Goldman Sachs Asset Management

Asset Management Outlook 2024

EMBRACING NEW REALITIES

KEY THEMES

Macroeconomy:
Living with Higher for Longer

Geopolitics:
Roadmaps for a Reshaped World

Disruptive Technology:
Innovation and AI Acceleration

Sustainability:
Investing with Impact

Portfolio Construction:
Thinking Differently

WELCOME TO A WORLD OF NEW REALITIES ↗

We are pleased to share Goldman Sachs Asset Management's 2024 Outlook: Embracing New Realities. As the new year approaches, a new economic landscape is taking shape. Major central banks seem prepared to keep interest rates higher for longer, and growth paths and inflation patterns across economies appear increasingly out of sync. An election super cycle is about to unfold against a backdrop of elevated geopolitical risk. Simultaneously, megatrends including disruptive technology and sustainability are rapidly transforming industries.

Embracing change is not easy. It requires resilience and action to avoid being left behind—even when finding the way forward is difficult. Most investors have adapted in recent years to rising geopolitical risks, soaring inflation and the disruptions caused by the pandemic. Further adjustments will be necessary in a world of greater growth volatility, higher capital costs and geopolitical instability. We expect increased performance dispersion across asset classes, sectors and regions. In these conditions, investors face complex choices and trade-offs.

We believe active investment strategies, a focus on diversification and risk management will be important to navigate 2024 and help deliver alpha. In our view, it will also be necessary to manage portfolios in an integrated way, enhancing diversification and performance potential by considering both traditional and alternative investments. Focusing on long-term disruption from sustainability trends and technological innovation, including artificial intelligence (AI), can help position portfolios for the global economic transformation.

In an age of unpredictability, dynamic insights and solutions will be needed to steer investment. We have synthesized views from across our investment teams and grouped our observations around five key themes that we expect to affect markets and investment strategies in 2024:

1) Macroeconomy: Living with Higher for Longer

2) Geopolitics: Roadmaps for a Reshaped World

3) Disruptive Technology: Innovation and AI Acceleration

4) Sustainability: Investing with Impact

5) Portfolio Construction: Thinking Differently

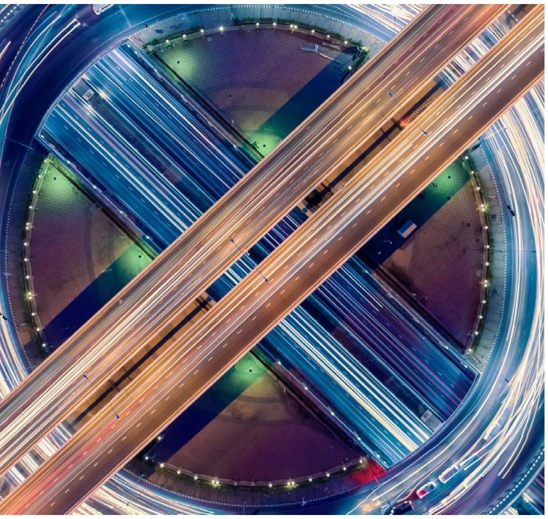
We hope you find our insights helpful, and we look forward to working with you in 2024.

Marc Nachmann
Global Head of Asset & Wealth Management

KEY THEMES TO WATCH IN 2024

↗ 05 Macroeconomy: Living with Higher for Longer

Interest rates in developed markets are set to stay higher for longer, and growth paths and inflation patterns across the global economy are moving in different directions and at different speeds. In public equity markets, we expect macroeconomic discussions to shift toward how specific market sectors and companies can navigate higher capital costs and slower growth. In public fixed income, an up-in-quality approach to credit may help investors identify issuers that look well-positioned to withstand higher funding costs. We also see opportunities for a more strategic approach to private market exposure.



↗ 08 Geopolitics: Roadmaps for a Reshaped World

An election super cycle will unfold in 2024 against a backdrop of elevated geopolitical risk and economic competition between nations. Investors may need to combine in-house expertise with insight from advisors on the ground to navigate bouts of volatility. Companies benefitting from the reshoring of critical supply chains and increased investment in national security may present compelling investment opportunities.

↗ 11 Disruptive Technology: Innovation and AI Acceleration

Artificial intelligence is now part of the long-term technology opportunity set. Semiconductors, cybersecurity and healthcare are areas to watch as AI transforms industries. Skill in finding the likely winners of tomorrow is crucial in an era of wide dispersion between high- and low-quality growth companies. When the initial public offering (IPO) market eventually recovers, investors in disruptive companies may benefit.

↗ 14 Sustainability: Investing with Impact

Sustainable investing is becoming more complex and competitive as investors seek ways to make a real-world impact by focusing on environmental and inclusive-growth themes. Opportunities to invest in sustainable solutions can be found across public and private capital markets, from pure-play enablers of a more sustainable world to transition leaders in high-carbon industries.

↗ 17 Portfolio Construction: Thinking Differently

In our view, investors can navigate higher-for-longer rates, geopolitical shocks and accelerating secular growth trends by staying active and focusing on diversification and risk management. An integrated approach to portfolio construction can position portfolios to benefit from differences in the composition and characteristics of public and private capital markets.

MACROECONOMY: LIVING WITH HIGHER FOR LONGER

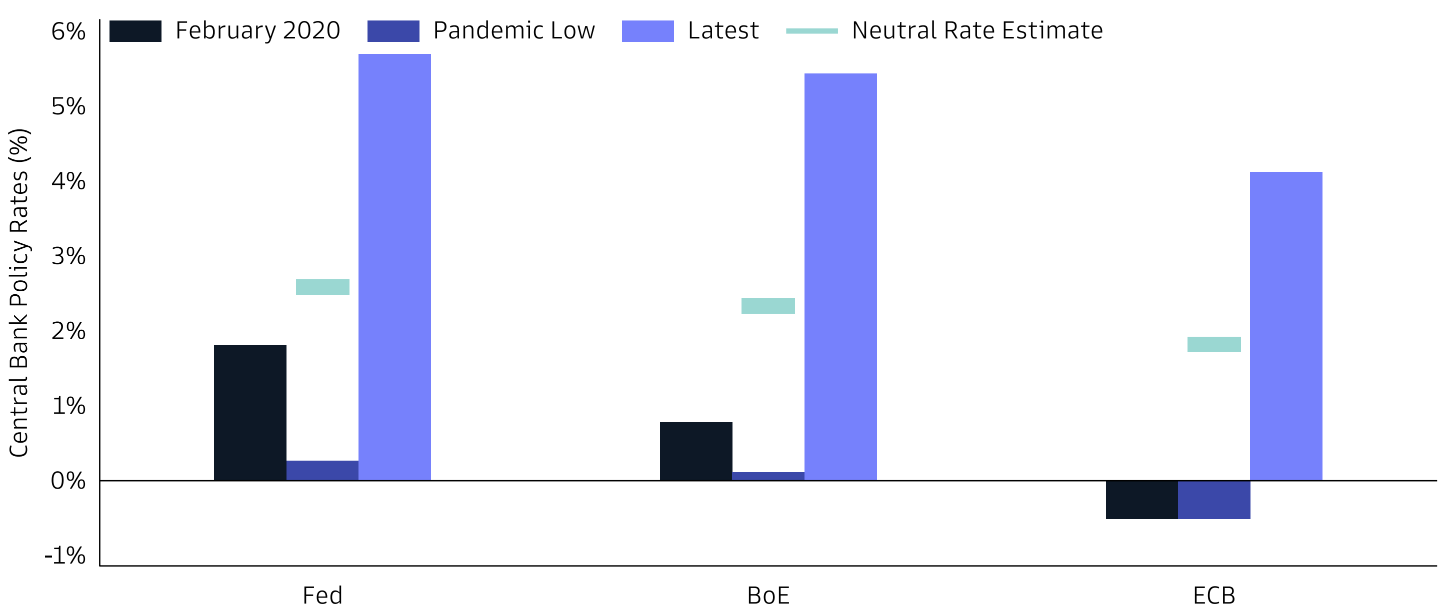
After a phase of fast and forceful monetary policy tightening, the reality in 2024 may be that interest rates across advanced economies stay close to present levels throughout most of the year. In the US, we think it is plausible the US Federal Reserve (Fed) may have reached the end of its hiking cycle as disinflation takes hold. In our view, it's unlikely the Fed will move quickly toward cutting interest rates unless economic growth slows substantially. This raises the likelihood of higher-for-longer interest rates. In the eurozone, we believe weaker growth momentum and a large drag from tighter financial policy and lending conditions skew the balance of risks towards a pause in monetary policy tightening by the European Central Bank (ECB) before a potential pivot toward easing in the second half of 2024.

