After a particularly difficult first half, the third quarter began with a powerful rebound for stocks and bonds. With the S&P 500 Index up more than 9% in July, year-to-date losses have been cut to less than 13%—a meaningful improvement from June’s bear market low when they exceeded 20%. While June’s defensive positioning, poor technicals and deteriorating sentiment created the conditions for a bear market rally, the more powerful catalyst appears to have been another shift in the perceived trajectory of Fed policy tightening. As inflation inputs have started to roll over, the market has begun to discount a “mission accomplished” on fighting inflation and, in turn, the arrival of “peak Fed.” Ebullience around that outcome has underpinned falling nominal and real benchmark rates, with the 10-year US Treasury yield declining 40 basis points and the real rate collapsing by 60, allowing equity price/earnings multiples to expand from approximately 17x to 17.8x forward earnings. Somewhat better than feared second quarter earnings have suggested to some that profit resilience is formidable and reliable, adding fuel to the fire.

Your Global Investment Committee is not quite so sanguine, and we feel strongly that the bear market has not ended. First, inflation is far from defeated, with even optimistic year-end forecasts of core gauges above 4%. With highly variable inflation inputs like the Russia/Ukraine conflict, labor market behavior and still-present COVID threats, the market’s conviction on inflation is misplaced and premature. With quantitative tightening (QT) also in the mix and policy operating on a six-to-nine-month lag, investors would be wise not to interpret current events as a fait accompli. Second, the factors contributing to falling inflation are also slowing the economy, with recession or hard landing risks growing. Although a 2022 recession is not our base case, rising risks demand higher risk premiums than those embedded in today’s valuations. Finally, we view earnings risks as potentially delayed but not denied. Rising costs, slowing growth, strong-dollar headwinds, bulging inventories and loss of pricing power could drive disappointment. We see expectations for 2023 profits resetting by the start of the fourth quarter.

Now is the time for patience and building dry powder. This bear in our view has one last act. Stay well diversified and close to target asset allocations. And enjoy the dog days of August!
GLOBAL MACRO
Too Soon for a Dovish Pivot?
Guneet Dhingra, CFA, Head of US Interest Rate Strategy, Morgan Stanley & Co. LLC
Matthew Hornbach, Global Head of Macro Strategy, Morgan Stanley & Co. LLC

At the July Federal Open Market Committee (FOMC) meeting, the Federal Reserve acknowledged the ailment—high inflation. It also acknowledged that it needs more medicine—restrictive monetary policy—and that it’s about to deliver it, in line with the treatment plan laid out in the June dot plot (the chart published by the Fed signaling its outlook for short-term interest rates).

But most importantly, in the coming months the Fed is looking to lower the dosage, i.e., the pace of hikes, even though the ailment, as indicated by the Consumer Price Index (CPI), appeared worse in May and June. The Fed sounds confident that its current treatment plan will be enough and that it is already bringing down the temperature, also known as growth. While, in theory, the Fed can be nimble about a 50- or 75-basis-point hike in September, it does not seem very nimble in regard to the terminal rate (the point at which an escalating federal funds rate peaks).

We think it is remarkable (and a dovish surprise) that the Fed thinks “moderately restrictive” policy, reached with a shallower pace of hikes, will be enough to quell the highest inflation in 40 years, and even more so when you consider that the last two CPI prints were the strongest in at least 40 years. The increasing attention to growth concerns and relative rigidity of the policy path amid upside inflation surprises mark a dovish pivot from the Fed at its July FOMC meeting.

OPTIMISTIC ASSUMPTIONS ON INFLATION. For now, the interest rate market appears even more sanguine about inflation risks and the ensuing path for monetary policy. It’s pricing in a terminal rate of approximately 3.3% by December—below the June FOMC dot plot median of 3.375%. Benign market pricing in the front end of the interest rate curve reflects two main factors: 1) growth concerns are weighing on the Fed’s mind and 2) inflation prints will fall in coming months, as evidenced by the drastic decline in CPI swap rates, which suggest one-year-ahead CPI of around 2.9%, fairly close to the Fed’s target. The first factor was validated by the Fed at its meeting last week, as growth concerns are indeed weighing on its mind. The second assumption, however, is still pretty optimistic in our view.

What if risks of inflation materialize to the upside and it turns out to be sticky as it heads lower? Looking at evidence around current inflation dynamics, we think the Fed is potentially underestimating the task of lowering inflation, and it may need to pivot back to hawkishness—a medium-term risk for which markets are very poorly prepared.

Let’s look at the near- and medium-term upside risks. Near term, both growth and inflation could look strong. Notably, the upcoming CPI path does not look very supportive of the Fed’s dovish stance. On a headline basis, the CPI fixings market (a segment of the swaps market that allows investors to take a position on CPI prints) suggests headline CPI could be near 8.8% through October. Additionally, monthly core CPI could hover close to 0.5% to 0.6% for the next three months and average 0.4% to 0.5% in the next six months. Besides that, inflation isn’t merely high, it is entrenched in all corners of the CPI basket.

Finally, growth is more likely to surprise to the upside than inflation to the downside. On the growth front, while the data has recently been mixed, the US economic surprise index is running close to its recent low—a level at which it typically rebounds.

RISKING A HAWKISH REVERSAL. One also has to ask how exactly inflation will come down sustainably in the medium term. Breaking CPI into its components, those closely tied to the labor market have been strengthening. A recent paper from the Federal Reserve Bank of San Francisco suggests that the short-term non-accelerating inflation rate of unemployment (NAIRU) could be close to 6%, meaningfully above medium-term NAIRU, which is believed to be less than 4%. In that context, the unemployment rate—approximately 2.5% through the short-term NAIRU estimate—equates to the hottest labor market in nearly 40 years.

If the labor market is indeed that tight, inflation is unlikely to decline sustainably until unemployment picks up. The unemployment rate hasn’t even started moving higher, while the Fed has already pivoted dovish. As such, the Fed may risk needing to return to a hawkish tune in the coming months, reversing this latest dovish pivot.

This article was excerpted from the July 28 report from Morgan Stanley & Co. Research, "FOMC Reaction: July Meeting." For a copy of the full report please contact your Financial Advisor.
ON THE MARKETS

US DEFENSE

Generational Investments in Defense

Kristine T. Liwag, Equity Analyst, Morgan Stanley & Co. LLC

Spurred in large part by the Russia-Ukraine conflict, the defense industry has experienced an uptick in interest accompanied by outperformance of the broader market. While the tragic events in Eastern Europe have served as a catalyst, several larger dynamics are at play, however, and focusing exclusively on Ukraine risks overlooking them. Shifting global threats, the return of “great power competition” and the aging of weapons systems are all prompting the Pentagon to undertake generational investments as it gears up for the fight of the future—with major implications for industry growth.

After concentrating on counterterrorism/counterinsurgency for decades, the Pentagon is shifting its attention, as preparation for high-intensity warfare can no longer be deferred. Indeed, the new mindset comes with the reemergence of “great power competition”—a phrase that refers to the rising challenges posed by China and Russia to the post-World War II, US-led international order. While the return of great power competition was recognized by the Obama administration in its 2015 National Military Strategy, it became the dominant theme of the Trump administration’s 2018 National Defense Strategy, which formally acknowledged it as the primary challenge to US national security and accordingly called for a reorientation of defense strategy. The Biden administration has embraced the term “strategic competition” to refer to the challenges from China and Russia.

MODERNIZATION TAILWINDS. Just as today’s threat environment is driving demand for new capabilities, many workhorse weapons systems are approaching obsolescence. Military advancements by “near-peers” Russia and China, in particular, are placing a premium on the increased range, speed and connectivity of US systems. To effectively deter such competitors and engage, if necessary, US military assets will need to travel faster over longer distances and be networked to share time-sensitive information more seamlessly.

In some areas, existing systems are being infused with improved capabilities. In others, complete overhauls are required, and the US can no longer afford to kick the “replacement can” down the road. Either way, twin needs to recapitalize existing systems and introduce new capabilities should drive Department of Defense (DOD) modernization spending in the coming years. In fact, we expect it to outpace topline DOD spending growth through 2030.

Modernization, which represents funds for procurement and those grouped with research, development, test and evaluation (RDT&E), expands in our base case at a compound annual growth rate of approximately 6.3% from fiscal year 2022 to 2027 and 5.8% from 2022 to 2030. That compares to current government estimates of approximately 2.7% and 2.0% over the same time frames. Modernization funding has amounted to roughly one-third of the DOD’s total discretionary budget request, on average, over the past decade (see chart). In our base case, we see procurement and research and development collectively amounting to 40% of the Pentagon budget by fiscal year 2030.

