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Investment Themes

We are at a time of profound change across markets and economies. We synthesise the most important changes into the following macro and market **themes** that we believe will shape the investment environment most over the next decade:

1. Paradigm shift: A return to ‘Macro Volatility’ replacing the ‘Great Moderation’
2. Private Equity industry shakeout with returns accruing to firms with demonstrated ability to add value
3. Technological innovation to continue to disrupt entire industries and create new ones
4. Geopolitical concerns, policy risks and supply chain reconfiguration to gradually diminish reliance on China
5. Momentum continues to build behind the sustainability mega-trend

Against this backdrop, successful investing will require a **‘Return to Fundamentals’** where a focus on asset quality, valuation and portfolio construction will be of paramount importance.

Key Investment Themes

A Return to Fundamentals

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4. **Geopolitical concerns, policy risks and supply chain reconfiguration to gradually diminish reliance on China.**
5. **Momentum continues to build behind the sustainability mega-trend.**

Against this backdrop, successful investing will require a **'return to fundamentals'** where a focus on asset quality, valuation and portfolio construction will be of paramount importance. The landscape described by these trends lead us to the following **key investment implications**:

1. **Tactically bolster allocations to income-producing assets (short-duration government bonds, credit) given slower economic growth and elevated equity valuations. Be nimble on interest rate duration with a view to adding if near-term recession risks build.**
2. **Add to non-cyclical assets and less correlated exposures to increase portfolio resilience to macroeconomic cycles. Favour select Absolute Return strategies that benefit from macro volatility and add to less correlated Private Debt strategies.**
3. **Increase commitments to Private Equity, with a sharp focus on adding to value-oriented lower middle market generalists and sector specialists who have proven capability to drive earnings growth in portfolio companies.**
4. **Maintain liquid exposure to life sciences and emerging technology specialists who can identify companies at the forefront of innovation and at inflection points in their growth. Boost venture capital allocations to capitalise on long-term disruptive innovation.**
5. **Diversify away from China in favour of markets benefitting from geopolitical shifts including supply chain reconfiguration.**
6. **Increase exposure to managers with a strong understanding of both the winners and losers of energy transition, and who can identify companies in pivotal positions.**

Key Themes and Investment Implications

1. Paradigm shift: A return to 'Macro Volatility' replacing the 'Great Moderation'

- **Volatile inflation:** As shown in Exhibit 1, the benign inflation regime of the last three decades has ended. While near-term inflation pressures ease, longer-term structural transitions towards green energy, labour power and less benign geopolitics will create more persistent and volatile inflation over the next decade.
- **Monetary policy constrained:** Central Bank 'puts' expire as stickier inflation limits their ability to solve solely for economic stabilisation and financial markets support. Unreliable forecasting models and long implementation lags will increase the likelihood for policy error.
- **Fiscal policy more haphazard:** Political fragmentation will lead to sharp swings between periods of expansionary policy (supporting growth and labour) and bouts of austerity (also necessitated by rising inflation and interest costs).
- **Economic boom/bust cycles more frequent:** Economic growth, inflation and the cost of capital (including risk premia across and within asset classes) will be more volatile.