The economic outlook remains fragile. While the Fed and ECB seem to have steered away from a hard landing path during the tightening cycle, exogenous shocks or a premature pivot to policy easing may reignite inflation in a way that requires a recession to force it lower. Conversely, further monetary tightening might trigger a downturn just as the effects of prior tightening begin to take hold. In the United Kingdom, notwithstanding inflation volatility, we do not foresee further interest rate increases by the Bank of England (BoE). We expect slightly better—though still subdued—growth over the near term.

Elsewhere, economies' paths across regions are diverging, with growth prospects and inflation patterns moving in different directions and at different speeds. Japan's economy has been surprising to the upside, benefiting from a domestic demand recovery that is driving unfamiliar but desired wage growth and inflation. China's short-term growth prospects appear tilted to the downside, hampered by property market indebtedness and demographic headwinds. Elsewhere, early emerging market hikers—Brazil, Chile, Hungary, Mexico, Peru, and Poland—were the first economies to see a sharp inflation slowdown. The central banks in these countries have started to lower interest rates or are close to doing so.

In a desynchronized global cycle, with higher-for-longer rates and slower growth in most advanced economies, the road ahead remains uncertain. In our view, this calls for a diversified and risk-conscious investment approach across public and private markets.

We Think Policy Rates Have Likely Reached Their Peak in This Cycle



Source: Goldman Sachs Asset Management. Macro bond. As of September 27, 2023. Neutral rate estimates are central bank projections. The neutral rate would stabilize the economy at full employment and the inflation target, assuming other influences on the economy are at normal levels. Pandemic low date range: December 31, 2019 to December 31, 2020.

Three Key Questions

Will we see a soft or hard landing in the US?

Our view: The latest signals from the US economy are consistent with a soft landing. The labor market is rebalancing and disinflation is progressing. That said, we are mindful of the growing impact of higher rates on the economy over time, as well as the risk of an exogenous shock stemming, for example, from geopolitical instability.

When might investors look to add risk to portfolios?

Our view: Given that we are late in the cycle, it may be an opportune time to look for potential triggers for re-risking portfolios. One "risk on" signal would perhaps be a shift in the Fed narrative hinting at a rate cut. This may occur when economic activity, labor markets or inflation soften sufficiently. The key differentiator in this cycle is that rates are likely to remain higher for longer, making security selection and active management essential.

What are the consequences of ballooning developed market government debt?

Our view: Today's political climate suggests fiscal consolidation is unlikely as governments face pressure to address income inequality and advance decarbonization and digitalization. Inflating away debt isn't an option when central banks remain committed to inflation targeting. With these avenues for lowering debt loads facing challenges, the primary consequence of higher government debt will be higher term premiums reflected in developed market government bond yields.

Investment Considerations

PUBLIC EQUITY

Less Macro, More Micro

The public equity market has been increasingly driven by microeconomic factors. The share of the S&P 500 index's median trailing six-month return that is explained by company-specific factors rather than by macroeconomic factors such as beta, sector and size is now nearly 30% above the 20-year average. When beta is less likely to be the main driver of returns, alpha generation becomes even more critical. We expect macro discussions to shift toward how specific companies can navigate sticky inflation, higher capital costs and slower growth. We observe increased market dispersion across and within sectors. This may call for a disciplined, fundamental approach to stock selection, with an emphasis on quality and profitability. Portfolio drivers are likely to be a combination of high-quality firms, strong dividend payers and regional diversification. We think being selective at the stock level and maintaining a balanced portfolio will be key as the market becomes more discerning.

FIXED INCOME

Strengthening Your Core

Negative fixed income returns in response to an inflation and policy shock are an anomaly, not the trend. Following a reset higher in bond yields, the age of "There Is No Alternative" (TINA) to equities or other risk assets has ended. We believe we are now in the early phases of "There Are Reasonable Alternatives" (TARA), such as core fixed income, including high-quality government and corporate bonds. In the 12 and 24 months after each of the last four rate hiking cycles, the returns of intermediate-term investment grade government and corporate bond indices have notably outpaced US Treasury bills on average.[1] In the post-pandemic era, we expect structural shifts such as decarbonization, deglobalization and geopolitical instability will create more triggers for growth volatility. Core fixed income can help to balance portfolios through these episodes given higher yields can provide a potential buffer. And when growth concerns are in check, holding core bonds also makes sense given fixed income once again delivers income.

1. Bloomberg, Goldman Sachs Asset Management. As of October 2, 2023. Returns are not tax adjusted. Indexes used: Bloomberg US Treasury Bill Index, Bloomberg Intermediate US Govt/Credit Total Return Index, Bloomberg Municipal Bond Index Total Return Index.

Investment Considerations

FIXED INCOME

Staying Selective and Cycling On

While cycles are not perfectly predictable and exhibit variation across sectors, our assessment of the US investment grade (IG) corporate credit market aligns with what we perceive as mid-cycle credit dynamics. Fundamentals remain healthy and we think US IG companies are well positioned to withstand higher funding costs over the coming year. Even though spreads may push wider from current tight levels in the short term, we remain confident in the capacity of investment grade credit to deliver compelling risk-adjusted returns, given income potential and resilient fundamentals. We are alert to headwinds stemming from higher energy prices, diminished demand from China, wage cost pressures and the growing impact of higher interest rates over time. Companies with lower credit ratings or unhedged, floating-rate financing, may find it more challenging to navigate higher interest rates.

PRIVATE MARKETS

Staying the Course

Recent surveys suggests investors are staying the course in private markets. The investment outlook appears to be improving, while macroeconomics and geopolitics—including recession risks, geopolitical conflict, inflation and higher rates—remain top of mind. Some companies will need meaningful transformation to be well positioned for the new market realities and secular megatrends. The ability to make this transformation privately, away from the quarterly earnings cycle, is one reason why some companies are preferring private capital to public. Private markets will continue to play a growing role in portfolios, in our view, helping to provide return enhancement and diversification. At the same time, the proliferation of private investments does not diminish the need for public markets that provide different opportunities, facilitate quick deployment of capital and offer investors liquidity to shift rapidly when market conditions change. In our view, it is important that investors seek the right balance between asset classes.

