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# 2022 Global Alternatives Outlook

Seeing the forest *and* the trees

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**J.P.Morgan**  
ASSET MANAGEMENT



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To help our clients better see the forest *and* the trees, for our fourth annual Global Alternatives Outlook we've asked the CEOs, CIOs and strategists from J.P. Morgan's USD 200 billion-plus alternatives platform to provide their 12- to 18-month perspective on the trends influencing their respective markets, as well as their most promising investment ideas and their thoughts on the underappreciated risks investors may face.

Anton Pil  
Global Head of Alternatives



# Foreword

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## Seeing the forest *and* the trees

It's all a matter of perspective. As we enter 2022, there is a real risk of missing the forest for the trees. Up close, the "trees" in the 2022 outlook are clear. Consumers will keep spending. So, too, will governments, mostly with money they don't have. Central banks will taper bond purchases, even if there are no buyers to replace them. Interest rates will rise. Transitory inflation will prove to be anything but. The equity market's volatility will likely be surpassed only by Bitcoin's. COVID-19 looks set to continue roiling our lives and markets. All this we know.

But take a step back and the "forest" emerges, filled with both dangers and wonders. In the forest, you'll encounter perils to investment success – stretched valuations in traditional markets, limited correlation benefits between fixed income and equities, and persistently low bond yields – but also marvels, such as the megatrends of environmental, social and governance (ESG) considerations and technological adoption.

To help our clients better see the forest *and* the trees, for our fourth annual Global Alternatives Outlook we've asked the CEOs, CIOs and strategists from J.P. Morgan's USD 200 billion-plus alternatives platform to provide their 12- to 18-month perspective on the trends influencing their respective markets, as well as their most promising investment ideas and their thoughts on the underappreciated risks investors may face.

Forests are diverse environments. In the Outlook's asset class chapters, you'll find not one house view but, rather, varied thinking from our 700-plus alternatives team members and 18 investment engines across private credit, private equity, hedge funds, real estate and real assets. We strongly believe that diverse views and vigorous debate, informed by data from thousands of individual investments, make us better stewards of our clients' capital.

We know diversity produces superior results. And we acknowledge that much work needs to be done to ensure all the voices of our communities are better represented in our industry and our firm, particularly those of racial minorities. Still, we've made real progress toward our goal of becoming the most diverse alternatives investment manager. Today, nearly 55% of J.P. Morgan's alternatives assets under management are managed by female portfolio managers or women-led teams.

We're also proud to be at the forefront of incorporating ESG factors into our investing process to help deliver long-term investment success. ESG analysis is thoroughly integrated into all of our alternatives strategies. Recently, we became a signatory of the Net Zero Asset Managers initiative. What's more, as the second-largest global forestry investment manager, our (real rather than metaphoric) forests sequester more than one million tons of carbon annually and are home to more than 300 protected species of plants and animals.

As we head into the wilds of 2022, we wish you safe passage and hope you find this Outlook helpful in your journey. Please let us know if we can be of help in implementing any ideas presented or if you need additional information from any of our contributors.

On behalf of J.P. Morgan Asset Management, thank you for your continued trust and confidence.



**Anton Pil**  
Global Head of Alternatives



# Macroeconomic outlook

## Author

**David Lebovitz**

Global Market Strategist

## Growth with a side of inflation

If 2020 was the year of the pandemic, 2021 was the year of the recovery. But this recovery has occurred in fits and starts, and at times has felt quite uneven. What's more, the recent emergence of the Omicron variant reminds us that the pandemic is not over. At the same time, simmering geopolitical tensions and elevated levels of inflation signal that there will be new challenges if and when the virus fades into the background.

A healthy consumer suggests that the developed world can continue to grow at an above-trend pace in 2022, and we expect that manufacturing economies in the emerging world will see growth improve as vaccination rates rise. Against this backdrop, policy will likely become less accommodative but not outright restrictive. This should provide support for risk assets while leaving investors still searching for income in what will remain a very low interest rate world.



## Solid economic growth, healthy consumer

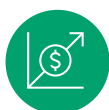
The global economy seems to have finished 2021 with solid momentum. While we believe the pace of economic growth will gradually decelerate over the course of the year, we expect it will remain above trend. Driving this solid economic activity will be three distinct forces: the consumer, inventories and business investment.

The consumer is in good financial shape. That's partly because the fiscal policy response to COVID-19 lined the pockets of individuals with cash, particularly in the developed world. With checking account balances still well above their long-run average and debt-to-income ratios near their lowest levels on record, it seems reasonable to expect consumption will be a key driver of growth this year. While mobility has come under modest pressure as Omicron spreads rapidly, we believe the broader expansion is intact and anticipate any economic disruption will be contained to the first quarter. That is a testament to how populations globally have adjusted to the continued presence of the virus. Further, we believe that additional tightening in the labor market will support the consumer going forward.

In addition to solid consumption, inventory growth looks set to support above-trend economic activity. Supply chain disruptions – most people have experienced some sort of delay when trying to get something from point A to point B – are beginning to resolve. We began to see an inventory build as we came into the fourth quarter, and it seems to have continued through the end of 2021. Looking ahead, we believe that inventory growth will provide an additional tailwind for economic growth in 2022.



Finally, investment spending looks set to accelerate. First, there has historically been a tight relationship between earnings growth and nonresidential investment spending 12 months later; 2021 was a fantastic year for profits, and we expect that will translate into stronger capital spending. Second, it is nearly impossible to read the news without seeing headlines about rising raw material prices, higher wages and an increase in transportation costs. Management teams have stated openly that they plan to defend margins against these rising input prices in two ways, by passing along these higher costs to the consumer and, where possible, focusing on automation and efficiency. The latter requires investment, which we believe will increase in 2022. This should benefit manufacturing economies broadly, but particularly those in the business of manufacturing technology and other productivity-enhancing products (**Exhibit 1**, on page 8).



### Elevated inflation, but drifting down

We are constructive on the economic growth outlook for this year. Still, we recognize that above-trend growth will be served with a side of inflation. In 2021, it became clear that inflation was not as transitory as many investors and policymakers had assumed. While we do not believe that inflation will evolve into a structural issue, we do believe that it will be elevated relative to the Federal Reserve's (Fed's) target over the coming year. Contributing to this stickier inflation are the significant increase in home prices over the past year, supply chain disruptions and a tight labor market characterized by the fastest wage growth since the early 1980s.

Over the course of the year, inflation should decelerate – remember, inflation measures the rate of change rather than the level. Many of the reasons inflation is elevated today stem from issues on the supply side of the economy. However, as supply chains gradually normalize, the labor supply increases and the housing market cools, inflation should begin to drift lower. Structural forces such as globalization, technological adoption, demographic changes and income inequality have weighed on inflation for the better part of the past 40 years. As long as these factors remain in place, it is difficult to see inflation remaining elevated over the longer term.





## The challenge of monetary policy

This macroeconomic backdrop has created significant questions around the appropriate trajectory of monetary policy in 2022. At its December meeting, the Federal Open Market Committee (FOMC) announced that it would accelerate the pace of asset purchase reduction (i.e., “tapering”) and aim to hike the federal funds rate three times in 2022. It seems perfectly reasonable for tapering to be accelerated, as the financial plumbing of the economy looks fine. However, tapering is very different from tightening, and it will likely be more difficult for the Fed to hike rates faster than it currently expects. Further complicating this dynamic will be the midterm U.S. elections in November. We see room for the Fed to begin hiking in 2022, but would not be surprised to see it move more slowly than market pricing and its own forecasts suggest. Meanwhile, the Bank of England (BoE) will lead the tightening charge in 2022, whereas the European Central Bank (ECB) and the Bank of Japan (BoJ) seem poised to move more slowly. The bottom line? Monetary policy should become less easy, but we do not believe it will become tight.



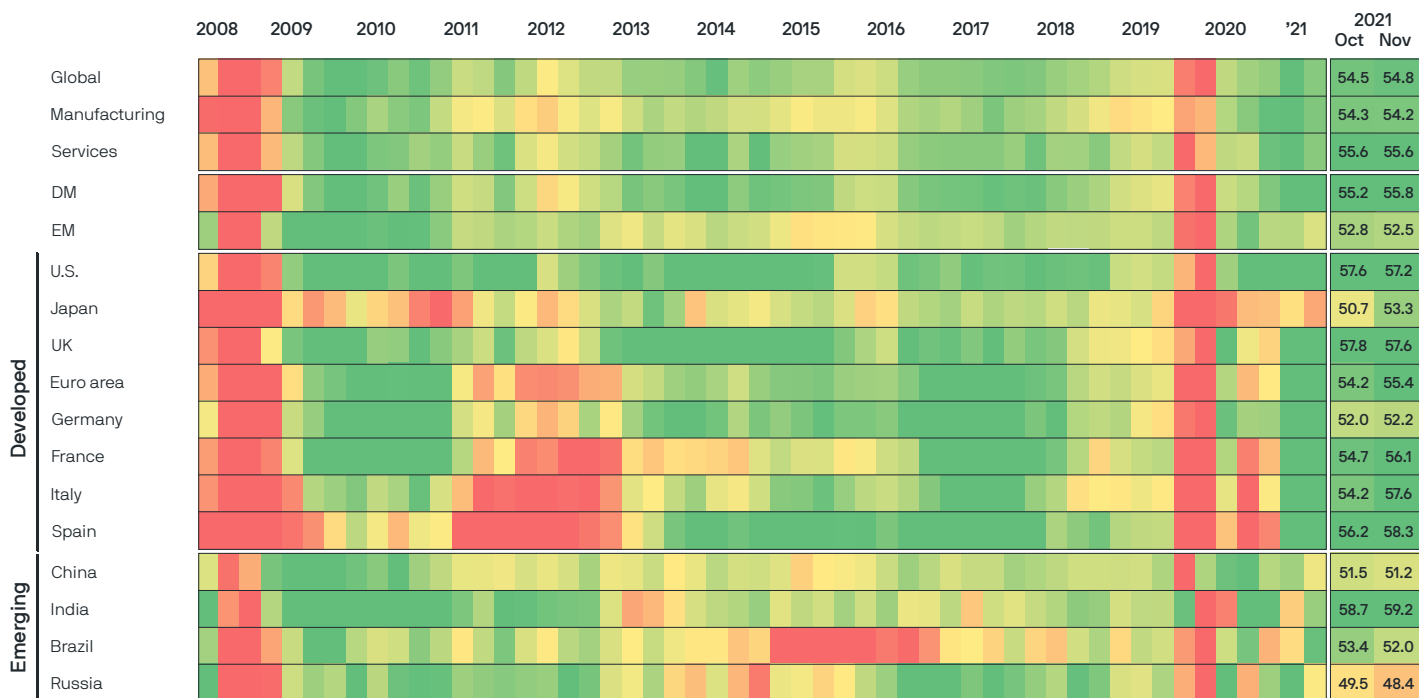
## Elevated volatility, muted expected returns: The case for embracing alternatives

Although we take a constructive view of the economy, we recognize that investment returns may be more difficult to come by. Public markets have delivered remarkable performance over the past two years, but we expect that returns will be lower and volatility higher going forward. Further, while interest rates should rise, they will likely do so only gradually. At the end of the day, it will be essential for investors to embrace alternatives as they navigate a world characterized by muted expected returns, historically low interest rates and elevated volatility.



## A likely increase in business investment in 2022 should benefit economies that manufacture technology and other productivity-enhancing products.

**Exhibit 1:** Global composite (manufacturing and services combined) purchasing managers' index, quarterly



Source: Markit, J.P. Morgan Management.

The composite PMI includes both manufacturing and services subindices. Heat map colors are based on PMI relative to the 50 level, which indicates acceleration or deceleration of the sector for the time period shown. Heat map is based on quarterly averages, with the exception of the most recent figures, which are single months' readings. Data for the U.S. are backtested and filled in from December 2017 to September 2009 due to a lack of existing PMI figures. DM and EM represent developed markets and emerging markets, respectively.

Guide to the Markets–U.S.; data as of December 10, 2021.

# Alternative asset allocation outlook

## Authors

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Investments Strategy & Solutions

## Embracing a hybrid environment

If the past two years have taught us anything, it is that we have a great capacity to adapt in the face of dramatic change. Often, that adaptation requires us to embrace hybrids. We hybrid shop – increasing our online purchases but also rediscovering the fun of a trip to the mall. We hybrid work – enjoying office camaraderie while appreciating work-from-home efficiencies. We hybrid play – e-gaming and binge watching but also attending concerts and sporting events. We hybrid learn – children go to school on Zoom and in person. We hybrid drive – buying more and more hybrid and electric vehicles, especially as gas prices rise and climate change becomes an increasingly important consideration.

Just as we are growing accustomed to a new, hybrid lifestyle, we need to embrace a hybrid model for investing in a changing market environment (**Exhibit 1**, on page 10). Facing moderating economic growth, higher inflation and low but rising interest rates, investors will find it increasingly difficult to generate stable income-driven returns and alpha through the public markets alone. Alternatives can deliver on both fronts. That is especially true for hybrid-like alternatives – sectors and styles that exhibit equity-like and fixed income-like characteristics. Critically, they can provide public equity diversification, stable returns and the potential for alpha/growth. These hybrids are less well understood than traditional investments and generally less liquid. In the current environment, they are also relatively mispriced, which presents an attractive entry point for investors.



