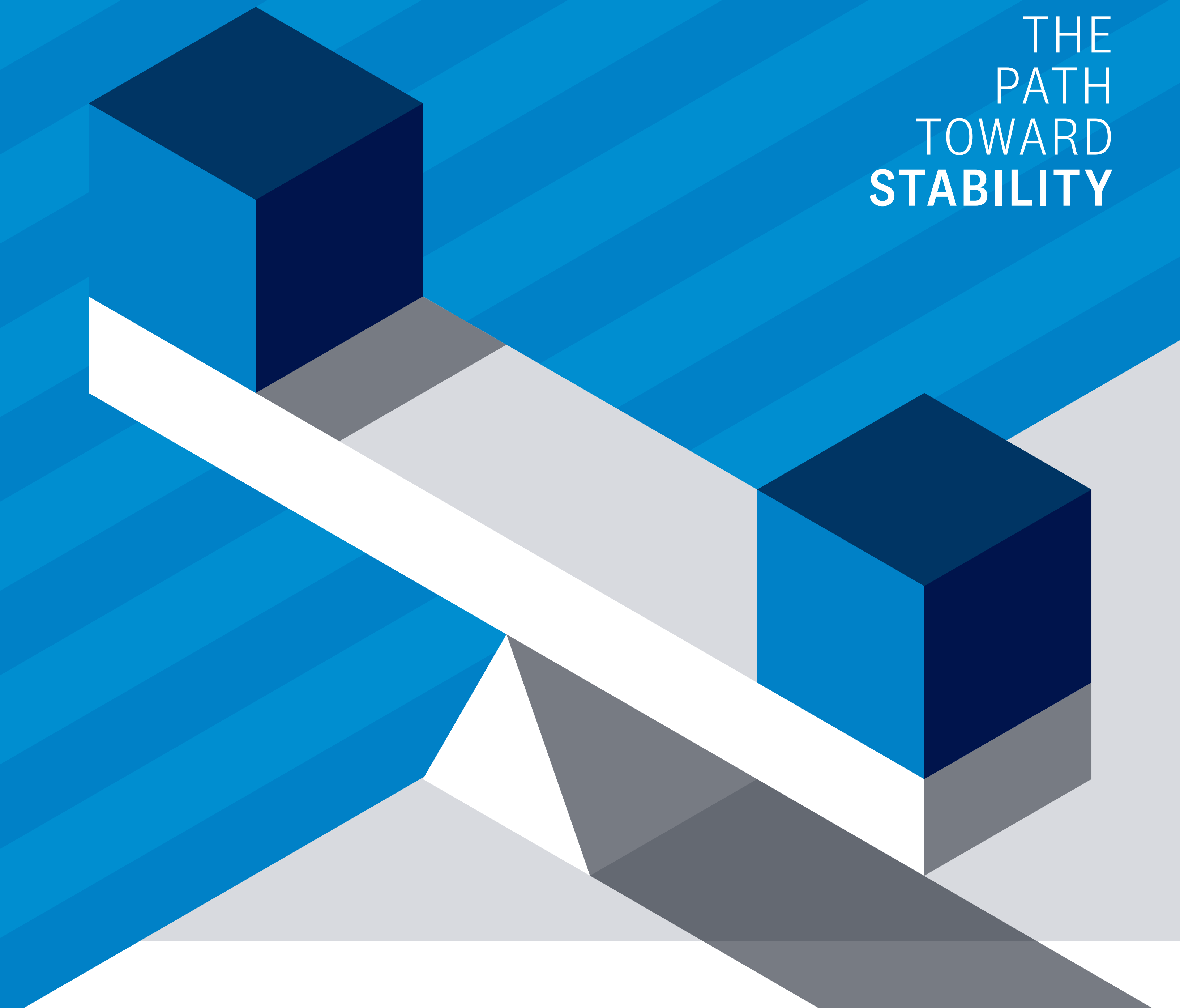
LPL RESEARCH PRESENTS: MIDYEAR 2023

OUTLOOK

THE PATH TOWARD **STABILITY**



LPL Financial

The Path Toward Stability

OUR 2023 INVESTING OUTLOOK STARTED WITH A THEME OF RETURNING TO NORMALCY. Considering 2022's market volatility and the aftereffects of the pandemic, the idea of finding balance was certainly a welcomed change. It's a theme we could all embrace six months ago and what we will continue to rally around through year-end.

That's not to say that 2023 hasn't come with its own set of challenges. We saw two regional banks fail in rapid-fire succession in March—and another closed its doors in May. Collectively representing over $530 billion in assets, the trio ranks as the second, third, and fourth largest bank failures to date. We also held our breath as a last-minute deal to raise the debt limit came together as the clock ticked closer to default.

Despite the market gyrations these events caused and a banking sector still on tenterhooks, the overall financial system seems stable. Counterbalancing the challenges, some bright spots include:

- Inflation is under 5% at home, significantly lower than its 8.3% level this time last year
- The fed funds rate is approaching its apex as the Federal Reserve grapples with the unknown impacts yet to emerge from its aggressive tightening cycle
- Global inflation has ticked down from its 8.7% high in 2022, and is following a slow descent to a projected 6.5% for 2023

By and large, these are things we know, definitively or directionally, a guiding force that shapes our perspective on the next six months or so. Like anything, they come with some potential opportunities for investors—opportunities that may present themselves in international equities, core bonds (particularly if the Fed is indeed done raising rates), and industrials to name a few.

On the flip side, there are uncertainties out there. The possibility of a recession is probably the biggest unknown, with some of the biggest questions around when it might hit, how long it might last, and how significant it could be. That said, any recession that occurs would appear to be more in the mild range at this point.

Perhaps recession is the largest unknown, but we should also factor in the possibility for interest-rate volatility. For example, rates could move higher if inflation remains stubbornly high. Or, they could see a fairly sizable move lower in the event of a recession. Ultimately, how rate volatility resolves itself will be a big driver for markets.

Clearly the LPL Research team doesn't have a crystal ball. But there are two things we know. The insights in this report will help position investors, along with guidance from their financial professional, to achieve their goals. Second, our seasoned team of experts will be by your side, providing guidance and actionable insights as the second half unfolds. And for these two things, a crystal ball is not needed.

OVERVIEW

ECONOMY: The baseline forecast is the domestic economy slides into recession in late 2023 as consumer demand cools, especially for services. If job growth cools and the unemployment rate rises, consumers will likely experience declining disposable income, which could be the impetus for a recession as consumers pull back on spending. But in the near term, consumers are still unleashing pent-up demand for services. We expect the Fed to end its rate hiking campaign in the latter half of this year and introduce the possibility of a cut in rates as economic conditions weaken. But as inflation convincingly cools, markets will likely respond favorably to the slight pivot in Fed policy. So far, an improving Chinese economy has not had a material impact on global inflation.

STOCKS: In the first half of 2023, progress was made toward better balance as inflation fell and interest rates stabilized. However, macroeconomic risks remain top of mind as a potential recession looms. Earnings are likely to decline this year, but solid revenue growth and stable profit margins may help limit the magnitude of any decline. An improved inflation outlook by year-end may enable market participants to see through the economic malaise and toward recovery in 2024. Against this backdrop, LPL Research sees modest second-half gains for stocks, though with the potential for elevated volatility, until investors get more clarity on the likely depth and duration of a potential recession.

BONDS: After the most aggressive rate-hiking campaign in decades from the Fed, short-term interest rates are at levels last seen in the early 2000s. At the currently elevated levels, the risk is that these rates won't last, and upon maturity, investors will have to reinvest proceeds at lower rates. So, unless investors have short-term income needs, they may be better served by reducing some of their excess cash holdings and extending the maturity profile of their fixed income portfolio to lock in these higher yields for longer. If the Fed is finished raising interest rates, we could start to see lower yields on intermediate-term securities before the Fed actually cuts rates. Historically, core bonds, as proxied by the Bloomberg Aggregate Bond Index, have performed well during Fed rate hike pauses.

GEOPOLITICS: The global dynamic has shifted as 2023 has progressed. An attempt to forge a negotiated settlement to end the Russia-Ukraine conflict was thwarted by an unflinching determination by both sides to win at all costs. Chinese President Xi Jinping is the latest world leader to offer a framework for ending the fighting. This framework also helps underpin China's unrelenting determination to establish a global leadership position, as it seeks to broaden its trade and political relationships and undermine the economic power that the U.S. commands. Regarding U.S. and China bilateral relations, the backdrop has become increasingly fraught with concerns that China has intensified its efforts to secure technology that enhances its military buildup.

COMMODITIES: As prospects for the reopening of China finally became a reality, analysts cautioned that demand for industrial metals from the world's second largest economy would help ignite a bout of inflation. Concerns that the global economy was nearing the cusp of a downturn placed significant pressure on oil prices, though China's economic activity was initially delayed due to an escalation in COVID-19 cases. Still, the pace of economic growth in China is projected to gain momentum in the second half of 2023, potentially improving demand for a broad swath of commodities. Precious metals, however, have seen robust interest and higher prices as global central banks have been major buyers.

CURRENCIES: The U.S. dollar, as measured against a basket of developed market currencies, has been trending steadily lower since reaching 20-year highs late last September, as the key factors that were so supportive of the strengthening dollar for much of the last two years have dissipated. With markets pricing in easing from the Fed early next year, the dollar's large interest-rate advantage has eroded, making the dollar a relatively less attractive destination for global capital. Global usage of the dollar is more than stable. Nearly 90% of global foreign currency transactions involve the dollar, which suggests reports of the dollar's imminent structural demise are greatly exaggerated.

