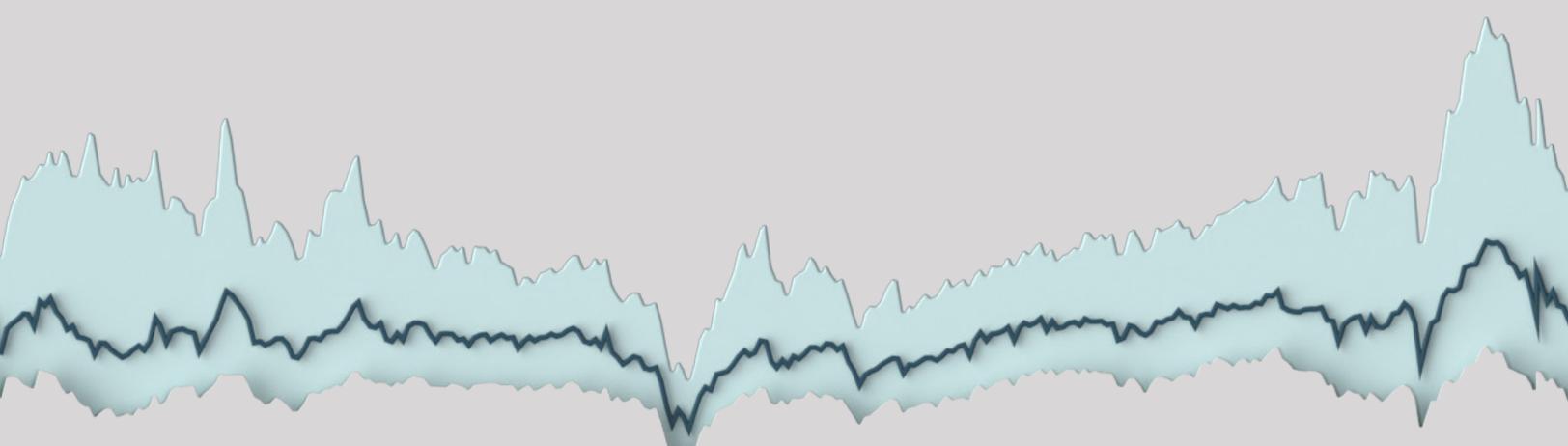


ALTER YOUR TRAJECTORY

Eight themes changing the
course of the 60/40 portfolio



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BNY Mellon Investor Solutions



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SUMMARY

Adding More Alternatives

The economic cycle has returned and institutional investors face many cyclical and secular challenges. After a decade in which most major asset classes delivered attractive returns, 2022 was a shock for investors who trusted the traditional 60/40 portfolio to offer growth, income and a ballast against market turbulence.

Our annual 10-Year Capital Markets Assumptions highlighted the increasing importance of alternatives within a well-diversified portfolio. Yet, a recent survey by Preqin found that half of institutional investors invest in two alternatives or fewer.¹

Investors with exposure to alternatives suffered less on a risk-adjusted basis in 2022. Hedge funds tracked by the HFRX Global Hedge Fund index made an average loss of 4.4%, compared to a loss of 18.1% for the S&P 500. The Cambridge Associates Private Equity and Venture Capital indices outperformed their public markets' equivalents.

Alternative investments, such as hedge funds, can enhance the traditional 60/40 portfolio. Increasing the share of alternatives improves risk-adjusted returns by providing low correlation to and a higher return potential than stocks and bonds alone.

CHART A Hedge Funds Can Improve Risk-Adjusted Returns*



Past performance is no guarantee of future results.

Source: Equity represented by MSCI World Index (USD Net Div); Fixed Income represented by Bloomberg U.S. Aggregate Bond Index; 20% allocation taking proportionately from equity and fixed income to fund HFRI Fund Weighted Composite.

*The traditional and diversified portfolios presented herein are not representative of a specific strategy managed by BNY Mellon Investor Solutions, LLC as of the date of this publication and are not intended to constitute an advertisement of a specific BNY Mellon Investor Solutions, LLC product or service; instead, all information, content and materials are for general informational purposes only.

Takeaway

Adding hedge funds to a 60/40 portfolio has historically increased returns, lowered volatility and produced a higher Sharpe ratio.²

¹ Preqin Investor Outlook: Alternative Assets H1 2023.

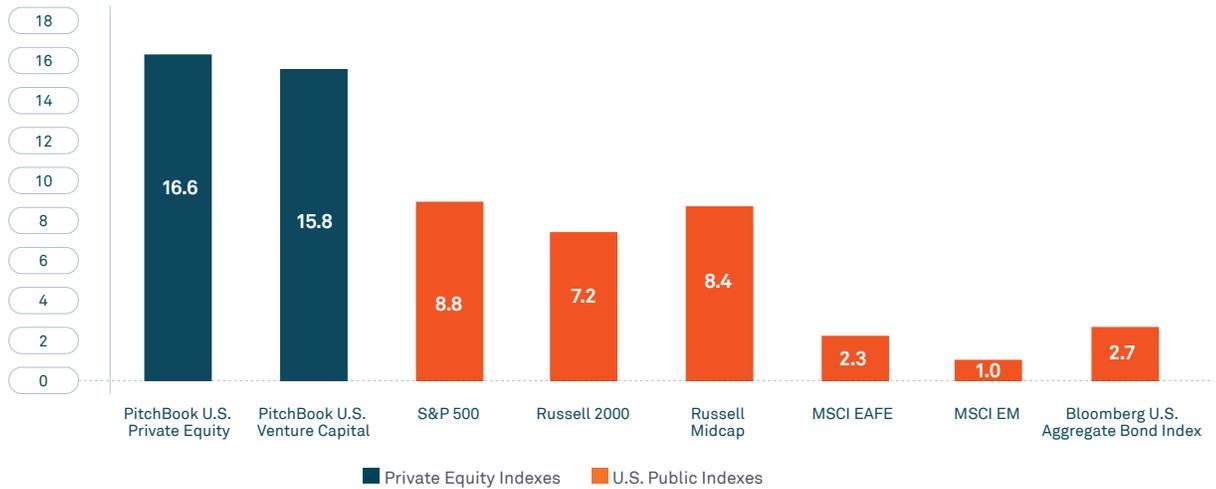
² The Sharpe ratio is a risk-adjusted measure that calculates reward per unit of risk (average return minus the risk-free rate divided by the standard deviation of return on an investment). The higher the Sharpe ratio, the better.

The challenge for investors is to identify which asset classes can deliver the greatest improvement for portfolios to drive returns.

Alternative Investments 2023 explores eight cyclical and secular themes. In 2023, we face many of the same challenges as those of the recent past, and so the ability of traditional 60/40 portfolios to generate public market returns comparable to the past two decades will be hindered. However, the same themes that threaten traditional portfolios make the case for robust portfolios with alternatives. These portfolios can potentially deliver the historical returns of traditional portfolios and offer additional solutions to absorb market shocks.

CHART B Relative Performance of U.S. Private Equity and Public Equity

Annualized Returns % Q1 2008-Q4 2022



Past performance is no guarantee of future results.

Source: PitchBook and Bloomberg. Data as of December 31, 2022.

CHART C Thematic Compass for Alternative Strategies and Selections

We believe markets will be driven by four factors, which individually or collectively determine the optimal use of alternatives for our eight key cyclical and secular investment themes.

