

# INFLECTION POINTS

2022 ASSET ALLOCATION  
PERSPECTIVES / OUTLOOK



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# EXECUTIVE SUMMARY

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 We are hopeful that the most severe periods of the COVID-19 crisis are behind us but remain vigilant about resurgences. Markets, meanwhile, are at levels that few would have anticipated as we approach the second anniversary of the shutdowns from the worldwide pandemic.

The twists and turns of the pandemic continue to be a major force in markets. However, in this report, we wanted to take a step back and focus on some of the secular shifts that will likely be guiding our thinking in not just the months but years to come. The title of the report, *Inflection Points*, and its structure reflect that.

One area of focus is the increasing centrality of technology and innovation to our lives. Technology industry participants have observed that the pandemic may have accelerated an already rapid digital adoption forward by several years. Items like virtual collaboration and e-commerce gained ubiquity during the last several years. The mRNA vaccines developed in record times that may help usher in the end of the pandemic were also remarkable technological achievements and are indicative of advances in biotechnology.

This report dives into private markets, where an increasing share of the value in technology and innovation is being created. But while the promise of technology and innovation may be abundant, so are pitfalls for investors. Venture capital markets are seeing all-time highs in funding levels, and lofty valuations can be found at all stages. Large-cap growth stocks in the U.S. are seeing their valuations pull away meaningfully from other segments of the market. While we are keeping a close eye on frontier innovations like Web3 and the metaverse for our clients, we are also mindful of the excess and potentially misplaced enthusiasm.

We merged this report with our annual Sustainable Investing report this year to reflect how deeply enmeshed sustainability is to our broader investment thinking and several topics illustrate this. The “Great Transition” looks at a major shift toward renewable energy as these technologies decline rapidly on the cost curve. The implications of this shift will likely be felt across the

economy and through society. This transition may make energy less expensive in the long term. In the short term, though, it is leading to “greenflation” as the demand for renewable energy components causes prices to increase.

Analyzing inflationary dynamics remains a key area of focus for us. (Please see our report on inflation and recent CIO roundtable available [here](#) and [here](#) for more.) While policymakers had described inflationary forces as transitory and likely to wane with the pandemic, that assessment may be changing. Data shows that inflation may in fact be broadening, a view borne out by the recent volatility in high-multiple stocks and interest rates. Much of the policy response by governments worldwide since the global financial crisis more than a decade ago has been predicated on chronically low inflation and its associated low debt financing costs. Muted rates on government bonds, meanwhile, have generally supported high valuations across asset classes. While most asset classes are at high valuations relative to their own history, we believe that they remain reasonably priced when compared to government bonds.

As we outlined in our inflation report, there are several powerful disinflationary forces in the economy, including technology, globalization and demographics. Government balance sheets and money creation, however, have risen sharply in the wake of the pandemic and may be intersecting with supply chain bottlenecks. This dynamic could have major implications across asset classes, particularly for growth stocks with high multiples, should it shift.

Other timely topics examined in this report include the challenges facing the Chinese economy. Despite the headwinds, we believe reasonable valuations and secular growth still make the country and region attractive. We also look at the broadening of ESG classifications and the state of the fast-growing electric vehicle market.

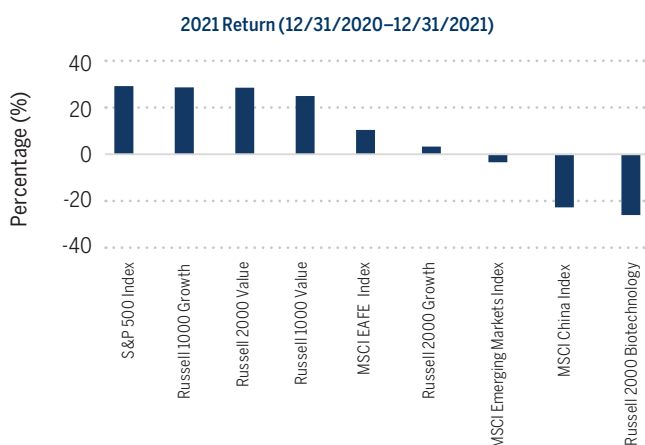
In the Taking Stock section, we look at the performance of our investment recommendations, including hits and misses. The section, as with the report, aims to provide greater transparency into our investment thinking, and we hope they serve as a good foundation for dialogue in the coming year.

# INVESTMENT LANDSCAPE

Following 2020's wild ride for broader market indices, most of the action occurred beneath the surface in 2021. Despite some bumps along the way during the recovery, the general trend for economies and markets has been positive. In 2021, the S&P 500® Index gained 30%, and the largest drawdown for the index was just 5%, according to Bloomberg. That's a downright placid year by historical standards. The median return for the S&P 500 Index since 1980 has been 15%, with a median drawdown of 10%. Within the first three weeks of 2022, the S&P 500 Index had already experienced a 10% drawdown, a healthy reminder that stock investing is not without risk and volatility in the pursuit of long-term success. Several risks are weighing on markets. Inflationary data has been the highest in nearly four decades and policymakers may react aggressively. If the Fed overshoots, it may cause the economic recovery to stall. Geopolitical tensions and the potential for conflict between Russia and Ukraine are also keeping markets on edge.

## Take a Closer Look

Benchmarks like the S&P 500 Index posted strong gains with relatively mild drawdowns over the year, a stark contrast to 2020's wild ride. There was a lot of variation under the covers, however. Large-cap growth names posted strong gains, whereas SPACs, which saw a frenzy of activity in 2020, ended the year meaningfully underwater as a category.



SOURCE: BLOOMBERG.

## UNDER THE SURFACE

Looking beyond those broad market indices, which are increasingly dominated by a short list of trillion-dollar market capitalization companies, there was a historic amount of dispersion between stocks. The outperformance of large-cap vs. small-cap growth companies and the U.S. vs. emerging markets was some of the most extreme we've seen in the past quarter of a century. We also saw a staggering reversal of fortunes for SPACs and IPOs, which began the year in a retail-driven frenzy, only to collapse back down to earth under the weighty reality of some of their shaky business fundamentals and irrational valuations. We believe that some of these market moves were healthy corrections to market excess, which should provide the market a more stable footing moving forward. Continuing into 2022, we've seen valuations in many software and internet companies return to the levels seen prior to the pandemic, before lockdowns, stimulus checks and low rates spurred increased speculation. And as often happens, we believe that the pendulum in certain areas has already swung too far in one direction, providing opportunities for bottom-up stock pickers with a long-term view. So in a stock market close to its all-time highs, we still find ourselves encountering opportunities to earn attractive returns.

Despite early market moves in 2022, valuations for both stocks and bonds are at historical extremes, and high starting valuations tend to lead to lower future returns.

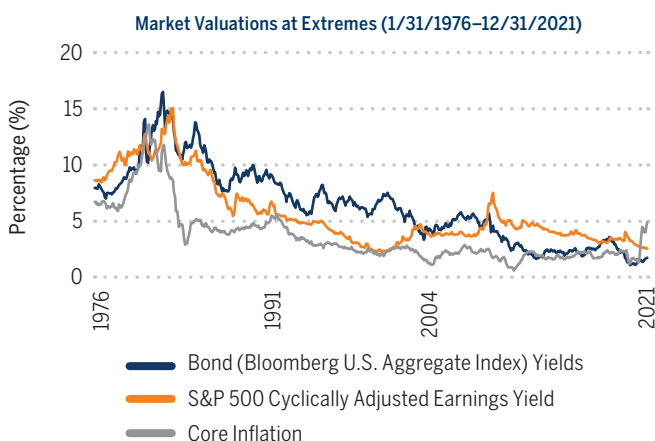
Even at these elevated levels, we believe that many asset classes still look attractive when examined relative to government bond yields. The spread between cyclically adjusted earnings yields (the inverse of a price/earnings ratio) and government bond yields is still wider than normal, and many other valuation metrics look even more attractive on a relative basis. Additionally, when we look closer at valuations in the equity market, the level of excess appears very different depending on which segment of the market is being examined.

Nearly all major segments of the global equity market have experienced rising valuations, but technology-oriented companies, which typically dominate U.S.



## Don't Look Down

Stocks and bonds as categories are starting the new year at high valuations, which have historically led to muted returns. These high valuations may also be underpinned by what has been a relatively mild inflationary backdrop for the last decade, a trend that shows signs of changing.



SOURCE: BLOOMBERG.

large-cap growth, have risen far greater than most of the rest of the market. Over the last 10 years, the price-to-earnings ratio of the Russell 1000® Technology Index has risen from 12.6 to 29.8, while the Russell 1000® Financials Index has modestly declined from 13.2 to 12.9. There will likely be many companies whose future will not only justify today's elevated valuations but also prove them to be undervalued, and we acknowledge that internet and

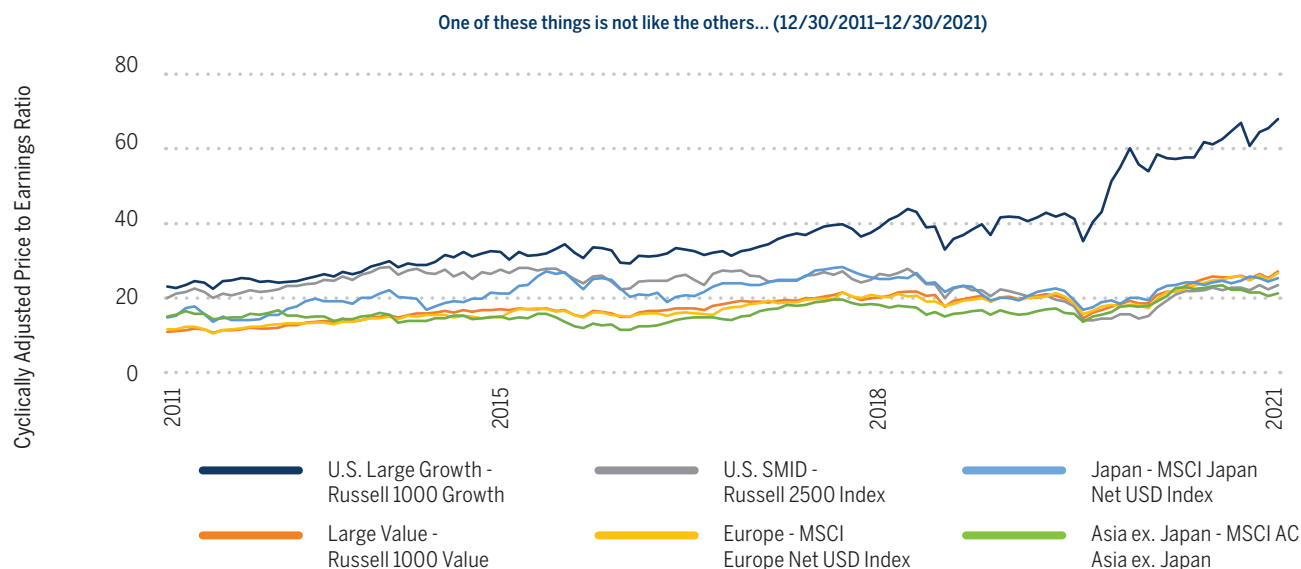
cloud-enabled, globally scalable businesses may be worth more than the great businesses of the past. But many companies have seen their shares pushed higher simply by animal spirits and low interest rates. Such valuations are susceptible should lofty company expectations not be met, or a shift in interest rates or investor sentiment lead to a revaluation. We've seen the beginnings of such a reset early in 2022 and have been thankful for our allocations outside the U.S. and within value-oriented strategies. It is never easy to hold onto underperforming assets, even when we believe they are meaningfully undervalued, but such discipline is critical to those with an eye on the long term.

## INFLATION AND THE GREAT RESIGNATION

One of the notable surprises to many investors was the continual march higher of inflation, particularly in the U.S. and U.K. Pandemic-related supply chain issues may have stoked the fire, but a tight labor market and rising wages have carried the inflation torch. What was originally touted as "transitory" inflation has evolved into something more structural, which has forced the hand of the Federal Reserve to begin tightening monetary policy earlier than expected. What some call the Great Resignation—but may be more of a combination of early retirements, excess savings, increased entrepreneurship and industry transition—has led to a tight labor market despite nearly 4 million fewer Americans holdings jobs than at the onset of the pandemic.

## Up, Up and Away

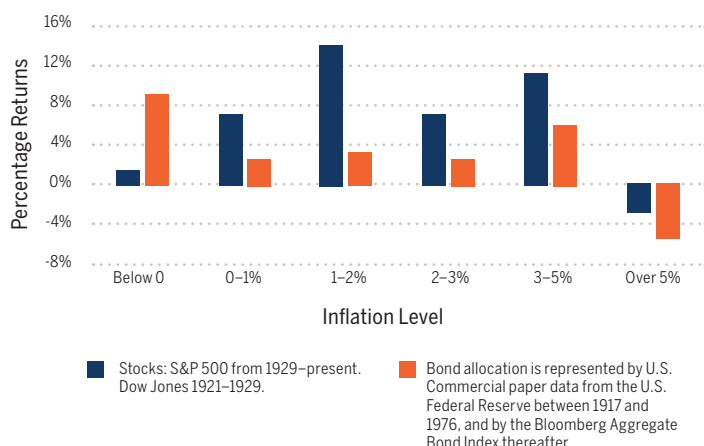
Strong fundamental trends, like the increasing importance of technology and innovation, combined with low interest rates that boost the relative value of earnings growth far into the future, made U.S. large-cap growth an investor favorite. But we believe this has also led to stretched valuations for the segment and may make other pockets of the market more attractive.



SOURCE: BLOOMBERG.

## How Hot Is Too Hot? Returns over the Last 100 Years

Stocks and bonds have historically performed well as long as inflation remained below 5%. Inflation below zero also poses risks to stock returns.



SOURCE: BLOOMBERG. AS OF 12/31/2021.

This inflation dynamic was something we spoke about in detail in our *Outlook* last year. It was also a reason for our increasing exposure to real estate and real assets, as well as the shifts within our bond portfolios to prepare for potentially rising rates. The rising price environment has been an additional driver of our heightened focus on high-quality businesses that deliver true value to their customers, which typically allow them to pass through their own rising costs. The good news thus far is that much of this inflation has also been driven by record demand from a robust economy and consumers with large piles of savings. This so-called demand-pull inflation is far friendlier to investors than what we saw in the 1970s. But while we expect some relief on the inflation front from the repair of supply chains and shifting consumer demand from goods to services, our eyes are on the labor market and its potential to put upward pressure on inflation and downward pressure on growth. (Please see *Valuations: A New Equilibrium?* on page 25 for further discussion.)

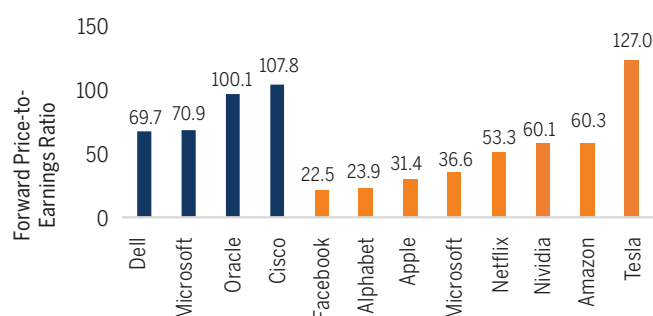
## STAND AND DELIVER

While 2020 was all about discounting the future recovery in earnings, 2021 was about delivering the results, and results have exceeded expectations. As the year progressed, earnings expectations not only for this year but also the next few years have improved. Many companies effectively cut costs, passed on rising prices and embraced technology to increase operational efficiency. As a result, stocks have become cheaper relative to their fundamentals, even as they have risen in price. Despite inflationary pressures,

corporate profit margins are at multidecade highs as the global economy has become more technology-driven and services-led, with companies also benefiting from ultra-low borrowing costs. While any number of factors could weigh on growth and profitability in the coming years, the global economy and corporate profits have shown great resilience and healing this past year.

## Not That '90s Show

Many closely watched tech leaders in the market today like the so-called FAANG +M names have much more reasonable valuations than some tech giants had during the late '90s tech boom. Tesla, which benefited from the excitement surrounding electric vehicles, may be an outlier.



SOURCE: BLOOMBERG. DATES: DELL, MICROSOFT, ORACLE, CISCO: 12/31/1999. REST OF COMPANIES: 12/31/2021.

FAANG + M refers to Facebook (Meta), Apple, Amazon, Netflix, Google and Microsoft.

## PRIVATES AND PASSIVE

Two major dynamics persisted from last year: narrow public market leadership and the growing influence of private markets. The big continued to get bigger in 2021, with the 10 largest U.S. companies growing to 30% of the S&P 500 Index, an even larger weighting than the prior peak in 2000 and approaching levels not seen since the Nifty Fifty in the 1960s. At the same time, venture capital funding rose more than 100% from what was already a record year in 2020, pushing the market cap of the nearly 1,000 “unicorn” billion-dollar private companies to \$3.2 trillion as of January 2022, according to CB Insights. This further sets the foundation for what has become a popular investment barbell for some investors: a passive “indexed” core portfolio in public equities combined with a growing exposure to private equity. Both of these trends, however, may also be leading to heightened valuations and rising risks in certain market segments and companies.