ALTERNATIVE INVESTMENTS: Given the economic backdrop of the last six months, globally and at home, we're constructive on alternative investments, which can offer portfolio diversification and performance that exceeds traditional benchmarks. It's important to note that against our economic backdrop, we may see a wider range of performance among fund managers—depending on things like their trading style or geographic focus. This means that it will be more important than ever to understand the opportunities, risks, and overall strategy of any given alternative investment.

A moving pendulum in a seemingly stable financial system

FROM INTEREST RATES AND INFLATION to the job market and recession, we anticipate there will be a number of shifting elements in the economy for the remainder of the year and potentially into 2024. At the May meeting this year, the Fed increased its policy rate for the tenth consecutive time, pushing the upper bound of the fed funds rate to 5.25%, the highest since August 2007. The Fed's aggressive rate-hiking campaign has been a focus for investors for over a year. Frankly, investors are probably ready to move on from the Fed being the centerpiece of most conversations.

We expect the Fed to change strategy during the latter half of 2023 for at least two reasons. First, the Fed should have less pressure to react to a tight labor market as the job market is set to cool throughout the remainder of the year. And second, the Fed will likely be less concerned inflation could get out of control from sticky-services inflation, since we expect services prices to ease. One nagging inflation component that will ease in the coming months is rent, as a record number of new apartment units under construction will dampen rent prices. Expect investment opportunities in firms related to multi-family and mixed use projects.

Investors will likely shift focus from central bankers to consumers. We expect less focus on tightening monetary policy and more on recession risk. The baseline forecast is the domestic economy slides into recession. However, solid growth in the first quarter and a potential recovery in the last few months of the year put annual U.S. growth close to a 1% forecast, outpacing the Eurozone **[Fig.1]**. If job growth cools and the unemployment rate rises, consumers will likely experience declining disposable income, which could be the impetus for a recession as consumers pull back on spending. In the near term, consumers are still unleashing pent-up demand for services, especially within the leisure and hospitality sectors. But when the spending splurge ends, investors should expect some weakness in the consumer discretionary space.

FIG. 1

Economic forecasts

2023 annual forecasts	GDP growth (Y/Y%)	CPI (Y/Y%)	Unemployment rate (Dec)
United States	1.2%	3.8%	3.7%
Eurozone	0.6%	5.5%	6.8%
Advanced Economies	0.9%	4.7%	4.9%
Emerging Markets	3.8%	6.1%	6.0%
Global	2.3%	5.2%	5.1%

Source: LPL Research 05/31/2023 Economic forecasts may not develop as predicted and are subject to change.

SOFTER JOB MARKET SHOULD COOL INFLATION

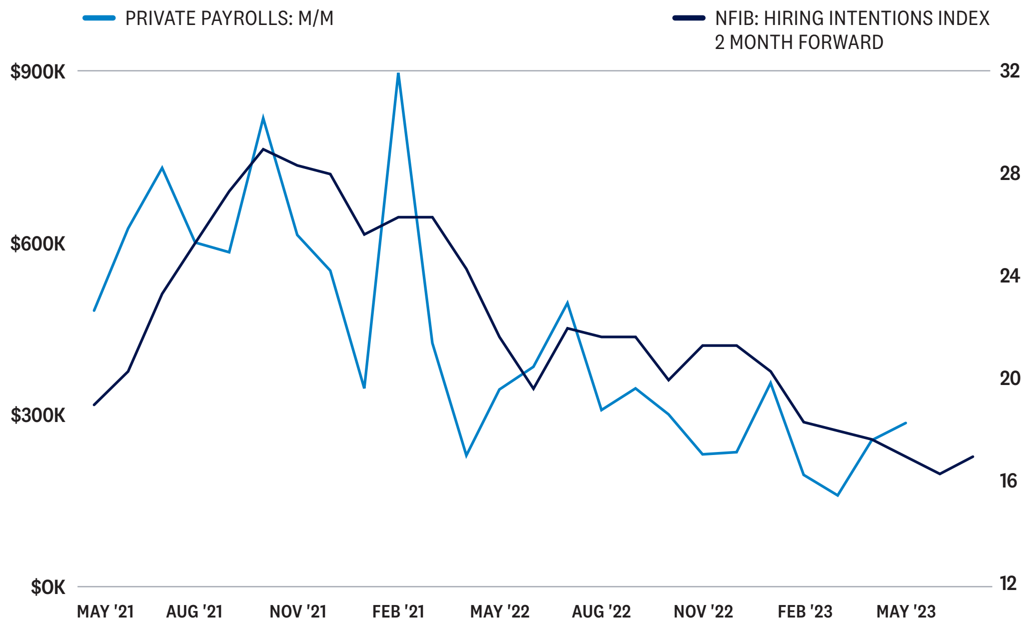
One theme likely to emerge during the remainder of this year is a softening job market. We expect the small business sector will play a key role in the weaker trajectory.

Small businesses hunkered down throughout the recent months as the business outlook weakened. The National Federation of Independent Business (NFIB) reported few businesses planned to expand as credit conditions tightened, pulling small-business optimism down to its lowest level since January 2013. As it relates to the inflation outlook, fewer businesses plan to increase employment as firms cut back on labor

FIG. 2

Small businesses plan to slow hiring

Weaker labor market implies rising recession risks



Source: LPL Research, Bureau of Labor Statistics, National Federation of Independent Business, 06/23/23

costs **[Fig.2]**. Small businesses account for roughly 45% of the U.S. economy and are showing signs of stress. Despite a robust labor market during the first half of this year, metrics point toward a broad slowdown in the labor market in the latter half. As inflation eases, the Fed will likely have more leeway to pause and perhaps cut rates by the end of this year if the economy slides into recession.

MULTI-FAMILY HOUSING SHOULD EASE RENT INFLATION

It's no surprise residential activity is slowing. The housing market is coming off a euphoric run during the post-pandemic period of historically low interest rates, although the slowing housing activity does not look as bad when compared with 2019. Still, housing starts were more than 6% above November 2019 levels, illustrating this unique cool-down period amid a nationwide housing shortage. Rising borrowing costs and hesitant home builders could worsen the nationwide housing shortage in the near term, as activity likely cools further.

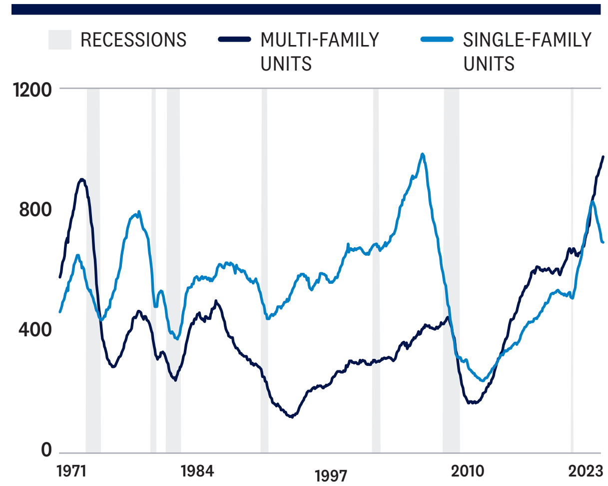
Higher mortgage rates and uncertain economic prospects impacted the housing market and will continue to depress housing in the months ahead. As home sales stalled in recent months, housing starts and permits have also slowed down. But that's just at the aggregate level. Housing activity for multi-family dwellings has been growing for the past few years as builders respond to the acute shortage within this sector. Single-family construction spending has consistently shrunk over the last several months, but building activity for 5+ units has maintained its uptrend. The increase in multi-family units is in stark contrast to the decline in single-family units under construction **[Fig.3]**.

It's a tale of two residential construction economies. Construction activity for single-family homes is shrinking, but apartment and condo construction spending is on the rise. The diverging trends will

FIG. 3

Multi-family units on the rise

Increased supply will dampen rents

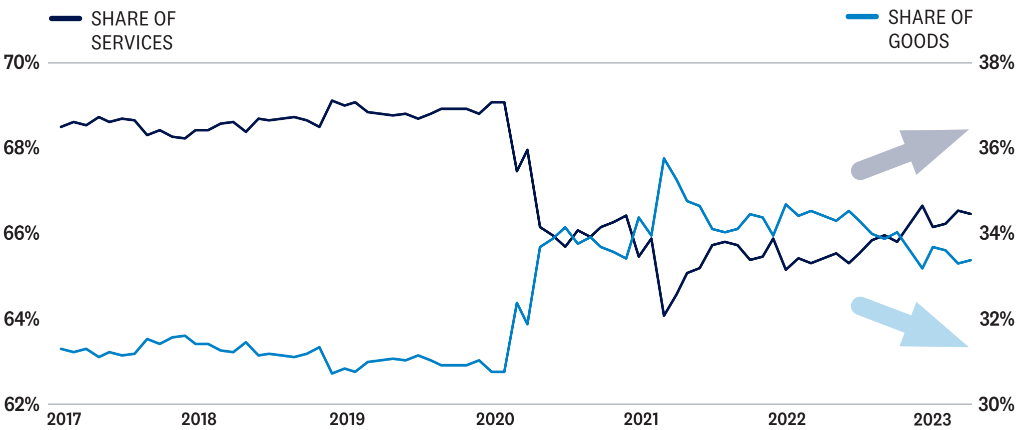


Source: LPL Research, U.S. Census Bureau, 06/20/23

FIG. 4

Spending slowly returning to pre-pandemic share

Consumers will likely shift away from goods into services



Source: LPL Research, Bureau of Economic Analysis 05/30/23

likely attract investors' attention. Construction firms with a diversified portfolio should be able to weather any upcoming economic storm better than firms focused on single-family home building. The recent trends will also affect inflation this year. Roughly 1 million apartments were under construction as of April, which is roughly three times the amount from 10 years ago. Increased supply in multi-family construction should ease future rent prices as vacancy rates rise. Industry data already shows declining rent prices, so it's just a matter of time before the official government statistics reflect that easing. Investors and policymakers alike should expect a softening in housing-related inflation in the coming months.