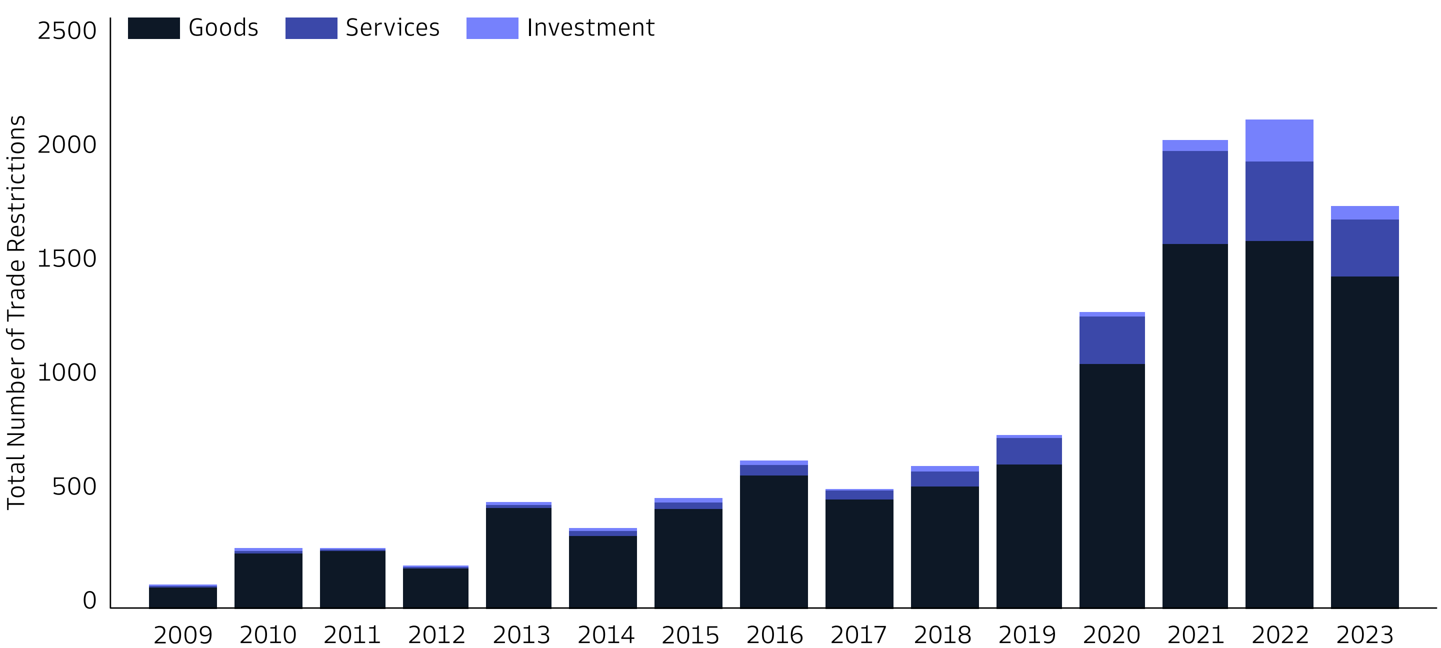
GEOPOLITICS: ROADMAPS FOR A RESHAPED WORLD

This is an era when geopolitics is increasingly important and unpredictable. Investors and companies should prepare for a wide range of possibilities in 2024, including the outcomes of key political elections across the globe, from the US, UK and South Africa to India, Taiwan and Russia. Geopolitical tensions are likely to remain elevated, including those between China and the US. Conflict in the Middle East and Russia's ongoing war in Ukraine continue to demonstrate the importance of alliances and territorial integrity.

A packed election calendar and geopolitical instability require a focus on both domestic developments and global events. In the US, concerns over government debt sustainability and the fiscal path forward may build in the run-up to November's presidential election. Socioeconomic risks across countries, such as strikes in certain industries by workers demanding higher wages, may persist in a world of elevated inflation, forming potential drags on growth.

Rising geopolitical tensions could trigger more trade restrictions across the globe, resulting in further economic fragmentation. We expect economies to continue to invest heavily in their economic security over the next 12 months and beyond. This may be driven by developed markets "re-shoring" and "friend-shoring" critical supply chains that remain highly interdependent and, in some cases, over-concentrated, such as leading-edge semiconductors. Critical mineral supply chains are likely to receive attention due to their growing importance for the green-energy transition, as well as their vulnerability to supply shocks. Complex national security threats will also remain in focus, driving the need for the latest defense technologies and cutting-edge cybersecurity tools.

Trade Restrictions Have More Than Tripled Since 2017



Source: International Monetary Fund, Goldman Sachs Asset Management as of August 25, 2023

Three Key Questions

What is important to keep in mind as we head into a year of important elections and elevated geopolitical tensions?

Our view: We believe it is important to avoid trying to time markets or take calls on binary political or geopolitical outcomes. At the same time, being unprepared for events will not serve investors well. Given geopolitics and elections can affect risk assets and potentially increase volatility, investors may consider a dynamic approach to asset allocation and security selection based on extensive bottom-up research.

How can an evolving geopolitical environment affect investment opportunities?

Our view: A shifting geopolitical landscape adds new challenges and uncertainties. It also requires new partnerships and operating models. This creates potential public and private market investment opportunities across supply chain security, commodity and energy resources, and national security.

What does supply chain realignment mean for companies?

Our view: If the last decade was about producing goods at the lowest cost, the next decade will likely see companies focus on producing goods reliably. We expect this trend to pick up in 2024. Ensuring greater supply chain resiliency may result in higher costs, however, meaning firms will need to find ways to counteract profit margin pressures.

Investment Considerations

ECONOMIC SECURITY IN FOCUS

Supply Chains, Resources and Defense

We think companies that successfully align with corporate and government efforts to boost the security of supply chains and resources as well as national security will emerge as long-term winners. We favor firms with pricing power, durable business models and strong balance sheets. Public equity markets may present opportunities to gain targeted exposure to more established firms that produce semiconductors and to semiconductor manufacturing equipment, as well as to industrial automation and technology companies that are facilitating the reshoring of manufacturing. Demand for natural gas products and reliable clean energy solutions is likely to rise as nations seek affordable, reliable and more sustainable energy. As security threats grow in volume and sophistication, this creates opportunities for cybersecurity platforms and aerospace and defense technology providers. Private markets may provide some of the best early-stage growth opportunities in these areas. Near-shoring can increase demand for commercial real estate, such as modern warehouses, and potential new infrastructure to transport goods if shipping patterns change.

Investment Considerations

COUNTRIES WITH COMPETITIVE ADVANTAGES

Potential Opportunities in India and Japan

Investors may need to draw on both global intellectual capital and on-the-ground expertise to navigate geopolitical risk and generate long-term outperformance. In our view, certain countries look to have advantageous macroeconomic positions heading into 2024 and may emerge as long-term beneficiaries from evolving geopolitical dynamics. In India, which is sector-diverse and benefits from resilient growth and strong demographics, we expect more companies to become important manufacturing partners for global corporations diversifying their supply chains in steel, textiles, chemicals, pharmaceuticals and automotives. Other countries like Mexico and Vietnam could also benefit from this trend. Japan has been experiencing an economic revival and simultaneously strengthening alliances around semiconductor technology with South Korea, Taiwan and the US. Prime Minister Kishida has also committed to reinforce Japan's defense capabilities, noting cybersecurity and digitalization as increasingly important areas for national security.

De-dollarization in a Destabilized World?

Investors may seek greater currency diversification because of the upcoming election super cycle, geopolitical instability, and divergent growth and monetary policy. This could give rise to more institutional investor allocations and central bank reserves potentially shifting to the euro or Chinese yuan, alongside the US dollar. BRICS countries (Brazil, Russia, India, China, and South Africa) are exploring the idea of a common currency to foster and streamline trade across the bloc. In our view, de-dollarization poses little risk of changing the global currency order in the foreseeable future, but we also acknowledge that it may be a part of a decades-long trend. We think it is less likely that a single new contender overtakes the US dollar as the world's reserve currency, and more likely that several currencies grow in reserve share, as has been the case for the past two decades. Until then, we believe de-dollarization will remain a popular headline but an unlikely story.