Modernization Represents Approximately 35% of the Total Pentagon Budget Request

MIX MATTERS. With the return of great power competition, and given Chinese military advancements and aspirations, defense spending has the potential to remain higher for longer as the US overhauls core capabilities. We expect major defense contractors with strong alignment to the highest-priority DOD areas to outperform, with portfolio mix a particularly important driver of relative growth. While not every Pentagon need can be sufficiently met and the DOD will be forced to make hard choices, we consider companies with outsized exposure to several high-priority areas to be positioned for growth that could outpace overall DOD topline and modernization budgets. These include nuclear modernization, multidomain command and control, missiles/missile defense and space, with the latter the fastest-growing mission area across time frames, in our view.

Longer term, embracing and advancing disruptive technologies will be key differentiators. Several emerging technologies hold the potential to provide discriminating advantages on the battlefield. Some of these will mature into new classes of weapons systems (e.g., hypersonic strike weapons and directed energy systems). Other technologies will be infused via platform retrofits or embedded within new systems, such as advanced cyber. While Pentagon funding for many of these technologies is relatively small today, we believe major contractors will invest in these areas to strategically position for long-term growth as the nature of warfare evolves.
INTENSE COMPETITION FOR GOVERNMENT RESOURCES.
Despite the need to keep pace with threat advances and prepare for future high-end conflict, the Pentagon must vie for limited US government resources against a host of competing interests. Even in an observable growth environment for defense, not every priority can be sufficiently funded given the finite nature of federal resources. US defense spending represents approximately 15% of the total federal budget but half of the discretionary budget (see charts). Notably, discretionary is the bucket from which Congress looks to either reduce spending or make room for emerging priorities.

With these realities in mind, two factors will be crucial in determining defense spending relative to current and assumed levels: perceived threat level and bipartisan support for modernization efforts. In our base case, we assume a higher perceived threat level and moderate bipartisan support for modernization. While lower perception of the threat level and less bipartisan support characterize our bear case spending view, even under that scenario we see a strong floor for the defense budget, given the need to replace aging capabilities. Our bull case (high perceived threat and high bipartisan support) reflects a scenario not seen since the Reagan administration, when modernization spending grew at a sustained double-digit compound annual growth rate as the US invested to counter a peer threat.

FUNDAMENTAL SHIFT.
While threats of every magnitude are important, in our view, the most significant tailwind for defense spending from the Russia/Ukraine conflict has less to do with the ebb and flow of the conflict or its ultimate outcome. Instead, Russian aggression has served as an irreversible wakeup call for the US and its allies in Europe. Indeed, while a cooling of tensions could produce a near-term sell-off for the industry, we see the conflict driving a sustained recommitment to US defense spending and accelerating preparations for high-end conflict. Russian aggression in Ukraine reflects a fundamental shift in the geopolitical chessboard, and the mounting threat to NATO’s eastern flank is validating the Pentagon’s planning for the return of great power competition. Arguably, the most significant industry tailwind from Ukraine is that the conflict is reinforcing a bipartisan consensus in the US around the need to adequately resource national defense and igniting new recognition that near-peer threats present the greatest challenges to US security interests globally.

This article was excerpted from the July 12 report from Morgan Stanley & Co. Research, “Generational Investments in Defense.” For a copy of the full report please contact your Financial Advisor.
GLOBAL MACRO

Dollar Gains Less Painful for EM

Christopher K. Baxter, Investment Strategist, Morgan Stanley Wealth Management
Jonah Silverman, Associate, Morgan Stanley Wealth Management

When the Federal Reserve shifts gears, investors can count on far-reaching consequences—and the impact isn’t always predictable. Still, historical patterns can be useful guideposts for what might unfold across an array of markets. Under the current Fed regime, two major relationships—the US dollar versus other currencies, and developed market equities versus emerging markets—have been presenting additional challenges as they deviate from past trends. Understanding the reasons behind that divergence is an important step in navigating what could come next.

PERSISTENT DOLLAR STRENGTH. In our Feb. 23 report "Will Emerging Markets Face a Tight Squeeze?" we looked at the last four Fed tightening cycles and found that the US dollar often appreciated ahead of the first federal funds hike, followed by a decline of 4.5%, on average, over the subsequent nine months. The dollar did indeed climb prior to the March 16 announcement of the first hike in the current cycle, and since then it has risen further—up an additional 7.4% against a basket of major currencies, as measured by the US Dollar Index, for a year-to-date gain of 10.1%.

The reversal so far from previously established trends has several potential drivers. First, disjointed monetary policy, such as in the case of the European Central Bank (ECB), and even contradictory policy, as in the case of the Bank of Japan (BOJ), have complicated matters. In fact, the magnitude of the Fed’s pivot compared to other major central banks drove dollar strength in the first half of the year. Both the euro and the yen, which together account for 70% of the US Dollar Index, have tumbled close to two-decade lows versus the dollar (see chart).

The Yen and Euro Have Declined to Multi-Decade Lows Versus the Dollar

![Chart showing the EUR/USD and USD/JPY exchange rates over time.](source: Bloomberg)

Second, since the Fed began increasing short-term rates, growth has slowed considerably, boosting the odds for an upcoming recession. Given the greenback’s countercyclical attributes, and amid the prolonged conflict between Russia and Ukraine, this has contributed to a strong bid for the dollar.

Finally, ongoing market volatility and downbeat sentiment have prompted investors to shift toward safe-haven assets. In fact, Commodity Futures Trading Commission (CFTC) data reflects increased US dollar bullishness. Currently, net long positioning in US dollar futures contracts stands at the 79th percentile for the last 20 years. What’s more, net longs as a percent of total contracts are greater than those for gold or US Treasuries—assets also known to hold or increase value during economic or market stress.

EM VS. DM. On the surface, developed market corporations should benefit from a rising US dollar. According to data from FactSet, the MSCI EAFE Index (developed markets) derives 19% of its revenues from the US—more than from any other country. That means the dollar’s jump should make foreign goods more attractive to US consumers and boost revenue at companies that benefit from favorable exchange rates. On the other hand, the MSCI EM Index (emerging markets) derives only 9% of its revenue from the US and should therefore benefit less.

The US Dollar Index has not yet reached the eyewatering levels of the early 2000s. But when it has traded above 100, developed market equities, on average, have outperformed emerging market equities (see chart). In fact, Japanese and European outperformance of emerging markets when the dollar is strong has been notable.

A Strong Dollar Has Historically Supported Developed Market Outperformance of Emerging Markets

![Chart showing average monthly equity returns vs. MSCI Emerging Markets Index when US Dollar Index is 80-90, 90-100, 100+.](source: Bloomberg)

Note: Performance period is January 1990 to June 2022
Source: Bloomberg, Morgan Stanley Wealth Management Global Investment Office as of June 30, 2022
This relationship played out from 1990 to 2014, as the ratio of developed market equities to emerging markets generally tracked the dollar. When the dollar strengthened, developed markets outperformed, and when it weakened, emerging markets benefited. Since 2014, however, that relationship has unwound (see chart). So far in 2022, amid ongoing dollar strength, developed and emerging markets have performed roughly in line, with the former outpacing the latter by a relatively modest 250 basis points.

The Historical Relationship Between Dollar Strength and Developed Market Equities Has Recently Unwound

![Chart showing the historical relationship between dollar strength and developed market equities](chart.png)

Source: Bloomberg, Morgan Stanley Wealth Management Global Investment Office as of July 14, 2022

This may stem from a variety of factors. First, emerging markets have become less commodity oriented and therefore less dependent on the dollar. Over the years, emerging markets have moved away from "old economy" sectors tied to manufacturing and toward "new economy" sectors, which are more domestically oriented. The energy and materials sectors’ contribution to the MSCI Emerging Markets Index has declined nearly 20% since the Great Financial Crisis. Moreover, the index’s allocation to the technology and consumer discretionary sectors has risen by almost the same amount. In fact, sector weights in emerging markets are currently far closer to those of developed markets than in prior decades (see chart).

Additionally, servicing debt denominated in US dollars has become less onerous. Prior to mid-2010, emerging market countries relied heavily on external financing—particularly dollar-denominated debt, given its role as a funding currency for about half of all cross-border loans. Issuing debt in dollars exposes emerging markets to foreign exchange risk because, as local currencies decline against the dollar, servicing dollar-denominated debt becomes more expensive. However, an uptick in bonds denominated in local currencies, along with relatively more stable currency markets, has made emerging economies less vulnerable to dollar swings.