Policy

Rising rates, tax policy and fiscal investments will expose headwinds and also provide tailwinds.

Valuation

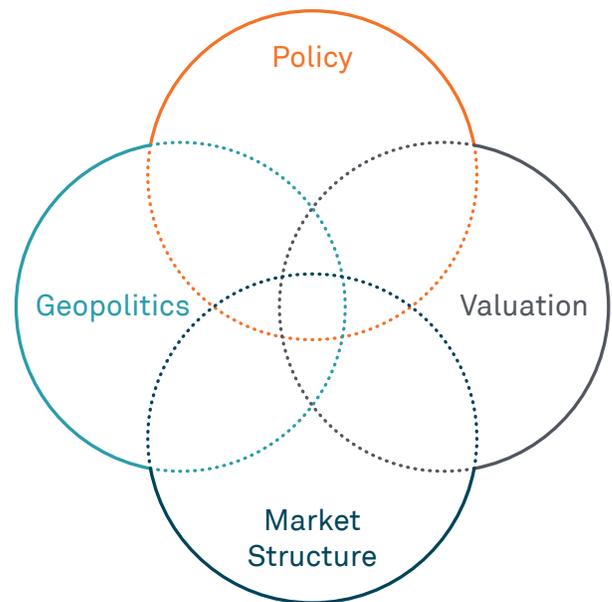
More relevant given recent drawdowns in some assets.

Market Structure

Dislocations, volatility and changes to long-term correlations provide opportunities.

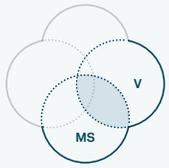
Geopolitics

Driven by international conflict, localization and competitive advantage.



Diagrams are for illustrative purposes only and do not represent actual investments.

COMPASS



- Valuation
- Market Structure

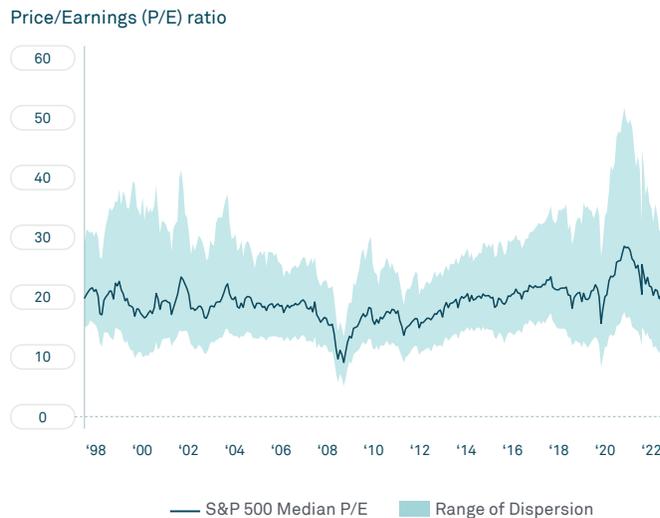
CYCLICAL THEMES

Volatility and Market Dislocations

Volatility in public markets has increased and is expected to remain elevated. Periodic dislocations, often fueled by reduced liquidity in the public markets, are becoming more common. This increases the frequency of potential entry points for opportunistic investors.

Higher correlation between stocks and bonds during volatile periods is a significant headwind for 60/40 portfolios, as seen in 2022 when both equities and bonds delivered negative returns. This increases the importance of strategies with low correlation to public markets, which diversify portfolios, as well as opportunistic strategies that can take advantage of market dislocations.

CHART 1.1 Dispersion Among S&P 500 Stocks Has Been on the Rise

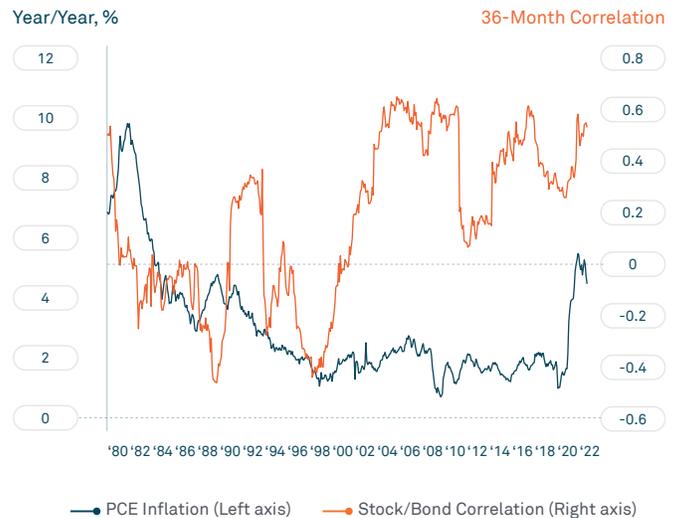


Source: Bloomberg. Data as of December 31, 2022. Shaded area represents 20th to 80th percentile.

Takeaway

Increased dispersion among securities creates more opportunities for alpha³ generation.

CHART 1.2 Long-term Trends in Inflation and Stock/Bond Correlation



Source: Personal Consumption Expenditures Index (PCE), Bloomberg. Data as of December 31, 2022.

Takeaway

The link between rising inflation expectations and stock/bond correlation underscores the added diversification benefits of alternatives.

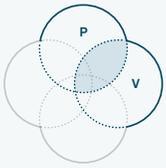
Solutions that dampen portfolio volatility through hedged market-neutral positioning include **equity market neutral, long/short equity and relative value**. Strategies such as **global macro, distressed investing and opportunistic real estate** are positioned to take advantage of dislocations by acquiring good assets or businesses at attractive valuations while potentially trading around dislocations.

³ Alpha is a measure of active return on an investment, above the return of the market or benchmark. A positive alpha is the extra return awarded to the investor for taking a risk instead of accepting the market return.

STRATEGY	FEATURES
Equity Market Neutral and Relative Value	Market neutral and relative-value hedge fund strategies have historically delivered consistent returns, with significantly lower volatility than public markets over market cycles.
Global Macro	Utilizes equities, fixed income, currencies, commodities and derivatives to express views on macroeconomic and political trends while taking advantage of increased volatility and dislocations through long or short positions in a range of asset classes and instruments.
Long/Short Equity	Increased dispersion among assets bodes well for security selection and active management, growing the opportunity set for long/short equity investors who are well positioned to distinguish between winners and losers. Hedged positioning offers the potential to reduce volatility and mitigate drawdowns.
Opportunistic Real Estate	Opportunistic real estate funds, which can invest in distressed real estate with turnaround/transitional investment potential, can identify complex opportunities at attractive valuations.
Opportunistic/ Distressed Investing	Investing in stressed or distressed companies that have good businesses with bad balance sheets. Opportunities can be in the secondary debt markets (debt market selloff), primary debt markets (rescue lending, debtor-in-possession) and deep value private equity (equity stakes in stressed companies, turnarounds). Distressed investors opportunistically step in as liquidity providers when market liquidity dries up.

No investment strategy or risk management technique can guarantee returns or eliminate risk in any market environment.