DISRUPTIVE TECHNOLOGY: INNOVATION AND AI ACCELERATION

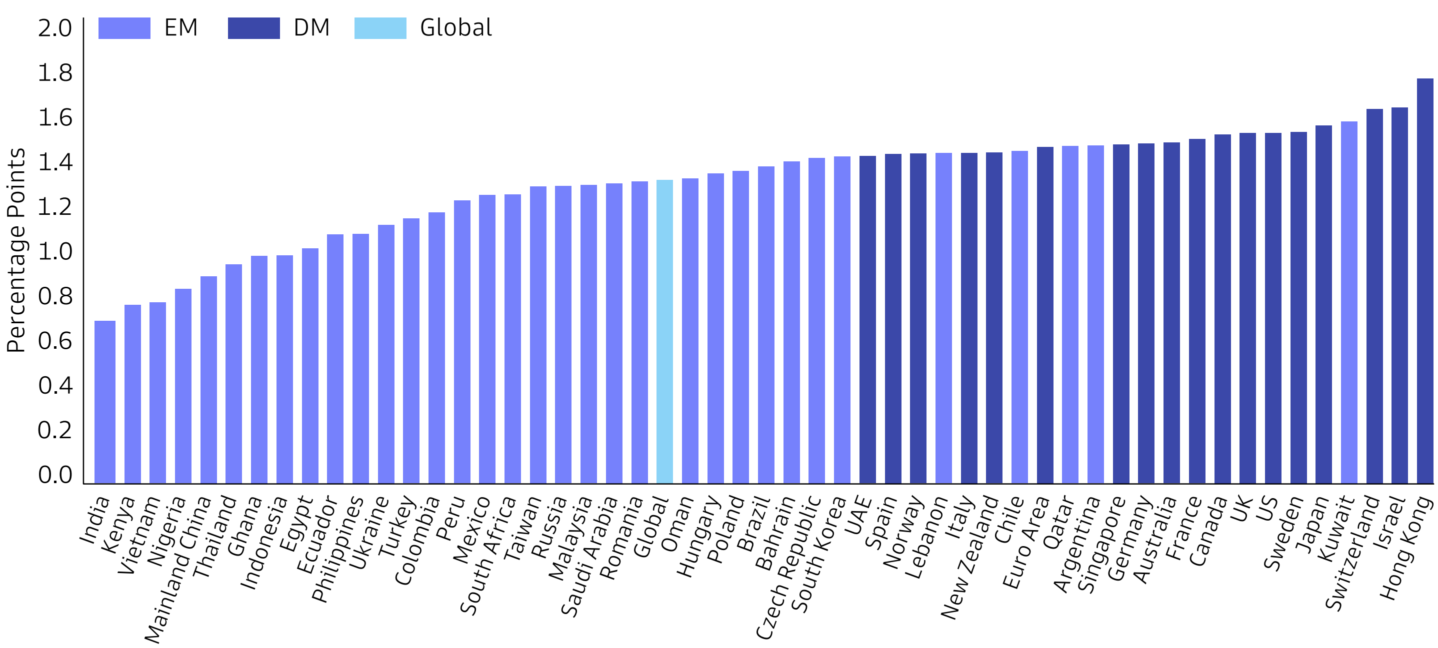
After a breakthrough year for generative AI, investors will look for signs that new deep learning tools and techniques are filtering through to more industries. We think artificial intelligence has emerged as a core part of the long-term technology opportunity set. We expect the shift from the excitement phase into the deployment phase to continue in 2024, helping to raise global productivity and potentially helping address challenges coming from unfavorable demographics in some countries.

The semiconductor and semiconductor capital equipment industries—the hardware underlying the entire AI buildout—are in focus, with recent AI advances and growing adoption of cloud computing fueling demand for increasingly advanced data centers. Cybersecurity companies are also adopting cutting-edge AI techniques to automate the identification of potential threats and real-time response to security incidents. Healthcare could be an industry to watch given AI's potential to transform complex biological data into meaningful insights, with implications for drug development, medical technology and digital healthcare.

Despite a tighter funding environment, disruptive tech company fundamentals have been inflecting positively in recent quarters as more investors place a premium on innovation that drives future earnings growth. But while there are tailwinds—including sources of inflation decelerating meaningfully—discernment will be key in 2024. We are in an era of wider dispersion between high- and low-quality growth companies.

The long-awaited recovery in deal activity has yet to materialize after a two-year drought, but signs of life in the IPO market are spurring investor optimism that more companies will be able to go public. When the IPO market eventually recovers, public market investors will be able to access new opportunities, while venture capital and growth equity investors may see liquidity returning, which can facilitate new investments in the innovators of tomorrow.

AI's Potential Boost to Productivity Growth Over the Next Decade



Source: Goldman Sachs Global Investment Research. As of October 29, 2023.

Three Key Questions

How can public equity investors take advantage of new disruptive tech opportunities?

Our view: We see a disconnect between where most investors are positioned and the most compelling potential opportunities. Investors who look to complement their existing exposure to mega-cap US technology companies with allocations to other, often less well-known, technology firms, may be able to access secular winners that are relatively underappreciated by the broader market.

Why is AI development important for the investment industry?

Our view: Generative AI technologies can process vast amounts of information quickly and accurately. This helps investors make more informed decisions by detecting trends and patterns, including data relationships that may be difficult or even impossible for humans to identify.

What's key to remember when introducing any new technology into business models?

Our view: Technology as a standalone thesis is not sufficient to drive returns. Success is based on strategy and execution. Firms must implement the right processes, structures and frameworks to exploit technology efficiently. For instance, identifying and implementing specific use cases for generative AI that will stimulate business growth will likely be key in driving strong returns on investment.

Investment Considerations

INVESTING IN INNOVATION AND AI

Software and Hardware: Components of Success

A rapidly evolving ecosystem of software and hardware solutions presents compelling potential investment opportunities in 2024. On the software side, enterprise spending on digitalization continues to increase. We also see opportunities in cybersecurity. Digital attacks are becoming increasingly sophisticated, frequent and damaging. Financial technology (fintech) firms also appear to be primed for growth. Cash is no longer king, and digital payments are growing. There continue to be new market opportunities within business-to-business payments. On the hardware side, capital expenditure on the most advanced equipment used to produce semiconductors has been growing rapidly. This is driven by both advancements in AI, which necessitate new chip designs, and the reshoring of semiconductor production by developed countries to bolster the resilience of their supply chains.

