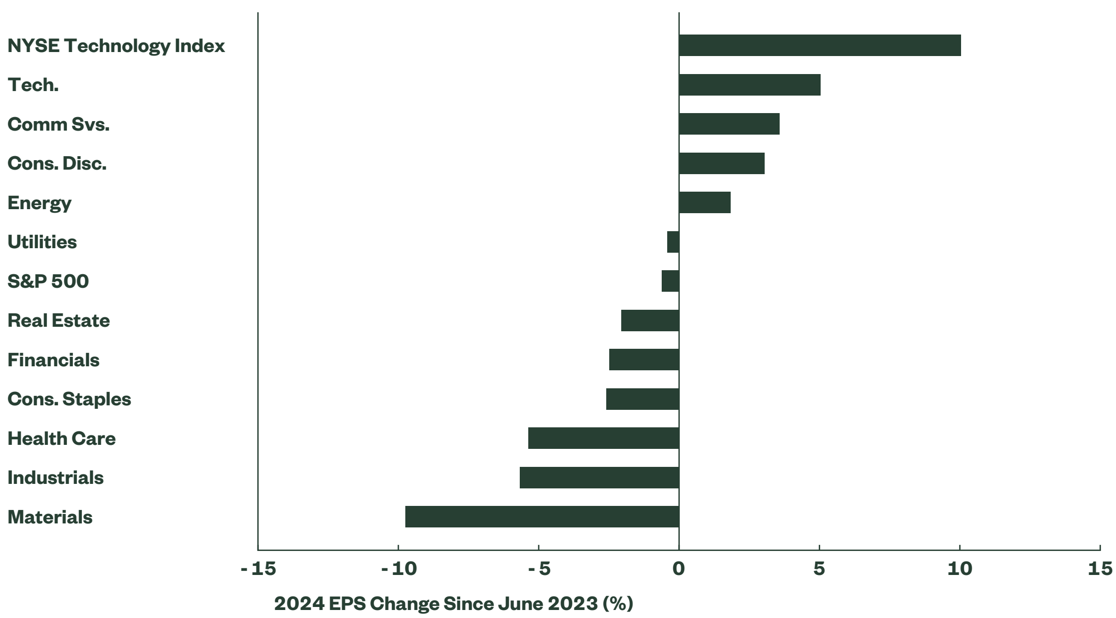
The current generative AI (GAI) technology cycle is driven by the world's largest technology leaders who invest heavily in building the foundational large language models and who have plenty of customer data to train the models. It's one of the reasons why the Magnificent Seven stocks[6] attracted investors' interest and outperformed the broad market in 2023 despite valuation pressures from high interest rates.

But to capture AI-related growth opportunities, investors need to take a broad view of the AI ecosystem and look beyond the traditionally defined Information Technology sector and the Magnificent Seven stocks. Early monetization of GAI technology is primarily happening in software development, online consumer platforms, social media, and AI infrastructure (e.g., advanced chip makers and cloud computing companies). Companies in these segments are either AI enablers or have access to tremendous amount of data for training the large language models to improve efficiency in marketing and sales process and provide curated customer experiences. For example, Netflix uses GAI algorithms and users' viewing patterns and feedback to identify successful genres, themes, and storylines. Booking.com launched its new AI Trip Planner powered by OpenAI's large language model to create a new conversational experience for people planning a vacation. The Magnificent Seven and the Tech sector aren't the only beneficiaries of the latest AI developments.

The **SPDR® NYSE Technology ETF (XNTK)**, which equally weights 35 US-listed tech-related leaders across the Communication Services, Information Technology, and Consumer Discretionary sectors, may help investors position toward areas with positive fundamentals while broadening exposure to early beneficiaries of AI development.