CHINA UNLIKELY TO DRIVE GLOBAL INFLATION

We've shared a domestic-focused outlook on inflation and growth. But China, and any global consumer price inflation we see as a result of it reopening and the ensuing oil demand, is an important component of the outlook as well. China's economic recovery after three years of lockdowns was expected to drive a large share of global inflation in 2023. The increase in household savings during the pandemic was expected to unleash a large amount of pent-up demand. Since China accounts for roughly 20% of global oil imports, the Chinese economy was seen as a potential impetus for a global inflation shock for the global energy markets in 2023. According to the Conference Board, China's reopening could add 0.30 to 0.65 percentage points to global inflation. While Chinese economic growth improved in early 2023, it has so far failed to live up to expectations, as investors have lingering concerns over the Chinese property sector and mounting recession risks among China's key trading partners.

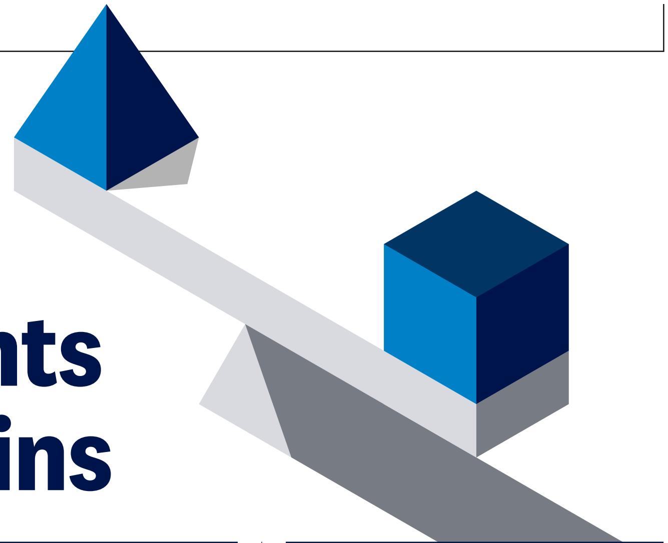
All things said, it's too early to completely dismiss the potential inflationary impulse from China. The Asian tiger is still on track to import a record amount of crude in 2023 and a case can be made that recovery impact has quite a long lag time.

LAST REMNANTS OF PENT-UP DEMAND

A notable consequence of the pandemic was the seismic shift in consumer spending patterns. When state and local governments issued stay-at-home orders, consumers reallocated their spending from services to goods. Even though the economy is a few years past the onset of the global pandemic, consumers have not yet returned to a pre-pandemic mix of services spending and goods spending. The process of returning to this roughly 70-30 mix has broad inflation implications. In the near term, demand for services will remain notable as consumers return to more normal spending patterns **[Fig.4]**.

KEY TAKEAWAYS

The Fed seems to be shifting to a "wait and see" strategy as the banking sector remains tenuous, consumers are slowing spending activity, and the inflation outlook looks promising for the rest of the year. It's possible investors may not see another rate hike during this cycle. Further, banking risks seem contained and the broad financial system appears stable. We also expect consumers will have outsized demand for experiences in the remaining months of the year, offsetting the decline in goods spending as consumer spending slows while helping to mitigate a potential economic contraction. Unless economic conditions change materially, the Fed has communicated a likely July hike, whether the economy needs it or not. But as inflation convincingly cools, markets will likely respond favorably to a slight pivot in Fed policy.



Weight of evidence points to modest gains

OUTLOOK 2023: FINDING BALANCE conveyed the difficulty equity markets had in 2022 making the transition from a market driven by macroeconomic risks to one focused on business fundamentals. In the first half of 2023, progress was made toward better balance as inflation fell and interest rates stabilized, but macroeconomic risks remain top of mind as a potential recession looms.

HISTORY OFTEN RHYMES

We discussed some favorable historical seasonal and cyclical patterns in *Outlook 2023*. One was the average 10% gain for the S&P 500 in the 12 months following the end of a Fed rate hike cycle. Another was the stock market's impressive track record following a down year, with an average gain of over 15% the following year, and gains in 15 out of 18 of those years.

There are several indicators that help put the current market environment into perspective and suggest additional, but likely modest, gains may lie ahead **[Fig.5]**.

One historical precedent that suggests a bumpier ride for stocks is the average performance before the start of a recession. Specifically, the S&P 500 has fallen 1.4% on average during the six months before the start

FIG. 5

Supportive stock market indicators

Event	Average gain/loss	Percentage of positive returns	Commentary
Years following a down year	15.2% (annual)	84%	What goes down tends to go up. The average annual return since 1950 following a down year has been 15.2%. Two consecutive down years for the S&P 500 is also rare, occurring only three times in the past 80 years (1973-1974, 2000-2001, and 2001-2002).
January trifecta years	17.4% (annual)	90%	Trifecta years include years when the S&P 500 generates positive returns during 1) the Santa Claus Rally period, 2) the first five days of January, and 3) during the month of January. All three of these indicators were hit this year.
Midterm election years	16.8% (annual)	89%	During year three of the presidential cycle, which we are in now, the S&P 500 has gained almost 17%, with 89% of years positive since 1950, more than any other year of the cycle.
New bull market	18.9% (12 months)	92%	The S&P 500 officially entered a bull market in June. It took 165 trading days to surpass the 20% qualifier for a technical bull market, marking the second longest period to confirm a new bull market in nearly 75 years. Forward returns after a bull market is confirmed have historically been strong. The S&P 500 has posted average gains of 18.9% 12 months after the index cleared the 20% threshold.
AAII bull-bear spread* —crossover below two standard deviations	9.9% (12 months)	77%	Bearish sentiment has been prevalent over the last year. The bull minus bear spread among the American Association of Individual Investors (AAII) survey data remained negative for the majority of last year, including over a two-standard deviation drop in December. Historically, declines in sentiment of this magnitude have served more as a contrarian indicator for stocks, evidenced by positive forward 12-month S&P 500 returns.

* Since 1987, filtered for crossovers occurring at least three months apart.

The modern design of the S&P 500 stock index was first launched in 1957. Performance back to 1950 incorporates the performance of predecessor index, the S&P 90. Source: Bloomberg, Factset, 05/30/2023 of a recession (since 1970). Of course, no indicator is perfect, but the weight of the evidence seems to point toward modest second half gains, though maybe with some bumps along the way.

EARNINGS MUST DO THEIR PART

Earnings are likely to decline this year but could still offer some support for stocks given low expectations. Analysts have continued to underestimate corporate America's ability to generate revenue, which grew 4% in the first quarter of 2023 compared with forecasts below 2%. Higher prices boost revenue and consumers have absorbed higher prices better than many had anticipated. LPL Research sees 4% revenue growth in 2023, even with minimal economic growth, because of the pricing power that has come with inflation.

That solid revenue base won't help stocks unless profit margins hold up. S&P 500 companies saw an unexpected uptick in margins overall in the first quarter, suggesting additional pressure on margins may be limited. Also consider that margins have contracted about 2 percentage points from their 2021 peak, consistent with an average mild recession. Expect companies to use their efficiency playbooks in the second half to mitigate margin pressures from waning demand and lingering cost pressures.

Solid revenue growth and stable profit margins may help limit the magnitude of any earnings decline experienced this year. But given heightened economic uncertainty, we provide three earnings scenarios to arrive at a probability weighted forecast. Based on estimated probabilities of these scenarios **[Fig.6]**, we end up with a 2023 S&P 500 earnings per share forecast of $213, about 3% below 2022 levels. At $210, the consensus forecast of equity strategists, compiled by Bloomberg, suggests earnings expectations may be low enough for a modest decline to be well received by markets.

Looking to 2024, corporate America may get off to a slow start as recession potentially spills over. But as inflation continues to come down, helping to ease cost pressures, and economic growth potentially picks up, high-single-digit earnings growth may still be achievable. Our estimated S&P 500 EPS for 2024 is $230, up about 8% from our 2023 estimate.

PERSPECTIVE ON VALUATION DEPENDS ON THE LENS

The valuation debate has reasonable support on both sides. On one hand, the S&P 500 Index is trading at a price-to-earnings ratio (P/E) of about 19. This is above the near-16 average of recent decades, which some say is too high with a recession looming. On the other hand, low long-term interest rates have historically correlated with high valuations, suggesting that a P/E near 19 might be fair with the 10-year Treasury yield below 4%.

Bringing interest rates into the equation allows for a more complete valuation assessment. Fundamentally, a stock's value is derived from the present value of future cash flows, with an interest rate (also known as the discount rate) in the denominator. Investors also have a choice between stocks and bonds in a traditional asset allocation, so higher yields on fixed income create a higher hurdle for investors to take on equity risk.

