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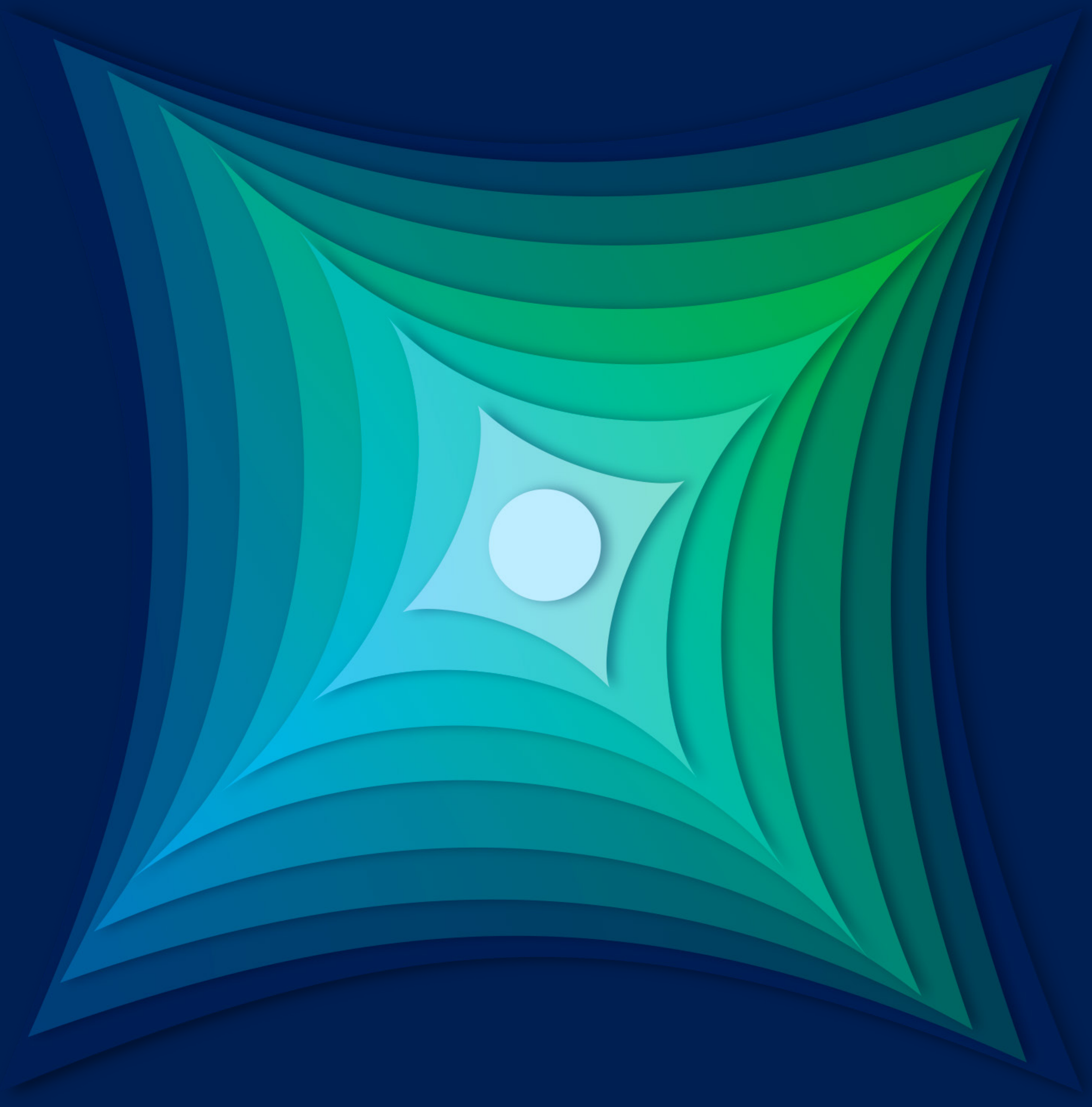
Themes and Opportunities 2024

An age of agility



Summary

We continue to see upheaval across global markets, economies and society reshaping the world in which we live. Specifically, we note a normalizing of monetary policy, escalating conflict risk, a disorganized transition to cleaner technologies and industrial processes, and the lightning-quick socialization of generative AI. (Note that this piece is still written by humans!)

In our last annual Themes and Opportunities paper, *Déjà New*, we identified that some of the experiences and challenges we faced were comparable to those of the 1970s, a period also characterized by inflation volatility, conflict and sustainability issues. We identified lessons from that period that investors could draw from to enhance their decision-making and guide future positioning to meet their long-term objectives.

The past 12 months have further underlined some of the fragilities in the global economy and have accentuated other themes (for example, nature and artificial intelligence). Investors are rapidly waking up to opportunities presented by rising interest rates and nature risks as well as other emerging themes. Opportunities can evaporate quickly in these fast-moving and hyperaware times, and investors will need to be flexible in their approaches to capitalize on these. We are now in an age where agility must be the foundation for how investors take and make decisions.

In such an environment, understanding the key trends that will drive markets is crucial. We believe this is best done by applying a series of frameworks to the market landscape that offer investors a structure for shaping their decision-making. In the following pages, we identify what these frameworks should be and how, through these paradigms, investors should assess opportunities and pitfalls in 2024 and beyond.

The image on the front cover takes inspiration from nature and the organic world — from diversity and disorder and the fundamental mathematical rules to which we owe our existence. The graphics have been generated by assigning numerical values to single-line shapes to create a motif. The result is structured, deriving order from chaos and form through change — a metaphor for the content you are about to read.

Contents

Introduction

Success today requires the agility and drive to constantly rethink, reinvigorate, react and reinvent.

Bill Gates

The world today looks very different from the world we experienced a decade ago. *Inflation. Interest rates. Geopolitical risk. Technology. Resources. Climate. Nature.* In each of these areas, the outlook has changed significantly. We are operating in an entirely new regime.

The current environment is so different, in part, due to the short, sharp shocks to the system earlier this decade — pandemic, wars and policymaker responses. Although shocks do not necessarily trigger regime change — the environment can simply revert to "normal" after a time — these shocks were of such magnitude that some element of regime change was likely. However, what has assured a permanent change in the operating environment is how these shocks combined with slower-moving forces.

The debt boom has been decades in the making. The climate transition effort has been playing a slow catch-up to climate change for well over a decade but has recently gained momentum. And US–China relations have been deteriorating for many years. With underlying forces like this in play, a shock can serve to release built-up pressure, offer a wake-up call for better management of long-term risks or serve as an injection of adrenalin into the heart of innovation. The current environment features all these. This is a new world. A highly complex and dynamic world. Investors need to demonstrate clarity and agility. To make sense of this environment, we categorize our themes as follows: **regime change** — one-off, indefinitely persisting paradigm shifts in conditions; **supercycles** — conditions expected to outlast multiple market cycles; and **megatrends** — multidecade transitions that are gradually but steadily materializing. We outline our views below.

Regime change:

- Heightened geopolitical risk, inflation volatility and transition risks all point to greater market instability, dispersion and dislocation, conditions that are ripe for dynamic alpha generators, such as hedge funds, and strategies that can step into spaces that traditional lenders have left, such as private debt. Coupled with higher rates, hedge funds look poised for stronger returns this decade, welcome news to an industry that struggled to compete in the one-directional, liquidity-fueled equity markets of the past decade.
- Sharply weakening sentiment related to China has contrasted starkly with US market strength

in recent periods. We continue to recommend that investors base allocations to China and emerging markets (EM) at least at benchmark weights, and, indeed, the negative sentiment may present a contrarian opportunity, to the extent that risks are priced in (at the time of writing).

- Although rates may have peaked, they seem unlikely to revert all the way back to the very low rates of the 2010s. This shift means the value of fixed income in multi-asset portfolio construction is clearly greater today. Investors with infrequent, periodic strategic asset allocation reviews would be wise to accelerate the next review. It would not be so wise, however, to assume that the defensive role of fixed income will be as strong as in the past decade — there is no guarantee we will automatically return to a period of negative correlations between equity and bonds. We are concerned that inflation will be volatile, and, in such circumstances, equity bond correlations are often positive (for example, the 1970s to 1990s).

