

The

RECESSION OBSESSION

Five key ideas to navigate a well-telegraphed downturn

A brightening picture

It's hard to miss the threats to the economy. In the United States, those include banking turmoil, tighter credit, diminished consumer savings, declining corporate profits and rising lay-offs.

Europe faces the specter of still-elevated inflation and war on its borders. China's recovery looks sustainable, but geopolitical risks persist.

We agree with most economists surveyed by Bloomberg as well as the Federal Reserve staff: A U.S. recession seems more likely than not by year-end.

Yet we think the long-term return outlook has brightened. So far this year, after a historically poor 2022 for both stocks and bonds, markets seem to agree.

A global multi-asset portfolio of 60% stocks and 40% bonds is up 6% year-to-date.¹ Despite the risks, we think diversified portfolios can continue to generate higher returns than either cash or inflation into 2024.

In our *Mid-Year Outlook*, we draw on client data to illustrate what representative samples of our clients are actually doing with their investments as a way to better understand both the wider market environment and our clients' individual choices.

Some of the findings surprised us. Others reassured us. We've learned a lot from this data, and we think you will, too.

On the following pages, we present five key ideas—a distillation of our best thinking—to help you navigate a well-telegraphed recession.

THE FIVE KEY IDEAS

Rebuild your You probably You may hold Know the risks—and Manage your equity portfolio stay too close to concentrated too much cash opportunitiesnow for the next home with your positions and not enough in regional U.S. bull market bonds banks and investments real estate pp. 9-10 pp. 11-12 pp. 3-5 pp. 6-8 pp. 13-15

1 FactSet. Data as of April 30, 2023.

INVESTMENT PRODUCTS: • NOT FDIC INSURED • NO BANK GUARANTEE • MAY LOSE VALUE

The views and strategies expressed herein are based on current conditions, subject to change and may not be suitable for all investors, and may differ from other JPMorgan Chase & Co. affiliates and employees. The views and strategies may not be appropriate for all investors. Investors should speak to their financial representatives before engaging in any investment product or strategy. This material should not be regarded as research or as a J.P. Morgan Research Report. **Outlooks and past performance are not reliable indicators of future results.** Please read additional regulatory status, disclosures, disclaimers, risks and other important information at the end of this material.



Our clients were right to sell stocks in 2022, as global equities lost almost 20%. But while stocks have rallied since last October, our clients have been net buyers of equities in just seven of the 30 weeks since the market bottomed. Around half of our clients now have a lower allocation to equities than they did a year ago.

The good news: We think the worst of the bear market in stocks is over. Recession or no recession, we don't think the market will revisit last October's lows (which are about 15% below current levels).

The bad news: It probably isn't a bull market yet, and we expect volatility through the second half of the year. But instead of continuing to reduce exposure, we think our clients should consider using the potential volatility to rebuild equity portfolios.



Source: J.P. Morgan Asset & Wealth Management. Data as of May 8, 2023. Market bottom is defined as October 17, 2022.

Here's why: **First**, the potential for corporate profit growth, the engine of equity returns, looks better than many realize. No, demand isn't booming, and profits and margins have both dropped slightly from all-time highs. But sales are resilient, transportation and energy costs are lower, the dollar is weaker (a boon for U.S. exporters), and finally, the scramble for workers is less frantic.

KEY IDEA 1

As a result, analysts' earnings expectations for the United States, Europe and China over the next 12 months have started to move higher.

Second, while many fixate on a coming recession for the broad economy, several industries have already experienced their own. Consider the following:

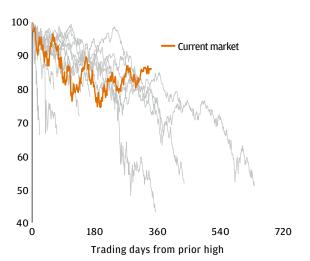
 The technology sector spent the bulk of 2022 retrenching, refocusing and right-sizing after a period of excessive optimism and investment.

- As lay-offs crested over the winter, the related stocks surged. Technology and communication services have since ranked as the two best-performing sectors in the S&P 500 this year.²
- Semiconductor stocks are outperforming after a disastrous 2022 on signs that an inventory glut is nearly gone, and as investors reach for potential beneficiaries of artificial intelligence.
- Homebuilder stocks dropped more than 40% in 2022 as mortgage rates soared from ~3.5% to over 7%.³ But now rates have stabilized against a limited supply backdrop, houses are selling, and some of the stocks are now making new all-time highs.

Portfolio positioning metrics further confirm our view that markets aren't likely to revisit last October's lows. Like our clients, most investors are underweight equities or are positioned for stocks to

WILL MARKETS REVISIT OCTOBER LOWS? THE 2022 BEAR MARKET IS PROBABLY OVER

S&P 500 bear markets dating back to 1950, 100 = prior peak



Source: Bloomberg Finance L.P. Data as of April 27, 2023.

ANALYST EARNINGS EXPECTATIONS ARE RISING IN THE UNITED STATES AND EUROPE

Analyst earnings estimates indexed to 2019



Dec '19 Jun '20 Dec '20 Jun '21 Dec '21 Jun '22 Dec '22

Sources: FactSet, MSCI, Standard & Poor's, J.P. Morgan Asset Management—*Guide to the Markets*. NTM EPS refers to analyst estimates for earnings over the next 12 months. Data as of April 2023.

- 2 Bloomberg Finance L.P. Data as of May 15, 2023.
- 3 Bloomberg Finance L.P. Data as of May 15, 2023.

Past performance is no guarantee of future results. It is not possible to invest directly in an index.

KEY IDEA 5



Markets dip when investors are fearful. That is often the time to pounce.

Still, unwelcome news could trigger sell-offs. Credit is harder to come by, U.S. regional banks aren't out of the woods yet, inflation has been sticky, and valuations leave little room for error. But we expect to view market sell-offs as potential buying opportunities.

In short, you can now build the equity portfolio you want to carry into and through the next bull market.

Beyond your core equity allocation that you hold as part of a multi-asset portfolio, we think you should consider mid- and small-cap companies to complement large-cap holdings, and focus on themes such as dividend growth, the energy transition and the next wave of digital innovation. Across sectors, we prefer healthcare and technology stocks.