COMPASS



- Policy
- Valuation

CYCLICAL THEMES

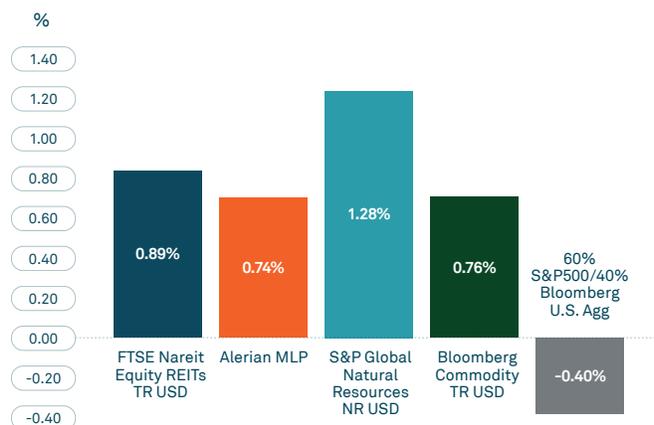
Higher for Longer

Unprecedented government stimulus, supply-chain disruptions and tight labor markets have all put upward pressure on inflation over the past two years. While some of these pressures have moderated in recent months, there is a significant risk that inflation continues to run at higher rates than the world experienced during the past decade.

This means that the era of zero interest rate policies is almost certainly behind us. Investors will need to adapt to a new regime of higher rates and potentially much greater interest rate volatility. Alternative asset classes and strategies can provide opportunities to protect portfolios from the impact of inflation and to earn higher yields from the higher-rate environment.

Investments in **traditional infrastructure** (such as toll roads and utilities) and **non-traditional infrastructure** (such as cell towers and renewable energy) often have built-in inflation hedges, providing explicit protection. Other real assets such as **real estate** and **natural resources** have substantially outperformed 60/40 portfolios in past periods of higher inflation.

CHART 2.1 Real Asset Performance During Inflationary Periods
Average Monthly Return During Periods of 4%+ Headline Inflation

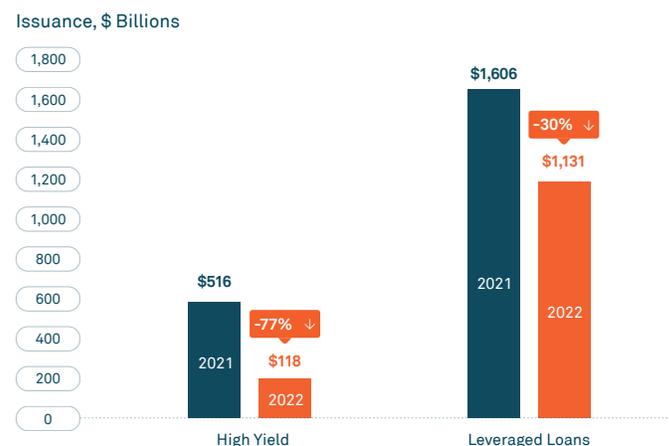


Past performance is no guarantee of future results.
Source: Bloomberg. Data as of November 2022. Data includes periods of headline inflation of 4% and above, which are the periods: 9/1/05-10/31/05, 1/1/06-1/31/06, 6/1/06-7/31/06, 11/1/07-2/29/08, 5/1/08-9/30/08, 4/1/21-10/31/22.

Takeaway

Real assets have generally outperformed public equities and fixed income in periods of rising inflation.

CHART 2.2 Decline in Public Credit Issuance



Source: JP Morgan, Year/Year decline in issuance as of December 31, 2022.

Takeaway

The recent shortage of liquidity in credit markets and the dearth of traditional lending alternatives have created an attractive environment for private lenders.

Meanwhile, a rising rate environment will limit real returns for traditional fixed income. Investors should consider diversifying beyond government bonds into complementary credit strategies.

- **Private debt** is generally an all-weather strategy that can provide consistent, attractive risk-adjusted returns, in part due to the illiquidity premium. The negotiated nature of private loans results in stronger lender protections, which historically have led to higher recovery rates on defaulted debt. Private debt tends to be floating rate, making it attractive in a rising rate environment.

- **Asset-based lending** involves private loans that are backed by hard assets, such as equipment loans or real estate. The floating rate nature of this debt protects against rising rates, while the underlying value of the assets typically rises with inflation.

Conditions in private debt are presently favorable for investors, because banks are weighed down with public debt they committed to at lower rates last spring and they are having difficulties syndicating paper. This has resulted in decreased lending by banks and reduced liquidity in the markets, which opens opportunities for private lenders to step in. Meanwhile, a rising rate environment will limit real returns for traditional fixed income. Investors should consider diversifying beyond government bonds into complementary credit strategies.

ASSET CLASS

KEY FEATURES

Real estate includes both core real estate (low leverage, with a focus on income generation), as well as value-add and opportunistic real estate (capital appreciation and income).

Real estate generally performs well in inflationary periods. For example, long-term leases for industrial assets include annual adjustments generally linked to inflation. Multifamily leases are short term with rents that reset often and keep pace with inflation.

Traditional infrastructure (toll roads, rail, airports, ports, utilities networks). Includes core infrastructure (essential assets with stable cashflows) and value-add infrastructure (opportunities for growth).

Long-term revenue streams, often underpinned by economic regulation and tied to inflation indicators. These revenues are distributed to investors as regular income.

Non-traditional infrastructure (wind turbines, solar panels, cell towers, communications networks). Accessible through value-add strategies and dedicated renewables investments.

Provides opportunities to diversify beyond traditional infrastructure and find new sources of growth.

Direct lending private loans to middle market companies (senior or junior in the capital structure), predominantly at floating rates.

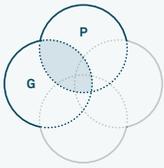
Provide current income as well as pass-through fees that provide additional return. Floating rates mean that income should keep pace with a higher-rate environment.

Asset-based lending private loans secured on hard assets, predominantly at floating rates.

Income that should rise in line with higher rates, secured against physical assets whose value should increase with inflation.

No investment strategy or risk management technique can guarantee returns or eliminate risk in any market environment.