Emerging Market Sector Composition Looks More Developed

![Chart showing emerging market sector composition](chart2.png)

Source: MSCI, Morgan Stanley Wealth Management Global Investment Office as of July 21, 2022

Furthermore, since 2014, more stable relative growth and balance sheet improvement have benefited emerging markets. According to the Columbia University Journal of International Affairs, foreign exchange reserves for countries in the JP Morgan Emerging Markets Bond Index ex-China, have increased from less than $500 billion in 1995 to almost $6 trillion today. In essence, balance sheet improvement and more stable relative growth have provided emerging markets with a buffer from the rising dollar, removing much of the advantage that developed markets have historically enjoyed over developing markets.

Given the potential durability of some underlying factors—such as the BOJ’s stance, armed conflict in Europe and the reduction in reliance on commodities and US dollar-denominated financing—we believe the recent deviations from longer-term patterns could persist over coming months. Bearing in mind that emerging markets are not monolithic, and nuances are important, we recommend active management and a focus on high-quality companies with diverse revenue streams and the capacity to navigate inflationary pressures. We also suggest a cautious approach toward countries with abnormally high dollar-debt balances and low foreign exchange reserves.
Short Takes

A Historic Drawdown for Recent IPOs

Historically, the performance of initial public offerings (IPOs) versus the S&P 500 has exhibited a tendency to move in sympathy with financial conditions. To put it simply, new listings tend to outperform when financial conditions are easing and underperform when they are tightening. In recent months, IPOs have significantly lagged the broader market, as their aggregate relative selloff has rivaled that of the dot-com bust and exceeded that of the Great Financial Crisis. In both periods, IPOs bottomed before the broader market. Given recent actions by the Federal Reserve and subsequent commentary, a key debate is emerging as to whether financial conditions will ease or tighten going into the fall, which could indicate either opportunity or more pain for recent IPOs.—Vijay Chandar and James Ferraioli

UK Outshining Most of Europe

After several years of lagging prior to and in the wake of Brexit, the UK—the largest component of the MSCI Europe Index, at 25%—is on pace for its strongest year of relative outperformance in more than a quarter century. Albeit in negative territory, it is outperforming the broad Europe index by 11% in 2022 and is the third best performing country behind Portugal and Norway. Notably, outsized energy sector exposure and a minimal allocation to the hard-hit information technology sector have been beneficial. Flows into UK exchange-traded funds (ETFs) have been mixed, but the largest ETF has seen its asset base swell by more than 30% in 2022. Morgan Stanley & Co.’s European equity strategy team remains Overweight on the country, citing attractive valuations.—Michael Suchanick

As Prices Fluctuate, High Yield Defaults Remain Low

Based in part on building conviction among some investors that the Federal Reserve will pivot toward a slower pace of rate hikes, high yield bonds have recently registered strong performance, with spreads narrowing more than 90 basis points from their recent wide. Whether that move will be justified by the fundamentals has yet to be seen. That being said, one gauge that has been supportive in the current downturn has been the default rate, which has remained near the extreme low of 2021. While Morgan Stanley & Co.’s credit strategists think defaults will move up from here in coming quarters, to the 2.0% to 3.0% range, their projection is still below the historical average. Notably, they expect elevated cash balances and manageable near-term liquidity to be supportive.—Daryl Helsing, CFA
INVESTING WITH IMPACT
Using the Power of Your Capital to Influence Company Behavior

Lily Trager, Senior Investment Strategist, Morgan Stanley Wealth Management
Emily Thomas, CFA, Investment Strategist, Morgan Stanley Wealth Management

Proxy season, which typically extends from April to June, is an opportunity for shareholders to vote on specific issues related to the companies they own. With the latest season behind us, we have been thinking more about the power of corporate engagement and investor influence in driving positive environmental and social change. For Morgan Stanley’s Investing with Impact Platform, Influence is one of the “Three I’s of Impact,” the framework that serves as the foundation for everything we do, from manager due diligence to portfolio construction (see chart below). Of the more than 230 investment strategies on the Investing with Impact Platform, over 70% are already exercising different approaches to influencing outcomes on behalf of investors.

INFLUENCE IN ACTION. Influence can be exercised through active ownership of investor capital and/or through market building. The primary tools used to engage in active ownership include initiating dialogue with company management, engaging in proxy voting and filing shareholder resolutions.

Investing With Impact Framework

The Three I’s of Impact: Intentionality, Influence and Inclusion. Customizable to a client’s unique goals, they represent the range of approaches that investors can pursue across asset classes to maximize positive impact.

INTENTIONALITY

Intentional investment process that seeks to generate market-rate returns alongside positive social and environmental impact in one or more of the following ways:

- Minimize Objectionable Impact
  - Restriction Screening: Reduce or seek to eliminate exposure to companies that detract from intended positive impacts
  - ESG Integration: Consider environmental, social and governance factors in the investment process
  - Thematic Solutions: Evaluate companies on revenue generated from products and services that seek to contribute to sustainability solutions

INFLUENCE

Modify the behavior of portfolio companies to seek better social and environmental outcomes and drive industry capabilities.

- Active Ownership can be achieved through management dialogue, strategy setting, proxy voting, resolution filing and filling board seats
- Market Building seeks to influence the industry through collaborative affiliations and adopting global frameworks

INCLUSION

Diverse perspectives can help guide the intentional investment process and engagement activities, or influence, through:

- Diverse Firm Ownership*
  - and/or
  - Diverse Representation Across Investment Professionals

*Morgan Stanley's Global Investment Manager Analysis (GIMA) team defines diverse asset managers as those with 33% or greater ownership by women or racial/ethnic diverse individuals. This definition aligns with the US Equal Employment Opportunity Commission categories and includes Hispanic or Latino; Black or African American; Asian; American Indian or Alaska Native, and Native Hawaiian or other Pacific Islander.

Source: Morgan Stanley Wealth Management Investing with Impact

In their ongoing dialogue with senior executives, portfolio managers and research analysts can point out material environmental and social risks, as well as opportunities for a particular company. Another method is proxy voting, through which shareholders can vote directly on specific company issues. Aligning proxy votes with core environmental, social and governance (ESG) issues helps incentivize sustainable business decision making. Lastly, investors can submit a shareholder proposal, which is a request for a company to address a particular area of concern.

According to Morgan Stanley & Co. Research, shareholder proposals related to environmental and social issues were up roughly 30% this year versus the prior year (see second chart). While most proposals did not pass, they still sent a message to companies, encouraging corporate responsibility and discouraging practices that are unsustainable or unethical, or that otherwise pose risks to investors and society. Many of the proposals that did pass focused on climate-related reporting, racial justice or civil rights audits, or lobbying activities.

While active ownership can be applied across asset classes, in both public and private markets, its power is perhaps most evident in public equities where shareholders can push for changes at some of the world’s largest and most powerful corporations, which in turn impacts employees and the communities in which they operate.
Environmental and Social Proposals Have Risen Approximately 30% Year Over Year

Investor influence can go beyond specific companies. Market building is another tactic that investors use to influence policies at the industry level through collaborative affiliations. Many managers on the Investing with Impact Platform may team up to pursue the same changes. Nonprofit organizations and industry coalitions also work with investors to advance positive change, often around thematic topics.

EFFECTIVE ENGAGEMENT. During the due diligence process for the Investing with Impact Platform, we focus on a few best practices that can help improve the effectiveness of an engagement strategy. First, we look for a systematic approach to selection of themes, methods of engagement and deciding which companies to engage with. In a world with so many different issues to address, it is important to prioritize engagements tied to an area of industry expertise or ones for which partnerships can be formed with other active investors. Additionally, we see many successful engagements focused on environmental and social issues that are material to a business. This way, asset managers can, first and foremost, make a business case for why the proposed change is needed to advance financial goals. In other words, Influence can truly benefit all stakeholders of a business, including shareholders. Finally, some asset managers will produce engagement reports to highlight past initiatives. This helps to communicate the work to end-clients and provides a way to track successful engagements over the course of multiple years, which is often how long it takes to see the fruits of this labor.

ASSET MANAGERS DRIVING CHANGE. We recently hosted a conversation with three asset managers, Brown Advisory, Domini and Parnassus, from the Investing with Impact Platform about how they are igniting change at some of the largest companies in the world—those that affect nearly every aspect of our lives. Domini, for example, has filed over 300 shareholder proposals since the company was founded more than 30 years ago on key issues including environment, diversity and human rights. Parnassus recently began a multiyear engagement on environmental justice—an issue sitting at the intersection of climate change, health and racial equity—which has already led to tangible corporate change.