Strategies such as hedge funds, structured notes or other hedged equity vehicles can help investors maintain their exposures while potentially generating income and mitigating downside risks. Private equity can continue to be an effective way to invest over multiple years.

The risks are real. They may well create choppy markets that will in turn provide a potential opportunity to deploy excess cash. Markets dip when investors are fearful. That is often the time to pounce.

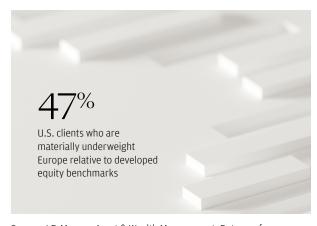
^{4 &}quot;Investors Most Pessimistic So Far This Year, BofA Survey Shows," BofA May Fund Manager Survey, Bank of America Global Research. Data as of May 16, 2023.



Over the last 10 years, the U.S. stock market has outperformed Europe by 90%-125% (depending on the reference currency), and China by a whopping 175%.

Perhaps because of this chronic underperformance, over two-thirds of our U.S. clients have no exposure to China at all, and around half of our U.S. clients are materially underweight Europe relative to developed equity benchmarks. Clients in Europe and Asia have a similar "home bias."

But holding that underweight could now act as a drag. Europe has outperformed the United States over the last 12 months, and although China has lagged, we see reason to believe the tide could be turning.



Source: J.P. Morgan Asset & Wealth Management. Data as of March 31, 2023. Clients referenced are domiciled in the United States.

Europe: Defying expectations, trading at a discount

After the euro area economy avoided recession this winter (defying many expectations), markets rallied, and many are now trading near all-time highs. We still see multiple reasons to be bullish on European equities. Among them:

- A wider-than-usual valuation discount to the United States
- Impressive resilience in the face of several external shocks
- Purchasing manager indices at their highest levels of the last year
- Lower energy prices, which help to ease the cost-of-living crunch
- The escape from negative interest rate policy, which hampered bank earnings for a decade

TIMELY INDICATORS OF EUROPEAN GROWTH ARE AT THEIR STRONGEST LEVELS OF THE LAST YEAR

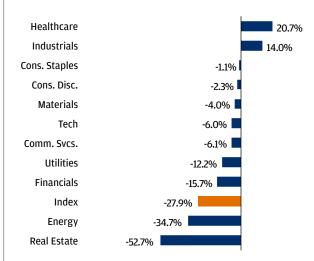
Euro area PMI, a level greater than 50 indicates expansion



Sources: S&P Global, Haver Analytics. Data as of April 30, 2023.

ALMOST EVERYTHING IS ON SALE: A WIDE RANGE OF EUROPEAN SECTORS TRADES AT A DISCOUNT TO U.S. PEERS

European sector discounts relative to their U.S. peers*



*Stoxx 600 sector NTM P/E relative to U.S. sector NTM P/E Source: Bloomberg Finance L.P. Data as of May 2, 2023.

We take a positive view of the market overall, but we think the so-called national champions are in a class of their own. These are European-based, multinational corporations with a powerful global presence. They could offer earnings power and a commitment to shareholder return.

As always, you'll want to consider the impact of currency in your international investments. Over the coming quarters, we expect the euro to strengthen relative to the dollar, which could further boost U.S. dollar-based returns. All else equal, that should make European equities more attractive to U.S. investors.

China: Economic reopening, supportive policy

We turn now to China, where the global equity investor's bias against Chinese assets has been especially strong. One year ago, China watchers debated whether the country was investable at all. It was then (at the right price), and it is now.

Valuations are reasonable, earnings are poised to grow at a mid-teens pace, and policymakers have moved in the direction of more market-friendly practices. New credit growth, an important sign of government support for the economy, is at its highest level since before the pandemic.

The economic boost from reopening has been mixed, but we still expect a durable recovery. First-quarter GDP data reported a rebound in consumption and services activity, with recent indicators on exports, retail sales and housing activity more mixed. However, we expect that

improving income growth and pent-up demand for activities that were restricted during COVID lockdowns will support further growth.

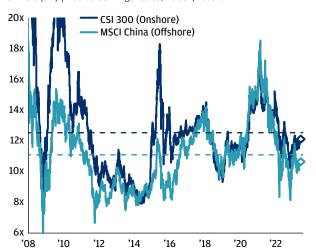
Of course, investing in China comes with greater risk than investing in many developed markets. But we think certain investors could reap a higher reward for taking that risk in the second half of the year.



We take a positive view of the European market overall, but we think the so-called national champions are in a class of their own.

CHINA EQUITY VALUATIONS LOOK REASONABLE, ESPECIALLY AS POLICYMAKERS MOVE TOWARD MORE MARKET FRIENDLY PRACTICES

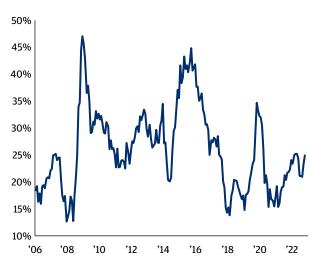
China equity price-to-earnings ratios, 2008-present



Source: Bloomberg Finance L.P. Data as of May 1, 2023.

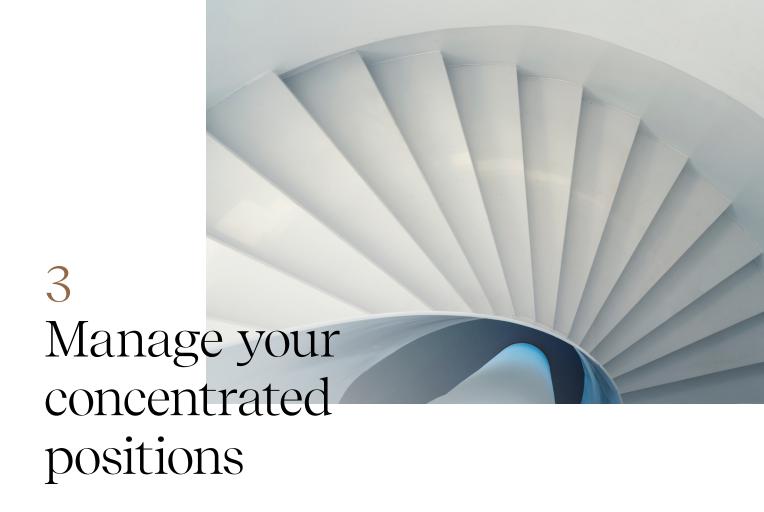
NEW CREDIT GROWTH IN CHINA SENDS A SIGNAL: THE GOVERNMENT SUPPORTS THE ECONOMY

Net new credit as a % of GDP, 6-month average



Sources: People's Bank of China, Haver Analytics. Data as of April 2023.