We have long believed that top private market investors should be part of the core of our portfolios, and we trust that a selective and thoughtful approach will help us sidestep the most notable excess built up during a strong



bull market. It is impossible to ignore the growing set of high-quality, disruptive companies that one can only access through private markets. This is particularly true as companies choose to stay private for longer and grow more quickly thanks to the internet, cloud computing and truly global markets. We'll discuss our discipline in private investing later in this piece. However, suffice it to say that it all comes down to manager and investment selection and diversification across different areas, such as venture capital, buyouts, real estate and private credit. We believe that each of these areas offers excess returns to public market alternatives, and active management shines in private markets.

Likewise, the trend toward passive investing, an approach that is indifferent to the valuation one pays for a dollar of cash flow, has led to extended valuations within some large U.S. growth companies. We confront this risk through bottom-up stock picking and allocations to small-cap and international markets, which present increasingly attractive long-term value. As always, it is dangerous to make sweeping generalizations—there are large U.S. public and private companies we find appealing, and there are ones where valuations leave us scratching our heads. But on balance, this environment has led us to search for value increasingly outside of recent market winners and in areas such as quality value stocks, smaller companies, Asia and biotech, all of which have underperformed their large-cap U.S. peers.

## RISKS REMAIN, BUT INNOVATION AND PRODUCTIVITY LEND OPTIMISM

There are always risks on the horizon, and a low-interest-rate environment leaves all assets vulnerable to a repricing as a result of inflation and rising rates. The onset of a monetary tightening cycle is likely to bring about greater market volatility. We can't predict the next phase of the pandemic, nor can we predict the reactions of governments, even if it appears we're well on the road to recovery. We've made a number of adjustments to portfolios in an effort to account for these various risks and prepare for a wide range of scenarios.

However, we believe that it remains an exciting time for innovation and transition in the global economy, with growth and productivity trends that provide confidence in our long-term positioning. The pandemic has forced

## That Was Productive

After almost a decade of dormancy, technological advances have again begun to register in a closely watched economic measure: labor productivity. Productivity growth is important in economic growth and keeping inflationary pressures contained by allowing the existing workforce to produce more goods and services.



SOURCE: BLOOMBERG.

companies to modernize their operations and embrace the internet, software and greater automation. As the economy recovers, many companies are increasing capital expenditures to further modernize and expand production capabilities. Global software spending has doubled over the past five years as companies modernize outdated processes and put their growing troves of data to better use. Electric vehicle sales have tripled in that same time frame. Renewable energy sources have grown to nearly one-third of total global power generation as costs fall and we inch closer to a sustainable future. Venture funding of biotechnology companies has grown four times over the past five years with the powerful intersection of genomics, big data and novel therapeutics, which should dramatically change health care in the decades to come. Not all of these private investments will produce good returns, but we believe they will spur innovation and development.

Importantly, technological advancements in recent years have led to a rebound in labor productivity, where output per hour of work has expanded at rates not seen in over a decade. Increasing labor productivity is a major driver of economic growth, and we hope to see this trend continue.

# IS CHINA STILL INVESTABLE?

Chinese financial markets were especially volatile in 2021 amid relentless regulatory pressure from the Chinese government. The MSCI China Index, a broad-based index that tracks both onshore- and offshore-listed Chinese companies, fell 23% in 2021 and underperformed broader emerging markets by about 20%.

The government's regulatory agenda was far-reaching, spanning from anti-monopoly laws targeting the country's mega-cap internet companies to restrictions aimed at reducing leverage in the real estate market. The government's "three red lines" regulation required real estate developers to sell off assets to meet more stringent leverage and liquidity levels before they could raise more debt. This forced selling led to falling prices and a liquidity crunch for some of China's largest real estate developers, such as China Evergrande, which leaned on debt-fueled investment to drive growth. In another example, companies in the lucrative private tutoring industry were forced to reorganize as nonprofit organizations to ease educational costs on families, causing select Chinese education stocks to drop about 70–80% in one day. The Chinese government also appears to be putting both direct and indirect pressure on companies and executives to shift their investment, philanthropic and hiring decisions in ways that create increased uncertainty.

The severe steps taken by the Chinese government understandably spooked investors. The government, however, has portrayed its actions as an attempt

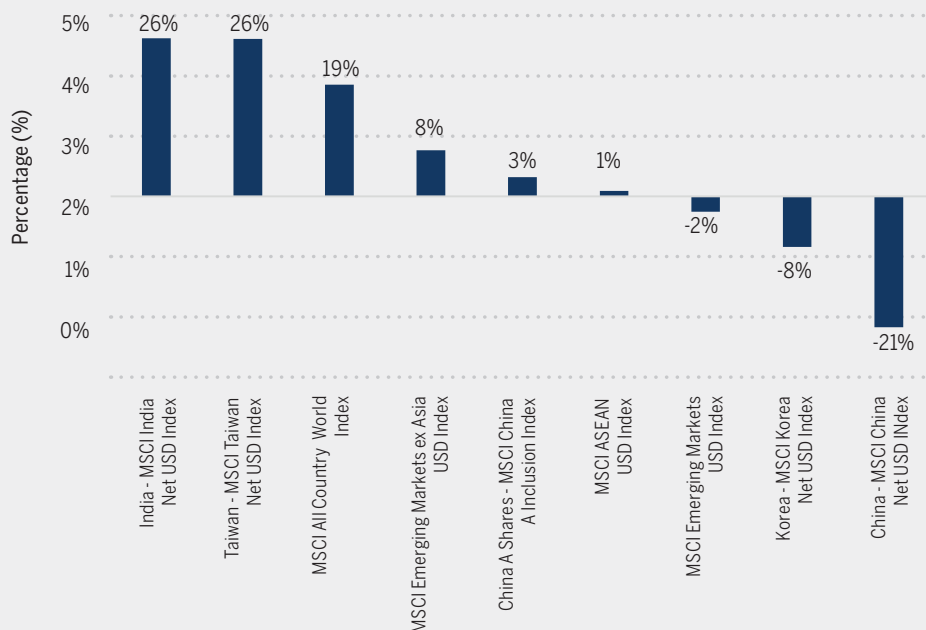
to address problems plaguing the modern Chinese economy, such as rising wealth inequality, higher costs of living for middle-class families and potential systemic risk from the financial system.

The timing and context of these actions are also important. Chinese President Xi Jinping and the Chinese Communist Party plan to meet in 2022 for the country's 20th Party Congress, an important political gathering that sets the country's long-term economic and political agendas. Xi is expected to continue a third term as president, and many of the government's regulatory actions in 2021 set an example of what "common prosperity," or the broader redistribution of wealth across the economy, might look like under Xi. Overall, we believe the government is demonstrating that it is willing to pursue common prosperity at the expense of slower economic growth going forward, and it is a reminder that policy changes occur much faster and with less debate than in the Western world.

Given the heightened regulatory uncertainty and potential concerns about debt levels, many clients have asked us whether China remains investable. In short, our answer remains yes, but with careful considerations. For one, Chinese equities trade at heavily discounted valuations, suggesting markets are already pricing in quite bearish outcomes for many of China's largest companies. A patient investor may be rewarded if regulatory pressures ease and the pendulum swings in the other direction as it often does. Indeed, some of our global managers

## A Complex Continent

Heavy-handed government intervention and real estate debt fears in China were captured in headlines over the last year. But given structural growth trends and relative valuations, opportunity in Asia remains. Countries like India and Taiwan posted strong gains, and segments like the China A-Share market were relative outperformers, underscoring the importance of regional expertise.



SOURCE: BLOOMBERG.



have leaned into these tech giants, like Tencent, which are trading at attractive valuations, even when considering the impact to potential growth and profitability from the current regulatory environment. China's economy is also likely to surpass the U.S. in the coming decade or so and is home to some of the largest, most liquid markets in the world. Trading in Chinese markets is also heavily dominated by retail, making them fertile ground for professional investors to generate outperformance. We expect there will be good opportunities for seasoned investors in the years to come. Given China's policies toward the protection of local champions, investors may increasingly need to access the economic growth of China through Chinese companies rather than multinationals out of the U.S. or Europe.

We also note that China's A-share onshore companies, or companies listed on mainland Chinese exchanges, generally fared better in 2021 than those listed in Hong Kong or the U.S., which are primarily internet and tech companies. This dispersion in performance between onshore companies and tech-centric, offshore-listed companies suggests an opportunity for skilled stock pickers to identify new "growth" companies more closely aligned with the Chinese government's emerging economic agenda, such as investment in clean energy, electric vehicles, semiconductor equipment and "national champion" brands. This dynamic has underscored the importance of partnering with investment managers located in China who deeply understand the country and can sift through the regulatory environment for investment opportunities. We initiated our first China-dedicated investment in 2020, and this partnership has helped us navigate volatility in China throughout 2021.

## **BROADER ASIA OPPORTUNITY REMAINS**

The rising regulatory risks in China have distracted investors from a growing opportunity in companies elsewhere in Asia that can tap into the region's economic growth potential and perhaps benefit from harsher regulations in China. We believe that fast-growing internet, e-commerce and fintech companies across Southeast Asia and India have the opportunity to gain market share from the likes of Alibaba and Tencent, which have increasingly looked beyond

China for growth. Southeast Asia's digital economy as measured by e-commerce gross merchandise value is expected to grow more than 3x, from \$100 billion in 2019 to \$309 billion in 2025, presenting a fast-growing addressable market for innovative companies outside of China according to a study reported on by Bloomberg. Additionally, rising geopolitical tensions between the U.S. and China could benefit other large economies, like India, Indonesia and Vietnam, as multinational companies seek to diversify supply chains and consumer markets in Asia. Overall, real GDP growth in India and Southeast Asia is expected to match or exceed China over the next two years, offering a differentiated area of potential growth in the region, perhaps with less political risk.

These dynamics point to our nuanced view that China is still investable but requires careful treading; the range of political and economic outcomes remains wide and requires patience from investors willing to lean in. Beyond China, we have maintained an overweight position in Asia ex. Japan, as the opportunity set described above remains attractive, in our view, while the valuation discount in Asian companies grows wider to U.S. counterparts. We believe that appropriate portfolio sizing and risk management in Asia will be key given the potential volatility going forward.

Finally, China's economic sphere is too great to ignore. It influences broader Asia and many multinational companies that have relied on China's rising middle class for growth. To that end, any economic development in China is worth paying close attention to for investors who hold multinational companies. For example, sales in China made up about 19% of both Apple's and Nike's trailing 12-month sales, as of each company's latest quarterly filings. How bluechip companies across the globe navigate the geopolitical conundrum presented by China will be one of the most pressing issues investors, policymakers and company executives will face. As such, we believe that China ought to be on every investor's mind in 2022, regardless of whether one views the country as investable.

# WEB3 AND THE METAVERSE

Our views on digital assets have evolved over the last year, as have our research and growing partnerships in the space. While opinions of the cryptocurrency space are prone to extremes on either side, we've arrived at a more centrist and nuanced view that we're sure will evolve over time. We've slowly and judiciously explored investments with experts in the space, with a focus on the long-term potential of blockchain technology. We know full well that the range of outcomes is wide and the risk of loss is high. We have therefore been heavy in our research and light in our dollars invested at the onset.

To many investors, Bitcoin is seen as the entirety of the cryptocurrency market. However, it is increasingly obvious that it and other pure digital currencies represent a small component of what blockchain technology is enabling. Bitcoin may very well emerge as true "digital gold," an internet-native store of value more appealing to the current generation of investors, particularly those concerned with expansionary monetary policy. However, that is a fairly limited use case, and as we have discussed, we've rarely taken positions in individual commodities per se (as discussed in our inflation report [here](#)).

Some development is occurring to add functionality around Bitcoin. Still, most of the new development and increased functionality in crypto is occurring elsewhere on other so-called layer one blockchains, like Ethereum, Solana and Luna. Developers on these blockchains aren't focused on creating an immutable store of value or medium of exchange. They imagine a next generation of the internet, sometimes marketed as Web3, that provides a more decentralized world of internet applications that move not just information

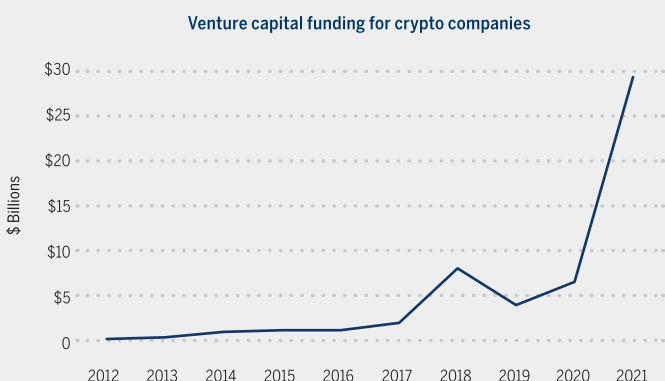
but also value between parties, doing so with fewer intermediaries and greater freedom from the growing control of the big tech companies. They are building "smart contracts" that are intended to do everything from replicating traditional financial applications, like borrowing and trading, to building new music streaming services with innovative economics for artists. Amid the promise of these big ideas, venture capital funding into crypto projects reached \$30 billion in 2021, nearly four times its prior peak in 2018, and technical and entrepreneurial talent is flowing just as quickly as money into the space. It is still quite early in digital assets, with intense competition not just between similar applications on blockchains but even among the layer one blockchains themselves. That competition, along with the looming questions about regulation and the limits of decentralization, leads to a wide range of potential outcomes and incredible volatility in both prices and value.

While terms like Web3 and the metaverse are increasingly prevalent and sometimes used interchangeably, there are important distinctions. The metaverse is a vision of a digital world where we spend increasing time and money on virtual goods, services and experiences. It is a catchall for our online presence and virtual or augmented reality. But many of the companies leading the charge into the ill-defined metaverse are the large, centralized technology companies like Meta (Facebook) and Alphabet (Google) that the Web3 world is pitting itself against. Smaller crypto projects may play a growing role in the metaverse through areas like nonfungible tokens (NFTs), which represent unique virtual goods that real people increasingly buy with real money. The NFT market surpassed \$40 billion in 2021, according to Bloomberg. NBA player Steph Curry immediately sold out of his NFT sneakers that can be "worn" in the metaverse, according to Bloomberg. People have long spent real money in virtual gaming environments, and this is an evolution of that trend in an increasingly digital world. The challenge will be determining which communities will thrive.

We believe that Web3 and the metaverse are exciting spaces where the future still hasn't taken shape, and there are both great innovation and risk. We're well aware of heightened speculation in areas like NFTs and cryptocurrencies. We have partnered with leading venture capital and digital asset investment firms to invest in the emerging potential of areas such as decentralized finance, gaming, social and media applications that may be well-suited to blockchains. We have sized our exposure appropriately and continue to do more work, knowing full well that this will likely be the most volatile investment in any portfolio.

## Make Coin

The crypto sector has seen a surge in funding, a sign that investors may believe that a slew of new technologies is poised to bring meaningful innovation to the financial sector and how transactions are handled.



SOURCE: BLOOMBERG. AS OF 12/15/2021. MOST RECENT DATA AVAILABLE.



# OUR CURRENT STANCE

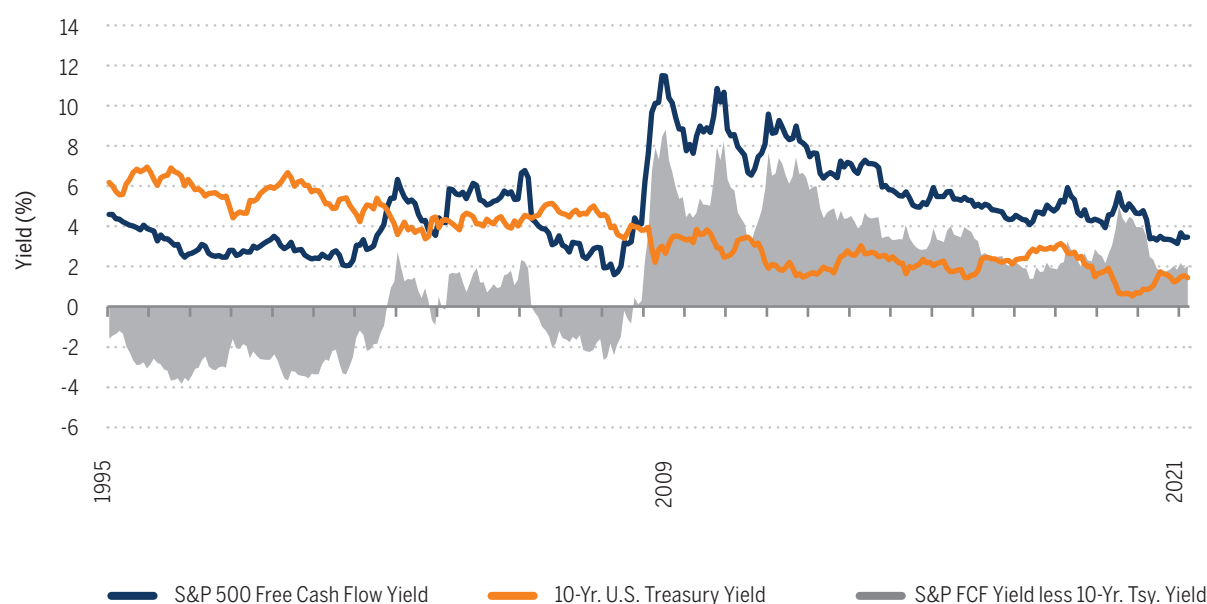
This year was lighter for changes to portfolios than last due to the less volatile market environment. There were certainly opportunities for rebalancing toward markets or managers that underperformed, but our higher-level positioning remained essentially intact. In 2020, we made changes to portfolios to help protect against rising inflation and interest rates, and this past year, we added modestly to those tilts. We further reduced our exposure to bonds and added marginally to both real estate and private credit in an effort to enhance yield and protect against rising rates. We tilted further toward value within small-cap equities as the valuation disparity grew earlier in the year, a shift that we believe has worked well. We have rebalanced throughout the year, trimming our top-performing U.S. large-cap growth exposures and adding to areas like Asia that have underperformed, but we haven't yet increased

our target weighting. Luckily, the negative asset allocation decision to be overweight Asia has been mostly offset by strong manager performance. Our confidence in the long-term growth and potential of the region remains.