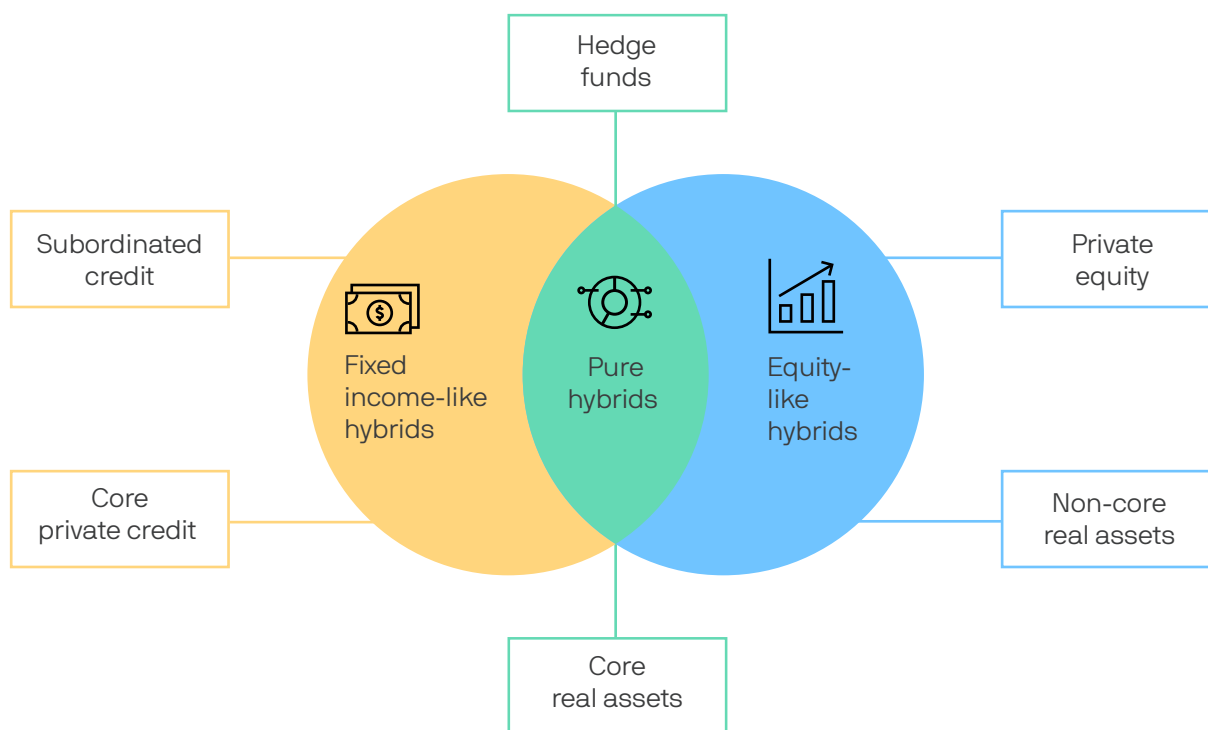


## 2022: Current cycle positioning, with an anchor in hybrid investments

Alternatives can play different roles in a portfolio, depending on the stage of the economic and market cycle. Given today's low or negative real yields and inflationary pressures, investments that can generate positive real yields and grow cash flows over time are extremely important. Alternatives with explicit or implicit inflationary pass-through mechanisms, such as certain types of real assets, should be well positioned to deliver attractive risk-adjusted returns. Higher yielding private credit investments, particularly those with floating interest rates, can protect against rising interest rates. Finally, hedge funds and private equity can provide public equity diversification and/or alpha.

### The opportunity set shows our emphasis on hybrid categories in the current market environment

**Exhibit 1:** Opportunities in which we have the highest conviction for 2022



Source: J.P. Morgan Asset Management—Alternatives Solutions Group; as of January 2022.

## Adapting to a hybrid environment

**Fixed income-like hybrids** offer the potential for enhanced yields over core fixed income in the public markets, with hybrid features (e.g., mezzanine positions and floating interest rates). The group includes real estate mezzanine debt, infrastructure debt and various segments of private credit (e.g., middle market direct lending and consumer lending). Their hybrid attributes are particularly attractive for investors that can accept some illiquidity in exchange for enhanced yields. In addition to positive real yields, fixed income-like hybrids may also offer downside protection for public equity exposure, which is now less available from traditional fixed income securities.

**Equity-like hybrids** offer the potential for enhanced returns. For example, non-core real assets can draw on positive tailwinds in an economic recovery to uncover development opportunities, boosting cash flow and investment returns. In a market of growing demand, non-core real assets can be repositioned and re-leased, potentially transforming “ordinary” assets into “premium” assets. Certain environmental, social and governance (ESG)-integrated strategies can also generate alpha from structural changes driven by long-term sustainability trends (for example, the ongoing energy transition).

Within equity-like hybrids, the expanding opportunity set within private equity (PE) creates the potential for alpha. Digital transformation extending well beyond new economy sectors – in changing consumer preferences and ESG mandates, for example – is creating new opportunities for PE sponsors to generate incremental alpha. In an environment of still-low interest rates and above-trend economic growth, PE managers can use leverage to enhance returns. Investors may take the traditional approach, investing directly in primary PE funds. They can also uncover private equity opportunities by co-investing with PE sponsors and

investing in secondaries (pre-existing commitments to PE funds). In this way, investors can find the potential for additional sources of alpha and faster capital deployment than investing in primary funds.

**Pure hybrids** exhibit characteristics of both fixed income and equity investments, which we think will serve them well in the current market environment. Pure hybrids can deliver enhanced yields, public equity diversification and/or the potential for capital appreciation. Notably, many of these assets can deliver yields at a meaningful premium to fixed income securities with similar counterparty risk.

Currently, we especially like core real assets (e.g., core real estate, infrastructure, transport and timberland) that stand to benefit from the continued reopening of economies. Core real assets offer stable yields with the potential for cash flow growth during periods of economic growth and rising inflation. Many of these assets feature some degree of explicit or implicit inflationary pass-through mechanisms. Lastly, core real assets can also deliver these attributes through ESG investments, whether through investments in more sustainable buildings, infrastructure investments in renewable power assets or liquefied natural gas-powered maritime vessels.

Hedge funds can be effective investments in generating alpha from market volatility. That’s especially useful when volatility picks up, as it has done in both public equity and fixed income markets. Looking ahead, discretionary macro strategies should be well positioned to take advantage of any volatility spikes arising from central bank moves toward policy normalization. Critically, too, hedge funds can act as a ballast and diversifier in portfolios, particularly in environments when fixed income and/or equity markets are challenged. Hedge funds have demonstrated this resilience by providing downside protection when indices for these markets have posted negative returns.

## Conclusion

Much as we hybrid shop, work and drive, we can hybrid invest. A new market environment requires a new investing playbook. We encourage investors to consider, or reconsider, how hybrid alternatives (and alternatives more broadly) can help them achieve their investment goals in the new year. They may find that a new approach can deliver the outcomes they are looking for.



# Hedge funds outlook

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## With volatility rising, new opportunities emerge

Volatility will persist in 2022, giving rise to a shifting array of price dislocations and unexpected opportunities. After a year marked by rapid economic growth and positive market momentum, uncertainty has returned to markets, sparked by elevated – and possibly persistent – inflation, central banks' resulting move to less accommodative monetary policy and renewed disruption from COVID-19.

Uncertainty may be the only certainty, but our hedge fund investors see significant opportunities for alpha generation as markets recalibrate for an ever more unpredictable future. Elevated levels of stock and factor dispersion, for example, are creating positive tailwinds for relative value and arbitrage strategies that focus on identifying price discrepancies among securities with similar characteristics. We also see strong growth and alpha opportunities in a diverse array of secular themes: innovation in biotechnology and cybersecurity, rising awareness of environmental sustainability, improving access to financial services (especially in emerging markets) and maturing corporate governance (particularly in Japan).



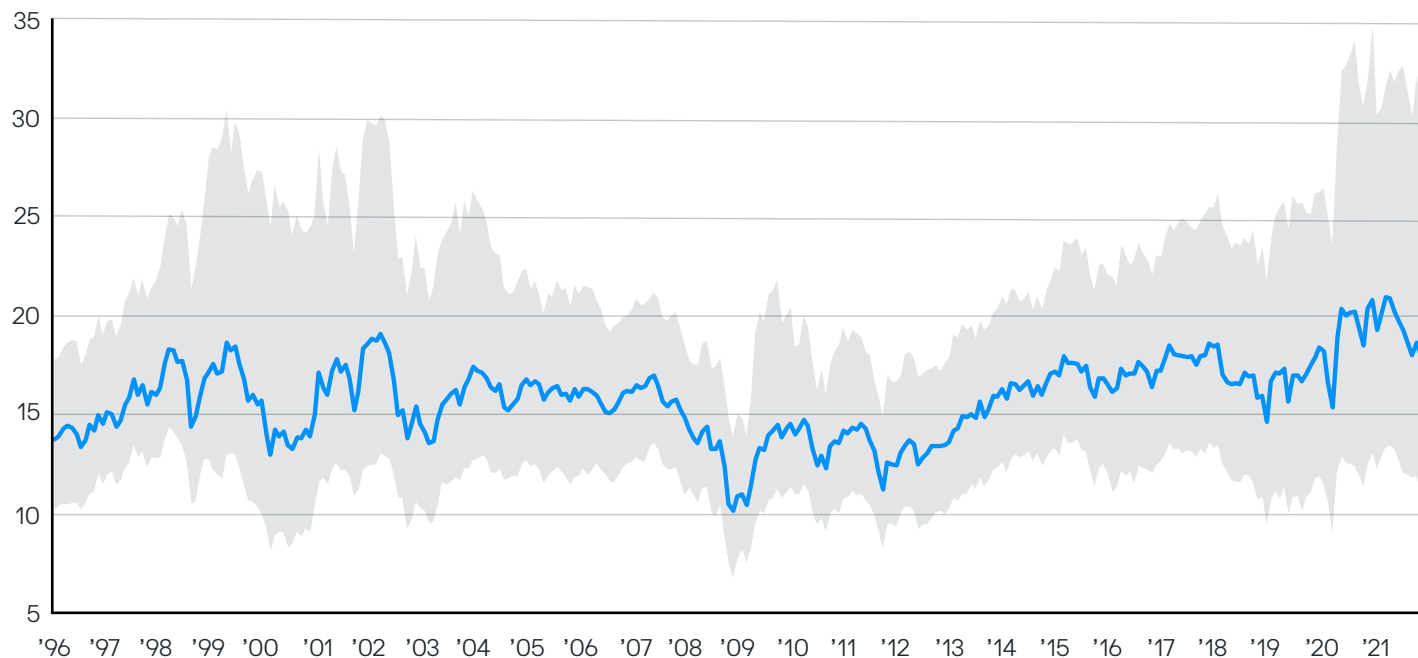


**Uncertainty may be the only certainty in 2022, but our hedge fund investors see significant opportunities for alpha creation as markets recalibrate for an ever more unpredictable future.**



## Elevated volatility and high stock dispersion are creating favorable trading conditions for many hedge fund strategies in the current market

**Exhibit 1:** Median price-to-earnings ratio and valuation dispersion of stocks in the S&P 500 (January 1997–December 2021)



	25-yr average	Current
Median S&P 500 P/E	15.9	19.0
Value spread	11.2	20.4

Source: Compustat, FactSet, Standard & Poor's, J.P. Morgan Asset Management; data as of December 15, 2021.

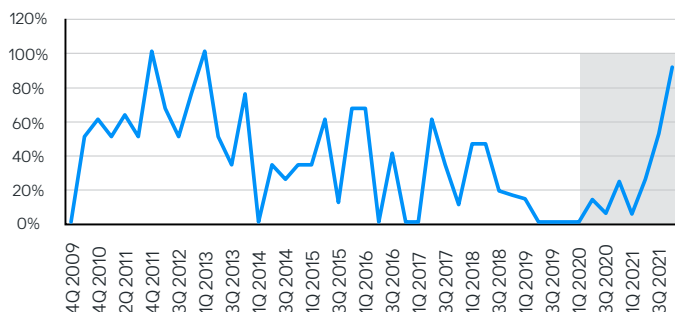
### Market dispersion reflects rising volatility

Although volatility has been more muted over the past year than it was in 2020, the VIX appears likely to settle in the top half of its pre-pandemic range of 10–20 in the coming 12 to 18 months, creating an attractive base for hedge fund strategies that benefit from elevated but not extreme volatility levels. Stock and factor dispersions are also historically high, creating significant trading opportunities. The level of valuation dispersion is approaching the range last seen in the dot-com bubble of 2001 (**Exhibit 1**).

Volatility in fixed income and currency markets has also begun to increase. Activity in mergers and acquisitions (M&A) was robust throughout 2021 and may continue as long as financing costs remain low in 2022. Although special-purpose acquisition company (SPAC) issuance declined in 2Q 2021, the sponsors of these investment trusts, which provide an efficient means for some companies to list shares, have started adjusting their terms as a way to incentivize greater participation in initial public offerings (IPOs).

## Two recent trends in SPAC financing – the overfunding of trusts and extension of higher warrant coverage – have shifted greater investment benefits to SPAC owners

**Exhibit 2A:** Percentage of overfunded SPAC IPOs



Source: SPACInsider and J.P. Morgan Asset Management. As of September 30, 2021.

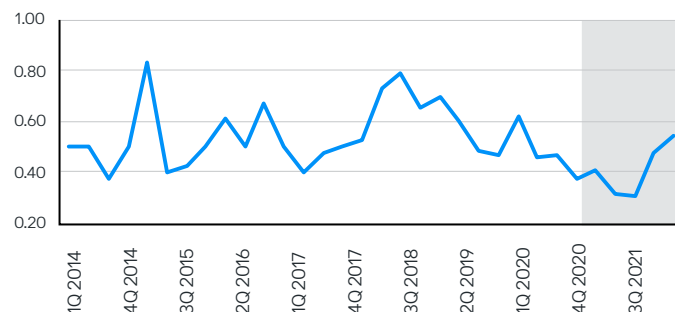
The power shift from sponsor to investor in the context of the SPAC investment dynamic creates more attractive opportunities, and by December 2021 we had already begun to see a pickup in SPAC IPO volume. Sponsors had begun routinely overfunding trusts by adding money on top of the gross proceeds raised for the SPAC and offering higher warrant coverage. The first trend effectively guaranteed that investors that redeemed shares would receive a return on their investment; the second enabled investors to get more warrants per share that they could exercise (**Exhibits 2A and 2B**).