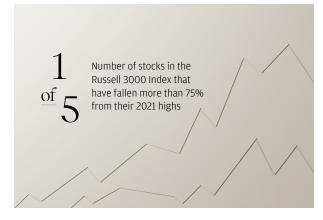
Past performance is no guarantee of future results. It is not possible to invest directly in an index.



A longstanding issue for many of our clients, as we have discussed over the years, is holding a concentrated position in a single stock or security. The recent bout of stock market volatility, capped off by regional bank failures, has made this type of investment a particularly pressing risk.

The Russell 3000 may be trading only 15% below its 2021 high, but one out of every five stocks in the index have fallen more than 75% from their 2021 peaks. Unexpected drops like that can devastate a family's financial plan. But even a relatively mild 30% decline can force difficult trade-offs.

To illustrate the potential risks of a concentrated stock position, we considered a family that holds 50% of their net worth in a concentrated stock position, 50% in a diversified portfolio, and sustains their spending with the primary earner's income.



Source: Bloomberg finance L.P. Data as of May 15, 2023.

They have just two goals:5

- To retire in five years
- To gift 10% of their net worth to the children Without a decline in value in the concentrated position, they have a high probability of achieving those goals. But after a 30% decline, their choices become harder. To maintain an adequate probability of success, they would have to either:

KEY IDEA 1

- Prioritize the gift to the children, but work for five years longer than planned; or
- Stay on track to retire, but forego the gift and reduce spending.

The problems tend to increase as goals multiply or become more ambitious, and as the degree of concentration builds. These situations can be intensely personal. Understanding what is important to your family and then determining how much of your concentrated position is required to achieve your goals are the first steps in developing a plan.

Every family may choose a different strategy. The most conservative prefer to design their portfolios and spending so that their goals would be unaffected if their entire concentrated positions evaporated. Others continue to carry their concentrated positions, but make contingency plans just in case.

The good news is there are many different strategies for dealing with concentrated positions that range from the most basic (e.g., writing covered call options, designing a target price selling strategy) to the more complex (e.g., principal installment stock monetization strategies, exchange funds). Current corporate insiders could consider 10b5-1 plans. Some clients find the most optimal strategy is to give the position away through gifts, trusts or charitable contributions.

No matter which strategy you ultimately decide to execute, if you have a concentrated position, you should consider the consequences if—for reasons outside of your control—the asset suffers a material loss.

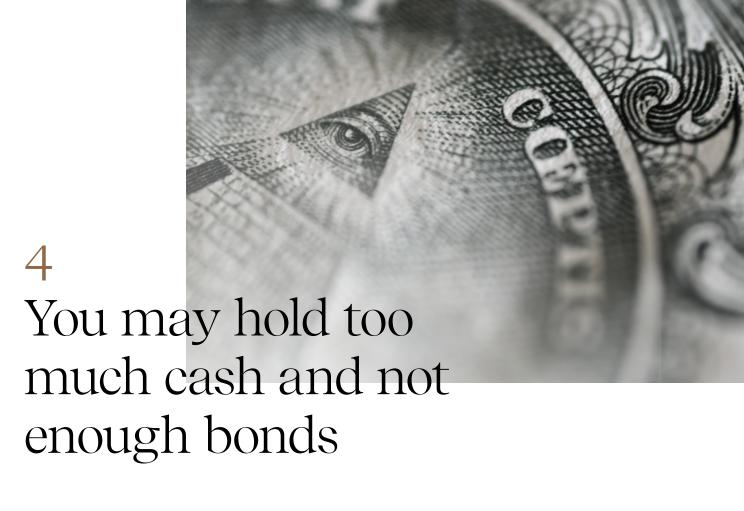


Problems tend to increase as goals multiply or become more ambitious, and as the degree of concentration builds.

⁵ Full details of analysis: Assumed a 57-year-old person had a current portfolio of \$25MM of diversified assets (60/40 portfolio) and \$17.5MM in a concentrated position (after a 30% drop in the position) with \$10MM cost basis. Included \$1.5MM/year of spending and current post-tax income of \$1.5MM/year (both grown at inflation of 2.6%). Goals were to retire at 62 and gift \$5MM to children. We believe an 80% probability of success based on 1,000 simulations of future returns is adequate for most families.

All case studies are shown for illustrative purposes only and are hypothetical. Any name referenced is fictional, and may not be representative of other individual experiences. **Information is not a guarantee of future results.**

Analysis, prior data, information, and statistics cited are not a guarantee of future results or events. The data referenced is for informational purposes only, and not based on actual client experience.



ash was a good place to hide in 2022. As central banks raised interest rates, money fund and Treasury bill yields rose significantly, while both stocks and bonds (as proxied by the flagship Barclays Aggregate Index) suffered their worst rout in history.

Our clients' allocations to cash in investment accounts, certificates of deposit and short-term fixed income (securities maturing in less than a year) have risen by over USD 150 billion over the last 12 months. That made sense during the fastest hiking cycle in 40 years. But now, we believe the cycle is complete. Over the next 12 months, the Federal Reserve might even decide to reduce rates. This can mean our clients may need to reinvest over USD 500 billion (between 25% and 30% of their investible assets) in what we think will likely be a lower rate environment.



Source: J.P. Morgan Asset & Wealth Management. Data as of Q1, 2023. Last 12 months represent data back to March 31, 2022.

While cash outpaced most other assets in 2022, it has underperformed global equities year-todate and is in line with core bonds. We expect its underperformance to continue for the rest of this year, into 2024 and beyond.