We continue to manage portfolios with equity exposure that is close to our long-term targets. We acknowledge that stock market valuations look expensive versus history on an absolute basis, but not when compared to interest rates. In fact, that comparison has only become starker in the past year, as rates have stayed low while inflation has risen. Bonds are offering near their all-time lowest—negative, in fact—inflation-adjusted yields. When we compare the prospects of owning bonds that guarantee the loss of purchasing power versus owning high-quality companies with positive and growing free cash flow yields, we still find the latter far more attractive. Despite the Federal Reserve signaling the tightening of monetary policy, we expect

## It's All Relative

The free cash flow yield on the S&P 500 is meaningfully higher than that of government bonds, making stocks attractive by this important measure by comparison.



SOURCE: BLOOMBERG. DATES: 10/31/1995 - 12/31/2021.

financial conditions to remain fairly accommodative this year on the back of historical fiscal and monetary stimulus, and real interest rates are likely to remain low.

We have steadily increased our exposure to private markets, as the relative returns and investment opportunities appear more attractive. However, we are doubling down on our diligence and discipline due to the elevated levels of animal spirits and speculation.

Below, we discuss in greater detail our shifts within asset classes:

## EQUITIES

Given the trends toward passive and the outperformance of large-cap U.S. equities in recent years, we continue to see this as an attractive environment for stock picking and one where we need to be looking for value in smaller companies and those outside the U.S. Currently, we recommend the following:

- **Including global allocations in our core portfolio:**

Last year, we shifted to invest more of our core stock portfolios in global managers with flexible investment mandates, allowing for bottom-up selection of companies across multiple markets. This facilitates more targeted and faster reactions to market moves. An example of this was seen in China last year, when some large, high-quality businesses sold off due to growing political and regulatory concerns. Rather than increasing our target weight to the entire region, we allowed our global managers to selectively add to high-quality companies, like Tencent, on weakness to

take advantage of the opportunity. We've had more than a decade of outperformance of U.S. stocks, and we'd be surprised if the next decade plays out like the last one given current valuations. That said, rather than shifting more capital to Europe or Asia, a blunt instrument subject to a meaningful lag in implementation, we'd prefer concentrated stock pickers selecting the best bottom-up opportunities in those regions to complement our smaller allocations to regional specialists.

- **Overweight U.S. small-caps vs. large-caps, focused on value:**

This recommendation hasn't changed from last year, and the valuation gap between large and small has grown further over the last 12 months. Earnings for small-cap companies have generally outperformed while share prices have lagged, widening the discount. Small-caps remain a less efficient market, with modest analyst coverage and lower impact from passive investing and ETFs.

- **Overweight Asia, excluding Japan:**

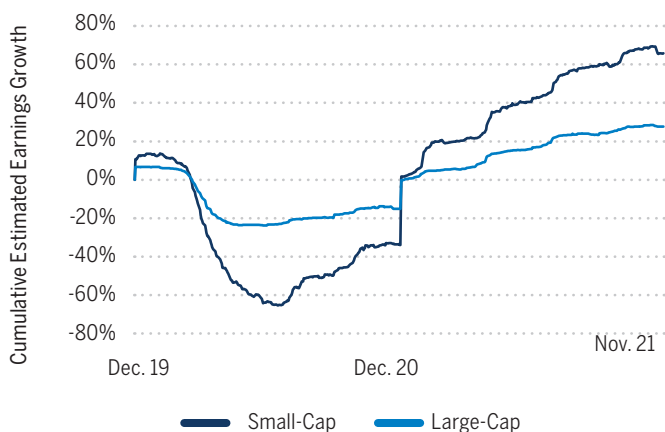
We've fielded a number of questions about China recently, including the provocative "Is China investable?" China is set to become the largest economy in the world in the coming decade or so and is home to some world-class entrepreneurs and companies as well as deep, liquid markets. While the unpredictable government influence in private enterprise warrants a valuation discount, China is impossible to ignore. More broadly, emerging Asia's long-term attractiveness still exists, with higher economic growth, lower levels of debt and increasing numbers of high-quality companies. Valuations continue to reflect the higher risks of the region and compensate us with higher prospective returns. However, we must be patient.

- **Maintaining balance between growth and value,**

**focused on quality:** Little has changed here from a year ago. Value stocks still appear cheaper than growth stocks and have less sensitivity to rising interest rates. At the same time, our quality preference has led some of these value managers to underperform broader value benchmarks. We are OK lagging in a market where the lowest-quality, most highly leveraged stocks outperform. We seek to invest in the kinds of businesses that we believe can withstand economic volatility and that we can hold for the long term. There are many such businesses that appear relatively inexpensive today, in a market often obsessed with hypergrowth stocks on the one hand and "reopening" stocks on the other.

### Punching above Their Weight

Since the pandemic began, small-caps' performance has lagged despite earnings growing more than double that of their large-cap peers. This suggests that small-caps may have more upside should the discount close.



SOURCE: BLOOMBERG. SMALL-CAP (S&P 600 INDEX), LARGE-CAP (RUSSELL 1000 INDEX). DATES 01/01/2020-12/31/2021.



## Finding the Value

As investor enthusiasm for growth stocks soars, the value segment of the market is now trading at its least expensive relative valuation to growth at any time since the tech bubble. Value stocks may also benefit in relative performance if interest rates rise, as their earnings multiples would likely see less compression.



SOURCE: BLOOMBERG, GROWTH VS. VALUE RELATIVE VALUATION HISTORICAL RANK: 97TH PERCENTILE RANK EX-TECH BUBBLE\*\*; 99TH PERCENTILE. Dates 12/31/1994 -12/31/2021

## FIXED INCOME

We continued to reduce our fixed income exposure throughout the year, maintained our preference for shorter-duration strategies and shifted more capital to private credit strategies.

- **Reducing overall exposure to fixed income:** We believe that fixed income still provides valuable liquidity and stability to portfolios, but the current interest rate and inflation environment argue for allocations to be at the low end of our target range.
- **Maintaining underweight to duration:** Interest rates have remained puzzlingly low despite rising inflation, pushing real yields into deeply negative territory. Despite the likely tightening of monetary policy, we still see risks to the upside in both inflation and rates. We are maintaining our exposure to the short-duration and unconstrained bond strategies as a result.
- **No exposure to high-yield credit:** After exiting our opportunistic high-yield investment made during the onset of the pandemic, spreads have continued to grind lower, and we believe they offer poor risk-adjusted returns at these levels. We prefer to take our exposure to lower-quality credits through private credit strategies, where we believe there is greater control over the covenants of the loans and overall higher levels of yield.

## PRIVATE INVESTMENTS

Results in our private investments have generally been strong in recent years, providing a meaningful source of

outperformance for portfolios. The main shift to our private portfolios this year has been the increasing exposure to real estate and private credit. Both of these strategies offer attractive yields and some elements of diversification and inflation protection that we view as attractive in the current environment. Within our private equity allocations, we have also modestly increased our exposure to areas like biotechnology and blockchain-related investments due to the long-term potential. Importantly, we are staying the course and programmatically allocating to private investments despite heightened valuations due to the near impossibility of market timing in this arena.

- **Real estate:** We have continued to benefit from our focus on multifamily, industrial and logistics assets, which have generally performed well throughout the pandemic. The residential market still suffers from years of undersupply following the financial crisis, creating strong valuation support for multifamily housing. We invested some capital in an opportunistic retail strategy this year as the market began to recover, but investors continued to shun this sector. We also seeded a new long-term-oriented core real estate strategy focused on generating strong after-tax yield for U.S. taxable clients in this low-interest-rate environment.
- **Buyout and growth:** While venture capital is garnering all of the attention, we remain dedicated to this part of our private equity portfolios and have been comforted by the slower, more typical pace of deployment from these managers. As always, we're focused on strategies where industry expertise and operational value-add are the drivers of return, rather than financial leverage. As the big funds keep getting bigger, we continue to establish new partnerships with middle-market managers investing in less efficient parts of the market.
- **Venture capital:** We wouldn't have guessed the market could get hotter than last year, but it has. The pace of innovation remains high, and this year's IPO class, which includes companies like Coinbase, Roblox, Robinhood and Affirm, has provided helpful realizations within our portfolio. However, the pace of investment in this area is concerning. We have focused on maintaining our earlier-stage exposure, where valuations haven't moved quite as much and deployment isn't as fast, and concentrating more with our managers who have both industry expertise and experience through multiple market cycles. This year, we also launched our Anchor Network co-investment

program. This program is designed to offer the increased company deal flow we're seeing from our venture capital partners out to our client base. It is a way to help increase the targeting of client exposure, reduce fees and provide an extra layer of diligence on each investment.

- **Income strategies:** We increased our allocations to private credit this year, including through senior direct lending strategies, which act as fixed income alternatives, as well as more opportunistic credit and asset-based lending strategies. While this space has also attracted a large amount of capital and yields have come down, we believe it still offers an attractive premium to public markets and greater protections for lenders. Assets under management in this market have grown tenfold in the past decade as private funds have taken share from large banks that have shrunk their balance sheets. However, historically, it is at times like this, when spreads are at their tightest, that private credit strategies offer their best return premium over public markets.

## HEDGE FUNDS

Whereas we were celebrating three strong years of hedge fund performance last year, this year has been more of a struggle, particularly within long/short equity strategies. Beginning in January with the retail-driven "short squeezes" of meme stocks like GameStop and AMC, the environment has proven challenging for short selling. Some managers have given up shorting altogether, and others have moved more of their focus to private investing. For our hedge fund investments aimed at diversifying portfolios, we seek managers committed to the short side of their portfolios and have made some changes to our lineup as a result. We have continued to shift more capital out of long/short equity strategies and toward other diversifying strategies in long/short credit, event-driven and multistrategy managers. Our areas of focus for hedge funds include:

- **Focusing on smaller, nimbler equity long/short managers:** Much like in private equity, the big keep getting bigger in the hedge fund industry, and size can be the enemy of performance. This is particularly true for long/short equity managers. We have added a number of smaller, newer managers with assets

around \$1 billion or below this year who we believe are dedicated to the art of short selling and remain nimble enough to pursue it.

- **Increasing exposure to hybrid public/private managers:** This part of our hedge fund allocation is focused on total return rather than diversification. These vehicles are meant to access top investment talent, and this hybrid structure helps allow for flexible allocation between public and private investment based on the opportunity set. We've seen an increasing number of the most talented investors asking for this flexibility and, in our view, a small number of them deserve it and have performed admirably.
- **Diversifying our exposure to health care/biotechnology specialists:** We have added two new biotech hedge funds to portfolios this year, both of which are smaller and more dedicated to shorting stocks than our existing managers. Their small-cap orientation and short-selling capabilities add diversification to our approach in this sector. We continue to like the inefficiency of this sector and the dispersion of returns, and are excited to continue to build our knowledge base and exposure to the area, particularly as this sector sells off.
- **Increasing event-driven, long/short credit:** We've seen strong results from these allocations this year, and these strategies typically don't face the same headwinds on the short side as our long/short equity managers do. The asymmetry of shorting credit in a low-yield, low-credit spread environment is generally attractive. There have been a number of interesting arbitrage opportunities available in a market with high amounts of IPO, SPAC and M&A activity.
- **Reducing global macro exposure:** We've invested in global macro strategies for nearly 20 years and always with some reservations. It is hard to define "edge" in macro investing, as managers are putting money to work in some of the most liquid, well-researched markets in the world. Our primary focuses have always been on risk management and liquidity. This year, macro managers have exposed hidden crowding and illiquidity risks in some of these markets for interest rate trading, which has led us to reduce our already limited macro exposure.

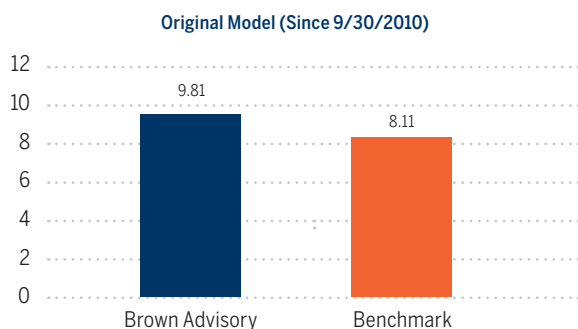


# TAKING STOCK: A LOOK AT PERFORMANCE

We've spent most of this publication laying out our current perspectives on the investment landscape, providing an update to our long-term asset class views and exploring the most important market conditions going forward, such as inflation, interest rates and valuations. These perspectives are guiding our investment decisions for clients today and moving forward. However, as part of this review of the investment landscape, we wanted to include a "report card" of some of our investment decisions over roughly the last decade. Although all portfolios we build are customized for the individual goals and circumstances of each client, we track the performance of "model portfolios" to help evaluate our investment decisions. For years, these models were only used internally as a self-evaluation tool, but more than a decade on, we want to share the track record with our readers.

Overall, we are pleased with the results. Most decisions have added value, but a number have not. We know that we won't get everything right, but the results show that the balance is favorable and has generated meaningful outperformance relative to a blended benchmark.

## Annualized Performance



\*BLENDED BENCHMARK IS 70% MSCI ACWI; 25% BLOOMBERG U.S. AGGREGATE; 5% BOFA/MERRILL LYNCH T-BILL INDEX.

The Brown Advisory Model is a hypothetical portfolio. Brown Advisory's model portfolio allocation is managed to match the allocation of the blended benchmark. The model portfolio performance shown is gross of account level fees but net of underlying manager fees, includes the reinvestment of dividends and is rebalanced at the manager's discretion. The portfolio includes private investments and would typically be suitable for a qualified purchaser tax-exempt client.

## KEY CONTRIBUTORS

- **Overweight U.S.:** In 2011, at the onset of the eurozone crisis, we shifted portfolios to emphasize the U.S. within developed markets. We have maintained this overweight for most of the last 10 years given both the structural growth challenges in Europe and Japan, and the powerful secular trends that benefited U.S. technology-oriented companies. However, given the expanding valuation gaps between the U.S. and other markets, we have moderated this overweight, as discussed earlier.
- **Private market exposure:** As bond yields declined and equity valuations rose over the last 10 years, we have increasingly looked to invest in private markets, including venture capital, real estate and private credit. Private markets have continued to provide excess returns to public markets, even with their growth in popularity, so this has been a positive asset allocation decision. Our manager selection has also added to strong performance by taking advantage of the inefficiencies of private markets.
- **Manager selection in global/international markets:** Despite the underperformance of international markets over the past decade, we've seen strong stock picking from our roster of managers investing outside the U.S. Europe and Asia. These tend to be less efficient markets with less analyst coverage and greater potential for outperformance compared to their large-cap U.S. peers, and we've been pleased to capture some of that opportunity. We have benefited not only from stock picking but also from their ability to move capital on a bottom-up basis between countries/regions based on the opportunities they see.
- **Opportunistic allocations to credit:** The mean-reverting nature of credit markets makes for an attractive tactical opportunity set when spreads widen significantly. In 2011, 2015 and 2020, widespread and largely indiscriminate sell-offs in the credit market helped create attractive opportunities. In 2011, we emphasized emerging market debt, which sold off dramatically during the eurozone crisis. In 2015, a

massive decline in energy prices led to a wave of defaults for energy-related companies, but spreads widened across all sectors, creating meaningful opportunity in U.S. high yield. Finally, the onset of the pandemic in 2020 led to a dramatic sell-off across all markets. We viewed investment-grade credit as particularly attractive given the relatively low risk amid tremendous uncertainty and support from central banks. All three of these created value as spreads normalized.

## KEY DETRACTORS

- **Emerging markets:** Given the strong secular growth drivers and relatively inefficient markets, we have emphasized emerging market equity, and particularly Asia, within our international equity allocations. However, emerging markets have underperformed developed markets over the last 10 years as debt challenges and rising geopolitical tensions weighed on performance. Asia has outperformed broader emerging
- markets but has still lagged developed markets. We continue to focus in Asia within emerging markets and remain overweight.
- **Growth/value shifts:** From 2010 to 2015, we made multiple shifts between growth-oriented and value-oriented stocks, mostly based on valuation differentials relative to history. Overall, secular issues overwhelmed valuations, and we have since de-emphasized these types of shifts given how difficult these gyrations are to predict.
- **Overweight small-cap:** Given the relative inefficiency of smaller-cap stocks and their long-term outperformance of large-caps, we have had a structural overweight to small-cap stocks. However, the pandemic-oriented rally in technology-oriented companies disproportionately benefited large-cap stocks over small-caps, hurting our relative performance. We continue to see value in this positioning.

