

Wilshire

Alternatives 2024 Outlook

January 2024

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Introduction

Economic fundamentals matter. Whether investing in credit or equities, currencies or commodities, real estate or infrastructure, the macroeconomic context ultimately influences performance. Understanding how markets affect alternatives strategies is a central tenet of our investment philosophy, and for over a decade, Wilshire Advisors, LLC (“Wilshire”) has developed annual investment themes based on macro trends. Although macro views can never take the place of rigorous bottom-up research, we believe they serve as a guide when allocating scarce resources to find and evaluate the most compelling investment strategies.

Approach

Wilshire’s alternatives research practice follows a thesis-driven investment approach that integrates a top-down market viewpoint into decisions, facilitating proactive investment theme development for targeted manager sourcing and research. We analyze market observations for each sector across the alternatives landscape, pinpointing the most valuable and inefficient markets within each area. This comprehensive approach spans globally, harnessing local team expertise and relationships to help identify trends, optimize returns and mitigate risks. Our belief underscores the significance of a top-down economic perspective in shaping portfolio construction and directing research efforts towards the most compelling market segments. While not substituting in-depth, bottom-up manager research, these perspectives serve as guides for ultimate investment decisions.

Global Overview

Transition from 2022’s “hot” global economy to a slowing economy continues into 2024.

The IMF projects decelerating real GDP growth in the United States and Asia-Pacific in 2024, with Europe gradually emerging from the recession it is likely currently in. The global manufacturing PMI index, a key measure in assessing economic health, spent the better part of the last 18 months in decline and remains below its long-run average. While 2023 global economic output clearly outperformed 2022 expectations, we are nonetheless in the process of slowing growth globally.

Interest Rates

Much of this slowdown results from more restrictive central bank policy aimed at moderating inflation. While inflation in most countries continues to drive lower, separating the spurious post-COVID inputs from structural drivers is difficult. Secular shifts like the energy transition, onshoring/reshoring, and demographic trends may well suggest structurally higher inflation and, as a result, structurally higher rates. While rates are expected to decrease in 2024, it is unclear how long rates will stay elevated and to what resting level they will return. We believe this rate trajectory will have profound implications to the marginal consumer, business and real asset.

Geopolitics

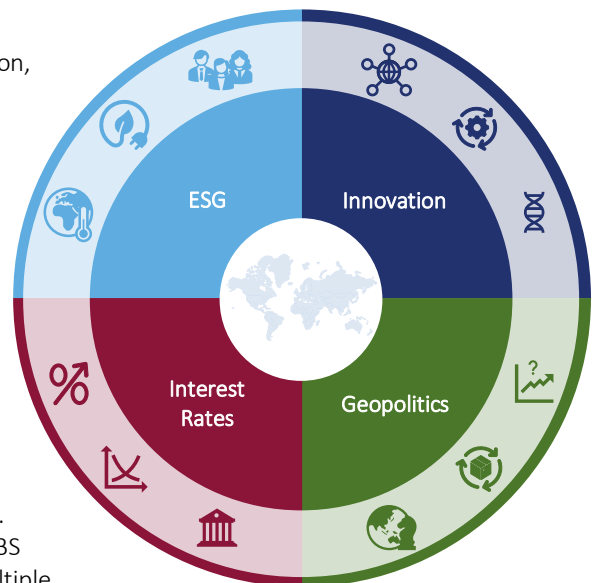
Russia’s 2022 invasion of Ukraine exemplifies the global impact of geopolitical actions, in this case, a permanent shift in European energy policy and worldwide supply chain configuration as security is now emphasized as much as reliability. The pandemic gave rise to fiscal policy as an important driver of economic and market conditions. Short-term support morphed into long-term programs, such as the JOBS and CHIPS Acts in the United States, where stimulus is spread over multiple years. That said, much of the geopolitical discussion today is focused on risk. War, volatility in global food and energy markets, government gridlock, elections, populism, ratings downgrades and other factors all make it increasingly difficult to forecast the future and widen the distribution of possible investment outcomes.

Innovation and ESG

The clean energy transition, environmental offset markets and technology/software sectors continue to receive significant investment attention. Accelerating adoption of AI has the potential to significantly bolster productivity levels. If the internet era is a guide, the initial surge in value creation is likely to favor hardware vendors first, followed by software developers. The accessibility and utilization of data emerge as pivotal determinants in this landscape. Strategies concerning the internal integration of AI within enterprises and its commercial exploitation are being prioritized across industries.

In 2024, we believe it will continue to be important to separate the cyclical, shorter-term macroeconomic inputs from the secular, longer-term shifts. While these megatrends are top-of-mind, we recognize that diversification will be critical to help guard portfolios from unanticipated risks and to capitalize on this complexity using skilled managers.

2024 Global Megatrends



Charts are for illustrative purposes only.

North America

Regional Context

We find the U.S. economy in 2024 to be characterized by higher interest rates and slowing growth. With this view we have distilled the 2024 Global Megatrends into regional context and local opportunity themes in the United States.

	Regional Context	Local Opportunities
Innovation	Digital Economy	Ecommerce
	Financial Products	Democratization of Alternatives
	Life Science	Health Care and Pharmaceuticals
ESG	Environmental Initiatives	Sustainable Products
	Diversity and Inclusion	Energy Transition
	Geopolitical Tensions	Education and Housing
Geopolitics	Supply Chain Configuration	Industrial Onshoring
	Deglobalization	Security and Defense
	Currency and Commodities	Increasing Uncertainty
Interest Rates	Stress/Distress	Real Assets
	Valuation Pressure	Special Situations
	Income and Financial Inequality	Floating Rate and Alt Yield

The forces of inflation, rates, jobs and growth continue to provide a headwind to the U.S. economy. While economic growth in 2023 was surprisingly resilient, the consensus forecast for 2024 is slowing growth and continued elevated interest rates. The U.S. consumer, the driver of the domestic economy and beneficiary of a strong labor market and excess post-COVID savings, may be challenged in the year ahead to the extent that unemployment increases and/or savings deplete.

2024 is also an election year in the United States, which further clouds the domestic outlook. Although much can, and likely will, change before votes are cast in November, today it looks like a Biden versus Trump rematch. The outcome of the election can have a material impact on domestic and international policy in 2024 and beyond.

With the federal funds rate at a 22-year high, though the risk of being pinned at the zero lower bound has reduced, the repercussions of higher interest rate policy reverberate across the U.S. market landscape – from decades-low deal activity to extended hold periods to valuation and balance sheet pressure across asset classes.

Overall, we believe 2024 will begin with a mounting quantum of risks in North America and an increasingly wider distribution of future outcomes. Recognizing that much of the alternatives market is inherently opportunistic, investors can position their portfolios toward those asset

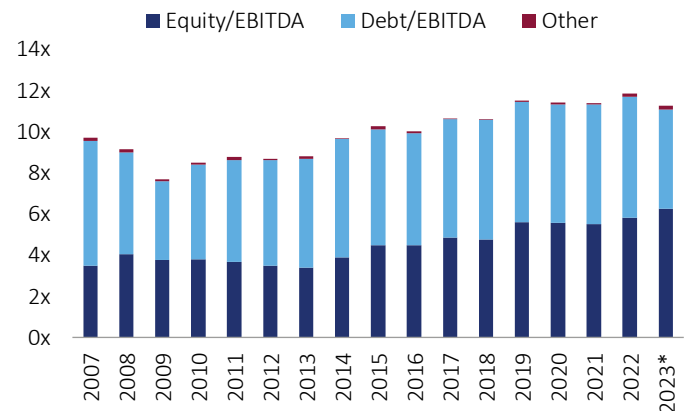
classes that are either uncorrelated or benefit directly from higher rates, macroeconomic cyclical, or revaluation. For better or for worse, cheap debt is no longer available to bail out bad deals and, as a result, we believe manager skill must be emphasized in the forthcoming vintage.

Private Equity

Strategy	Outlook	Key
Buyout		● Highly Favorable ● Favorable
Growth Equity		● Neutral ● Cautious
Venture Capital		● Unfavorable

Buyout

North American Buyout Purchase Price Multiple



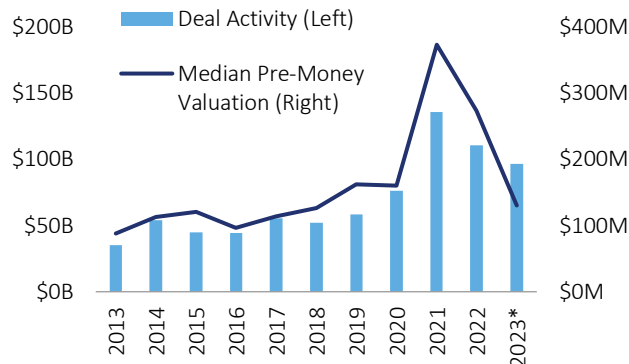
Source: S&P LCD. *1Q-3Q23.