COMPASS



- Geopolitics
- Policy

CYCLICAL THEMES

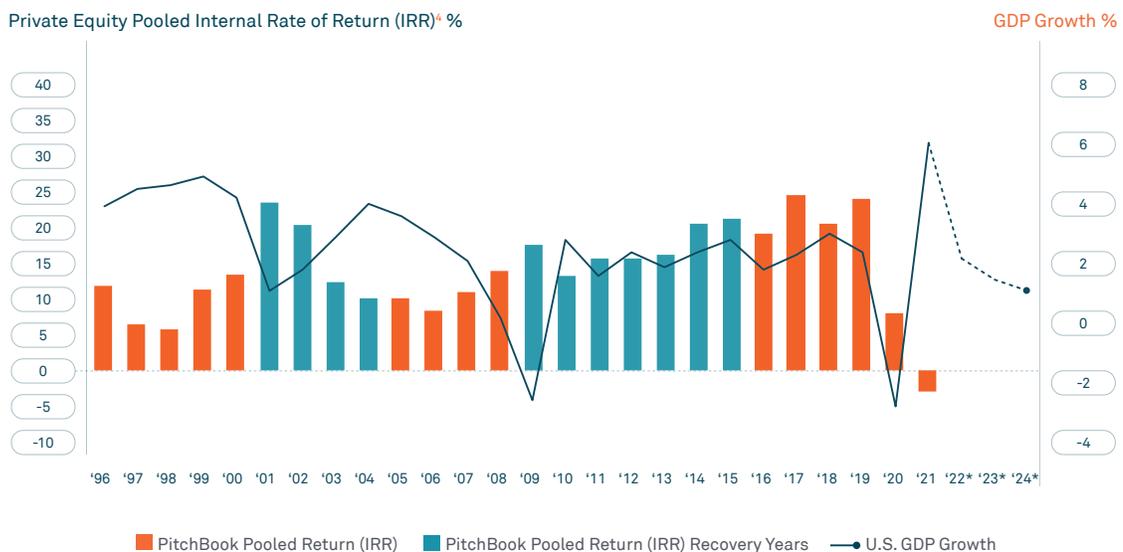
Recession Risks

Rising interest rates, persistent inflation and slowing economic growth have increased the likelihood of a global recession. Aggressive monetary tightening with rates higher for longer, a tight U.S. labor market and the energy crisis in Europe make a global recession more likely in 2023. Certain investment strategies perform better in a weaker economic environment.

Skilled **global macro** managers can take advantage of increased volatility and dislocations that a recessionary environment will bring, through long or short positions in a range of asset classes and instruments.

Recessions and shocks can be timely launching points for **venture capital**-backed companies that attract new talent and innovate business models. Companies with disruptive business models, like distributed workforce, remote learning and direct-to-consumer, were able to accelerate their growth during the pandemic.

CHART 3.1 Private Equity Performance During Recessions



Past performance is no guarantee of future results.

*Projected Real GDP. Sources: Bureau of Economic Analysis, US Department of Commerce, The Conference Board, PitchBook. Private Equity Benchmark Statistics as of December 31, 2022.

⁴ The internal rate of return (IRR) method accounts for the timing of cash flows into and out of a particular private investment fund. The IRR is a calculation that extracts a return from a cash flow stream composed of (1) the beginning net asset value (NAV) for the time horizon, which is treated as a cash inflow to the fund; (2) all quarterly inflows and outflows within the period; and (3) the final NAV, which is treated as an outflow from the fund to the investor (i.e., a distribution).

Takeaway

The best vintages for private equity investments have been those made in recessionary and post-recessionary periods, shown in blue on the above chart.

During recessionary and post-recessionary periods, **private equity** managers acquire companies at lower valuations and employ a hands-on approach to driving growth and value creation. This was evident during the Global Financial Crisis, when distressed firms needed private capital and turnaround expertise. A weaker economic environment also tends to coincide with less competition for deals.

CHART 3.2 Asset Class Returns by Quartile
20-Year Period Ending December 31, 2022



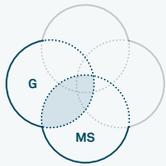
Past performance is no guarantee of future results.

Source: PitchBook, Preqin and Morningstar. Asset class returns over 20-year period ending December 31, 2022.

Takeaway

The high dispersion of returns between private market funds highlights the importance of manager selection and access.

COMPASS



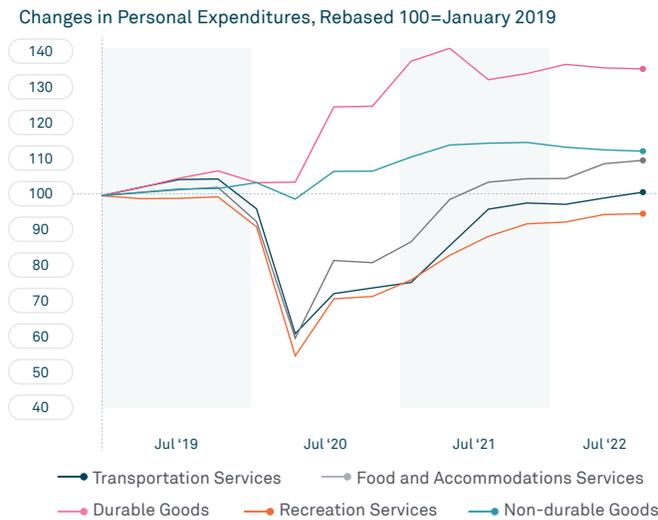
- Geopolitics
- Market Structure

CYCLICAL THEMES

Diverging Growth

Uneven post-pandemic recoveries, higher inflation and tight monetary policy continue to affect the performance of some businesses (especially small to mid-sized), industries, real estate sectors and countries.

CHART 4.1 Some Changes in What We Consume May Be Permanent
Changes in Personal Expenditures

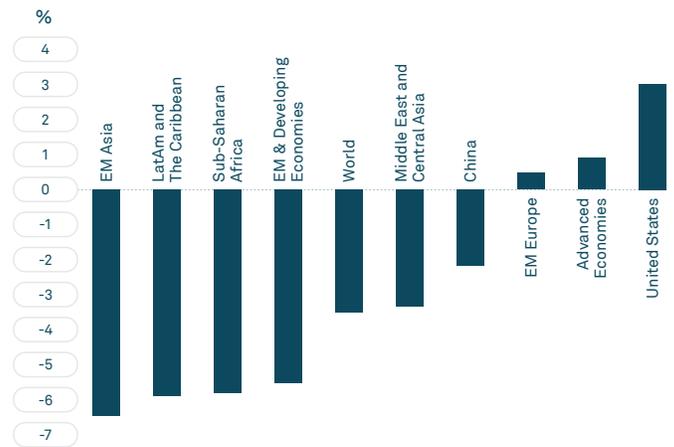


Source: Bureau of Economic Analysis. Data as of July 2022.

Takeaway

The pandemic has led to major changes in consumer preferences and some of these changes are expected to be permanent.

CHART 4.2 Differentials in Medium-term GDP Projections Relative to Pre-Covid Trends, by Region



Source: IMF. Data as of October 2022. IMF 2024 GDP projections: Pre-Covid (Oct 2019) and post-Covid (Oct 2022).

Takeaway

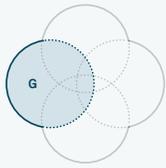
Advanced economies have no projected medium-term declines in growth on average, while emerging and developing economies are projected to have lower output.

China's reopening is likely to have a global impact in sectors from trade to tourism, leading to higher growth and inflationary pressures from increased demand for commodities.

A variety of hedge fund strategies can be deployed to capitalize on these changes. **Long/short equity** can distinguish between leader and laggard companies that emerge from the pandemic. **Merger arbitrage** benefits from investment opportunities in strong businesses seeking acquisitions and weak businesses looking for a lifeline through mergers and acquisitions (M&A). **Long/short credit** invests in the debt of healthy companies impacted by the pandemic, while shorting those with unsustainable business models. **Global macro** can apply a similar approach to profiting from winners and losers between countries and regions.

Private markets can also capitalize on new opportunities. **Private equity** and **growth equity** identify businesses with products or services that benefit from greater demand. Investment themes in real estate include sectors and geographies poised to emerge as winners due to economic growth, demographic drivers and shifting life/work trends.