# A SUSTAINABLE LENS

## SUSTAINABLE INVESTING LANDSCAPE

The sustainable investing universe has grown rapidly in scale and scope. More than \$16.6 trillion in the U.S. was being managed under a sustainable investing mandate as of December 31, 2020\*, about one-third of the overall \$51.4 trillion U.S. assets under professional management, according to the U.S. Sustainable Investing Forum (most recent data available). Broadly, sustainable assets remain concentrated in equities, and specifically in large-cap and active strategies. However, passive strategies are gaining ground and now account for 40% of U.S. sustainable assets, which are up from nearly 20% just three years ago, according to Morningstar. Other underpenetrated asset classes are seeing steady growth; in fixed income, for example, the labelled bond market (which includes green bonds and social bonds) surpassed \$1.6 trillion in issuance last year and has now surpassed \$4 trillion in cumulative historical issuance, according to Bloomberg New Energy Finance.

Sustainable investing is also developing rapidly around the globe, particularly in Asia. China's growing emphasis around the globe on "common prosperity" and its intention to redistribute wealth to achieve a "fairer society" may bode well for these investments in that region, given the focus of such strategies on corporate governance matters. (Please see the section Is China Still Investible? on p. 8 for a further discussion).

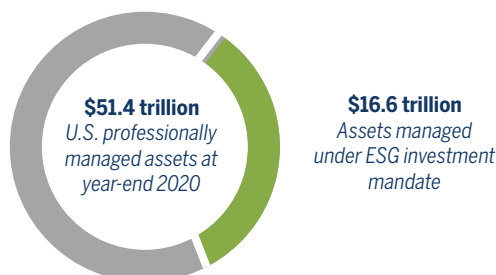
As shown on the next page, we saw a great deal of activity in 2021 related to ESG regulation and specifically related to climate change. We have witnessed climate change and diversity, equity, and inclusion become widely held priorities for the corporate and investment sectors over the past two years. We are therefore not surprised to see a corresponding increase in capital flowing toward sustainable and impact investments, along with increased attention from regulators on ESG matters.

We view sustainable investing as a holistic approach to investing that leverages ESG research, fundamental investment principles and client-specific needs to drive decisions. When evaluating securities or managers for inclusion in a client portfolio, we are always searching for consistency with a client's objectives while also seeking to avoid ESG risks. It is important to note that we generally consider ESG factors in addition or as a supplement to fundamental investment analysis. We view ESG criteria holistically along with fundamental analysis but also evaluate each of these areas individually. We are looking for exposure to products, services and solutions that address climate change and other key risks to society.

Keeping these beliefs in mind is critical as we build out portfolio allocations for our clients and evaluate which investments appear most compelling in the current market landscape. We see several interesting long-term opportunities in sustainable investing, each of which also faces risks we must consider as prudent investors. One of the most important may be the massive ongoing global

## Sustainable investing market size, growth and share of overall US total

32% of all U.S. professionally managed assets follow an ESG investment mandate.



SOURCE: U.S. SUSTAINABLE INVESTMENT FORUM.  
12/31/2020. \*MOST RECENT DATA AVAILABLE.



## 2021 KEY REGULATORY DEVELOPMENTS

New SEC Chair Gary Gensler's regulatory agenda focuses on ESG matters, including disclosures regarding corporate board diversity, climate change, human capital management and cybersecurity risk governance, capital/workforce, and diversity, equity and inclusion.

The Department of Labor published a proposal to remove obstacles preventing U.S. workplace pensions from considering ESG when investing, including using ESG funds for their default strategies.

Europe has adopted and implemented regulation related to transparency and disclosure. Sustainable Finance Disclosure Regulation imposes mandatory ESG disclosures for all asset managers in the European Union to ensure comparability.

In the U.K., the Financial Conduct Authority has published an initial consultation regarding ESG disclosures by asset managers consistent with the requirements set by the Task Force on Climate-related Financial Disclosures. The obligations on asset managers are due to come into force in early 2022 and have a greater focus on climate-related disclosures.

The Brazilian Central Bank will require large banks to report on climate-related transition and physical risks, and conduct scenario and stress testing at the portfolio level by July 2022.

transition from fossil fuels to renewable energy. We cover how this energy transformation is driving change across nearly all industry sectors, from semiconductors to finance to automotive on page 19. We also look at the concept of “ESG improvement” as a performance driver and how we gauge investments whose ESG profiles are improving but may not currently meet our highest standards.

## SUSTAINABLE MODEL PORTFOLIO: CURRENT POSITIONING

In 2021, our *Moving Forward* publication (available [here](#)) introduced readers to the sustainable model portfolio\* we have maintained for several years. This model is a starting point for the customized sustainable portfolios we build for clients.

## 2021 KEY CLIMATE DEVELOPMENTS

President Biden rejoined the Paris Agreement and announced a new target to achieve a 50–52% reduction in GHG pollution from 2005 levels by 2030. President Biden set a goal for 45% of all U.S. electricity to be generated from solar energy by 2050 (up from 3% currently).

In early 2021, the SEC hired its first Senior Policy Advisor for Climate and ESG, and set up a 22-person task force in its Enforcement Division. SEC Chair Gary Gensler also asked for the development of a “mandatory climate risk disclosure rule proposal” as part of U.S. corporations' financial disclosures.

COP26 led to an agreement from 197 nations to de-emphasize fossil fuels and a need to lend financial support to developing countries to adapt to climate change impacts. Over 100 countries, including the U.S., signed the Global Methane Pledge to reduce global methane emissions by 30% by 2030. Over 100 governments, cities, states and car companies have signed the Glasgow Declaration on Zero Emission Cars and Vans, aiming to end the sale of internal combustion engines by 2035 in leading markets and by 2040 globally.

The Infrastructure Investment and Jobs Act may be a tailwind for sustainable investors. For the first time, the federal government is placing a funding focus on climate. The bill includes more than \$200 billion in climate, energy and conservation provisions.

The U.S. proxy voting season had 26 climate proposals: 14 earned a majority, according to Morningstar. A group of 12 of the largest U.S. managers voted in favor of 42% of environmental and social proposals in 2021, compared with 38% in 2020.

Over the past year, we have made several shifts in response to changing market conditions. We want to ensure our clients are well-positioned for potential inflation, rising interest rates, cyclical rotation, uncertain economic growth and other scenarios. We are emphasizing diversification through a balance of value and growth equities and high-quality companies with strong cash flow and pricing power. We are also underweight developed international equities and reined in duration exposure within fixed income to help mitigate interest rate risk in

\*BLENDED BENCHMARK IS 70% MSCI ACWI; 25% BLOOMBERG U.S. AGGREGATE; 5% BOFA/MERRILL LYNCH T-BILL INDEX.

The Brown Advisory Sustainable Model is a hypothetical portfolio. Brown Advisory's model portfolio allocation is managed to match the allocation of the blended benchmark. The model portfolio performance shown is gross of account level fees but net of underlying manager fees, includes the reinvestment of dividends and is rebalanced at the manager's discretion. The portfolio includes private investments and would typically be suitable for a qualified purchaser tax-exempt client.

a potentially rising rate environment. Finally, we continue to build out our private market sustainable options for clients, with a specific focus on energy infrastructure, affordable housing (where we can access more consistent cash flows for clients) and our general ongoing search for top-quality ESG growth managers. Each of these moves may partly help offset volatility from inflation and reflect our expectation for a wide range of potential outcomes over the next 12–18 months.

Many of the sustainable managers we recommend to clients posted strong relative performance last year, even though most of them were underweight energy, commodities and financials companies—three sectors that performed well in 2021. Our overweight to U.S. small-cap has weighed on performance, with at least some of that underperformance during the period attributable to our investment managers' avoidance of areas such as “meme stocks” that produced outsized price gains during the year. Overall, the Sustainable model portfolio has outperformed its benchmark in nine of the past 12 quarters (since 2019) despite variable market conditions. Importantly, the model portfolio also exhibited strong downside capture during the market drawdown in early 2020 and strong upside capture during 2021, even during periods when economically sensitive or value-focused companies led performance.

We added several investment options for client portfolios in 2021, and our manager search focused on value and small- and mid-cap equities. We added a U.S. Large Value strategy through a firm that is majority female- and minority-owned, and that identifies businesses with revenue linkages to solving environmental and societal challenges. Another example is a U.S. ESG small- to mid-cap long-only equity fund whose team is 100% woman- and minority-owned. Internally, we launched several ESG equity strategies, including Sustainable Income and Sustainable Small-Cap Core.

## KEY RISKS/OPPORTUNITIES

We are in the midst of a challenging period on several societal levels. However, as long-term investors, we are quite optimistic about the potential we see in several areas of the sustainable investing universe. Two general opportunity areas seem especially compelling to us. The first is the multidecade transition from fossil fuels to renewables. The other is “dynamic ESG” investing that shifts the attention

from static “snapshot” metrics and focuses on whether and how quickly a company's ESG profile may be improving.

## THE GREAT TRANSITION

The move to a new, global low-carbon energy economy could be one of the biggest investment themes of our lifetimes. That massive transition process has already begun, from the lifetimes development of renewable electric infrastructure to the proliferation of electric vehicles (EVs).

The price of renewable energy has been declining sharply (please see Sharp Curve ahead on p. 25). The International Renewable Energy Agency reported that 62% of total renewable power generation added worldwide in 2020 had lower costs than the least expensive fossil fuel option. However, renewables still made up only 13% of U.S. energy consumption in 2020, according to the Energy Information Administration. Slower adoption is a consequence of newer renewable infrastructure, long-term purchase agreements and contracts with utility companies, as well as an underdeveloped method of storing and delivering renewable energy. We see a massive opportunity here for companies that can be a part of the solution, either by accelerating “new” energy solutions or mitigating carbon emissions.

Risk management and long-term planning will be keys to success for companies in the energy sector and for any companies in capital-intensive, higher-emissions industries. Many companies may need to rethink their capital investment thesis entirely to properly account for the true costs and benefits of green house gas (GHG) emissions. These firms will likely need to shift energy production, overhaul or replace existing infrastructure, review and modify supply chains, develop new internal skills and competencies, and manage new pollution sources, among other initiatives. These steps will require patience and discipline to navigate.

Several sectors have attracted our attention over the past year, with semiconductors and the automotive sector (each discussed below) being two notable examples. (The financial innovation occurring within clean tech financing is also important. We have previously discussed the rush of IPO and SPAC activity over the past few years; the clean tech space saw an especially large amount of SPAC offerings in 2020 and 2021. While there is understandable skepticism about the SPAC structure, we believe that the

proliferation of new equity offerings have made a lot more investors aware of the potential opportunities in clean tech.)

## SEMICONDUCTOR RISKS/OPPORTUNITIES

Efficiency is the “first fuel” of the sustainable global energy system, according to the International Energy Agency. The agency forecasts that efficiency will deliver more than 40% of the energy-related GHG emissions reductions over the next 20 years. Much of that energy reduction is coming from more energy-efficient semiconductors and artificial intelligence, which are helping to reduce power consumption ranging from massive data centers to tiny mobile devices.

Demand is therefore surging for chips and chipsets with a strong marriage of performance and energy consumption. These chips are a key component in many renewable energy technologies; a typical electric car may require as many as 2,000 chips—twice as many as a similar internal-combustion vehicle. (As noted previously, we are monitoring the semiconductor sector carefully due to near-term supply chain disruption concerns; specifically, increased demand for electric cars could place further pressure on chip prices and availability—a risk we are taking into account.)

However, semiconductor fabrication is water- and energy-intensive, and it creates a large carbon footprint. Nearly 20% of all global energy demand by 2030 will come from information and computing technology, and manufacturing will account for most of that energy and emissions budget, according to the October 2020 paper “Chasing Carbon: The Elusive Environmental Footprint of Computing,” by Udit Gupta. For many years, ESG strategies tended to eschew semiconductor names for these environmental reasons. However, more and more strategies are investing in companies embedded in desirable end markets, such as renewable energy, EV and data infrastructure. It is therefore becoming increasingly important for us to understand the full GHG equation for these products. This can include an understanding of emissions generated in manufacturing, emissions saved when deploying the product(s), accounting for emissions scopes 1–3 and seeking to ensure that the managers we recommend to clients exercise similar due diligence.

## AUTOMOTIVE RISKS/OPPORTUNITIES

The auto industry has broadly jumped into climate change adaptation with both feet. Many companies have announced plans to drastically increase their mix of electric and hybrid cars in the coming years. Recent high-profile

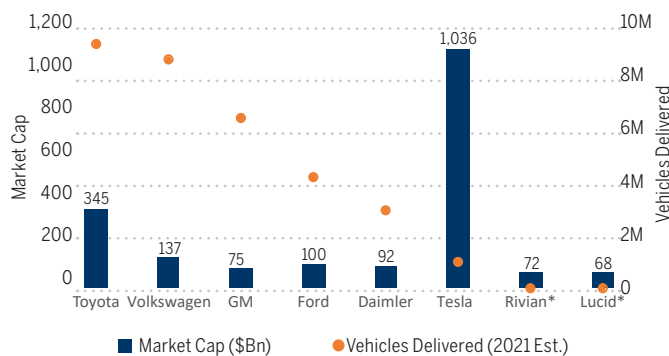
EV and hybrid product launches stretch across the entire vehicle spectrum, including utility, commercial, sedan, luxury, sport, trucks and SUVs.

At the 2021 United Nations Climate Change Conference, organizations, governments and auto manufacturers, in addition to companies managing auto fleets like Uber and LeasePlan, committed to transitioning to 100% zero-emission cars and vans by 2040. EVs make up approximately 3% of new U.S. car sales today (Tesla still holds a 55% market share of this segment), so the stage is set for a massive shift in production over the next 15–20 years. As we head into 2022, we estimate that there will be roughly 20 EV choices available from a wide range of companies, including BMW, Subaru, Volkswagen, Mercedes, Volvo, Tesla, Rivian and GM. We strongly believe we are about to see the largest shift in auto production since the rapid adoption of SUVs in the 1990s and perhaps the largest shift in the industry’s long history.

EV makers are still getting off the ground broadly. The sector’s actual car deliveries are quite low versus orders received. Most EV makers are not yet profitable, and some are not yet earning revenue. For example, Rivian announced 71,000 preorders for its R1T truck as of December. While that number is eye-catching, it has only produced 652 cars and delivered 386 to date. With \$1 million in revenue reported in the third quarter of 2021, the company raised \$12 billion in its IPO in November and was valued at more than \$93 billion at the end of 2021. That amounts to about \$240 million in market value for each vehicle the

### Charging into the Future

Investors are enthusiastic about the potential for EVs, as reflected in the lofty valuations placed on emerging electric automakers. However, there may be a disconnect between the high hopes for emerging players and the number of vehicles they have currently delivered. Many established players have their own EV efforts underway.



SOURCE: BLOOMBERG, BROWN ADVISORY ANALYSIS. AS OF 12/31/2021.



company has delivered and gives the company a roughly equal market capitalization to Ford or GM.

The risk of high volatility in the clean tech space and especially in EVs needs to be underscored. We already saw the clean tech sector broadly retrench in 2021 after a strong 2020. Now, many companies are priced to an extreme degree of optimism. For the right investor, prudent stakes in some of these names may still make sense. Our teams are uncovering plenty of EV-adjacent opportunities further down the supply chain that we believe offer attractive growth without the valuation risk carried by high-profile EV makers.

## OTHER 'LOW-CARBON' RISKS/OPPORTUNITIES

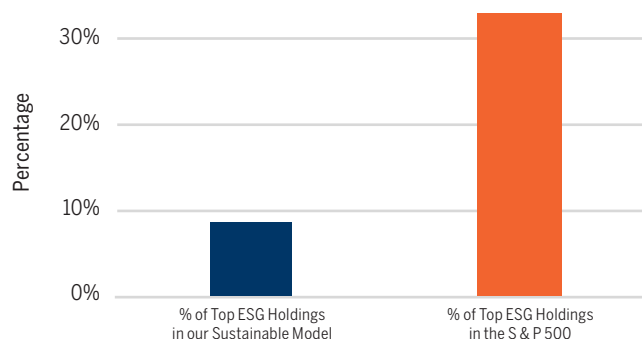
We believe it's clear there is a big opportunity within this "great transition." This includes both direct investments in renewable energy and indirect investments in technologies that enable new forms of energy to proliferate. Current companies held by our various managers are exploring a variety of innovative concepts. These include direct air capture that grabs carbon dioxide from the air and stores it underground using a mineralization process, higher-precision carbon measurement and emission control systems, and even new ideas to improve recycling and waste management.

Enphase Energy, a company held in our Sustainable model as of December 31, 2021, is a good example. 100% of its business comes from facilitating the transition to clean solar energy, and it is the dominant global provider of microinverters. (Microinverters are critical components in solar installation that allow the system to direct the flow of electricity from each solar panel independently. They can be installed quickly in the home or business and help enable on-site battery storage or selling electricity back to the grid.) Enphase is the clear market leader in this space, and it has repeatedly succeeded against well-funded competition since it shipped its first product in 2008. It is so highly regarded that lenders often require Enphase products be used in installations that they are financing; it is one of only a few companies to reach that level of acknowledgment in the industry.