### Inflation as a headwind – or a trading opportunity

The specter of rising inflation, which hit a 30-year high in November 2021 in the U.S., is forcing a reckoning among asset owners: They are actively engaged in sector rotation with the prospect of inflation remaining higher for longer than many policymakers initially predicted. Although inflation poses a challenge for investors in the next 12 to 18 months, hedge fund managers, particularly those pursuing relative value strategies, could thrive. In an inflationary and rising rate environment, trading conditions become choppy and uncertain, and spreads widen, providing relative value strategies, among others, with more trading opportunities.

We see global macro managers, whose strategies often perform well in volatile periods, repositioning portfolios to take advantage of near-term opportunities

**Exhibit 2B:** Industry-wide trend of rising warrant coverage (per unit)



Source: SPACInsider and J.P. Morgan Asset Management. As of September 30, 2021.

in currencies, commodities and rates. Our hedge fund experts have also observed some openings to take a view on inflation as a theme in long-short equities as rising inflation exerts pressure on growth-oriented longer-duration names (whose valuations are more sensitive to rising rates) and provides more support for shorter-duration value-oriented stocks.

### Breaking away from market beta

Relative value strategies are likely to benefit from high and persistent stock dispersion in 2022. We consider these strategies to be among the most protective in a rising rate environment, as they provide performance upside with low to mid single-digit volatility and are largely uncorrelated to equity and fixed income.

The relative value theme is also evident across a number of different substrategies, including convertible bond arbitrage and short-term statistical arbitrage. Managers in the latter space can turn over their books quite quickly (in less than 30 days) and exploit higher levels of volatility, which often create tradable micro-dislocations.

We consider equity capital market (ECM) strategies, which facilitate short-term trading in IPOs, block trades and flow-driven investments, as another form of relative value. Some hedge fund managers are buying IPO risk from investment banks (which are no longer able to hold it), hedging that risk and then liquidating it efficiently in the marketplace.



**We are strongly committed to the theme of sustainability, with a particular focus on carbon neutrality as a driver of corporate performance.**

## Secular themes: innovation, sustainability and governance

Although inflation is creating headwinds for some of the structural themes that we have been pursuing over the past year, a few of these sectors will be more resilient than others. Biotechnology is a theme that we continue to back, although it is arguably somewhat dislocated now – especially in smaller mid-cap names – given the prospect of rate increases in mid-2022. We believe it should continue to do well over the coming three-year period.

We are also strongly committed to the theme of sustainability, with a particular focus on carbon neutrality as a driver of corporate performance. We have begun building this data into our factor-based trading models because companies that are focused on achieving carbon neutrality will attract greater investment flows than industry laggards and may be better positioned to develop solutions for the coming transition to a greener economy. Positive fund flows, coupled with consumer demand and trends in regulation and technological innovation, make this idea our highest conviction position in sustainable investing.

This theme has also percolated through our macro funds, where we are investing in select companies that choose to reflect sustainable ideas, including sustainable electricity generation and energy efficiency in transport and building construction.

In long-short equity and activist strategies, we've been focused on corporate governance in Japan, which is edging forward. We have been concentrating on it for the past year and continue to believe that progress will be made as activist managers apply pressure, although the process moves very slowly.

One of the newest themes that we've begun to implement concerns technology solutions around cybersecurity, which is likely to prove extremely resilient, even in an inflationary world, because it's a compelling structural growth story based on the rapid expansion of cloud computing. Investment flows continue to increase dramatically to the sector as the risks of data breaches get higher and higher, creating opportunities for selective exposure to high growth companies.

Our macro funds are also engaging with this theme by investing directly in cloud computing providers, as well as software companies delivering services to firms moving to cloud-based business architecture as part of their ongoing digital transformation.

### Conclusion

Hedge fund investors willing to pursue diverse and uncorrelated strategies are likely to find opportunities in a shifting array of near-term market dislocations and longer-term secular trends in 2022. The coming year, which appears destined to usher in a more nuanced period of change, holds the potential for significantly greater market volatility – a key enabler for hedge funds seeking to generate alpha. Beyond their ability to turn volatility into opportunity, hedge funds may also provide downside protection and strategic diversification in an era of pandemic-induced unease, making them a critical component of a well-diversified portfolio.



# Real assets outlook: Infrastructure

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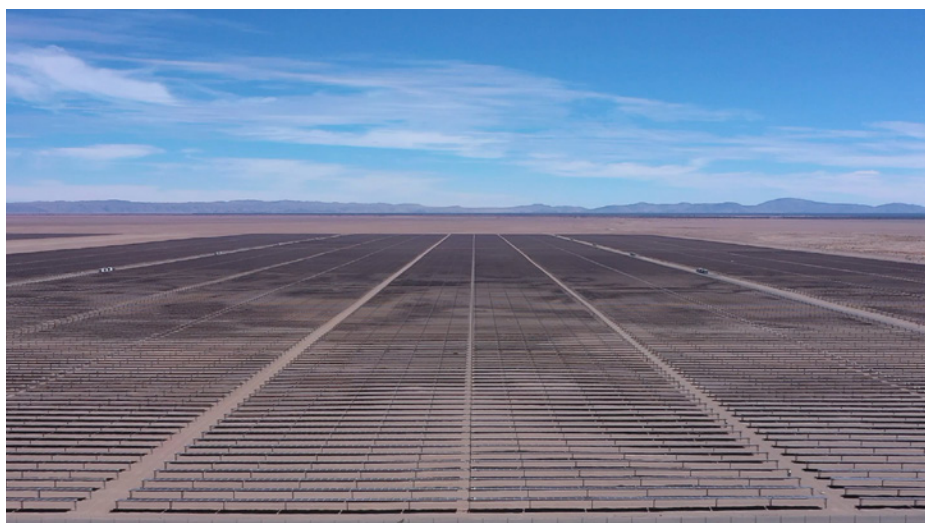
## Diversification while reducing carbon footprints

Infrastructure investing is becoming foundational in investment portfolios, providing opportunities for lower volatility returns that historically have low correlation to equities and bonds – an opportunity for downside protection in a crisis, demonstrated most recently during the COVID-19 pandemic. We believe core infrastructure assets, especially in OECD markets, will continue to find investor support.

Recently, governments have pledged their commitments to transitioning to a lower carbon world, making investors even more enthusiastic about long-term investments in infrastructure – renewable energy in particular. When making long-term investments in communities' essential services, sustainability is top of mind. Investors have an obligation to a broad set of stakeholders to be a positive force in the current energy transition.

We expect core infrastructure assets to continue to serve as a lower risk, more forecastable source of diversification and steady income (mostly from cash distributions) through their regulated frameworks, often correlated to inflation; government concessions; and long-term contractual revenues with investment grade counterparties.<sup>1</sup>

Infrastructure also provides an opportunity for steady income through market cycles, since the phase of an economic cycle generally doesn't change water or electricity consumption.



✓ Sonnedix Atacama Solar in the Atacama Desert, Chile

<sup>1</sup> Along with energy, infrastructure assets include pipelines, water distribution and waste collection, broadcast and wireless towers, cable and satellite networks, and social assets such as health care facilities, schools and public and military housing. Infrastructure companies are often long-lived, with monopolistic characteristics, high barriers to entry and sustainable competitive advantages.

✓ Denotes J.P. Morgan asset





✓ Sonnedix Tono Solar in Japan

## Strong governance, carbon disclosure and improving sustainability

Among the themes underlying our outlook for infrastructure:

**Combining renewable energy with natural gas investment:** To maintain energy networks' reliability during the transition from fossil fuels, we anticipate spending on green infrastructure will be complemented by investment in nonintermittent natural gas (which is less carbon intensive than oil and coal) and, to some extent, battery technologies, as natural gas likely phases out over the long term.<sup>2</sup>

**The importance of governance:** Strong company governance, including talented, aligned management teams, is key to reducing carbon footprints. Stakeholder engagement is critical for sustainable, risk-adjusted returns, and that requires a diverse board and management team.

**Preparing for climate risks to become part of financial statements:** An investor best practice will be measuring and auditing portfolio companies' carbon footprints, in accordance with the most widely used international accounting tool, the Greenhouse Gas Protocol.<sup>3</sup>

**Environmental, social and governance (ESG):** Social impact must be a priority across portfolio companies, through initiatives such as promoting health, safety, diversity, equity and inclusion.<sup>4</sup> Governance is the foundation of enhanced and transparent ESG reporting, integrating ESG into day-to-day management and engaging with investors, stakeholders and the industry.

<sup>2</sup> We believe natural gas companies could remain critical for as long as 50 years, with a possible inclusion of other fuels in the medium term, such as biofuels and/or hydrogen.

<sup>3</sup> Future reporting is intended to incorporate updates on companies' progress in their energy transition, portfolio stress tests and disclosure of relevant carbon-intensity metrics. Our goal is to audit portfolio companies' Scope 1 and Scope 2 emissions. Scope 1 are direct emissions from sources you own; Scope 2 are indirect emissions from purchases, such as from electricity consumed; Scope 3 are all other emissions throughout the value chain, as a result of goods and services purchased, business travel, waste disposal and transportation. "Briefing: What Are Scope 3 Emissions?" Carbon Trust.

<sup>4</sup> These are necessary if infrastructure businesses are to fulfill and maintain their social license to operate: when a project and its operating procedures (waste management, human resources, etc.) have the ongoing approval of, or broad acceptance by, the local community and other stakeholders, such as employees and the wider public.

✓ Denotes J.P. Morgan asset



## Opportunities in infrastructure investing:

### Bolt-on acquisitions, a conservative approach to debt

We see a large opportunity in acquisitions, to continue building companies while maintaining a long-term investment horizon. Deal flow should be robust. An investment strategy with the potential to lower risk is combining new and “bolt-on” investments.

Bolt-ons are accretive to existing business plans and allow new assets to fall under boards and management teams already in place. We believe owning a controlling stake is another advantage and a differentiator.

Equity infrastructure investments will likely remain a mix of 80% core (regulated, contracted) assets and about 20% core-plus (GDP-sensitive) assets,<sup>5</sup> intended to provide a steady, predictable return profile throughout the economic cycle.

## Managing potential risks in infrastructure investing

Risks include political and regulatory risk, and higher taxes. Political risks vary, which is why we focus on OECD markets. People are also a key risk and opportunity, which we seek to both mitigate and harness with independent boards of directors and by deploying capital behind existing management teams.

A company’s debt profile can present risks. Although infrastructure has historically been highly geared, we prefer a conservative approach to financial structuring and longer-tenor fixed rate debt. Finally, portfolio construction can be a risk mitigator. The global pandemic has emphasized that to be a portfolio diversifier, your asset mix needs to be diversified, too.

<sup>5</sup> Of 80% core assets: 40% regulated assets and 40% contracted essential services like water, heat and electricity. GDP-sensitive assets include airports, storage and rail leasing businesses.

# Real assets outlook: Transport

## Author

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## Navigating the energy transition

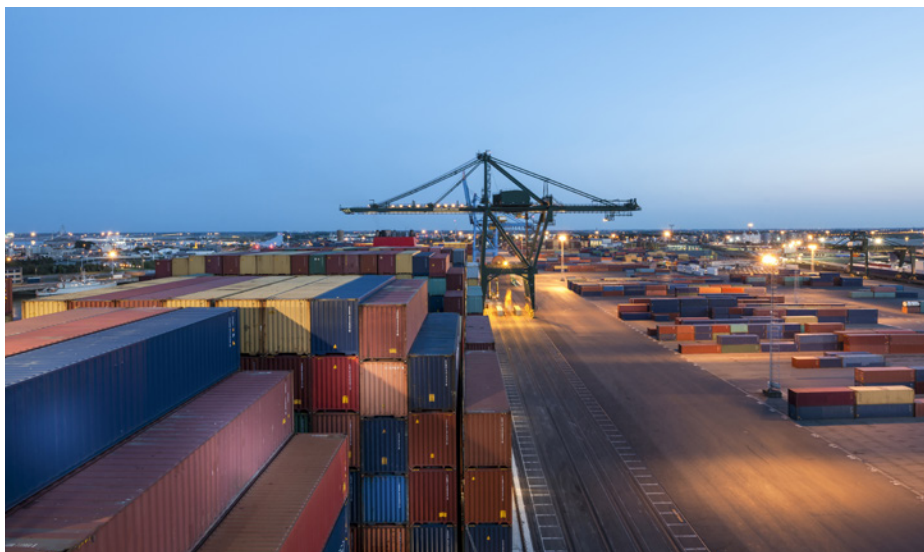
Limited transportation supply growth at a time of strong demand for moving goods and a growing need for investment to support decarbonization efforts underlie our positive 12- to 18-month outlook for core-plus transportation investment.

In 2022, we expect continued low correlation to equities and a diversified source of transparent, resilient and stable income-oriented returns, including during times of market volatility. Driving this stability: a critical role in the global supply chain and “take-or-pay” leases from high credit quality, often investment grade end users.

Supporting the ongoing energy transition from fossil fuels to renewables is one of the biggest opportunities. With the transition to a less carbon-intensive future, energy-efficient, sustainable transportation assets – many yet to be built, at significant cost – will be even more important to connect industries and economies. Large investors with access to capital should be well positioned.

## With tailwinds from the continuing economic recovery, transport is primed for growth and investment

We expect positive market sentiment in the year ahead as backlogs in global supply chains, shipping delays and port congestion continue to lift profits. Ongoing growth in e-commerce and strong consumer demand in major economies should continue to support investor sentiment. Even after pandemic-related supply chain constraints ease, a tight supply of transportation assets may endure. Uncertainty around the future asset designs that will be necessary for decarbonization has further slowed new orders.





We expect core-plus transportation, which is often referred to as “moving infrastructure” – such as ships, aircraft and other forms of land transport – to offer low correlation to equities and a diversified source of transparent, resilient and stable income-oriented returns, including during times of market volatility.