The U.S. buyout deal environment, long the beneficiary of low rates, is being challenged by increasing financing costs and economic uncertainty. Purchase price multiples, while below last year's peak, remain stubbornly elevated despite credit costs driving equity contributions to 15+ year highs. As a result, buyout dealmaking has slowed dramatically and hold periods have been extended. We anticipate these dynamics to continue until bid-ask spreads adjust, debt costs decrease, or both. Manager skill will again be tested in 2024, as peak deals done at peak valuations with peak leverage levels may be challenged by high debt costs and the possibility of a decline in earnings. Operational improvement as a catalyst for both value creation and enhanced risk management remains a key enabler for U.S. buyout managers' ability to outperform as a choppy 2024 market may prove an attractive entry point.

Charts are for illustrative purposes only.

Growth Equity

U.S. Growth Equity Investment Activity and Valuations

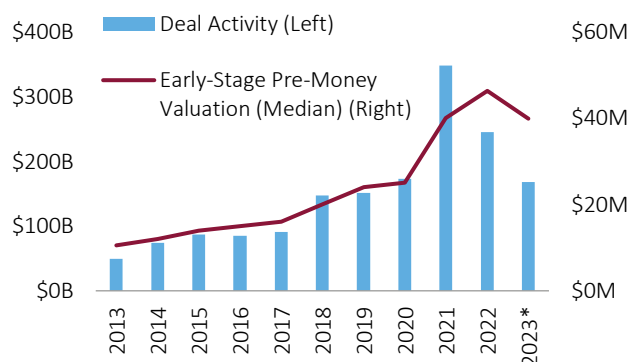


Source: PitchBook. *Annualized deal activity through 3Q23.

Discipline has returned to the growth equity market, with a renewed emphasis on profitability instead of growth at any cost. Underwriting standards are high and, with no obvious catalyst for reversal, deal activity should continue its decline in 2024. Valuations, already down significantly from their peak, are expected to remain under pressure while high interest rates lower terminal values. We believe capital efficient business models with strong unit economics are well-positioned to attract growth capital in this environment, particularly in sectors such as artificial intelligence and climate technology. With the IPO window closed, exit opportunities remain scarce. Despite these challenges, growth managers should benefit from larger, more mature companies staying private for longer, less competition, and revaluation.

Venture Capital

U.S. Venture Capital Investment Activity and Valuations



Source: PitchBook. *Annualized deal activity through 3Q23.

Over the past few years strong fundraising has fueled historically high valuations particularly in late-stage companies. With fundraising slowing, venture returns may be challenged to the extent that less capital brings fewer

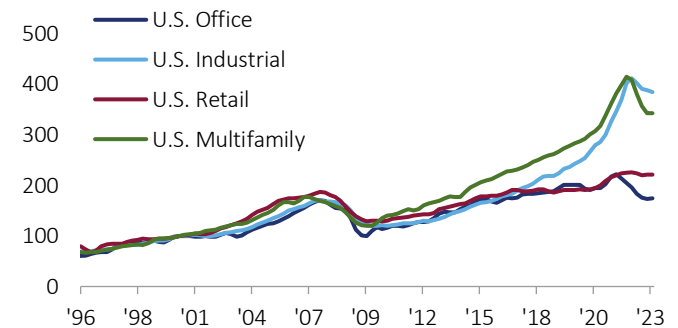
downstream sales and/or less up-round financings to marginal businesses. In addition, the exit environment has weakened, including all-important IPOs which have slowed considerably and are expected to remain so over the medium term. That said, sustained corporate M&A activity, accelerating technological innovation, emerging technology ecosystems, and paradigm-shifting technologies such as generative AI are all tailwinds supporting the case for 2024.

Private Real Assets

Strategy	Outlook	Key
Real Estate	●	● Highly Favorable
Natural Resources	●	● Favorable
Infrastructure	●	● Neutral
		● Cautious
		○ Unfavorable

Real Estate

U.S. Property Type Pricing Indices (2000 Dec = 100)



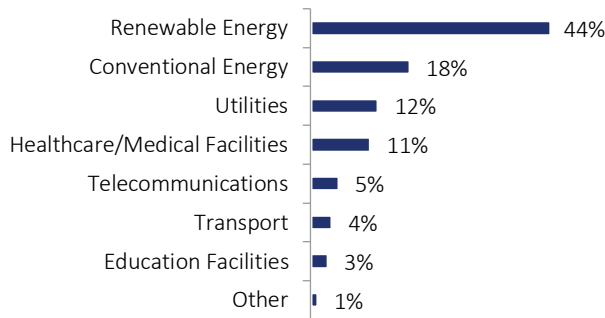
Source: CoStar Commercial Repeat-Sale Indices (CCRSI), CoStar Group. Value-weighted data. Data through October 2023.

Although real estate is very 'local', making general statements difficult, the chart above illustrates the bifurcation that has occurred in this market over the past decade as well as recent valuation pressure across the board. Secular trends relating to demographic shifts and e-commerce remain important drivers to industrial and multi-family, though both property types are challenged today from higher interest rates and plateauing rents. While office occupancy continues to increase, it remains a fraction of the pre-COVID level as work-from-home permanency has shifted demand from the office sector to the residential sector. Though, the residential sector is not without its own challenges due to sustained elevated prices and higher mortgage rates. While real estate's positive inflationary attributes bode well for the asset class overall, value-added and opportunistic strategies in particular provide an opportunity for excess returns in the current volatile environment.

Charts are for illustrative purposes only.

Infrastructure

U.S. Infrastructure Deals by Sector

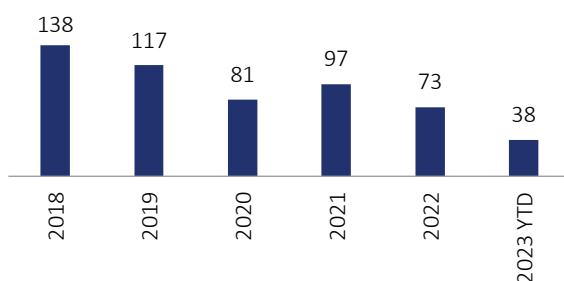


Source: Preqin as of December 2023.

With the passage of the \$1 trillion Infrastructure Investment and Jobs Act, there now exists substantial government support and increasing public prioritization across the infrastructure spectrum from clean energy to broadband. Despite this influx, the large and growing gap between long-term infrastructure capital needs and current investment levels suggests strong demand for private capital to fill the void. Meanwhile the continued emphasis on renewable, transportation and digital infrastructure suggests the possibility of buoyant deal flow in the near term. While historically high dry powder levels and a growing infrastructure debt market continue to support high valuations in this segment, the prevalence of contractual inflation adjustments make infrastructure an attractive area in the current inflationary environment.

Natural Resources

North America Natural Resources Fundraising (# Funds)



Source: Preqin as of December 2023.

Despite struggling for most of the past decade, Natural resource strategies have performed well over the past three years. Nonetheless, areas such as energy, mining, and agriculture tend to be in an apparently constant state of flux as the result of the geopolitical, technological, macroeconomic, capital market, and ESG forces that shape these markets. While focus has clearly shifted toward climate-aware asset classes, including renewables, this energy transition is now complemented by a focus on

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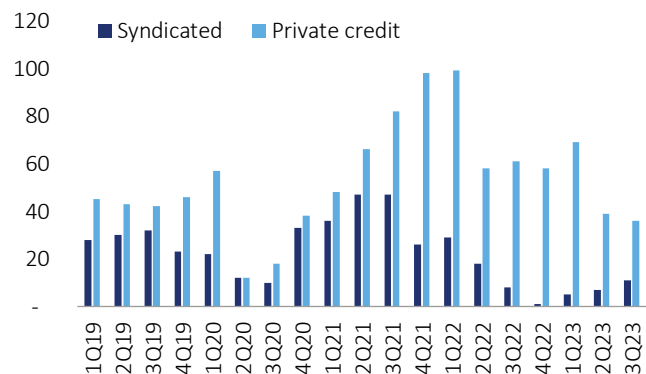
energy security and brings with it increased demand for the metals that support next generation clean technology. Indeed, this security trend extends beyond energy to other natural resources such as food and water. The abundance of natural gas in the United States positions it well to meet Europe’s burgeoning import need. Emerging private credit markets in energy (traditional and renewable), agriculture and mining offer compelling risk-adjusted returns that can dampen commodity price and other external risk exposures on the downside while maintaining upside optionality.

Private Credit

Strategy	Outlook	Key
Direct Lending		● Highly Favorable ● Favorable ● Neutral ● Cautious ○ Unfavorable
Distressed Debt		
Opportunistic		
Alternative Yield		

Direct Lending

No. of LBOs Financed in BSL vs. Private Credit Markets

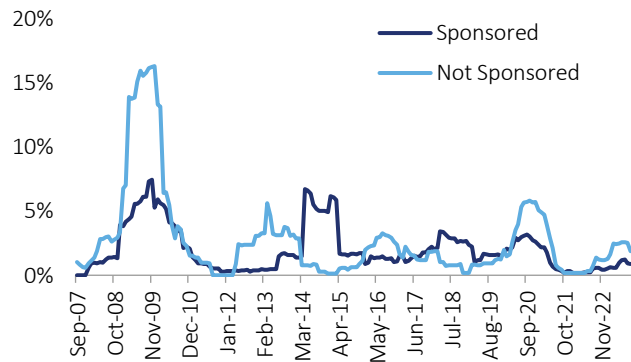


Source: PitchBook, data through September 26, 2023.