Healthcare: Diagnosing Transformation

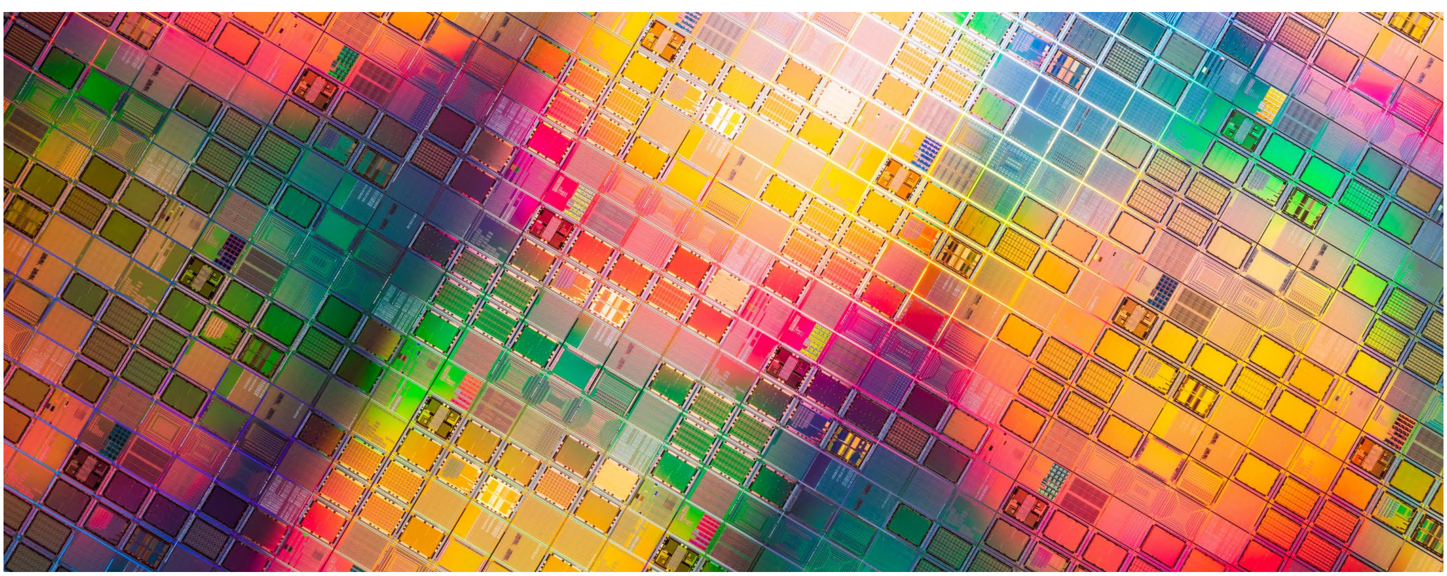
AI is affecting areas of healthcare in remarkable ways. For example, AI algorithms can distinguish real heart attacks from false alarms with astonishing accuracy. An AI-powered smart implant for knee procedures can detect patients' motion post-surgery, delivering real-time recovery insights to medical staff. We see some of the most compelling AI-related investment opportunities in drug development for precision medicine, tech-enabled procedures and digital healthcare. Outside of AI, novel treatments for obesity and Alzheimer's disease are presenting investment opportunities in 2024, creating new blockbuster drug categories. These advancements are spurring hope that an illness affecting hundreds of millions of people globally may be cured. Across healthcare and life sciences, we favor innovative companies with strong fundamentals and unique competitive advantages in their markets.

Investment Considerations

INVESTING IN INNOVATION AND AI

A Quantitative and Systematic Investment Approach

Although it may seem like a recent phenomenon, the origins of AI can be traced back to the 1950s and techniques have been evolving ever since. However, today's tools, such as large language models, are far more powerful. We expect it will become increasingly important for investors to leverage new AI techniques to systematically extract information from data to inform investment decisions, particularly in public equity markets. Investors are increasingly relying on data that is larger, more complex, and less structured in nature. For instance, financial news articles, earnings call transcripts, analyst research reports and regulatory filings are frequently used to complement financial metrics and market data. The exponential growth of this type of data will require new and robust techniques to extract meaningful insights and maintain an informational edge in markets. This can be particularly valuable when investing in larger, more dispersed markets, such as small caps or emerging market equities, which have persistent informational inefficiencies.



↗ SUSTAINABILITY: INVESTING WITH IMPACT

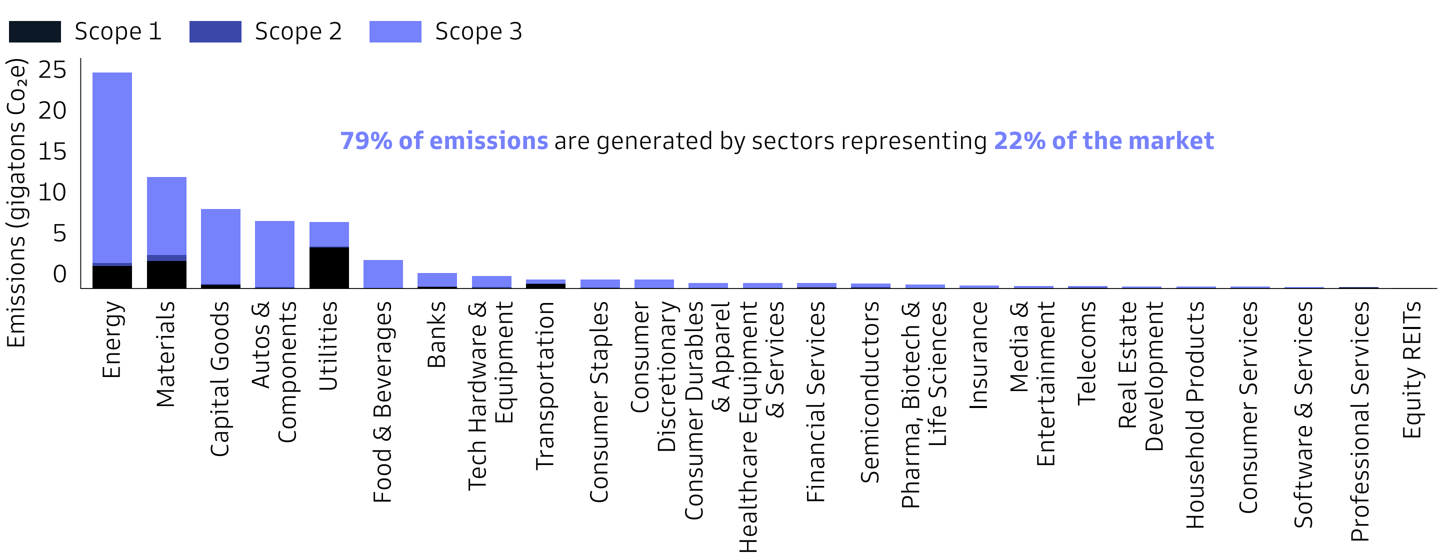
There is an increasing need for tangible solutions to manage the worst effects of the changing climate and drive economy-wide decarbonization. This is increasing both ambition and action from governments, companies and investors. We expect this focus to intensify in 2024 and drive more capital toward sustainable solutions, from pure-play enablers of a more sustainable world to transition leaders in high-carbon industries. At the same time, we recognize climate finance is becoming increasingly complex and competitive. There's also a need to balance short-term needs, such as resource security and energy affordability, with long-term climate ambitions.

To find the most compelling opportunities and achieve real-world impact in reducing emissions, we believe investors must ensure they measure what matters and avoid overemphasizing backward-looking emissions data. We expect more investors to track decarbonization at a granular level, assessing progress asset by asset, investment manager by investment manager. The use of more complete metrics is also likely to expand in 2024 as investors seek to properly quantify the real-world impact of individual assets. Some of the highest-emitting geographies, sectors and companies present the greatest opportunity for immediate and tangible carbon reduction and a strong investment case for discerning investors able to find the transition winners.

We think investors will increasingly use AI technology to analyze new sustainability datasets and find value amid the noise. We also expect AI to accelerate progress across a variety of sustainability investment objectives. These include renewable energy optimization (battery storage, weather forecasting to optimize solar and wind farm operations) and power use optimization of physical assets (data center efficiency, manufacturing efficiencies). New AI models are also being developed to better predict natural disasters like floods, hurricanes, and wildfires.