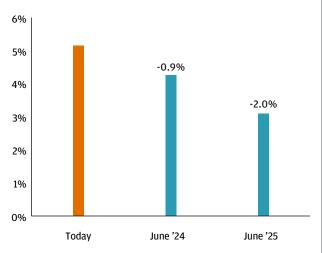
KEY IDEA 1

Over the long term, we think cash rates will possibly be close to the rate of inflation, which will likely run in the neighborhood of 2.5%, and we expect core investment grade bonds to return over 4.5% per year.6

In the near term, we think cash rates are close to their peak and investors can be better off locking in longer-term rates now instead of rolling into lower rates in the quarters ahead.

CASH INVESTORS MAY NOT BE PREPARED TO REINVEST IN A LOWER RATE ENVIRONMENT

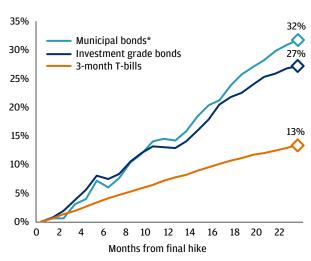
Current and market-implied, short-term fixed income yields



Source: Bloomberg Finance L.P. Data as of May 25, 2023.

FOR SEVEN STRAIGHT CYCLES, CASH HAS **UNDERPERFORMED BONDS IN THE TWO YEARS** AFTER THE FED'S LAST RAKE HIKE

Bond returns after the last rate hike



Source: Bloomberg Finance L.P. Data as of 2018. Includes seven hiking cycles: 1981, 1984, 1989, 1995, 2000, 2006 and 2018. *Tax-equivalent yield assumes a 40.8% tax rate. Municipal bonds shown using the Bloomberg Municipal Bond Total Return Index, and investment grade bonds by the Bloomberg U.S. Aggregate Index.

History isn't a perfect guide, but it helps illustrate what clients could forgo when they stay in cash instead of investing in core fixed income. Over the Fed's last seven hiking cycles, core fixed income has outperformed cash by an average 14% cumulatively in the two years following the final interest rate increase, and has never underperformed.

Finally, bonds once again are providing a stable source of income and the potential for portfolio protection in an economic downturn.

⁶ J.P. Morgan Asset Management, J.P. Morgan Private Bank. Data as of April 30, 2023. Past performance is no guarantee of future results. It is not possible to invest directly in an index.



Beyond the profound global tail risks (including war in Europe, energy shortages and tensions between the United States and China), we see two clear risks to the U.S. economy that could potentially cause or accelerate recession: stresses in the regional banks and commercial real estate. Both of those issues stem from the rapid increase in interest rates, and both are intertwined, given regional bank exposure to commercial real estate loans.

The acute phase of the regional banking crisis was characterized by deposit flight. We think the swift resolution of the failed banks and the de facto protection of all depositors have largely mitigated that risk.



Source: J.P. Morgan Asset & Wealth Management. Data as of April 30, 2023. Last 12 months represent data back to May 1, 2022.

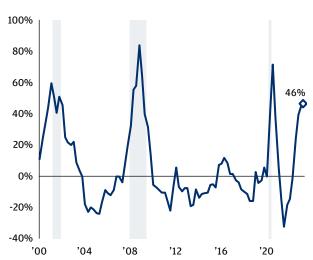
Regional banks appear to have escaped the worst-case scenario, but the sector still confronts many serious challenges. Deposits are still fleeing for higher-yielding options in money markets, and paying higher deposit rates would pinch net interest margins, a key indicator of a bank's profitability. In fact, data back to the 1980s shows that money market fund assets have grown by 20% after the Fed's last rate hike at the expense of deposits. Adding to regional bank stresses, a more onerous regulatory environment also seems likely.

KEY IDEA 1

Ultimately, we expect weakness in the sector until the Fed lowers interest rates. That will take pressure off deposit flight, and could help with the mark-to-market valuation of banks' loan books. Until then, expect a strenuous environment for regional banks.

AMID HIGHER RATES, BANK LOANS CAN BE HARDER TO COME BY

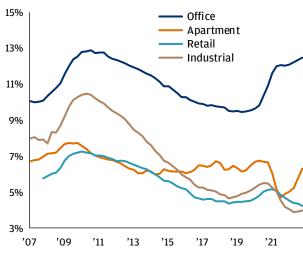
Net % tightening lending standards, 2000-present



Sources: Fed SLOOS, Bloomberg Finance L.P. Data as of April 30, 2023.

HYBRID WORK SCHEDULES DRIVE UP OFFICE VACANCY RATES. IS THERE AN END IN SIGHT?

Vacancy rates by real estate sector



Source: Costar. Data as of December 31, 2022.

Within commercial real estate, we are most negative on office buildings. Remote work is still 7x more common than it was before the pandemic,⁷ reducing demand, and valuations have already declined solely on the basis of higher interest rates.

U.S. regional banks look especially vulnerable because they also hold almost 4.5x more exposure to commercial real estate than large banks do,8 and if commercial real estate loans had to be marked to market, it could challenge the capital of many regional banks. This means that banks will likely pull back on their lending, which increases the risk of recession in the second half of the year.

In a sense, from the Fed's perspective, the pain is the point: Higher rates and tighter monetary policy deliberately aim to curtail economic activity enough to curb inflation. That process has begun and can likely continue.

⁷ IPUMS, WFH Research. Data as of April 30, 2023.

⁸ Bloomberg Finance L.P. Data as of April 30, 2023.

The investment implications are far-reaching. When interest rates rise, so too does the cost of capital, resulting in lower asset valuations and a higher hurdle rate for a profitable investment. Inherently leveraged entities such as banks and commercial real estate can be especially hard hit.

Invariably, risks can bring opportunities—if you know where to look. We think investors can uncover opportunities in two specific arenas: They can extend credit to high-quality borrowers who would traditionally borrow from a bank, and they can snap up distressed assets at a fraction of their intrinsic value.

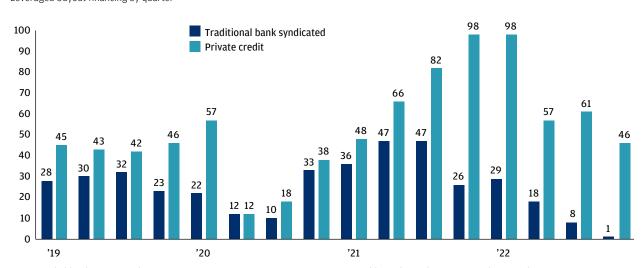


We think investors can uncover opportunities in two specific arenas.