The equity risk premium (ERP) for the S&P 500 compares the earnings yield for equities (earnings divided by price) to the yields on bonds (we use the 10-year Treasury) **[Fig.7]**. The current S&P 500 ERP of 0.9% is right in line with the long-term average of 0.9%, suggesting large-cap stocks are fairly valued.

SOME UPSIDE POTENTIAL BUT IT MAY BE A GRIND

Our year-end S&P 500 fair value target range of 4,300–4,400 is based on a P/E near 19, and our 2024 S&P 500 EPS estimate of $230. Lower interest rates support higher stock valuations, so this valuation looks reasonable to us as long as the 10-year Treasury yield remains range-bound in the mid-to-high 3s. Above our fair value range, investors may want to consider reducing equities exposure. In the event of a correction that leaves stocks close to the 2023 year-to-date lows near 3,800 on the S&P 500, adding equities may be appropriate.

FIG. 6

2023 S&P 500 earnings scenarios

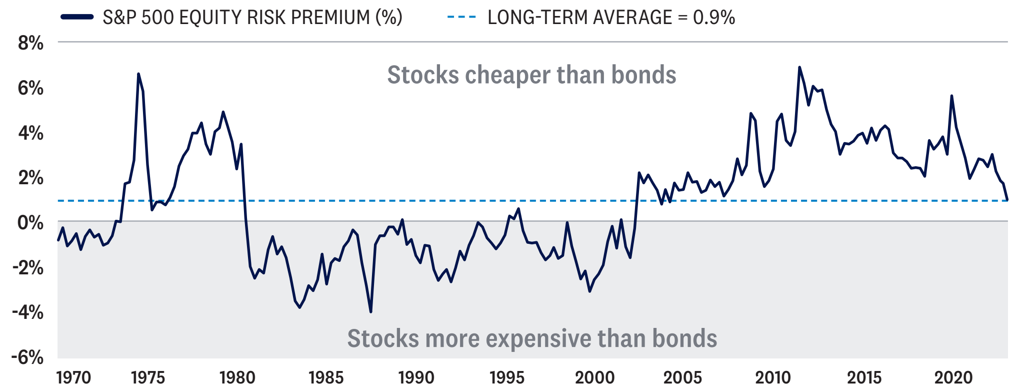
Scenario	Potential Earnings ($ per share)	Estimated Probability
Muddle through economy	$220	20%
Mild, short-lived recession	$212	65%
Garden variety recession	$205	15%
Probability weighted 2023 S&P 500 earnings per share estimate	$213	

Economic forecasts may not develop as predicted and are subject to change.

FIG. 7

Stocks appear no longer attractive relative to bonds

Higher stock valuations and higher interest rates dragging down the equity risk premium



Source: LPL Research, FactSet, Refinitiv, Bloomberg 06/23/23

S&P 500 equity risk premium is the S&P 500 earnings yield minus the US 10-year treasury yield. All indexes are unmanaged and cannot be invested into directly. Past performance is not a guarantee of future results.

EQUITY ASSET ALLOCATION RECOMMENDATIONS

Market cap

LPL Research favors large-cap stocks relative to their small and midcap counterparts in the second half of 2023. Large caps generally perform better during periods of economic uncertainty with stronger balance sheets. As 2024 approaches, attractive valuations may bolster small and midcap stocks on optimism about better economic conditions next year.

Style

Lower inflation, stable long-term interest rates, and slow economic growth may help support growth stocks in the second half of the year, aided by support from superior earnings potential. But if cyclical value stocks garner support from increasing economic clarity later this year, buoyed by larger-than-normal valuation discounts compared with growth, growth stocks may struggle to add to strong first half outperformance.

Sectors

LPL Research recommends a balanced mix of cyclical and defensive sectors. Among economically sensitive, or cyclical sectors, our Strategic and Tactical Asset Allocation Committee (STAAC) recommends industrials, which are well positioned for the near-shoring trend and are benefiting from lingering benefits of the post-COVID-19 reopening. Meanwhile, all traditional defensive sectors carry a neutral view.

Real estate, which is a recommended underweight and offers a mix of cyclical and defensive characteristics, faces heightened "work-from-home" risk in commercial real estate. STAAC maintains a cautious view of consumer discretionary as well, due primarily to anticipated increasing pressure on consumer spending in the second half along with elevated valuations.

Region

With the U.S. economy possibly headed for a late-2023 recession, domestic growth may not look any better than growth in Europe or Japan over the next several quarters. Falling inflation, the likely Fed pause, and resilient corporate profits may support attractive domestic equity returns in 2023, but valuations and a potential weaker U.S. dollar, favor developed international equities. The outlook for Japanese equities looks particularly appealing on a relative basis amid continued accommodative monetary policy.

While a weaker dollar could support emerging market equities, which also enjoy attractive valuations, soft earnings and geopolitical uncertainty, particularly in China, keep us largely on the sidelines.

WHERE WE COULD BE WRONG

In *Outlook 2023: Finding Balance*, we outlined bull and bear cases for our forecasts. Now that some of the uncertainty has passed, and year-end is six months closer, we zero in on one base case forecast. At the same time, we acknowledge the possibility of a negative inflation surprise and a hard landing for the U.S. economy, which could potentially bring the October 2022 stock market lows back into play. Geopolitical risks, particularly China-Taiwan, also carry the unfortunate potential to drive a sizable market correction.

Conversely, though not our base case, a faster than expected victory in the battle against inflation, and an economy that muddles through without contracting could power stocks to double-digit gains in the second half.

Balancing opportunities with objectives

AS NOTED PREVIOUSLY, SHORT-TERM interest rates are at levels last seen in the early 2000s. Moreover, due to the elevated fed funds rate and the subsequent carryover into the U.S. Treasury market, the Treasury yield curve is the most inverted since the early 1980s. That is, shorter-term Treasury securities outyield longer maturity securities. This has finally allowed investors to generate a return on cash. But economists like to remind us there is no such thing as a free lunch. In investment parlance, that just means all investments carry risk, even cash. So where is the risk that economists warned us about? The big risk with cash is reinvestment—that the currently elevated rates won't last and upon maturity, investors will have to reinvest proceeds at lower rates.

The Fed's goal has been to take the fed funds rate into restrictive territory to make the cost of capital prohibitively expensive to slow aggregate demand, which should allow inflationary pressures to abate. Then what? Well, after winning its fight with inflation, markets expect the Fed to start cutting rates early next year. After keeping rates at these elevated levels, the Fed will then likely take the fed funds rate back to a more neutral level, which economists believe is 2.5%, or even lower. Just as the aggressive rate-hiking cycle took Treasury yields higher, interest-rate cuts will take Treasury (and other bond markets) yields lower. And that is when the reinvestment risks will show up. Since we're starting to see positive signs of inflationary pressures easing (along with cracks in the regional banking sector), it is likely the Fed is close to the end of its rate hiking campaign, which would be welcome news for core bonds.

In fact, once the Fed is done raising interest rates, we could start to see lower yields on intermediate-term securities before the Fed actually cuts rates. Of the most recent Fed rate-hiking campaigns **[Fig.8]**, 10-year Treasury yields were lower, on average, by 1% after the Fed stopped raising rates. And while our base case remains a trading range for the 10-year yield between 3.25% and 3.75% throughout 2023 (similar to 2006, when the Fed kept rates at elevated levels for over a year), we acknowledge there is a strong bias for yields to end the year lower than our expectations, which could mean strong positive returns for core bonds.

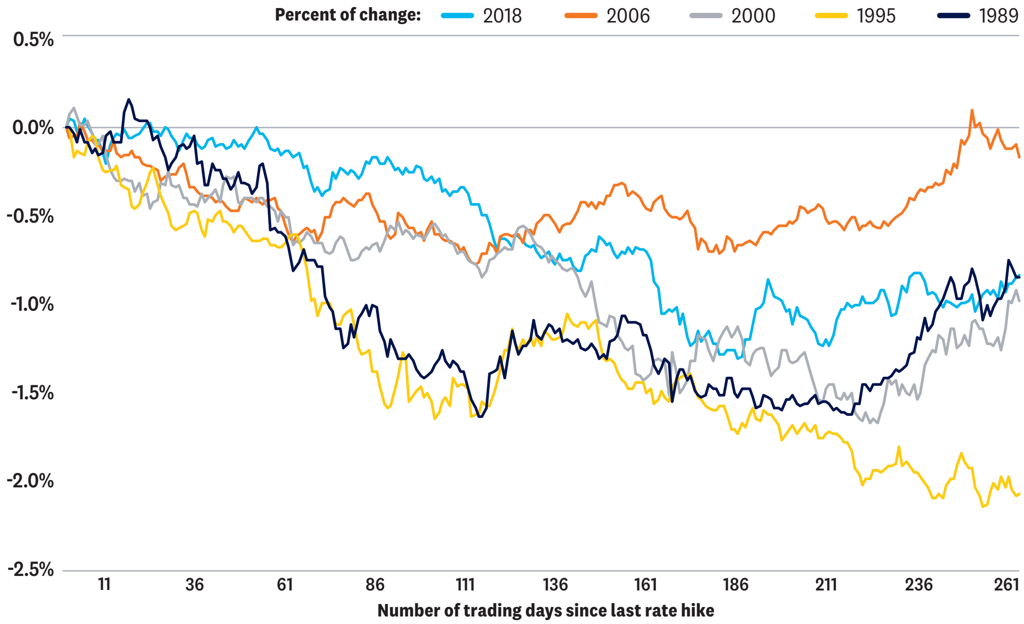
HISTORICALLY SPEAKING

Core bonds, as proxied by the Bloomberg Aggregate Bond Index **[Fig.9]**, have performed well during Fed rate-hike pauses. Since 1984,

FIG. 8

Once the Fed is done, we could see lower Treasury yields

10-Year Treasury yields have generally been lower by 1% after the last Fed rate hike



Source: LPL Research, Bloomberg, 06/23/23

Past performance is no guarantee of future results.

core bonds were able to generate average 6-month and 1-year returns of 8% and 13%, respectively, after the Fed stopped raising rates. Moreover, all periods generated positive returns over the 6-month, 1-year and 3-year horizons.