Investors will need to monitor the impact of climate policy in 2024. The US Inflation Reduction Act's clean-energy incentives have encouraged companies to announce a wide variety of investments, with more set to come. The law has also prompted responses around the world, including plans from the European Union (EU) to increase the speed of its energy transition. We see potential for other markets, such as China and India, to add climate incentives over the coming quarters.

Emissions Are Concentrated in a Handful of Sectors



Source: MSCI. As of November 2022. For illustrative purposes only. Net zero refers to a state in which the amount of GHG emissions into the environment is equal to or less than the amount removed from the environment. 22% of the market as denoted by MSCI ACWI, as of November 2022.

Note: For accounting and reporting purposes, many companies break their emissions into three "scopes" defined in the Greenhouse Gas Protocol. Scope 1 covers direct GHG emissions from sources owned or controlled by the company. Scope 2 refers to indirect GHG emissions from the generation of purchased electricity consumed by the company. Scope 3 covers all other indirect emissions that result from the activities of a company but occur from sources that it neither owns nor controls. Examples include waste disposal and the use of sold products and services. See "The Greenhouse Gas Protocol: A Corporate Accounting and Reporting Standard," The Greenhouse Gas Protocol Initiative. As of March 2004.

Three Key Questions

What is the best way to assess a company's real-world impact?

Our view: Assessing a company's potential to deliver real-world impact requires both historical data and forward-looking metrics, such as green capex targets. In other words, don't drive a car only looking in the rearview mirror. Setting metrics and monitoring progress over time is critical to assess progress. Another option is mapping the impact of portfolios through the lens of the United Nations' Sustainable Development Goals (SDGs).

How is sustainability developing as an investment theme?

Our view: We see a realization among investors that potential return opportunities from sustainable investing are not only attractive and significant, but also increasingly competitive. It's important to develop a thesis of where nascent, emerging and mature opportunities exist and use different asset classes and investment approaches to meet the investment need and thesis. We are seeing a growing number of investment funds that provide capital and financial incentives for high-carbon industry leaders to step up their decarbonization efforts. Furthermore, as investors turn their attention to social issues, the theme of inclusive growth is gaining prominence.

How do you define inclusive growth investing, and why is it expanding?

Our view: Inclusive growth investing is an acknowledgement that the global economy would be larger, faster-growing and more sustainable if we could bring more economic participants into the mainstream economy. We expect this theme to mature and expand in 2024. There is a strong economic case for closing access gaps for underserved populations, because inequality results in decreased aggregate demand and slower economic growth than would be possible if these groups were fully engaged.

Investment Considerations

PRIVATE MARKETS

Evolving Opportunities

Many investors have embraced sustainability and committed to net-zero emission targets. Over the past decade, most of these efforts have been focused on public markets where goals can be achieved through negative screens and sector tilts, as opposed to investing in proactive climate solutions. We think private markets are well-positioned to finance long-term sustainability investments that may require significant capital investment and time to compound, given the closed-end nature of the fund model and insulation from the quarterly reporting cycle of public capital markets. Additionally, many opportunities in high-emitting areas such as forestry, waste and agriculture are less accessible in public markets. Private markets provide access to the climate theme at the earliest stages of a company's commercial and technological development (growth equity and venture capital), in more developed areas with established business models (private equity), and even assets with yield-oriented return profiles (real estate and infrastructure). While earlier in development, the inclusive growth theme in private markets is maturing and expanding in a similar fashion.

Investment Considerations

PUBLIC EQUITY

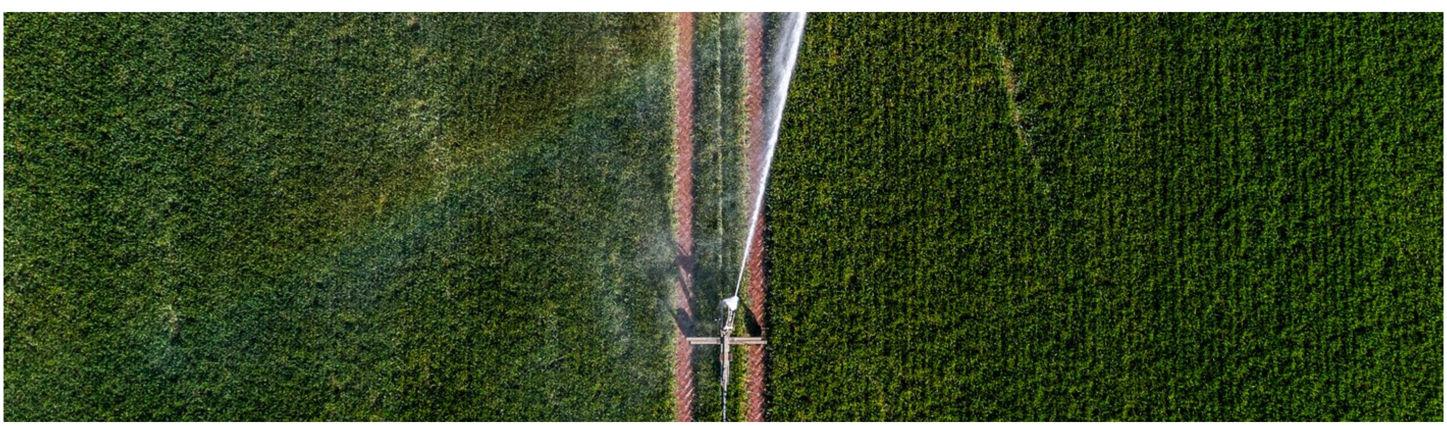
Impact Themes

Public equity markets provide opportunities to invest in sustainable solution providers that seek to make a positive impact on society and the environment. Software providers focused on societal solutions could offer investment exposure to themes like digital inclusion or access to affordable education. Investing in financial institutions or healthcare providers that target underserved parts of the population may achieve both real-world impact and generate attractive financial returns. Investors looking to generate returns while improving access to clean and affordable energy may consider global renewable energy leaders. At the same time, investing in high-emission companies can also have a tangible impact. In some cases, the valuation of carmakers or traditional energy firms may be discounted due to the risks related to their environmental footprint. By financing their decarbonization, investors can support emission reductions and find financial return opportunities. Sustainability-minded investors could consider a bottom-up approach to find companies that align with Sustainable Development Goals (SDGs) and engage with them to achieve positive environmental, social, as well as financial outcomes.

FIXED INCOME

Green Bond Growth Ahead

Sustainable investors have a growing range of fixed income securities to choose from. The biggest market by far is in green bonds, which finance only projects or activities with a specific environmental purpose such as renewable energy, clean transportation and green buildings. The global green bond market is now above $2.3 trillion, driven by Europe and momentum in Asia.[2] Sovereigns and companies have been stepping up their environmental ambitions. We expect this growth to continue, driven by the three main forces behind its rapid expansion in recent years: increasing issuance to finance the energy transition and address physical climate risks; strong investor demand to combine potentially attractive returns with helping shift to a low-carbon economy; and support from policy makers by creating incentives and setting standards that encourage green investment. We believe growth in the US will pick up over time as green bonds gradually become a mainstream segment in the world's largest fixed income market. In emerging markets, which accounted for 23% of global green bond volume in 2022,[3] green bonds could allow companies and governments to broaden their investor base by appealing to sustainable investors.



2. Goldman Sachs Asset Management, Bloomberg. As of October 19, 2023
3. "Sustainable Debt: Global State of the Market 2022," Climate Bonds Initiative. As of April 2023. Developed markets accounted for 67% of green bond volume in 2022, and supranational issuers made up 9%.