Earnings estimates of XNTK's benchmark have been upgraded by 10% since June, much higher than the S&P 500 Information Technology sector and the broad market (Figure 2). Supported by strong earnings sentiment, it has outperformed the S&P 500 Tech sector and the S&P 500 Index by 6% and 9% respectively over the same period. Furthermore, despite having only 35 stocks, XNTK's portfolio the Magnificent Seven accounts for just 20% of XNTK's portfolio, compared to 47% of the Russell 1000 Growth Index and 39% of the Nasdaq 100 Index.[7]

Figure 2
Earnings Sentiment Among Tech Leaders Has Been Strong



Source: FactSet, as of 12/20/2023. EPS growth estimates are based on Consensus Analyst Estimates compiled by FactSet.

Although XNTK's significant gains in 2023 have lifted its forward price-to-earnings (P/E) ratio from bottom quartile at the beginning of 2023 to above its five-year median, its current valuations are well below its pandemic peaks and dot-com bubble levels.[8] Additionally, its valuations are less stretched compared to the S&P 500 Tech sector, which is trading at higher forward P/E multiples than XNTK and within the top decile of its five-year history.[9]

To pursue AI-related tailwinds across major AI enablers and early adopters with less concentration in the Magnificent Seven stocks, consider **SPDR® NYSE Technology ETF (XNTK)**.

Cybersecurity: Riding Regulatory, Technological, and Geopolitical Tailwinds

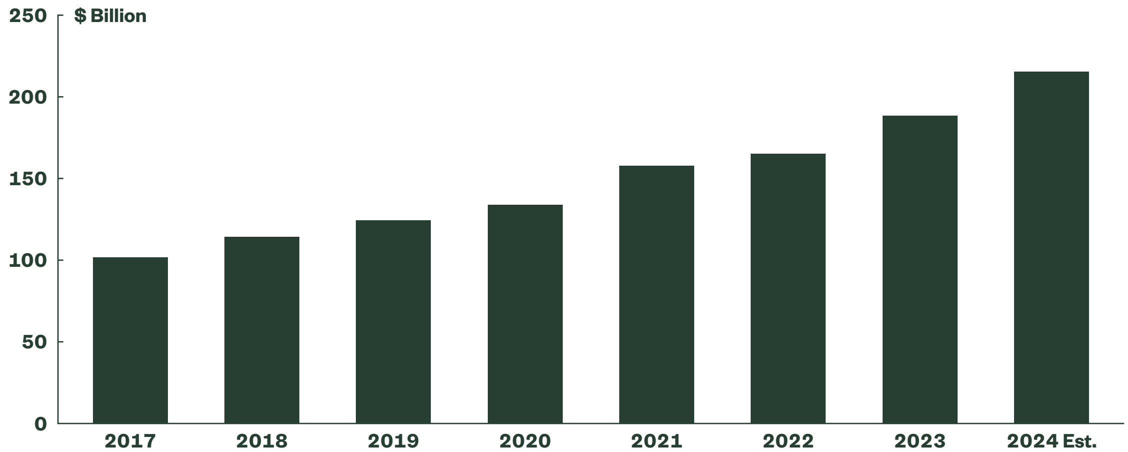
As cyberattacks have become more pervasive and costly, governments and regulatory agencies have introduced new regulations to increase oversight and transparency of cybersecurity incidents. In December 2023, the SEC started implementing new rules requiring publicly listed companies to disclose material cybersecurity incidents and their cybersecurity risk management, strategy, and governance. With greater transparency, companies are incentivized to allocate more budget to cybersecurity risk management to protect their reputation.

The rapid emergence of generative AI may also increase demand for cyber defense and shore up cybersecurity providers' capabilities to detect threats. Generative AI can help attackers to carry out very tailored, scaled, and harder-to-spot phishing and social engineering operations, creating an urgency to upgrading cybersecurity. Meanwhile, AI related technologies can also augment cybersecurity providers' ability to detect threats and take actions at speed and scale. Higher demand and enhanced capability put the cybersecurity industry in a good position to benefit from AI technology development. Increasing geopolitical tensions may keep the cybersecurity theme in investors' focus. We anticipate 2024 to be fraught with geopolitical fracture points ranging from ongoing conflicts in the Middle East and the Russia-Ukraine war to critical presidential elections in Taiwan and the US.