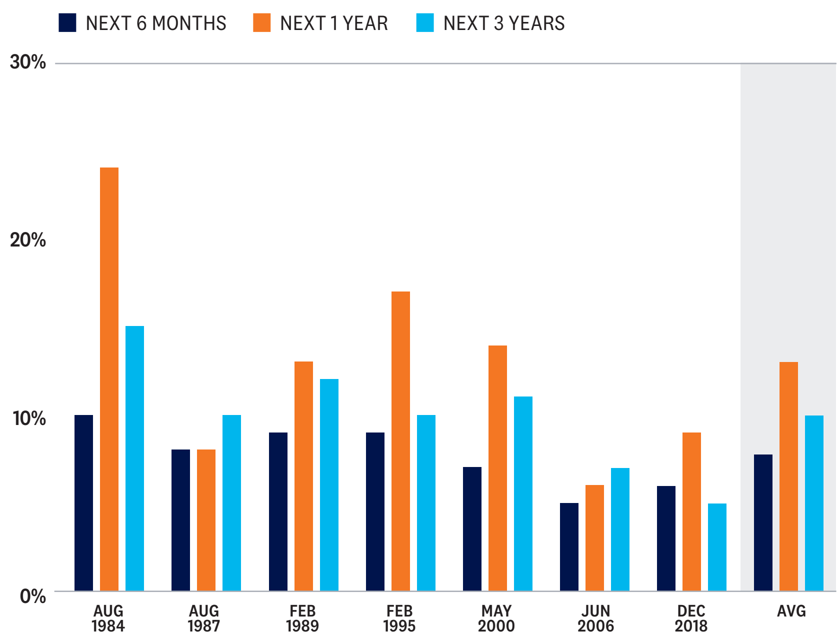
Now, we also acknowledge there is a risk inflationary pressures remain high and the Fed has to continue its rate-hiking campaign into a weakening economy. As we mentioned in our *Outlook 2023*, in that stagflationary scenario where the Fed takes the fed funds rate to 6%, we could see the 10-year around 4.75%. However, given where starting yields are, if interest rates increased by another 1% from current levels, fixed income markets broadly could all still generate slightly positive returns over the next 12 months.

While we certainly think cash is a legitimate asset class again, it's all about balancing today's opportunity with what may or may not be available tomorrow. So, unless investors have short-term income needs, they may

FIG. 9

Core bonds tend to do well during Fed pauses

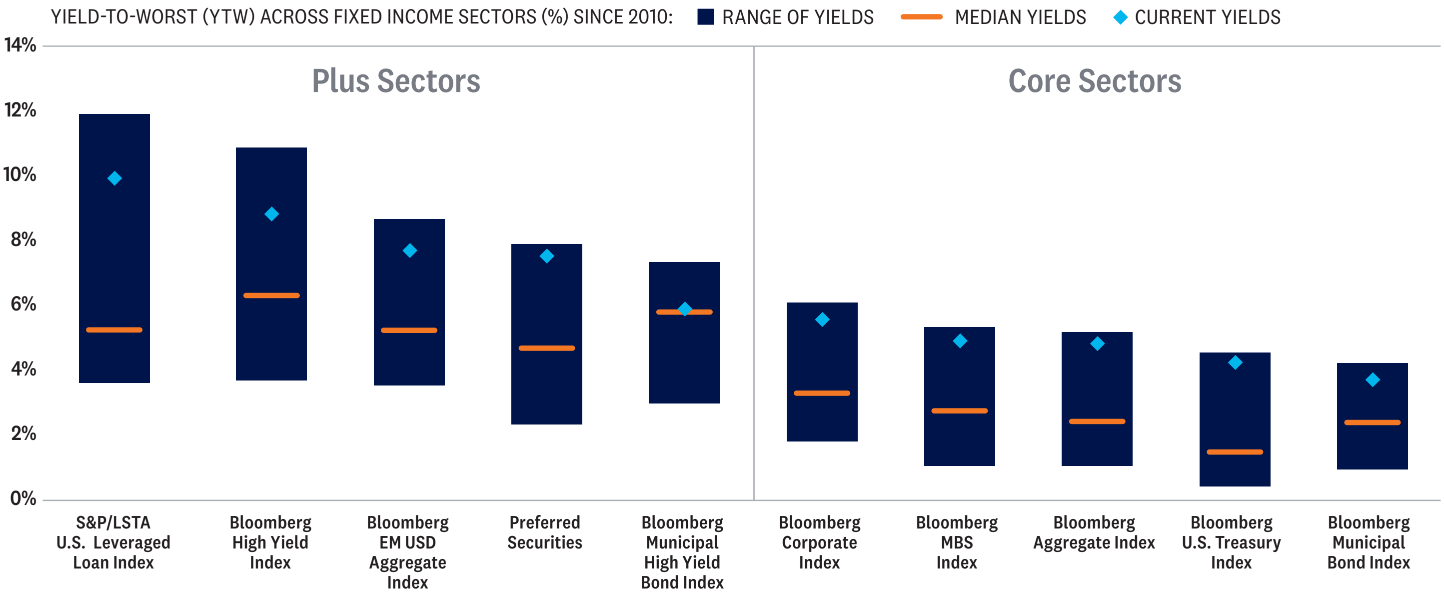
Total returns for the Bloomberg Aggregate Bond Index after last rate hike



Source: LPL Research, Bloomberg, 06/23/23
All indexes are unmanaged and cannot be invested into directly. Past performance is no guarantee of future results. The Aggregate Bond Index has been maintained by Bloomberg L.P. since August 24, 2016. Prior to then it was known as the Barclays Capital Aggregate Bond Index and was maintained by Barclays. From June 1976 to November 2008 it was known as the Lehman Aggregate Bond Index.

FIG. 10

Yields across fixed income sectors are above longer-term averages



Source: LPL Research, Bloomberg, 05/30/23

All indexes are unmanaged and cannot be invested into directly. Past performance is no guarantee of future results.

be better served by reducing some of their excess cash holdings and extending the maturity profile of their fixed income portfolio to lock in these higher yields for longer. Bond funds and ETFs that track the Bloomberg Aggregate Index, along with separately managed accounts and laddered portfolios, all represent attractive options that will allow investors to take advantage of these higher rates before they're gone.

TECHNICAL TRENDS SUGGEST THE HIGHS ARE IN FOR RATES

The technical setup for Treasuries suggests high watermarks for yields have likely been reached. Since core consumer inflation in the U.S. peaked last fall, 10-year yields have registered a string of lower highs that trace together to form a developing downtrend. The recent bearish crossover of the 10-year yield's 50-day moving average below the 200-day moving average adds to the evidence of a potential downtrend in the making. (For reference, moving averages represent the average yield across a select number of trading days and are used to identify trend direction.) The key word here is "potential," as yields have not registered consecutive lower lows, a major piece of missing evidence to confirm a new downtrend is officially underway.

Despite several retests, support for the 10-year at 3.25% continues to hold. While yields bottomed at this level in April, it also traces back to the 2018 highs, a major breakout point for yields, as they officially completed a multi-year bottom formation. Given the significance of the 3.25% support level and what we view as limited upside risk for yields based on both technical and macro factors, we suspect 10-year yields will remain bound in the 3.25% to 3.75% range until a confirmed trend develops.

TAKING CREDIT RISK WHEN APPROPRIATE

The good news for fixed income investors is now that yields are higher in most fixed income markets, investors can be selective when adding fixed income risk to portfolios. With yields for many core bond sectors still above longer-term averages **[Fig.10]**, investors don't really need to "reach for yield" unless valuations are attractive enough to take on the additional credit risk. While there are others, the most prevalent "plus" sectors are high yield bonds, bank loans, emerging market debt, and preferred securities. We've generally been neutral on plus sectors, but with the recent stresses in the regional banking sector, we think a small allocation to preferred securities could be an attractive option for investors that need or want to generate additional income while index yields remain elevated.

Preferreds are concentrated in the financial sector, but since the Global Financial Crisis, many financial institutions have emerged with stronger balance sheets, which should limit downgrades and defaults in our view. As said earlier, we believe the fundamental health of the financial system remains intact, despite the bank stress from domestic regional banks. Here are two reasons why. Depending on the index, regional banks make up less than 10% of the index. Plus the larger money center banks are the largest issuer of preferreds. And while we think the risk of broader bank stresses is still low (and concentrated within regional banks), volatility will likely persist as long as confidence in certain regional banks is questionable.

While we still recommend the majority of fixed income exposure to be allocated to core bonds, for those income-oriented investors willing to take on some additional credit risk, preferred securities may be an attractive investment to consider. Preferreds offer attractive yields, both absolute and after-tax, serving as a total return buffer against future spread volatility. As such, preferred securities can be higher yielding alternatives to traditional core fixed income options, but they do come with additional risk and return volatility.