Supercycles:

- Although interest rate increases are having an impact, and cyclical inflationary pressures are subsiding, many significant structural inflationary pressures remain. Increasing protectionism, supply chain pressure and the needs of the long-term energy transition all skew inflation risks to the upside. Furthermore, the pandemic-related coordination of fiscal and monetary efforts could now devolve into a tension between a more restrictive monetary stance and continued accommodative fiscal support from governments eager to fund transition and/or win votes.
- On the services side of the equation, the greatest deflationary force is likely to be AI. Arguably, 2023 was the year AI came of age, with stocks deemed AI enablers completely dominating global equity market returns. The dynamic between inflation and deflation here could result in a pattern of near- or at-target inflation for a time, punctuated by shocks that result in slightly higher long-term average levels.
- Higher rates today are once again highlighting the fragility of heavily indebted players in the market. It has shifted power from borrowers to lenders. In our view, private debt is very attractive in this environment, providing much-needed liquidity and offering investors strong risk-adjusted returns.

Megatrends:

- The disruption in energy supply clearly highlighted the need for energy security, not just of short-term oil and gas supplies, but also of homegrown renewable energy for the long term. Innovation will be key in delivering on the next wave of the transition: the hard-to-abate sectors of heavy industry — steel, cement, chemicals — and heavy transport — trucking, shipping, aviation.
- The role of critical minerals, essential components of the transport and infrastructure build needed to power the great electrification, is more widely recognized today and features in recent protectionist policies.

At the time of writing, however, market pricing does not fully account for the anticipated demand. Active management is essential to isolate the thematic (electrification) as opposed to the sector (mining) as step changes in innovation and regulation will have a significant impact on demand structures over time.

- Statistics on species loss are staggering,[1] and global governments are signaling regulation on nature-related issues such as deforestation and water use and quality. The Taskforce on Nature-Related Financial Disclosures (TNFD) guidance was issued in September, and investors need to be ready for forthcoming regulation. Agriculture is responsible for a quarter of global emissions and for mass deforestation and needs to transition to a more sustainable footing. Opportunities exist for investors in strategies such as regenerative agriculture and agritech.

We discuss each of these themes in the sections that follow. As noted above, these are not mutually exclusive. There is clear interaction between them, and in the context of turning "themes" into "opportunities," many of the strategies we identify are positioned to capitalize on or provide protection against more than one theme, thus giving us greater confidence in their capacity to improve portfolio outcomes.

Regime change

Dispersion and dislocation

At the halfway point of 2023, the S&P 500 had risen nearly 16%, surpassing full-year gains made in 2010, 2011, 2014, 2015 and 2016 — in some cases, by a significant margin.[2] This, however, has come with a sizeable caveat in the form of extreme market concentration focused on the technology sector, with the so-called "Magnificent Seven" technology stocks — Apple, Alphabet, Meta, Amazon, Microsoft, Nvidia and Tesla — accounting for two-thirds of the market gain during the first half of 2023.

Although some forms of active equity management have therefore been binary (for example, a question of underweighting or overweighting technology), this does mask a rising opportunity in active management in many other areas as well as the potential for alpha from broad-based strategies resulting from any mean reversion in the pricing of those technology valuations.

In recent years, elevated geopolitical tensions have been a major driver of volatility. US and China relations are clearly strained and their actions increasingly protectionist. The escalation of conflict in Ukraine is moving into its third year, and the sad turn of events in Israel has been a major setback in the Middle East following the rapprochement between Saudi Arabia and Iran earlier in the year. The possibility of conflict in the Taiwan Strait also remains a geopolitical wildcard. Investors need to be aware of elevated risks that are unlikely to go away in the increasingly factionalized world.

We do not recommend making changes to strategic allocations in response to unfolding geopolitical events. Instead, investors should maintain broad global diversification, build downside protection and incorporate risk-mitigation strategies that extend beyond bonds. The uncertainty can be an opportunity, however. Where there is divergence and risk, there is dispersion and dislocation, and agile managers of opportunistic mandates can capitalize on these.

Hedge funds

Hedge funds have been out of favor among investors for some time with net fund outflows and a reduction in number of managers characterizing the space since 2016.

Hedge funds as a whole have struggled to stand out from the crowd since 2008, as global central bank policy acted to support markets. The net result of a global and coordinated effort to stave off a broader global recession was an extended period of low interest rates, low volatility, low dispersion and a beta-driven bull market of historic proportions, as investors had to chase risk for return; and with cash at 0%, collateral returns in hedge fund portfolios were minimal.

At the same time, the low volatility and lack of dispersion limited the hedge fund opportunity set. There has been a resounding reversal in these dynamics, resulting in a rich opportunity set for hedge funds moving forward.

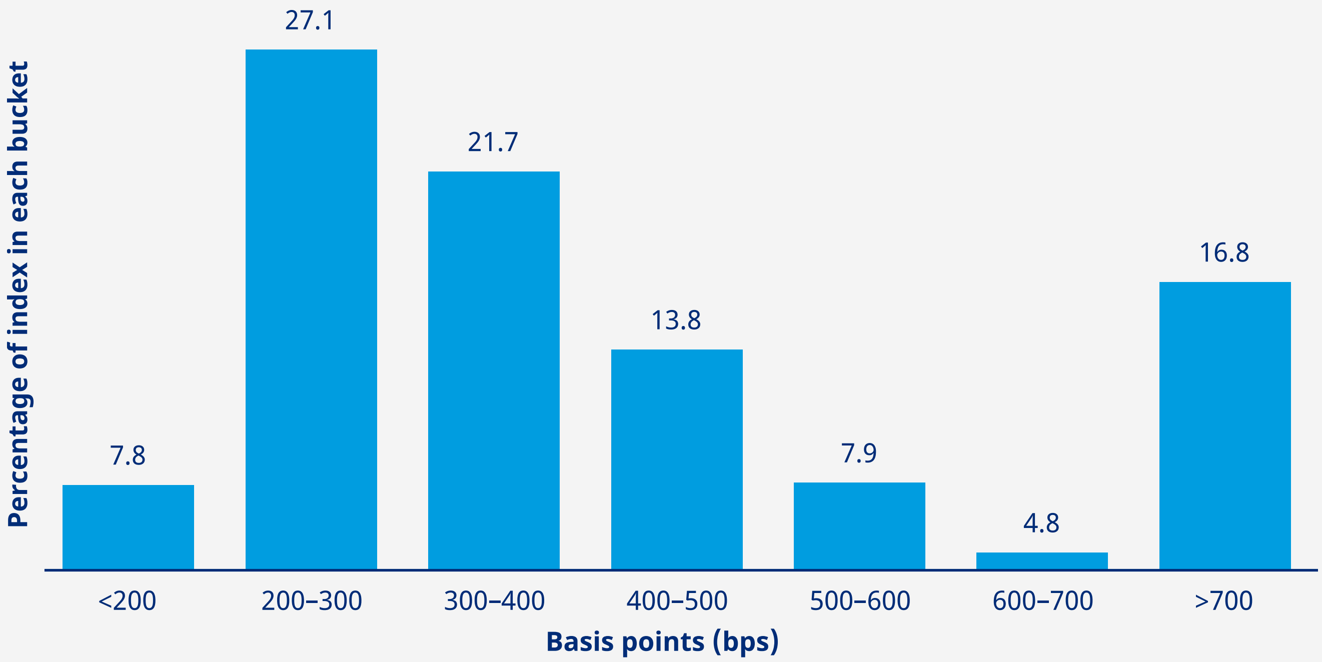
Opportunistic credit

As an example, current spread dispersion within credit markets is at notably high levels as some issues have fared better through the COVID-19 period and rising interest rates than others. (See Figure 1.) This presents tactical opportunities in stressed liquid credit and fallen angels as well as financing and restructuring opportunities over the medium term. Investors can exploit these opportunities via flexible credit mandates, including credit opportunities funds, bidirectional credit funds and opportunistic multi-asset credit mandates.

Private markets

A slowdown in private market activity may lead to an opportunity for limited partners (LPs) to access well-respected but previously unavailable general partners (GPs). As GPs return to the market to raise

Figure 1 | **Global High Yield Index broken down into OAS buckets**



Source: Bloomberg and MAN Group. ICE BofA Global High Yield Index. Data as at September 30, 2023.

OAS measures the implied yield premium above a risk-free reference rate that an investor requires to purchase the bond. Higher OAS is therefore usually an indication that the market views the bond as riskier.

1 basis point is 1 hundredth of a percentage.