COMPASS



• Geopolitics

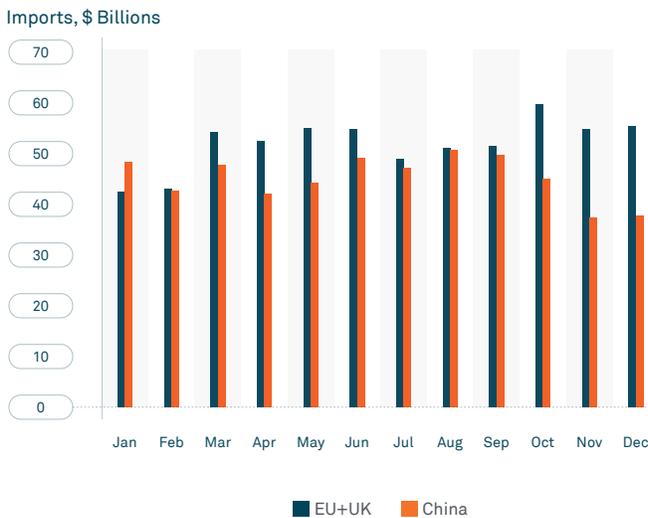
SECULAR THEMES

Changing Geopolitical Dynamics

Geopolitical tensions and the war in Ukraine are paving the way for the emergence of new strategic alliances. There is now greater emphasis on the Transatlantic relationship, with the U.S. importing more goods from Europe than from China, while becoming one of Europe's largest energy suppliers.

World economies are refocusing on the strategic importance of energy and supply chains. Raw material dependencies are rising to the top of agendas around the world. Governments will use their influence to make supply chains more secure and reduce risks to their economies (e.g., the U.S. Chips and Science Act to boost domestic semiconductor manufacturing).

CHART 5.1 U.S. Goods Imports in 2022

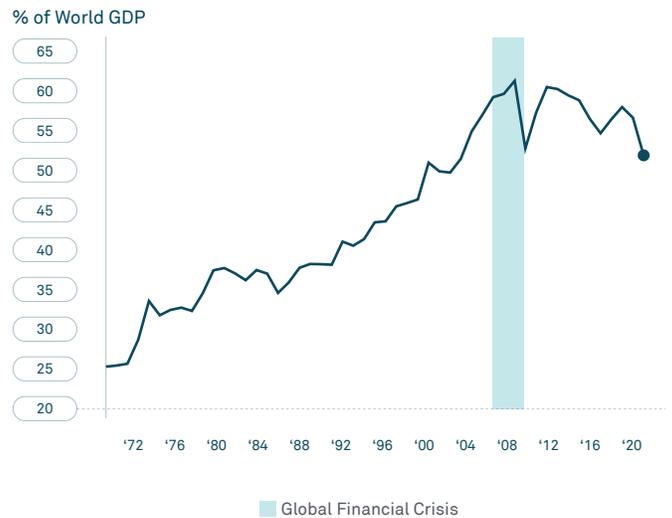


Source: U.S. Census Bureau. Data as of December 2022.

Takeaway

The U.S. imported more goods from Europe than from China in 2022, reflecting a trend towards reshoring and supply chain resilience.

CHART 5.2 Sum of World Exports and Imports (% World GDP)



Source: OurWorldinData.org. Data as of November 2022.

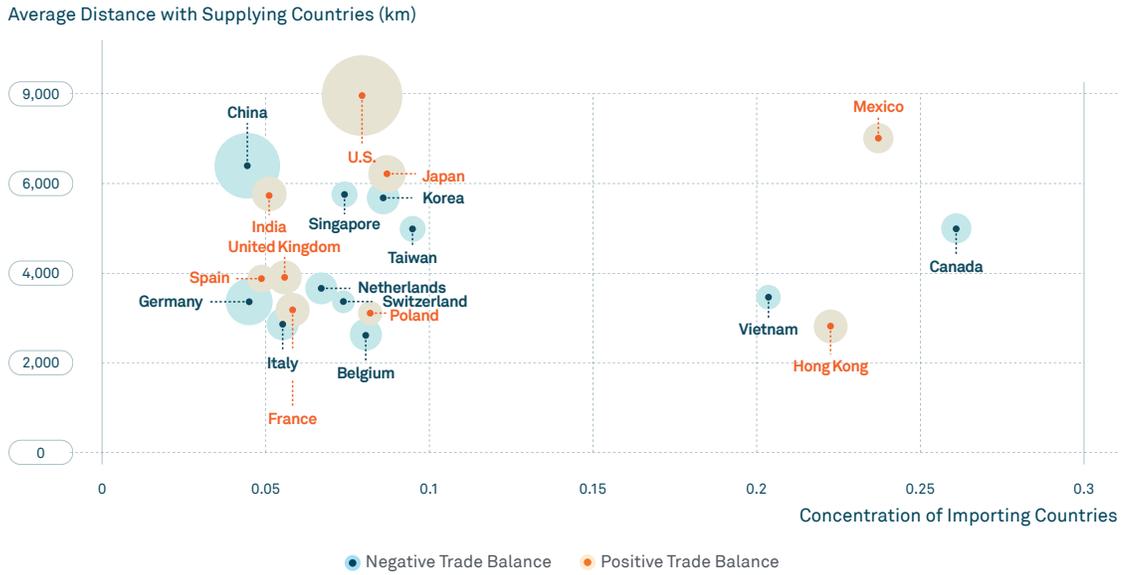
Takeaway

Similar to the fallout following the Global Financial Crisis, trade has suffered a drop off that the Centre for Economic Policy Research describes as the "Covid concussion" since 2020.

The world economy has passed the peak of trade openness. New business models will emerge as a result of these changes, highlighting the importance of a local manufacturing presence.

Clear winners and losers will likely emerge from this geopolitical reset, and both hedge fund and private markets are well positioned to navigate the long-term risks and opportunities. For example, **global macro** strategies are well placed to take advantage of shifting macroeconomic trends, while **long/short equity** can identify companies that are likely winners and bet against those that are not. **Venture capital** can fund businesses that will profit from the changes, while **private equity** can help companies adapt to the challenges.

CHART 5.3 Concentration of Importing Countries and Average Distance With Their Supplying Countries



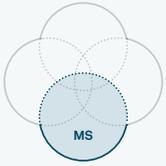
Bubble size is proportional to the imported value of the countries.

Source: International Trade Centre. Data as of December 31, 2021.

Takeaway

Some countries appear more susceptible to potential shifts in trade and production trends from global to local, shown in blue on the above chart.