PORTFOLIO CONSTRUCTION: THINKING DIFFERENTLY

We believe higher-for-longer interest rates, elevated geopolitical risk and accelerating megatrends call for new approaches to portfolio construction. Investors may have to think differently to capture the best opportunities. In our view, the way forward is **staying active** combined with a greater focus on **diversification and risk management**. It's also important to have an **integrated approach to portfolio construction**, benefiting from differences in the composition and characteristics of public and private capital markets.

Active Investment Management

A stronger tilt toward active strategies may help investors navigate increased performance dispersion in 2024, as companies adapt to higher-for-longer rates and powerful secular growth themes. Rising capital costs will challenge business models that rely on high leverage, cheap borrowing, and ample liquidity, so a focus on strong balance sheets will be important. We believe finding the next generation of winners on the right side of disruptive technology and sustainability will require investors to be nimble and look beyond benchmarks.

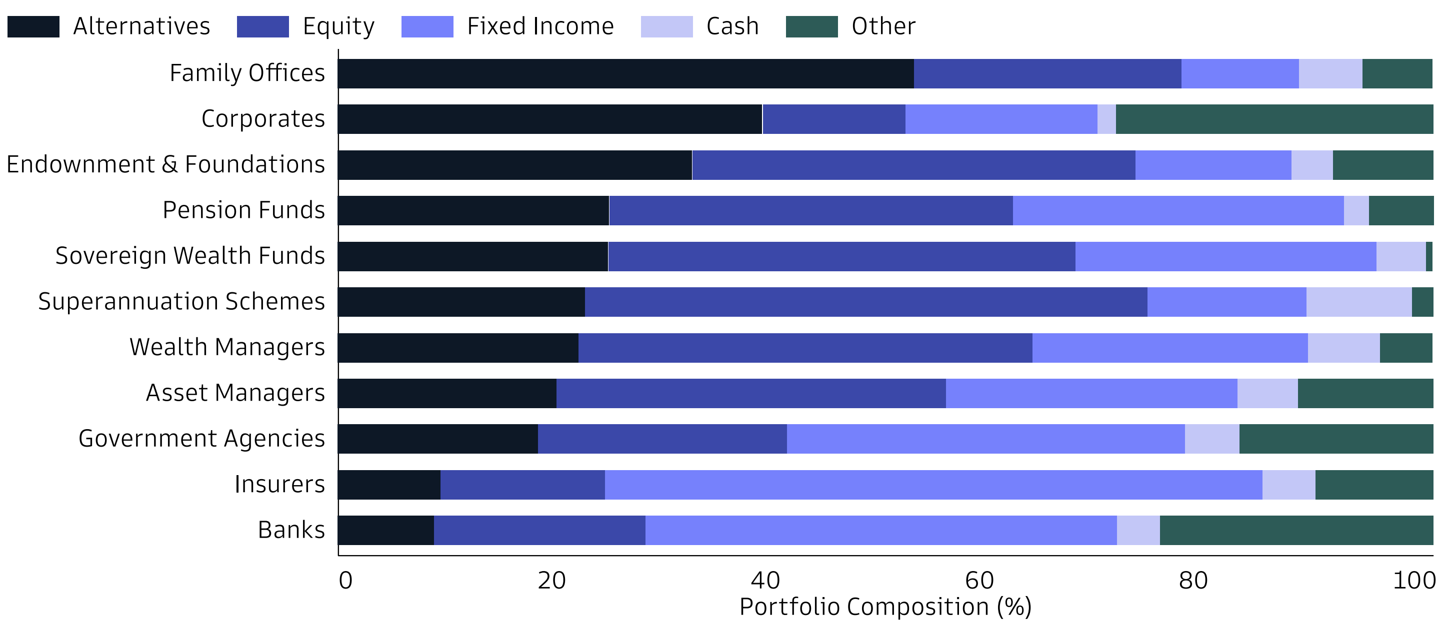
Diversification and Risk Management

We believe downside risk, left-tail events and external shocks will be more common than they were in the pre-pandemic world characterized by easy monetary conditions, low inflation, and relative geopolitical stability. Thoughts about the next potential external shock should never be far from an effective investor's mind in today's markets. The new realities of higher interest rates and geopolitical risk call for less leverage and more attention to liquidity and risk management. Global diversification may also add value to the portfolios as economies diverge and move at their own pace.

An Integrated Approach to Portfolio Construction

Investors can potentially benefit from differences in the composition and characteristics of public and private capital markets by using an integrated approach to investing. For instance, exposure to high secular growth and real assets are areas where public and private investments can strategically complement each other. We believe optimizing exposures simultaneously in a portfolio can lead to better expected risk-return outcomes. This holistic optimization and portfolio construction approach can provide a framework for managing liquidity at a portfolio level.

Long-term Institutional Investors Tend to Have the Most Balanced Allocations



Source: Preqin, Goldman Sachs Global Investment Research. As of June 30, 2023. AuM coverage ca. $12 trillion.

Three Key Questions

What does today's complex investment environment mean for asset owners' governance models?

Our view: The new investment realities are likely to require more tactical asset allocation. More asset owners may be drawn to the outsourced chief investment officer (OCIO) model, which involves outsourcing parts of their portfolio management. This can allow for the nimble implementation of investment views and management of private asset classes at organizations that may not have the resources to hire investment specialists.

Is the private equity model still viable in a higher rate environment?

Our view: The history of private equity shows that managers have been able to generate value in different market environments, including periods of elevated interest rates. Value creation playbooks have evolved over the past 40 years as the market environment changed. Over the past decade, the low cost of debt provided an industry-wide tailwind that we believe will be unlikely going forward. We believe the value creation playbook will need to change again, with a greater focus on operational improvements in portfolio companies. With a greater component of value creation coming from manager skill, and less from overall market direction, performance dispersion may increase and illuminate managers' capabilities.

How can investors manage emerging market equity exposures as China's economy experiences challenges?

Our view: We continue to view emerging markets equities ex-China as a diverse and distinct asset class, one that presents potential alpha opportunities. If China's economy continues to diverge from the emerging market universe, we expect more investors to adopt different approaches and allocations when determining how best to invest in China, for example by splitting EM allocations into China and EM ex-China. This strategy can provide investors with flexibility to time their exposure to China and manage related risks separately from other emerging markets.

Investment Considerations

PRIVATE MARKETS

The Many Faces of Private Credit

Private credit was perhaps the most-discussed investment strategy of 2023, and we expect strong interest to continue, aided by structurally higher interest rates compared with the past 15 years. We believe investors should consider looking beyond a single, monolithic definition of private credit, employing a more granular and sophisticated approach to allocating across private credit strategies. Diversification approaches can consider differences in the capital structure, underlying borrower and collateral, and economic cycle sensitivity. The universe of private credit encompasses strategies that move with the economic cycle (i.e., performing credit); strategies that may be counter-cyclical, offering more attractive investment opportunities when the economy is challenged (i.e., distressed); and strategies that may be less cyclical (e.g., hybrid capital). Market dislocations may provide interesting opportunities in select sectors (e.g., real estate credit). Integrating multiple strategies into a portfolio calls for an asset-class specific portfolio construction and implementation framework, in our view.

Secondaries Are a Primary Concern

Private capital market fundraising declined in 2023, but there is one strategy that has bucked the trend: secondaries. Today, with more than $10 trillion invested across private equity, real estate, infrastructure and credit assets, the secondary market provides liquidity across private market strategies. Limited partners (LPs) can sell their private fund stakes to adapt their portfolios to changing conditions. By purchasing into a known pool of assets, investors potentially have more transparency. General partners (GPs) have been turning to secondary markets to provide liquidity for their investors and extend hold periods for prized assets in aging funds, obviating the need to sell into unfavorable markets. As secondaries activity evolves to include more bespoke solutions, investors need to consider the risk-return implications of potentially different transaction types.