A shifting global dynamic

WE'RE MORE THAN SIX MONTHS INTO 2023 and the global dynamic has shifted. An attempt by Chinese President Xi Jinping to forge a negotiated settlement to end the Russia-Ukraine conflict was thwarted by an unflinching determination by both sides to win at all costs.

An ally of Vladimir Putin, Xi is the latest world leader to offer a framework for a cessation to the fighting, but so far it has been met with caution and suspicion given China's current relationship with Russia.

That Xi has emerged onto the world stage, following China's nearly three-year COVID-19-related shutdown, and is enjoying praise for his successful peacemaking deal between Saudi Arabia and Iran, lends credibility to his attempt to broker an accord between Russia and Ukraine.

The deal also helps underpin China's unrelenting determination to establish a global leadership position, as it seeks to broaden its trade and political relationships, and weaken the economic authority of the U.S. A major component of China's global outreach includes a determined effort to destabilize the U.S. dollar as the still uncontested primary global reserve currency, while it seeks to legitimize and install the yuan as a major reserve currency (more on that topic on page 14).

Moreover, as China continues to build its military prowess, rhetoric regarding Taiwan remains focused on "reunification" even if it requires military force.

NATO continues to expand with the membership of Finland and probably Sweden, while a permanent NATO liaison office is rumored to be opening in Tokyo next year. At a meeting of European and Indo-Pacific foreign ministers, the Japanese Foreign Minister noted that Russia's war in Ukraine "had shaken the very foundation of the international order." He also indicated concern regarding Russian and Chinese military cooperation in Asia.

Despite concerns that NATO members are debating supplying advanced weaponry to Ukraine, the threats from Russia, which include a possible (but unlikely) nuclear attack, appear to have stiffened NATO resolve. Expect defense stocks to generate a fair amount of buying interest over the next six months and beyond as a result.

Regarding U.S. and China bilateral relations, the backdrop has become increasingly fraught with concerns that China has intensified its efforts to secure technology which enhances its military buildup. Accordingly, both sides of the political aisle in Washington have created lists of technology that should be embargoed, which is jeopardizing an already fragile relationship. Given the heightened importance of the semiconductor sub-sector, as it applies to artificial intelligence, an increasing number of companies will attract investor interest and acquisition activity within the sector could ramp up as development gains momentum.

A specific policy initiative, which White House officials hoped might include a broader coalition of nations, has recently been modified and muted to be less damaging to the relationship. Loosely entitled "De-Coupling From China" initially, it currently is referred to as "De-Risking From China." A senior Administration aide explained that the new rubric "fundamentally means having resilient, effective supply chains, and ensuring we cannot be subject to the coercion of any other country." Expect this "friend-shoring" dynamic to help support the industrials sector.

As deglobalization gains momentum amid a political backdrop of uncertainty and heightened risk, expectations are that fragmentation of global political blocs will materialize. With the approaching 2024 election season, both political parties will be compelled to address how best to navigate the changing landscape.

Global slowdown concerns and prospects for recovery

AS THE POSSIBILITY FOR CHINA'S reopening finally became a reality, analysts cautioned that the demand for industrial metals from the world's second largest economy would help ignite a bout of inflation. Initially there was a delay in economic activity, as COVID-19 cases escalated once Beijing authorities lifted strict testing and lockdown measures. And as outlined by Communist Party leadership at the National People's Congress (NPC) in early March, the target for 2023 economic growth would be "around 5%." That target is less than what analysts had projected, and predicated on personal consumption since there was no indication of large infrastructure projects requiring industrial metals on a large scale.

In terms of China's long established requirements for crude oil and crude oil products, as the world's largest importer of oil, projections for crude oil prices were lifted as expectations that domestic and international travel, and manufacturing activity, would pick up markedly.

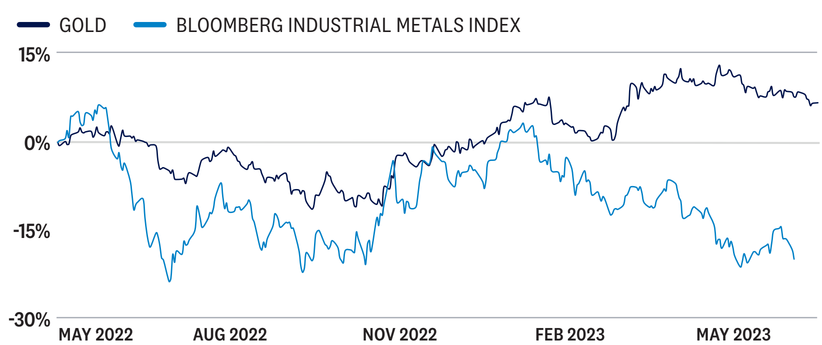
But concerns that the global economy was nearing the cusp of a downturn placed significant pressure on oil prices, despite a significant cut in production by OPEC+. According to OPEC+ officials, they will continue to monitor prices and adjust production based on demand, with analysts forecasting further production cuts if greater demand doesn't materialize.

Still, the pace of economic growth in China is projected to gain momentum in the second half of 2023, and demand

FIG. 11

Industrial metals vs. gold

BLOOMBERG INDUSTRIAL METALS INDEX NORMALIZED PERFORMANCE BASED ON DAILY % CHANGE



Source: Bloomberg, 05/30/23
All indexes are unmanaged and cannot be invested into directly. Past performance is no guarantee of future results. Any futures referenced are being presented as a proxy, not as a recommendation.

for a broad swath of commodities is expected to improve.

With global central banks continuing to raise interest rates, prospects for an expansion in global economic activity have abated, but forecasts suggest that by the fall of 2023, most central banks will be close to finishing their respective rate hike cycles.

INDUSTRIAL AND PRECIOUS METALS PRICE EXPECTATIONS

Prices for copper and iron ore, two key industrial metals closely associated with electric vehicle production and a strong industrial base, remain weak, but analysts expect that as the global economy shifts towards growth, these commodities will be in high demand. Moreover, there is a shortage of copper, as well as other industrial commodities, as mining activity has been slow to add additional capacity.

With the U.S. dollar easing as the Fed appears to be at, or close to, its terminal rate, commodities priced in dollars should be given a boost. And, if the Fed begins to cut interest rates to help mitigate an economic downdraft, economic activity should begin to rebound even at the margin, which should also help support commodity prices, including industrial metals and crude oil.

Precious metals, especially gold, have seen robust interest and higher prices **[Fig.11]**, however, as global central banks have been major buyers. The Russian Central Bank has been stockpiling gold as it transitions away from the U.S. dollar amid sanctions imposed on the country's assets. Similarly, the People's Bank of China has been a significant buyer of gold as China continues to diversify away from the dollar. This trend—the highest level of gold purchases since 1968—is expected to continue throughout 2023 as other smaller central banks adjust their stockpiles as the ramifications of deglobalization continue to unfold.

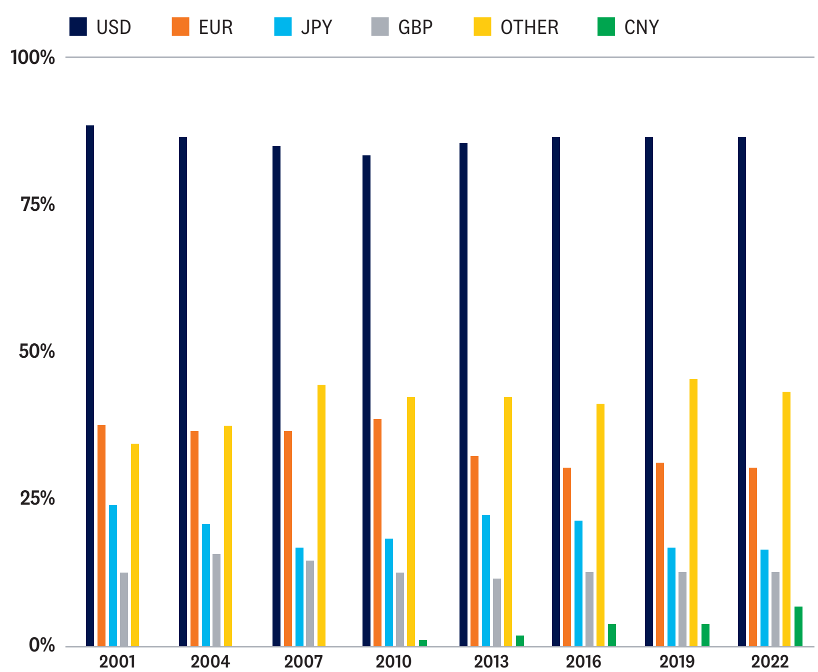
Reports of the dollar's demise are greatly exaggerated

THE U.S. DOLLAR, AS MEASURED against a basket of developed market currencies, has been trending steadily lower since reaching 20-year highs late last September, as the key factors that were so supportive of the strengthening dollar for much of the last two years have dissipated. With markets pricing in easing from the Fed beginning in early 2024, the dollar's large interest-rate advantage has eroded, making the dollar a relatively less attractive destination for global capital than it was before. Foreign currency valuations have also become much more compelling for investors after reaching extremes late last year many currencies had never seen. As a result, foreign asset markets are much cheaper on a relative basis and have begun to attract more investment flows in 2023.

Only time will tell if the dollar is undergoing a more significant cyclical shift lower or will feel any material impact from attempts at

FIG. 12

Foreign exchange turnover by currency



Source: LPL Research, Bank of International Settlements Triennial Central Bank Survey 05/04/23.
As FX transactions involve two currencies, the sum of the shares in all individual currencies will total 200%.