COMPASS



• Market Structure

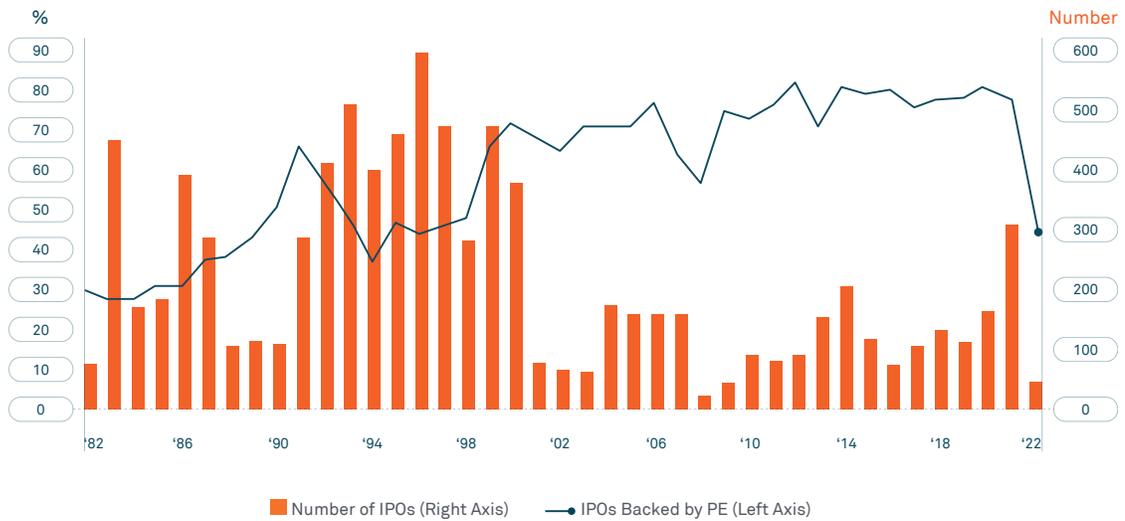
SECULAR THEMES

The Evolving Equity Market

The structure of the equity market has been evolving for well over a decade. The number of U.S. private equity-owned companies surpassed that of public companies over a decade ago. The number of IPOs has declined, but the percentage backed by private equity has risen.

This results in companies remaining private for longer and a greater amount of value creation takes place during the private phases of a company’s life. Private equity funds have outperformed public equities in recent decades.

CHART 6.1 U.S. IPOs – Total Number and Percentage Backed by Private Equity Firms



Source: Jay R. Ritter, Initial public offerings: updated statistics, University of Florida, Table 4c, 2022; company reports; author’s calculations. Data through December 2022.

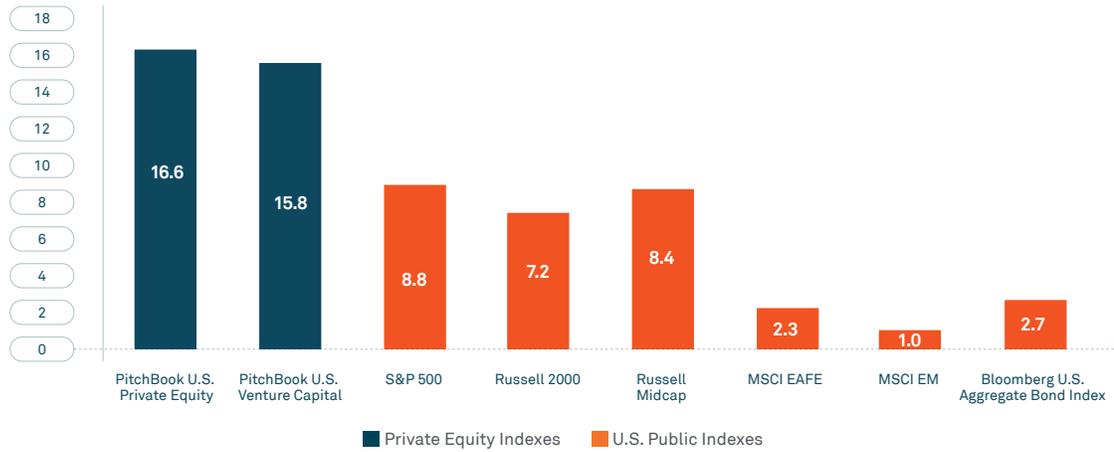
Takeaway

Private equity firms have grown their influence on early-stage equity financing, with a larger percentage of IPOs being from firms backed by venture capital or owned by buyout groups.

Companies are staying private for longer, which provides investment opportunities for venture capital managers across various stages of business life cycles. The ever-growing target market for buyouts, or acquiring stakes through growth equity, provides ample investment opportunities for private equity managers.

CHART 6.2 Relative Performance of U.S. Private Equity and Public Equity

Annualized Returns % Q1 2008-Q4 2022



Past performance is no guarantee of future results.

Source: PitchBook and Bloomberg. Data as of December 31, 2022.

Takeaway

On average, private equity funds have outperformed public markets in recent decades, delivering the illiquidity premium associated with this asset class.

CHART 6.3 Number of U.S. Private Equity-backed Companies Has Surpassed Public Companies

Number of Companies

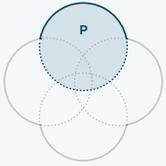


Source: World Federation of Exchanges and PitchBook. Data as of December 31, 2022.

Takeaway

The number of U.S. private equity-backed companies has surpassed public companies and continues to grow, expanding investment opportunities for private equity investors.

COMPASS



• Policy

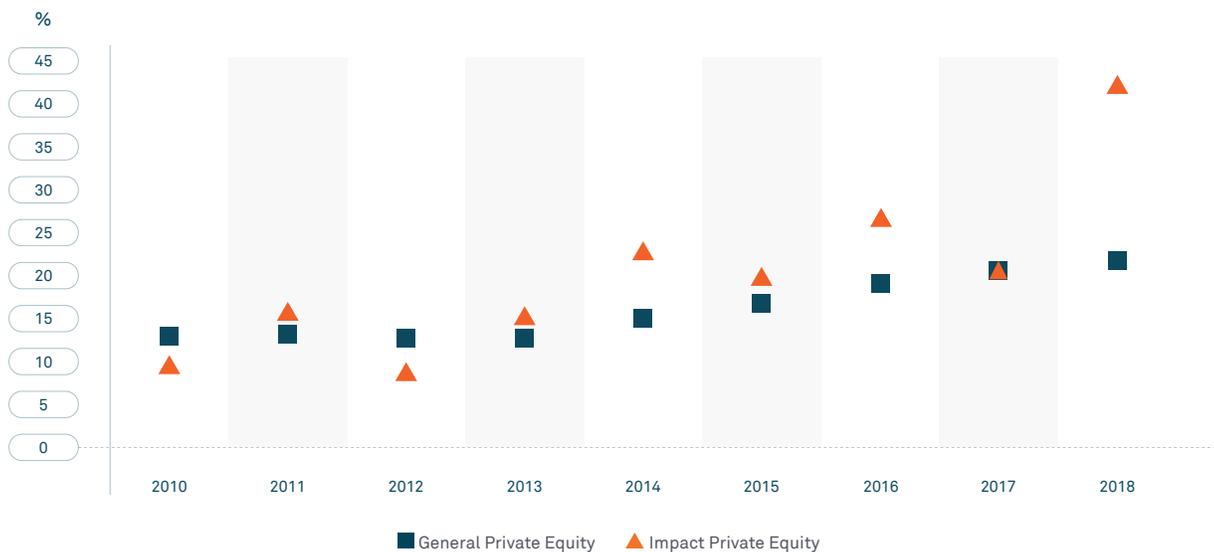
SECULAR THEMES

Investing for Impact

Impact investing assets are globally estimated to be around \$1.16 trillion as of December 2021. The UN Sustainable Development Goals, Paris Climate Agreement and global efforts to combat climate risk have likely contributed to this growth over the past several years. More recently, an unprecedented pandemic, heightened social inequity issues and a global geopolitical crisis have arguably increased investor interest in employing some of their capital to find solutions for global sustainability challenges. Private markets provide a significant opportunity to meet global sustainability needs:

- **Needs:** environmental sustainability; climate change mitigation and adaptation; support un-banked and under-served individuals and communities; foster inclusive economic growth and development; drive increased social equality and welfare.
- **Opportunities:** resource efficiency, smart technology, waste reduction, sustainable infrastructure, protecting diversity, microfinance, microinsurance, affordable housing, financial and credit education, affordable healthcare and medicine, food and nutrition, education technology and materials.