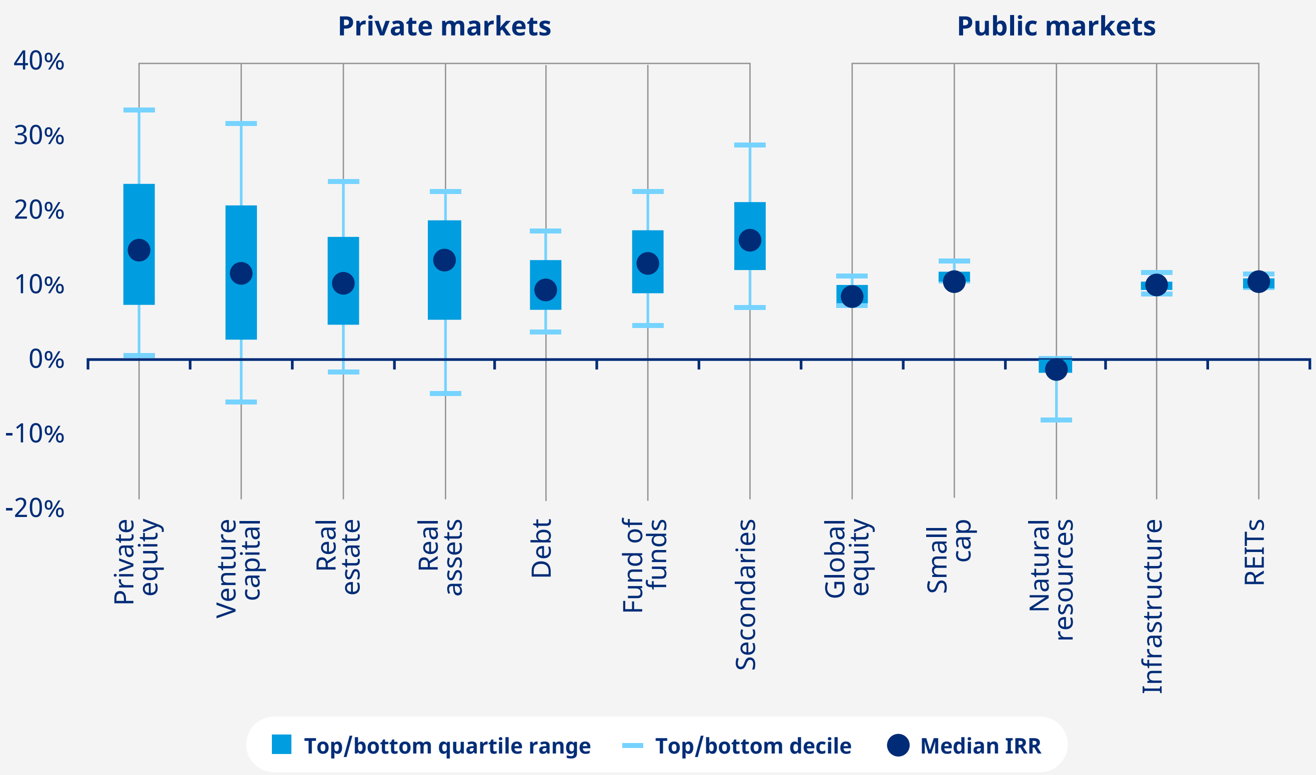
their next funds, some LPs may be reticent to allocate additional capital due to economic uncertainties. This may provide the opportunity for more aggressive LPs to obtain access that they could not otherwise get. Notably, the dispersion in returns between managers in private markets as compared to public markets underscores the importance of gaining and maintaining access to high-quality managers. (See Figure 2.)

Although high dispersion in private markets has always been characteristic of the asset class, various factors, such as increased interest rates, improved data, regulatory changes, and market conditions or regime shift have brought dispersion to the forefront of investment discussions. Understanding the implications of managing dispersion is crucial for investors seeking to make informed investment decisions and to maximize returns while managing risk effectively.

Secondaries

In private markets, secondary funds can offer a valuable tool for investors by providing a foundation for implementing various private market strategies. For example, secondaries can be an important means to access private markets during times of higher market dispersion when dislocations may present attractive opportunities, including contrarian investing with

Figure 2 **Dispersion in private versus public markets**



Source: PitchBook and Mercer analysis. Data as of March 31, 2023. Dispersion of returns calculated using a 23-year lookback period except for natural resources (10-year), infrastructure (10-year) and REITs (18-year).

the potential to generate higher risk-adjusted returns.

In today's market, there is LP-led interest in well-regarded funds available at attractive discounts. Historically, secondaries were viewed negatively by GPs that saw them as a vote of "no confidence" by LPs. Over the years, secondaries have evolved into a portfolio management tool that allows LPs to reduce the number of reporting lines, thereby creating the possibility of allocating to new investments. Further, the secondary market opportunity set has been steadily deepening in conjunction with the overall increasing appetite for private markets, the sophistication of investors and the growing demand for liquidity.

The relatively recent development of "continuation" or "GP-led" secondary funds gives secondary investors access to seasoned, successful private companies (trophy assets) with compelling growth prospects that were previously unavailable to them. In these vehicles, GPs roll over their investments in a very limited number of portfolio companies (often, only one) into a new fund. If existing LPs choose not to exercise the liquidity option offered as part of the transaction, new LPs may participate. This gives secondary investors the ability to gain exposure to the most desirable private assets, many of which are managed by highly regarded GPs. As opposed to the "blind pool" risk associated with primary fund commitments, these GP-led vehicles give LPs full knowledge of their exposures, with investments in companies they are familiar with and whose risks and growth potential they understand. As always, time will tell, but due to the foreknowledge of the assets, we expect loss ratios to be significantly lower on GP-led opportunities. Another benefit is that fees tend to be lower in these types of vehicles. Due to these attributes, GP-led vehicles have rapidly gained popularity and now represent approximately 50% of secondary-market transactions.

When the IPO market opens, it will likely be because the public equity market has been performing well, which can create a natural exit route for secondaries at more robust valuations.[3]

Usually, an active IPO market also leads to a competitive market for mergers and acquisitions (M&As), which can provide an attractive exit alternative. In the case of GP-led transactions, the companies are selected for their growth potential, which provides GPs with the option of continuing to grow their companies until exit markets become more receptive. Thus, there are good reasons for a positive outlook for secondaries of both kinds.

Emerging markets

An actively managed, dedicated EM allocation offers both access to increasingly diverging parts of a factionalized world and valuation opportunities relative to developed market equities.

Sentiment related to the Chinese equity markets has worsened notably over the past couple of years, with concerns over demographics, increasing concentration of government power and regulations, structural challenges in its property market, a weaker growth backdrop, and the deteriorating relationship with the US. Some investors have questioned the merits of China allocations.

Despite this backdrop, strategically, we prefer to stay invested at no less than benchmark weights. Removing an enormous economic power such as China from portfolios altogether is practically impossible and also a big call that could confine investors to the wrong side of history in more favorable scenarios. We advocate an allocation to China of at least benchmark weights through a broad EM mandate or through separate China All and EM ex allocations to allow asset managers to position for what will certainly be an exciting century ahead in the emerging world. As an example, emerging and frontier markets outside China, such as India, Mexico and Vietnam, are already benefiting from supply chain realignment and "friend shoring."

In the shorter term, sentiment surrounding China and EMs may present a contrarian opportunity to the extent that risks are priced in. This is, of course, a fluid situation, monitored by our Dynamic Asset Allocation team (their views as of August 2023 can be found on the MercerInsight® Community).

Key takeaways

- There is an increasing argument for alpha across multiple fronts. This translates into a growing case for incorporating hedge funds into portfolios.
- Flexible mandates are well positioned to take advantage of the dispersion within credit markets while also limiting the risks arising from significant concentration within equity markets.
- Investors can also explore opportunities in private markets, including secondary markets and partnering with high-quality GPs.
- An actively managed, dedicated EM allocation offers both diversification across an increasingly multipolar world and valuation opportunity today.

Efficiency gains

Modern portfolio theory states that the efficient frontier is the set of optimal portfolios that offer the highest expected return for a defined level of risk.[4] Although this premise is widely accepted within investing, it's important to recognize that shifts in the financial landscape — most notably, higher bond yields resulting from aggressive monetary policy and the robust resurgence of global equity prices after 2022 lows — have fundamentally reshaped the global efficient frontier (Figure 3, overleaf). Specifically, these shifts have made it "flatter."