While the direct lending market has suffered from intense competition in recent years, secular bank retrenchment in the leveraged loan market together with regional bank challenges suggest robust opportunity ahead for direct lending deployment. That said, new issuance has slowed as lending standards have tightened especially for riskier borrowers. The floating rate nature of these instruments is a double-edged sword – on one hand, it is reasonable to assume higher default rates as higher borrowing costs collide with slower growth, and on the other hand, returns will benefit from the rising base rate. This, together with the potential for wider spreads and better terms as the competitive forces ease, suggests 2024 may be an attractive direct lending vintage.

Distressed Debt

Levered Loan LTM Default Rate

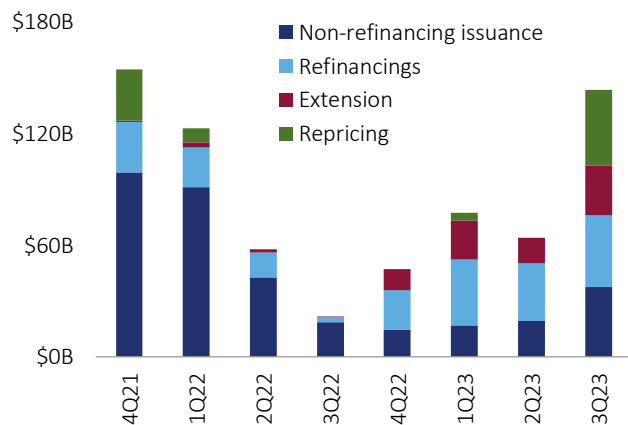


Source: Morningstar LSTA U.S. Leveraged Loan Index, Principal Amount. S&P LCD as of September 30, 2023.

Distressed debt is an inherently cyclical asset class with outsized reliance on external factors such as market dislocation and default rates vis-à-vis other private credit strategies. The next distressed debt cycle has the potential to be attractive as the build-up of high-risk, low-quality debt in the system over the past decade has been pronounced. While a catalyst for the next cycle is impossible to predict, the combination of high interest rates coupled with the pull back of liquidity from the Federal Reserve (Fed) and increasing probability of near-term economic slowdown have the potential to create opportunity in companies that did not lock-in low-rate debt. While default rates have increased throughout 2023, the rise has been modest.

Opportunistic

U.S. Institutional Loan Volume



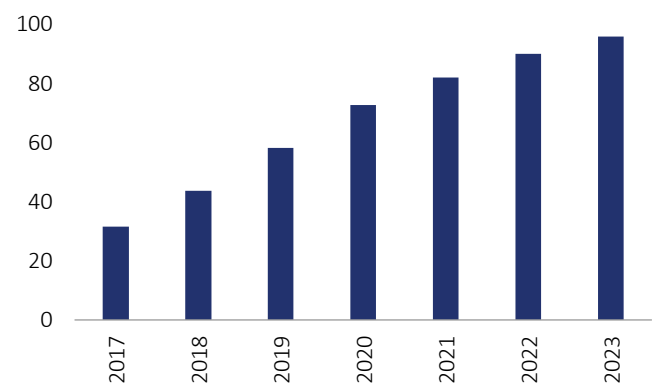
Source: PitchBook, data as of September 30, 2023.

Opportunistic credit strategies are well-positioned as traditional credit market issuance slows. In this market, managers with the skill to capitalize on complexity and

embrace flexibility can separate themselves from the herd and create upside optionality during periods of dislocation. The result is above-market return with below-market risk. The combination of sub-market inefficiency and manager competitive advantage pays dividends in frothy and stressed markets alike suggesting an attractive “all weather” attribute to opportunistic strategies. Sector specialization and advantaged deal sourcing are key strategic components and, when paired with highly structured and well-collateralized investments, may provide opportunity to generate outsized risk-adjusted returns particularly during volatile periods which may lie ahead.

Alternative Yield

U.S. Paid Music Subscriptions (Millions)



Source: RIAA.

Alternative yield strategies, born from the concept of uncorrelated return, delivered as expected through the stress test of the COVID crisis and may be poised to generate attractive risk-adjusted yield in 2024. Indeed, investors with appetite for differentiated strategies operating in less efficient markets, uncorrelated contractual cash flows, and outsized margins of safety are well positioned. Intangible assets such as music royalties, specialized asset-backed lending, risk transfer, and sector-focused direct lending are examples of such market segments that may offer compelling risk-adjusted return and less correlated sources of income. As investors lean on diversification to help guide portfolios in 2024, these strategies have proven utility not only as sources of risk-adjusted return but also as tools for portfolio risk management.

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Europe

Regional Context

The European economy stagnated in 2023 after the shocks unleashed by Russia’s invasion of Ukraine including record high inflation and rising interest rates. However, since the second quarter of 2023 inflation has declined sharply. The outlook for 2024 is characterized by slow GDP growth for the European Union (EU), with lower inflation and gradually decreasing nominal interest rates. Despite the challenging environment, European labor markets continue to perform strongly, with record levels of employment and unemployment at its lowest in decades. With this view we have distilled the 2024 Global Megatrends into regional context and local opportunity themes in Europe.

	Regional Context	Local Opportunities
Innovation	Digital Disruption	Venture Technology
	Local Growth Hubs	Software
	Artificial Intelligence	AI Opportunities
ESG	Climate Change	Decarbonization and CleanTech
	Energy Transition	AgriTech and PropTech
	Circular Economy	ESG Value Creation
Geopolitics	International Conflicts	Production Onshoring
	Populism / Policy Volatility	Local Growth Hubs
	Migration and Demographics	Health Care and Life Sciences
Interest Rates	Tightening Credit Standards	Private Credit
	Tight Labor Markets	Special Situations
	Interest Rates	HR-light Business Models

Geopolitical and macro-economic factors that could impact the 2024 market outlook include:

- The prolonged war in Ukraine and the conflict in the Middle East may continue to impact energy price volatility, supply chain disruption and migration.
- Climate change and extreme weather events, such as heatwaves, fires, droughts and floods, cause increased direct market losses. In 2022 the 10-year average market loss due to extreme weather events in Europe was EUR 26 billion, constituting 0.16% of 2022 GDP, and showed a 3% annual increase over the last 14 years. (Source: European Commission, European Economic Forecast Autumn 2023 [Institutional Paper 258, November 2023], page 68.)
- Inflation, interest rates, energy prices and the disappearance of pandemic-related support continue to have a medium-term drag on the macro economy.

As of the second quarter of 2023, these factors contributed to the highest level of bankruptcies in the European Union since 2015, particularly in the transport, storage, accommodation and food services sectors.

- The tight labor market across Europe is expected to persist despite the economic slowdown, driven by multiple factors including marginal increase in labor market mismatch (sectoral or educational), increased labor demand and structural trends such as declining average hours worked and the decline in working age population.

Against this macroeconomic context, we continue to favor more defensive business models underpinned by demand, as well as recurring revenues. Across European portfolios, we view technology as one of the strong secular opportunities. Technology disruption is taking place in an increasing number of sectors, particularly through the recent worldwide introduction and rapid early adoption of generative AI. Technology touches commerce, health care, financials, education, retail, agriculture, and many other industries today. We believe transformational trends such as universal connectivity are irreversible and that digital transformation continues to present vast growth potential across private markets. Rising technology penetration leads to an increase in the spread of cyberattacks, spurring innovation, e.g. the emergence of cybersecurity-focused venture capital firms.

The drag of inflation and interest rates on the business environment, as seen in the increased number of bankruptcies, continues to create opportunities for special situations strategies. The tight labor markets place a higher premium on investing in HR-light business models (which again strengthens the case for technology).

Lastly, going into 2024, increasingly more European governments, consumers, and investors alike are embracing growth with purpose, further fueled by the potential effects of climate change and ongoing global conflicts, the necessity to become independent from Russian gas supply and the global climate conference COP28 in December 2023. There is a rising climate change focus, with implications for the energy transition and the circular economy. Fiscal stimulus packages support infrastructure spend, including spend on renewables. We anticipate this will continue to create attractive “planet positive” European investment opportunities in our 2024 pipeline.

Charts are for illustrative purposes only.

Private Equity

Strategy	Outlook	Key
Buyout and Special Sits	●	● Highly Favorable
Growth Equity	◐	◐ Favorable
Venture Capital	◑	◑ Neutral
		◒ Cautious
		○ Unfavorable

Buyout and Special Situations

European Buyout Purchase Price Multiple



Source: Pitchbook.

European buyout activity has further decreased in 2023 relative to 2022, driven by increased interest rates and large spreads between seller and buyer expectations. As a result of these headwinds, investors in Europe have focused on operational strengthening of assets and consolidation through smaller M&A, which has substantially increased add-on activity since the beginning of the year. With the correction in valuations in most industries, smaller assets have represented an opportunity to consolidate fragmented markets at cheaper prices while providing additional strategic value at exit, which has become particularly important as the IPO market looks to remain closed for the foreseeable future. In 2024, the focus should remain on businesses with differentiated products in defensive sectors. We believe that companies active in essential industries, such as pharma, are better positioned to face the expected recessionary environment. However, we continue to have strong conviction on the European buyout market given (i) its diversity (ii) its vast and relatively less efficient lower mid-market, and (iii) expected decreasing valuations as sellers come to terms with the market, which can lead to compelling buyout strategies and returns.