"de-dollarization." The large amount of dollar-denominated liabilities held outside of the U.S. (estimated at $9 trillion) is an important structural element that argues strongly against this happening in any sort of material way. The natural dollar demand this dynamic can create, particularly during times of market or geopolitical stress, is immense and can rapidly alter the currency landscape in the dollar's favor. Global usage of the dollar is more than stable, as nearly 90% of global foreign currency transactions involve the dollar. Eroding that kind of dominance would, at best, take time. While the dollar can certainly weaken due to economic or cyclical forces, reports of the dollar's imminent structural demise are greatly exaggerated.

ON THE GLOBAL FRONT

In Europe, economic surprises like the warmest winter on record (and avoiding an energy crisis), little escalation of the conflict in the Ukraine, and the European Central Bank's (ECB) steady push to normalize policy were clear positives for the euro in the first half of 2023. Whether the ECB can continue to stay on this normalization path will likely determine if the euro can continue to advance. The impact of tighter monetary policy and recession risk could make this much more challenging for the ECB.

The Japanese yen was more than 40% undervalued on a purchasing power parity basis late last year. Aggressive currency intervention from the Ministry of Finance and a surprise move by the Bank of Japan (BOJ) in December to alter its Yield Curve Control (YCC) policy have helped the yen rebound from 30-year lows. Further relaxation of YCC policy in the second half of 2023 is a clear potential yen positive, but the recent change in leadership at the BOJ could see policy shifts pushed further out.

Helping navigate through the inflection point

THE FIRST HALF OF 2023 WAS A meaningful period in many aspects after a difficult year in 2022. Global inflation figures finally started to come down, economic activity started showing early signs of slowing, and the Fed moderated its hiking steps while remaining hawkish. We believe most central banks are at the final stages of rate hikes or even at the beginning point of easing (e.g., China) as their focus moves from inflation to recession. That said, the timing and the steps they will take after the shift are greatly data dependent, leaving the market with many uncertainties. This, combined with the lagged impact of rate hikes which will become more apparent down the road, may keep market volatility at an elevated level with many twists and turns, and dispersion will likely continue across the asset classes, sectors, and quality of the assets.

With this in mind, we remain constructive on alternative investments, which can provide a source of alpha that is uncorrelated to the traditional market, downside management, and diversification for investors' portfolios. We, however, also want to note that greater dispersion of performance is expected among managers depending on their trading style, sector, or geographical focus, even within each strategy group, given the macro backdrop. Therefore, understanding the characteristics of an underlying strategy, including the opportunity set as well as risks, will be more critical than in recent years.

Overall, we expect tactical, unconstrained, alpha focused managers in the hedge fund category, as well as private markets strategies that focus on high quality assets, to deliver solid results in the current environment.

Within the hedge fund category, we are particularly constructive on well-diversified and tactical managers which can position themselves around the market inflection points, benefit from increased volatility, and structure trades for asymmetric upside/downside capture. In this regard, we are positive on global macro managers who can take advantage of robust rates and currency trading opportunities arising from active central banks that are in different phases of the policy cycle. A selective set of systematic strategies that can take advantage of volatility could provide strong diversification benefits in a potentially challenging market environment. Lastly, high quality multi-strategy categories may warrant consideration in investors' portfolios, as each of them offers value that is more than sum of its parts through its own strategic capital re-allocation and risk management.

Within the private markets category, we expect private credits and infrastructure categories to potentially continue to deliver performance as yield alternatives. These managers should be able to strike solid terms to help generate attractive yields and weather potential market volatility. The yields for senior secured loan are at an attractive level, potentially alleviating the need to leverage or lower the quality of loans. For infrastructure, its resilient nature during market downturns, along with the secular demand on digitalization and decarbonization backed by policy tailwinds should be appreciated.

In addition to the aforementioned strategies, distressed/special situation opportunities may arise towards the later part of the year or in early 2024 that could lend rich trading opportunities for relevant hedge funds as well as private market players.

FIG. 13

Views from the STAAC

Tactical asset allocation views

POSITIVE

- International equities
- Large caps
- Industrials
- Preferred securities
- Mortgage-backed securities
- Low beta alts (global macro, managed futures, multi-strategy)
- Precious metals

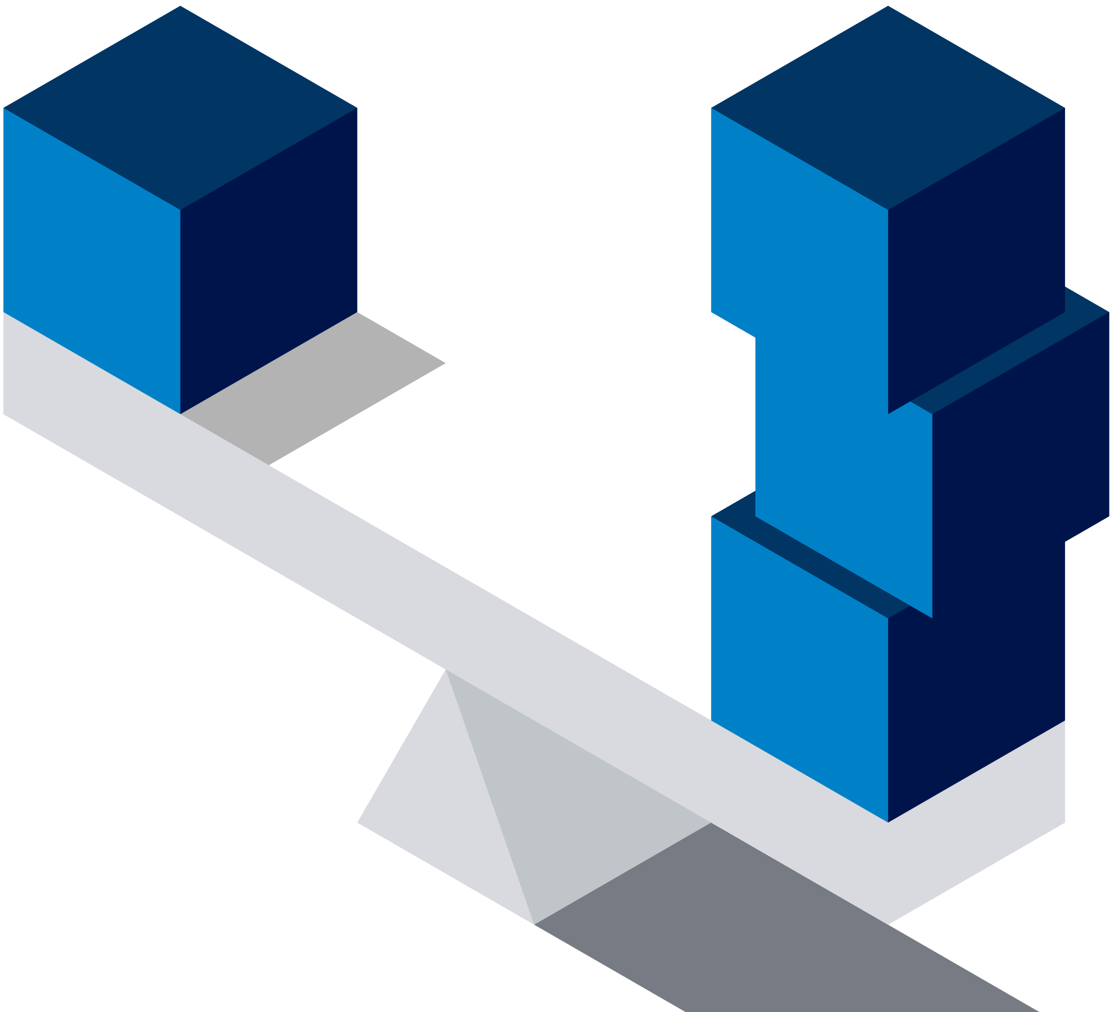
NEUTRAL

- U.S. equities
- Growth and value equities
- Treasuries
- Duration

NEGATIVE

- Emerging market equities
- Mid caps
- Small caps
- Consumer discretionary
- Real estate
- Foreign bonds
- Investment grade corporates

Championing the balancing act



THE ECONOMY AND MARKETS MADE progress toward regaining balance in the first half of 2023, but more work lies ahead. Reclaiming that state of balance helps us feel grounded, rooted in stability and the comfort of the familiar. From a financial perspective, it can mean a return to lower prices on housing, groceries, and more. It can also translate into greater spending on experiences, like dining out. Put the two trends together and we could see a return to the more typical 70:30 spending mix of services to goods.

No doubt, the path to balance will include opportunities for investors as we discussed. But there are several unknowns out there—most notably, the potential for recession, fluctuating interest rates, and geopolitical instability. All of the unknowns come with their own set of implications and ensuing counterbalances. The good news is the back and forth dynamic between the economy, markets, and global events is the very thing that attracted so many of us to investing in the first place.

This means that the LPL Research team will be here, weighing in with timely perspective at each and every turn. After all, as we look to 2024, a year that includes a presidential election, the goal is to start it from a position of balance.

Our investment committee is your investment committee

The Strategic and Tactical Asset Allocation Committee (STAAC) is the investment committee broadly charged with overseeing the investment decisions for LPL's discretionary asset allocation platform. The 12-member committee is comprised of the senior members within LPL's Research department and is responsible for the firm's capital market views that ultimately form the firm's asset allocation decisions.