This has several significant implications for investors and their approaches to portfolio construction:

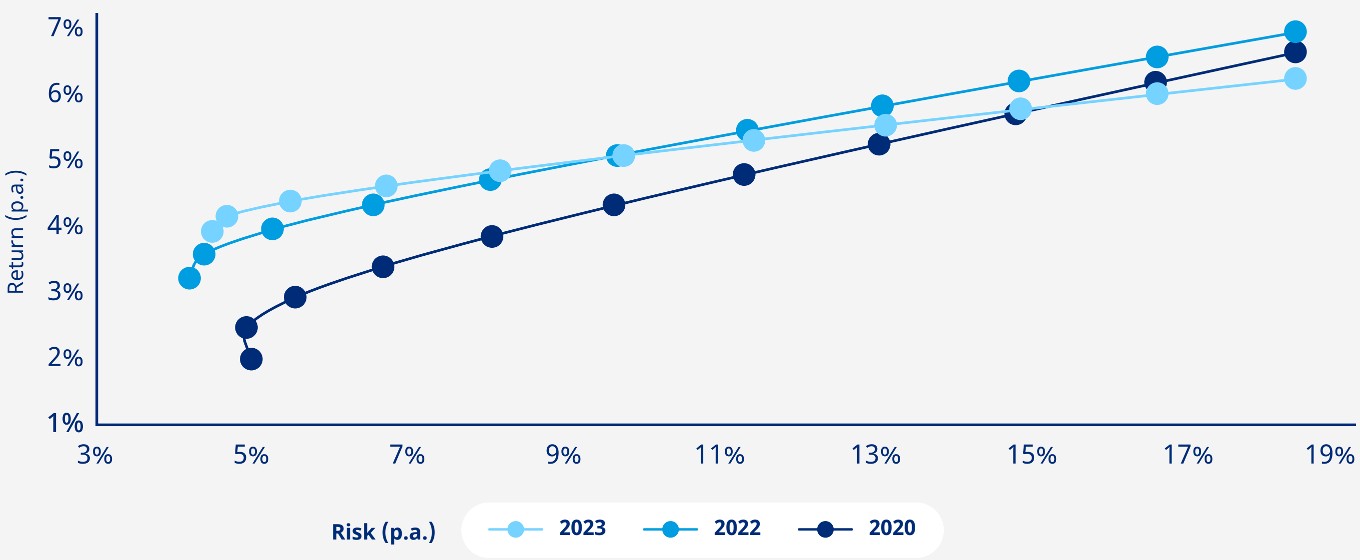
- The trade-off between risk and return has become smaller, with a steeper curve reducing the incremental returns of taking on more risk. Compared to two years ago, investors may achieve their long-term investment goals with significantly higher fixed income allocation and thus equity risk.
- At the same time, in an environment of higher inflation volatility, fixed income may not be as effective a diversifier going forward. Diversifying defensive allocations into alternative investments, such as hedge funds, rather than relying entirely on conventional bond allocations may prove more robust.
- Vigilance in monitoring for future shifts in the efficient frontier away from its current flatter position is critical.

Given these considerations, there is a compelling case for investors with infrequent, periodic strategic asset allocation reviews to accelerate the next review, realigning allocations to adapt to this evolving landscape and reevaluating medium- to long-term portfolio positioning.

Key takeaways

- The efficient frontier has flattened because of the recent divergence in bond and equity performance.
- Investors may now have the opportunity to construct portfolios that meet their long-term return objectives with significantly less equity risk than just two years ago.
- A strategic asset allocation review is advisable to assess medium- to long-term portfolio positioning.

Figure 3 **Flatter frontiers**



Source: Mercer. Data as of July 2023. Calculated using Mercer Capital Market Assumptions for global all cap equity unhedged and global broad fixed income hedged.

Supercycles

It would be naive to assume that the long-term challenges posed by inflation have gone away.

Inflation tides

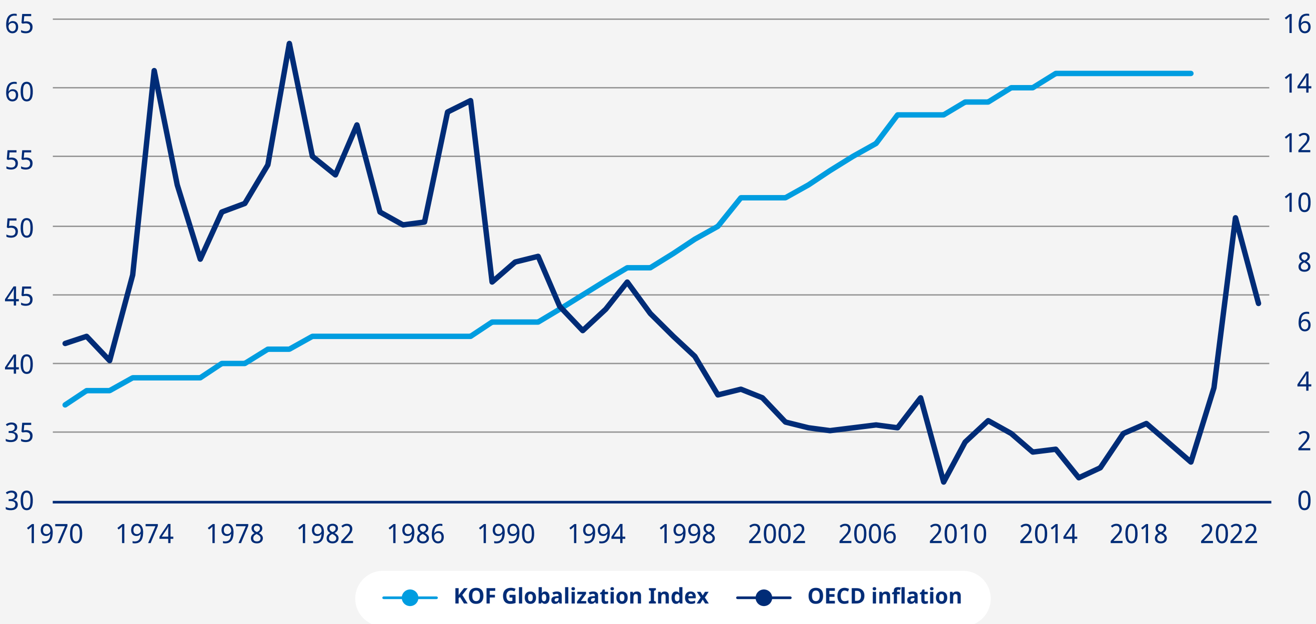
Inflation has been one of the major themes driving markets and investor thinking over the past two years. We are finally beginning to see short-term inflation pressures subsiding, with US inflation levels reaching their lowest in two years in June 2023[5] and the eurozone and Pacific following a similar albeit slower path.[6] Even the UK, which has persistently responded more slowly than other regions, has seen inflation levels decline.[7]

Although easing short-term pressure may provide some comfort for investors, it would be naive to assume that the long-term challenges posed by inflation have gone away. Indeed, several factors contribute to ongoing structural inflation risk.

Globalization versus factionalism

Particularly significant is the likely plateauing of globalization. In a 2003 paper for the International Monetary Fund, Professor Kenneth

Figure 4 **Globalization no longer a clear supporter of low inflation**



Source: OECD and KOF Swiss Economic Institute. Data as of September 30, 2023.

The KOF Globalization Index combines measures of economic globalization (trade and financial), social globalization (interpersonal, informational, cultural) and political globalization. Each of these high level categories have a one third weighting, and underlying measurements are transformed between 1-100 representing respectively minimum and maximum observations. Full methodology can be found here: https://ethz.ch/content/dam/ethz/special-interest/dual/kof-dam/documents/Globalization/2022/KOFGI_2022_method.pdf.

Rogoff identified a clear link between globalization and disinflation, highlighting the impact of increased global competitiveness on real prices and in reducing incentives for central banks to engage in unanticipated inflation.[8]

Recent times, however, have seen a clear shift of geopolitical dynamics, with globalization being somewhat overridden by nationalistic agendas. The US and China relationship in particular is unlikely to change for the better in the near future, irrespective of who will end up in the White House in 2025.

The imposition of tariffs and boycotts and, most recently, the introduction of the CHIPS and Science Act in the US to provide subsidies for semiconductor production, research and workforce development (a clear effort to limit the influence of China) have created a highly adversarial, if not hostile, relationship.