On the first, private credit managers aim to extend at least some of the loans that banks once provided (for a price, of course). Today, base rates are higher and credit spreads are wider, and they may be able to reduce downside risk through lower loanto-value ratios. Similarly, distressed real estate funds with specialization in certain geographies or building types expect to sift through an interesting opportunity set in the second half of the year. An opportunity is also developing in venture capital and early-stage private equity, where fundraising has been dormant for much of the past year.

On balance, then, as we assess the threats from the turmoil in U.S. regional banking and commercial real estate, we can't and shouldn't ignore the pain. But there could be considerable promise, nonetheless.

PRIVATE CREDIT MARKETS CAN FILL A MARKET VOID-AND HIGH-QUALITY BORROWERS CAN BENEFIT Leveraged buyout financing by quarter



Sources: Pitchbook, LCD, Morningstar LSTSA U.S., J.P. Morgan Asset Management—Guide to Alternatives. Leveraged Loan Index. Data as of December 8, 2022.

At a moment of doubt,

WE SEE PROMISE

We understand why many investors doubt the recent rally. Inflation and interest rates are still high. Growth is slowing. Recession is coming.

Examining the same set of facts, we see promise. Investing is about building portfolios that can power through risks over the long term. While it may be too soon to say this is a new bull market, we don't think it's a bear market either. Equities can grind higher, bonds can provide stable returns, alternatives can access idiosyncratic opportunity. All can potentially outperform cash over the long run, recession or no recession.

OUR MISSION

The Global Investment Strategy Group provides industry-leading insights and investment advice to help our clients achieve their long-term goals. They draw on the extensive knowledge and experience of the Group's economists, investment strategists and asset-class strategists to provide a unique perspective across the global financial markets.

EXECUTIVE SPONSOR

Clay Erwin

Global Head of Investments Sales & Trading

GLOBAL INVESTMENT STRATEGY GROUP

Tom Kennedy

Chief Investment Strategist

Elyse Ausenbaugh

Global Investment Strategist

Christopher Baggini

Global Head of Equity Strategy

Nur Cristiani

Head of LatAm Investment Strategy

Kristin Kallergis Rowland

Global Head of Alternative Investments

Jacob Manoukian

Head of U.S. Investment Strategy

Grace Peters

Head of EMEA Investment Strategy

Xavier Vegas

Global Head of Credit Strategy

Alex Wolf

Head of Asia Investment Strategy

IMPORTANT INFORMATION

Definitions

The **MSCI World Index** is a free float-adjusted market capitalization weighted index that is designed to measure the equity market performance of developed markets. The index consists of 23 developed market country indexes.

The **Bloomberg Municipal Bond Total Return Index** includes approximately 40,000 bonds that are fixed-rate, tax-exempt and investment grade, are rated Baa or better, and have a year or more to maturity and outstanding par value of \$3 million or more.

The **Bloomberg Global Aggregate Index** provides a broad-based measure of the global investment grade fixed-rate debt markets. The Global Aggregate Index contains three major components: the U.S. Aggregate (USD 300MM), the Pan-European Aggregate (EUR 300MM), and the Asian-Pacific Aggregate Index (JPY 35B). In addition to securities from these three benchmarks (94.1% of the overall Global Aggregate market value as of December 31, 2009), the Global Aggregate Index includes Global Treasury, Eurodollar (USD 300MM), Euro-Yen (JPY 25B), Canadian (USD 300MM equivalent), and Investment Grade 144A (USD 300MM) indexeligible securities not already in the three regional aggregate indices. The Global Aggregate Index family includes a wide range of standard and customized subindices by liquidity constraint, sector, quality and maturity. A component of the Multiverse Index, the Global Aggregate Index was created in 1999, with index history backfilled to January 1, 1990. All indices are denominated in U.S. dollars.

The **MSCI USA Index** is designed to measure the performance of the large- and mid-cap segments of the U.S. market. With 627 constituents, the index covers approximately 85% of the free float-adjusted market capitalization in the United States.

The **MSCI Europe Index** represents the performance of largeand mid-cap equities across 15 developed countries in Europe.

The **MSCI China Index** captures large- and mid-cap representation across China A shares, H shares, B shares, Red chips, P chips and foreign listings (e.g., ADRs). With 717 constituents, the index covers about 85% of this China equity universe. Currently, the index includes Large Cap A and Mid Cap A shares represented at 20% of their free float-adjusted market capitalization.

Earnings per Share (EPS): The portion of a company's profit allocated to each outstanding share of common stock. Earnings per share serves as an indicator of a company's profitability.

Standard and Poor's 500 Index is a capitalization-weighted index of 500 stocks. The index is designed to measure performance of the broad domestic economy through changes in the aggregate market value of 500 stocks representing all major industries. The index was developed with a base level of 10 for the 1941-43 base period.

Standard and Poor's 500 Information Technology Index comprises those companies included in the S&P 500 that are classified as members of the GICS information technology sector.

The **MSCI Japan Index** is designed to measure the performance of the large- and mid-cap segments of the Japanese market. With 237 constituents, the index covers approximately 85% of the free float-adjusted market capitalization in Japan.

The MSCI Emerging Markets Index captures large- and mid-cap representation across 23 Emerging Markets (EM) countries. With 834 constituents, the index covers approximately 85% of the free float-adjusted market capitalization in each country. EM countries include: Brazil, Chile, China, Colombia, Czech Republic, Egypt, Greece, Hungary, India, Indonesia, Korea, Malaysia, Mexico, Peru, Philippines, Poland, Russia, Qatar, South Africa, Taiwan, Thailand, Turkey and United Arab Emirates.

PMI (Purchasing Managers' Index) is an indicator of the economic health of manufacturing sector.

STOXX Europe 600 Index (SXXP Index) is an index tracking 600 publicly traded companies based in one of 18 EU countries. The index includes small-cap, medium-cap and large-cap companies. The countries represented in the index are Austria, Belgium, Denmark, Finland, France, Germany, Greece, Holland, Iceland, Ireland, Italy, Luxembourg, Norway, Portugal, Spain, Sweden, Switzerland and the United Kingdom.