Investment Implications

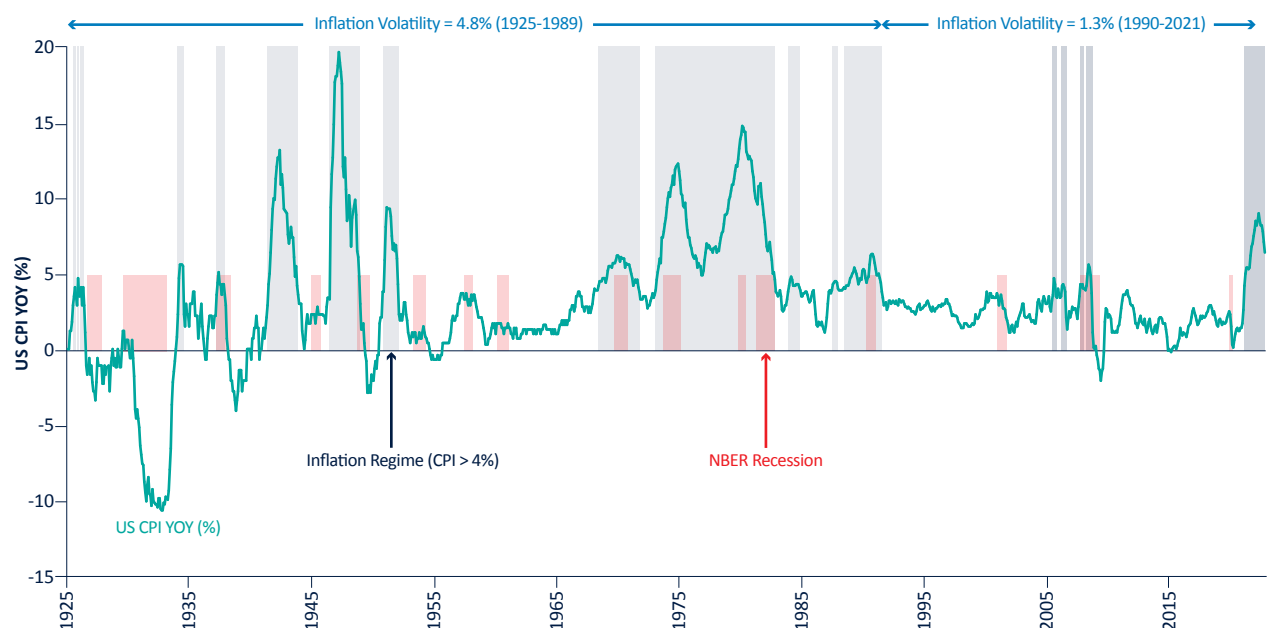
- **Manage portfolios to benefit from the end of near-zero interest rates:** In the near-term, tactically bolster allocations to income-producing assets (short-duration government bonds, credit, profitable equities) with a view to add duration as recession risks build.
- **Add to non-cyclical assets:** With economic cycles more volatile, take advantage of the less correlated return streams in Absolute Return and Private Debt. Greater macro volatility enhances the return potential of certain strategies within Absolute Return.

2. Private Equity industry shakeout with returns accruing to firms with demonstrated ability to add value

- In a "normal" interest rate environment, private equity will benefit less from multiple expansion and leverage, factors that have been primary drivers of excess returns for most buyout firms, particularly in the mega- and large-cap spaces. As a result, excess returns will shrink for the vast majority of the private equity industry.
- Lower valuation entry points will however benefit Venture Capital and selected buyouts that are able to drive earnings growth through genuine operational value-add.

Exhibit 1

The volatility of inflation has reached levels not seen since the 1970s



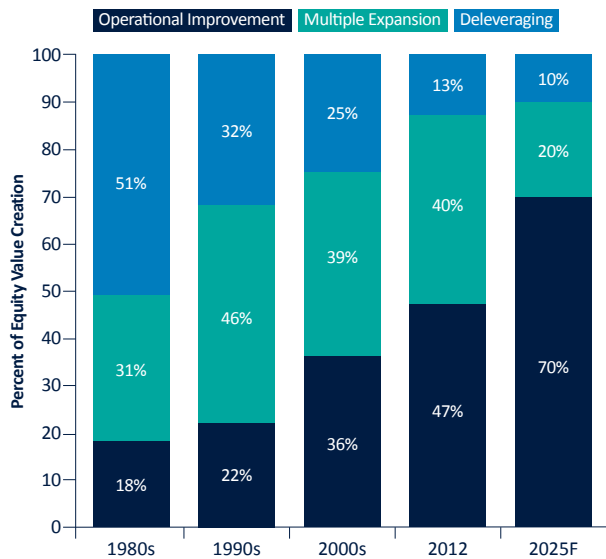
Source: Bloomberg

Investment Implications

- Favour lower middle market strategies that benefit from more attractive entry pricing, as well as software and healthcare specialists across equity investment size ranges.
- As shown in Exhibit 2, earnings growth will emerge as a key driver of returns in this environment. Only managers who have a proven toolkit to use operational value-add to drive earnings growth can be depended on to realise excess returns in our view.