The implications are significant from an economic perspective, particularly if relationships worsen further. Inflation pressures could increase as both countries continue massive spending programs to ensure self-sufficiency in strategic areas and prioritize security over economic efficiency. This tension is extending to factionalism at the global level as the world splinters into blocs, thus undermining the past disinflationary impact of globalization.

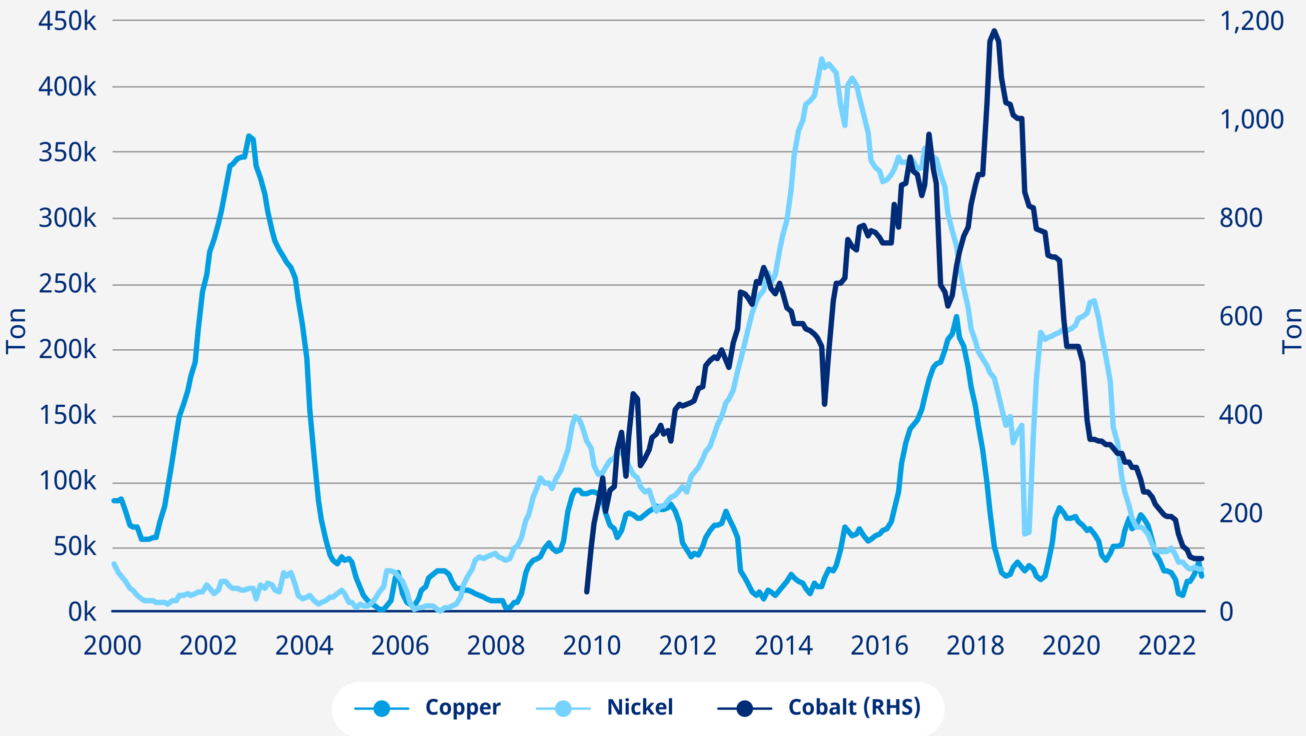
Living in a commodity-hungry world

These nationalistic tendencies are evident in the focus on resources. Combined with years of

underinvestment in the sector — along with the demands of the energy transition and a growing and wealthy middle class — protectionism increases the risk of future commodity-driven supply chain shocks. Investors looking to protect themselves against such risks should consider a strategic exposure to natural resources equities, particularly (but not exclusively) focusing on the metals mining companies expected to benefit from the energy transition. Exposure to commodities via natural resources equities can act as a hedge against inflation shocks. Investors tend to prefer these assets for strategic exposure, whereas they're more likely to choose commodity futures for dynamic protection. The debt burden of mining firms is light compared to past levels. Related metal inventories are currently very low. Simultaneously, commodity producers offer attractive valuations relative to historic norms. This suggests an attractive entry point for a long-term natural resource equity allocation.

Note that active management is essential here because the energy transition space is fast moving, with plenty of potential for disruption, innovation and regulation to impact demand structures for different metals over time. To avoid shocks, monitoring geopolitical risk and social and environmental impact at or near mining sites is key. In terms of scenarios, natural resources equities tend to suffer in recessionary events.

Figure 5 | **Metal inventories**



Source: Bloomberg. Data as of August 31, 2023.

Real assets

Real estate

Institutional investment in real estate has long been driven by its potential to deliver asset appreciation in combination with a steady rental income stream — both of which have a relationship with inflation in the general economy. More recently, return dispersion among property types has been an overriding trend, causing investors to pay greater attention to the sectors to which they gain exposure. Inflation, strong demand and lack of supply have been driving rental growth in the industrial and living sectors. Rents for the best-quality office and retail space have also been going up. But long-term demand growth is a much greater concern.

Income growth in many markets and sectors has softened the blow of the rising interest rates on valuations. Going forward, with major central banks concluding their rate hikes, real estate markets should be set to rebound. This will allow exposure at low valuations to sectors experiencing structural growth characteristics while contributing to the decarbonization of the built environment.

Infrastructure

Infrastructure investments, including toll roads, utilities and renewable energy projects, provide stable cash flows and potential cost pass-through to consumers, acting as an inflation hedge. Among infrastructure subsectors, energy infrastructure is a standout. Ongoing shifts in energy consumption patterns indicate significant activity in this subsector. Energy's growing demand, driven by digitalization, on-shoring and electric vehicles, intensifies electricity consumption and energy requirements through charging and battery production. Energy security, triggered by geopolitical tensions, is prompting substantial investments to enhance Europe's energy landscape guided by the REPowerEU Plan. Meanwhile, the Inflation Reduction Act has provided a framework for the energy transition in the United States, setting aside US$370 billion for investments in lower energy costs, cleaner energy and critical minerals.

The tailwinds for GPs operating in the energy transition space are growing stronger, and the headwinds for those in traditional (that is, oil-and-gas-related) power generation and energy infrastructure are only likely to increase as a result. Not all GPs supported by the tailwinds will be successful, and not all that face headwinds will struggle (at least over the short term). However, this trend cannot be ignored, if for no other reason than the risk/return implications. Nevertheless, this trend could take decades to materialize, and, as always, asset selection is critical.

Examples of those seeking to use tailwinds include managers launching energy transition funds that provide decarbonization solutions across the value chain beyond the "plain vanilla" wind and solar funds that have dominated the energy transition market over the past couple of years.

The influence of AI

Artificial intelligence (AI) is not new. It has a long history, dating as far back as the late 1950s, when the first artificial neural network was developed. In the 1980s, more than two-thirds of Fortune 1000 companies had at least one AI project.9 The 1990s saw the development of speech recognition software and the victory of DeepBlue over World Chess Champion Gary Kasparov. More recently, we have seen the adoption of AI capabilities in software such as Google Translate, playlist recommendations and predictive searches.

Yet, even in this context, we have seen a revolutionary 12 months in the field of AI, with a rapid acceleration in adoption as free generative AI has come to the masses. As a result, ChatGPT, OpenAI's app, reached 100 million users in just two months, massively eclipsing cryptocurrency, which took more than 10 years to reach 100 million verified users.

A pivotal question today is how AI will influence labor markets going forward, which in turn could have a substantial impact on inflation trends. The U.S. Bureau of Labor Statistics reported that, in July 2023, there was fewer than one person for every job opening, providing bargaining power to employees as a result.[10] This has led to a belief that AI might provide a solution for employers, relieving pressure from this tight labor market while also potentially facilitating productivity improvements through augmentation (and reducing resulting pressure on prices).