The European special situations sector should be well-positioned to capitalize on the expected increase in stressed assets in the wake of a looming market downturn

for early 2024. The increase in interest rates will also cause further disruptions at businesses in need of refinancing, with the lending markets closed off. Finally, strategic buyers facing declining growth could look to divest non-core assets to improve the books, providing deal flow for carve-out focused managers.

Regional Outlook Buyout

Sector	Investment Opportunity
U.K./Ireland	◐
Nordics	●
Benelux	●
DACH	◑
France	◑
Spain/Portugal	◑
Italy	◐
CEE and Turkey	◑

Growth Equity

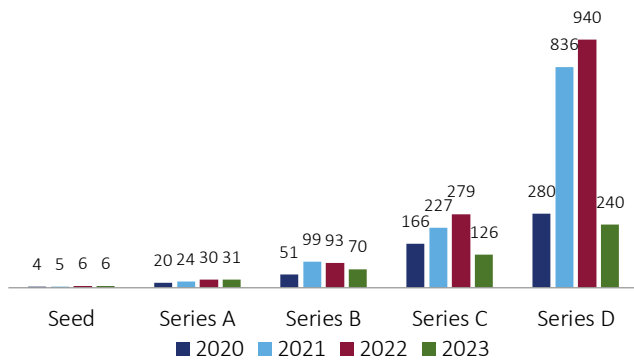
Prevailing economic conditions, characterized by elevated inflation and upticks in interest rates, are expected to exert detrimental effects on the overall performance of growth equity funds and valuation of their portfolio companies. With downward corrections in median EV/EBITDA multiples, investors are shifting focus toward bolstering EBITDA itself rather than pursuing multiple expansions via financial engineering—an approach that was more conducive to the growth equity segment during periods of low-interest rates. This strategic pivot is mirrored in recent fundraising activities, with buyout funds representing 71% of the aggregate funds closed to date this year, in stark contrast to a mere 6.5% for private equity growth or expansion funds. The continuation of this trend from 2022, although greater than in antecedent years, was a foreseeable consequence of the altered macroeconomic context. Investors are progressively gravitating towards assets that exhibit robust mechanisms to combat inflation and preserve pricing authority. With the significant shift from the pursuit of growth at any cost that characterized the ethos of 2021, the years 2022 and 2023 saw a tempered approach, with an emphasis on the intrinsic financial health and profit-making capabilities of the organizations.

Preferred sectors among private equity growth investors include health care, business services, and software, with the latter commonly commanding the highest proportion of transactions.

Charts are for illustrative purposes only.

Venture Capital

Europe VC Median Post-Money Valuation (€ Millions)



Source: Pitchbook.

Despite lower deal activity and substantial valuation corrections since 2022, the European VC market continues to demonstrate long-term structural growth. Particularly, the second half of 2023 has witnessed an increase in deal activity, suggesting the market may have bottomed out. Nonetheless, the macroeconomic outlook in Europe remains uncertain, characterized by geopolitical instability, and high inflation and interest rates. Notably, despite market corrections, early-stage valuations, especially at the seed and series A stages, have proven resilient, showing consistent growth in the last five years. On the contrary, later-stage deals at series C and beyond, have experienced significant corrections as investors adopt a more cautious approach to deployment, and mature companies see their valuations recalibrated based on flatter revenue growth trajectories as focus has shifted from growth at all costs to profitability. We maintain a positive outlook in the European VC space as we believe the current environment provides an opportunity to deploy new capital at more attractive valuations and in a less competitive environment. Importantly, capital is expected to favor established managers who can effectively navigate the current market dynamics.

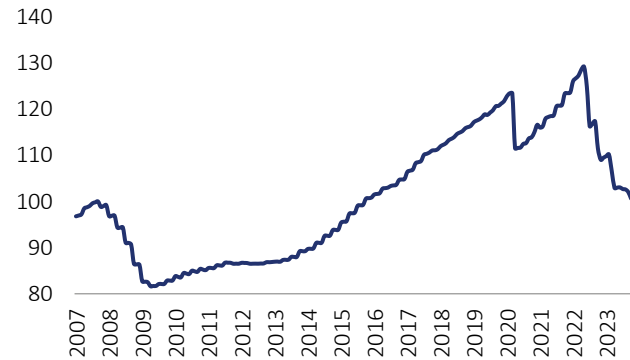
Private Real Assets

Strategy	Outlook	Key
Real Estate	●	● Highly Favorable
Natural Resources	●	● Favorable
Infrastructure	●	● Neutral
		● Cautious
		○ Unfavorable

Charts are for illustrative purposes only.

Real Estate

Pan-European Commercial Property Price Index



Source: Green Street, as of October 5, 2023. Core Sector Average is equally weighted between the Industrial, Office, Residential, and Retail sectors. Indexed to 100 in September 2007.

The European real estate market has experienced material value declines, with further losses expected in the first half of 2024 before an anticipated improvement in sentiment. Sector-wise, office vacancies are rising, logistics are showing signs of slowing, retail is experiencing mixed pressures, while the living sector remains resilient despite regulatory changes and higher borrowing costs. Particularly noteworthy is the low level of new supply. After years of low activity, renewed developer caution and higher construction costs, the pipeline for 2024 and beyond has stalled. Low supply will offer upside risk to rental growth expectations and provide material opportunities in specific sectors.

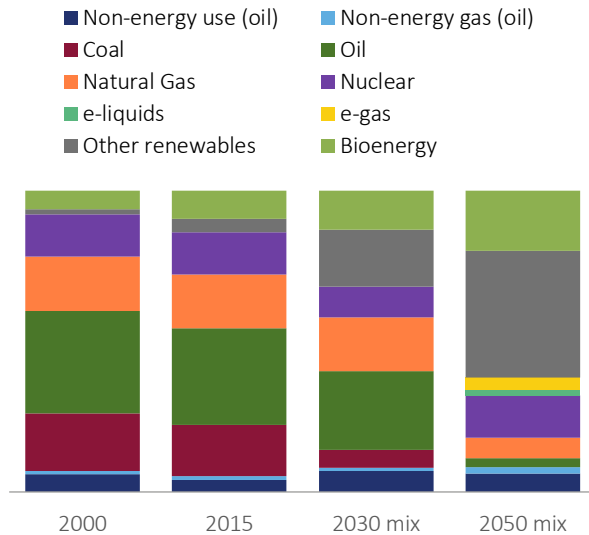
In terms of innovation, artificial intelligence and machine learning are increasingly seen as an ESG tool in modelling climate risk and monitoring tasks such as identifying leaks or resource wastage. Augmented reality and virtual reality are making real estate marketing more immersive. While these technologies require material upfront costs, we see continued adoption in the market.

In Europe, real estate is very 'local' and remains characterized by material property undersupply, and it continues to be a highly fragmented region compared to the United States. We remain focused on value-added and opportunistic strategies, which may provide an opportunity for excess returns in this environment. We focus on niche, operational asset classes which are being underpinned by global megatrends, including decarbonization and energy transition, information technology, demographics and urbanization. We believe there will be stronger opportunities to benefit from better entry prices for value-added assets in 2024.

Natural Resources

Energy Mix Evolution

EU Energy Mix Evolution: 55% Lower Emissions in 2030 Compared to 1990 and Climate Neutrality in 2050



Source: World Economic Forum, European Council on Foreign Relations, 2021.

In recent years the world has seen increased integration of the global energy industry. The combination of continuing growth in energy demand and the drive to solve climate issues, including widespread commercialization of wind, solar and other renewable energy forms, is breaking down segment barriers. A transition to a low-carbon economy appears inevitable and has been accelerated by Europe’s recent energy security concerns. The EU has joined others in committing to net-zero carbon emissions by 2050 and was even more ambitious by announcing that it would reduce emissions more aggressively upfront by 55% from 1990 levels by 2030. Among others as part of the Next Generation EU stimulus package, EU leaders committed to focusing on spending on climate-related projects. Against this context, we consider the trend towards decarbonization and energy transition to increasingly offer compelling investment opportunities in natural resources, supported by renewables having rapidly approached cost-competitiveness against turbulent and higher gas and carbon prices. Preqin forecasts that Europe will continue to grow as the stronghold for the future of natural resources. Focused more on energy strategies, Europe has taken over as the preferred region for investors, with APAC emerging and the United States declining.

Infrastructure

Global Mobile Data (Exabyte per Month)



Source: Cisco Annual Internet Report (2018 – 2023), Campbell Lutyens.

Infrastructure, as an asset class on a diversified basis, has proven to be resilient through previous market downturns as well as the COVID pandemic. However, clear differences between sectors exist (e.g., midstream oil versus digital infrastructure). European infrastructure represents a growing market opportunity that benefits from political support. Digital infrastructure, electrification and P2X, in particular, are expected to be key themes going forward, with sector specialization becoming increasingly important. In the face of today’s volatile energy price environment, infrastructure often benefits from protective asset-level concepts such as CPI-linked revenues or pass-through mechanisms. Nonetheless, with rising interest rates reducing the role of financial engineering in value creation, we believe that active management and a hands-on approach have become increasingly important, and therefore continue to see strong opportunities in the value-add space versus lower-yield core infrastructure. Finally, as the European private infrastructure market has matured, established players have moved up-market, leading to compelling dynamics in the mid-market segment.