Exhibit 2

In the current macroeconomic environment, earnings growth will emerge as the most important PE return driver



Source: BCG

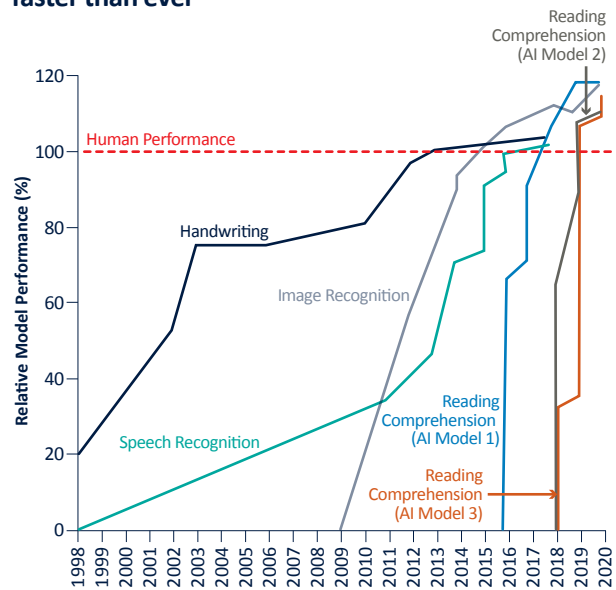
3. Technological innovation to continue to disrupt entire industries and create new ones

- Technological breakthroughs are still in the early innings of disrupting almost all sectors of the economy. As an example, as shown in Exhibit 3, AI models are able to replicate human performance with increasing efficiency.
- Adoption of these technologies will lead to differentiation between technology-enabled winners and disrupted incumbents in major sectors of the economy, including financials, business services and healthcare.

- In a tighter financing environment, profitable growth becomes critical. Focus has shifted to proven business models and margin structures in public markets.
- Indiscriminate growth selloff presents attractive opportunities in technology and life sciences.

Exhibit 3

AI models are replicating human performance faster than ever



Source: arxiv.org

Investment Implications

- Maintain liquid exposure to life sciences and emerging technology specialists who can identify companies at the forefront of innovation and at inflection points in their growth.
- Add to early-stage Venture Capital where innovation should drive attractive returns and valuations are less susceptible to interest rate volatility.
- Ensure sufficient diversification in equity portfolios by balancing overweight technology exposure (primarily US driven) with value and quality exposures in Europe and Japan.

4. Geopolitical concerns, policy risks and supply chain reconfiguration to gradually diminish reliance on China

- China's longer-term prospects appear challenged due to China and US policies. These factors create elevated uncertainty across industries and companies in China's private sector.
- Rising Chinese geopolitical risk also supports broad corporate commitment to diversifying sourcing away from China. This will be a slow but significant trend, with India, Vietnam, Indonesia, Taiwan and Japan, along with other parts of Asia and Latin America, as beneficiaries. Reconfiguration of global supply chains, is also expected to benefit the developed markets industrial economy.

Investment Implications

- Gradually reduce China to MSCI ACWI benchmark weight of c.3.5% of Long Equities allocation, in favour of broad emerging markets exposure.
- Diversify away from China in favour of markets benefitting from geopolitical shifts including supply chain reconfiguration.

5. Momentum continues to build behind the sustainability mega-trend

- 80% of global GDP is in countries with stated net zero goals.
- To achieve net zero by 2050, experts suggest \$5T of incremental average annual investment will be required.
- Private renewables infrastructure investment reached \$125B in 2021.
- Climatech investments has almost doubled to \$70B between 2021 to 2022.

Investment Implications

- Add targeted exposure to managers with strong understanding of both the winners and losers of energy transition. Add exposure to technology investments that are likely to be pivotal to enabling the energy transition. Please see special section at the end of this chapter that discusses our views on sustainable investing in greater depth.

You would have noted above that a key feature of our 2023 investment themes is to add to private markets across private debt, private equity and venture capital. This comes at a time when many assets in private markets may not yet fully adjusted to the reality of higher interest rates and lower valuations. In the section below, we set out the case for why private markets can continue to earn sufficient excess returns to justify their lower liquidity and higher fees.