The scale of the impact of AI on productivity is hard to gauge. Past examples of technological revolutions lend themselves to both "soft" and "strong" interpretations of how things might play out:

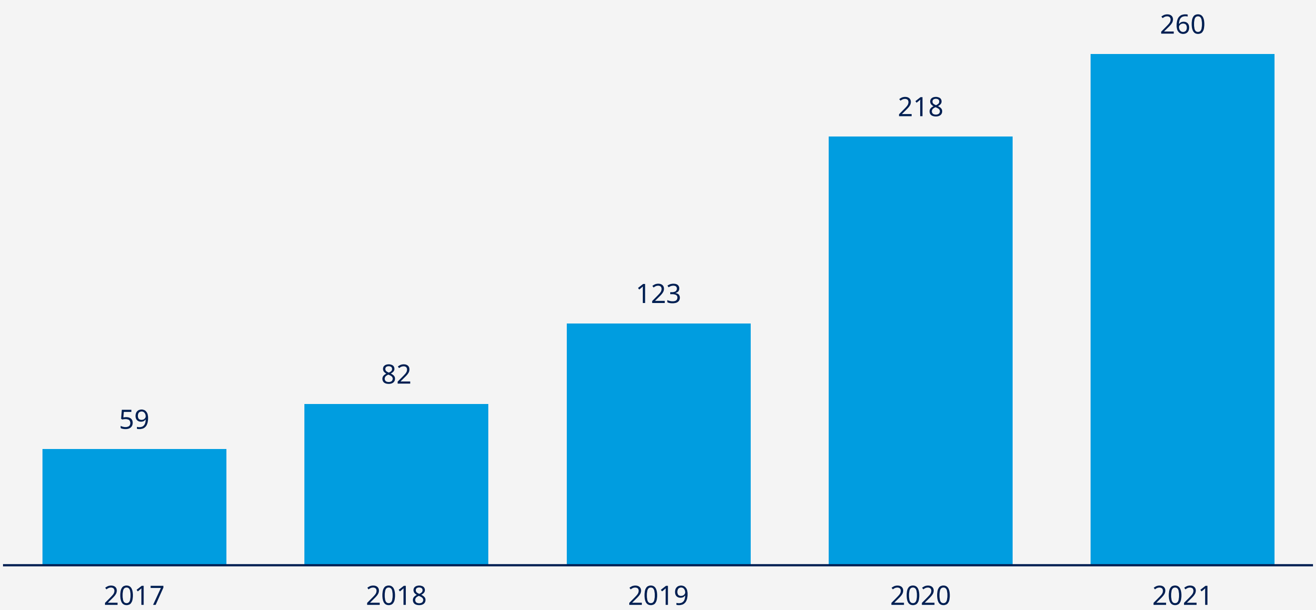
- The "strong" case for AI as a significant disinflationary force comes from the belief that its application will boost productivity. Goldman Sachs estimates that AI application leads to 1.5% per annum productivity growth over a 10-year period (with a best-case estimate that this could be as much as 2.9%),[11] and there are already examples of productivity improvements where the use of AI-augmented customer service assistants resulted in a 14% productivity gain.[12] A future convergence of technologies could also be a driver of significant further gains. Just as the fusion of computers and telecommunications increased productivity in the internet era, gains could result from the combination of AI with technologies such as robotics or the Internet of Things.

The challenges facing AI are practical, with its long-term success fundamentally dependent on data availability and capacity. AI algorithms will naturally start from a weaker standpoint but will "learn" and improve over time. However, their ability to progress depends on the amount of data or "lessons" they are able to learn and apply. We have seen a significant uptick in data creation over time, leaving the capabilities and, critically, the production of microchips as key factors in the extent to which AI can progress further. Moreover, there is a risk of AI algorithms learning from content generated by AI itself, leading to a circular feedback loop that could compromise the quality of AI-generated material.

- The case for AI having a "soft" impact on inflation essentially revolves around how quickly we will see the effects of technology and therefore the extent to which it may have a timely impact. This is where historical examples create questions. There is clear empirical evidence, for example, to support Solow's Paradox — that as more investment is made in information technology, worker productivity may go down instead of up. As an example, the widespread adoption and use of computers in the 1970s through the early 1990s delivered little enhancement to productivity.[13] Indeed, companies only saw a productivity boost from the mid-1990s onwards. It is also worth noting that substituting AI for labor will have little or no effect in some areas. For example, replacing a human taxi driver with an equally performing AI will not change the number of passenger trips and therefore will not alter the capital productivity of the taxi industry.

A further variable in the long-term impact of AI on inflation is the efficacy of AI itself. The growth in its use has come with a significant uptick in regulatory issues, mistakes, and intellectual or artistic property infringement. The AIAAIC Repository, an independent, nonpartisan public-service initiative that examines the case for AI, estimates that incidents of unethical use have increased 26 times since 2012.[14] A further study by Deloitte found that 50% of respondents see the management of AI-related risks to be a barrier to the scaling of AI initiatives.[15] The resulting potential limits on AI adoption raise questions regarding the extent to which it could meaningfully influence inflation.

Figure 6 | **Uptick in the number of AI controversies**



Source: AIAAIC Repository, 2022. Data summarized in the *2023 AI Index Report*.

Key takeaways

- Although short-term inflation pressure appears to be easing, a variety of factors point to ongoing structural inflation risk.
- A strategic exposure to natural resources equities provides the opportunity to benefit from the long-term resources demand story but also protect against inflation shocks.
- Whatever effect AI has on broad inflation levels, significant inflation volatility risk remains as commodity prices account for the lion's share of this risk.
- The long-term implications of AI adoption are far from certain, with legitimate cases for both the "soft" and "strong" impact it might have.

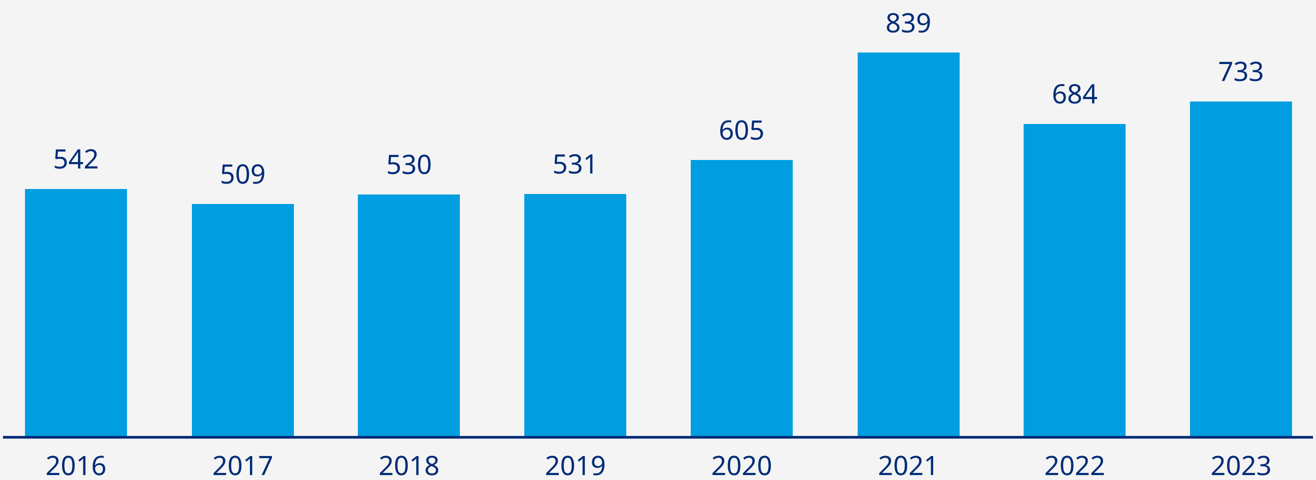
Shifting sands

Changes in the economic landscape, particularly the rise in interest rates, have had a substantial impact on the corporate world. Higher rates clearly affect those that depend on leverage, whether households, sovereigns or corporates.

Of particular note, however, are the zombie firms that have been kept afloat due to the "free money" that has been available over the past decade.

However, this has come to an abrupt end. An aggressive rate-hiking cycle has ended the "free money" era over a very short period, creating the potential for a tide of bankruptcies as these zombie firms struggle with the challenge of refinancing at higher costs.

Figure 7 **Zombies rise: The count of zombie firms remains significantly higher than pre-COVID-19**



Source: Bloomberg. Data as of May 22 of each year. Note: Based on yearly EBIT of firms in the Russell 3000 Index relative to their interest expense. Zombie companies are deemed to be those companies with an interest coverage ratio of <1.