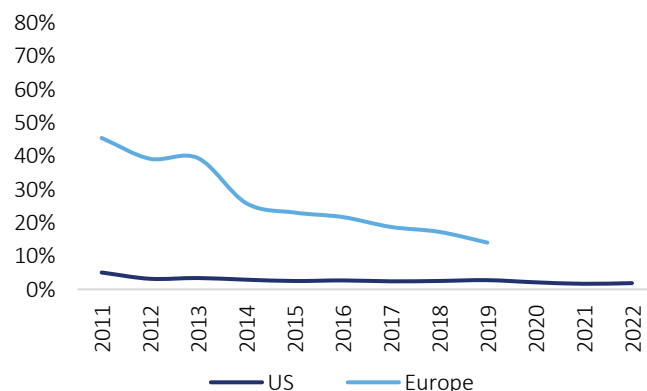
Private Credit

Strategy	Outlook	Key
Direct Lending	Neutral	● Highly Favorable
Distressed Debt	Favorable	● Favorable
Opportunistic	Favorable	● Neutral
Alternative Yield	Neutral	● Cautious
		● Unfavorable

Charts are for illustrative purposes only.

Direct Lending

European Banks' Share of the Primary Market



Source: S&P LCD Q3 2023. Given the lack of primary issuance in Europe, LCD did not track enough observations to compile a meaningful sample for 2009, 2020, 2022 and YTD 2023. As a result, the primary market investor charts are not updated for these periods.

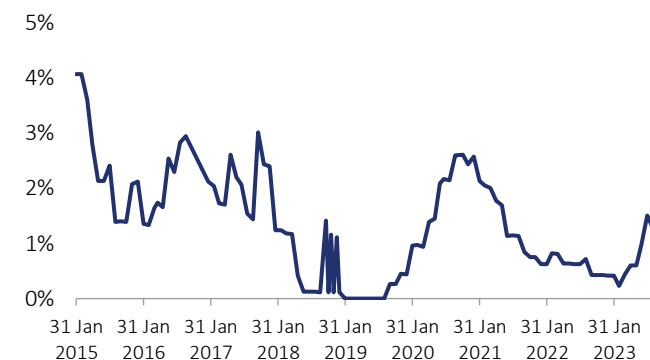
The European direct lending market is growing fast on the back of investors' appetites for a yielding asset class and low volatility, in combination with European bank lenders retracting from middle-market lending. This bank retrenchment is due to regulatory constraints designed to de-risk European banks in the aftermath of the Global Financial Crisis (GFC). Private equity-induced borrower demand has also contributed to the strong increase in the AUM of this asset class. Private equity sponsors have increasingly tapped into the private debt markets in 2022 given the stop/starts in the syndicated markets as a result of the war in Ukraine and economic volatility. In 2023, as transaction volumes have decreased, driven by a correction in valuations, so has demand for debt financing. Private equity sponsors are holding companies longer in their portfolios in order to grow into their valuations through M&A.

As far as traditional direct lending is concerned, the European market is characterized by a high concentration of deal flow among the very large top-tier managers, with long-term experience through the cycles and a strong track record. We generally favor more niche lending opportunities, including a focus on mid-market companies that struggle to get access to traditional sources of funding. The managers active in this space have seen a significant improvement in terms and pricing as the macroeconomic headwinds have led to successive rate hikes and are exacerbating the banks' reluctance to lend to European SMEs. The overall trend is improved pricing while leverage levels have been more conservative, therefore reducing the overall risk for direct lenders. We expect a continuation of this trend through 2024.

Charts are for illustrative purposes only.

Distressed Debt

European Lagging Twelve-Month Loan Default Rate



Source: S&P LCD Q3 2023. Based upon principal count, S&P European Loan Index.

While the tipping point for the next cycle is impossible to forecast, some structural characteristics continue to create distressed debt opportunities in Europe. Despite concerted efforts across the European region to improve bank capitalization in recent years, the prolonged effects of zero/negative interest rates and Basel IV regulations continue to challenge the financial health of the region. Post-COVID, improved banking capitalization throughout the eurozone has continued to create non-core, non-performing loan sell-offs favorable to distressed debt investors. In prior years, central banks have maintained their belief in the transitory nature of certain economic factors, leading to an eventual abrupt and substantial tightening of monetary policy in 2023 as inflation turned persistent. Within the eurozone, governments that heavily borrowed during the COVID-19 pandemic now find themselves compelled to adopt an expansionary fiscal stance to support businesses, to counteract rising energy costs and a significant increase in borrowing expenses. Corporations, initially benefiting from historically high profitability post-pandemic, are now confronted with persistent cost escalations, challenging their revenue streams and cash flow. These hurdles coincide with an environment of increasingly scarce capital. The scaling back of government stimulus packages and COVID loans reaching maturity may coincide with an inability to refinance and of banks lifting moratoria imposed by governments. In addition, similarly to market dynamics in the United States, European companies have been steadily leveraging their balance sheets since the GFC. The combination of disruption in supply chains and the inflationary pressures from the energy crisis will continue to challenge highly-levered companies in light of the sharp increase in the cost of debt, ultimately leading to financial stress and distress, which can create opportunities for distressed investors in the continent.

Opportunistic Credit

European Par-Amount Leveraged Loans Outstanding in Secondary Market



Source: S&P LCD Q3 2023. S&P European Loan Index.

Opportunistic strategies seek complexity and dislocation, in market segments where demand for capital exceeds supply. It is essential for managers of opportunistic strategies to have the agility to adapt their skillset to a changing market environment. In 2024, we expect a continuation of the opportunities that arose this year as the war in Ukraine has refocused bank lending to core assets and sponsors, reducing the supply of available capital in the market for SMEs. The energy crisis in Europe has also led to a more entrenched inflation profile, which led to an aggressively restrictive monetary policy by the ECB, negatively affecting credit metrics which in turn can lead to volatility and dislocations. This will continue to generate opportunities in the European opportunistic credit space for companies with liquidity needs that are not met by the more traditional capital markets, requiring alternative sources of financing, such as capital solutions to fund growth. Following COVID, many businesses have a layer of (senior) government debt in their capital structure, which adds complexity in case these businesses run out of liquidity. While the large opportunity set of leveraged loans provides primary opportunities, the secondary side continues to provide a healthy turnover of loans in Europe, also in times of market stress, from which managers can source opportunities.

Alternative Yield

Alternative yield managers pursue a broad array of niche strategies. These managers tend to target one small industry, requiring highly specialized expertise. While the market in the United States is significantly deeper, in Europe asset-backed loan portfolios, catastrophe bonds, funds specializing in non-life settlements, and capital relief transactions with European banks are examples that have come to market. We view these types of non-traditional strategies favorably because of the limited exposure to competition, the uncorrelated nature, and the attractive yield component.

Charts are for illustrative purposes only.

Asia-Pacific

Regional Context

The post-COVID recovery is trending positively across Asia-Pacific in 2023. China’s economy rebounded slower than expected in 2023 since its reopening in the first quarter of 2023, but the overall pace of recovery is similar to that of Western developed markets. Nonetheless, the Chinese government has ample monetary and fiscal tools to support future growth. Overall, all key economies in the Asia-Pacific region are expected to report respectable economic growth for 2023 and 2024, while maintaining manageable rates of inflation. With this view we have distilled the 2024 Global Megatrends into regional context and local opportunity themes in Asia-Pacific.

	Regional Context	Local Opportunities
Technology	Continuous Tech Advancement Maturing Venture Ecosystem Accelerated Digital Adaptation	B2B Services Supply Chain Transformation New Consumer
ESG	Social Equality Demographic Shifts Carbon Neutrality	Health Care Elderly Related Services Environmental
Interest Rates	Economic Recovery Public Market Downturn Aging Population	Consumption Upgrade Supply Chain Efficiency PE Secondaries
Geopolitics	Global Supply Chain Reorganization Intra-Regional Trade	Domestic Consumption Advanced Manufacturing Business Service Outsourcing

Geopolitics has been the key theme of the Asia-Pacific region since 2022 and this is expected to continue in 2024. Recent meetings between U.S. and Chinese leaders have shown signs of moderation, but the reorganization of the global supply chain continues as businesses mitigate surrounding risks. This in effect has reduced China’s exports. Meanwhile, Southeast Asia benefits from the geopolitical situation, with its trade to both China and the United States reporting solid growth. In particular many U.S and Western companies are diversifying their manufacturing facilities and suppliers away from China to India and Southeast Asia, while Chinese companies are building their footprint in Southeast Asia to help facilitate global trade. Overall, with the reorganization of the global supply chain and an increase in intra-regional economic activities, it is expected that the correlation between the U.S./developed markets and China may become lower in the coming years, which in turn enhances the

diversification benefits of incorporating Asia-Pacific in a global investment portfolio. In the short-term, it is expected that advanced manufacturing and business/outourcing services in Southeast Asia and India will benefit from the current geopolitical situation. China’s continued focus on self-sufficiency will benefit the sectors and investments related to domestic consumption, supply chain efficiency, and selected advanced manufacturing and deep tech where China has competitive advantages on a global basis.