We believe that the tech sector will play an especially important role in driving the innovation and the implementation at scale that society needs to tackle climate change globally. Because of the internet, modern technology solutions can often be scaled up and rolled out to customers much more rapidly than those in other sectors. For hardware-based businesses that still ship

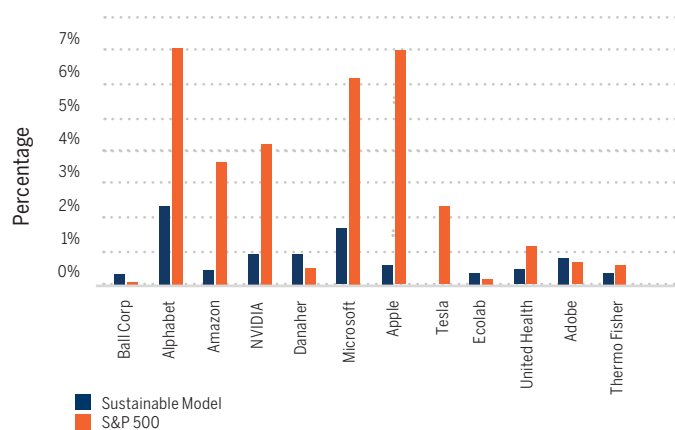
## Overexposed?

A group of stocks we dubbed the BANDMATES emerged as ESG darlings over recent years, and investors have been rewarded for backing them. But major indices, like the S&P 500 Index, have considerable exposure to these names, presenting potential concentration risks.



SOURCE: BLOOMBERG, BROWN ADVISORY ANALYSIS AS OF 1/14/2022

## % of Top ESG Holdings



SOURCE: BLOOMBERG, BROWN ADVISORY ANALYSIS AS OF 1/14/2022

physical products, even small changes in the efficacy of some products can have outsized impacts on global emissions.

## MOVING TO A BROADER ESG CONCEPT

For many years, investors have been rewarded with strong relative performance by investing in ESG "leaders." These are companies that have and continue to embrace a full array of sustainable business strategies and practices. Investors have often benefited, as these strategies have borne fruit in terms of tangible business improvement as well as benefits to brand and reputation.

In our *Moving Forward* publication last year, we discussed the "BANDMATE" ESG darlings (Ball, Alphabet, Nvidia, Danaher, Microsoft, Apple, Tesla, Ecolab), which generally have held the highest aggregate position weightings across leading ESG funds and strategies in recent years. (In 2021, UnitedHealthcare,

Thermo Fisher and Adobe started to reach similar levels of exposure across many ESG strategies.) They have seen so much recent success and become so popular among ESG investors that we regularly monitor our multi-asset portfolios to watch for unintended overweights that stem from multiple managers owning these same names. As shown above, our sustainable model's current exposure to these names is well below that of the S&P 500 Index.

ESG strategies have traditionally leaned into growth companies, which often have better ESG metrics than value or even “core” companies. This is partly due to sector dynamics. Technology or software companies as a group, for example, typically have less ESG risk than some value sectors such as energy or materials. So how can we evolve ESG practices such that we are able to consistently identify growth and value investments, and thereby increase our ability to generate consistent results throughout every stage of the market cycle? One critical answer is that we need to crack the code on ESG improvement—meaning, as an industry, we need to focus a bit less on static ESG metrics (i.e., what a company looks like today) and a bit more on dynamic ESG metrics (i.e., how a company is improving or not over time). Not only does such an

approach widen the universe of portfolio candidates, but it also lets us access more companies that are moving from a less desirable Point A to a more desirable Point B.

We should note that the topic of ESG improvement has been gaining traction in the ESG space for several years. It has been a particular focus of our fixed income teams—they have found that improvements in ESG metrics can often indicate or at least correlate with a corresponding improvement in general risk management and creditworthiness. Many industry participants such as investors, analysts and academics have been actively discussing the concept of “ESG improvers,” seeking to create a defined category and set clear criteria for what “improver” means.

As a closing thought, trying to “systematize” investment decisions by developing universal categories and pass/fail criteria generally serves as a distraction from the hard work of bottom-up, fundamental investing. The examples listed here are demonstrating improvements in their ESG metrics. However, the decisions to invest in them by our internal teams or our external managers are based on case-by-case, bottom-up assessments that evaluate a much wider array of fundamental, ESG and valuation information.

Our managers are finding plenty of compelling opportunities to invest in companies that are heading in the right ESG direction\*.

**Eversource**, for example, is a New England-based energy delivery company that has made progress on increasing energy efficiency, expanded its electric vehicle infrastructure and developed a pilot project in Massachusetts for a microgrid geothermal project. **Cummins** provides its customers with some of the most fuel-efficient engines available for heavy-duty trucks and power generation systems. It has solidified its leadership in low-emissions technology by investing nearly double that of its peer group on clean tech R&D. And **Deere**, a leader in agricultural equipment, has developed autonomous and GPS-controlled tractor systems that materially improve water and waste efficiency.

\*Illustrative examples of companies we believe to be improving along ESG criteria. Please see the end of this document for important disclosures.

## WHAT'S AHEAD

Looking forward, we expect that sustainable investing will continue to be more and more “mainstream” and part of the investment process for most fund managers. There has been a meaningful uptick in traditional managers seeking to incorporate sustainability into their investment process, and how these firms will track and manage these matters in the future. This quest for sustainable alpha is sought after by both long-only and hedge fund managers, many of whom have hired dedicated ESG analysts to scale this important part of their investment process. We anticipate continued advancement in the number of options available to investors, globally and by asset class, but also in thematic areas, such as energy infrastructure. At the forefront of our conversations today are diversity, equity and inclusion, and ESG disclosures. For many, these are top priorities for the companies and entities in which we invest. Lastly, a key consideration on our minds, is that ESG matters need to not only be understood as potential risk factors in a portfolio but also as a source of sustainable investment opportunity. As we have noted in the past, sustainable investing can enhance returns while driving better societal outcomes. We believe this combination of benefits offers a compelling value proposition to nearly any investor.

# VALUATIONS: A NEW EQUILIBRIUM?

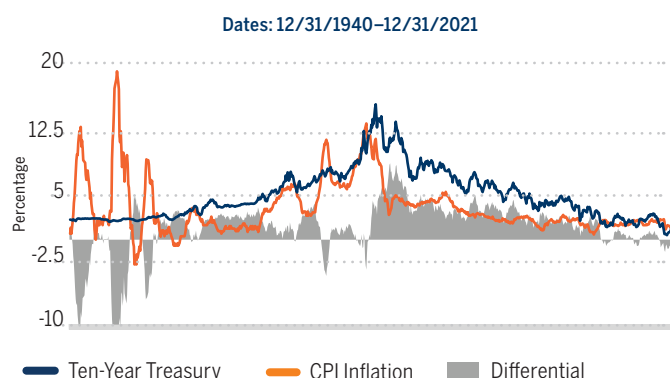
Over the last decade or so, an economic equilibrium has developed where low levels of inflation have supported low interest rates. Low interest rates, in turn, supported historically large fiscal deficits and debt levels in the developed world. This balance has lifted financial market valuations because it has grown the money supply for purchasing financial assets, and low interest rates have pushed investors into riskier assets to earn higher returns. As a result, valuations across a wide variety of asset classes are currently near historical extremes. Given these valuation dynamics, markets are at risk should this economic and market equilibrium break. We've got a lot riding on low interest rates.

## EQUILIBRIUM IN DANGER?

During the global financial crisis (GFC), policymakers used unprecedented levels of monetary and fiscal stimulus to address the crisis. There were significant concerns about inflationary consequences, particularly around quantitative easing, a relatively experimental program of central banks buying government bonds and other assets to boost prices and keep yields low. But inflation remained low thanks to disinflationary secular forces, such as globalization, innovation and slowing population growth. In fact, in the decade from 2010–2019, the U.S. Consumer Price Index (CPI) inflation averaged only 1.8%, the lowest rate since the Great Depression era of the 1930s. 2020 marked the 25th straight calendar year in which core CPI inflation was under 3%, an incredible period of stability in prices. Furthermore, U.S. inflation was actually higher than most other developed nations. Some policymakers in Japan and Europe took even more dramatic steps to spur inflation, which proved largely ineffective. All of this reinforced the sentiment that low inflation was ingrained in the global economy and it was part of the “new normal.” The combination of low inflation and the desire to spur economic activity after the GFC led interest rates to be held at extremely low levels. This provided important flexibility to policymakers given the ballooning levels of government debt. Large budget deficits since the GFC have caused sovereign debt loads to reach post-World War

## A Delicate Balance

Low inflation and interest rates have allowed governments to mount major responses to crises like the housing collapse and the COVID-19 pandemic. These forces have made the cost of servicing government debt manageable and allowed governments to greatly boost the money supply. This dynamic may have partially boosted asset valuations, but the equation could change amid inflationary pressures.



SOURCE: BLOOMBERG, BROWN ADVISORY ANALYSIS

II highs, but interest on this debt remains manageable due to low interest rates. This flexibility proved crucial with the onset of the pandemic, where governments needed to provide even greater levels of stimulus as the global economy stalled.

The stimulus added to the global economy during the pandemic has reached a level that seems to have broken this disinflationary trend. Government stimulus since March 2020 has led the money supply in major developed economies to grow by nearly \$10 trillion. This 22% growth is twice what was seen coming out of the financial crisis and equivalent to the prior five years of money growth combined. This level of global money supply growth is unprecedented in modern peacetime. Once these trillions of dollars combined with an influx of demand as pandemic-related restrictions eased, the result was a surge of inflation. In April 2021, U.S. core inflation (ex-energy and food) was nearly 1% in just one month, the highest monthly reading since 1980. Subsequent months have seen little deceleration. In the last 30 years, the four largest monthly increases in U.S. core CPI have were all in 2021 (April, May, June and October). This has brought



aggregate CPI inflation to 7.5% and core inflation to 6.0%, both of which are the highest rates seen in decades.

Adding fuel to the inflationary fire are the lingering supply-related challenges and surging demand for physical goods. At the onset of the global pandemic, producers aggressively cut costs due to the tremendous uncertainty posed by a global lockdown. This created a number of chokepoints. Companies ramping up production face logistical challenges at ports and railways, as well as shortages in inputs like semiconductors and labor. On the demand side, the fall in travel, leisure and services spending has resulted in consumers spending more of their increased savings on physical goods. What would previously have been services spending was often steered into items like Amazon purchases and Peloton deliveries. Consumer spending on goods has grown 25% since January 2020, while services spending has only grown by 4%. More goods traveling through clogged supply chains are fueling rising prices.

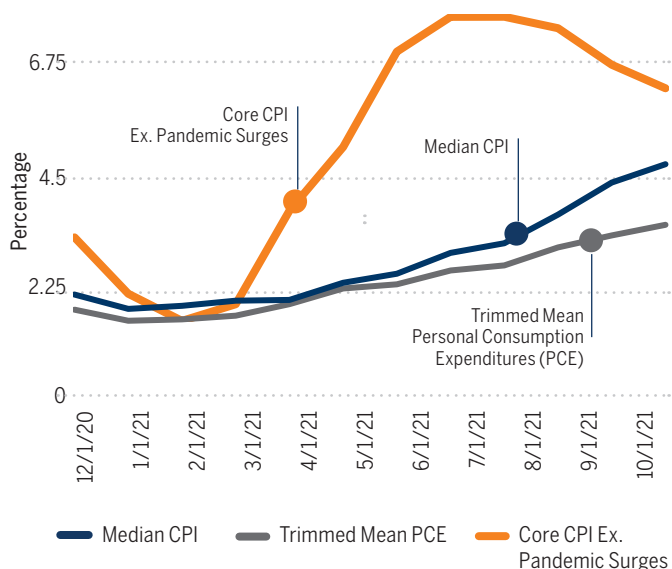
## INFLATION: PERSISTENT OR TRANSITORY?

For most of 2021, Federal Reserve Chair Jerome Powell stated that the elevated levels of inflation are likely to be “transitory.” This has been a major source of debate for economists and investors. Those making the transitory case expect supply chain challenges to ameliorate due to some combination of the shifting of spending from goods to services, depletion of excess consumer savings and corporate investment in solving the logistical challenges. Inflation has been particularly acute in a few segments of the economy where supply has been constrained or where demand spiked. For instance, inflation within goods has been over 9% over the last 12 months, while services, which make up two-thirds of the U.S. economy, has seen only 3.4%. The “persistent” case argues that these issues may take a long time to normalize. The pandemic is unlikely to dissipate quickly, and the labor market appears incredibly tight, with a fall in the number of workers. This is fueling wage inflation, which, in turn, can ignite a wage-price spiral.

The answer is likely a bit of both—some amount of inflation will be transitory, and some will be persistent. The current level of 5%+ inflation appears likely to fall in 2022 and 2023. Those segments seeing particularly acute inflation will likely revert to some extent as supply and demand correct some of their pandemic-driven mismatches. Additionally, stimulus will wane. Money supply growth has already slowed dramatically, and most central banks are moving toward tighter monetary policy.

## 'Transitory'... or Broadening?

Federal Reserve governors had famously anticipated that inflationary pressures may be “transitory” and due to lingering supply chain bottlenecks from the pandemic as demand ramped up. That interpretation has lost sway, however, as inflation may be more persistent and shows signs of broadening.



SOURCE: BLOOMBERG, BROWN ADVISORY ANALYSIS. DATES: AS OF 1/14/2022

All that being said, inflation also appears likely to remain elevated relative to pre-pandemic norms for some time. The fuel provided by the unprecedented size of stimulus will likely take significant time to wear off—U.S. households still have \$3 trillion of excess savings—and the tightness of the labor market indicates that wage inflation should remain strong for some time. Inflation expectations reflect our view that inflation is very likely to moderate but stay elevated for some time. CPI swaps indicate expectations for inflation to be 3–4% over the next two years and 2–3% for multiple years after that (compared to an average of 2% from 2001–2020).

While this market consensus seems in line with what we would consider to be the most likely outcome, the historically unique circumstances of the current environment create tremendous uncertainty in the outlook. Inflation is also a function not just of policy and interest rates but also consumer behavior, and this human element is impossible to predict. Investors therefore need to be prepared in case inflation is more elevated and more persistent. Increased investment in areas like real estate and infrastructure assets, as well as a balance between growth and value strategies within the stock market, may offer some protection from inflationary pressures.

# DOES LOW CARBON MEAN GREATER INFLATION?

A catchword has emerged, greenflation. Investors are grappling with whether or not moving to a more renewable future will be a driver of rising costs, and if green technologies and green materials could lead to sustained price increases throughout the supply chain. A more sustainable future may lead to inflationary pressures in the short term, but over the longer term, the growing reliance on renewable energy may become a deflationary force.

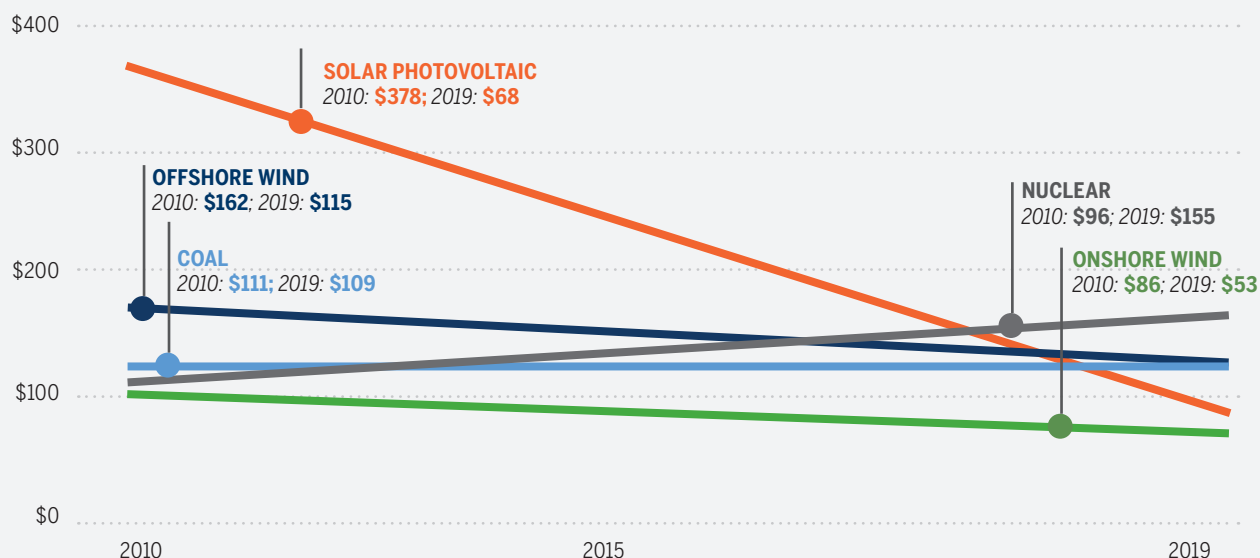
Highly unpredictable energy prices will probably carry on. The most commonly used forms of renewable energy, wind and solar are at the mercy of nature's power and are weather dependent. Raw materials in low-carbon technologies could see an upsurge as supply chains consist of minerals that still need to be mined and are now looking to be reused. Critical commodities used as components in renewable energy technologies have experienced outsized price increases over the course of 2021, with aluminum up 43% and copper up 29%, according to Bloomberg. The price of lithium (used in many battery technologies) leapt 440% in some markets. The surge in prices is driven

by an imbalance of supply, demand and production; a broad shift from coal; increase in electric vehicle demand by consumers and auto manufacturers; corporate and government commitments to reduce carbon emissions; and a stretched supply chain.

The underlying issues impacting pricing dynamics have not changed despite a focus on energy transition. Higher traditional energy prices may be exactly what are needed to increase innovation and continue to accelerate the energy transition. These higher prices may also make forms of renewable energy more attractive. The International Renewable Energy Agency reported that in 2020, more than 60% of all added renewable energy generation had a lower cost than the least expensive fossil fuel option. Technology innovation could help alleviate cost pressures and drive lower prices over time. From 2009 to 2019, the cost of electricity from new solar plants declined nearly 90% as new scalable technologies were introduced, according to Statista. The cost of electricity from wind has declined nearly 70%. During this time, coal pricing has been relatively unchanged, according to Bloomberg.