CHART 7.1 Impact Private Equity Returns By Vintage Year



Past performance is no guarantee of future results.

Source: PitchBook. Data as of June 30, 2022.

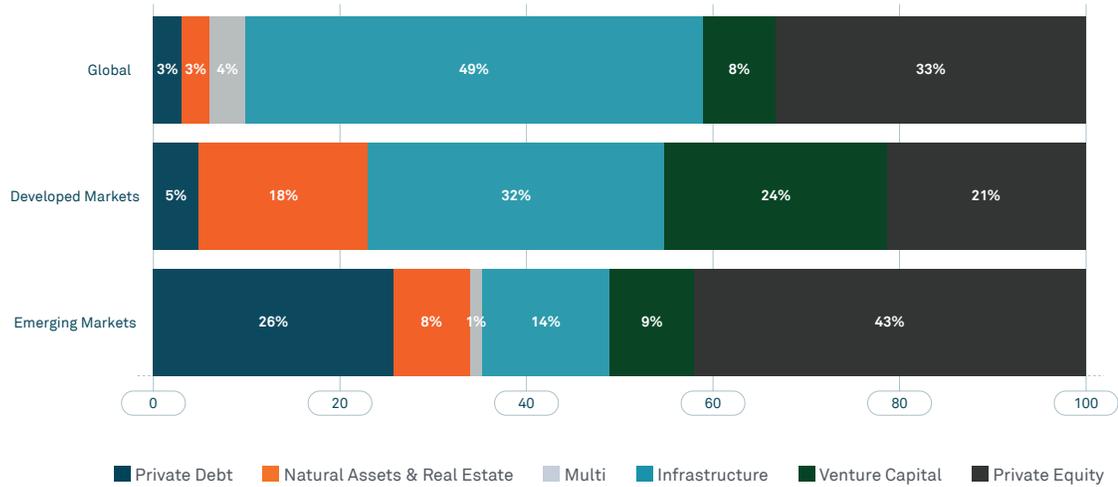
Takeaway

Impact investing in private markets does not sacrifice financial return.

The European Union's Green Deal, launched in 2019, includes policies for reducing emissions, preserving biodiversity and investing in innovative solutions to mitigate climate change. Almost one-third of the EU's seven-year budget is expected to finance the Green Deal.

Impact-focused **private equity** strategies have generally performed in line with traditional private equity strategies, offering the double bottom line to investors of generating impact alongside market rate financial returns.

CHART 7.2 Geographical Breakdown of Asset Classes Implementing Impact Investing in the Private Markets



Source: International Finance Corporation (IFC), "Investing for Impact, the Global Investing Market in 2020." Note: the above denote mutually exclusive data categories.

Takeaway

There is a greater focus on private equity and venture capital for funds investing only in emerging markets, as opposed to impact funds that invest in developed markets or globally.

STRATEGY

FEATURES

Private Equity, Venture Capital and Growth Equity

Invest in companies where financial returns are directly tied to social or environmental impact and returns are not sacrificed. Impact must be intentional, additional and measurable.

Private Real Estate

Address social inequality through investments such as private real estate funds focused on workforce and affordable housing.

Infrastructure

Generally focused on resilient energy infrastructure solutions.

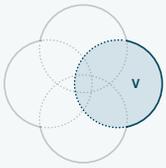
Natural Assets

Private capital focused on strategies such as land and marine preservation.

Private Debt

Lending to businesses focused on building products and services with an aim to deliver both financial returns and a positive social or environmental impact.

COMPASS



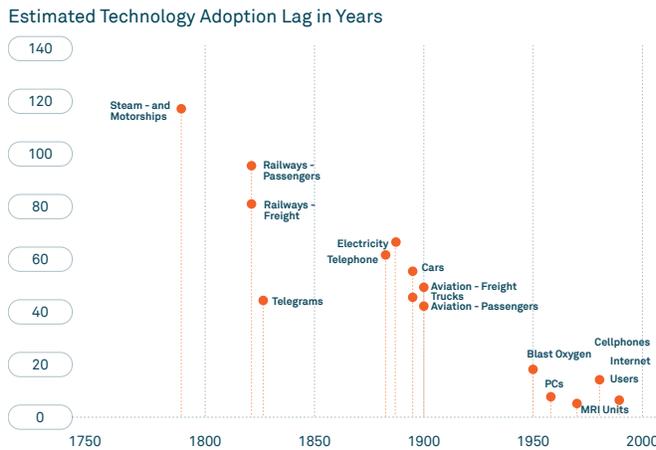
• Valuation

SECULAR THEMES

Accelerating Innovation

The pandemic has accelerated trends in technology innovation, and the resulting shifts in consumer behavior are creating clear winners in the marketplace. Consumers are adopting new technologies faster, making such investments more attractive to investors.

CHART 8.1 Technology Adoption Over Time

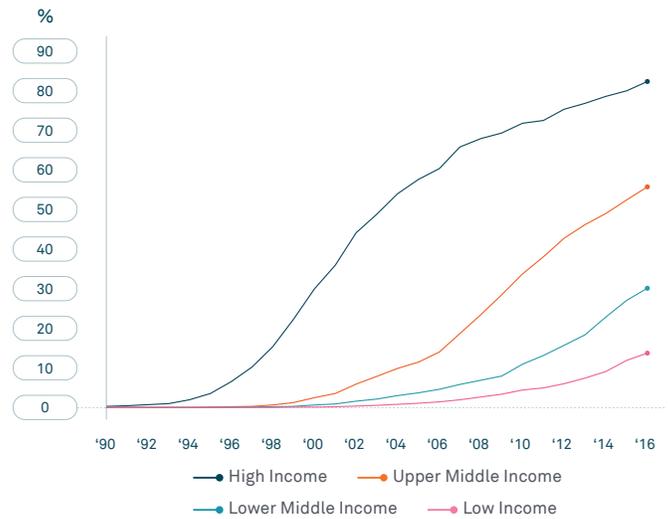


Source: Comin, D and Hobijn, B (2010), "An exploration of technology diffusion," American Economic Review, Vol. 100, No. 5, pp2031-59.

Takeaway

The lag between technological innovation and adoption has decreased over time, creating opportunities for managers who can identify companies early in their life cycles that are pursuing disruptive technologies in different industries.

CHART 8.2 Share of Population Using the Internet



Source: OurWorldinData.org. Data as of 2020.

Takeaway

Even in mature technologies, such as the internet, there is still room for growth.

Sectors such as e-commerce and remote work and learning are undergoing rapid evolution. The rapid pace of innovation in healthcare has paved the way for a radical overhaul of the sector. The pandemic exposed inequalities in healthcare access and education, but technological innovation could be the solution.

Blockchain technology and Web3 infrastructure are poised to alter various established investment and operational processes, revolutionizing many aspects of the economy even before the digital age has reached its full global potential.