When taking a macroeconomic perspective, Asia-Pacific faces fewer concerns relating to inflation and interest rate risks. In general, the region continues to enjoy the uptrend of a growing middle class, increasing consumption power, and urbanization. As the region gradually recovers from COVID and abolishes travel restrictions, areas relating to supply chain efficiency and consumption are expected to enjoy tailwinds.

Technology and innovation are widespread (and remain the key growth driver) in Asia-Pacific. Notably, the mature venture capital ecosystem in China is equipped with an abundant supply of talent and strong government support for technological innovation, which has been re-emphasized in China’s latest National Congress, as well as the integration of the full investment cycle from early-stage investing to the build-up of local champions. Southeast Asia is also catching up with a strong adaptation of technological advancement, favorable macro factors and supportive government policies. The technology venture ecosystem in Japan has also grown significantly in recent years, given its sizable talent pool, increased government support and rising investor interest in this space. In addition, India has seen its tech sector take off after launching the universal identification system, Aadhaar, and other tech-related initiatives, while Korea and Australia have demonstrated their strengths in specific tech subsectors such as fintech and software, respectively. Overall, we believe a wave of opportunities can arise from digital consumption, supply chain efficiency, technology enabled B2B services, and health care tech sectors.

Meanwhile, ESG has become an increasingly important subject in the region. Particularly, environmental issues are one of the key socio-economic themes. Tech-driven environmental investments such as electric vehicles and the associated ecosystem, recycling and waste management are expected to gain popularity, which would achieve the goal of carbon neutrality.

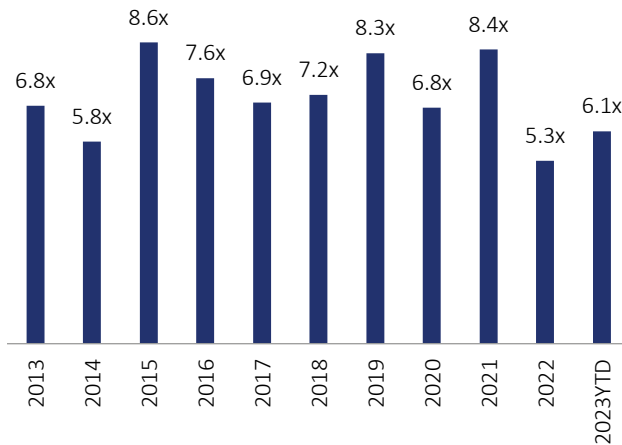
Charts are for illustrative purposes only.

Private Equity

Strategy	Outlook	Key
Buyout	Neutral	● Highly Favorable ● Favorable ● Neutral ● Cautious ○ Unfavorable
Growth Equity	Favorable	
Venture Capital	Favorable	

Buyout

Asia Pacific Median EV/EBITDA of M&A Transactions

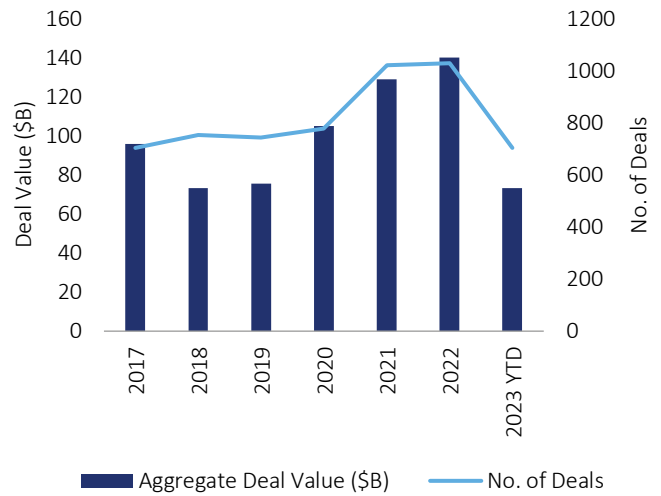


Source: Pitchbook, as of November 27, 2023.

The major developed Asia-Pacific economies (including Japan, South Korea, Singapore, Australia, and New Zealand) continue to be the key focus markets for buyout opportunities. With relatively lower inflation risk and lower interest rates as compared to the United States and Europe, the buyout markets in developed Asia-Pacific remain solid. We view the mid-market space as the most attractive segment within the Asia-Pacific buyout space given its supply-demand imbalance with strong deal flow and attractive valuations, and note that 2024 and 2025 are expected to be fundraising years for many mid-market focused regional and country-focused funds. Meanwhile, succession issues and growth-oriented buyouts (especially those related to market expansion) will continue to be the key themes in this region, while carve-outs and take-private transactions remain opportunistic. Geographically, Japan and Southeast Asia appear to be the most interesting buyout markets in the coming year.

Growth Equity

Asia Pacific Buyout and Growth Capital Investment Deal Value



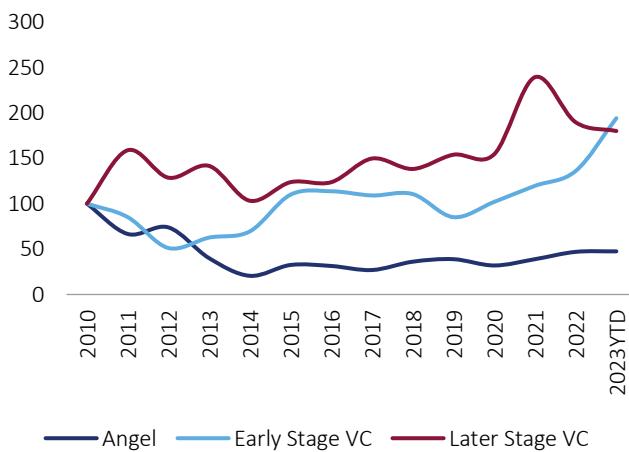
Source: Preqin, as of November 27, 2023.

Growth equity remains the largest segment within private equity in Asia-Pacific, mainly driven by deal flow in developing Asian countries. 2023 has shown a decline in growth capital deal value with a decline in the number of deals, reflecting an overall slowdown in investment activity due to macro uncertainties and slower fundraising progress, particularly in China. One of the key reasons for this phenomenon was the decline in pre-IPO and late-stage investments during the year given the significant public market corrections. In addition, slower fundraising in China, the largest subset of private equity in the region, has weighed down the overall decline. Nonetheless, we view China growth capital investments positively in the long term, as macro fundamentals remain intact and the government still has ample room for fiscal and monetary stimulus for further long-term growth. Specifically, we focus on managers that have gone through cycles and have emphasized their focus on tangible operational value-add and exits. In addition, we believe there may be interesting opportunities arising from Southeast Asia with the reorganization of global supply chains.

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Venture Capital

Asia-Pacific Venture Capital Pre-Money Valuation Index (2010 = 100)



Source: Pitchbook data, as of November 27, 2023. Indexed with 2010 as base year and used the median of pre-money valuation.

2023 has been a tough year for the venture capital market in Asia-Pacific, particularly for China, due to geopolitical challenges and the significant decline in fundraising, investment and exit activities. Later-stage VC valuations have rationalized after peaking in 2021 as public markets experienced significant corrections. Notably, early-stage VC valuations have increased as existing dry powder clusters into a smaller pool of high-quality, serial founders in the current environment. Nonetheless, we have consistently stayed focused on early-stage VC strategies in the Asia-Pacific and backed GPs that remain disciplined in terms of valuation and have both diversified portfolios and track records that have sustained through multiple cycles, as high-quality GPs are now able to negotiate for greater protection with stronger bargaining power.

We continue to be bullish on China VC, which is the biggest VC market in the region (and the second largest in the world) with a mature ecosystem. Despite the current environment, high quality fund managers in China continue to fundraise successfully as investors concentrate their investments. Overall, we strategically leverage the current market correction as a window to establish relationships with top VCs that are access constrained. We focus on the GPs’ portfolio construction and domain expertise, their understanding of government policies and national economic directions, their ability to exit investments via multiple channels, and their experience through various economic cycles.

For the rest of the Asia-Pacific VC markets, significant time and effort is spent on the top echelons in each individual market (i.e., Southeast Asia, Japan, Korea, Australia, and India). Different regions have discrete and distinct tailwinds

that drive the growth of VC and can expose investors to a diversified set of return drivers. For example, tailwinds in Southeast Asia and India are driven by greater digital economy growth as fundamental shifts in consumption methods from COVID persist, while Japan’s focus of software is driven by the reduced workforce, efficiency enhancement and digitalization of traditional businesses. Overall, the VC ecosystem across the Asia-Pacific continues to develop driven by structural demographic shifts, high adaptability to technology, and favorable government policies. In particular, we look for GPs that have a strong local presence and network in their key markets, a differentiated strategy, a time-tested track record, as well as the ability to exit investments via different channels and generate meaningful realizations.

Private Real Assets

Strategy	Outlook	Key
Real Estate		● Highly Favorable
Natural Resources		● Favorable
Infrastructure		● Neutral
		● Cautious
		● Unfavorable

Real Estate

S&P Asia Property 40 Index



Source: S&P Capital IQ, as of November 27, 2023.