Private Markets – Why We Believe in the Opportunity Set

Private markets headwinds. Global private markets dry powder was \$3.3T as of September 2022, less than the record of \$3.7T set in 2020 but well above the long-term average of \$2.4T from 2010 to 2020.¹ This increased competition for investment occurs at a time when private companies, which typically generate less revenue with higher leverage, are experiencing increased borrowing costs and reduced access to financing from banks and the public markets. Private debt markets have expanded to \$1.4T, up from \$250B in 2010.² Buyout firms are grappling with economic headwinds, multiple compression and higher interest rates. The venture capital market is facing a reckoning after the NASDAQ corrected by -32.5% and the IPO market plummeted 94% in 2022, its worst year since the 2008 global financial crisis.³ Lastly, real estate markets are experiencing a divergence between public and private market valuations, widening cap rates and the continual impact of COVID-19.

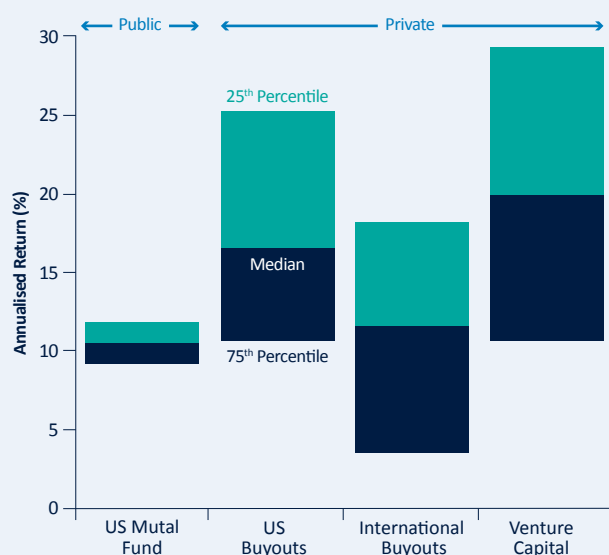
¹ Pitchbook Global Private Market Fundraising Report Q3 2022

² Reuters, "Private debt markets face reality check as companies grapple with rising rates, recession", 20 December 2022

³ EY Global IPO Report, December 2022

Higher return dispersion, better governance, and less efficient markets create an opportunity for skilled investors to outperform. Private markets demonstrate significantly higher return dispersion than public markets, as detailed in Exhibit 4. This return dispersion is largely owed to inefficiencies stemming from fewer market participants, increased transaction costs, lower information availability, and reduced liquidity. We believe that skilled and well-aligned teams investing in market niches where they possess a competitive advantage will continue to generate outperformance over the coming years. Particularly, we continue to believe that a long-term orientation, better governance and a more interventional approach to value creation can drive excess returns that more than offsets the increased costs of private markets investments.

Exhibit 4
Dispersion of Return by Asset Class



	US Mutual Fund	US Buyouts	International Buyouts	Venture Capital
25th Percentile	11.9%	25.3%	18.3%	29.3%
Median	10.5%	16.6%	11.5%	19.8%
75th Percentile Quartile	9.1%	10.7%	3.5%	10.6%
Interquartile Range	2.8%	14.6%	14.7%	18.7%

Source:

Public: S&P Dow Jones indices as of 30 June 2021, 10-year annualised time weighted returns for All Domestic Funds from the SPIVA Score Card.

Private: State Street, as of 30 June 2021. Average IRRs for funds in vintages 2008-2018

Current market dynamics have substantially improved the risk/return profile of private debt. Tighter regulations have led to lower availability of commercial bank financing, while unsuccessful loan syndications in 2022 have left investment banks with significant unsold inventory on their balance sheets, restricting issuer access to the public loan markets. This lack of capital availability has been compounded by declining refinancing activity in private lending as borrowers are reluctant to refinance into more expensive loans. Existing floating rate loans have benefited from rising interest rates, while the lack of financing options available means that newly originated senior loans that were yielding 7% in early 2022 are now pricing at ~12% for those lenders with capital available to deploy. Further along the risk spectrum, lenders who can offer flexibility in financing complex situations can command a significant premium, tight covenants and upside equity participation via warrants.