## Trends: High lease rates, strong end users, disrupted supply chain

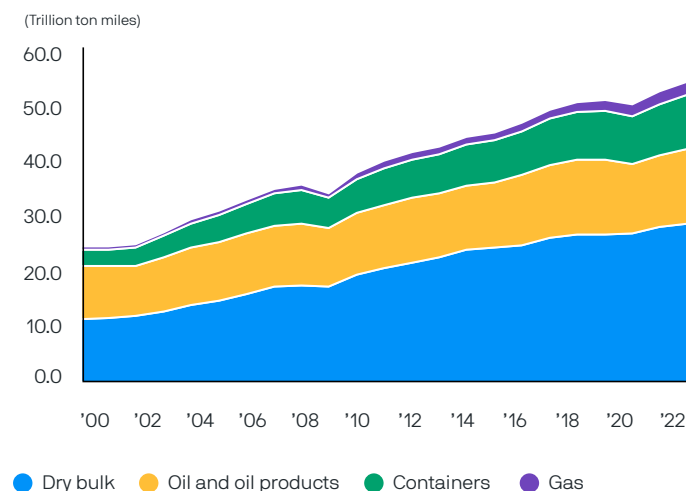
**Maritime and energy logistics:** Ships, which carry 90% of global trade, have benefited dramatically from the disrupted global supply chain. Current shortages of ships and container capacity, which have driven lease rates and asset values to historic highs, are likely to continue.<sup>6</sup> Seaborne trade volumes have returned to pre-pandemic levels (**Exhibit 1**). The credit strength of large industrial and shipping end users dramatically improved in 2021.

**Aviation:** We expect domestic passenger volumes to continue improving (although questions remain about long-term trends in international and business travel). Amid concerns created by new variants of the coronavirus and dynamic border control requirements, international aviation's recovery timeline remains uncertain. The market share vacated by 70-plus airline bankruptcies is being filled by fewer, larger, more stable and well-capitalized companies. Sovereign-backed carriers should remain attractive counterparties if governments continue their historical support of such carriers.

**Land-based transport (auto and rail):** The pandemic has created infrastructure and intermodal challenges at ports, particularly a need for ground transportation assets and truck drivers to service higher cargo throughput.<sup>7</sup> More truck, train and warehouse capacity is needed to support the growing volume of cargo entering ports on ships. More than 70,000 truck drivers have left the profession during the pandemic.

Seaborne trade volumes are back to pre-pandemic levels, and expansion is forecast to be at trend, with 4.4% growth projected for 2021

Exhibit 1: Seaborne trade growth



Source: Clarksons Research; data as of December 2021.

<sup>6</sup> Shipping supply growth remains below trend: The order book stands at just 9% of fleet capacity vs. more than 55% in 2008, and shipyard capacity is reduced after having been consolidated. More ships are needed, but shipyards will not deliver new vessels until 2025. (The world today has only 111 active large shipyards, down from 320 at peak in 2008).

<sup>7</sup> Today's largest containerships are double or triple the size of those in the early 2000s and can now hold more than 20,000 containers.

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## A growing focus on ESG and decarbonization is shaping technology development, end-user demand and financing

Lowering carbon emissions to reduce the sector's impact on global climate change is a key stakeholder focus. End users, regulatory bodies, investors, banks and customers are all demanding greener transportation.<sup>8</sup> Investment will be needed for R&D and new technologies, modification of existing assets, design and construction of new assets, and investment in a new global infrastructure to support new types of fuel.

Attracting financing is increasingly linked to environmental performance as environmental, social and governance (ESG) standards rise.<sup>9</sup> Those market participants with ample access to capital will be better positioned to make the necessary investments in green technology solutions and to meet end-user demand for environmentally friendly assets.



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<sup>8</sup> Global transportation is addressing global emissions, with U.N. organizations pointing the way: The International Maritime Organization's Energy Efficiency Existing Ship Index and Energy Efficiency Design Index require a minimum energy-efficiency level per capacity mile by ship type and size segments. The International Civil Aviation Organization's CO<sub>2</sub> Emissions Standard for Aircraft will be enforced for new aircraft from 2028, targeting emissions reduction by encouraging aircraft design and development to integrate fuel-efficient technologies.

<sup>9</sup> For example, among traditional bank lenders. See, for example, the Poseidon Principles: [www.poseidonprinciples.org/](http://www.poseidonprinciples.org/).



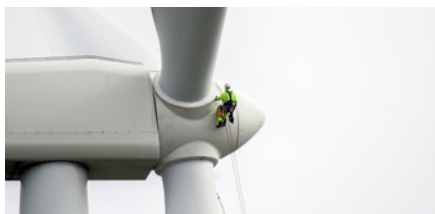
## Investment opportunities: Leveraging scale, global growth and the energy transition

Against a strong macro backdrop, we expect consistent returns through several preferred strategies:



### A diversified portfolio

A diversified approach to core-plus transportation investing allows for allocation to the subsectors with the best relative value. When the pandemic hit, for example, the aviation sector was significantly impacted, and capital deployment was redirected to the maritime sector, where industry fundamentals remained strong.



### The energy transition

On average, coal-to-gas power plant switching reduces emissions by 50%.<sup>10</sup> We like investments in assets that directly support the energy transition. These include next-generation liquefied natural gas (LNG) carriers and offshore wind farm maintenance and installation vessels.



### Partnering with leading operators

Partnering enables the asset owner (investor) and operator to develop solutions that reduce the carbon footprint along the operator's supply chain. As global industry standards change, such cooperative strategies will enable technology transfer and capital risk sharing.



### Container leasing

Contracted revenue from fixed rate, long-term leases, supported by the counterparty's balance sheet, should offer stable, transparent, highly resilient returns. Cash flow should be supported by increasingly profitable liner company counterparties whose balance sheets have been strengthened by robust earnings.

Meanwhile, lingering supply chain disruption is expected in 2022 with lower container turnover and thousands of "stranded" containers out of position due to lockdowns imposed earlier in the pandemic, creating further supply tightness and likely resilient profitability for asset owners.<sup>11</sup>

Risks include the uncertain future of clean fuel options, how these fuels will be supplied and distributed (over the long term) and a changing regulatory environment regarding future standards and practices. Other risks: the threat of technological obsolescence for older assets and a contraction in economic growth.

<sup>10</sup> "The Role of Gas in Today's Energy Transitions," International Energy Agency, July 2019.

<sup>11</sup> Many containers that arrived in regions such as Africa and South America early in the pandemic remain empty and uncollected because shipping carriers have concentrated their vessels on their most profitable Asia-North America/Europe routes.

# Real assets outlook: Timber

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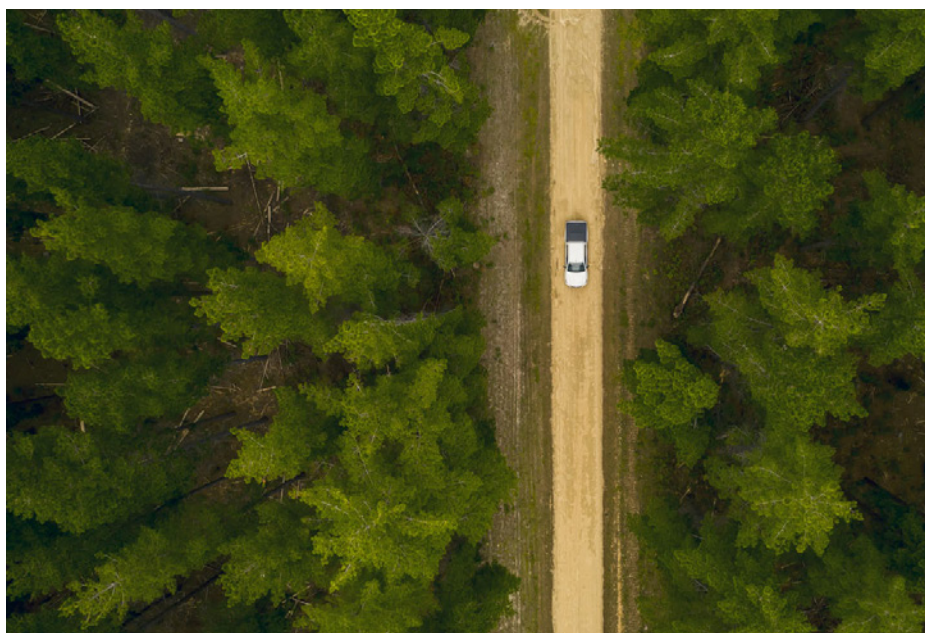
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## Lumber demand and carbon awareness are on the rise

Demand is rising for timber, a more sustainable and renewable building material than cement or steel. Meanwhile, recognition is growing that working forests can sequester carbon – a natural solution for generating carbon offsets. These will be essential for meeting global and corporate greenhouse gas (GHG) emission targets.

While these are early days for carbon markets, rising demand for carbon offsets is likely to exceed supply in the near and medium terms, potentially supporting carbon prices in the coming years.<sup>12</sup> Working forests also provide investors with other, tangible environmental, social and governance (ESG)-related opportunities, from biodiversity to rural jobs, enhanced through sustainability-focused management and verified by meeting third-party forest certification standards.

These highlights underpin our expectation of reliable income returns and capital appreciation in an asset class with inflation-hedging attributes. We anticipate improving cash yields for timberland assets in 2022, and rising prices.



✓ Campbell Global Green Triangle in Australia

<sup>12</sup> The price of carbon varies globally, set either by governments that tax carbon or by markets through emissions trading systems – both currently a varied patchwork. The “social cost of carbon” (currently set by the U.S. government at USD 15 per ton for planning purposes) quantifies damages to health, property, agriculture, ecosystems, loss of life and more; some studies suggest the eventual price could be eight times higher. Dr. Sarah Kapnick, “The global carbon market: How offsets, regulations and new standards may catalyze lower emissions and create new opportunities,” J.P. Morgan Asset Management, October 14, 2021.

✓ Denotes J.P. Morgan asset



## Key themes in timber investing: Tight supply, elevated prices and an early-stage carbon opportunity

### Pent-up U.S. housing demand

New home construction, as well as repair and remodeling (together composing about 70% of lumber demand), are surging, driving greater log demand across the U.S. and Canada. Pent-up U.S. housing demand among younger homebuyers and low interest rates are spurring demand that could continue for three to five years (or more).<sup>13</sup>

A rising proportion of single-family homes (rather than multi-family units) being built is further boosting lumber demand per unit,<sup>14</sup> as COVID-19 has stimulated movement to lower density suburban and rural housing. Engineered wood products' acceptance in medium-rise construction globally has also increased lumber demand.<sup>15</sup>

Even as the supply chain disruptions that elevated lumber prices to extraordinary levels likely normalize in 2022, lumber prices should stay high as U.S. lumber companies build production capacity (modernizing, expanding and constructing new mills), tightening log supply.

<sup>13</sup> Pent-up demand is approaching 4 million units due to a decade of underbuilding plus annual housing demand of about 1.5 million housing units; the industry is also seeing the long-anticipated emergence of homebuyers aged 25 to 40 purchasing their first homes.

<sup>14</sup> David B. McKeever and Joe Elling, "Wood Products and Other Building Materials Used in New Residential Construction in the United States, with Comparison to Previous Studies," APA—The Engineered Wood Association, 2015, and Forest Economic Advisors, 2021.

<sup>15</sup> Such as cross-laminated timber (CLT).



## Increasing global recognition that sustainably managed timberlands are a climate solution imperative

Forestland is a natural carbon-capture solution. The carbon sequestered by trees can be quantified and used to offset greenhouse gas emissions (GGEs) by companies paying asset owners for verified carbon units or by asset owners offsetting their own emissions.

Although the carbon credit market is in its early days, this could be a meaningful entry point while interest is accelerating. Regional and global standardization of carbon protocols in the coming years should provide investors greater assurance regarding carbon credits' legitimacy and corresponding carbon credit pricing.

## Timberland's inflation-hedging characteristics, particularly longer-term

A forest's value isn't very volatile because biological growth continues during periods of weak pricing. Harvest can be delayed while trees continue to grow in size and value is stored on the stump.

## Timber's alignment with global and corporate ESG goals

Working forests offer an array of ecosystem co-benefits, such as habitat for endangered species and shelter for much of the world's biodiversity. Forests provide sources of clean water. And importantly, wood-based construction is superior to steel or concrete from a GGE perspective.

Working forests align with social goals, such as opportunities for public recreation. Forests can also provide living-wage jobs, reduce urban migration and improve the quality of life in rural communities.

## Technological advancements

Remotely sensed imagery and geographic information system innovations are making forest carbon and inventory measurement more cost-effective, efficient and scalable, and making carbon markets more widely accessible to landowners. Drones are lowering costs and improving both the safety of forest activities and fire detection. Other innovations are affecting surveying, reforestation, harvesting and wood products.

## Opportunities in timber for diversification, climate action, inflation hedging and ESG


A well-diversified timberland portfolio should continue to be attractive as a portfolio diversifier, a natural climate solution and an investment with natural ESG attributes, generating income through the sale of wood products while serving as an inflation hedge.

Along with expected rising demand and improving prices lifting income, returns could benefit further from tight log supply in the U.S. Pacific Northwest, Australia and Chile. Higher log values should help accelerate capital appreciation and compress discount rates somewhat, particularly in tight log market areas. Carbon monetization could provide an additional overlay of revenue potential.

Risks include an economic slowdown that dampens housing demand and government policy measures that slow economic growth. Housing affordability is a risk, but home price appreciation appears to be moderating. Rising interest rates that impact home affordability are another risk, but rates are expected to remain at historically low levels for some time.

Continued expansion of new home construction depends on construction labor availability at costs that do not hurt affordability. (Labor availability constraints are more likely to defer new home construction than reduce new home demand.) And supply chain disruptions that lead to greater reliance on local or regional log and lumber sources benefit some markets but not others.