The **CSI 300** is a capitalization-weighted stock market index designed to replicate the performance of the top 300 stocks traded on the Shanghai Stock Exchange and the Shenzhen Stock Exchange. It has two sub-indexes: the CSI 100 Index and the CSI 200 Index. Over the years, it has been deemed the Chinese counterpart of the S&P 500 Index and a better gauge of the Chinese stock market than the more traditional SSE Composite Index.

The **Russell 3000 Index** is part of the FTSE Russell that provides exposure to the U.S. stock market. Its date of inception is January 1, 1984. The index measures the performance of the largest 3,000 U.S. companies representing approximately 96% of the investable U.S. equity market.

Key Risks

This material is for informational purposes only, and may inform you of certain products and services offered by private banking businesses, part of JPMorgan Chase & Co. ("JPM"). Products and services described, as well as associated fees, charges and interest rates, are subject to change in accordance with the applicable account agreements and may differ among geographic locations. Not all products and services are offered at all locations. If you are a person with a disability and need additional support accessing this material, please contact your J.P. Morgan team or email us at

<u>accessibility.support@jpmorgan.com</u> for assistance. **Please read all Important Information.**

Investing in fixed income products is subject to certain risks, including interest rate, credit, inflation, call, prepayment and reinvestment risk. Any fixed income security sold or redeemed prior to maturity may be subject to substantial gain or loss.

Diversification does not ensure a profit or protect against loss.

Bonds are subject to interest rate risk, credit and default risk of the issuer. Bond prices generally fall when interest rates rise.

Private equity is typically composed of Venture Capital, Leveraged Buyouts, Distressed Investments and Mezzanine Financing, which are all generally considered to be high risk, illiquid investments designed to deliver larger expected returns than publicly traded securities as compensation for their greater risk. As a result, investing in private equity is not suitable for all investors.

As a reminder, hedge funds (or funds of hedge funds) often engage in leveraging and other speculative investment practices that may increase the risk of investment loss. These investments can be highly illiquid, and are not required to provide periodic pricing or valuation information to investors, and may involve complex tax structures and delays in distributing important tax information. These investments are not subject to the same regulatory requirements as mutual funds, and often charge high fees. Further, any number of conflicts of interest may exist in the context of the management and/or operation of any such fund. For complete information, please refer to the applicable offering memorandum.

Investors should understand the potential tax liabilities surrounding a municipal bond purchase. Certain municipal bonds are federally taxed if the holder is subject to alternative minimum tax. Capital gains, if any, are federally taxable. The investor should note that the income from tax-free municipal bond funds may be subject to state and local taxation and the Alternative Minimum Tax (AMT).

Small capitalization companies typically carry more risk than wellestablished "blue-chip" companies since smaller companies can carry a higher degree of market volatility than most large-cap and/or blue-chip companies.

Holders of foreign securities can be subject to foreign exchange risk, exchange-rate risk and currency risk, as exchange rates fluctuate between an investment's foreign currency and the investment holder's domestic currency. Conversely, it is possible to benefit from favorable foreign exchange fluctuations.

Private investments are subject to special risks. Individuals must meet specific suitability standards before investing. This information does not constitute an offer to sell or a solicitation of an offer to buy. As a reminder, hedge funds (or funds of hedge funds), private equity funds, real estate funds often engage

in leveraging and other speculative investment practices that may increase the risk of investment loss. These investments can be highly illiquid, and are not required to provide periodic pricing or valuation information to investors, and may involve complex tax structures and delays in distributing important tax information. These investments are not subject to the same regulatory requirements as mutual funds; and often charge high fees. Further, any number of conflicts of interest may exist in the context of the management and/or operation of any such fund. For complete information, please refer to the applicable offering memorandum. Securities are made available through J.P. Morgan Securities LLC, Member FINRA, and SIPC, and its broker-dealer affiliates.

The macroeconomic and portfolio construction views expressed in this report include aggregated and anonymized selections of J.P. Morgan data from the Global Private Bank, J.P. Morgan Advisors and Chase Wealth Management, and should be considered in the context of other economic indicators and publicly available information. The data used is not comprehensive. Unless otherwise stated, the data is pulled starting as of March 2022. All cited prior data, information and/or statistics are not a guarantee of future results or events. The data referenced is for informational purposes only, and not intended as personal advice or an offer, solicitation for the purchase of JPMorgan Chase & Co. ("J.P. Morgan") stock, any other security, financial instrument, product, strategy or service. Opinions, estimates, forecasts, and statements of financial market trends are subject to change without notice, and may differ from other J.P. Morgan's affiliates and employees.

Not all option strategies are suitable for all investors. Certain strategies may expose investors to significant potential risks and losses. For additional risk information, please request a copy of "Characteristics and Risks of Standardized Options." We advise investors to consult their tax advisors and legal counsel about the tax implications of these strategies. Investors are urged to carefully consider whether options or option-related products or strategies are suitable for their needs.

Structured products involve derivatives and risks that may not be suitable for all investors. The most common risks include, but are not limited to, risk of adverse or unanticipated market developments, issuer credit quality risk, risk of lack of uniform standard pricing, risk of adverse events involving any underlying reference obligations, risk of high volatility, risk of illiquidity/ little to no secondary market, and conflicts of interest. Before investing in a structured product, investors should review the accompanying offering document, prospectus or prospectus supplement to understand the actual terms and key risks associated with the each individual structured product. Any payments on a structured product are subject to the credit risk of the issuer and/or guarantor. Investors may lose their entire investment, i.e., incur an unlimited loss.

The risks listed above are not complete. For a more comprehensive list of the risks involved with this particular product, please speak to your J.P. Morgan team.

Exchange Fund: There is no guarantee that at the end of the fund's life cycle it will have outperformed the single stock originally contributedby an investor. These funds are relatively illiquid and require a long-term hold in order to achieve their tax benefits. It is important to note that an exchange fund is a tax-deferral mechanism, not a tax elimination mechanism.

General Risks & Considerations

Any views, strategies or products discussed in this material may not be appropriate for all individuals and are subject to risks. Investors may get back less than they invested, and past performance is not a reliable indicator of future results. Asset allocation/diversification does not guarantee a profit or protect against loss. Nothing in this material should be relied upon in isolation for the purpose of making an investment decision. You are urged to consider carefully whether the services, products, asset classes (e.g., equities, fixed income, alternative investments, commodities, etc.) or strategies discussed are suitable to your needs. You must also consider the objectives, risks, charges, and expenses associated with an investment service, product or strategy prior to making an investment decision. For this and more complete information, including discussion of your goals/ situation, contact your J.P. Morgan team.