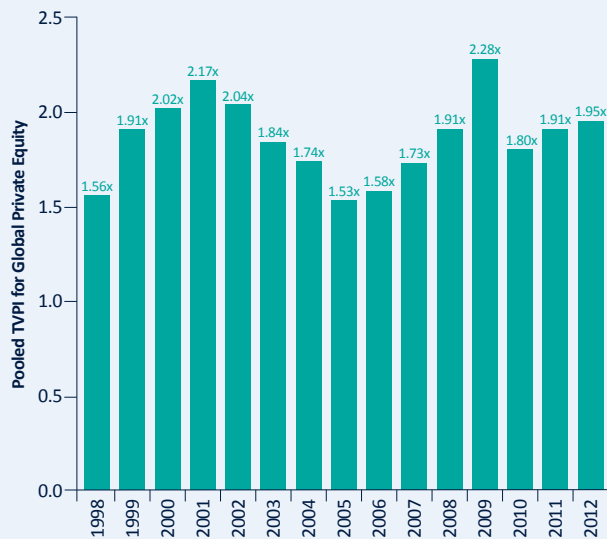
Within private equity, we note that several of the best performing vintages coincided with the market corrections that occurred during the dot.com crisis (2001) and global financial crisis (2008-2009) as detailed in Exhibit 5. Although purchase price multiples for buyouts remain elevated, valuations of S&P 500 companies corrected by nearly 20% in 2022. Going forward, we expect that private markets valuation multiples will also adjust to reflect higher interest rates and a more challenging macroeconomic outlook. We seek to partner with sector specialists and lower middle market generalists who are able to leverage sourcing and information advantages to acquire quality businesses at reasonable valuations and drive post-acquisition operational value-add (PAOVA) via revenue growth and margin improvement. We also aim to leverage our relationships with managers to source co-investments that can reduce management fees and carried interest expenses while simultaneously concentrating capital in the sub-sectors in which they excel.

Within real estate, rising interest rates and economic uncertainty led to a 63% decline in transaction volume in Q4 2022 compared to Q4 2021.⁴ In this environment of low deal activity, price discovery is ongoing, but we believe values have reset by 15% or more in most sectors. We anticipate transaction volume will increase by the second half of 2023 as the rising cost of debt, with SOFR increasing by over 400 basis points in 12 months, will result in bringing sellers to the market where property-level cash flows may no longer cover debt payments. Aggregate debt levels and financing structures have been more conservative in recent years compared

⁴ CBRE US Capital Markets Report 2022

Exhibit 5

Private Equity Performance During Prior Market Corrections



Note: Black = dot.com crash of 2001 and the 2008-2009 global financial crisis (GFC)

Source: Cambridge Associates Private Equity Benchmark as of 30 September 2022. The total value to paid-in (TVPI) is also known as the investment multiple. TVPI is calculated by dividing the fund's cumulative distributions and residual value by the paid-in capital.

to the years prior to the global financial crisis: in 2021, fewer than 1% of CMBS loans had a loan-to-value ratio above 74% compared to 45% loans in 2004-7.⁵ As such, we do not anticipate widespread distress but with many traditional buyers - including REITs, core funds, and pension funds - facing capital constraints, we believe this will be an attractive environment for investors to acquire quality assets at values below replacement cost. We are particularly focused on accessing these opportunities in sectors such as residential and industrial real estate, where operating performance has remained healthy and the fundamental supply/demand outlook is strong.

How are we adjusting our approach in the new market environment? While our investment decision-making process is little changed over the years, our approach to manager sourcing, thematic research and investment underwriting is constantly evolving. As a firm, we are investing heavily in systems and tools that aim to enhance information sharing and support data-driven decision-making. We also continue to build out our sourcing networks, deepen our diligence analytics, expand our expertise and grow our research team in order to improve our investment outcomes.

Within private debt, we aim to capitalise on the dearth of debt financing available to invest in new portfolios of senior loans in an open-ended liquidity structure. Trends in the senior lending market for higher leverage and weaker documentation are now being mitigated by an environment in which lenders have more control over how much to lend and on what terms. Focusing on new portfolios avoids the risk of being exposed to legacy assets and borrowers unable to service a higher cost of debt. A highly diversified portfolio mitigates the exposure to single issuers defaulting, and the liquidity terms allow for redemption if we see a reversion to less desirable lending standards and return profiles.

Within private equity, we have long believed that earnings growth is the most persistent source of value creation. However, we believe the current macroeconomic environment will drive a paradigm shift in private equity, and only the firms that have already built adequate internal value creation capabilities will be able to generate outperformance to public markets. Over the past year, we built new proprietary tools to help measure PAOVA and now have a dataset that comprises over a thousand underlying buyout transactions across a wide array of managers. These tools should better equip us to identify and partner with firms with the greatest skill in adding value to their portfolio companies. In addition, we are thematically investing with value-oriented lower middle market buyout managers who focus on complex situations where there is an outsized potential to generate asymmetric returns.