Cyberattacks and disinformation have emerged as part of the offensive in the Russia-Ukraine war. Although the damage so far has been limited thanks to Western support to strengthen Ukraine's cyber defense, it has become evident that hybrid warfare is the new reality. Furthermore, Russia's interference in both the 2016 and 2020 US presidential elections showed how foreign adversaries may exploit cybersecurity weaknesses and abuse social media algorithms to distort electoral politics. Deepfake photos and videos created by generative AI have the potential to create even more challenging disinformation campaigns, requiring more advanced cyber-defense programs.

Against this backdrop, global enterprise spending on security and risk management is projected to increase 14% in 2024 compared to 2023 (Figure 3), outpacing overall IT spending.[10] The US government is also expected to increase cybersecurity funding at a similar pace in 2024, allocating $13.5 billion for the Pentagon to advance its adoption of zero trust architecture and $12.7 billion for civilian cybersecurity-related activities.[11]

Figure 3
Increasing Global Spending on Information Security and Risk Management



Source: Gartner, September 2023. Projected characteristics are based upon estimates and reflect subjective judgments and assumptions. There can be no assurance that developments will transpire as forecasted and that the estimates are accurate.

Given regulatory, technological, and geopolitical tailwinds, companies whose products and services are driving security innovation may offer strong growth potential.

To capture the broad range of innovative security firms, consider the **SPDR S&P Kensho Future Security ETF (FITE)**.

To learn more about emerging sector investment opportunities, visit our sectors webpage.

Endnotes

1 FactSet, as of 12/21/2023.

2 WSJ, Venture Investment in Crispr Gene Editing Spurs Innovation, Hunt for IP, 03/10/2022.

3 Beam Therapeutics, 10/31/2023.

4 FactSet, as of 12/15/2023. The biotech industry is represented by the S&P Biotechnology Select Industry Index.

5 FactSet, for One year period ending 12/15/2023. **Past performance is not a reliable indicator of future performance.**

6 The Magnificent Seven stocks are Apple Inc., Microsoft Corporation, Amazon.com Inc., Meta Platforms Inc., Tesla Inc., NVIDIA Corp, Alphabet Inc.

7 FactSet, as of 12/20/2023.

8 FactSet, as of 12/20/2023.

9 FactSet, as of 12/20/2023.

10 Gartner, 09/28/2023.

11 White House, Analytical Perspectives: FY 2024 Federal Budget, March 2023.

ssga.com

Important Risk information

The views expressed in this material are the views of the SPDR Research and Strategy team through the period ended December 26, 2023, and are subject to change based on market and other conditions. This document contains certain statements that may be deemed forward-looking statements. Please note that any such statements are not guarantees of any future performance and actual results or developments may differ materially from those projected.

This communication is not intended to be an investment recommendation or investment advice and should not be relied upon as such.

All information is from SSGA unless otherwise noted and has been obtained from sources believed to be reliable, but its accuracy is not guaranteed. There is no representation or warranty as to the current accuracy, reliability or completeness of, nor liability for, decisions based on such information and it should not be relied on as such.

Investing involves risk including the risk of loss of principal.

Equity securities may fluctuate in value and can decline significantly in response to the activities of individual companies and general market and economic conditions.

There can be no assurance that a liquid market will be maintained for ETF shares.

Concentrated investments in a particular sector or industry tend to be more volatile than the overall market and increases risk that events negatively affecting such sectors or industries could reduce returns, potentially causing the value of a Fund's shares to decrease.

Non-diversified funds that focus on a relatively small number of securities tend to be more volatile than diversified funds and the market as a whole.