Asia-Pacific real estate enjoys sustainable macro tailwinds. Warehousing, logistics, and IDCs continue to benefit from the increase in e-commerce activities, continuous digital transformation, and rising demand for cloud computing in the region. Offices, particularly the high-quality ones in major metropolitan cities and landmark locations, receive strong demand post-COVID due to continuous urbanization and a generally weaker work-from-home culture (with the exception of Australia) as compared to the United States and Europe. The hospitality sector has returned to pre-

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COVID levels of activity as travel restrictions are lifted and now face a shortage of high-quality supply. Residential real estate remains resilient in most Asia-Pacific economies, apart from China. Nonetheless, the crackdown in China has ended and the government understands the need to improve sentiment and has pushed for the growth of affordable housing.

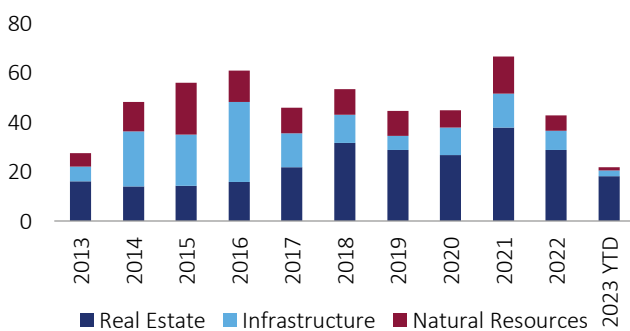
Overall, we view favorably (1) the value-add and opportunistic strategies within the Asia-Pacific real estate market, and (2) the pan-regional funds (with an emphasis on developed Asia) due to their geographic diversification benefits. All in all, economic, demographic, and cultural factors specific to Asia-Pacific support sustainable real estate demand across multiple sectors with discrete growth drivers both intra-regionally and relative to the U.S. and European markets. We also observe that, generally, Asia-Pacific real estate funds' returns have lower volatility when compared to U.S. and European peers, and believe that adding Asia-Pacific exposure can provide strong diversification benefits for global portfolios.

Natural Resources

Fundraising activities for natural resources funds in Asia-Pacific have remained low since 2013. This trend in part results from the lack of clarity in the energy sector, as energy supplies in Asia remain insecure. Overall, we view the risk-return profile of Asia-Pacific natural resources as less attractive compared to other regions or other Asia-Pacific strategies.

Infrastructure

Asia-Pacific Private Real Assets Fundraising Activity (\$bn)



Source: Preqin, as of November 27, 2023.

Robust infrastructure investments and development are expected to continue. Together with the recovery in economic activities in the post-COVID era, Asia-Pacific infrastructure looks to benefit from the increasing supply of capital. Nonetheless, participation from global institutional investors (as a percentage of total infrastructure investment in Asia-Pacific) is expected to remain low, given the relatively high political, regulatory and commercial risks

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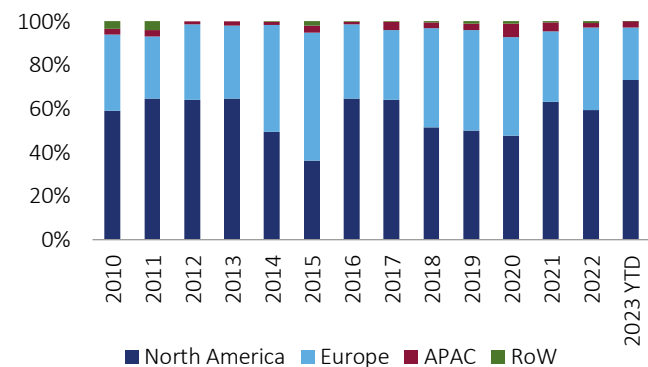
involved. Overall, we view risk-adjusted return in Asia-Pacific infrastructure investments as not superior to that of the developed markets in Europe and the United States.

Private Credit

Strategy	Outlook	Key
Direct Lending	●	● Highly Favorable ● Favorable ● Neutral ● Cautious ○ Unfavorable
Distressed Debt	●	
Opportunistic	●	
Alternative Yield	N/A	

Direct Lending and Distressed Debt

Proportion of Aggregate Capital Raised by Direct Lending Funds



Source: Preqin, as of November 27, 2023.

In Asia-Pacific, credit supply heavily relies on the local banking system. Private credit and alternative financing are still at the nascent stage of development, presenting significant runway for long-term growth. With strong demand for credit in the post-COVID recovery stage, more opportunities are expected to arise from the Asia-Pacific private credit segment. However, the sample size of managers with the expertise, track record, and local network to successfully navigate the strategy in terms of origination, structuring, and risk management remains small. While leverage is generally lower and less of a key driver of returns in Asia-Pacific, other issues such as legal and regulatory risks are more prevalent in this market. Exposure to direct lending in Asia-Pacific could provide diversification benefits to investors that have existing private credit exposure in the developed markets. Overall, we tend to be highly selective and overweight (1) direct lending strategy, and (2) Developed Asia opportunities, and (3) managers that adopt a diversified approach in terms of sectors and geographies, from a risk adjusted-return perspective.

Marketable Alternatives

Macro Context

While the U.S. economy remained resilient in 2023 relative to Europe and Asia, we expect multiple regions to continue their decelerating path from a growth perspective, though the drivers vary by region. Higher interest rates and slowing growth will challenge company balance sheets, and the potential reaction functions of central banks expand the uncertainty beyond corporate securities to fixed income and currency markets, and this ignores the significant risks unfolding in the Middle East and the U.S. presidential election. While drivers are different and more nuanced relative to 2023, the opportunity set for marketable alternatives in 2024 remains driven by the confluence of these global economic uncertainties and varied asset class volatility. With this view we have distilled the 2024 Global Megatrends into regional context and local opportunity themes for marketable alternatives.

	Macro Context	Micro Considerations
Innovation	Artificial Intelligence Digital Economy Pharmaceuticals	Cloud/Cybersecurity Biotech Software
ESG	Environmental Initiatives Energy Transition Clean Tech	Renewables Electrification Health Care
Geopolitics	Territorial Disputes Supply Chain Configuration Policy Dispersion	Industrial Onshoring Discretionary Macro Commodity Trading
Interest Rates	Interest Rates Slowing Growth Credit Contraction	Volatility-Based Stressed/Distressed Active Trading

The large macro-driven selloffs of 2022 gave way to a more benign environment for risk assets in 2023, with many equity indices up double-digits on the year and the VIX declining by over 70%. Credit performed similarly well, and bonds were virtually flat as the Fed came to a pause in the current hiking cycle. The resilience of the U.S. economy and yield differentials led to outperformance versus other geographies, as European considerations pivoted from inflation to growth risks and China largely underperformed expectations after lifting its “zero COVID” stance.

Though the Fed (among other central banks) has communicated a likely end to the current hiking cycle and the market is pricing in potential cuts, we maintain the expectation for rates to remain higher for longer. The combination of higher rates and continued quantitative tightening will likely decelerate growth broadly (even in the

United States), resulting in higher volatility in equities and credit, rising default rates, and both company and industry dispersion. This landscape complicates the reaction functions of central banks, even if inflation has come significantly off its peak, and we expect volatility in bond and currency markets to remain elevated. We maintain our preference for strategies with secular or policy tailwinds and strategies that proactively take advantage of company, industry, geographic, and policy dispersion. Though our response to similar levels of uncertainty was a constructive view for marketable alternatives in 2023, the equity outperformance and volatility compression yield a more restrained outlook for equity-centric strategies in 2024.

Within directional equity and credit strategies, we recognize significant tailwinds from the forward-looking impact of the Inflation Reduction Act within alternative energy and infrastructure, as well as the ongoing technology-driven themes around AI and life sciences. However, headwinds due to higher rates lead to a more cautionary stance relative to 2023. Stressed credit strategies stand to benefit as debt servicing capabilities are tested and credit contraction continues, notwithstanding a more dramatic credit dislocation that may yield distressed opportunities.

Diversifying multi-asset strategies also remain compelling in an environment of declining growth, policy uncertainty, geopolitical instability in several regions, and monetary policy dispersion. As the COVID-19 era fades and countries exit the somewhat parallel stimulative and contractionary cycles over the past few years, relative value opportunities in fixed income and currency markets are expected to emerge. Lastly, the compression of equity volatility results in a preference for strategies that can directionally short risk assets or take advantage of the cheap convexity available.

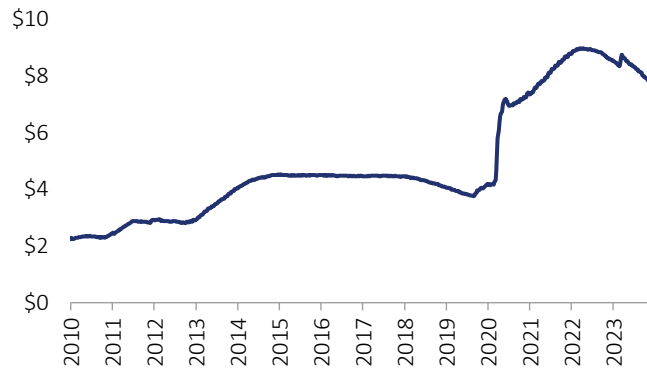
Marketable Alternatives

Strategy	Outlook	Key
Macro/CTA		Highly Favorable
Equity Hedge		Favorable
Credit		Neutral
Event Driven		Cautious
Relative Value		Unfavorable

Charts are for illustrative purposes only.