Although this could be a concern for investors, particularly over lower-quality investments, this process of creative destruction provides opportunities for nimble providers of liquidity, such as private debt mandates. To consolidate their balance sheets, US regional banks have had to reduce lending activities, leaving room for alternative lenders to step in and provide credit to sound companies at a premium. Opportunistic multi-asset credit approaches and bidirectional credit strategies look attractive in this regard, although a flexible approach that provides investors with the ability to access both public and private markets will be needed.

Key takeaways

- The era of "free money" is over. There will be pain for those that rely on leverage.
- Zombie companies that have been able to survive due to easier access to capital will be under significant threat.
- Private lenders are well placed to fill the gap left by banks.
- Credit assets look attractive on a risk-adjusted return basis, but a flexible approach is needed.

Megatrends

We have seen a demand surge for critical minerals arising from global battery consumption for clean energy applications.

Energy modernization

Energy production and application has been an area of sharp focus over the past decade, reflecting the considerable challenges posed by climate change and global warming. Researchers have predicted that there is a 66% chance we will pass the 1.5°C global warming threshold before 2027,[16] raising further concern about emissions.

The exponential growth of the electric vehicle (EV) industry and the move away from traditional internal combustion engines (ICE) reflect the recognition of the importance of these issues. EVs generate around half the lifetime emissions of their ICE counterparts yet require six times less minerals to operate.[17]

This is not to say that these minerals are no longer needed. We have seen a demand surge for critical minerals arising from global battery consumption for clean energy applications. This increased by two-thirds in 2022 alone, with energy storage becoming a growing part of this total demand.

The evolving dynamics and demand for specific resources point to a potential regime change within energy and commodities markets, with the power of OPEC countries challenged by those with metals deposits. As the energy transition accelerates, demand for metals is likely to increase further, with the potential for political interference encouraging suppliers to become more organized to respond to competition and meet demand. An OMEC — Organization of Metal-Exporting Countries — is not beyond the realm of possibility, even if the control of multiple metal prices is different from that of a single oil price.

Key takeaways

- Energy modernization is driving increased demand for critical minerals and metals.
- Countries with significant metal deposits can benefit from this trend, and improved organization between these countries is a possibility.

Figure 8 | **Battery demand by type**

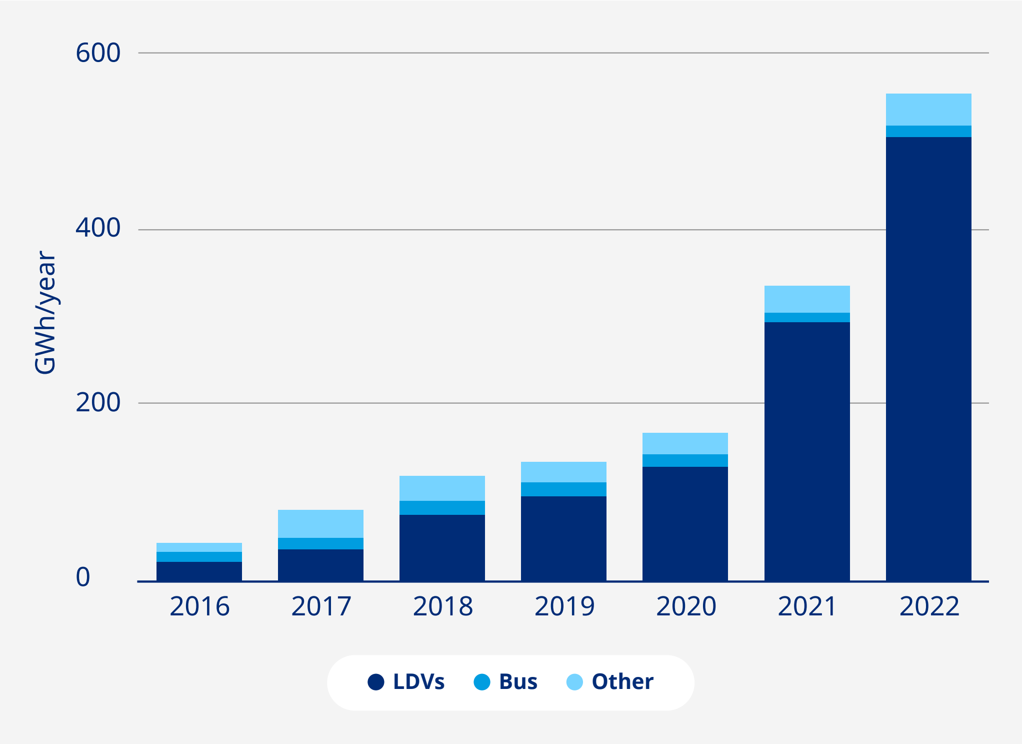
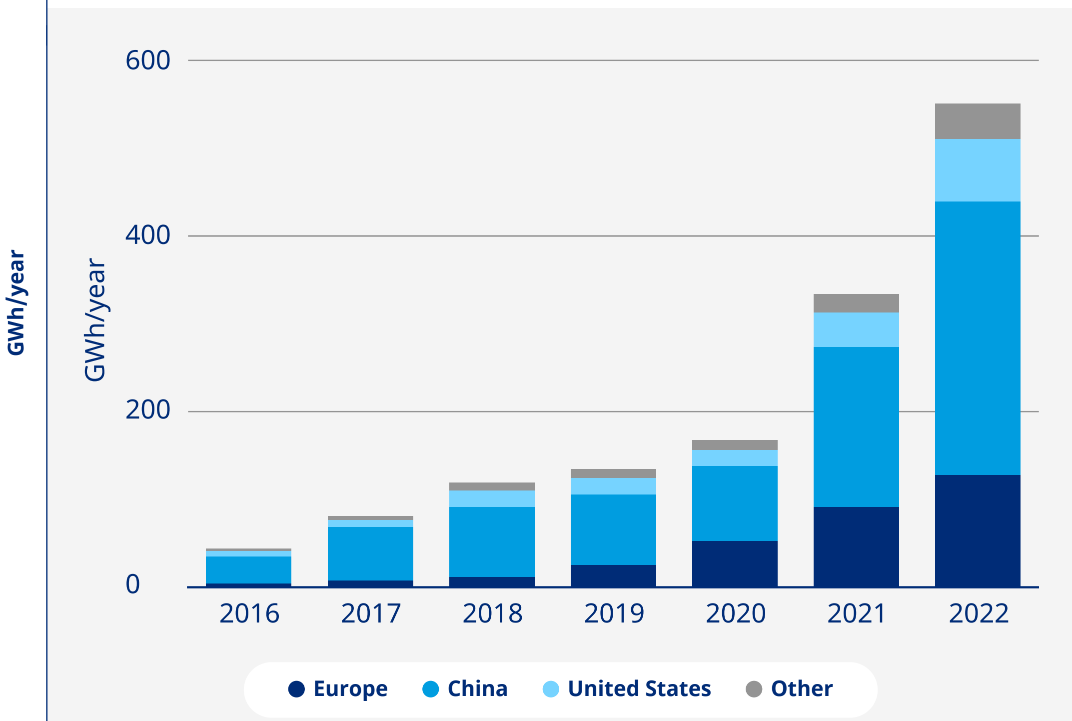


Figure 9 | **Battery demand by region**



Source: IEA. *Global EV Outlook 2023*, 2023. IEA. License: CC by 4.0.

The natural (re)order

The boundaries are now being breached for species loss and "green water" (the water in the soil that plants rely on), resulting in a global biodiversity crisis. The impact of deforestation is a case in point, with 420 million hectares (approximately half the size of Australia) of forest lost since 1990.[18] Deforestation stands out as a key driver of climate and biodiversity loss.

Biodiversity is inextricably linked to climate change, creating a critical need to put nature at the heart of future planning and thinking. Legislators are recognizing this and beginning to take action. At COP27, world leaders committed to end and reverse deforestation by 2030, and at COP15, 188 countries adopted the Global Biodiversity Framework, establishing a range of medium- and long-term goals to improve the integrity of ecosystems, halt human-induced extinctions, improve the diversity of wild populations, make genetic technology accessible and ensure EMs have access to finance and technology.

The Taskforce on Nature-related Financial Disclosures (TNFD) released its final framework in September 2023 with the objective of integrating nature into strategic planning, risk management, and asset allocation principles and diverting capital flow to a nature-positive economy. The European Union Regulation on Deforestation-Free Products came into force in 2023, requiring that, from the end of 2024, companies placing or exporting affected products in or from the EU conduct due diligence to confirm products have not been sourced from land that was deforested or degraded after December 31, 2020. Although the legislation is European, the implications are global, and it is reasonable to expect that other regions will follow with regulations related to nature assets.