An aerial photograph of a lush, green forest. A dark blue river or stream winds through the lower right portion of the image, surrounded by dense trees. The forest is composed of various shades of green, indicating different types of trees and vegetation. The overall scene is a healthy, thriving ecosystem.

**Working forests offer  
an array of ecosystem  
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# Private credit outlook

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## Creative destruction and market growth continue

One year ago, heading into the 2020-21 winter resurgence of COVID-19, we identified two themes to define the coming year for private credit. First, we believed temporary disruption would not mean value destruction. Second, we believed that defaults were delayed (not done).

Once prescient, these themes are now present. As consumers and investors continue to reinvent themselves, the economy – and the real estate and infrastructure that undergird it – are transforming to meet the needs of an ever-evolving “new normal.”

What does this mean for private credit investing? What were considered disruptive startup and early-stage companies two years ago have grown into middle market corporations that seek lenders to help finance their growth and acquisitions.

Real estate investing continues to transform, embracing greater work flexibility, data centers, infill and what appears to be an insatiable demand for online shopping and the distribution, storage and transport it requires.

Infrastructure investment is seizing opportunities in the accelerating transition from traditional energy to alternative fuels as consumers demand sustainability in goods, services and spaces.





We see growth in private credit supply and demand – and ample opportunity – ahead. On the supply side, borrowers continue to look to the private markets due to their relatively greater speed and certainty of execution, after many were burned by public markets and banks pulling back capital during more uncertain times. Equally, borrowers value the adaptability and partnership of private lenders, often the only – or the lead – investor in deals.

On the demand side, the global search for yield continues but today also includes a demand for assets that can hedge inflation and protect capital in still-unknown market environments. As a result, investors are increasing their allocations to private credit. The asset class still offers relatively high spreads over public markets (**Exhibit 1**), covenants (lender protection) and floating rate or asset-based inflation protection, and it will likely continue to exhibit low volatility due to its less liquid nature.

### Key drivers of our private credit outlook

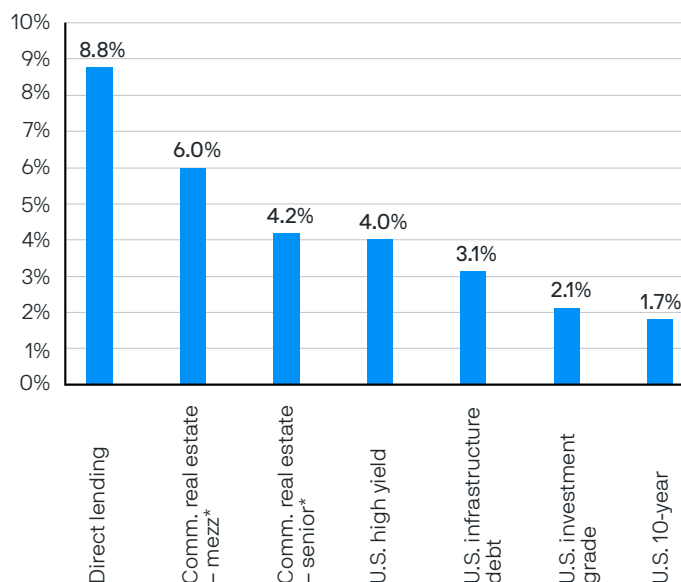
Since the onset of the pandemic, many people have practiced social distancing to help prevent the spread of COVID-19. In the same vein, we find that distancing ourselves from already crowded credit markets can be highly effective and potentially offer investors significant value. Specifically within less crowded areas, we find attractive opportunities relating to the trends mentioned above. These include consumer demand shifts and sustainability, whether they're expressed through real estate debt, infrastructure debt or corporate lending.

### Performing credit

Almost universally, investors express concern about the direct lending market being saturated with private credit capital and the subsequent deterioration of spreads and lender protections ("covenant-lite"). Indeed, with the surge of investment capital, private credit lenders have shifted upmarket and now participate in billion dollar-plus megadeals. Banks are returning as lenders, though they are less active than historically. Moreover, we are seeing the growth of in-house insurance origination capabilities and competition for deals from the newly formed private credit arms of private equity sponsors.

**As the global search for yield continues, investors are increasing their allocations to private credit, which still offers relatively high yields over public markets**

Exhibit 1: Asset class yields (%)



Source: Cliffwater, J.P. Morgan, Gilberto-Levy, Bloomberg, iBoxx. Data is based on availability as of November 30, 2021, unless listed otherwise. Direct Lending: Cliffwater Direct Lending Index (CDLI); \*Commercial real estate (CRE) yields are as of September 30, 2021. CRE – Mezzanine yield is derived from a J.P. Morgan survey and U.S. Treasuries of a similar duration. CRE – senior yield is sourced from the Gilberto-Levy Performance Aggregate Index (unlevered); U.S. High Yield: Bloomberg US Aggregate Credit - Corporate - High Yield; U.S. Infrastructure Debt: iBoxx USD Infrastructure Index capturing USD infrastructure debt bond issuance over USD 500 million; U.S. 10-year: Bloomberg U.S. 10-year Treasury yield; U.S. Investment Grade: Bloomberg U.S. Corporate Investment Grade.

It is no surprise that at the large end of the market private credit has edged into the realm of investment banking syndicate desks. The demand for yield has driven spread compression and covenant reduction in loans to large middle market companies<sup>1</sup> (**Exhibit 2A** and **2B**). Spreads and terms in this segment of private credit markets have converged with public markets' over the past 12 months, with investors seeking scale while syndicate desks look to defend their origination fees.

In light of these dynamics, true core middle market companies – with USD 25 million to USD 75 million EBITDA – make up a less crowded niche that many of our investors prefer. We typically see better structures, pricing and terms in the core middle market than in the larger size, broadly syndicated sector.

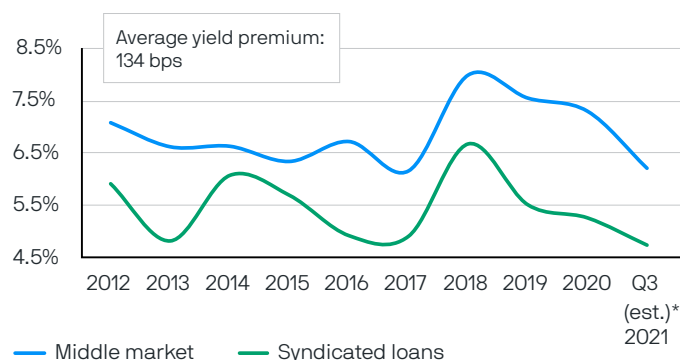
Core middle market lending requires differentiated sourcing and access to deep networks, as well as

a strong lending reputation. For lenders that meet those conditions, smaller core middle market lending opportunities allow for more flexibility, stronger structural protections and better financial covenants. This is where we are focused for the year ahead.

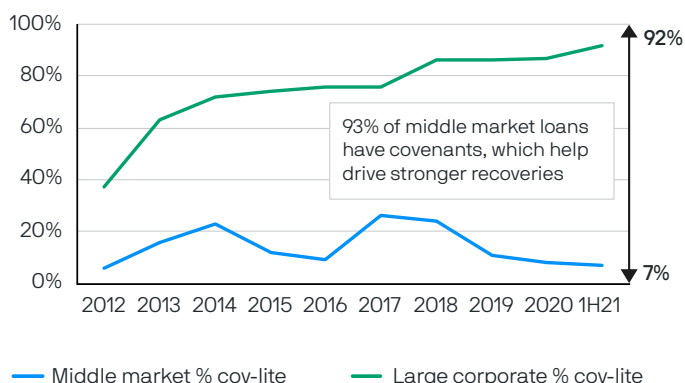
At the same time, we see opportunities to provide private capital market solutions to underfollowed small and mid-cap public companies, where there is less competition from traditional private credit lenders. The pipeline for new deals is at a historic high, and investors experienced in sourcing proprietary deal flow should be well positioned. It's a diverse pipeline, both by sector and by geography. We continue to find meaningful opportunities, particularly in health care, which provides idiosyncratic return opportunities and defensive qualities.

## Greater competition from a wider range of private credit lenders has continued weakening covenants in loans to large middle market companies

**Exhibit 2A:** New issue yields



**Exhibit 2B:** Percentage of covenant-lite loans<sup>2</sup>



Source: S&P Leveraged Commentary & Data, Quarterly Leverage Lending Review and U.S. Middle Market Stats Historical; data as of September 30, 2021. Middle market: Syndicated loans for issuers with EBITDA less than or equal to USD 50 million. Syndicated loans: Loans for issuers with EBITDA of more than USD 50 million. Based on 2012-2019 and 3Q21 data points.

<sup>1</sup> Companies with more than USD 250 million EBITDA.

**Disruptive startup  
and early-stage  
companies have grown  
into middle market  
corporations that seek  
lenders to help finance  
their growth and  
acquisitions.**



## Stressed, distressed and special situations investing

Over the next 12 to 18 months, we expect to see a unique deal pipeline within the special situations private credit space, stemming from the residual impacts of pandemic shutdowns on European businesses.

For the most part, larger European public companies have successfully refinanced, restructured or generally fared well during the pandemic. But an estimated 5 million small and medium-sized businesses have received European government-led, low interest unsecured loans and other subsidies totaling nearly USD 1 trillion, leaving many overlevered and facing the risk they may not survive. Because local court legal restructurings are complex, specialists often become capital solutions partners. Restructurings that succeed will likely need local knowledge, as well as legal and jurisdictional expertise.

Because these smaller and medium-sized enterprises' highly levered balance sheets combine equity, senior debt, subordinated debt and now a layer of government debt – often with a senior claim – they are layered with complexity when these businesses run out of liquidity. As a result, the European government restructuring opportunity could be very large and take several years to remediate, providing deal flow well into the future.

## Real estate debt

Strong fundamentals in multifamily and industrial sectors continue to drive above trend rental rate growth. Core senior commercial mortgage loans secured by these sectors look attractive compared to traditional high quality fixed income in a rising rate environment, providing investors with higher yields and collateral that is inflation hedged. The fundamental outlook for office is more challenging to decipher, and even though many paint the entire sector in a negative light, similar to what we've seen with retail, we believe that a physical presence is critical to corporate growth and culture. A simple but effective discipline is to "follow the jobs" and focus on class-A, transit-oriented properties in tech-centric markets. We anticipate higher risk premiums in the office sector – especially for higher leverage loans – as traditional lenders remain cautious, creating opportunities for core mezzanine lending.

In the year to come, opportunities to lend against transitional properties should be plentiful. Demand, we believe, will come from owners looking to upgrade or redevelop. There may also be dislocation and even distressed opportunities caused by COVID-19 as low rates have allowed underperforming loans to remain current. For multifamily, we like the reversion story in large metropolitan areas as the recovery continues. For suburban markets, especially the U.S. Sunbelt, the renovation strategy to drive further rent growth looks interesting. In select office markets, office-to-lab conversions make sense given strong life science fundamentals. We should also see more bridge loans on traditional offices in need of recapitalization.

A return of investment sales volumes to pre-pandemic levels and declining commercial mortgage delinquency rates should drive better current income expectations in private commercial real estate debt compared with public fixed income of equal risk. Covenants should remain intact, creating the unusual benefit of higher returns with better structure in the near term.

## Infrastructure debt investing

Global infrastructure investment needs are large and growing, and we are focused on capitalizing on these investment opportunities.

Senior secured infrastructure debt offers an attractive risk-adjusted income opportunity – commanding a premium over corporate investment grade borrowers, and with lower volatility and historically low annual default rates. This asset class can also be inherently sustainable. Infrastructure assets provide essential services, contributing to the economic and social development of communities.

Within infrastructure debt investing, renewable energy and the energy transition to decarbonization should be fruitful investment areas as new government policies target net-zero carbon emissions by 2050. Battery storage, electric vehicle charging infrastructure and merchant renewable energy markets<sup>2</sup> may be poised to benefit from additional tailwinds as companies seek to meet emission reduction targets and focus on sustainability efforts that will reduce reliance on (and eventually replace) fossil fuel energy.<sup>3</sup>

Infrastructure sectors directly impacted by COVID-19, such as digital infrastructure and health care-related assets, are also promising. For example, hyperscalers – large providers of cloud, networking and internet services at scale – have evolved into a subset of premier-tier counterparties involved in the buildout of digital infrastructure. Health care-related infrastructure assets, such as clinics, outpatient services, care facilities, laboratories and testing facilities, play a vital role in the health care system, and have a growing demand for investment capital.

## Consumer credit

U.S. household debt hit a historic low before the pandemic. Substantial government stimulus then helped many households and consumers build up even stronger balance sheets, leaving household debt coverage ratios and credit card delinquencies at multi-decade lows. We believe that the U.S. is early in the consumer credit cycle and that consumers should remain in robust health for the foreseeable future. This opportunity may generate unlevered returns in the teens in some instances.

Consumer credit investing, however, faces high barriers to entry due to its complexity and risk. Typically, exposure to U.S. consumer credit can be accessed through loans to consumers or by purchasing pools of existing or newly originated consumer receivables. To succeed, strong modeling, structuring and financing capabilities are required, along with the ability to minimize regulatory risk and borrower fraud. Consumer credit has a relatively short-weighted average life, is tightly covenanted and can be shut down at the first sign of a borrower's credit deterioration, further demonstrating the importance of manager selection.

## Conclusion

Risks to investing in today's private credit markets broadly include inflation, increased competition and ongoing pandemic uncertainty. Navigating the continued evolution of private markets requires seasoned investors with differentiated sourcing advantages, expertise in fundamental analysis and a disciplined and consistent underwriting approach. This approach to investing, coupled with the floating rate nature of many private credit assets, should serve market participants well in the year ahead.

<sup>2</sup> Merchant energy markets are nonutility or independent power generation markets designed for operators to sell wholesale power into competitive marketplaces.