Investment Considerations

DIVERSIFIERS

Hedge Funds

Some investors are questioning whether the diversification benefits of traditional asset allocation are less effective in an inflationary and higher-for-longer interest rate environment. We expect this will lead to a renewed focus on the role of hedge funds and their ability to provide a differentiated source of portfolio return. The environment may remain attractive for tactical trading funds in the medium term. This may particularly apply to global macro managers who seek to profit from divergent monetary and fiscal policies in developed and emerging economies as inflation normalizes in certain countries while remaining problematic elsewhere. As market dynamics evolve, many hedge funds adapt and seek out opportunities in burgeoning areas. AI is a prime example — both as an investment thesis, as well as a tool to generate and execute investment ideas. The falling availability of traditional sources of debt financing is also leading borrowers to seek out hedge funds as lenders in the rapidly growing private credit market.

DISCLOSURES

Glossary

Alpha refers to returns in excess of the benchmark return.

Beta refers to the tendency of a security's returns to respond to swings in the markets.

The Bloomberg Municipal Bond Index is a rules-based, market-value-weighted index engineered for the long-term tax-exempt bond market.

The Bloomberg US Intermediate Government/Credit Bond Index is composed of US dollar-denominated government, government-related and investment-grade US corporate bonds with remaining maturities between one and ten years.

The Bloomberg US Treasury Bill Index tracks the market for treasury bills issued by the US government.

Developed market refers to countries with developed economies and capital markets that are sufficiently liquid and accessible.

Disinflation is a decrease in the rate of inflation.

Friend-shoring refers to the process of returning supply chain networks back to countries regarded as political and economic allies.

Green bonds are standard fixed income securities with a green element. Their financial characteristics such as structure, risk and return are similar to those of traditional bonds. The main difference is that the money raised is used exclusively to finance projects or activities with a specific environmental purpose.

Green capex refers to capital expenditure made in environmentally sustainable economic activities.

Green energy includes energy types generated from natural resources, such as sunlight, wind or water.

Long-term investor refers to an investor with debt and or equity investments with maturities or benefits lasting more than one year.

Pure-play refers to an investment opportunity that focuses its efforts and resources on one line of business.

Risk assets are those with a high degree of risk and volatility, such as such as equities, high-yield credit, commodities and currencies.

Re-risking refers to an increase in exposure to return-seeking assets to generate additional return.

Re-shoring refers to the process of returning the production and manufacturing of goods back to the company's original country.

Soft landing refers to an environment in which the Federal Reserve tightens monetary policy to fight inflation without causing a US recession.

S&P 500 Index is the Standard & Poor's 500 Composite Stock Prices Index of 500 stocks, an unmanaged index of common stock prices.

Risk Considerations

All investing involves risk, including loss of principal.

Environmental, Social and Governance ("ESG") strategies may take risks or eliminate exposures found in other strategies or broad market benchmarks that may cause performance to diverge from the performance of these other strategies or market benchmarks. ESG strategies will be subject to the risks associated with their underlying investments' asset classes. Further, the demand within certain markets or sectors that an ESG strategy targets may not develop as forecasted or may develop more slowly than anticipated.

Equity investments are subject to market risk, which means that the value of the securities in which it invests may go up or down in response to the prospects of individual companies, particular sectors and/or general economic conditions. Different investment styles (e.g., "growth" and "value") tend to shift in and out of favor, and, at times, the strategy may underperform other strategies that invest in similar asset classes. The market capitalization of a company may also involve greater risks (e.g. "small" or "mid" cap companies) than those associated with larger, more established companies and may be subject to more abrupt or erratic price movements, in addition to lower liquidity.

Private equity investments are speculative, highly illiquid, involve a high degree of risk, have high fees and expenses that could reduce returns, and subject to the possibility of partial or total loss of fund capital; they are, therefore, intended for experienced and sophisticated long-term investors who can accept such risks.

Investments in fixed income securities are subject to the risks associated with debt securities generally, including credit, liquidity, interest rate, prepayment and extension risk. Bond prices fluctuate inversely to changes in interest rates. Therefore, a general rise in interest rates can result in the decline in the bond's price. The value of securities with variable and floating interest rates are generally less sensitive to interest rate changes than securities with fixed interest rates. Variable and floating rate securities may decline in value if interest rates do not move as expected. Conversely, variable and floating rate securities will not generally rise in value if market interest rates decline. Credit risk is the risk that an issuer will default on payments of interest and principal. Credit risk is higher when investing in high yield bonds, also known as junk bonds. Prepayment risk is the risk that the issuer of a security may pay off principal more quickly than originally anticipated. Extension risk is the risk that the issuer of a security may pay off principal more slowly than originally anticipated. All fixed income investments may be worth less than their original cost upon redemption or maturity. High-yield, lower-rated securities involve greater price volatility and present greater credit risks than higher-rated fixed income securities

International securities may be more volatile and less liquid and are subject to the risks of adverse economic or political developments. International securities are subject to greater risk of loss as a result of, but not limited to, the following: inadequate regulations, volatile securities markets, adverse exchange rates, and social, political, military, regulatory, economic or environmental developments, or natural disasters.

An investment in private credit and private equities is not suitable for all investors. Investors should carefully review and consider the potential investments, risks, chargers, and expenses of private equity before investing. They are speculative, highly illiquid, involve a high degree of risk, have high fees and expenses that could reduce returns, and subject to the possibility of partial or total loss of capital. They are, therefore, intended for experienced and sophisticated long-term investors who can accept such risks.

Alternative investments are suitable only for sophisticated investors for whom such investments do not constitute a complete investment program and who fully understand and are willing to assume the risks involved in Alternative Investments. Alternative Investments by their nature, involve a substantial degree of risk, including the risk of total loss of an investor's capital.

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Investors should also consider some of the potential risks of alternative investments:

Alternative Strategies. Alternative strategies often engage in leverage and other investment practices that are speculative and involve a high degree of risk. Such practices may increase the volatility of performance and the risk of investment loss, including the entire amount that is invested.

Manager experience. Manager risk includes those that exist within a manager's organization, investment process or supporting systems and infrastructure. There is also a potential for fund-level risks that arise from the way in which a manager constructs and manages the fund.

Leverage. Leverage increases a fund's sensitivity to market movements. Funds that use leverage can be expected to be more "volatile" than other funds that do not use leverage. This means if the investments a fund buys decrease in market value, the value of the fund's shares will decrease by even more.

Counter-party risk. Alternative strategies often make significant use of over- the- counter (OTC) derivatives and therefore are subject to the risk that counter-parties will not perform their obligations under such contracts.

Liquidity risk. Alternatives strategies may make investments that are illiquid or that may become less liquid in response to market developments. At times, a fund may be unable to sell certain of its illiquid investments without a substantial drop in price, if at all.

Valuation risk. There is risk that the values used by alternative strategies to price investments may be different from those used by other investors to price the same investments.

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Alternative Investments - Hedge funds and other private investment funds (collectively, "Alternative Investments") are subject to less regulation than other types of pooled investment vehicles such as mutual funds. Alternative Investments may impose significant fees, including incentive fees that are based upon a percentage of the realized and unrealized gains and an individual's net returns may differ significantly from actual returns. Such fees may offset all or a significant portion of such Alternative Investment's trading profits. Alternative Investments are not required to provide periodic pricing or valuation information. Investors may have limited rights with respect to their investments, including limited voting rights and participation in the management of such Alternative Investments.

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