The STAAC determines the firm's investment outlook and asset allocation that helps define LPL Research's investment models and overall strategic and tactical investment guidance. That guidance is delivered via recommended allocation weightings and a suite of strategy reports, articles, chart analysis, videos, and podcasts.

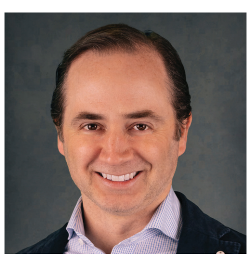
The committee is chaired by the director of research and includes investment specialists from multiple investment disciplines and areas of focus. The STAAC meets weekly to foster the close monitoring of all global economic and capital market conditions, and to ensure the latest information is analyzed and incorporated into our investment thought.

Marc Zabicki, CFA
Chief Investment Officer

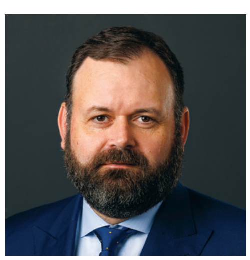
Jeffrey Buchbinder, CFA
Chief Equity Strategist

Scott Froidl, CFA
Investment Analyst

Lawrence Gillum, CFA
Chief Fixed Income Strategist



Jason Hoody, CFA
Manager Research / Head of Sustainable Investing



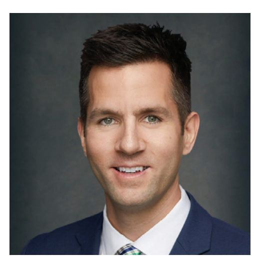
Kristian Kerr
Head of Macro Strategy

Garrett Fish, CFA
Head of Model Portfolio Management

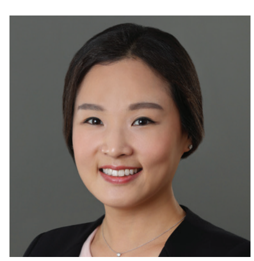
Quincy Krosby, PhD
Chief Global Strategist

Jeffrey Roach, PhD
Chief Economist

George Smith, CFA, CAIA, CIMA
Portfolio Strategist



Adam Turnquist, CMT
Chief Technical Strategist



Jina Yoon, CFA
Chief Alternative Investment Strategist

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Any forward-looking statements including the economic forecasts herein may not develop as predicted and are subject to change based on future market and other conditions. All performance referenced is historical and is no guarantee of future results.

References to markets, asset classes, and sectors are generally regarding the corresponding market index. Indexes are unmanaged statistical composites and cannot be invested into directly. Index performance is not indicative of the performance of any investment and does not reflect fees, expenses, or sales charges. All performance referenced is historical and is no guarantee of future results.

GENERAL RISK DISCLOSURES:

Investing involves risk including the potential loss of principal.

Alternative investments may not be suitable for all investors and should be considered as an investment for the risk capital portion of the investor's portfolio. The strategies employed in the management of alternative investments may accelerate the velocity of potential losses.

Investing in stock includes numerous specific risks including the fluctuation of dividend, loss of principal and potential illiquidity of the investment in a falling market. Because of their narrow focus, sector investing will be subject to greater volatility than investing more broadly across many sectors and companies. Value investments can perform differently from the market as a whole. They can remain undervalued by the market for long periods of time. The prices of small and mid-cap stocks are generally more volatile than large cap stocks.

Bonds are subject to market and interest rate risk if sold prior to maturity. Bond values will decline as interest rates rise and bonds are subject to availability and change in price. Bond yields are subject to change. Certain call or special redemption features may exist which could impact yield. Government bonds and Treasury bills are guaranteed by the U.S. government as to the timely payment of principal and interest and, if held to maturity, offer a fixed rate of return and fixed principal value. Corporate bonds are considered higher risk than government bonds but normally offer a higher yield and are subject to market, interest rate, and credit risk, as well as additional risks based on the quality of issuer coupon rate, price, yield, maturity, and redemption features. Mortgage-backed securities are subject to credit, default, prepayment, extension, market and interest rate risk. Floating rate bank loans are loans issues by below investment grade companies for short term funding purposes with higher yield than short term debt and involve risk. Preferred stock dividends are paid at the discretion of the issuing company. Preferred stocks are subject to interest rate and credit risk. As interest rates rise, the price of the preferred falls (and vice versa). They may be subject to a call feature with changing interest rates or credit ratings. The majority of preferred stocks outstanding are concentrated in the financial sector.

International debt securities involve special additional risks. These risks include, but are not limited to, currency risk, geopolitical and regulatory risk, and risk associated with varying settlement standards. These risks are often heightened for investments in emerging markets.

High yield/junk bonds (grade BB or below) are not investment grade securities, and are subject to higher interest rate, credit, and liquidity risks than those graded BBB and above. They generally should be part of a diversified portfolio for sophisticated investors.

Municipal bonds are subject to availability and change in price. They are subject to market and interest rate risk if sold prior to maturity. Bond values will decline as interest rates rise. Interest income may be subject to the alternative minimum tax. Municipal bonds are federally tax-free but other state and local taxes may apply. If sold prior to maturity, capital gains tax could apply.

The fast price swings of commodities will result in significant volatility in an investor's holdings. Commodities include increased risks, such as political, economic, and currency instability, and may not be suitable for all investors. Precious metal investing is subject to substantial fluctuation and potential for loss.

Any company names noted herein are for educational purposes only and not an indication of trading intent or a solicitation of their products or services. LPL Financial doesn't provide research on individual equities.

All index data from FactSet. International investing involves special risks such as currency fluctuation and political instability and may not be suitable for all investors. These risks are often heightened for investments in emerging markets.

All information is believed to be from reliable sources; however, LPL Financial makes no representation as to its completeness or accuracy.

Investing involves risks including possible loss of principal. No investment strategy or risk management technique can guarantee return or eliminate risk in all market environments. There is no guarantee that a diversified portfolio will enhance overall returns or outperform a non-diversified portfolio. Diversification does not protect against market risk. Investing in foreign and emerging markets debt or securities involves special additional risks. These risks include, but are not limited to, currency risk, geopolitical risk, and risk associated with varying accounting standards. Investing in emerging markets may accentuate these risks.

Asset allocation does not ensure a profit or protect against a loss.

GENERAL DEFINITIONS:

Gross Domestic Product (GDP) is the monetary value of all the finished goods and services produced within a country's borders in a specific time period, though GDP is usually calculated on an annual basis. It includes all of private and public consumption, government outlays, investments and exports less imports that occur within a defined territory.

The PE ratio (price-to-earnings ratio) is a measure of the price paid for a share relative to the annual net income or profit earned by the firm per share. It is a financial ratio used for valuation: a higher PE ratio means that investors are paying more for each unit of net income, so the stock is more expensive compared to one with lower PE ratio.

Earnings per share (EPS) is the portion of a company's profit allocated to each outstanding share of common stock. EPS serves as an indicator of a company's profitability. Earnings per share is generally considered to be the single most important variable in determining a share's price. It is also a major component used to calculate the price-to-earnings valuation ratio.

The Standard & Poor's 500 Index is a capitalization-weighted index of 500 stocks designed to measure performance of the broad domestic economy through changes in the aggregate market value of 500 stocks representing all major industries.

The Bloomberg U.S. Aggregate Bond Index is an index of the U.S. investment-grade fixed-rate bond market, including both government and corporate bonds.

A company's market capitalization is the market value of its outstanding shares. Market capitalization is calculated by multiplying the number of a company's shares outstanding by its stock price per share. Classifications such as large-cap, mid-cap and small-cap are only approximations and may change over time.

EQUITY DEFINITIONS

Cyclical stocks typically relate to equity securities of companies whose price is affected by ups and downs in the overall economy and that sell discretionary items that consumers may buy more of during an economic expansion but cut back on during a recession. Counter-cyclical stocks tend to move in the opposite direction from the overall economy and with consumer staples which people continue to demand even during a downturn.

A Growth stock is a share in a company that is anticipated to grow at a rate significantly above the average for the market due to capital appreciation.

A Value stock is anticipated to grow above the average for the market due to trading at a lower price relative to its fundamentals, such as dividends, earnings, or sales.

Large cap stocks are issued by corporations with a market capitalization of $10 billion or more, and small cap stocks are issued by corporations with a market capitalization between $250 million and $2 billion.

FIXED INCOME DEFINITIONS

Credit Quality is one of the principal criteria for judging the investment quality of a bond or bond mutual fund. As the term implies, credit quality informs investors of a bond or bond portfolio's credit worthiness, or risk of default. Credit ratings are published rankings based on detailed financial analyses by a credit bureau specifically as it relates to the bond issue's ability to meet debt obligations. The highest rating is AAA, and the lowest is D. Securities with credit ratings of BBB and above are considered investment grade. The credit spread is the yield the corporate bonds less the yield on comparable maturity Treasury debt. This is a market-based estimate of the amount of fear in the bond market. Base-rated bonds are the lowest quality bonds that are considered investment-grade, rather than high-yield. They best reflect the stresses across the quality spectrum.

The Bloomberg Aggregate U.S. Bond Index represents securities that are SEC-registered, taxable, and dollar denominated. The index covers the U.S. investment-grade fixed rate bond market, with index components for government and corporate securities, mortgage pass-through securities, and asset-backed securities.

For a list of descriptions of the indexes and economic terms referenced in this publication, please visit our website at lplresearch.com/definitions

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