## Sharp Curve Ahead

Many renewable energy technologies are declining fairly rapidly down the cost curve as their scale and learning curve increase. This is helping drive a great transition away from traditional energy sources over the longer term but may be leading to greenflation more immediately as the demand for renewable energy inputs drives prices higher.



SOURCE: OUROWLDINDATA.ORG, STATISTA

\*GLOBAL WEIGHTED AVERAGE OF LEVELIZED COSTS OF ENERGY (LCOE, WITHOUT SUBSIDIES).

## LOFTY VALUATIONS

These inflation dynamics are playing out at a time when valuations across many financial markets are near historical extremes. Within the U.S., fixed income and equity market valuations are more expensive than they have been in 95% of periods in the last 50 years. With government bond yields at ultra-low levels, investors have been pushed out of the risk spectrum to generate returns. Put another way, it appears that low interest rates have made investors willing to accept lower future returns and pay higher prices for everything from stocks to real estate. Over the long term, interest rates and inflation have a strong relationship with valuations; for the S&P 500 Index, interest rates and inflation explain approximately two-thirds of the changes in long-term valuations. Transformative innovations, such as cloud computing and e-commerce, have disrupted a number of industries and garnered an outsized portion of the economic value created in the last decade. Therefore, margins have expanded, and earnings have grown meaningfully across many companies, benefiting shareholders.

1. These innovations appear to have a long runway for their economic impact, creating confidence for future growth. Additionally, these successes have fueled enthusiasm around other early-stage innovations in areas like electric vehicles, personalized

medicine and artificial intelligence. Confidence around future economic prospects has led investors to incorporate meaningful future growth into current valuations.

2. Low long-term interest rates have reduced the discount rate many investors use to value future earnings in the present day. We believe this disproportionately benefits companies with strong future earnings growth prospects and leads to higher valuations for those stocks.

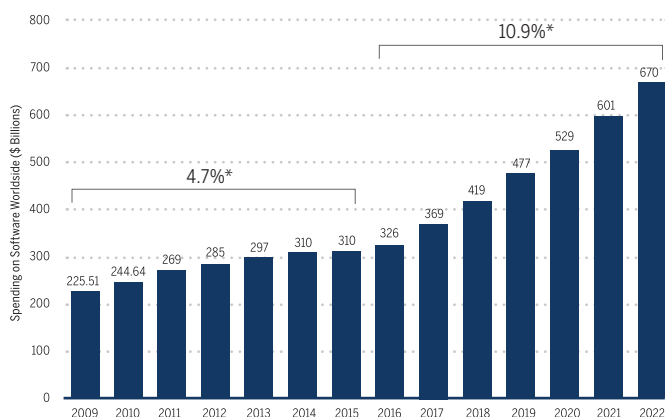
It is easy to draw parallels to the tech bubble of the early 2000s, and indeed, that is the last time broad valuations were as high as we see today. However, we do not see the same level of excess. Many tech giants, like Apple, Microsoft, Alphabet and Amazon, are far more stable and profitable businesses than the darlings of the tech bubble, even if others like Tesla are more reminiscent. But one important lesson from the unwind of the tech bubble in the early 2000s is that a period of falling market valuation can generate incredibly disparate experiences. From 2000 to 2003, while the Russell 1000 Growth Index fell by over 60%, other areas like small-cap value or dividend-paying stocks posted gains.

We believe that the key to navigating this enigmatic environment is focusing on balance and quality. This means trying to find companies with pricing power in the face of inflation, balance sheet strength to withstand rising interest rates, and quality of the business model and management team to navigate a highly uncertain environment. At the same time, these quality characteristics must be balanced with valuation to allow for long-term returns across a broad range of potential outcomes. Despite overall valuations being elevated, we see many opportunities that meet these criteria. In particular, we find these companies in the middle ground between hyper-growth stocks, which have seen strong returns during the pandemic, and deep cyclical stocks, which benefited tremendously during the reopening trade of early 2021. This middle ground is often particularly attractive in the higher-quality portions of unloved market segments, like emerging markets and small-caps.

Finally, portfolio balance is important. Given how consistent the winners of the last 10 years have been, with large-cap, growth-oriented and U.S. stocks all outperforming in the large majority of periods during the last decade, it is easy to view balance as a liability. But

## Software IS Eating the World!

This motto became a shorthand for the increasing importance of software to an increasingly technocentric world when venture capitalist Marc Andreessen coined it in 2011. Software spending has grown rapidly, especially over the last five years, lending credence to the prediction and playing a potential role in the strong productivity gains outlined earlier.



SOURCE: STATISTA  
AS OF 1/14/2022. 2022 ESTIMATE. \* CUMULATIVE AVERAGE GROWTH RATE (CAGR)



history clearly demonstrates that all cycles end, and the equilibrium that has helped these market segments thrive is more at risk today than it has been in many years. Trees don't grow to the sky, as they say. Ensuring portfolios are balanced today helps prepare them for whatever is to come next.

## LABOR MARKET CONUNDRUM

Since the beginning of 2020, the U.S. labor market has lost nearly 4 million jobs at a time when the population is growing. Yet, a record number of companies are saying that one of their greatest challenges is finding people to hire. Job openings relative to the size of the labor force hit an all-time record high in 2021. Labor shortages have exacerbated supply chain challenges and fueled wage inflation to be at a multidecade high. So how is this possible? A combination of factors is playing a role:

**1. Demographics:** The continued aging of the American population, combined with an influx of early retirements, delayed career starts and falling immigration—all likely fueled by the pandemic—have had a major impact. Among those between the ages of 25–54, labor force participation is at 79%, slightly above the 25-year average of 78%, while labor force participation overall is nearly 2% below its 25-year average (59% vs. 61%). A fall in younger

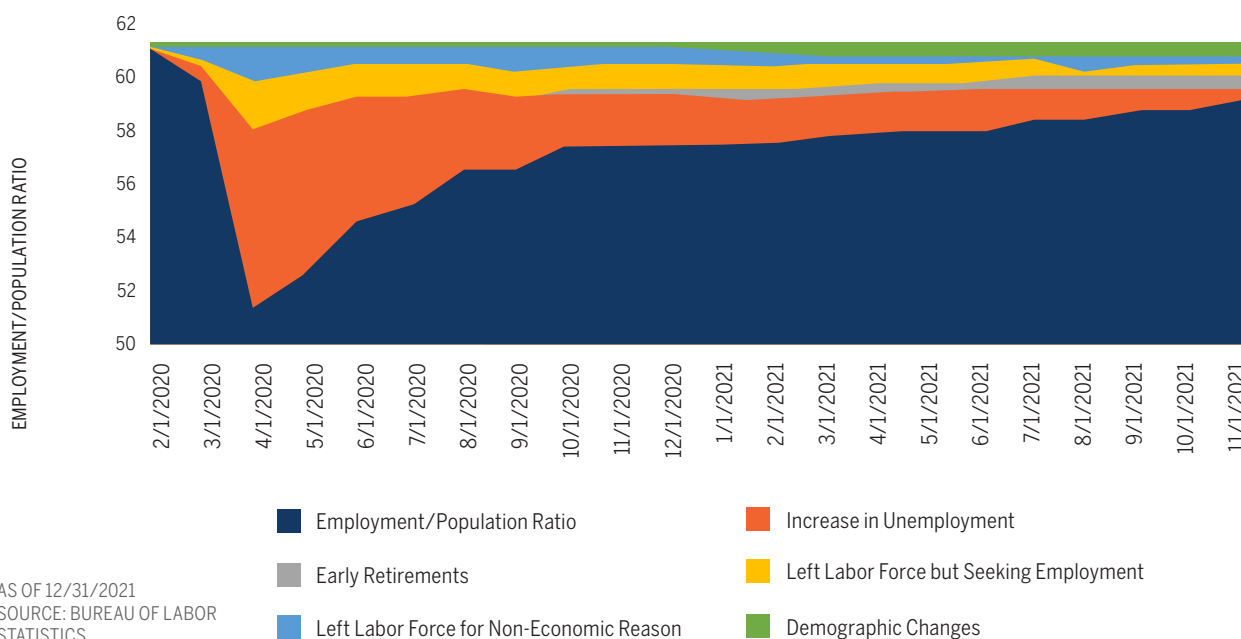
and highly experienced workers in the labor pool likely accounts for half of the labor market's decline.

**2. Skills mismatch:** The pandemic drove consumers to buy more goods and fewer services. This has created a skills mismatch between companies looking to hire and those looking for work. Ports, railroads and trucking companies have all commented on the impact of labor shortages.

**3. Excess savings:** Growing incomes due to stimulus measures and growing wages have allowed would-be workers to be more selective in the jobs they accept. Either because of increased savings or because another member of the household has seen a pay increase, there is evidence that some potential workers are not in a rush to rejoin the workforce.

How long will these shortages continue to constrain economic output? Given the evidence we have today, it appears that conditions will remain tight for some time, and many companies are looking for ways to cope with a smaller workforce in the meantime. Automation can be part of the solution, as can immigration to increase the labor force, but we believe companies will likely need to continue increasing wages and benefits to lure more Americans back to work.

### Breakdown of Changes to Employment/Population Ratio - Labor Market Has Recovered Most Jobs



# 2022

# ASSET ALLOCATION VIEWS

## Long-Term Outlook (Seven to 12 Years)

Our asset allocation stance is largely based on our long-term return and drawdown risk estimates across asset classes. For equities, the key inputs for our long-term return estimates are starting valuations, economic growth expectations (or potential GDP growth) and changes in interest rates, whereas for fixed income, the predominate indicator of return is starting yields (incorporating both base government bond yields and spreads) with some influence from the slope of the yield curve and anticipated changes in yields. Low bond yields, tightening credit spreads and elevated equity market valuations have caused most public market asset classes to have return expectations well below long-term norms. This has led us to increasingly look at private markets for diversifying return streams.

	Current Allocation <sup>^</sup>	Change from 2021 <sup>^</sup>
Cash	2%	-1%
IG Fixed Income	18%	-2%
High Yield	0%	-1%
U.S. Large-Cap	23%	-2%
U.S. Small-Cap	8%	-1%
European Equity	8%	1%
Japan Equity	1%	0%
Asian Equity	9%	0%
Hedged Strategies*	12%	-1%
Private Equity*	8%	1%
Real Estate*	7%	4%
Private Credit*	4%	2%

## Medium-Term Outlook (18 to 36 Months)

Economic fundamentals still appear strong after robust growth in 2021, with latent stimulus still helping economic momentums and the potential for the economy to further normalize in 2022, which could ease supply chain challenges. However, tremendous uncertainty still exists given the ongoing pandemic, elevated inflation, continued political and geopolitical tensions, and the pivot by central banks to tighten policy. It stems from the ongoing pandemic, the unintended consequences of unprecedented stimulus measures, and continued political and geopolitical tensions, among other factors. Therefore, we see a wide range of potential outcomes with reasonable probabilities—from a strong continued recovery to an overreaction by central banks, which causes a sharp slowdown in economic activity. This heightened uncertainty emphasizes the need for portfolio diversification, particularly in terms of inflation and interest rate risk. Some additional specific changes include:

- Bifurcating the bullish growth scenario to one in which inflation moderates as the pandemic eases and supply is able to catch up with demand and another where inflation proves more persistent.
- Two new bearish scenarios:
  - Economic momentum stalls as the continued appearance of new variants prevents a normalization and continues to complicate supply chain and labor challenges.
  - Central banks tighten policy as the impact of pandemic-related stimulus wanes, creating a sharp slowdown in the global economy.

<sup>^</sup>MODEL PORTFOLIO. SEE PAGE 15 FOR MORE DETAILS. THE ALLOCATION PRESENTED IS NOT THE ASSET ALLOCATION OF A PARTICULAR CLIENT. RECOMMENDATIONS MAY CHANGE DEPENDING ON RISK TOLERANCE, INVESTMENT OBJECTIVE AND ASSETS AVAILABLE FOR INVESTMENT. \*INVESTMENTS AVAILABLE FOR QUALIFIED PURCHASERS AND ACCREDITED INVESTORS ONLY. AS OF 12/31/2021. SOURCE: BROWN ADVISORY.

## CURRENT SCENARIO ANALYSIS (AS OF DECEMBER 31, 2021)\*

### Base-Case Scenario

#### Slow but Steady Return to Normal

After the sharp rebound in early 2021, progress becomes more subdued. Localized setbacks and continued challenges for disrupted sectors make for a more gradual growth in GDP. Elevated inflation slowly begins to moderate, allowing policymakers to be patient in tightening policy. Interest rates, including credit spreads, are range-bound at low/benign levels.

#### Most Likely Scenario

### Bull-Case Scenarios

#### Strong Recovery

The combination of massive fiscal and monetary stimulus and medical progress results in a strong recovery once the economic disruption is over. Interest rates rise but only modestly, as inflation remains reasonably subdued.

#### Moderate to Low Likelihood

#### Growth with Inflation

Stimulus measures create strong economic growth along with continued elevated levels of inflation. Central banks are slow to tighten policy, global economies prove able to cope with higher inflation and GDP growth remains robust.

#### Moderate to Low Likelihood

### Bear-Case Scenarios

#### Inflation Heat

Unprecedented monetary and fiscal stimulus combine with supply chain challenges to fuel rising prices. Central banks are slow to respond, at least at first, with supply chain challenges and pandemic uncertainties, constraining economic growth.

#### Moderate Likelihood

#### Strong Borders

The current health crisis further stokes nationalist sentiments, leading to protectionist policies and rising geopolitical tensions. Global trade suffers, damaging global economic growth.

#### Moderate to Low Likelihood

#### Stalled Recovery

Consistent appearances of new variants and the resulting restrictions stall the normalization of economic activity, creating a weak economic recovery and continued supply chain challenges.

#### Moderate to Low Likelihood

#### Monetary Overtightening

Elevated inflation leads monetary policymakers to tighten policy just as stimulus impacts are wearing off, leading to a sharp slowdown in economic activity.

#### Low Likelihood

\* This Scenario Analysis was prepared by Brown Advisory. Please see the end of this document for important disclosures.



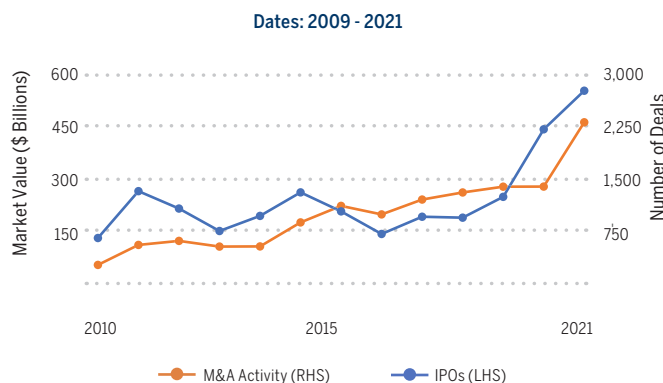
# THE POTENTIAL FOR PRIVATE MARKETS

Lower long-term return estimates in public markets stemming from high valuations and historically low interest rates present a conundrum for investors in traditional asset classes like public stocks and fixed income. We believe investors will increasingly need to trade “simplicity” and liquidity for “complexity” and illiquidity via alternative asset classes, such as hedge funds and private markets, to generate a similar level of returns. This dynamic has led us to increase our allocations to private equity, private credit and real estate, which we believe offer potentially higher returns in addition to higher alpha opportunity via manager selection. For many of our clients who rely on portfolios to meet spending needs, increasing allocations to private investments and other alternative asset classes has become a priority, especially as higher inflation threatens to erode the real purchasing power of portfolios today.

The broader investment industry has also leaned into the private markets, which have seen strong growth over the last 15 years. Pitchbook, a data analytics firm, estimates total U.S. private market AUM, which spans private equity, private credit and real estate, have grown from \$3 trillion in 2007 to \$10.5 trillion as of March 31, 2021, representing a 12.1% cumulative average growth range (CAGR) over that time period, far outpacing the growth in public markets.

## Exit Stage Right

IPO and M&A activity have been strong in recent years, providing exit opportunities and liquidity to private market investors.



SOURCE: BLOOMBERG, BROWN ADVISORY ANALYSIS

We anticipate investor appetite for private investments will remain strong in the coming years. IPOs and M&A activity jumped meaningfully in 2021, highlighting a robust environment for private investors to exit their investments. Blockbuster IPOs in 2021 include former unicorns such as Coinbase, Bumble and Rivian, and show how value creation has shifted from the public markets to private markets. For example, the market cap of tech stalwarts such as Amazon, Microsoft and Oracle at their IPO averaged ~\$533 million. The average market cap of a bucket of recent IPOs (Affirm, Bumble, Oscar, UiPath, Coinbase, Roblox and Robinhood) was \$34.2 billion (according to Bloomberg). Clearly, identifying and investing in next-generation companies while they are still private can lead to the potential for outsized returns unlike those seen in the past.

We believe that manager selection and access to invest with top-performing managers is especially important in private markets. Top managers in private markets often benefit from proprietary investment opportunities, are able to add operational value to companies and have reputations that reinforce these dynamics. For these reasons among others, upper-quartile managers have outperformed bottom-quartile managers by a wide margin, as shown in the chart on p. 31.