Non-Reliance

Certain information contained in this material is believed to be reliable; however, JPM does not represent or warrant its accuracy. reliability or completeness, or accept any liability for any loss or damage (whether direct or indirect) arising out of the use of all or any part of this material. No representation or warranty should be made with regard to any computations, graphs, tables, diagrams or commentary in this material, which are provided for illustration/ reference purposes only. The views, opinions, estimates and strategies expressed in this material constitute our judgment based on current market conditions and are subject to change without notice. JPM assumes no duty to update any information in this material in the event that such information changes. Views, opinions, estimates and strategies expressed herein may differ from those expressed by other areas of JPM, views expressed for other purposes or in other contexts, and this material should not be regarded as a research report. Any projected results and risks are based solely on hypothetical examples cited, and actual results and risks will vary depending on specific circumstances. Forward-looking statements should not be considered as guarantees or predictions of future events.

Nothing in this document shall be construed as giving rise to any duty of care owed to, or advisory relationship with, you or any third party. Nothing in this document shall be regarded as an offer, solicitation, recommendation or advice (whether financial,

accounting, legal, tax or other) given by J.P. Morgan and/or its officers or employees, irrespective of whether or not such communication was given at your request. J.P. Morgan and its affiliates and employees do not provide tax, legal or accounting advice. You should consult your own tax, legal and accounting advisors before engaging in any financial transactions.

IMPORTANT INFORMATION ABOUT YOUR INVESTMENTS AND POTENTIAL CONFLICTS OF INTEREST

Conflicts of interest will arise whenever JPMorgan Chase Bank, N.A. or any of its affiliates (together, "J.P. Morgan") have an actual or perceived economic or other incentive in its management of our clients' portfolios to act in a way that benefits J.P. Morgan. Conflicts will result, for example (to the extent the following activities are permitted in your account): (1) when J.P. Morgan invests in an investment product, such as a mutual fund, structured product, separately managed account or hedge fund issued or managed by JPMorgan Chase Bank, N.A. or an affiliate, such as J.P. Morgan Investment Management Inc.; (2) when a J.P. Morgan entity obtains services, including trade execution and trade clearing, from an affiliate; (3) when J.P. Morgan receives payment as a result of purchasing an investment product for a client's account; or (4) when J.P. Morgan receives payment for providing services (including shareholder servicing, recordkeeping or custody) with respect to investment products purchased for a client's portfolio. Other conflicts will result because of relationships that J.P. Morgan has with other clients or when J.P. Morgan acts for its own account.

Investment strategies are selected from both J.P. Morgan and third-party asset managers and are subject to a review process by our manager research teams. From this pool of strategies, our portfolio construction teams select those strategies we believe fit our asset allocation goals and forward-looking views in order to meet the portfolio's investment objective.

As a general matter, we prefer J.P. Morgan managed strategies. We expect the proportion of J.P. Morgan managed strategies will be high (in fact, up to 100 percent) in strategies such as, for example, cash and high-quality fixed income, subject to applicable law and any account-specific considerations.

While our internally managed strategies generally align well with our forward-looking views, and we are familiar with the investment processes as well as the risk and compliance philosophy of the firm, it is important to note that J.P. Morgan receives more overall fees when internally managed strategies are included. We offer the option of choosing to exclude J.P. Morgan managed strategies (other than cash and liquidity products) in certain portfolios.

Legal Entity, Brand & Regulatory Information

In the **United States**, bank deposit accounts and related services, such as checking, savings and bank lending, are offered by **JPMorgan Chase Bank, N.A.** Member FDIC.

JPMorgan Chase Bank, N.A. and its affiliates (collectively "JPMCB") offer investment products, which may include bank-managed investment accounts and custody, as part of its trust and fiduciary services. Other investment products and services, such as brokerage and advisory accounts, are offered through J.P. Morgan Securities LLC ("JPMS"), a member of FINRA and SIPC. Insurance products are made available through Chase Insurance Agency, Inc. (CIA), a licensed insurance agency, doing business as Chase Insurance Agency Services, Inc. in Florida. JPMCB, JPMS and CIA are affiliated companies under the common control of JPM. Products not available in all states.

In Germany, this material is issued by J.P. Morgan SE, with its registered office at Taunustor 1 (TaunusTurm), 60310 Frankfurt am Main, Germany, authorized by the Bundesanstalt für Finanzdienstleistungsaufsicht (BaFin) and jointly supervised by the BaFin, the German Central Bank (Deutsche Bundesbank) and the European Central Bank (ECB). In Luxembourg, this material is issued by J.P. Morgan SE-Luxembourg Branch, with registered office at European Bank and Business Centre, 6 route de Treves, L-2633, Senningerberg, Luxembourg, authorized by the Bundesanstalt für Finanzdienstleistungsaufsicht (BaFin) and jointly supervised by the BaFin, the German Central Bank (Deutsche Bundesbank) and the European Central Bank (ECB); J.P. Morgan SE-Luxembourg Branch is also supervised by the Commission de Surveillance du Secteur Financier (CSSF); registered under R.C.S Luxembourg B255938. In the **United Kingdom**, this material is issued by J.P. Morgan SE-London Branch, registered office at 25 Bank Street, Canary Wharf, London E14 5JP, authorized by the Bundesanstalt für Finanzdienstleistungsaufsicht (BaFin) and jointly supervised by the BaFin, the German Central Bank (Deutsche Bundesbank) and the European Central Bank (ECB); J.P. Morgan SE-London Branch is also supervised by the Financial Conduct Authority and Prudential Regulation Authority. In Spain. this material is distributed by J.P. Morgan SE. Sucursal en España, with registered office at Paseo de la Castellana, 31, 28046 Madrid, Spain, authorized by the Bundesanstalt für Finanzdienstleistungsaufsicht (BaFin) and jointly supervised by the BaFin, the German Central Bank (Deutsche Bundesbank) and the European Central Bank (ECB); J.P. Morgan SE, Sucursal en España is also supervised by the Spanish Securities Market Commission (CNMV); registered with Bank of Spain as a branch of J.P. Morgan SE under code 1567. In Italy, this material is distributed by J.P. Morgan SE-Milan Branch, with its registered office at Via Cordusio, n.3, Milan 20123, Italy, authorized by the Bundesanstalt für Finanzdienstleistungsaufsicht (BaFin) and jointly supervised by the BaFin, the German Central Bank (Deutsche Bundesbank) and the European Central Bank (ECB); J.P. Morgan SE-Milan Branch is also supervised by Bank of Italy and the Commissione Nazionale per le Società e la Borsa (CONSOB); registered with Bank of Italy as a branch of J.P. Morgan SE under code 8076; Milan Chamber of Commerce Registered Number: REA MI 2536325. In the **Netherlands**, this material is distributed by J.P. Morgan SE-Amsterdam Branch, with registered office