<sup>3</sup> The energy transition is already well underway, as shown by the secular growth in electric vehicle adoption, which has led to global electric vehicle penetration of 12%, a historical high for new vehicle sales.

# Private equity outlook

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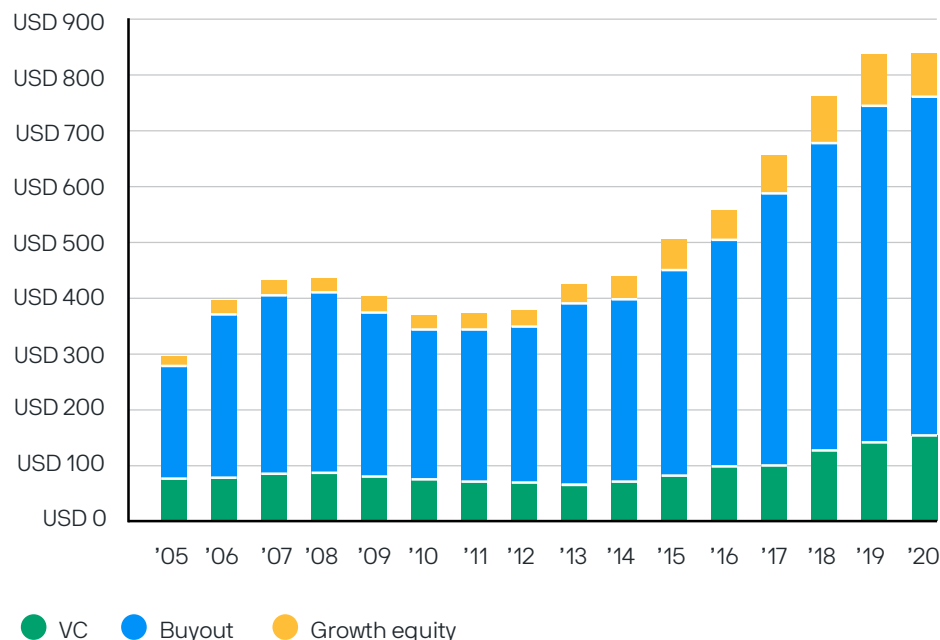
## Look past the feeding frenzy for opportunities in a competitive market

Private equity (PE) markets are experiencing a rapid pace of activity. Investor demand continues to be strong, and distribution volume remains high. Fundraising timelines are getting shorter and target fund sizes larger. Record levels of dry powder have kept pace with robust deal volume and velocity (**Exhibit 1**).

In a market that has not seen a prolonged pullback in over a decade, valuations are elevated and competition is intense. However, there continue to be ample and compelling investment opportunities for those managers with differentiated sourcing and value creation strategies. The core competitive advantage of private equity remains unchanged: highly skilled investors with the power to drive transformational change and growth in businesses.

## Venture capital, growth equity and buyout fund dry powder are at or near record levels

**Exhibit 1:** Dry powder by strategy (USD, billions)



Source: PitchBook (Geography: U.S.), J.P. Morgan Asset Management; data as of December 31, 2020.



Technological innovation is among the most potent forces generating venture capital, growth equity and buyout opportunities.

## Strong investor demand

Among the strongest drivers of investor demand is the expectation of superior private (vs. public) market returns. A high volume of distributions is also adding to demand as investors rebalance back to target allocations. General partners (GPs) coming back to the market much faster and with larger funds have created a dilemma for some investors: how to allocate to their top-performing GPs when a healthy portion of their funds earmarked for private equity have already been committed. This is also challenging newer GPs competing for those same investor commitments.

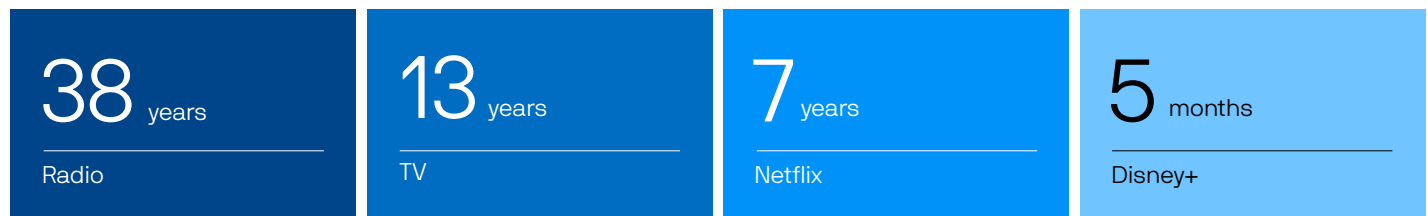
Investors are increasingly committing to co-investments, allowing them to exercise discretion and invest alongside top managers in pre-identified opportunities. Objectives are shifting, too. Many investors are sharpening their focus on achieving environmental, social and governance (ESG) and diversity, equity and inclusion (DEI) goals, and are unwilling to sacrifice performance.

## Expanding private equity opportunities

Technological innovation is among the most potent forces generating venture capital (VC), growth equity<sup>1</sup> and buyout opportunities, not only among traditional tech companies but across almost every sector of the economy. The increasing speed of adoption of disruptive innovations, accelerated by the pandemic, is fortifying this trend (**Exhibit 2**). The private equity market, with almost 35% of its assets in the tech sector (vs. less than 14% for the public equity market), offers substantial opportunity for exposure to technological innovation.<sup>2</sup>

## Technology adoption cycles have accelerated

**Exhibit 2:** Time to reach 50 million users



Source: Citi GPS: Global Perspectives & Solutions, Netflix, Walt Disney Company, J.P. Morgan Asset Management; data as of December 1, 2021. Figures for radio and TV are from Citi GPS Technology at Work Series, "The Future of Innovation and Employment," February 2015; Netflix figure represents time to reach 50 million subscribers of Netflix's digital streaming service, based on analysis of Netflix earnings announcements (2007) and J.P. Morgan Securities LLC (2014); Disney+ figure is from Disney press release, 2020.

<sup>1</sup> While there is no hard-and-fast definition, we refer to growth equity as the phases of a private company's life cycle between late-stage venture and initial public offering (IPO).

<sup>2</sup> J.P. Morgan Guide to Alternatives, November 2021: 37.

Top-tier managers can quickly assess valuation and growth potential and seize attractive opportunities. The most talented GPs can then bring deep, specialized sector knowledge and the specific skill sets needed by companies – from early start-ups to later-stage, fast-growing businesses – as they progress through the critical phases of their pre-IPO life cycles.

Diversity may be an advantage: Research suggests that the performance of private equity firms committed to DEI<sup>3</sup> is comparable to that of their nondiverse counterparts.<sup>4</sup> Yet these firms are not receiving a commensurate share of the PE capital raised. This points to an untapped opportunity for those private equity investors that can help support and guide early firm development while potentially securing preferred allocations in the future, both to funds and to co-investment opportunities.

Like investors, GPs are adapting to the increasingly competitive, frenzied pace of private markets. While some in the industry prefer a broad approach, we're encouraged to see many experienced and disciplined managers becoming more specialized in the deals for which they compete. This narrower focus may enhance their ability to transform businesses and drive positive outcomes.



<sup>3</sup> While there is no industry standard, our Private Equity Group (PEG) categorizes a firm or opportunity as diverse if individuals who are women, Black, Hispanic, Latino, Native American, Asian & Pacific Islanders, LGBT+, military veterans and people with disabilities compose at least 30% of its key persons or if 30% or more of its economics (carried interest) is held by members of these groups. A host of qualitative factors are also part of the evaluation.

<sup>4</sup> Knight Diversity of Asset Managers Research Series: Industry, "A study of ownership diversity and performance in the asset management industry," Knight Foundation and Bella Private Markets, 2021.



## Insights and high conviction ideas

Intensified competition and elevated valuations exist across all sectors and stages of the market, from venture to growth equity to buyouts. Where are investors most likely to find opportunities with the growth potential to offset high starting valuations, and the risk-return profiles they seek?

### Venture capital

Venture capital is clearly benefiting from the speed of technological innovation and adoption. The result: near-record fundraising, projected to exceed USD 110 billion in 2021,<sup>5</sup> as well as a rapid rate of capital deployment. Increased fundraising by venture-backed companies has driven average deal size upward across all stages. Pre-seed and seed rounds have increased to the USD 2 million–USD 10 million range, Series A rounds to USD 20 million and Series B rounds to approximately USD 50 million, on average.<sup>6</sup>

Early-stage VC presents opportunities at the “idea” phase, when there are few customers and an as-yet-unproven product or business model. This stage can offer expansive upside potential but also significant downside risk.

Our Private Equity Group (PEG) continues to see substantial opportunity in primary funds focused on pre-seed, seed and Series A opportunities, where top-tier venture capitalists create differentiated sourcing through relationships with entrepreneurs and reputation in the market. Realizing the full potential of these early-stage investments requires experienced GPs that can attract the best deal flow and most promising entrepreneurs, take meaningful positions and apply specialized skills; ultimately, those skills can be even more important to return potential than pricing.



**Near-record fundraising**  
Projected to exceed

**USD 110 bn** in 2021



**Pre-seed and seed rounds have increased to the**

**USD 2 mn–USD 10 mn**  
range

<sup>5</sup> Bob Blee, Andrew Pardo, Calvin Otis and Eli Oftedal, “State of the Markets: Inside Views on the Health and Productivity of the Innovation Economy,” Silicon Valley Bank, Q3 2021. USD 110 billion includes traditional venture capital only.

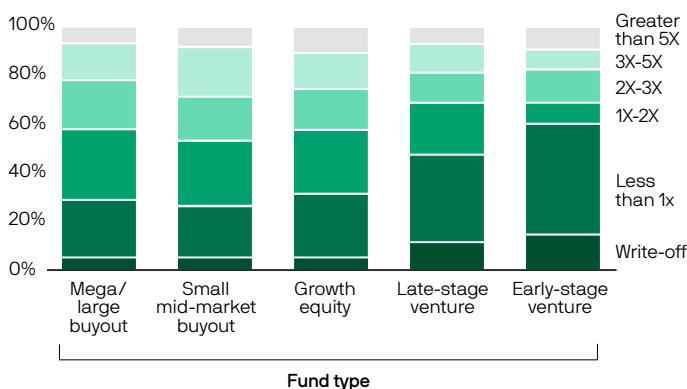
<sup>6</sup> Ibid. These statistics on size of fundraising rounds include U.S. venture capital investments only.

## Late-stage venture capital and growth equity

Late-stage VC and growth equity companies (beginning as early as Series B and continuing through the pre-IPO stage) have a risk-return profile considerably different from and complementary to early-stage VC. While the most successful early-stage opportunities may offer higher return potential, late-stage VC and growth equity returns are more broadly distributed, with lower expected loss ratios (i.e., greater downside protection). This has allowed these asset classes as a whole to offer the more attractive range-bound distribution of returns associated with buyouts while maintaining some of the high growth and outsize return potential of venture capital (**Exhibit 3**).

## Late-stage VC and growth equity return distributions are similar to those of buyouts

**Exhibit 3:** Distribution of gross returns, by deal count



Source: State Street Global Exchange Private Equity Index; data as of June 30, 2018. Analysis includes 28,000 fully realized deals invested globally; gross returns are returns before fees, expenses and carried interest.

J.P. Morgan Private Capital's Growth Equity Partners (GEP) sees opportunity among young, thriving tech companies that have moved beyond the early VC stage. GEP focuses on companies that have an established product-market fit and sound unit economics,<sup>7</sup> and appear to be on a path to near-term operating profitability. Generally on a steep, positive growth trajectory (frequently growing at rates exceeding 50% year-over-year), these companies need capital to keep expanding and to take their businesses to the next level.

Late-stage VC and growth equity portfolio companies are typically still scaling. They need not only capital but a trusted partner that understands their businesses, industries and customers, and has the skills, experience and networks to guide them through this critical growth phase. GEP's high conviction areas of opportunity include:

- In the fintech space, technology to support B2B payments, ultimately facilitating the real-time automation of a company's entire payment flows
- In enterprise software, technology to drive automation and digitization and increase a company's productivity and efficiency
- In real estate, technology to drive digital transformation of historically human-driven processes such as mortgage origination, construction, etc.
- In consumer internet, technology that supports the continued consumer adoption of e-commerce and opportunities that persist across the e-commerce value chain

<sup>7</sup> Sound unit economics implies profitability on a per-unit basis.

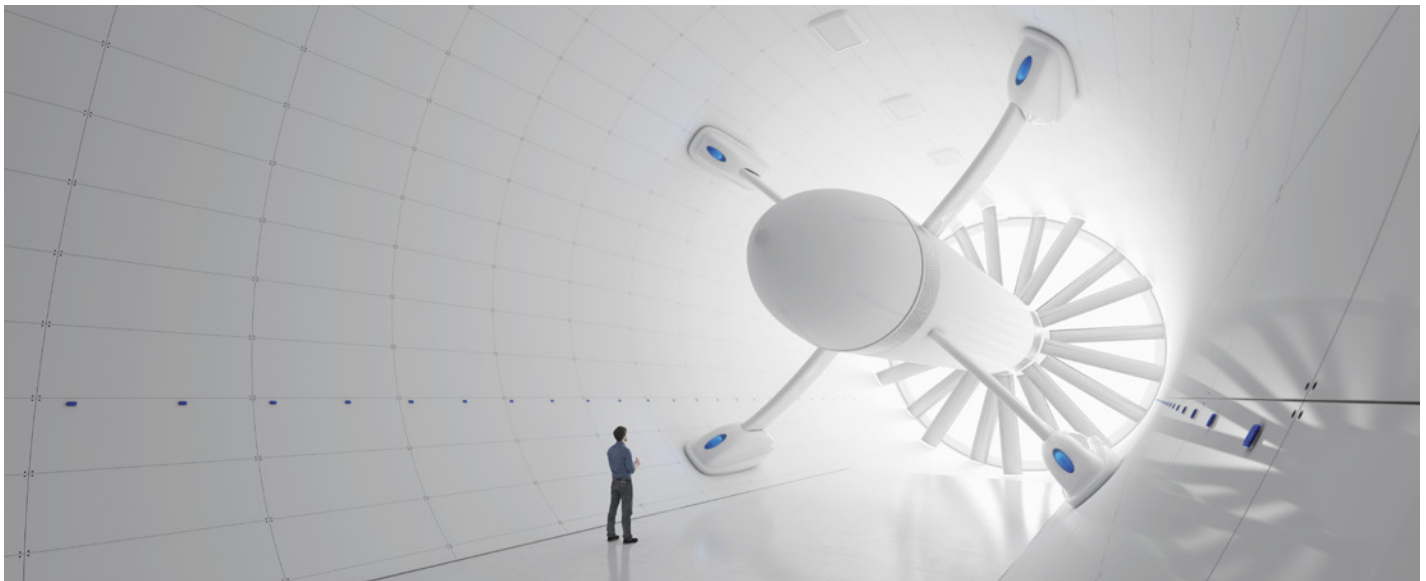
Climate technology, as viewed by J.P. Morgan Private Capital's Sustainable Growth Equity (SGE) team, is another area with exceptional opportunities as companies, consumers, policymakers and investors respond to climate risks and the need to mitigate the impacts of climate change.