Lastly, within venture capital, we are mindful that innovation is not correlated to market cycles. While startups are by no means insulated from challenging economic or financial market environments, successful companies have been founded in almost every market environment. While maintaining relatively steady commitment pacing, we aim to shift our exposure toward early-stage investments and to capitalise on the challenging fundraising market to increase our allocation to top established firms.

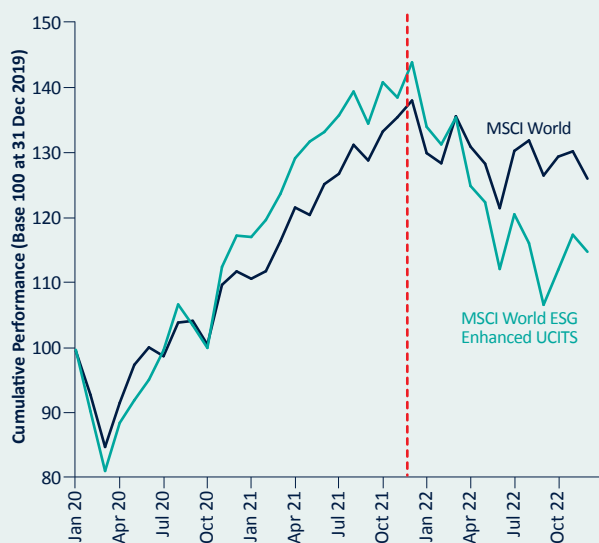
Sustainable Investing

This is the fourth year in which Sustainable Investing (SI) has featured as one of a small number of our core investment themes. We have evolved the scope of this theme over these four years to increasingly focus on two core areas under the SI heading: the global energy transition and diversity. SI includes our ongoing manager engagement efforts to see ESG factors fully integrated into their investment processes alongside traditional fundamental financial analysis where it makes sense to do so. SI also includes our investments in impact companies mostly found in the healthcare and education sectors. Diversity (this term subsumes inclusion and equity) translates into a widening of our manager screening funnel to include a larger proportion of diverse asset managers. It also includes our manager engagement activities focused on firm diversity and the incorporation of diversity into investment processes as managers examine and engage with their portfolio companies. Focus is generally required for excellence in any field and, at this moment in the evolution of our SI theme, we are most focused on the energy transition and diversity and will devote this short description of our SI theme to our progress on the energy transition.

Investment Industry's View on Sustainable Investing. Over the last couple of years, we witnessed a strong backlash against the ESG investing mega-trend with critics underscoring the unmanageably wide scope of the concept, the vast array of different definitions and approaches and greenwashing claims. The greatest backlash perhaps was the attack on fossil fuel exclusion policies which may have achieved the desired effect of reducing the investment in new oil and gas production in the face of a heightened need for energy security following Russia's attack on Ukraine. In the US, this backlash has resulted in many oil producing states divesting from asset managers who have been particularly vocal about ESG. Furthermore, during 2022, so-called ESG investment funds underperformed against broader indices. In many cases, these funds were underweight defense and fossil fuel companies which performed strongly during 2022 but retained overweight allocations to fast growing technology and healthcare sectors which performed poorly in the face of rising interest rates. This is illustrated below in Exhibit 1, which shows the relative outperformance of an ESG variant of MSCI World vs. the vanilla index during 2021, before sharply

reversing in 2022. The institutional investment world is now torn between not owning companies and sectors which are perceived to be poor ESG performers and owning companies where investors feel the company or sector is likely to see meaningful improvements in ESG factors, regardless of whether the investor takes an active role in influencing the positive change.

Exhibit 1
MSCI World ESG Enhanced UCITS outperformed MSCI World in 2020 and 2021 before the trend reversed sharply in 2022



Source: MSCI

The backlash has been far from universal. An increasing number of institutional asset owners and asset managers continue to embrace net zero goals. Today 20% of US endowments have net zero goals and 11% of pensions as measured by assets.¹ So far, of our 100 largest clients, 15 have a net zero goal in place. Our attempts, and our clients' attempts, to detail investment plans and policies for achieving this goal have been complicated by the myriad potential energy transition pathways, with some seeking to exclude investments in fossil fuels and others continuing to invest in fossil fuels despite their desire to achieve net zero emissions.