What’s more, these asset managers recognize that change cannot be accomplished by a single asset owner or manager and that collaboration is key. As part of its large-scale engagement campaigns, Brown Advisory partners with various organizations and coalitions, including Climate Action 100+, an investor-led initiative to ensure that the world’s largest corporate greenhouse gas emitters take necessary action on climate change. In the past year alone, Brown joined three company-specific engagements coordinated by Climate Action 100+. This type of coordinated effort can help magnify investors’ voices. While there may be a misconception that private markets are the only place where investors can truly have an impact, these examples of Influence demonstrate the power investors wield to create impact in public markets.

Influence empowers investors to drive change at the companies in which they are invested, but it frequently has outsized positive effects on broader industries and communities. While many asset managers are already doing this important work, the space continues to evolve as clients increasingly seek portfolios that do more than just produce financial returns. To learn how your own portfolio may align with the pillar of Influence, please contact your Financial Advisor.
Q&A
Alternatives Amid a Challenging Traditional Tape

The 60/40 portfolio, a mix of 60% equities and 40% fixed income, has long been a widely held reference for blended portfolios. For about 40 years through 2021, it enjoyed a remarkable stretch of relatively strong performance, generating returns equal to, or even better than, those of the S&P 500—with lower volatility. But in 2022, persistent inflation and growing recession fears have battered the markets, producing strong headwinds for the 60/40 portfolio and raising questions about its future.

Meanwhile, so-called “alternatives”—traditionally investments like hedge funds and private equity—have proliferated, to varying degrees of success, with the minority sometimes giving the majority a bad name. “Investors have historically thought about alternatives as risky,” explains Marc Rowan, CEO of Apollo Global Management. “I believe that when we look back, we’re going to think about alternatives as simply less liquid. It’s about a risk-reward spectrum.” Rowan shared his views at a Morgan Stanley Wealth Management conference in June. The following is an edited version of his comments.

Question (Q): How do you see things in the world today?

Marc Rowan (MR): I don’t want to say a predictable place... but we’re in a predictable place. As a country, we started printing money 14 years ago and stopped this past June. We printed $8 trillion, and the predictable thing happened: Equities went up; rates went down.

The further out you were on the growth and risk curves, the better you did. We’ve had more than a decade of beta masquerading as alpha, and that’s not what we have going forward.

We don’t yet see any fall-off in demand—whether it’s travel, housing, goods or services—but we have to believe it’s coming, because we are overheating as a country. The Federal Reserve is raising the cost of capital, and will continue until it achieves its end, which is a fall-off in demand.

Looking at public markets today, it’s a virtual certainty that rates are going to continue to go up. I also expect equities to continue to decline. We don’t all feel so great about the S&P 500—which has four tech companies that make up 20% of the index, is around 20, versus an average of about 16 over a long period of time. So I think we still have more recalibration to go in growth.

Q: Do you think central banks can navigate a soft landing... MR: I think we’ve seen the biggest excess in growth stocks. We’ve seen some growth companies reverse in price by 80% and 90%. They are still amazing companies; their share prices just never should have been where they were.

I think there’s more to come, because these are companies that were built on an equity culture. That equity culture has now been destroyed and is going to need to be recreated. They were built on inefficiency and massive SG&A spend (selling, general and administrative expenses that are not directly related to making or selling a product). That’s now going to need to be reined in. They were built on the notion that you could always access funding, and that’s no longer true.

The average price/earnings (P/E) multiple for the S&P 500, which has four tech companies that make up 20% of the index, is around 20, versus an average of about 16 over a long period of time. So I think we still have more recalibration to go in growth.

Q: Where are the opportunities right now?

MR: We have always come at this market as “purchase price matters” investors. That means we try to earn return by taking as little risk as possible. We want growth, but we’re not prepared to pay for it.

When I look at credit markets, there are a couple of ways to
get paid. One is, you take more duration risk, but that doesn’t feel like a great place to be. The second way is to take more credit risk. By and large, that’s what the world has been doing—taking more credit risk. High yield spreads have tightened to record levels. The third risk is taking less liquidity. That’s where we’ve elected to play; to be senior secured and less liquid, trying to get paid for less liquidity and more structure.

If there’s anything that’s going to correct in credit, I think it’s going to be the tail end of the credit curve—be it consumer or corporate. By and large, I don’t see this as a repeat of 2001 or any prior recessionary period; companies and households are in better shape.

Q: How has the world changed since 2008 for alternative private market investors?

MR: Our industry has grown against the backdrop of unbelievable changes in public markets. No one announced these changes, but 2008 really did change everything.

There was wholesale change in the way companies accessed the banking system, which used to be the provider of capital. The banking system now provides a quarter of all capital to US companies. Who are the new banks? You are the new banks. The functions that the banks used to do are now taken up by investors through intermediaries like us and others.

I generally think that that’s been a good trend for the country, as well as for investors.

The second change, and the one that I think is woefully underappreciated, is indexation. In publicly traded fixed income markets, I’m prepared to say that I don’t think 100% beta is ever coming back. There is no alpha left in publicly traded fixed income markets.

Q: Do you think that’s because of the indexation that’s happened?

MR: The marginal buyer of everything in a publicly traded fixed income market is an open-ended mutual fund, exchange-traded fund or derivatives trader. They’ve never met the company. They’re buying when they get cash, and they’re selling when they lose cash. It’s a liquidity-driven market.

If you want to find value, this is the secret of our business: If 100% of the money is liquid, don’t be liquid.

This doesn’t mean that there’s no competition; but if I can avoid 80% or 90% of the competition, that’s what we’re doing—and that’s why the business has grown and has been so good. As long as we don’t think that trees grow to the sky, I think we’ll be very successful.

Q: How should investors be rethinking the 60/40 portfolio allocation to deliver on goals?

MR: What are people trying to achieve? Historically, 60/40 was thought to be diversifying. I think if we’ve seen anything in the past 14 years it’s that stocks and bonds are correlated.

Think of what we’ve experienced. If you were an investor in technology and growth in the public markets, you got beta, and that beta was going up and to the right really hard. Now it’s going down and to the right really hard. It’s beta.

The S&P 500 is incredibly concentrated, incredibly correlated and incredibly dependent on four technology companies that make up a disproportionate amount of the index. And active equity managers by and large have missed the mark.

What are a smart investor’s options? Just step back from competition. That doesn’t mean this is a recommendation for more risk—because we live in a world of geopolitical risk, commodity risk and other risks. When I think about the promise of what alternatives are going to be, I think clients will be able to buy investment grade-only alternatives. They’ll be able to buy total-return alternatives. They’re already buying business development companies (BDCs) and nontraded real estate investment trusts (REITs). I think the day is not far away when people will be able to replace equity allocations—not private equity allocations—with alternatives.

Q: Where do you think the alternatives market is headed in the future?

MR: I think tax rates are only going in one direction, and being tax sensitive is important. Being associated with alternatives, which you only get by stepping back from the liquidity of public markets, is important. This is maybe the second inning, and I don’t think innovation has stopped.

Marc Rowan is not an employee of Morgan Stanley Wealth Management or its affiliates. Opinions expressed by him are his own and may not necessarily reflect those of Morgan Stanley Wealth Management or its affiliates.
Global Investment Committee
Tactical Asset Allocation

The Global Investment Committee provides guidance on asset allocation decisions through its various models. The five models below are recommended for investors with up to $25 million in investable assets. They are based on an increasing scale of risk (expected volatility) and expected return.

Source: Morgan Stanley Wealth Management GIC as of July 31, 2022
The Global Investment Committee provides guidance on asset allocation decisions through its various models. The five models below are recommended for investors with over $25 million in investable assets. They are based on an increasing scale of risk (expected volatility) and expected return.