at World Trade Centre, Tower B, Strawinskylaan 1135, 1077 XX, Amsterdam, The Netherlands, authorized by the Bundesanstalt für Finanzdienstleistungsaufsicht (BaFin) and jointly supervised by the BaFin, the German Central Bank (Deutsche Bundesbank) and the European Central Bank (ECB); J.P. Morgan SE-Amsterdam Branch is also supervised by De Nederlandsche Bank (DNB) and the Autoriteit Financiële Markten (AFM) in the Netherlands. Registered with the Kamer van Koophandel as a branch of J.P. Morgan SE under registration number 72610220. In **Denmark**, this material is distributed by J.P. Morgan SE-Copenhagen Branch, filial af J.P. Morgan SE, Tyskland, with registered office at Kalvebod Brygge 39-41, 1560 København V, Denmark, authorized by the Bundesanstalt für Finanzdienstleistungsaufsicht (BaFin) and jointly supervised by the BaFin, the German Central Bank (Deutsche Bundesbank) and the European Central Bank (ECB); J.P. Morgan SE-Copenhagen Branch, filial af J.P. Morgan SE, Tyskland is also supervised by Finanstilsynet (Danish FSA) and is registered with Finanstilsynet as a branch of J.P. Morgan SE under code 29010. In **Sweden**, this material is distributed by **J.P. Morgan SE-Stockholm Bankfilial**, with registered office at Hamngatan 15, Stockholm, 11147, Sweden, authorized by the Bundesanstalt für Finanzdienstleistungsaufsicht (BaFin) and jointly supervised by the BaFin, the German Central Bank (Deutsche Bundesbank) and the European Central Bank (ECB); J.P. Morgan SE-Stockholm Bankfilial is also supervised by Finansinspektionen (Swedish FSA); registered with Finansinspektionen as a branch of J.P. Morgan SE. In France, this material is distributed by JPMorgan Chase Bank, **N.A.**—**Paris Branch**, registered office at 14, Place Vendome, Paris 75001, France, registered at the Registry of the Commercial Court of Paris under number 712 041 334 and licensed by the Autorité de contrôle prudentiel et de resolution (ACPR) and supervised by the ACPR and the Autorité des Marchés Financiers. In **Switzerland**, this material is distributed by **J.P. Morgan (Suisse) SA**, with registered address at rue du Rhône, 35, 1204, Geneva, Switzerland, which is authorized and supervised by the Swiss Financial Market Supervisory Authority (FINMA) as a bank and a securities dealer in Switzerland.

This communication is an advertisement for the purposes of the Markets in Financial Instruments Directive (MIFID II) and the Swiss Financial Services Act (FINSA). Investors should not subscribe for or purchase any financial instruments referred to in this advertisement except on the basis of information contained in any applicable legal documentation, which is or shall be made available in the relevant jurisdictions (as required).

In **Hong Kong**, this material is distributed by JPMCB, **Hong Kong branch**. JPMCB, Hong Kong branch is regulated by the Hong Kong Monetary Authority and the Securities and Futures Commission of Hong Kong. In Hong Kong, we will cease to use your personal data for our marketing purposes without charge if you so request. In **Singapore**, this material is distributed by JPMCB, **Singapore branch**. JPMCB, Singapore branch is regulated by the Monetary Authority of Singapore. Dealing and advisory services and

discretionary investment management services are provided to you by JPMCB, Hong Kong/Singapore branch (as notified to you). Banking and custody services are provided to you by JPMCB Singapore Branch. The contents of this document have not been reviewed by any regulatory authority in Hong Kong, Singapore or any other jurisdictions. You are advised to exercise caution in relation to this document. If you are in any doubt about any of the contents of this document, you should obtain independent professional advice. For materials which constitute product advertisement under the Securities and Futures Act and the Financial Advisers Act, this advertisement has not been reviewed by the Monetary Authority of Singapore. JPMorgan Chase Bank, N.A., a national banking association chartered under the laws of the United States, and as a body corporate, its shareholder's liability is limited.

With respect to countries in **Latin America**, the distribution of this material may be restricted in certain jurisdictions. We may offer and/or sell to you securities or other financial instruments which may not be registered under, and are not the subject of a public offering under, the securities or other financial regulatory laws of your home country. Such securities or instruments are offered and/or sold to you on a private basis only. Any communication by us to you regarding such securities or instruments, including without limitation the delivery of a prospectus, term sheet or other offering document, is not intended by us as an offer to sell or a solicitation of an offer to buy any securities or instruments in any jurisdiction in which such an offer or a solicitation is unlawful. Furthermore, such securities or instruments may be subject to certain regulatory and/or contractual restrictions on subsequent transfer by you, and you are solely responsible for ascertaining and complying with such restrictions. To the extent this content makes reference to a fund, the Fund may not be publicly offered in any Latin American country, without previous registration of such fund's securities in compliance with the laws of the corresponding jurisdiction.

References to "J.P. Morgan" are to JPM, its subsidiaries and affiliates worldwide. "J.P. Morgan Private Bank" is the brand name for the private banking business conducted by JPM. This material is intended for your personal use and should not be circulated to or used by any other person, or duplicated for non-personal use, without our permission. If you have any questions or no longer wish to receive these communications, please contact your J.P. Morgan team.

© 2023 JPMorgan Chase & Co. All rights reserved.