Mounting regulatory forces are accelerating private and public sector commitments to sustainability and climate action goals. These forces, along with shifting consumer preferences toward sustainable practices, have impacted all industries but are particularly acute in agriculture, real estate, transportation and industrials. These "heavy industries" collectively account for as much as 80% of global greenhouse gas (GHG) emissions.<sup>8</sup> Companies operating in these heavy industries will require a wide variety of solutions to meet the new and looming state and federal regulatory sustainability standards.

SGE believes technology solutions, such as telematics, circular economy<sup>9</sup> solutions, automation, the Internet of Things (IoT), biomaterials, carbon capture and the digitization of wasteful legacy operations, are well

positioned to capture the total addressable market (TAM) opportunity for sustainability needs. As these markets continue to mature, we anticipate venture and growth equity capital allocators will be attracted to the large TAM, long-term demand drivers (fueled by the impacts of climate change) and double-bottom line value propositions (the potential for both environmental and financial returns).

Historically, most sustainability investments focused on increasing renewable energy supply, often in the form of project financings. More recently, there has emerged a particularly compelling opportunity set for investments in technologies enabling efficient utilization of both energy and raw materials, as well as business operation efficiencies that enable downstream benefits of reduced GHG emissions. SGE focuses on such opportunities. The team believes that corporations will need to invest in and scale these innovations to meet their sustainability commitments, decarbonize industries and supply chains, and adapt to climate change, among other goals.



<sup>8</sup> Climate Watch, World Resources Institute (based on 2016 emissions). Sector emissions values include direct emissions and emissions from energy use in specific sectors: industrials (24% energy, 5% direct); food and agriculture (2% energy, 18% direct); real estate (18% energy); transportation and logistics (16% energy).

<sup>9</sup> A circular economy is a model of production and consumption that advocates reusing, repairing, leasing and recycling materials and products.



## Private equity buyouts

Buyout activity has been fast, furious and competitive, with global M&A topping USD 1 trillion in 3Q 2021 for the fifth consecutive quarter.<sup>10</sup> Adding to PE buyout opportunities, elevated valuations and demand are bringing high quality companies to market. Private equity, corporate and strategic buyers have all contributed to the volume and pace, and there has been an ample supply of debt capital to support these transactions.

Our Private Equity Group sees some of the most attractive opportunities in primary funds and co-investments in lower middle market buyouts, with specialized GPs that have a focused strategy, whether defined by geography, deep sector specialization or where and how they source opportunities. In this smaller end of the buyout market, highly skilled managers can find opportunities to be among the first to inject outside capital into family- or founder-owned businesses, at lower multiples, using less leverage than at the larger end, while driving operational improvements. PEG also views buy-and-build strategies – whereby managers acquire a core business and execute a number of add-on acquisitions to enhance size, scale and capabilities – as a powerful approach to value creation in this sector.

Additionally, the team believes that co-investments in buyouts can potentially offer significant benefits, particularly for experienced investors that have long-standing relationships with GPs and a differentiated ability to conduct due diligence and participate in quickly moving, complex processes. In these competitive, fast-paced markets, those characteristics are creating select opportunities for sophisticated investors to negotiate co-investments with attractive economics.

## Conclusion

Our outlook for private equity remains positive. A rapidly evolving world is driving disruptive, innovative solutions that are being adopted at an accelerating pace. The private equity industry is well positioned to support such transformational change. Disciplined investors who recognize the need to look beyond traditional markets to meet return objectives have the potential to benefit.

Of course, an overall market sell-off could negatively impact interim valuations for deployed funds, but it would likely result in an opportunity for those with available dry powder, across venture capital, growth equity and buyouts. Diversifying investment pacing across vintage years can help to mitigate this risk.

Working with experienced managers that have been through sustained downturns is a plus at this stage in the cycle. As always, partnering with those that have the skills to drive transformational change will be critical to generating positive outcomes.

<sup>10</sup> Global M&A Report Q3 2021, PitchBook, October 28, 2021: 8.

# Global real estate outlook

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## Changing demand patterns reshape the investment landscape

Growth is back – and with it inflation. After a year of rapid economic expansion fueled by historic levels of fiscal stimulus and loose monetary policy, inflation is surging in developed markets. Global investors, alert to the threat of rising interest rates, are increasingly focused on real assets as alternative sources of yield and inflation protection.

In this shifting investment environment, real estate is experiencing a dramatic revival. Although not all industry sectors or geographic regions will benefit from the heady speed of the current economic recovery – office occupancy patterns in urban centers continue to experience pressure – demand for specific sectors is high and rising, creating shortages in some asset types and opportunities in others.

Quality is key. In 2022, we expect that many asset owners will have the flexibility to increase rents at or above the inflation rate in real estate sectors characterized by moderate supply and robust fundamentals. Conversely, sectors with high vacancy rates and excess supply pipelines (or even negative demand patterns) may see revenues fall below the inflation rate unless rents keep pace.



✓ Denotes J.P. Morgan asset

✓ Palisade University Towne Center in San Diego, CA

**In 2022, we expect that many asset owners will have the flexibility to increase rents at or above inflation in real estate sectors characterized by moderate supply and robust fundamentals.**





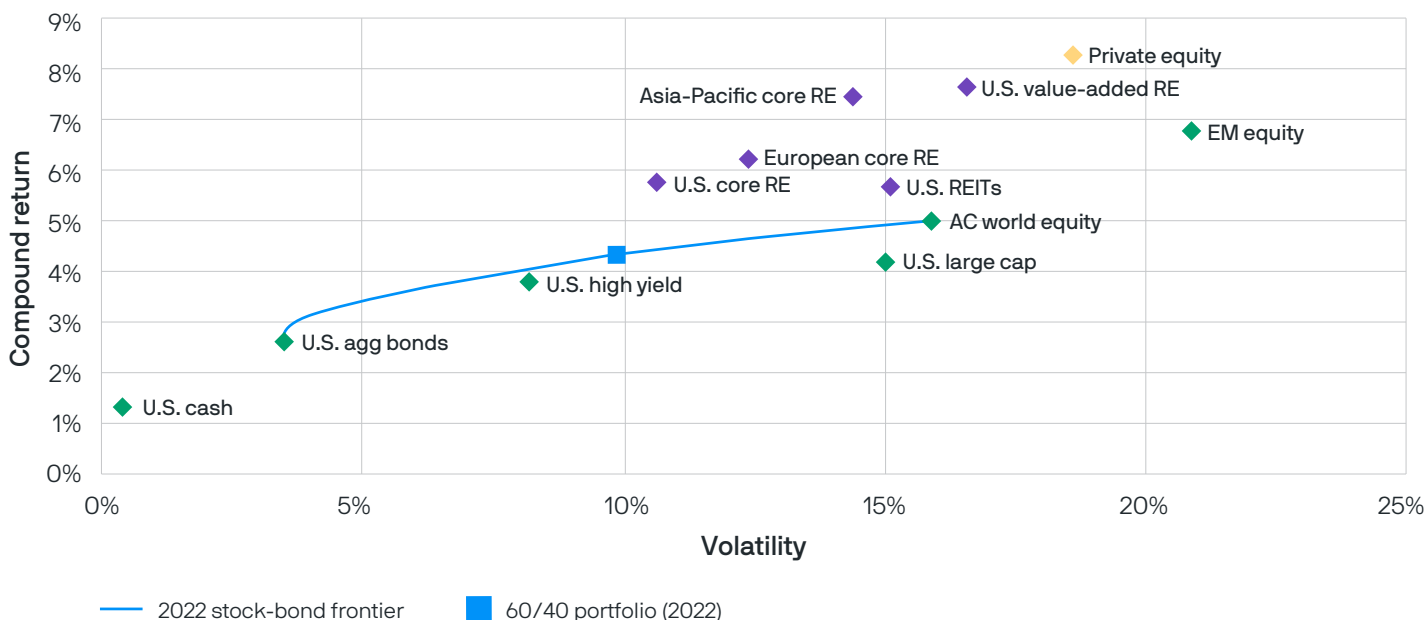
Pandemic-related exceptions, however, are becoming visible. The shift to hybrid home-and-office working patterns means that the link between aggregate market vacancy and the availability of grade A rental space has been weakened. In some markets, we expect to see high vacancy rates associated with surprisingly robust rental growth – and in these instances, maintaining a focus on quality is essential.

Strong fundamental analysis is also of paramount importance. Investors in global real estate need to parse risks carefully, whether they’re committing capital to the red-hot logistics sector or the resilient multi-family housing market. Well-informed sector selection is even more meaningful now that some assets – particularly retail, office and residential properties – risk sliding toward obsolescence under changing environmental and building standards.

In the coming 12 to 18 months, we expect to see real estate continue to deliver strong risk-adjusted returns with meaningful inflation protection in a rising rate environment – as long as economic growth continues unabated (**Exhibit 1**). But new COVID-19 variants could disrupt that recovery. Stagflation is still a downside risk, and not all real estate markets are created equal: Identifying regional and sector-specific pockets of opportunity will be essential in the months ahead.

## Over the long term, investors expect real estate allocations to outperform a traditional 60/40 stock and bond portfolio – and to deliver inflation protection in a rising rate environment

**Exhibit 1:** Expected volatility and long-term returns (>10 years) for real estate sectors (in USD) compared to the efficient frontier for a combined stock and bond portfolio



Source: J.P. Morgan Asset Management; data as of September 2021. All returns (in USD) based on projections for 10–15 years. Volatility measures include de-smoothing for private assets to ensure comparability with listed assets.



✓ South Florida Logistics in Doral, FL

## U.S.: Economic growth and inflation create 'sweet spot' for core real estate

In the U.S., the outlook for economic growth remains strong while the cost of capital is still cheap. Historically low interest rates and rising inflation are currently supportive of asset class valuations, creating a “sweet spot” for investment in core real estate. Investors need to take heed, however, because these favorable conditions may not last. Cash flow-generating assets are likely to become increasingly expensive in 2022 as the real estate market becomes more crowded.

Concurrent demand dynamics are actively reshaping the industry. Since the economic recovery began in late 2020, we have seen unprecedented fundraising by non-traded private real estate investment trusts (REITs) and an acceleration of institutional portfolio rebalancing, which always lags behind spikes in the value of equity and fixed income portfolios. As investors come under increasing pressure to find yield-producing assets, we expect to see capital flows into real estate increase sharply.

At the same time, long-term megatrends, such as the surging popularity of e-commerce transactions and, in the U.S., population migration to Sunbelt states, continue to drive demand for niche real estate assets.

✓ Denotes J.P. Morgan asset

These structural transformations have accelerated precipitously in the wake of the global pandemic, creating distinct and regionally specific investment opportunities.

## Parsing opportunities by sector and region

In the months ahead, we will be focusing on an array of sectors in the U.S. that are benefiting from high user demand: logistics properties (particularly infill logistics assets in the so-called last mile between urban storage facilities and consumers); suburban multi-family and single-family housing in Sunbelt states; campus-like clusters (or nodes) of amenity-rich offices for the technology sector; and industrial outdoor storage facilities (including truck terminals, parking and equipment storage) in key urban locations.

As we move deeper into 2022, contrarian investment opportunities in stressed corporate and retail subsectors may start to emerge. Leasing markets for offices are likely to recover slowly, potentially creating refinancing challenges for asset owners. If declines in asset values overshoot the intrinsic development costs associated with these properties, opportunistic investments in offices may become highly attractive.

Although contrarian plays are already apparent in retail, this sector is very different: Maintaining a focus on quality is essential. Our argument for highly selective retail investing has been validated, somewhat paradoxically, by the pandemic: Retail assets in top locations that have benefited from significant capital investment are thriving, while poor-quality assets are failing. The chasm between the two appears destined to grow wider in the months ahead.

## Europe: Improving access underpins investment activity

In Europe, the end of quantitative easing, rising inflation and improving GDP provide a potent backdrop for the potential outperformance of all real assets, including real estate. European real estate is also benefiting from attractive entry pricing as yield spreads over government bonds remain historically high. Investors, keenly aware of this developing dynamic, are putting more capital to work.

### Real estate capital flows buoyed by accelerating sector rotation

Although the European Central Bank has indicated that it does not intend to raise rates until 2024, investors are already rotating out of fixed income into a range of diversifying alternatives – including real estate – that offer yield, inflation hedging and compelling returns. We expect current inflationary pressures to be reasonably short-lived, but investors' anxiety may persist for much longer. The risk that a resurgent wave of COVID-19 infections could still derail the fragile economic recovery also introduces an element of uncertainty.