Source: Morgan Stanley Wealth Management GIC as of July 31, 2022
## Tactical Asset Allocation Reasoning

<table>
<thead>
<tr>
<th>Global Equities</th>
<th>Relative Weight Within Equities</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>US</strong></td>
<td>Market Weight</td>
</tr>
<tr>
<td></td>
<td>With the Fed launching aggressive tightening, supply chains improving and global growth slowing on the back of the Russia/Ukraine conflict and China's COVID outbreaks, we see greater chances of stagflation and thus have reduced our overweight. While recession risks for the broad economy remain low, prospects for negative earnings revisions are rising as are headwinds to valuation multiples. We expect volatile but rangebound trading of plus/minus another 5% to 10%.</td>
</tr>
<tr>
<td><strong>International Equities (Developed Markets)</strong></td>
<td>Market Weight</td>
</tr>
<tr>
<td></td>
<td>The mix of all-time high inflation, existential risks associated with Russia/Ukraine and the European Central Bank's position that it has limited tools to help suggests that the odds of recession are over 50%. Developed market exposure should skew toward commodity and materials exporters, especially those in the Asia/Pacific region.</td>
</tr>
<tr>
<td><strong>Emerging Markets</strong></td>
<td>Overweight</td>
</tr>
<tr>
<td></td>
<td>China's regulatory crackdown and zero-tolerance for COVID cases have exacerbated the economic slowing that began last year. Odds are rising for China stimulus, and growth linked to supply chains is rebounding in South Asia. We are opportunistically adding to positions there and in Latin America, which benefits from already tight central bank policy and commodity exporter windfalls.</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Global Fixed Income</th>
<th>Relative Weight Within Fixed Income</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>US Investment Grade</strong></td>
<td>Overweight</td>
</tr>
<tr>
<td>Markets have aggressively priced the Fed’s hawkish rate path and with yield curves apt to face ongoing flattening pressure, risks of a policy mistake rise. We are taking a more balanced risk-reward approach and have added to large underweight positions. With Quantitative Tightening ahead, execution risk remains large as do the risks from even higher inflation. However, with spreads widening and long-term rates reflecting a more reasonable terminal value, bonds are a decent relative portfolio hedge.</td>
<td></td>
</tr>
<tr>
<td><strong>International Investment Grade</strong></td>
<td>Underweight</td>
</tr>
<tr>
<td>Central banks’ hawkish pivots have prompted a material move in global nominal rates. Risk premiums are moving up too, creating opportunity. While timing and catalysts are still hazy, the amount of negative yielding debt is down by more than two-thirds since last summer. Prospects are brightening for fixed income investors, with opportunities to invest in local currencies that are expected to strengthen against the US dollar.</td>
<td></td>
</tr>
<tr>
<td><strong>Inflation-Protection Securities</strong></td>
<td>Underweight</td>
</tr>
<tr>
<td>TIPS yields have moved up as realized inflation remains near 40-year highs and geopolitical uncertainties add pricing pressures. However, real yields remain deeply negative, which suggests valuation is not compelling.</td>
<td></td>
</tr>
<tr>
<td><strong>High Yield</strong></td>
<td>Underweight</td>
</tr>
<tr>
<td>We recently halved our exposure to the equity-like asset class to reduce equity beta of portfolios. High yield bonds rallied aggressively with the unprecedented provision of liquidity from the Fed and fiscal stimulus from Washington. Surging commodity prices have also repaired balance sheets of energy-levered companies. Upside is limited.</td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Alternative Investments</th>
<th>Relative Weight Within Alternative Investments</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>REITs</strong></td>
<td>Overweight</td>
</tr>
<tr>
<td>With the debate between growth and rising rates moving to center stage, we recently added modestly to the asset class, believing it is a diversifying source of income that is also leveraged to reflation. With real interest rates still negative and inflation expectations rising, we expect to be selective, opportunistic investors in the sector this year, with a focus on residential.</td>
<td></td>
</tr>
<tr>
<td><strong>Commodities</strong></td>
<td>Market Weight</td>
</tr>
<tr>
<td>Global central banks are intensifying their inflation fights with aggressive rate hikes, especially in commodity-based economies like Australia and Canada. Supply chains for goods are starting to clear, relieving some pressures on inflation coming from industrial metals, semiconductors and auto parts. As a result, we anticipate that overall inflation is peaking. That said, structural disruption in energy and global agricultural commodities remains severe and may take multiple quarters to cure.</td>
<td></td>
</tr>
<tr>
<td><strong>Hedged Strategies (Hedge Funds and Managed Futures)</strong></td>
<td>Overweight</td>
</tr>
<tr>
<td>With broad market valuations rich, a majority of returns will be based on company earnings and managements’ ability to navigate rising costs, surging demand and disruptive competition. These factors are constructive for hedge fund managers who are good stock-pickers and can use leverage and risk management to amplify returns. We prefer very active and fundamental strategies, especially low beta, low volatility and absolute return hedge funds.</td>
<td></td>
</tr>
</tbody>
</table>

*For more about the risks to Duration, please see the Risk Considerations section beginning on page 15 of this report.*

Source: Morgan Stanley Wealth Management GIC as of July 31, 2022

Please refer to important information, disclosures and qualifications at the end of this material.
The Global Investment Committee (GIC) is a group of seasoned investment professionals from Morgan Stanley & Co. and Morgan Stanley Wealth Management who meet regularly to discuss the global economy and markets. The committee determines the investment outlook that guides our advice to clients. They continually monitor developing economic and market conditions, review tactical outlooks and recommend asset allocation model weightings, as well as produce a suite of strategy, analysis, commentary, portfolio positioning suggestions and other reports and broadcasts.

Christopher K. Baxter, Vijay Chandar, Guneet Dhingra, James Ferraioli, Daryl Helsing, Kristine T. Liwag, Jonah Silverman, Daniel Skelly, Michael Suchanick, Emily Thomas and Lily Trager are not members of the Global Investment Committee and any implementation strategies suggested have not been reviewed or approved by the Global Investment Committee.

For index, indicator and survey definitions referenced in this report please visit the following: https://www.morganstanley.com/wealth-investmentsolutions/wmir-definitions

Alternative Investments

The sole purpose of this material is to inform, and it in no way is intended to be an offer or solicitation to purchase or sell any security, other investment or service, or to attract any funds or deposits. Investments mentioned may not be appropriate for all clients. Any product discussed herein may be purchased only after a client has carefully reviewed the offering memorandum and executed the subscription documents.

Morgan Stanley Wealth Management has not considered the actual or desired investment objectives, goals, strategies, guidelines, or factual circumstances of any investor in any fund (C). Before making any investment, each investor should carefully consider the risks associated with the investment, as discussed in the applicable offering memorandum, and make a determination based upon their own particular circumstances, that the investment is consistent with their investment objectives and risk tolerance.

Alternative investments often are speculative and include a high degree of risk. Investors could lose all or a substantial amount of their investment. Alternative investments are appropriate only for eligible, long-term investors who are willing to forgo liquidity and put capital at risk for an indefinite period of time. They may be highly illiquid and can engage in leverage and other speculative practices that may increase the volatility and risk of loss. Alternative Investments typically have higher fees than traditional investments. Investors should carefully review and consider potential risks before investing.

Certain information contained herein may constitute forward-looking statements. Due to various risks and uncertainties, actual events, results or the performance of a fund may differ materially from those reflected or contemplated in such forward-looking statements. Clients should carefully consider the investment objectives, risks, charges, and expenses of a fund before investing.

Alternative investments involve complex tax structures, tax inefficient investing, and delays in distributing important tax information. Individual funds have specific risks related to their investment programs that will vary from fund to fund. Clients should consult their own tax and legal advisors as Morgan Stanley Wealth Management does not provide tax or legal advice.

Interests in alternative investment products are offered pursuant to the terms of the applicable offering memorandum, are distributed by Morgan Stanley Smith Barney LLC and certain of its affiliates, and (1) are not FDIC-insured, (2) are not deposits or other obligations of Morgan Stanley or any of its affiliates, (3) are not guaranteed by Morgan Stanley and its affiliates, and (4) involve investment risks, including possible loss of principal. Morgan Stanley Smith Barney LLC is a registered broker-dealer, not a bank.

Hypothetical Performance

General: Hypothetical performance should not be considered a guarantee of future performance or a guarantee of achieving overall financial objectives. Asset allocation and diversification do not assure a profit or protect against loss in declining financial markets.

Hypothetical performance results have inherent limitations. The performance shown here is simulated performance based on benchmark indices, not investment results from an actual portfolio or actual trading. There can be large differences between hypothetical and actual performance results achieved by a particular asset allocation.

Despite the limitations of hypothetical performance, these hypothetical performance results may allow clients and Financial Advisors to obtain a sense of the risk / return trade-off of different asset allocation constructs.

Investing in the market entails the risk of market volatility. The value of all types of securities may increase or decrease over varying time periods.

This analysis does not purport to recommend or implement an investment strategy. Financial forecasts, rates of return, risk, inflation, and other assumptions may be used as the basis for illustrations in this analysis. They should not be considered a guarantee of future performance or a guarantee of achieving overall financial objectives. No analysis has the ability to accurately predict the future, eliminate risk or guarantee investment results. As investment returns, inflation, taxes, and other economic conditions vary from the assumptions used in this analysis, your actual results will vary (perhaps significantly) from those presented in this analysis.