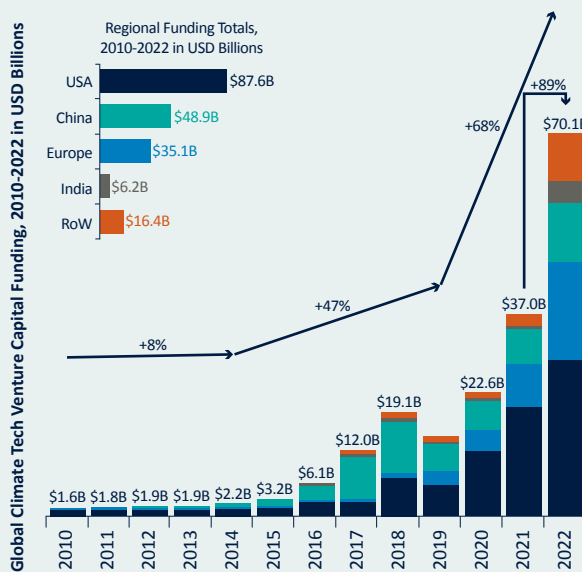
Backlash or not, we are seeing significant growth in Sustainable Investing generally, and in the energy transition specifically. Most of the growth in energy investing is accounted for by large public companies across utilities, oil and gas, automotive, materials,

1. Pensions and Insurers Data from Net Zero Asset Owner Alliance. Endowment data from Intentional Endowments

industrials and agricultural sectors. However, as estimated by the International Energy Agency and Imperial College London, the amount invested in renewables infrastructure via private equity infrastructure funds has more than doubled in the 5 years 2016-21 from \$60B to \$125B. Below, in Exhibit 2, you can see that climate technology investments totaled \$70.1B in 2022, which accounted for approximately 16% of total venture capital investments in 2022.

Exhibit 2

Climate Tech Venture Funding nearly doubled to \$70B in 2022



Source: HoloniQ

In Insights 2022, we summarised the essence of our 64-page Partners Capital Global Energy Transition Investment Framework into a one-page summary of our conclusions which are still valid today.

Global CO₂ emissions today average approximately 40B metric tons per year. Power generation and industry (steel and cement, in particular) account for 62% of current global emissions, with transport, agriculture and building accounting for the rest. China, US and Europe account for 60%.

Today, 80% of global GDP is located in countries that have a net zero ambition, up from 50% at the beginning of 2021. For example, the US, the second largest emitter but the largest on a historic basis, has set a target of cutting net greenhouse gas emissions by 50% below 2005 (peak) levels by 2030.

In pursuit of these ambitions, renewable energy is clearly the dominant contributor (50%) to emissions reduction between now and 2050. However, it will also require meaningful contributions from carbon capture, hydrogen, battery technology and increases in our natural sinks like forests.

In order to achieve net zero by 2050, experts suggest it will require an incremental \$2.3-3.8T of average annual investment out to 2050, an increase of over 100% from the estimated \$2.2T that was invested annually towards net zero between 2016 and 2020 (for a total annual capex of \$4.5T to \$6.0T).

Due to the future reliance on wind and solar power and the intermittent nature of those two power generation sources, we believe that large scale renewable energy storage is the most significant hurdle to the goal of achieving net zero emissions. Continued improvements in existing technologies (e.g., grid-scale lithium-ion batteries and hydrogen electrolysis) will be commonplace during the transition. Green hydrogen is a likely feature of this future, but it will take at least a decade to achieve meaningful scale.

Carbon capture technology will likely be crucial in decarbonising more difficult to abate emissions from heavy industry from 2030 onwards, although the technology is currently nascent.

Based on the long-term climate objectives and the shorter-term technological constraints, we believe that natural gas and nuclear, where available, will likely bridge the gap for the next decade until batteries and hydrogen storage technology reach the point of wide scale utility. At that point, renewables will come to dominate the power grid, supported by a combination of nuclear and natural gas plants fitted with carbon capture technology. Batteries will support day-to-day grid management, and hydrogen will support the grid for seasonal management of surpluses and deficits.