Biotechnology Companies Risk
Biotech companies invest heavily in research and development which may not necessarily lead to commercially successful products. These companies are also subject to increased governmental regulation which may delay or inhibit the release of new products. Many biotech companies are dependent upon their ability to use and enforce intellectual property rights and patents. Any impairment of such rights may have adverse financial consequences. Biotech stocks, especially those of smaller, less-seasoned companies, tend to be more volatile than the overall market. Biotech companies can be significantly affected by technological change and obsolescence, product liability lawsuits and consequential high insurance costs.

Aerospace and Defense Companies Risk
Aerospace and defense companies can be significantly affected by government aerospace and defense regulation and spending policies because companies involved in this industry rely to a significant extent on U.S. (and other) government demand for their products and services. Thus, the financial condition of, and investor interest in, aerospace and defense companies are heavily influenced by governmental defense spending policies which are typically under pressure from efforts to control the U.S. (and other) government budgets.

Cybersecurity Companies Risk
Companies in the cybersecurity field face intense competition, both domestically and internationally, which may have an adverse effect on profit margins. Cybersecurity companies may have limited product lines, markets, financial resources or personnel. The products of cybersecurity companies may face obsolescence due to rapid technological developments and frequent new product introduction, and such companies may face unpredictable changes in growth rates, competition for the services of qualified personnel and competition from foreign competitors with lower production costs. Companies in the cybersecurity field are heavily dependent on patent and intellectual property rights. The loss or impairment of these rights may adversely affect the profitability of these companies.

Technology Sector Risk Market or economic factors impacting technology companies and companies that rely heavily on technological advances could have a major effect on the value of the Fund's investments. The value of stocks of technology companies and companies that rely heavily on technology is particularly vulnerable to rapid changes in technology product cycles, rapid product obsolescence, government regulation and competition, both domestically and internationally, including competition from foreign competitors with lower production costs. Stocks of technology companies and companies that rely heavily on technology, especially those of smaller, less-seasoned companies, tend to be more volatile than the overall market. Technology companies are heavily dependent on patent and intellectual property rights, the loss or impairment of which may adversely affect profitability. Additionally, companies in the technology sector may face dramatic and often unpredictable changes in growth rates and competition for the services of qualified personnel.

While the shares of ETFs are tradable on secondary markets, they may not readily trade in all market conditions and may trade at significant.

ETFs trade like stocks, are subject to investment risk, fluctuate in market value and may trade at prices above or below the ETFs net asset value. Brokerage commissions and ETF expenses will reduce returns.

The S&P 500® Index is a product of S&P Dow Jones Indices LLC or its affiliates ("S&P DJI") and have been licensed for use by State Street Global Advisors. S&P®, SPDR®, S&P 500®, US 500 and the 500 are trademarks of Standard & Poor's Financial Services LLC ("S&P"); Dow Jones® is a registered trademark of Dow Jones Trademark Holdings LLC ("Dow Jones") and has been licensed for use by S&P Dow Jones Indices; and these trademarks have been licensed for use by S&P DJI and sublicensed for certain purposes by State Street Global Advisors. The fund is not sponsored, endorsed, sold or promoted by S&P DJI, Dow Jones, S&P, their respective affiliates, and none of such parties make any representation regarding the advisability of investing in such product(s) nor do they have any liability for any errors, omissions, or interruptions of these indices.

Distributor: State Street Global Advisors Funds Distributors, LLC, member FINRA , SIPC, an indirect wholly owned subsidiary of State Street Corporation. References to State Street may include State Street Corporation and its affiliates. Certain State Street affiliates provide services and receive fees from the SPDR ETFs.

Before investing, consider the funds' investment objectives, risks, charges and expenses. To obtain a prospectus or summary prospectus which contains this and other information, call 1-866-787-2257, download a prospectus or summary prospectus now, or talk to your financial advisor. Read it carefully before investing.

ID1933857-6184107.1.2.AM.RTL 0124
Exp. Date: 12/31/2024

Not FDIC Insured
No Bank Guarantee
May Lose Value