Artificial intelligence and digitization of data are also impacting financial markets. **Quantitative trading** strategies can capitalize on increased computing power, Big Data and new sources of information.

- **Venture capital** and **growth equity** invest in businesses that are innovators or early adopters, leaving them ideally positioned to profit from development of emerging technologies.
- **Long/short equity** operating in specific sectors such as tech and healthcare can identify companies that are positioned to profit and those that may come under pressure.

APPENDIX I

Alternative Theme Summary

In Alternative Investments 2023, we consider the relevance and integration of various alternatives strategies in portfolio construction. Adding more alternatives may increase portfolio returns at a time when long-term return expectations for traditional assets remain subdued.

However, it is not a one-size-fits-all approach. Investors should use alternatives within the context of what they are trying to achieve. Below, we summarize our eight themes, the challenges investors navigating the themes will face and solutions to consider.

THEME	CHALLENGES	SOLUTIONS
Heightened Volatility and Market Dislocations	Frequent volatility and greater stock/bond correlation reduces diversification of 60/40 portfolios	Dampen volatility (equity market neutral, long/short equity, relative value) and seize opportunities (global macro, distressed investing, opportunistic real estate).
Higher for Longer	Inflation and interest rates may remain elevated	Investments in infrastructure often have built-in inflation step ups, providing explicit inflation protection, while real estate provides inflation hedging through rent increases. Private Debt is characterized by floating rates, which move with rising interest rates.
Recession Risks	Higher rates and slower growth increase likelihood of global recession	Trade macro volatility (global macro) and capitalize on reduced competition for private-market deals (venture capital and private equity).
Diverging Growth	Permanent shifts in consumer behavior will bring greater growth differentials between countries, sectors and businesses	Trade divergence (long/short equity and credit, global macro, merger arbitrage) and invest in winners (private equity, growth equity, real estate).
Changing Geopolitical Dynamics	Trade openness has peaked and security of supply chains will become a priority	Trade macro and micro trends (global macro, long/short equity) and support businesses to respond to changes (venture capital, private equity).
The Evolving Equity Market	Listed companies and IPOs are declining and private markets play a greater role	Fund early stage companies (venture capital) and turnaround or improvement opportunities (private equity).
Investing for Impact	Raising funding to address global environmental, social and sustainability needs	Fund impact-focused companies (private equity, venture capital, growth equity, private debt) and invest in assets (infrastructure, real estate, natural assets).
Accelerating Innovation	New technologies are altering consumer behavior and operational processes	Invest in innovators (venture capital, growth equity) and trade breakthrough technological developments (long/short equity, quantitative trading).

APPENDIX II

Alternatives Investor Case Studies

Alternative investments incorporate a diverse set of asset classes with a range of characteristics. A unifying quality underpinning alternatives for institutional investors is their ability to enhance the risk/return potential of a traditional portfolio.

However, investor goals vary and the optimal use of alternatives may not imply holding all asset classes.

We believe investors should focus on their unique challenges and objectives to identify which investments have the right characteristics to help address them. Below, we consider a non-exhaustive list of how certain types of investors may employ specific alternative investments.

EXAMPLE INVESTOR	GREATEST PRIORITIES AND CHALLENGES	POTENTIAL SOLUTIONS	PAGE
A Family Office that aims to grow, preserve and pass on wealth for children and grandchildren	Limit volatility so unavoidable outgoings are sustainable in down years	● Hedge Funds that provide uncorrelated returns or benefit from volatility	4-5
An Endowment set up to provide annual funding for a university	Significantly grow capital to be able to increase spending in future	● Assets with high potential returns, such as Venture Capital and Growth Private Equity	17
A Foundation providing discretionary grants to a range of medical research institutes	Diversify risk exposure away from national economy and sectors on which it depends	● Long-term assets, including Renewables Infrastructure and Impact Investing	15-16
A Sovereign Wealth Fund , investing a pool of capital for future generations	Increase returns to ensure long-term fiscal sustainability	● Private Equity, Real Estate and Private Debt with higher returns than public markets	13-14
A Public Defined Benefit Pension Scheme that is open to new entrants	Meet cost-of-living increases on current and deferred commitments	● Infrastructure investments where returns have explicit inflation linkages	6-7
A Corporate Defined Benefit Pension Scheme that is closed to new entrants			

No investment strategy or risk management technique can guarantee returns or eliminate risk in any market environment.

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All investments involve risk including loss of principal

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Risks

Equities are subject to market, market sector, market liquidity, issuer, and investment style risks, to varying degrees. Bonds are subject to interest-rate, credit, liquidity, call and market risks, to varying degrees. Generally, all other factors being equal, bond prices are inversely related to interest-rate changes and rate increases can cause price declines. Commodities contain heightened risk, including market, political, regulatory, and natural conditions, and may not be appropriate for all investors. High yield bonds involve increased credit and liquidity risk than higher-rated bonds and are considered speculative in terms of the issuer's ability to pay interest and repay principal on a timely basis. Investing in foreign denominated and/or domiciled securities involves special risks, including changes in currency exchange rates, political, economic, and social instability, limited company information, differing auditing and legal standards, and less market liquidity. These risks generally are greater with emerging market countries. Small and midsize company stocks tend to be more volatile and less liquid than larger company stocks as these companies are less established and have more volatile earnings histories. Investing in real estate securities is similar to direct investments in real estate, including falling property values due to increasing vacancies or declining rents resulting from economic, legal, political or technological developments, lack of liquidity, limited diversification and sensitivity to certain economic factors such as interest rate changes and market recessions.

Risks of alternative investments

Alternative Investments, such as private equity and hedge funds, are speculative and involve a high degree of risk. There can be no assurance that the fund's investment objective will be realized or that appropriate investments may be identified. An investor could lose all or a substantial portion of their investment. Private funds are exempt from registration with the Securities Exchange Commission and are not subject to the same level of regulatory scrutiny as registered investments such as mutual funds. Certain alternative investments require tax reports on Schedule K-1 to be filed which likely requires investors to obtain extensions for filing income tax returns each year. Private fund investments do not provide daily liquidity or pricing. There is no secondary market for private fund interests nor is one expected to develop. Investments may be subject to quarterly or annual liquidity and gates on the percentage of the investment that can be withdrawn. In some cases, redemptions have been suspended indefinitely. Private equity funds typically provide no liquidity for five to ten years and must be considered only for long term investment.

The funds' underlying investments may be very thinly traded, or no market may exist. Managers or their administrators may assign values to securities and other instruments for which there is no readily available market or third party pricing, or when the manager believes the third party pricing does not accurately reflect the value of those securities. Private funds may not be required to provide periodic pricing or valuation information to investors. Performance may be volatile as underlying managers may employ leverage and other speculative investment practices that may increase the risk of investment loss, and adherence to risk control mechanisms does not guarantee investment returns. Past performance is no guarantee of future results and the funds present "tail risk", an unexpected downside performance period due to extreme market volatility which could not be anticipated from a fund's prior performance. Additionally, high fees and expenses of a private fund (and at both levels in a fund of funds) may offset an investor's profits. A fund may be subject to concentration risk due to a lack of manager and/or strategy diversification. Investors should review the private placement memorandum for each fund under consideration for a complete list of the potential risks of an investment in the fund and strategy. Investors should consult with their investment, legal and tax professionals before making an investment.

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