With this backdrop, our investment strategy will follow our long-running sustainable investment framework:

1. Favour those managers best able to assess the degree to which companies will be affected by the energy transition, regardless of their industry
2. Allocate capital to those companies and sectors which sit in pivotal positions on the path to net zero emissions.

Here in Insights 2023, we want to highlight the evolution of the investment industry's views on investing in the energy transition and the progress we have made with client portfolios in 2022.

Partners Capital Progress in Investing in the Energy Transition. Virtually every one of our public equity, private equity and credit focused asset managers are investing in the energy transition today, to the extent that the companies they own will all be evolving their businesses in the direction of lower greenhouse gas emissions in the years ahead. It is our job to help those asset managers that need it, to appreciate and understand how any one of their investments is likely to be affected by the energy transition, and in some cases, for us to encourage these asset managers to engage with company management on how best to prepare for and exploit this mega-trend to the benefit of their investors and the environment.

We cannot be of any help unless we have a deep understanding ourselves of what the greatest challenges are to the global energy transition. To this end, over the last few years, we have invested in developing our own in-house domain expertise in the energy transition and sought ways to transfer this understanding to our asset managers through our research publications and day-to-day interactions with them. This starts with educating our asset class teams in the energy transition which is an ongoing process at Partners Capital. In our engagements with the asset managers that we partner with, we go further than simply asking table stakes questions like “do you have an ESG policy” and “do you integrate ESG factors into your investment process?”. We have engaged with our asset managers on ESG investing through our Asset Manager ESG integration Survey since 2016. However, we are most impactful in our face-to-face engagement with our core asset managers on specific topics under the sustainable investment heading by, for example, supporting managers in the development and implementation of their ESG materiality assessment frameworks or their approaches to achieving a net zero goal in their own portfolios. In 2022 we published our *Global Energy Transition Investment Framework* and distributed that to all of our asset managers, many of whom have made it mandatory reading for their research teams. Several dozen of our largest managers have engaged with us on its content to swap investment insights.

Additionally in 2022, we continued to dig deep into the investment world to find more active investment managers across asset classes who have deep energy transition domain expertise and who have demonstrated an ability to generate significant investment outperformance from this expertise. In most cases of Energy Transition or ESG managers we have approved and invested in, their sustainable investment “lens” is not sufficient

as the sole source of alpha generation but is married with other fundamental research-based and value adding investment skills that together we believe can generate significant outperformance in the future. But very occasionally we are finding managers exclusively focused on investing in the energy transition where their insights appear to be delivering material outperformance on their own. This had us approving a new public equities manager, a private debt manager and two new energy transition focused private equity managers in 2022. Our dedicated impact private equity pooled vehicle, which was launched in 2021, is now approximately 45% deployed, having committed to six managers and one co-investment. We also continue to allocate to and upgrade the quality of talented managers focused on investments in impact sectors such as healthcare and education.

As of the end of 2022, our model portfolio had approximately 10% of its portfolio allocated to primarily sustainable investments and impact strategies.² As we add more managers with dedicated energy transition capabilities to our platform and clients allocate more capital to capitalise on these opportunities, we anticipate that this figure will grow.

Today, we estimate that, on a capital weighted basis, 79% of the active manager universe that responded to our Asset Manager ESG Integration Survey in 2022 is comprised of asset managers who fulfil our minimum requirements of firm wide ESG integration. This represents an increase from 75% in 2021.³

Your capital is at risk and you may not get back the full amount invested.

- 2 The 10% allocated to primarily sustainable investment strategies and impact strategies includes that subset of managers within our current model portfolio for institutional clients who qualify as “ESG leaders”. These are managers whose investment strategies we believe to be significantly influenced by their insights on how ESG factors affect company performance. This 10% also includes managers focused on investing in what we define as impact sectors, which includes renewable energy, healthcare and education.
- 3 We have received responses from 93 managers to date (representing \$23.7B of capital, or 53% of AUM) to our 2022 Asset Manager ESG Integration Survey. This compares to responses from 128 managers in 2021 (representing \$20.7B of capital, or 47% of AUM as of June 2021). More information on our Asset Manager ESG Integration Survey can be found in our 2022 Sustainable Investing Report.

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