Macro/CTA

Federal Reserve Balance Sheet

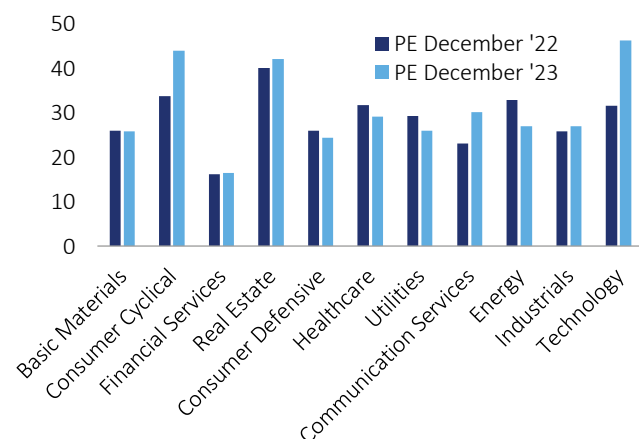


Source: FRED. As of November 2023.

Macro managers have braced themselves for an environment rife with uncertainties from leading global economies, compounded by a recent compression in equity volatility. Discretionary macro strategies are favored given their flexibility to shift allocations quickly and to exploit relative value opportunities across the fixed income and currency space. Trend-following strategies currently exhibit a less-defensive profile given their long equity and short fixed income positions, leading to a preference for active trading strategies with shorter trading horizons. More broadly, we continue to recognize a host of commodity trading tailwinds, infrastructural shifts due to climate policy, supply chain realignments, and stringent supply conditions, leading to a positive view for commodity specialists in both discretionary and systematic applications. Lastly, elevated returns on cash will continue to benefit derivative-based strategies generally.

Equity Hedge

U.S. Equity Valuations by Sector



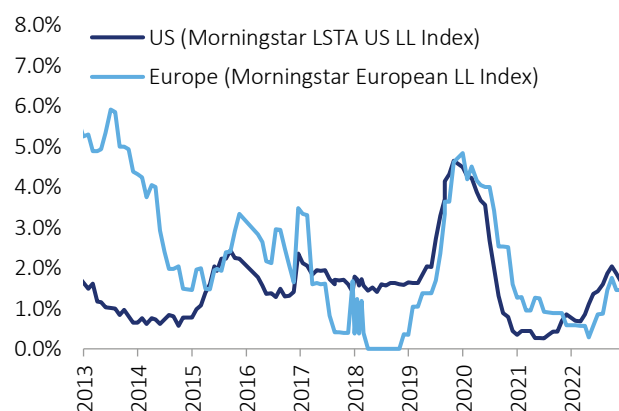
Source: Gurufocus. As of December 2023. Utilizes the Shiller PE Ratio.

Charts are for illustrative purposes only.

The landscape for equity hedge managers is becoming increasingly complex due to several factors. On a forward basis, the Inflation Reduction Act is expected to substantially increase capital expenditure in the alternative energy and infrastructure sectors. However, the shadow of consumer financial stress looms large, reflected by restrained spending and burgeoning household debt. The heightened cost of debt may precipitate corporate defaults, and companies may increase capital outlays to bolster supply chains from future disruptions. Technological innovation remains a bright spot, with sectors like AI and biotech offering promising opportunities despite the broader challenges of a dysfunctional capital market. In the financial sector, the environment of higher rates presents a double-edged sword, benefiting lenders but also tightening credit conditions. Real estate stands at a critical juncture, with rising interest rates exerting a significant drag on valuations yet demand for residential spaces continues unabated by supply constraints. From a technical perspective, rapidly compressing volatility also contributes to a more-cautious stance looking forward. Lastly, though equity indices posted robust performance in 2023, we note that this performance was concentrated in some of the largest names in select indices; even in a scenario of continued outperformance from the “Magnificent Seven,” we expect a more nuanced equity environment and considerable dispersion between sectors with varying thematic headwinds and tailwinds, and between companies that have adjusted cost structures and those that are more exposed to higher rates.

Credit

12-Month Corporate Default Rates



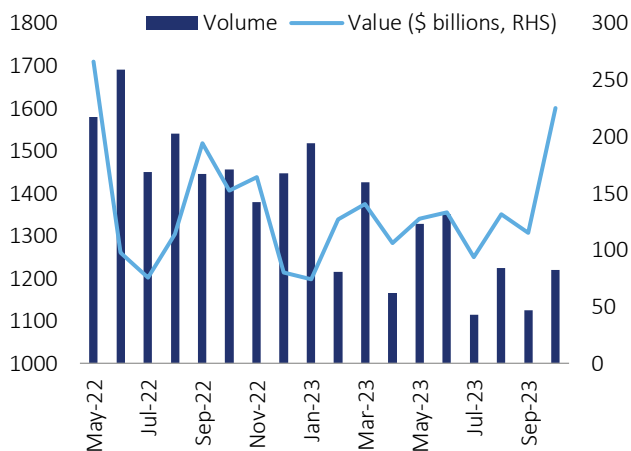
Source: Pitchbook. As of September 2023.

The outlook for credit-related strategies remains positive in 2024, particularly for strategies that emphasize credit fundamentals and retain the ability to deploy capital into instances of stress. Though the pickup in financial stress

and default rates were below expectations in 2023, the drivers remain just as relevant today. Higher interest rates and elevated interest expense levels will continue to challenge companies, and a weakening growth outlook exacerbates this further. The prevalence of covenant-lite issuances and refinancing risk increase conviction around stressed credit strategies where bankruptcy risks are inaccurately priced. In structured credit, risks around commercial real estate remain a key consideration for CMBS exposures, and a weakening consumer picture may test more-sensitive ABS sectors. Short duration profiles, unleveraged fund structures, and actively traded portfolios must be emphasized in this environment, as broad credit stress can be a headwind for the peer group. Diversifying and more-insulated exposures are also favored in this context, including non-traded short duration credit (e.g., receivables factoring, working capital finance) given more control over price and structure relative to the CUSIP space, and insurance-linked securities which benefit from capital constraints and a structural lack of correlation to broader credit headwinds.

Event Driven

Monthly M&A Activity



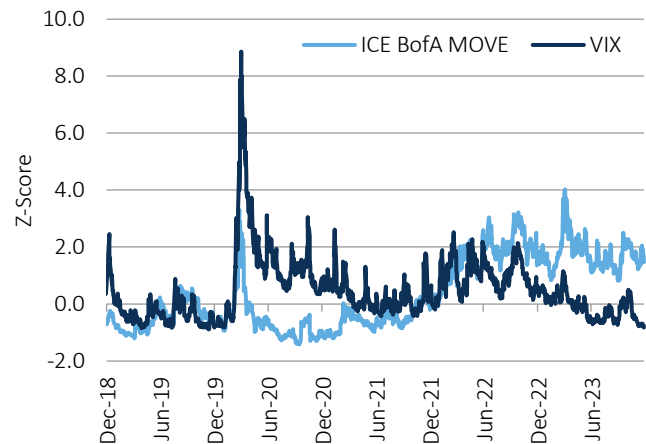
Source: FactSet. As of October 2023.

The event driven outlook remains mixed due to market headwinds and regulatory uncertainty as the U.S. election looms in the latter part of the year, resulting in a preference for managers adept at navigating across capital structures. Potential changes to the anti-trust environment have particular implications in industries like energy and tech-driven health care sectors, but these are largely forward-looking after the election results in the fall. Additionally, the reliance on significant leverage within many of these strategies introduces substantial risk and increased cost in a slowing economy. While current default

rates imply limited immediate distressed opportunities, high interest rates and recessionary forces may create fertile ground for distressed-driven strategies in the medium term. Merger arbitrage, after a period of adjustment to rapid rate increases, could see revitalization if markets stabilize and regulatory hurdles ease, though there is substantial uncertainty around both of these assumptions.

Relative Value

Equity and Fixed Income Volatility



Source: CBOE, ICE. Measures 10-year Z-Score of the VIX and MOVE Indices. As of December 2023.

Relative value strategies are diverse, though many strategies tend to outperform in volatile markets absent extreme or prolonged downturns in risk assets, resulting in a sustained neutral stance for the strategy group overall. The benign equity environment and a resurgence in convertible bond issuance has renewed the opportunity set for convertible arbitrage strategies, though these strategies tend to suffer during market stress and credit dislocations. From a dispersion perspective, strategies like equity market neutral, fixed income arbitrage, and volatility arbitrage ought to enjoy above average opportunity sets, but the lingering risks around credit, slowing growth, and high levels of leverage temper our views on these opportunity sets. Lastly, while fixed income may have renewed its potential hedging benefits to traditional portfolios given the increase in yields, the compression in equity volatility has reduced the cost of convexity for long-biased volatility managers; additionally, while inflationary risks loom, central bank reaction functions to economic stress may vary from prior instances of economic weakness.

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