These broader macroeconomic concerns, however, are coincident with investors' improved access to alternative asset classes across the region, which is clearly driving some of the recent search activity and capital flows. Seen in context, the shift toward real assets – and real estate in particular – is feeding into a dynamic, longer-term trend.

### Complex sector-specific opportunities demand closer scrutiny

The investment opportunity set is decidedly mixed. Although some sectors offer compelling evidence of pandemic resilience, others – especially in the retail sector – are masking inherent and growing weakness. With these issues in mind, our European real estate experts have been conducting analysis of individual sectors (**Exhibit 2**). In logistics, for example, strong returns in recent years can be attributed primarily to yield compression; outside the "last-mile" submarket, rental growth has been subdued.

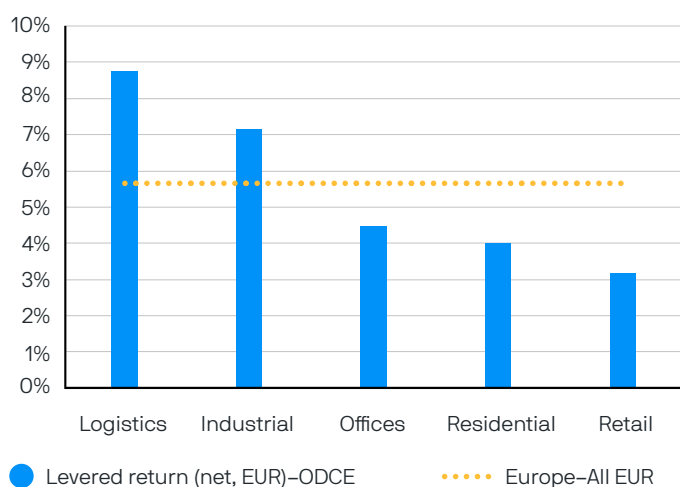
This dynamic is changing, however, as some sectors, such as the UK's "big box" warehouse market, experience strong upward pressure on rental values. We expect this trend, which is being driven by robust demand and growing supply constraints, to spread to the wider European market, where rental growth should offset low current yields and continue to support logistics returns.

Structural supply shortages and affordability issues continue to drive the investment case for residential assets, which remain attractive. Although low current yields and restrictions on rent increases are likely to limit the upside, the sector's improving liquidity and reliably stable returns suggest that investor demand will continue to be strong.

Retail still represents a major risk. Even in sectors that have experienced a correction in capital values, the ongoing shift from physical to online retail suggests a threat of continued obsolescence and further rental decline. Today's current high yields are unlikely to translate into attractive returns over the medium term.

## The differential resilience of European real estate sectors and projected long-term returns requires careful analysis

**Exhibit 2:** Long-term return forecasts for European core real estate (EUR)



Source: J.P. Morgan Asset Management; data as of November 2021. The Open-End Diversified Core Equity Index is known as the ODCE.



## Mispricings herald opportunity in beleaguered office sector

European office properties, in our view, now afford the greatest potential mispricing opportunities. Although we have noted a growing acceptance that offices will remain at the center of our working lives, the pandemic has accelerated the sector's ongoing transformation. The importance of environmental, social and governance (ESG) considerations – as well as flexibility and connectivity – cannot be overstated. Going forward, asset owners will have to work harder to deliver space that meets occupier requirements and helps attract workers.

Inevitably, a new wave of obsolescence is sweeping across the sector. If investors are willing and able to navigate that phenomenon, they can take advantage of the risk premium attached to languishing office properties. As we've seen before in Europe, a lucrative arbitrage opportunity exists to revitalize some of these buildings and, once they have been refurbished and leased, sell them back into the core market at a profit.





## Asia-Pacific: Social megatrends support market growth

Last year, economic recovery took hold in the Asia-Pacific (APAC) region as many countries moved with alacrity to implement high intensity COVID-19 infection control measures. Although resurgent infections have periodically impacted business activity, APAC's real estate market has benefited from the overall recovery, with differentiated opportunities emerging by region, country and sector.

Residual risks persist, given the unknown trajectory of the pandemic. But the fundamentals of the recovery are currently supportive of the asset class. Demand for logistics assets in the industrial sector, for example, such as temperature-controlled warehouses, is surging thanks to the rise of e-commerce. This social megatrend, which we focused on last year in our Global Alternatives Outlook, will continue to impact the region's real estate market in what is now a multi-year transformational process.

Residential subsectors vary in attractiveness across the region, but the resilient multi-family sector in Japan continues to benefit from consumer demand despite the country's challenging demographics. Prices of multi-family rental properties in four key cities

– Fukuoka, Nagoya, Osaka and Tokyo – have remained stable throughout the pandemic. Looking ahead, investors stand to profit from the relative income yields available in the sector as demand from onshore and offshore investors strengthens.

## Office occupancy across APAC remains high

With workers returning to their desks, office submarkets in APAC – particularly in Auckland, Beijing, Shanghai and Singapore – are already displaying different recovery patterns than assets in other parts of the world. This differentiation is practical as well as cultural: At the peak of the pandemic, local businesses struggled to accommodate remote working practices on short notice, and workers themselves were less inclined to press their employers for that flexibility.

Consequently, office utilization in APAC has been consistently higher than in Europe and North America. In Hong Kong, for example, office occupancy ranged from 50%–75% during 2021. Office values in many of these cities didn't fall as far as those in London or New York, nor did they remain suppressed for as long. In Seoul, office prices have continued to grow in recent months, while those in Singapore and Brisbane have remained stable.



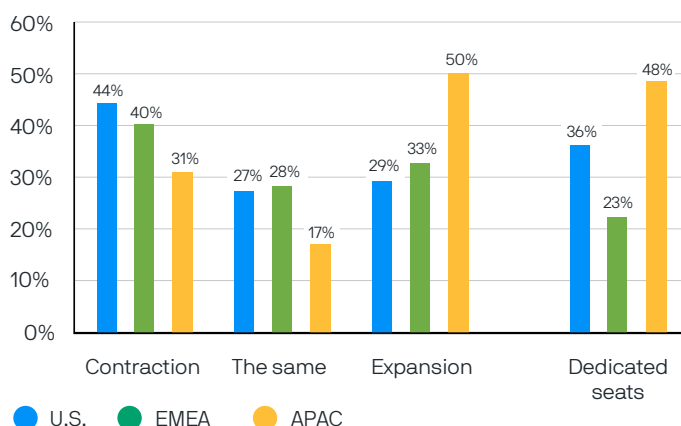


Based on a third-party global survey of corporate occupiers (**Exhibit 3**), demand for office space in APAC will be likely to expand in the medium term, and lessees clearly favor dedicated desk space.

Although APAC's retail subsector has underperformed other major commercial real estate sectors, the pace of rental correction appears to be stabilizing. Significant regional differences persist, but these differences are not likely to be erased by the recovery. Headwinds in the retail sector continue to bring unique assets to the market – assets that do not trade often, creating opportunities for investors with strong active management capabilities.

**With office occupancy holding steady in Asia-Pacific, demand for dedicated seat space is expected to rise in the months ahead**

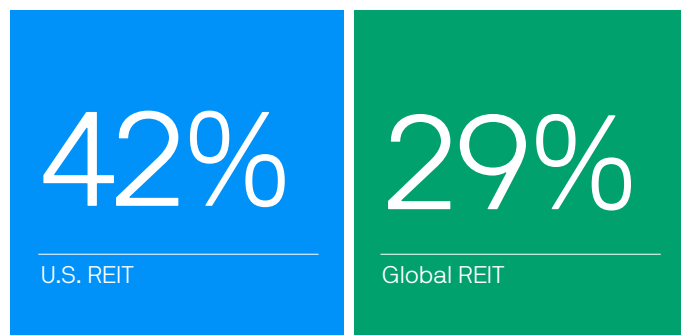
**Exhibit 3:** Survey of occupiers points toward potential net office demand expansion in APAC



Source: CBRE; data as of April 2021.



## REIT indices



A meaningful proportion of U.S. and global REIT indices already consist of companies focused on nontraditional sectors, although not all are high growth.

### REITs: Delivering liquid, flexible access to growth and income

As more investors seek refuge from rising inflation, the REIT market is attracting renewed attention for its liquidity, transparency and ease of access. Although investing in listed REITs comes with some additional price volatility, the structural advantages can be meaningful in periods of heightened macroeconomic stress: Investors are able to diversify their real estate portfolios quickly, modifying asset allocations and capitalizing on changing market trends.

This flexibility may be particularly advantageous for investors in the coming year if inflation becomes more embedded and the economic recovery falters – for better or worse, heightened market risk is now a given. So where should investors focus their attention?

#### Key themes for global listed real estate

Our REIT team has identified three key themes for 2022: the importance of pricing power, the changing definition of “quality” and the growing significance of ESG. Although these themes are not exclusive to REITs – they also support valuations in private real estate – they hold the potential to drive differential growth and income.

Paradoxically, the return of inflation may benefit investors in certain sought-after assets (public or private) if rent hikes outpace financing and labor costs, resulting in greater top-line revenue that filters down to bottom-line cash flow. For this dynamic to hold true,

investors need exposure to in-demand, fast-growing sectors, such as distribution warehouses, data centers, life science facilities and single-family rentals.

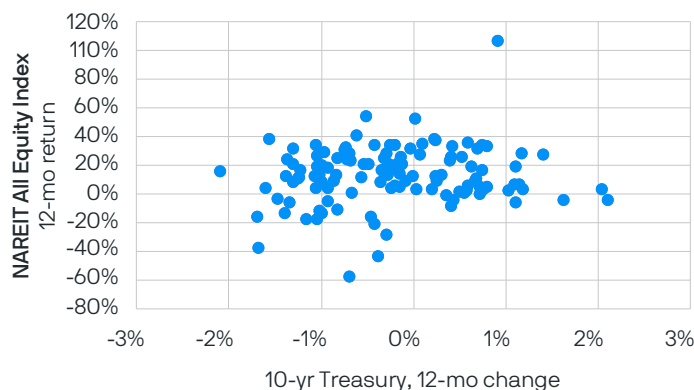
These specialty sectors are likely to exhibit significant pricing power, which will give them an attractive growth profile relative to some of the more traditional sectors, such as office and retail, even as interest rates rise. A meaningful proportion of U.S. and global REIT indices – 42% and 29%, respectively – already consist of companies focused on nontraditional sectors, although not all are high growth.

#### Inflation hedging with a plus: Income

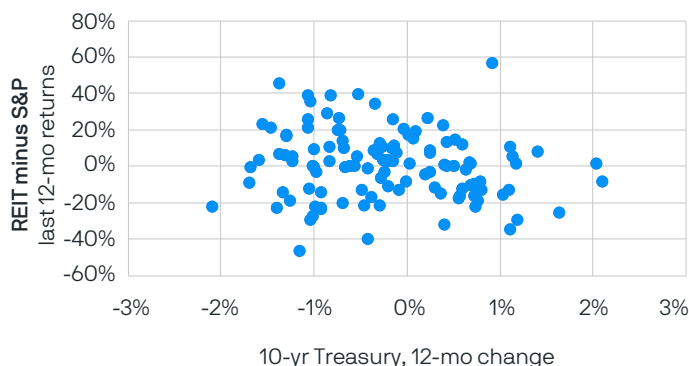
In comparison with fixed income, REITs hold an advantage with respect to income generation. The current dividend yield for the Wilshire US Real Estate Securities Index (WILRESI), for example, is approximately 2.6% (and does not include potential price appreciation of the underlying assets). The effect can be significant: U.S. REIT total returns for the WILRESI have averaged 11.5% for the past 10 years. Investing in REITs also carries a structural advantage, as they offer access to specialty sectors that use only modest leverage and can be considered akin to conservative core investments (unlike value-add or opportunistic private vehicles, which are typically more highly levered).

## REITs deliver positive performance and often outperform stock markets during periods of rising rates

**Exhibit 4A:** REIT total returns and interest rate changes (1992–3Q 2021)



**Exhibit 4B:** REIT vs. S&P 500 total returns and rate changes (1992–3Q 2021)



Source: NAREIT, J.P. Morgan Asset Management; data as of September 30, 2021.

Historical performance supports the argument for using REITs for their inflation-hedging and income-generating qualities. In 83% of the rising rate periods between 1992 and 2020, U.S. REITs delivered positive total returns; in 50% of those periods, U.S. REITs also outperformed the S&P 500 (**Exhibits 4A** and **4B**). The current expansion of specialty property types linked to the fastest-growing segments of the global economy could bolster this effect, especially if supply remains constrained.

### Location, quality – and the new ‘green’ premium

Given recent demographic trends, we expect migration to U.S. cities with fast-growing technology companies and comparative lifestyle advantages – cities like Atlanta, Austin, Boston and Raleigh – to accelerate. In an effort to retain talent, employers are now actively upgrading their traditional office spaces to deliver a state-of-the-art employee experience.

The movement of workers and the shift to e-commerce are driving increasing demand for real estate capacity. In response, rents for associated property types, such as single-family homes, apartments, storage facilities and industrial units – all of which are represented in the liquid REIT universe – are rising. In a new twist, however, environmental standards are increasingly linked to building quality, and REITs that offer “green” space are likely to achieve higher occupancy and rent growth. A recent study by Knight Frank suggests environmentally

friendly offices in London already command rents 12% higher than the market average.

Globally, Australian, British and European companies are further ahead in implementing ESG considerations than their U.S. peers, but a number of U.S. REITs have begun to differentiate themselves by mitigating the carbon footprint of the construction process. Typically, these larger listed companies are quicker to adopt best practices and achieve greater market differentiation, which should lead to higher rents and occupancy in the years ahead.

### Conclusion

Although strong fundamental research is required to differentiate among assets and across real estate sectors in the current environment, investors still have a range of options. As long as the supply-demand dynamic remains healthy – and the economic rebound is not derailed by the emergence of new coronavirus variants or undermined by poorly controlled inflation in the coming 12 to 18 months – real estate should provide investors with a consistent source of alpha, income and diversification.



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