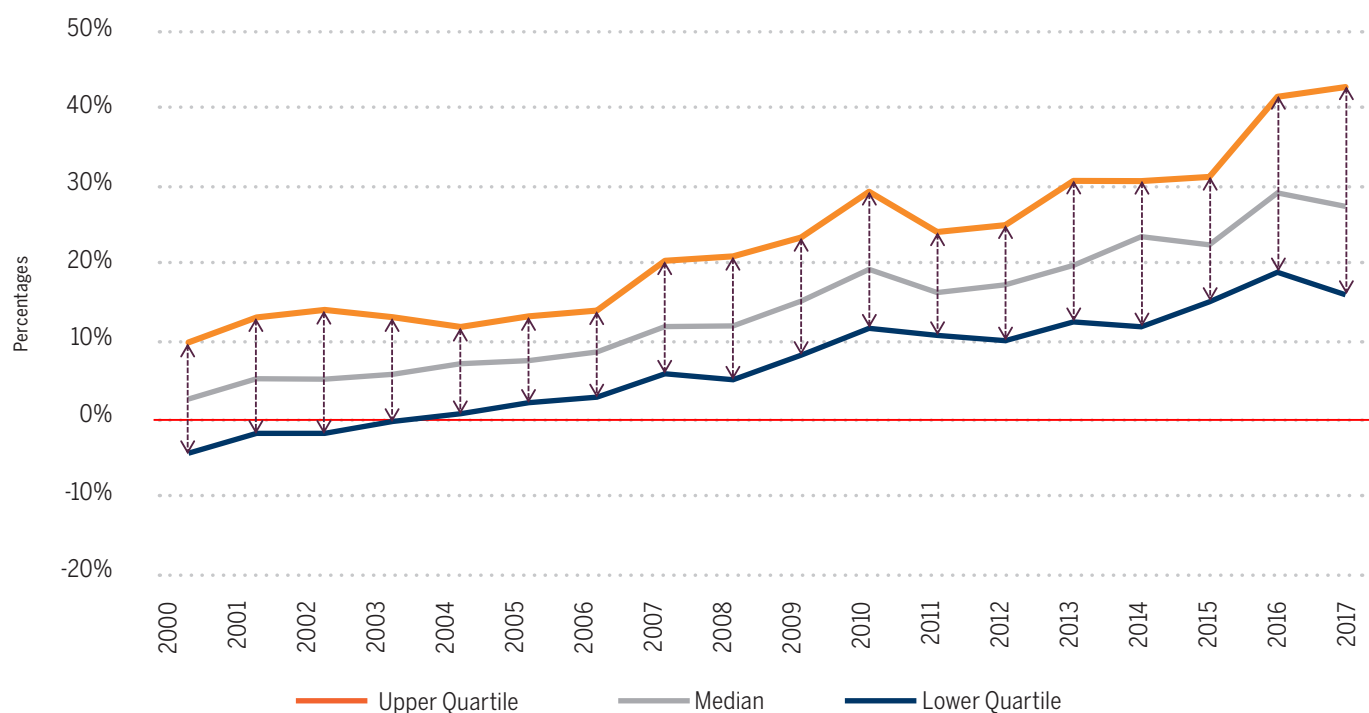
## RELATIONSHIPS MATTER

Brown Advisory traces its origins to the investment bank Alex. Brown, a preeminent growth investment bank responsible for taking companies like Microsoft, Qualcomm and Starbucks public. These decadeslong relationships with entrepreneurs and private market investors have been combined with a deep investment team, dedicated operational due diligence, legal resources, transparent pricing and specialized client service personnel to help make a complex process more streamlined. Our decades of experience in alternatives has fostered long-standing relationships with top-tier alternative investment managers and emerging managers that may be difficult to access and can help us achieve attractive results.

This approach has allowed some of our clients to meaningfully participate in the value creation shift to private markets. For example, we participated in seven out

## A Tale of Haves and Have Not

Access and manager selection are critical. The performance delta between top-quartile and bottom-quartile managers helps highlight the importance of access and manager selection.



SOURCE: CAMBRIDGE ASSOCIATES BENCHMARK DATA. THE CHART ABOVE SHOWS THE UPPER QUARTILE, MEDIAN AND LOWER QUARTILE RETURNS ACCORDING TO THE CAMBRIDGE ASSOCIATES U.S. VENTURE CAPITAL BENCHMARK FROM DECEMBER 31, 1999 THROUGH DECEMBER 31, 2017, WHICH REPRESENTS THE MOST RELEVANT RECENT DATA AVAILABLE. DUE TO THE ILLIQUID NATURE OF THE INVESTMENTS, MEANINGFUL PERFORMANCE DATA MAY TAKE SEVERAL YEARS TO MATERIALIZE. THE FUNDS NEED TIME TO DEPLOY CAPITAL AND FOR THE UNDERLYING INVESTMENTS TO REFLECT MEANINGFUL PERFORMANCE. TO ALLOW FOR THE MEANINGFUL PERFORMANCE TO MATERIALIZE, RETURNS ARE OFTEN REPORTED BY INDUSTRY ORGANIZATIONS WITH DELAYS. THE DATA IS NET OF THE FUND'S FEES BUT DOES NOT NECESSARILY INCLUDE ADDITIONAL ADMINISTRATIVE OR MANAGER FEES. THESE PERFORMANCE NUMBERS DO NOT INCLUDE BROWN ADVISORY MANAGEMENT OR ADVISORY FEES, WHICH FURTHER REDUCE AN INVESTORS' RETURNS. THE CAMBRIDGE ASSOCIATES U.S. PRIVATE EQUITY & VENTURE CAPITAL INDEX IS BASED ON DATA COMPILED FROM MORE THAN 3,200 INSTITUTIONAL-QUALITY VENTURE CAPITAL FUNDS AND IS AS OF JUNE 30, 2021 WHICH REPRESENTS THE MOST RECENT DATA AVAILABLE. BROWN ADVISORY DATA IS NOT REPRESENTED BY CAMBRIDGE ASSOCIATES BENCHMARK DATA. PLEASE SEE THE END OF THIS PRESENTATION FOR IMPORTANT DISCLOSURES.

of the largest 10 privately held companies (often through several investment vehicles), as shown in the chart on the next page.

Of course, we are cognizant of the risks present in private markets today. We highlight two in particular: the growth in capital and competition in private markets, and elevated valuations.

## GROWING COMPETITION AND CAPITAL

The growth in private market assets may prove to be both a blessing and a curse for investors going forward. For one, the growth of the industry has attracted more “nontraditional” players into the private market arena. The recent acquisition of Oak Hill Advisors, a private credit firm, by T. Rowe Price shows a new willingness for traditional asset managers to venture into the private markets. Even Vanguard, a firm built on the reputation of low-cost, passive index investing, entered the fray by offering larger clients private equity through a partnership with HarbourVest, a global private markets specialist with

over \$76 billion in AUM. The crossover extends beyond large asset managers like Vanguard and T. Rowe Price. Over the last few years, hedge fund managers have leaned into private equity as a way to drive alpha, with “hybrid funds” offering LPs a manager’s best thinking across both public and private markets.

This increasingly competitive environment is a positive for startups and entrepreneurs seeking to raise capital, which, by extension, fosters innovation and dynamism within the global economy. Consequently, more startups and newly formed companies offer more investable ideas in the private market space and the opportunity for skilled investors to back “the next big thing.” However, increased capital also means more money chasing a limited number of “high-quality” investments and deals. Managers must be more discerning about the quality and promise of the businesses they fund and the price they pay to participate in those deals. As more investors pour into private markets, the amount of “dry powder” or capital waiting to be invested has also increased to a record high ~\$3 trillion

(per Pitchbook). The need to put money to work on behalf of LPs has pushed valuations in the private markets higher, which brings us to our second notable risk on valuation.

## EXPANDED VALUATIONS

Similar to their public market counterparts, fast-growing private companies exposed to long-term secular growth themes have seen valuations expand thanks to the “goldilocks conditions” of modest growth and low inflation in the 2010s. Low interest rates may allow investors to discount distant future cash flows at lower rates, increasing the present value of companies. The disruption caused by COVID-19 has only boosted the prices investors are willing to pay, particularly for technology companies where growth accelerated due to the pandemic. Average entry valuations for both early- and later-stage venture-backed companies have risen 3–5x over the past five years, doubling in just the past year, according to Bloomberg. Some of this can be explained by accelerating growth, lower interest rates and the potential for larger investment outcomes, but some is certainly correlated to increased capital chasing deals.

While we still believe the long-term growth and opportunity set for many of these private companies are attractive, we also know these companies are trading at valuations that warrant some caution. Indeed, private companies are exposed to the same valuation risks that plague high-growth segments of public markets—mainly the risk of higher rates pushing down valuations. A paradigm shift to a higher-inflation, higher-interest-rate environment would likely pose a headwind to both valuations and returns for high-growth, high-multiple companies across public and private markets.

Given elevated valuations, manager selection becomes even more important, particularly in the private space, where capital is locked up for long periods of time. We’ve partnered with firms that we believe are mindful about the prices they are willing to pay and will be opportunistic if and when valuations become more attractive. Additionally, we continue to partner with and seek out managers who have a strong reputation among entrepreneurs, bring value to their portfolio companies, and that we believe will have access to interesting and compelling deals no matter the market environment.

## CB Insights: Top 10 Private Companies by Valuation



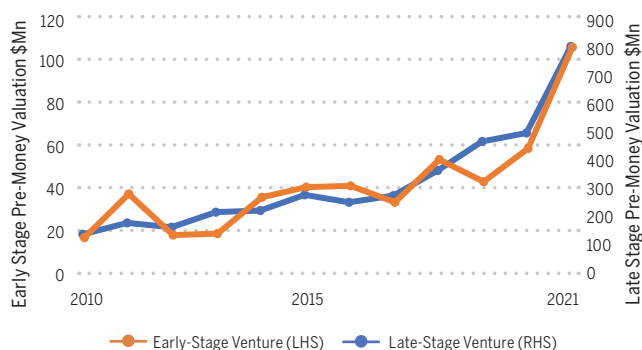
Company	Last Valuation	Notable Investors	Brown Advisory Exposure?
TikTok	\$140B	General Atlantic, Hillhouse, Sequoia, Softbank, Tiger Global	PEP IV
SpaceX	\$100B	Founders Fund, Alphabet, Fidelity, T. Rowe Price	PEP II
stripe	\$95B	Andreessen Horowitz, Founders Fund, General Catalyst, Tiger Global, Silver Lake	PEP II, PEP VII, PEP VIII, VCP 1
Klarna.	\$45B	DST Global, General Atlantic, IVP, Sequoia, QED, Dragoneer, Silver Lake	PEP VIII
Canva	\$40B	Blackbird Ventures, Bond Capital, Felicis Ventures, Sequoia, Dragoneer	--
instacart	\$39B	Andreessen Horowitz, Initialized Capital, Kleiner Perkins, Sequoia	PEP VII
databricks	\$38B	Andreessen Horowitz, NEA, Franklin Templeton	PEP I, PEP IV, PEP VII
Revolut	\$33B	Balderton Capital, Index Ventures, DST Global, TCV, Tiger Global	--
ny bank	\$30B	DST Global, Founders Fund, Kaszek, Sequoia, Tencent	PEP II
EPIC GAMES	\$29B	Kleiner Perkins, KKR, Lightspeed, Sony, Tencent	--

Denotes Brown Advisory Manager Relationship

Source: CB Insights as of November 1, 2021. Investments may be available for accredited investors and qualified purchasers only. Prior access to investment opportunities and co-investment opportunities may not exist in future funds. The information provided in this material is not intended to be and should not be considered to be a recommendation or suggestion to engage in or refrain from a particular course of action or to make or hold a particular investment or pursue a particular investment strategy, including whether or not to buy, sell, or hold any of the securities or funds mentioned. It should not be assumed that investments in such securities or funds have been or will be profitable. The companies and managers referenced herein are not affiliated with this fund and have not participated in the preparation of these materials. The use of the names and logos of these companies should not be construed as an endorsement by these companies. Please see the end of this presentation for important disclosures.

## Gold Rush

Strong innovation and an abundance of capital have contributed to sharply rising valuations for private companies across stages.



SOURCE: PITCHBOOK, BROWN ADVISORY ANALYSIS. AS OF 12/31/2021.

However, we are mindful of signs of excess in the private markets, such as the sharp rise in valuations, as shown in the chart above.

From a portfolio management standpoint, private investing requires careful planning due to the locked-up nature of these investments. Clients are committing to investments that can extend beyond 10 years from the initial commitment and will likely only receive cash back upon the sale of investments. Forced liquidations of a private investment may require the investor to sell at a steep discount on the secondary market. As a result, we must understand clients' ongoing operating cash needs and risk tolerance, and manage liquidity accordingly. For instance, a public market decline may lead to a smaller weight in public and liquid investments and, conversely, a disproportionately larger weight in private and illiquid investments and commitments, limiting portfolio flexibility during times of market stress. While we believe private investments are appropriate for long-term-oriented investors, we must emphasize the unique portfolio construction considerations that come with private market investments.

## OPPORTUNITIES IN PRIVATE EQUITY MARKETS

Acknowledging these risks and important portfolio considerations, we remain excited by the long-term opportunities in private markets. We believe that within private equity and venture, disruption across key long-term secular growth trends, such as cloud computing, e-commerce, fintech and biotechnology, and in emerging industries, such as blockchain, EV/climate transition and the metaverse, presents an attractive environment for entrepreneurs to create the next wave of startups and

private investment opportunities. We highlight some key industries to illustrate the long runway for opportunities in the private equity and venture space:

**Cloud computing:** Per Bloomberg analysis, the public cloud infrastructure-as-a-service market is expected to grow 27.3% per annum over the next three years, with the overall industry growing from \$67 billion in 2020 to \$230 billion by 2025. This presents a large addressable market in other silos of the cloud stack, including enterprise software-as-a-service and platforms-as-a-service. Subindustries, such as cybersecurity, machine learning/AI and application monitoring, should also grow in importance as enterprises switch to the public cloud.

**E-commerce:** While COVID-19 accelerated the shift of consumer spend from brick-and-mortar to online, e-commerce only represents 13% of overall retail sales in the U.S. according to the Census Bureau. As consumer habits shift online, players in e-commerce and adjacent industries, such as ad-tech, communications-as-a-service and logistics, still face a long runway for growth.

**Fintech:** Digital payments provide a secure and efficient way for customers and businesses to transact, especially as more activity shifts online. The rise of nascent industries, such as neobanks, could improve access to capital for traditionally underrepresented markets and customers.

**Biotechnology:** The rapid development of mRNA vaccines and other therapeutics during the pandemic highlighted the ability and potential for innovative and agile biotechnology companies to bring lifesaving drugs and treatments to market. Other promising and fast-evolving areas include biologics, biosimilars, gene editing and medical devices.

**ESG and energy transition:** Clean tech and EV-centric businesses have proliferated as support for achieving carbon neutrality by 2050 grows across governments and corporations. The runway for investment in key areas, such as EV charging infrastructure, battery storage and renewable energy, remains large as the world continues to lean away from fossil fuels.

**Cryptocurrency and blockchain:** Blockchain extends well beyond Bitcoin. The proliferation of new projects and use cases like decentralized finance, NFTs and decentralized exchanges underscores the rapid pace of innovation and change occurring in the space.

## REAL ESTATE AND PRIVATE CREDIT

Real estate and private credit play key roles in our private portfolios, and we've increased our allocations further throughout the year. Both asset classes offer diversification



benefits and higher potential income generation versus that of traditional fixed income. Similar to our approach to manager selection in private equity, we seek a balanced allocation to managers who provide core exposure to these asset classes with other managers who can be more opportunistic in niche parts of the market.

## REAL ESTATE

Real estate is particularly attractive given the macroeconomic backdrop and its potential to offer inflation protection. It may also benefit from fundamental tailwinds, such as a favorable supply/demand imbalance for multifamily homes and the most attractive historical valuations relative to interest rates that we've seen in decades.

As discussed previously, inflation is a key concern facing investors. Real estate has typically offered among the best protection from inflationary conditions of any asset class and has outperformed public equities and bonds in all but one inflationary period (the Savings and Loan Crisis in the late 1980s, which consisted of a commercial real estate depression).

According to estimates by the Harvard Joint Center for Housing Studies, the U.S. must add 1.5 million housing units (multi- and single-family) annually between 2018 and 2028 to meet demand. Despite recent increases to national supply, there is still a meaningful supply and demand imbalance. We believe this dynamic bodes well for long-term multifamily fundamentals.

Along with the multifamily supply and demand imbalance, we see several other market trends that we believe provide favorable investment backdrops to our areas of focus:

**E-commerce helps drive industrial:** Since 1999, e-commerce sales have grown at a 20% annualized rate as compared to just over 2% for offline retail, according to the Census Bureau. While e-commerce penetration has grown as a percentage of total U.S. retail sales, it still represents 14% of aggregate sales volume. This dynamic has spurred demand for more industrial and logistics space, resulting in strong levels of absorption, historically low vacancy rates and robust capital markets interest.

**Secondary markets can offer better value than primary markets:** Property prices in major markets have appreciated 48.4% from pre-global financial crisis highs, whereas property prices in nonmajor markets have appreciated by 34.5% over the same time frame, according to Bloomberg. This is despite a growing trend of migration away from the largest cities, which has accelerated during the pandemic with increased work from home as of the end of 2021, according to Bloomberg. Many nonmajor markets have experienced several years of strong population and job growth as people and companies have migrated to areas characterized by low taxes, low costs of living and pro-business environments, positioning high-growth secondary markets to potentially outperform primary markets.