The assumed return rates in this analysis are not reflective of any specific investment and do not include any fees or expenses that may be incurred by investing in specific products. The actual returns of a specific investment may be more or less than the returns used in this analysis. The return assumptions are based on hypothetical rates of return of securities indices, which serve as proxies for the asset classes.
MORE ON THE MARKETS

Moreover, different forecasts may choose different indices as a proxy for the same asset class, thus influencing the return of the asset class.

An investment in a money market fund is not insured or guaranteed by the Federal Deposit Insurance Corporation or any other government agency. Although the Fund seeks to preserve the value of your investment at $1.00 per share, it is possible to lose money by investing in the fund.

ETF Investing

An investment in an exchange-traded fund involves risks similar to those of investing in a broadly based portfolio of equity securities traded on an exchange in the relevant securities market, such as market fluctuations caused by such factors as economic and political developments, changes in interest rates and perceived trends in stock and bond prices. Investing in an international ETF also involves certain risks and considerations not typically associated with investing in an ETF that invests in the securities of U.S. issues, such as political, currency, economic and market risks. These risks are magnified in countries with emerging markets, since these countries may have relatively unstable governments and less established markets and economies. ETF’s investing in physical commodities and commodity or currency futures have special tax considerations. Physical commodities may be treated as collectibles subject to a maximum 28% long-term capital gains rates, while futures are marked-to-market and may be subject to a blended 60% long- and 40% short-term capital gains tax rate. Rolling futures positions may create taxable events. For specifics and a greater explanation of possible risks with ETFs, along with the ETF’s investment objectives, charges and expenses, please consult a copy of the ETF’s prospectus. Investing in sectors may be more volatile than diversifying across many industries. The investment return and principal value of ETF investments will fluctuate, so an investor’s ETF shares (Creation Units), if or when sold, may be worth more or less than the original cost. ETFs are redeemable only in Creation Unit size through an Authorized Participant and are not individually redeemable from an ETF.

Investors should carefully consider the investment objectives and risks as well as charges and expenses of an exchange-traded fund or mutual fund before investing. The prospectus contains this and other important information about the mutual fund. To obtain a prospectus, contact your Financial Advisor or visit the mutual fund company’s website. Please read the prospectus carefully before investing.

MLPs

Master Limited Partnerships (MLPs) are limited partnerships or limited liability companies that are taxed as partnerships and whose interests (limited partnership units or limited liability company units) are traded on securities exchanges like shares of common stock. Currently, most MLPs operate in the energy, natural resources or real estate sectors. Investments in MLP interests are subject to the risks generally applicable to companies in the energy and natural resources sectors, including commodity pricing risk, supply and demand risk, depletion risk and exploration risk.

Individual MLPs are publicly traded partnerships that have unique risks related to their structure. These include, but are not limited to, their reliance on the capital markets to fund growth, adverse ruling on the current tax treatment of distributions (typically mostly tax deferred), and commodity volume risk.

The potential tax benefits from investing in MLPs depend on their being treated as partnerships for federal income tax purposes and, if the MLP is deemed to be a corporation, then its income would be subject to federal taxation at the entity level, reducing the amount of cash available for distribution to the fund which could result in a reduction of the fund’s value.

MLPs carry interest rate risk and may underperform in a rising interest rate environment. MLP funds accrue deferred income taxes for future tax liabilities associated with the portion of MLP distributions considered to be a tax-deferred return of capital and for any net operating gains as well as capital appreciation of its investments; this deferred tax liability is reflected in the daily NAV; and, as a result, the MLP fund’s after-tax performance could differ significantly from the underlying assets even if the pre-tax performance is closely tracked.

Duration

Duration, the most commonly used measure of bond risk, quantifies the effect of changes in interest rates on the price of a bond or bond portfolio. The longer the duration, the more sensitive the bond or portfolio would be to changes in interest rates. Generally, if interest rates rise, bond prices fall and vice versa. Longer-term bonds carry a longer or higher duration than shorter-term bonds; as such, they would be affected by changing interest rates for a greater period of time if interest rates were to increase. Consequently, the price of a long-term bond would drop significantly as compared to the price of a short-term bond.

International Investing entails greater risk, as well as greater potential rewards compared to U.S. investing. These risks include political and economic uncertainties of foreign countries as well as the risk of currency fluctuations. These risks are magnified in countries with emerging markets and frontier markets, since these countries may have relatively unstable governments and less established markets and economies.

Investing in currency involves additional special risks such as credit, interest rate fluctuations, derivative investment risk, and domestic and foreign inflation rates, which can be volatile and may be less liquid than other securities and more sensitive to the effect of varied economic conditions. In addition, international investing entails greater risk, as well as greater potential rewards compared to U.S. investing. These risks include political and economic uncertainties of foreign countries as well as the risk of currency fluctuations. These risks are magnified in countries with emerging markets, since these countries may have relatively unstable governments and less established markets and economies.

Managed futures investments are speculative, involve a high degree of risk, use significant leverage, have limited liquidity and/or may be generally illiquid, may incur substantial charges, may subject investors to conflicts of interest, and are usually appropriate only for the risk capital portion of an investor’s portfolio. Before investing in any partnership and in order to make an informed decision, investors should read the applicable prospectus and/or offering documents carefully for additional information, including charges, expenses, and risks. Managed futures investments are not intended to replace equities or fixed income securities but rather may act as a complement to these asset categories in a diversified portfolio.

Investing in commodities entails significant risks. Commodity prices may be affected by a variety of factors at any time, including but not limited
ON THE MARKETS

to, (i) changes in supply and demand relationships, (ii) governmental programs and policies, (iii) national and international political and economic events, war and terrorist events, (iv) changes in interest and exchange rates, (v) trading activities in commodities and related contracts, (vi) pestilence, technological change and weather, and (vii) the price volatility of a commodity. In addition, the commodities markets are subject to temporary distortions or other disruptions due to various factors, including lack of liquidity, participation of speculators and government intervention.

Physical precious metals are non-regulated products. Precious metals are speculative investments, which may experience short-term and long-term price volatility. The value of precious metals investments may fluctuate and may appreciate or decline, depending on market conditions. If sold in a declining market, the price you receive may be less than your original investment. Unlike bonds and stocks, precious metals do not make interest or dividend payments. Therefore, precious metals may not be appropriate for investors who require current income. Precious metals are commodities that should be safely stored, which may impose additional costs on the investor. The Securities Investor Protection Corporation ("SIPC") provides certain protection for customers' cash and securities in the event of a brokerage firm's bankruptcy, other financial difficulties, or if customers' assets are missing. SIPC insurance does not apply to precious metals or other commodities.

Bonds are subject to interest rate risk. When interest rates rise, bond prices fall; generally the longer a bond's maturity, the more sensitive it is to this risk. Bonds may also be subject to call risk, which is the risk that the issuer will redeem the debt at its option, fully or partially, before the scheduled maturity date. The market value of debt instruments may fluctuate, and proceeds from sales prior to maturity may be more or less than the amount originally invested or the maturity value due to changes in market conditions or changes in the credit quality of the issuer. Bonds are subject to the credit risk of the issuer. This is the risk that the issuer might be unable to make interest and/or principal payments on a timely basis. Bonds are also subject to reinvestment risk, which is the risk that principal and/or interest payments from a given investment may be reinvested at a lower interest rate.

Bonds rated below investment grade may have speculative characteristics and present significant risks beyond those of other securities, including greater credit risk and price volatility in the secondary market. Investors should be careful to consider these risks alongside their individual circumstances, objectives and risk tolerance before investing in high-yield bonds. High yield bonds should comprise only a limited portion of a balanced portfolio.

Interest on municipal bonds is generally exempt from federal income tax; however, some bonds may be subject to the alternative minimum tax (AMT). Typically, state tax-exemption applies if securities are issued within one's state of residence and, if applicable, local tax-exemption applies if securities are issued within one’s city of residence.

Treasury Inflation Protection Securities' (TIPS) coupon payments and underlying principal are automatically increased to compensate for inflation by tracking the consumer price index (CPI). While the real rate of return is guaranteed, TIPS tend to offer a lower return. Because the return of TIPS is linked to inflation, TIPS may significantly underperform versus conventional U.S. Treasuries in times of low inflation.

Ultrashort-term fixed income asset class is comprised of fixed income securities with high quality, very short maturities. They are therefore subject to the risks associated with debt securities such as credit and interest rate risk.

Although they are backed by the full faith and credit of the U.S. Government as to timely payment of principal and interest, Treasury Bills are subject to interest rate and inflation risk, as well as the opportunity risk of other more potentially lucrative investment opportunities.

CDs are insured by the FDIC, an independent agency of the U.S. Government, up to a maximum of $250,000 (including principal and accrued interest) for all deposits held in the same insurable capacity (e.g. individual account, joint account, IRA etc.) per CD depository. Investors are responsible for monitoring the total amount held with each CD depository. All deposits at a single depository held in the same insurable capacity will be aggregated for the purposes of the applicable FDIC insurance limit, including deposits (such as bank accounts) maintained directly with the depository and CDs of the depository. For more information visit the FDIC website at www.fdic.gov.

The majority of $25 and $1000 par preferred securities are "callable" meaning that the issuer may retire the securities at specific prices and dates prior to maturity. Interest/dividend payments on certain preferred issues may be deferred by the issuer for periods of up to 5 to 10 years, depending on the particular issue. The investor would still have income tax liability even though payments would not have been received. Price quoted is per $25 or $1,000 share, unless otherwise specified. Current yield is calculated by multiplying the coupon by par value divided by the market price.

The initial interest rate on a floating-rate security may be lower than that of a fixed-rate security of the same maturity because investors expect to receive additional income due to future increases in the floating security's underlying reference rate. The reference rate could be an index or an interest rate. However, there can be no assurance that the reference rate will increase. Some floating-rate securities may be subject to call risk.

The market value of convertible bonds and the underlying common stock(s) will fluctuate and after purchase may be worth more or less than original cost. If sold prior to maturity, investors may receive more or less than their original purchase price or maturity value, depending on market conditions. Callable bonds may be redeemed by the issuer prior to maturity. Additional call features may exist that could affect yield.

Some $25 or $1000 par preferred securities are QDI (Qualified Dividend Income) eligible. Information on QDI eligibility is obtained from third party sources. The dividend income on QDI eligible preferreds qualifies for a reduced tax rate. Many traditional dividend paying perpetual preferred securities (traditional, preferreds with no maturity date) are QDI eligible. In order to qualify for the preferential tax treatment all qualifying preferred securities must be held by investors for a minimum period – 91 days during a 180 day window period, beginning 90 days before the ex-dividend date.

Principal is returned on a monthly basis over the life of a mortgage-backed security. Principal prepayment can significantly affect the monthly income stream and the maturity of any type of MBS, including standard MBS, CMOs and Lottery Bonds. Yields and average lives are estimated based on prepayment assumptions and are subject to change based on actual prepayment of the mortgages in the underlying pools. The level of predictability of an MBS/CMO's average life, and its market price, depends on the type of MBS/CMO class purchased and interest rate movements. In general, as interest rates fall, prepayment speeds are likely to increase, thus shortening the MBS/CMO's average life and likely
ON THE MARKETS

carving out sectors, one may focus only on companies in the

causing its market price to rise. Conversely, as interest rates rise, prepayment speeds are likely to decrease, thus lengthening average life and likely causing the MBS/CMO’s market price to fall. Some MBS/CMOs may have “original issue discount” (OID). OID occurs if the MBS/CMO’s original issue price is below its stated redemption price at maturity, and results in “imputed interest” that must be reported annually for tax purposes, resulting in a tax liability even though interest was not received. Investors are urged to consult their tax advisors for more information.

Rebalancing does not protect against loss in declining financial markets. There may be a potential tax implication with a rebalancing strategy. Investors should consult with their tax advisor before implementing such a strategy.

Equity securities may fluctuate in response to news on companies, industries, market conditions and general economic environment.

Companies paying dividends can reduce or cut payouts at any time.

Value investing does not guarantee a profit or eliminate risk. Not all companies whose stocks are considered to be value stocks are able to turn their business around or successfully employ corrective strategies which would result in stock prices that do not rise as initially expected.

Growth investing does not guarantee a profit or eliminate risk. The stocks of these companies can have relatively high valuations. Because of these high valuations, an investment in a growth stock can be more risky than an investment in a company with more modest growth expectations.

Asset allocation and diversification do not assure a profit or protect against loss in declining financial markets.

REITs investing risks are similar to those associated with direct investments in real estate: property value fluctuations, lack of liquidity, limited diversification and sensitivity to economic factors such as interest rate changes and market recessions.

Because of their narrow focus, sector investments tend to be more volatile than investments that diversify across many sectors and companies. Technology stocks may be especially volatile. Risks applicable to companies in the energy and natural resources sectors include commodity pricing risk, supply and demand risk, depletion risk and exploration risk.

Yields are subject to change with economic conditions. Yield is only one factor that should be considered when making an investment decision.

Credit ratings are subject to change.

The indices are unmanaged. An investor cannot invest directly in an index. They are shown for illustrative purposes only and do not represent the performance of any specific investment.

The indices selected by Morgan Stanley Wealth Management to measure performance are representative of broad asset classes. Morgan Stanley Smith Barney LLC retains the right to change representative indices at any time.

The returns on a portfolio consisting primarily of environmental, social, and governance-aware investments (ESG) may be lower or higher than a portfolio that is more diversified or where decisions are based solely on investment considerations. Because ESG criteria exclude some investments, investors may not be able to take advantage of the same opportunities or market trends as investors that do not use such criteria. The companies identified and investment examples are for illustrative purposes only and should not be deemed a recommendation to purchase, hold or sell any securities or investment products. They are intended to demonstrate the approaches taken by managers who focus on ESG criteria in their investment strategy. There can be no guarantee that a client’s account will be managed as described herein.

Important Information and Risk Considerations

Virtual Currency Products (Cryptocurrencies)

Buying, selling, and transacting in Bitcoin, Ethereum or other digital assets (“Digital Assets”), and related funds and products, is highly speculative and may result in a loss of the entire investment. Risks and considerations include but are not limited to:

- Digital Assets have only been in existence for a short period of time and historical trading prices for Digital Assets have been highly volatile. The price of Digital Assets could decline rapidly, and investors could lose their entire investment.
- Certain Digital Asset funds and products, allow investors to invest on a more frequent basis than investors may withdraw from the fund or product, and interests in such funds or products are generally not freely transferable. This means that, particularly given the volatility of Digital Assets, an investor will have to bear any losses with respect to its investment for an extended period of time and will not be able to react to changes in the price of the Digital Asset once invested (for example, by seeking to withdraw) as quickly as when making the decision to invest. Such Digital Asset funds and products, are intended only for persons who are able to bear the economic risk of investment and who do not need liquidity with respect to their investments.
- Given the volatility in the price of Digital Assets, the net asset value of a fund or product that invests in such assets at the time an investor’s subscription for interests in the fund or product is accepted may be significantly below or above the net asset value of the product or fund at the time the investor submitted subscription materials.
- Certain Digital Assets are not intended to function as currencies but are intended to have other use cases. These other Digital Assets may be subject to some or all of the risks and considerations set forth herein, as well as additional risks applicable to such Digital Assets. Buyers, sellers and users of such Digital Assets should thoroughly familiarize themselves with such risks and considerations before transacting in such Digital Assets.
- The value of Digital Assets may be negatively impacted by future legal and regulatory developments, including but not limited to increased regulation of such Digital Assets. Any such developments may make such Digital Assets less valuable, impose additional burdens and expenses on a fund or product investing in such assets or impact the ability of such a fund or product to continue to operate, which may materially decrease the value of an investment therein.
• Due to the new and evolving nature of digital currencies and the absence of comprehensive guidance, many significant aspects of the
tax treatment of Digital Assets are uncertain. Prospective investors should consult their own tax advisors concerning the tax
consequences to them of the purchase, ownership and disposition of Digital Assets, directly or indirectly through a fund or product,
under U.S. federal income tax law, as well as the tax law of any relevant state, local or other jurisdiction.
• Over the past several years, certain Digital Asset exchanges have experienced failures or interruptions in service due to fraud, security
breaches, operational problems or business failure. Such events in the future could impact any fund’s or product’s ability to transact in
Digital Assets if the fund or product relies on an impacted exchange and may also materially decrease the price of Digital Assets,
thereby impacting the value of your investment, regardless of whether the fund or product relies on such an impacted exchange.
• Although any Digital Asset product and its service providers have in place significant safeguards against loss, theft, destruction and
inaccessibility, there is nonetheless a risk that some or all of a product’s Digital Asset could be permanently lost, stolen, destroyed or
inaccessible by virtue of, among other things, the loss or theft of the “private keys” necessary to access a product’s Digital Asset.
• Investors in funds or products investing or transacting in Digital Assets may not benefit to the same extent (or at all) fromiangs with
respect to, or “forks” in, a Digital Asset’s blockchain, compared to investors who hold Digital Assets directly instead of through a
fund or product. Additionally, a “fork” in the Digital Asset blockchain could materially decrease the price of such Digital Asset.
• Digital Assets are not legal tender, and are not backed by any government, corporation or other identified body, other than with
respect to certain digital currencies that certain governments are or may be developing now or in the future. No law requires
companies or individuals to accept digital currency as a form of payment (except, potentially, with respect to digital currencies
developed by certain governments where such acceptance may be mandated). Instead, other than as described in the preceding
sentences, Digital Asset products’ use is limited to businesses and individuals that are willing to accept them. If no one were to accept
digital currencies, virtual currency products would very likely become worthless.
• Platforms that buy and sell Digital Assets can be hacked, and some have failed. In addition, like the platforms themselves, digital
wallets can be hacked, and are subject to theft and fraud. As a result, like other investors have, you can lose some or all of your
holdings of Digital Assets.
• Unlike US banks and credit unions that provide certain guarantees of safety to depositors, there are no such safeguards provided to
Digital Assets held in digital wallets by their providers or by regulators.
• Due to the anonymity Digital Assets offer, they have known use in illegal activity, including drug dealing, money laundering, human
trafficking, sanction evasion and other forms of illegal commerce. Abuses could impact legitimate consumers and speculators; for
instance, law enforcement agencies could shut down or restrict the use of platforms and exchanges, limiting or shutting off entirely the
ability to use or trade Digital Asset products.
• Digital Assets may not have an established track record of credibility and trust. Further, any performance data relating to Digital Asset
products may not be verifiable as pricing models are not uniform.
• Investors should be aware of the potentially increased risks of transacting in Digital Assets relating to the risks and considerations,
including fraud, theft, and lack of legitimacy, and other aspects and qualities of Digital Assets, before transacting in such assets.
• The exchange rate of virtual currency products versus the USD historically has been very volatile and the exchange rate could
drastically decline. For example, the exchange rate of certain Digital Assets versus the USD has in the past dropped more than 50% in a
single day. Other Digital Assets may be affected by such volatility as well.
• Digital Asset exchanges have limited operating and performance histories and are not regulated with the same controls or customer
protections available to more traditional exchanges transacting equity, debt, and other assets and securities. There is no assurance that
a person/exchange who currently accepts a Digital Asset as payment will continue to do so in the future.
• The regulatory framework of Digital Assets is evolving, and in some cases is uncertain, and Digital Assets themselves may not be
governed and protected by applicable securities regulators and securities laws, including, but not limited to, Securities Investor
Protection Corporation coverage, or other regulatory regimes.
• Morgan Stanley Smith Barney LLC or its affiliates (collectively, “Morgan Stanley”) may currently, or in the future, offer or invest in
Digital Asset products, services or platforms. The proprietary interests of Morgan Stanley may conflict with your interests.
• The foregoing list of considerations and risks are not and do not purport to be a complete enumeration or explanation of the risks
involved in an investment in any product or fund investing or trading in Digital Assets.

Disclosures

Morgan Stanley Wealth Management is the trade name of Morgan Stanley Smith Barney LLC, a registered broker-dealer in the United States.
This material has been prepared for informational purposes only and is not an offer to buy or sell or a solicitation of any offer to buy or sell any
security or other financial instrument or to participate in any trading strategy. Past performance is not necessarily a guide to future
performance.

The author(s) (if any authors are noted) principally responsible for the preparation of this material receive compensation based upon various
factors, including quality and accuracy of their work, firm revenues (including trading and capital markets revenues), client feedback and
competitive factors. Morgan Stanley Wealth Management is involved in many businesses that may relate to companies, securities or
instruments mentioned in this material.

This material has been prepared for informational purposes only and is not an offer to buy or sell or a solicitation of any offer to buy or sell any
security/instrument, or to participate in any trading strategy. Any such offer would be made only after a prospective investor had completed its
own independent investigation of the securities, instruments or transactions, and received all information it required to make its own
investment decision, including, where applicable, a review of any offering circular or memorandum describing such security or instrument. That
information would contain material information not contained herein and to which prospective participants are referred. This material is based
on public information as of the specified other and may be stale thereafter. We have no obligation to tell you when information herein may
change. We make no representation or warranty with respect to the accuracy or completeness of this material. Morgan Stanley Wealth
Management has no obligation to provide updated information on the securities/instruments mentioned herein.

The securities/instruments discussed in this material may not be appropriate for all investors. The appropriateness of a particular investment or
strategy will depend on an investor's individual circumstances and objectives. Morgan Stanley Wealth Management recommends that investors
independently evaluate specific investments and strategies, and encourages investors to seek the advice of a financial advisor. The value of and
income from investments may vary because of changes in interest rates, foreign exchange rates, default rates, prepayment rates, securities/instruments prices, market indexes, operational or financial conditions of companies and other issuers or other factors. Estimates of
future performance are based on assumptions that may not be realized. Actual events may differ from those assumed and changes to any assumptions may have a material impact on any projections or estimates. Other events not taken into account may occur and may significantly affect the projections or estimates. Certain assumptions may have been made for modeling purposes only to simplify the presentation and/or calculation of any projections or estimates, and Morgan Stanley Wealth Management does not represent that any such assumptions will reflect actual future events. Accordingly, there can be no assurance that estimated returns or projections will be realized or that actual returns or performance results will not materially differ from those estimated herein.

This material should not be viewed as advice or recommendations with respect to asset allocation or any particular investment. This information is not intended to, and should not, form a primary basis for any investment decisions that you may make. Morgan Stanley Wealth Management is not acting as a fiduciary under either the Employee Retirement Income Security Act of 1974, as amended or under section 4975 of the Internal Revenue Code of 1986 as amended in providing this material except as otherwise provided in writing by Morgan Stanley and/or as described at www.morganstanley.com/disclosures/dol.

Morgan Stanley Smith Barney LLC, its affiliates and Morgan Stanley Financial Advisors do not provide legal or tax advice. Each client should always consult his/her personal tax and/or legal advisor for information concerning his/her individual situation and to learn about any potential tax or other implications that may result from acting on a particular recommendation.

This material is primarily authored by, and reflects the opinions of, Morgan Stanley Smith Barney LLC (Member SIPC), as well as identified guest authors. Articles contributed by employees of Morgan Stanley & Co. LLC (Member SIPC) or one of its affiliates are used under license from Morgan Stanley.

This material is disseminated in Australia to "retail clients" within the meaning of the Australian Corporations Act by Morgan Stanley Wealth Management Australia Pty Ltd (A.B.N. 19 009 145 555, holder of Australian financial services license No. 240813).

Morgan Stanley Wealth Management is not incorporated under the People's Republic of China (“PRC”) law and the material in relation to this report is conducted outside the PRC. This report will be distributed only upon request of a specific recipient. This report does not constitute an offer to sell or the solicitation of an offer to buy any securities in the PRC. PRC investors must have the relevant qualifications to invest in such securities and must be responsible for obtaining all relevant approvals, licenses, verifications and or registrations from PRC’s relevant governmental authorities.

If your financial adviser is based in Australia, Switzerland or the United Kingdom, then please be aware that this report is being distributed by the Morgan Stanley entity where your financial adviser is located, as follows: Australia: Morgan Stanley Wealth Management Australia Pty Ltd (ABN 19 009 145 555, AFSL No. 240813); Switzerland: Morgan Stanley (Switzerland) AG regulated by the Swiss Financial Market Supervisory Authority; or United Kingdom: Morgan Stanley Private Wealth Management Ltd, authorized and regulated by the Financial Conduct Authority, approves for the purposes of section 21 of the Financial Services and Markets Act 2000 this material for distribution in the United Kingdom.

Morgan Stanley Wealth Management is not acting as a municipal advisor to any municipal entity or obligated person within the meaning of Section 15B of the Securities Exchange Act (the “Municipal Advisor Rule”) and the opinions or views contained herein are not intended to be, and do not constitute, advice within the meaning of the Municipal Advisor Rule.

This material is disseminated in the United States of America by Morgan Stanley Wealth Management. Third-party data providers make no warranties or representations of any kind relating to the accuracy, completeness, or timeliness of the data they provide and shall not have liability for any damages of any kind relating to such data.

This material, or any portion thereof, may not be reprinted, sold or redistributed without the written consent of Morgan Stanley Smith Barney LLC.

© 2022 Morgan Stanley Smith Barney LLC. Member SIPC.

RS16594-58273117 08/2022