Investors need to be prepared. Many have already made progress on developing processes to address climate-transition risks in their portfolios. They should now look at developing a holistic process that incorporates nature-related risks and identifies potential investment opportunities.

Key takeaways

- We are in a global biodiversity crisis, and there is a critical need to put nature at the heart of planning and thinking for the future.
- Global commitments to action have been accompanied by new regulation, and investors should be prepared for more in this area.
- Investors should ensure their engagement principles result in tangible objectives.
- Investors should consider nature-related risks within portfolio management, with a holistic approach advisable.

The case for forestry

Forestry assets have historically had attractive risk, return and correlation statistics. In the 35 years of recorded annual data, the US NCREIF Timberland Index records only three years of negative performance, with the worst being -5.2% in 2001. Unlevered forestry assets have proved robust in major downturns, in part, because the supply available means managers need not take price risks during such downturns but can simply leave trees to grow more. Over the long term, forestry assets have had equity-comparable returns in some geographic markets. The US market has an annualized return of 10.7% from the start of NCREIF's monitoring period in 1987 to the end of the calendar year of 2021. (The bumper part of these returns were in the first half of the period in a higher-interest-rate environment.)

Different regions come with their own idiosyncrasies. In the US, a major part of demand is housebuilding. Thus, forestry returns can suffer during housebuilding downturns or changes in housebuilding trends. In emerging markets, however, much of the produced wood is burned as fuel, making it a challenging market for investors interested in carbon emissions reduction.

Biological growth, land price changes and timber price changes have driven these returns. A new component is the potential for a financial reward for sequestering atmospheric carbon. These carbon credits offer a layer of optionality to the forestry investor, although voluntary carbon markets are still in their infancy and come with their own controversies.

Admittedly, there have been some concerns that corporate investors seeking to meet their climate obligations have been paying over the odds for forestry assets, particularly affecting the wider market. Yet while there is some evidence of this, astute forestry managers tend to focus on sourcing their own assets, using extensive contact networks and transacting off-market, thereby avoiding potential price auctions. Manager selection is critical in this space, as is ongoing management of the idiosyncratic risks, such as wildfire, drought and disease.

Demand for timber could benefit from the transition and a move toward a more circular economy. For instance, mass timber is a product made from compressed layers of wood. Cross-laminated timber (CLT) and glue-laminated timber (GLT) are two examples. CLT can be cheaper to use than traditional construction materials because it's lighter and thus requires less foundation work. This also gives it a much better strength-to-weight ratio than either concrete or steel. Such techniques are a small part of the construction story today, but it's reasonable to assume they will become more significant over time.

The multitude of projects available provides an array of opportunities — from more mature forestland, which is likely to fail "additionality" tests and thus not qualify for carbon credits (which may suit more traditional investors seeking to profit by producing a valuable construction material) to new "afforestation" strategies, which may suit impact-oriented investors and can be net biodiversity positive. It's important

Key takeaways

- Investors should carefully consider forestry due to its attractive risk, return and correlation characteristics.
- Timber's status as a renewable material, which can be a key building block in the future of the global economy, augments forestry's value.
- Forestry is not just an asset class for value-oriented investors. There are many projects available that can meet the needs of a diverse range of audiences.

to note that the risk and return characteristics of a forestry asset will depend heavily on how it's managed and where it's located.

The future of food

The global population could reach as high as 10 billion by 2050,[19] with a vastly expanded middle class. The demands on food supply from this are clear. Carefully chosen agricultural assets could benefit from food inflation resulting from these pressures. However, because of the potential for increasing physical damages from climate change, coupled with the fact that agriculture accounts for 25% of emissions[20] and for the majority of deforestation,[21] the industry needs to move to a more sustainable and organized footing.

The World Resources Institute has identified three critical areas:[22]

- The gaps in food production — 56% between crop calories produced in 2010 and those needed by 2050.
- A land use gap of 593 million hectares (almost twice the size of India) between global agricultural land area in 2010 and that needed by 2050.
- A GHG mitigation gap of 11 Gt between expected agricultural emissions and the target levels needed to hold global warming below 2°C.

Even as investors seek to mitigate these challenges, the universe of solutions is expanding. Regenerative processes, agritech, agroforestry (the planting of trees along boundaries or in with crops) and mixed land use can all play a significant role in enhancing and evolving agricultural practices, with potentially attractive investment characteristics. We believe strategies

Key takeaways

- Food supply needs to expand considerably to meet the demands of a global population that could reach 10 billion.
- The need to reduce emissions coupled with the past impact of agriculture on deforestation means this industry must move to a more sustainable footing.
- Regenerative processes, agritech, agroforestry and mixed land use can all improve agricultural practices.

such as these could become key parts of a broader natural capital allocation.

Today, 90% of extracted resources are underutilized or wasted.[23] Although we would still have to describe the global economy as a linear ("take-make-waste") model, a circular model is being developed and can be expected to bring about considerable benefits. We are most likely to see this led by developed market nations, with the Netherlands targeting circularity by 2050.

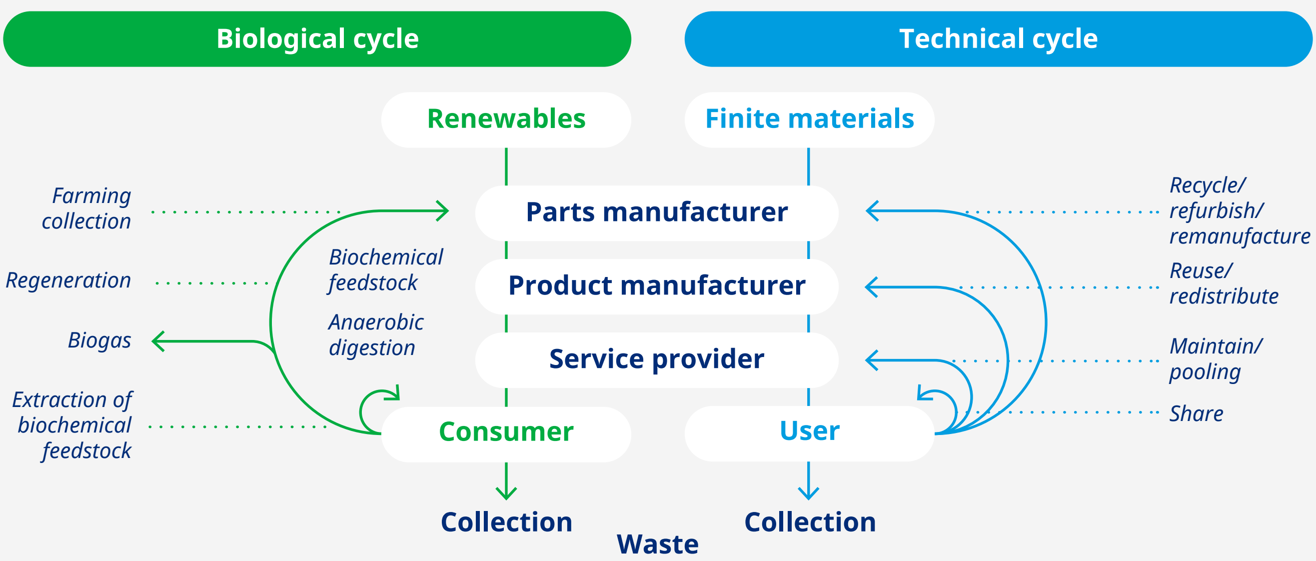
The advantages of this economic model are notable, not least because it will relieve the sizeable pressures on supply of recent years. Assessments of circular economy firms also show clear positives — including lower systematic risk and higher risk-adjusted returns[24] — which offer a promising outlook for the road ahead.

Circular economy funds exist in both private and public markets, although the range of product availability needs to broaden. We expect this to happen naturally as the industry grows and demand for such strategies increases. Although investors may be tempted to see circularity as yet another sustainability concept to add to their rosters, we see it as an umbrella concept that unites thinking around climate, nature and sustainable growth.

Key takeaways

- Although much work is still needed, there is clear evidence that we are moving from a linear economic model to a circular one.
- Circular economies offer significant advantages, including reduced pressure on supply, lower systematic risk and the potential for higher risk-adjusted returns.

Figure 10 **Moving from a linear to a circular economy**



Source: Ellen Macarthur Foundation, Mercer.

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