**Opportunistic allocation to retail:** The well-publicized struggles of brick-and-mortar retailers have led to a limited new supply of retail real estate, a lack of investor interest and declining retail asset values. However, these negative impacts have been uneven across the U.S. retail landscape—indoor malls have struggled, while essential retail has thrived during the pandemic. These undercurrents may present opportunities for skilled investors to identify and acquire high-quality and potentially mispriced retail assets.

### Real Estate Performance during Inflationary Periods

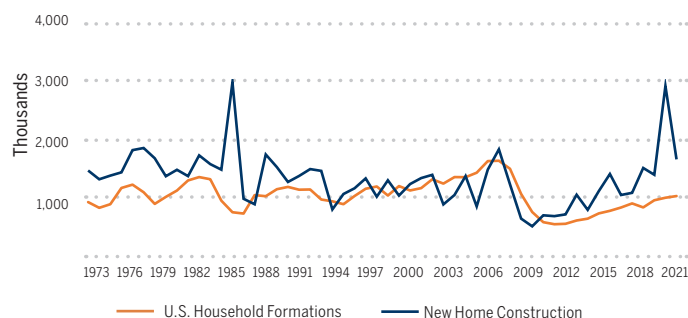
June 30, 1972, through September 30, 2011

Period	Trough CPI	Peak CPI	Real Estate CAGR	U.S. Stocks CAGR	U.S. Bonds CAGR
6/30/1972–3/31/1980	2.70	14.80	10.1%	3.9%	3.6%
12/31/1986–11/30/1990	1.10	6.30	0.3%	11.3%	8.2%
1/31/2002–7/31/2008	1.10	5.60	14.3%	3.7%	5.0%
7/31/2009–9/30/2011	-2.10	3.90	23.7%	8.7%	7.2%

SOURCE: BLOOMBERG. PERFORMANCE FOR REAL ESTATE IS FTSE NAREIT ALL EQUITY REIT INDEX, U.S. STOCKS IS S&P 500® INDEX AND U.S. BONDS IS 5-YEAR TREASURY (BEFORE 1973), BLOOMBERG GOVERNMENT/CREDIT INDEX (JANUARY 1973-DECEMBER 1975) AND BLOOMBERG U.S. AGGREGATE BOND INDEX (JANUARY 1976-PRESENT). DATA PRESENTED REPRESENTS THE MOST RECENT AVAILABLE. CPI REPRESENTS THE CONSUMER PRICE INDEX. INVESTMENTS MAY BE AVAILABLE FOR ACCREDITED INVESTORS AND QUALIFIED PURCHASERS ONLY. LATEST DATA AVAILABLE.

## House Rules

New household formation has far outpaced new home supply, creating a housing shortfall and leading to tailwinds for the sector.



SOURCE: BLOOMBERG, BROWN ADVISORY ANALYSIS. AS OF 12/31/2021.

Real estate also offers the most compelling valuations relative to fixed income in more than three decades.

Additionally, the ability to shield income by writing off property depreciation provides a useful tool for taxable investors.

Within real estate portfolios, we've emphasized multifamily and industrial properties, both of which should benefit from long-term trends such as the lack of housing supply in the U.S. and rapidly growing demand for e-commerce logistics. We've also leaned into retail opportunistically—COVID-19 offered compelling value opportunities within retail, and we've partnered with a real estate firm that specializes in the space in an effort to capitalize on these opportunities.

## PRIVATE CREDIT

Given still deeply negative real yields, the return prospects for traditional fixed income remain depressed relative to historical returns. This dynamic has forced us to look elsewhere for yield and income generation, and we've increasingly turned to private credit for diversification benefits and the opportunity for higher cash-on-cash yields. Our approach to private credit has been to allocate across three categories: core/core+, distressed and specialty finance. In our view, these three broad categories have the potential to provide clients with balanced exposure across private credit that can generate income, provide some ballast throughout the credit cycle, and offer alpha/upside potential through niche opportunities in distressed and specialty finance. Most of our allocations in private credit

are focused on senior debt tranches in smaller, middle-market companies. While leverage is employed in these strategies, most of our managers apply modest amounts of leverage with a focus on downside protection. Other areas of private credit where we've recently allocated include distressed debt and specialty finance. These areas tend to be the "alpha buckets" where we can partner with managers who opportunistically allocate capital in niche markets or during times of stress, providing further sources of diversification and yield.

## AREAS OF FUTURE OPPORTUNITIES

In 2021, we celebrated 10 years of our Private Equity Partners (PEP) program, which has provided clients access to high-quality private equity managers across venture, growth and buyout. The PEP program also shows Brown Advisory can be thoughtful in the way it approaches private investing. The subsequent rollout of programs such as Private Income Partners and Real Estate Partners over the last few years has expanded the private market toolkit for our clients. Looking ahead, we are excited by new investment opportunities via NextGen Venture Partners, the recently launched Anchor Network and future vintages of our flagship funds, all of which should help us serve our clients and accomplish their long-term goals.

Investment Type	NetTVPI	Net IRR
<b>Brown Advisory PEP Program</b>	<b>1.85x</b>	<b>27.3%</b>
S&P 500® Index PME	1.49x	16.7%
Russell 2000® Index PME	1.40x	14.0%
Russell 2000® Growth Index PME	1.43x	15.0%
Russell 3000® Index PME	1.49x	16.8%

NOTE: PERFORMANCE IS AS OF SEPTEMBER 30, 2021 UNLESS OTHERWISE STATED. THE BROWN ADVISORY PRIVATE EQUITY PARTNERS PERFORMANCE CALCULATIONS UTILIZE THE MOST RECENTLY AVAILABLE INFORMATION FROM UNDERLYING MANAGERS, INCLUDING SOME MANAGER-PROVIDED ESTIMATES WHERE STATEMENTS ARE NOT YET AVAILABLE. PERFORMANCE IS SHOWN NET OF MANAGER FEES, EXPENSES AND CARRIED INTEREST, AS WELL AS BROWN ADVISORY PARTNERSHIP FEES AND EXPENSES WHERE APPLICABLE, BUT ARE GROSS OF BROWN ADVISORY ACCOUNT-LEVEL FEES. FOR COMPARATIVE PURPOSES, INDEX RETURNS SHOWN ARE PUBLIC MARKET EQUIVALENTS (PME) BASED ON THE UNDERLYING CASH FLOWS OF THE BROWN ADVISORY PRIVATE EQUITY PARTNERS PORTFOLIO. THE DATA ABOVE ARE NOT INTENDED TO BE A REPRESENTATION OF EXPECTED RETURNS AND SHOULD NOT BE RELIED ON IN THIS CONTEXT. PAST PERFORMANCE IS NOT INDICATIVE OF FUTURE PERFORMANCE.

NET IRR: TAKES INTO ACCOUNT MANAGEMENT FEES, OTHER FEES, EXPENSES AND CARRIED INTEREST AT THE FUND LEVEL, AND BROWN ADVISORY EXPENSES AND ADMINISTRATION FEES AT THE VEHICLE LEVEL, BUT DOES NOT INCLUDE BROWN ADVISORY ACCOUNT-LEVEL FEES. NET TVPI IS CALCULATED BY DIVIDING TOTAL VALUE OF THE VEHICLE'S INVESTMENTS (DISTRIBUTED PROCEEDS PLUS THE ESTIMATED REMAINING VALUE OF UNREALIZED INVESTMENTS) BY AGGREGATE INVESTED CAPITAL. MULTIPLE TAKES INTO ACCOUNT THE UNDERLYING FUNDS' MANAGEMENT FEES, OTHER FEES, EXPENSES AND CARRIED INTEREST, AND THE APPLICABLE VEHICLE'S EXPENSES AND ADMINISTRATION FEES.

# CONCLUSION

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We are cautiously optimistic that we may be turning the page on the most severe aspects of the COVID-19 pandemic that has cast its shadow over the last two years. Global economies are likely to grapple with the upshots of the pandemic for years to come.

In the near term, supply chain disruptions and labor market anomalies are likely to remain important factors and create more uncertainty. Over the longer term, the unprecedented levels of peacetime spending undertaken by governments across the world to provide relief from the pandemic may challenge the viability of the low inflation and low interest rate equilibrium that has been a centerpiece in keeping asset valuations at historically elevated levels. The high valuations in public markets may imply lower returns, and we have increasingly started to look at private markets for diversifying return streams.

The last several years have been extraordinarily stressful for many. In this report, however, we highlighted some of the encouraging structural developments that have been taking place beneath the surface. One was the strong pace of technological innovation, as reflected in tangible metrics like resurgent labor productivity. A growing share of the value creation here may be taking place in private markets, a section we chose to highlight.

This report also incorporated our annual analysis of developments in sustainable investing, and this reflects the growing integration of sustainability to our overall investment thinking. Our discussion of the “great transition” is another reason to be hopeful. There will be bumps along the way as higher input costs result in greenflation, but technological innovation and a move along the learning curve are likely to result in not just cleaner but also cheaper energy at the end.

We believe a similar orientation toward the long term that accounts for bumps in the road in the interim will be rewarding for investors more broadly. We often state that success depends on consistent adherence to a long-term plan for each client through the highs and lows of market cycles. Along with macro factors, we strive to ensure that the managers we recommend to clients have the potential to serve as able stewards of their capital for many years to come.

We want to thank you for your ongoing confidence in Brown Advisory and welcome your questions and comments. We look forward to continuing the conversation in the year ahead.

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ESG considerations that are material will vary by investment style, sector/industry, market trends and client objectives. Certain of our strategies seek to identify companies that we believe may have desirable ESG outcomes, but investors may differ in their views of what constitutes positive or negative ESG outcomes. As a result, our strategies may invest in companies that do not reflect the beliefs and values of any particular investor. Certain of our strategies may also invest in companies that would otherwise be screened out of other ESG oriented portfolios. Security selection will be impacted by the combined focus on ESG assessments and forecasts of return and risk. Certain of our strategies intend to invest in companies with measurable ESG outcomes, as determined by Brown Advisory, and seek to screen out particular companies and industries. Brown Advisory relies on third parties to provide data and screening tools. There is no assurance that this information will be accurate or complete or that it will properly exclude all applicable securities. Investments selected using these tools may perform differently than as forecasted due to the factors incorporated into the screening process, changes from historical trends, and issues in the construction and implementation of the screens (including, but not limited to, software issues and other technological issues). There is no guarantee that Brown Advisory's use of these tools will result in effective investment decisions.

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Certain market and economic events having a positive impact on performance may not repeat themselves. No assurance can be given that any such opportunity's investment objectives will be achieved or that investors will receive a return of any of their capital.

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Prior access to investment opportunities is not an indication that these opportunities or similar opportunities will be available to investors. The selected investments listed herein do not represent all securities purchased, sold or recommend during this period.

The following indexes were used throughout this report to represent returns and characteristics of various asset classes and regions:

U.S. Equities: The **S&P 500® Index** represents the large-cap segment of the U.S. equity markets and consists of approximately 500 leading companies in leading industries of the U.S. economy. Criteria evaluated include: market capitalization, financial viability, liquidity, public float, sector representation, and corporate structure. An index constituent must also be considered a U.S. company. The **S&P SmallCap 600®** seeks to measure the small-cap segment of the U.S. equity market. The index is designed to track companies that meet specific inclusion criteria to ensure that they are liquid and financially viable. Standard & Poor's, S&P, and S&P 500 are registered trademarks of Standard & Poor's Financial Services LLC ("S&P"), a subsidiary of S&P Global Inc. **The Russell 2000® Index** is a market- capitalization weighted equity index that provides exposure to the small-cap segment of the U.S. stock market. It tracks the performance of the 2,000 smallest U.S.-traded stocks. **The Russell 1000® Growth Index** measures the performance of the large-cap growth segment of the U.S. equity universe. It includes those Russell 1000 Index companies with higher price-to-book ratios and higher forecasted growth values. **The Russell 1000® Value Index** measures the performance of the large-cap value segment of the U.S. equity universe. It includes those Russell 1000 Index companies with lower price-to-book ratios and lower forecasted growth values. **The Russell 2000® Value Index** measures the performance of small-cap value segment of the U.S. equity universe.. Russell Indexes are completely reconstituted annually. The **Russell 1000® Index** measures the performance of the large-cap segment of the US equity universe. It is a subset of the **Russell 3000® Index** and includes approximately 1,000 of the largest securities based on a combination of their market cap and current index membership. **The Russell 2500 Index** comprises approximately 2,500 of the smallest securities, based on a combination of their market cap and current index membership. **The Russell 1000 Financial Services Index** is a capitalization-weighted index of companies that provide financial services. The **FTSE Nareit U.S. Real Estate Index** Series tracks the performance of the U.S. REIT industry at both an industry-wide level and on a sector-by-sector basis. All Russell Indexes and Russell® are trademarks/service marks of the London Stock Exchange Group of companies. **The Renaissance IPO Index** is designed to hold a portfolio of the largest, most liquid, newly-listed U.S. IPOs. Each quarter when the Index is rebalanced, new IPOs are included and older constituents are removed. **The Consumer Price Index (CPI)** is a measure of the average change over time in the prices paid by urban consumers for a market basket of consumer goods and services. Indexes are available for the U.S. and various geographic areas. All rights in the FTSE Nareit U.S. Real Estate Index Series (the "Index") vest in FTSE and Nareit. "FTSE®" is a trademark of the LSE Group and is used by FTSE International Limited ("FTSE") under licence. "NAREIT®" is a trade mark of the Nareit.

Emerging market equities: **The MSCI Emerging Markets Index** captures large and mid cap representation across 25 Emerging Markets (EM) countries\*. With 1,422 constituents, the index covers approximately 85% of the free float-adjusted market capitalization in each country. The MSCI Emerging Markets Net Total Return (USD) Index tracks the performance of the MSCI Emerging Markets Index in U.S.-dollar terms. **The MSCI Japan® Index** is designed to measure the performance of the large- and mid-cap segments of the Japanese market. EAFE equities: **The MSCI EAFE Index** is designed to represent the performance of large- and mid-cap securities across developed markets in Europe, Australasia and the Far East, excluding the U.S. and Canada. **The MSCI EAFE Net Total Return (Local) Index** tracks the performance of the **MSCI EAFE Index** in local-currency terms. Asia ex-Japan equities: **The MSCI Asia ex Japan Index** captures large- and mid-cap representation across 2 of 3 developed market countries (excluding Japan) and 9 emerging markets countries in Asia. Global equities: **The MSCI All-Country World Index**, or "ACWI," captures large- and mid-cap representation across 23 developed and 26 emerging markets. The **MSCI AC ASEAN Index** captures large and mid cap representation across several 4 Emerging Markets countries\* and 1 Developed Market country. The **MSCI China A Inclusion Index** is designed to track the progressive partial inclusion of A shares in the MSCI Emerging Markets Index over time. **The MSCI Emerging Markets ex Asia Index** captures large and mid cap representation across 16 Emerging Markets (EM) countries. **The MSCI China Index** captures large and mid cap representation across China A shares, H shares, B shares, Red chips, P chips. The MSCI Emerging Markets ex Asia Index captures large and mid cap representation across several Emerging Markets (EM) countries. **The MSCI Europe Financials Index** captures large and mid cap representation across 15 Developed Markets (DM) countries in Europe. The MSCI India Index is designed to measure the performance of the large and mid cap segments of the Indian market. **The MSCI Korea Index** is designed to measure the performance of the large and mid cap segments of the South Korean market. **The MSCI Taiwan Index** is designed to measure the performance of the large and mid cap segments of the Taiwan market. All MSCI indexes and products are trademarks and service marks of MSCI or its subsidiaries. Morningstar, Inc., Morningstar, the Morningstar logo and Morningstar.com are registered trademarks of Morningstar, Inc.

The **Bloomberg Aggregate Bond Index** is an unmanaged, market-value weighted index composed of taxable U.S. investment grade, fixed rate bond market securities, including government, government agency, corporate, asset-backed and mortgage-backed securities between one and 10 years.

The **Bloomberg US Government/Credit Bond Index** is a broad-based flagship benchmark that measures the non-securitized component of the US Aggregate Index. The index includes investment grade, US dollar-denominated, fixed-rate treasuries, government-related and corporate securities.

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**Terms and definitions:** **Earnings Growth** refers to the growth rate of a company's net profit. **Price-Earnings Ratio (P/E Ratio)** is the ratio of the share of a company's stock compared to its per-share earnings. **Forward P/E Ratio** refers to the P/E ratio based on a company's estimated earnings over the pending one-year period. **Market Cap:** The market value of a publicly traded company's outstanding shares. This measure uses the S&P 500 Index's aggregate market capitalization (i.e. the sum of the index's constituents' market capitalization). **Price-to-book ratio:** Ratio of a share of a company's stock price compared to its per-share book value. **Cyclically adjusted P/E ratio:** The Cyclically Adjusted P/E Ratio (CAPE Ratio or Shiller Cyclical P/E) is a P/E ratio variant that uses a trailing, inflation-adjusted long-term average (typically 10 years) as its earnings figure Free cash-flow yield: **Cash-flow yield** is calculated as free cash flow divided by share price. Figure is calculated aggregating S&P 500 constituent data. Investment-grade bonds: