Global Investment Committee | July 2022

On the Markets

Ch-Ch-Changes

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The last 13 years of capital market returns have been disproportionately impacted by unprecedented intervention in markets by the Federal Reserve, whose primary goal has been repressing interest rates to help normalize growth and inflation by incentivizing risk-taking in long-duration assets. The central bank's overpowering role has caused the interest rate sensitivity of all financial assets to soar. As rates have been in a consistent pattern of decline for most of the period—extending the bull market in bonds that began in 1982—both fixed income instruments and equities have benefited in tandem. Such a "correlation of one" was barely noteworthy on the way up!

But with inflation now at a 41-year high and the central bank well behind the curve—having presided over record gaps between realized inflation and the fed funds rate—painful repricing is upon us. To wit, the doubling of the benchmark 10-year US Treasury yield in the first six months of the year has not only underpinned the cyclical bear market in stocks, it has produced the worst quarter in the past 50 years for the 60/40 stock/bond blend that has long been the foundational framework for diversified portfolio investors.

So, what's next? In this month's issue the team frames the challenges, noting among other things that we may need to reconsider our approach to diversification against this backdrop of secular change around policy. But there are reasons to be constructive. Inflation-driven cycles are different from recent credit-driven recessions, producing notably milder impacts on corporate profits. Along with the likely resilience of labor and housing markets and the positive backdrop for productivity-enhancing capital spending, this is creating a compelling environment for active security selection in both stocks and bonds and the opportunity to take advantage of new market leadership in the new cycle. ■

TABLE OF CONTENTS

2 **Inflation-Driven Recessions Are Different**
Odds of a recession have doubled recently, but the S&P 500 hasn't fully priced in lower earnings.

4 **Sunset for 60/40?**
With challenges ahead for the traditional blend, investors should consider focusing on tactical asset allocation, manager selection and active-passive strategies.

6 **Mapping Out Midterms for Markets**
Complacency around upcoming elections and their impact on market sectors is a key reason why investors should start planning now for potential catalysts.

8 **Executive Perspectives on Ford Motor Company**
CEO Jim Farley discusses why the company is splitting into two divisions—one focused on traditional internal-combustion engines and one dedicated to electric vehicles.

9 **Short Takes**
We examine share buybacks, mutual fund capital gains and inflation hedges.

10 **A House of Cards or of Bricks?**
Despite widespread fears, US housing looks better supported by demographics, limited household debt and tighter supply than in prior periods.

12 **What Does the Future Hold for Large-Cap Growth?**
Our Global Investment Manager Analysis team checks in with managers of its high-conviction strategies in the large-cap growth space.

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ECONOMICS

Inflation-Driven Recessions Are Different

Lisa Shalett, Chief Investment Officer and Head of the Global Investment Office, Morgan Stanley Wealth Management

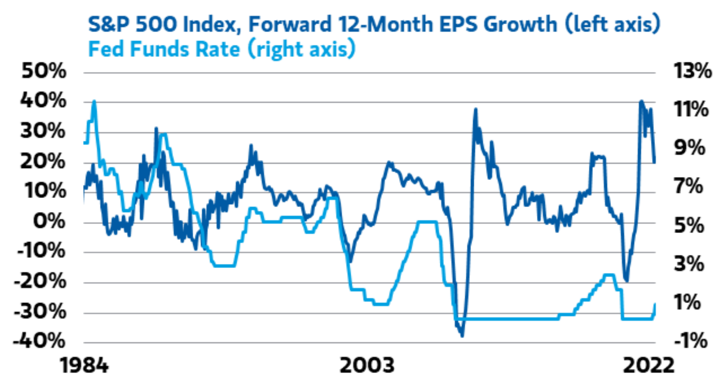
By our estimates, accelerated Federal Reserve tightening has doubled the odds of an economic recession while reducing prospects for a soft landing. While some sectors and stocks already discount a hit to earnings and valuations coming from the higher cost of capital, the main indexes have only repriced Fed policy and the shift in real rates and inflation expectations. For the bear market to end, we believe we need to see 12-month forward profit estimates decline 5% to 10% and the 10-year US Treasury yield fall to roughly 2.5%.

In our view, this recession would likely be inflation-driven, not credit-driven. That means peak-to-trough profits are likely to be down less than 15% as nominal prices cushion weakness in real volume. Furthermore, this recession would likely be shallower than the past three for several reasons: the lack of credit bubbles; strength in corporate, bank and household balance sheets; a strong labor market; and low inventories in vulnerable industries like housing and autos.

PROFIT EXPECTATIONS REMAIN TOO HIGH. Having given back more than $9 trillion from its Jan. 4 peak, the S&P 500 Index is down nearly 20% for the year. This reflects a near-100% unwinding of the impact of the fiscal and monetary COVID-19 stimulus, with the market's forward price/earnings (P/E) multiple having compressed from 21.5 to approximately 16.5. Investors have discounted the Fed's policy pivot—close to doubling the 10-year US Treasury yield for the year to date by recalibrating both the real component and inflation expectations. That said, investor concerns about the implications of tighter policy on either corporate profits or the economy have been modest. In fact, the 2022 analysts' consensus forecast for the S&P 500 has continued to climb while earnings revision breadth has gone negative and GDP growth forecasts have been slashed.

The Fed's most recent hawkish move, a "surprise" 75-basis-point jump for the fed funds rate, reset the degree of restrictive policy. Most economic models now suggest that the probability of a recession in the next 12 months has doubled to more than 50%. While the bond market has begun to reflect these odds by shaving 51 basis points from the 10-year Treasury yield and 53 basis points from the two-year yield, the S&P 500 is up 1.4%. As detailed in our June 13 report, "GIC Weekly: On the Lookout for a Profits Recession," we consider such market resilience and obstinance by analysts to reflect these changes in their forecasts to be a risk that could cost equity investors another 5% to 10%. Every time the Fed has raised rates in the past 40 years, the forward S&P 500 earnings growth rate has materially decelerated (see chart). Furthermore, never in that time have forward expectations, which remain close to 14% year over year, been this high during a Fed hiking cycle. Until expectations are recalibrated and policy intensity stabilizes, we have a hard time seeing a buyable bottom to this bear market.

Rising Fed Funds Rate Should Be a Headwind to Profits



Source: Alpine Macro, Bloomberg as of June 22, 2022

WHAT WOULD A RECESSION LOOK LIKE? If there is a recession, what would it look like? Here we are increasingly constructive. As we posited in our July 13 *GIC Weekly*, the best possible case may no longer be a soft landing but just stagflation—low growth and still high inflation. That scenario still holds decent odds. But if we have a recession, what analogue can investors look to as a benchmark?

For starters, we reject the idea that the prior three recessions hold any valuable lessons this time around. The 2020 pandemic-induced shutdown was obviously unique. The recessions emanating from the 2007-2008 Great Financial Crisis and the 2000-2001 dot-com bust were both fueled by credit. The result was overbuilding in housing and internet infrastructure. In both cases, it took nearly a decade to absorb the excesses, and the profit implications were staggering. S&P 500 profits fell 57% in 2007-2008 and 32% in 2000-2001.

Critically, current cycle excesses are not credit-driven, as balance sheets of corporations, banks and households are the strongest in decades. Rather, current cycle excesses have been driven by liquidity, which fueled speculation in financial assets such as cryptocurrencies, venture capital, unprofitable technology companies and special purpose acquisition companies. Unwinding those excesses has thus far not caused much damage to the economy.

What about inflation-driven recessions? We don't think the 1970s or 1980s analogies apply now even though inflation is at a 41-year high, though we note that profit vulnerability then was more modest than in credit-driven cycles. Ironsides Macroeconomics, an independent research firm, notes that in 1973-1974, when the fed funds rate reached 11%, S&P 500

profits fell 15%, while in 1982-1983 when the fed funds rate peaked at 20%, S&P 500 earnings fell less than 14%. In both cases, nominal prices helped cushion profits from declines in real volume. We think this time could be similar. Furthermore, the hit to S&P 500 profits could be even more modest, resembling the 1990-1991 recession, which was partly catalyzed by the Gulf War.

UNIQUE CONDITIONS. Our call for a shallow recession is also premised on some unique conditions. First, while higher interest rates will undoubtedly hurt demand for housing and autos, both sectors are sitting on a strong position vis-à-vis inventories and production rates. In the case of housing, new activity may be affected. However, the resilience of high housing prices—up by double-digit rates over the past two years—reflects very low supply that will only worsen with higher rates and a construction slowdown. In autos, this cycle has yet to fully recover from COVID-related semiconductor shortages, and production remains below prior peaks. As supply chains clear, ample order backlogs may keep manufacturing utilization uncharacteristically high for a recession.

The second consideration is the labor market. Not only is it tight as defined by unemployment, but we are at an all-time high with regard to the ratio of new job openings to potential applicants. This suggests that, rather than initially resorting to layoffs going into a slowdown, companies may first reduce their postings of unfilled openings. Next, while consumer savings have run down and credit card debt growth has picked up, payments relative to disposable income are not stressed. At the same time, the catalysts for the corporate capital spending boom appear strong, with current needs around supply chains, energy infrastructure, service business automation, cybersecurity and national defense.

Market index composition is another important factor. Megacap tech stocks have finally begun to underperform, but profit resiliency may endure at the index level because of a growing share of earnings attributed to recurring revenues as businesses build subscription-based and fee-based models. ■

This article was excerpted from the June 27 report, "GIC Weekly: Inflation-Driven Recessions Are Different." For a copy of the full report please contact your Financial Advisor.

Please refer to important information, disclosures and qualifications at the end of this material.

ASSET ALLOCATION

Sunset for 60/40?

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Since the early 1980s, blended portfolios of equities and fixed income have become more popular as starting points or benchmarks for portfolio construction. Anchored in the science of modern portfolio theory, these blends historically have provided a straightforward means of achieving attractive risk-adjusted returns, taking advantage of the two asset classes' low correlations. A common mix—60% equties and 40% fixed income, more frequently known as 60/40—has become widespread as a reference point.

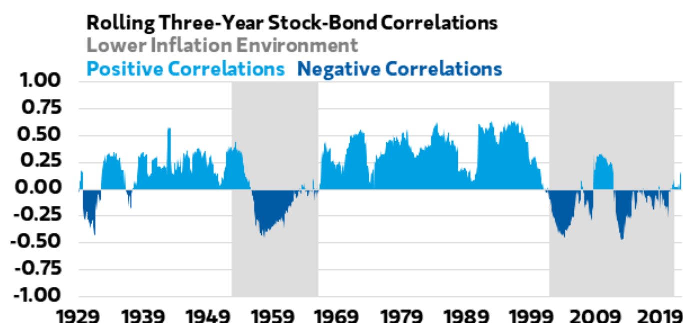
From October 1981 to December 2021, the 60/40 portfolio enjoyed a remarkable stretch of relatively sunny weather. It simply worked—both practically and theoretically—producing a 10.9% annualized return and achieving 87% of the S&P 500 Index's return with 63% of the annualized volatility. From January 2000 to May 2020, 60/40 *outperformed* the S&P 500, with just 60% of the annualized volatility. Deviating from this simple, effective balanced portfolio represented a "risky" proposition, as alternative portfolios often fell short of these superb results.

A 40-YEAR RUN OF SUCCESS. From 1981 on, aside perhaps from the period following the late-1990s equity market bubble, the 60/40 portfolio experienced a golden age, supported by moderating inflation, falling real yields and a "Federal Reserve put." Equities and fixed income both enjoyed positive expected returns and consistently low correlations. The Fed's readiness to provide monetary accommodation, together with fundamental shifts in the US economy, also propelled 60/40's success.

Softening inflationary pressures bolstered a 40-year decline in nominal and real yields and fostered lower correlations between equities and fixed income. Following the 2000 Tech Bubble, globalization and digitization allowed global central banks to unleash increasing monetary accommodation at each bout of weakness. The Fed's dual mandate of maximum employment and stable prices expanded to include financial stability. As such, the Fed became not only a macroeconomic support but a salve in times of falling risk appetites and tightening financial conditions, which only amplified these decorrelation benefits.

Between 2000 and 2021, the 60/40 portfolio's underlying diversification benefits only improved. Over that stretch, when the S&P 500 experienced a negative month, the Bloomberg US Aggregate Index posted coincidently positive returns approximately 70% of the time. In negative months for fixed income, equities gained with similar frequency. The two asset classes exhibited extended periods of negative correlations from the mid 1950s to the mid 1960s and have also done so since 2000 (see chart below highlighting rolling three-year correlations).

Equity-Fixed Income Correlations Have Fallen and Stayed Materially Lower Since 2000



Source: Morgan Stanley Wealth Management Global Investment Committee and Portfolio Analytics, calculated with data provided by Bloomberg, FactSet and Morningstar as of April 30, 2022

Real yields declined consistently from 1981 to 2000, but the move lower accelerated in the post-2000 period. Since August 2011, the 10-year US real yield has remained consistently below 1% as a result of Fed accommodation in the wake of the 2007 to 2009 Great Financial Crisis (GFC) and the COVID-19 pandemic. Lower real yields have supported several secular market and macro developments, including the growing role of financial services, lower costs of capital for borrowers and higher valuations for financial assets.

In times of dislocation, the Fed has increasingly targeted healthy financial market conditions, looking to avoid the potentially severe costs to the financial system and broader economy. Investors gained confidence in the Fed put, reasoning that the central bank would intervene in times of material selloffs in equity and risky credit markets.

RECENT STRUGGLES. Through the first half of 2022, both equities and fixed income have declined sharply, marking the 60/40 portfolio's most challenging start in decades amid the US's strongest inflationary pressures in more than a generation. Beyond today's volatility, the Global Investment Committee (GIC) anticipates a bumpier road ahead for the 60/40 portfolio, due to several factors: an unfavorable starting point, the power of mean reversion, a normalizing inflation environment and a Fed less likely to intervene to support risky asset valuations. In its annual update to its capital markets assumptions, the GIC assigned the 60/40 portfolio an expected forward return of 3.8% over the strategic seven-year horizon.

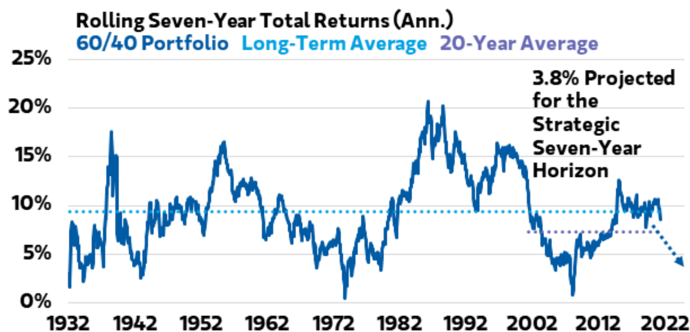
For both equities and fixed income, valuations move inversely to real yields. Despite having risen sharply from early March, real yields' relatively low level and probable upward trajectory suggest an unfavorable starting point for the 60/40 portfolio. If real yields were to increase even gradually to pre-GFC levels, investors would likely experience much lower returns from the 60/40 portfolio in coming years, which would be consistent with the GIC's expectations but would likely be disappointing relative to the broader investment community's expectations.

As exhibited below, the 60/40 portfolio has experienced its share of "golden periods" (1926-1929, 1950-1961, 1981-1987, 1990-2000 and 2009-2020) and lost periods (the 1930s, 1966 to 1982 and the 2000s). We believe that the 60/40 portfolio will likely face some mean reversion after the extended period of exceptional total returns since 2009.

In the 2000-2021 period, Fed intervention lowered real yields and likely diminished market and macroeconomic volatility, leading to the favorable conditions outlined above. Given its still-substantial balance sheet and the potential shift in inflationary conditions, the Fed may be less able and less willing to intervene in moments of financial market turbulence. As such, the 60/40 portfolio's volatility may rise slightly, particularly should fixed income volatility rise from the halcyon period of 1990 to 2021.

Moderating inflation has undergirded the 60/40's solid risk-adjusted returns for much of the post-1981 period, but particularly over the past 12 years. We found that its Sharpe ratio—a measure of risk-adjusted returns—tended to thrive in periods of moderating inflation and reasonable growth but struggle in stagflationary environments with lower growth and higher inflation.

After Rampant Success in Recent Years, We Anticipate Lower Future Returns



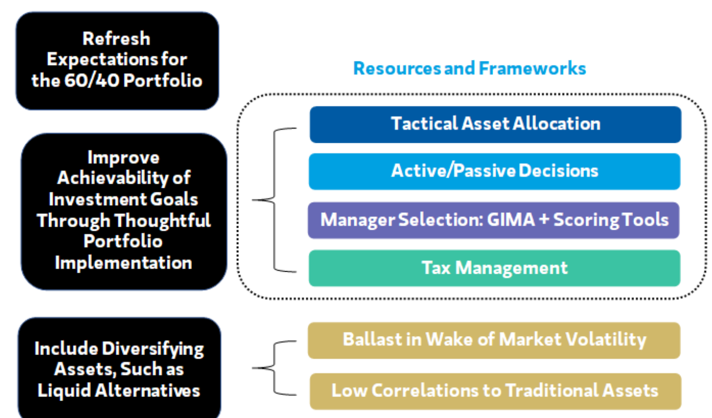
Note: The "Projected" figure comes from the forward seven-year (strategic) forecasts in the "Annual Update to GIC Capital Markets Assumptions," published March 31, 2022.
Source: Morgan Stanley Wealth Management Global Investment Committee and Portfolio Analytics, calculated with data provided by Bloomberg, FactSet and Morningstar as of April 30, 2022

Since 1981, aside from the GFC years, the US economy has typically fallen into either of the two favorable regimes, thanks to Fed interventions and benefits of globalization. Looking ahead, several dynamics threaten to interrupt that moderating inflation trend: digitization, deglobalization, decarbonization and a directional change in labor markets.

Based on historical evidence, a normalized inflation environment would likely coincide with materially higher and positive stock-bond correlation. While investors may still reap diversification benefits over the long term, fixed income would likely prove a less effective cushion in negative months for equities. Perceptions of less effective short-term diversification could cause investor unease, particularly when compared to the extraordinary 1981 to 2021 period that gave birth to their expectations.

SOME POTENTIAL PIVOTS. We recommend that investors adjust to this new reality by refreshing return expectations and avoiding extrapolation from the recent past. Instead of simply increasing risk levels to seek higher returns, we propose that investors look to thoughtful portfolio implementation—including tactical asset allocation, active-passive and manager-selection decisions—with greater emphasis on diversifying exposures. Finally, while investors may have eschewed investing in alternatives during the 60/40 portfolio's time in the sun, they may wish to consider these less-correlated asset classes for their longer-term strategic allocations. We summarize these potential pivots in the exhibit below. ■

We Recommend Constructive Action in Response to Challenging Conditions for the 60/40 Portfolio



Source: Morgan Stanley Wealth Management Global Investment Committee and Portfolio Analytics

This article was excerpted from the June 7 Special Report "Sunset for 60/40?: Assessing Its Long-Term Success, Its Recent Struggles and Some Potential Pivots." For a copy of the full report please contact your Financial Advisor.

ELECTIONS

Mapping Out Midterms for Markets

Michael Zezas, Chief US Public Policy & Municipal Strategist, Morgan Stanley & Co. LLC

That 2022 is an election year may not have drawn too much attention from investors. After all, they've been dealing with substantial volatility driven by a hard-to-predict inflation path, rapidly evolving monetary policy and lingering questions about the interaction of the COVID-19 pandemic and the global economy. As if that wasn't enough, Russia's invasion of Ukraine accelerated key geopolitical trends, with major ramifications for global supply chains, energy and long-term inflation. By comparison, a US midterm election—particularly one for which the consensus seems so convinced (Democrats losing at least one chamber of Congress)—may seem like a faint risk factor.

Yet this complacency is precisely why we think investors need to plan now for the midterm elections as a potential market catalyst. Elections have consequences, often ones that catch investors off guard. This can result from consensus thinking being wrong about either the outcome or the policy path resulting from that outcome. Consider 2016, when a sharp selloff following Trump's victory was quickly followed by a meaningful rally once the reality of a probable tax cut set in. In 2020, there was a similar head fake when investors assumed a Biden win and Democratic sweep would lead equities lower, but the opposite happened as the outcome unlocked substantial stimulus.

While the macro impact of fiscal policy was most in focus in the 2016, 2018 and 2020 elections, 2022 has a decidedly more sectoral flavor, in our view, which may cause some investors to overlook it. Given that policy variables may deliver substantial tailwinds or headwinds for important market sectors, we advise against that (see chart).

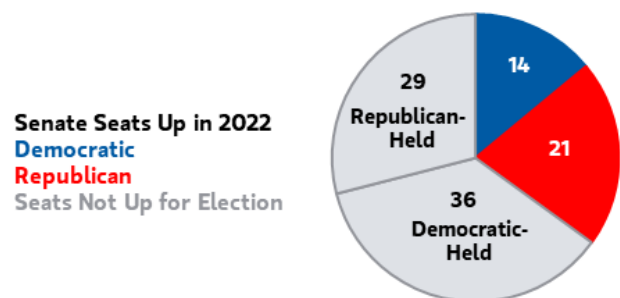
Potential Sector Impact by Outcome Scenario

	(+) Impact	Neutral	(-) Impact
D Senate/ D House	Banks & Consumer Finance Clean Tech Metals & Mining		Internet IT Hardware Pharmaceuticals Telecom Services Consumer Staples Tobacco
D Senate/ R House R Senate/ D House	Pharmaceuticals Consumer Staples Tobacco	Internet IT Hardware Metals & Mining	Banks & Consumer Finance
R Senate/ R House	IT Hardware Consumer Staples Tobacco	Internet Metals & Mining	Banks & Consumer Finance Clean Tech

Source: Morgan Stanley & Co. Research as of May 24, 2022

THE "BLUE DO-OVER" SCENARIO. While we aren't arguing that Democrats will maintain control of both the House and the Senate, we believe a scenario in which they do holds the most potential for change. In the event that Democrats maintain all their current Senate seats (see chart) and pick up any additional ones, leadership would have more flexibility to maneuver policy through that chamber than the current situation allows. Legislation would likely still have to tilt toward preferences of the moderates to gain widespread support, but veto power would not be as concentrated in the hands of one or two senators as it is now. Within these constraints, Democrats would still have a fighting chance at raising corporate taxes, introducing technology and digital currency regulations and boosting clean energy spending, though expanding traditional energy exploration as a trade-off for support might be required. Getting a China competition bill across the finish line—if not passed before the midterms—would likely be an easy lift.

US Senate: 21 Republican-Held and 14 Democratic-Held Seats Are Up for Election



Source: Morgan Stanley Research as of May 24, 2022

Stronger prospects for enactment of this set of policies could foster headwinds for information technology hardware, internet-related stocks, telecommunications and pharmaceuticals through increased potential for higher taxes, prescription drug pricing reform and tech regulation. This outcome could benefit banks, however, by improving the chances for cryptocurrency regulation to level the playing field with financial technology (fintech) firms. It could also benefit clean-tech firms by increasing the odds for passage of a bill with "Build Back Better" similarities. Furthermore, in Morgan Stanley & Co.'s economics team's bear case, a blue do-over would probably blunt the impact of a recession by keeping the congressional fiscal reaction function proactive.

SPLIT-CONTROL SCENARIOS. A divided outcome narrows the plausible policy path but could still deliver key impacts with market consequences. Under split control (either Republican Senate/Democratic House or Democratic Senate/Republican House), we see potential for narrow bipartisan efforts. Any

policy that makes it into law would require the consent of both President Biden and Republicans in Congress. While the universe of legislation that occupies that overlap may be small, we think there is scope for bipartisanship in some areas that both parties would like to address.

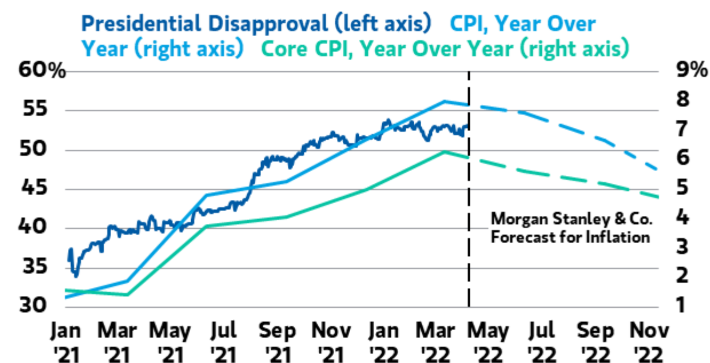
Regarding tech regulation, in our view, legislation would likely focus on the low-hanging fruit—namely, some federal protections around data privacy or transparency—and avoid more challenging areas like anticompetitive practices. For crypto regulation, given broad-based support for action from both parties, we expect that even in a split-control scenario, Congress would be able to pass legislation designating control/jurisdiction over certain areas. However, we think baseline stablecoin regulation would be unlikely. On the pharma front, we expect that the scope of any drug pricing legislation passed in a bipartisan fashion would be reduced substantially from unilateral proposals.

The fiscal reaction function of the US government under a split-control scenario would likely be reactive. As such, in our economists' bear case, a recession would largely play out before Congress provided aid. We think fiscal expansion would only come as a reaction to deteriorating economic conditions or an exogenous shock.

REPUBLICAN REDUX. Our "Republican Redux" scenario (Republican House and Senate) yields little, with legislative gridlock becoming the status quo. In this setup, certain legislative priorities, such as tax increases and investments in clean energy, would immediately be off the table, while others would become much more difficult to achieve but still possible, in our view. Items potentially included in this environment are things that Democrats and Republicans are close to agreement on, like the China competition bill currently making its way through Congress. We also see potential for tech or crypto regulation, though much narrower in scope relative to what could be considered in other scenarios.

WATCH INFLATION. How can investors gauge the likelihood of various scenarios during the run-up to the election? We believe one potential signal is the trajectory of inflation, which has been closely tracking Biden's disapproval rating (see chart). The association does not surprise us, as voters tend to hold presidents accountable for economic conditions, and as any market participant is aware, inflation has been elevated compared to pre-COVID levels.

Inflation Has Closely Tracked President Biden's Disapproval Rating



Source: FiveThirtyEight, Morgan Stanley & Co. Research as of May 24, 2022

Inflation is one of the main concerns for voters going to the polls in November, with 50% of people citing inflation and the economy as the most important issue for the president and Congress, according to the Wall Street Journal. It is particularly pertinent to lower-income, fixed-wage and rural individuals, who were critical swing voters for Biden in 2020. With low percentages of voters approving of Biden's handling of the issue, elevated inflation over the past year has likely contributed to his steadily climbing disapproval rating. Given that relationship, it is worth noting that inflation could provide more downside, or upside, to Democrats' midterm prospects. ■

This article was excerpted from the May 24 report from Morgan Stanley & Co. Research, "Mapping Out Midterms for Markets." For a copy of the full report please contact your Financial Advisor.

EXECUTIVE PERSPECTIVES

Executive Perspectives on Ford Motor Company

The following is an excerpt from Morgan Stanley's "Exceptional Leaders/Exceptional Ideas" series. This conversation was posted to Morgan Stanley's YouTube page on June 14.

Ford Prepares for the Future of Autos

Henry Ford's introduction of the Model-T in 1908 gave birth to the auto industry as we know it, democratizing the horseless carriage and changing the world. More than a century later, Jim Farley, CEO of Ford Motor Company, is catalyzing cultural change at America's largest automaker. Under Farley, the company is splitting into two divisions—one focused on traditional internal combustion engines, and one dedicated to electric vehicles (EVs). Adam Jonas, head of Morgan Stanley & Co. Research's global autos and shared mobility team, recently traveled to Ford's headquarters in Dearborn, Michigan, to learn more about his vision for Ford and the future of the auto industry. Below are edited highlights of their conversation.

Adam Jonas (AJ): Jim, thanks for being with us today to talk about the future of this industry at such an important time. People who know you well and work with you describe your infectious passion and intensity. Where does that come from?

Jim Farley (JF): I think it comes from my love of cars. My whole life is cars—I rebuild cars, all my friends are car people. My passion is really serving customers through this thing called transportation.

AJ: You race vintage cars, and my understanding is in order for you to take the CEO role you had to be allowed to keep racing. So how does racing a '78 Lola or a GT40 help make you a better CEO?

JF: Well, first of all, it's very humbling—but the biggest gift for me is that I'm around car people but they don't really care that I'm the CEO. It allows me to compete without being a jerk about it. Most of all, it just really relaxes me, because for that one-hour race, or that eight-hour race, I'm not thinking about anything other than doing a good job in the car. When I get done, I have this great sense of a vacation almost, mentally.

AJ: You recently announced plans to essentially divide the company into two divisions—one focused on combustion technology and the other on electric vehicles. What's the business case for doing that?

JF: I saw my team struggling trying to do everything at the same time, but Tesla ran through our industry like a Shinkansen train through Tokyo Station—without a stop. I don't want to be on a handcart pumping my way up to them. When I started to really listen to the new people who have joined Ford, I realized very quickly that the only way for us to really speed up the digital innovation is to get more focus.

The core business—our old internal combustion engine—has to focus on restructuring and being profitable as it shrinks. Our new businesses have to have freedom to innovate without any speed issues.

What we didn't do is spin them out, because there is a lot of interdependence, and we're not going to be a successful company if we have this focus but we don't leverage each other's strengths.

AJ: Autos are the ultimate global just-in-time supply chain. Tell me what Ford is doing to help rearchitect this global supply chain and how much work there is to do.

JF: It's going to be a five-year, all-hands-on-deck kind of transition for the company and for the country. I think semiconductors and batteries are really the next big thing, and the issue with batteries is so much of the processing—not just the mining—is done outside the US. We have to localize the refinement.

AJ: You've been outspoken about the need for the US to direct its own energy future. What's your message to the Biden administration and the Department of Energy over the next five- or 10-year period?

JF: Speed up. We need permitting from mines and we need permitting for the precursor and refinement activities to happen here in the US. I've seen Canada do this. Canada has been very proactive because they have such a vibrant raw material ecosystem already. Our country has to speed up or else we will lose out.

AJ: If Henry Ford traveled through time to 2022, what would he think of this industry and Ford's role in it?

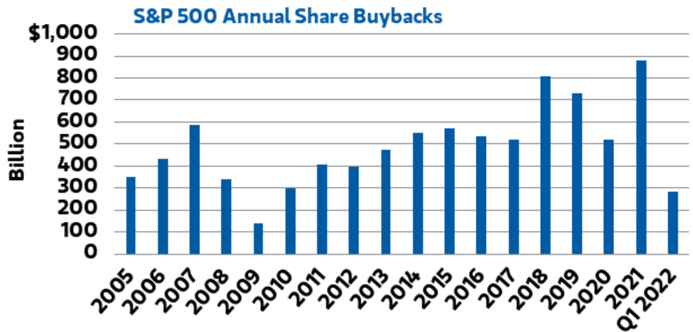
JF: I think he would say, "I'm sure glad I landed right now—I love it." I don't think he would have really loved the last 75 years of our industry. I think he was absolutely wired for this moment. I think he would have absolutely loved working at Ford right now. ■

Jim Farley 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.

Short Takes

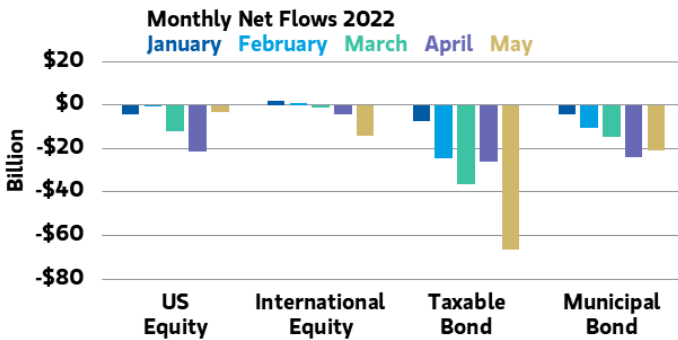
Are Share Buybacks at Risk as Growth Slows?

At $281 billion, S&P 500 share buybacks recently registered their strongest first quarter ever, on pace to exceed 2021's full-year $882 billion record. If equities remain pressured, however, US firms could be at a crossroads when it comes to repurchasing their own stock. On one hand, slowing growth prospects might entice them to preserve cash as a precaution; on the other, management teams may deem lower share prices attractive and opt to buy back more, providing a positive market signal. As detailed in their June report, "Weekly Warm-Up: Growth Risk Rises as Consumer Debate Ends," Morgan Stanley & Co.'s US equity strategy team believes buyback growth could turn negative in the back half of 2022 amid declining CEO confidence, which tends to lead buybacks by six months.–*Doug Moglia, CFA*



Source: Haver Analytics, Morgan Stanley & Co. Research as of June 13, 2022

Don't Forget About Mutual Fund Capital Gains

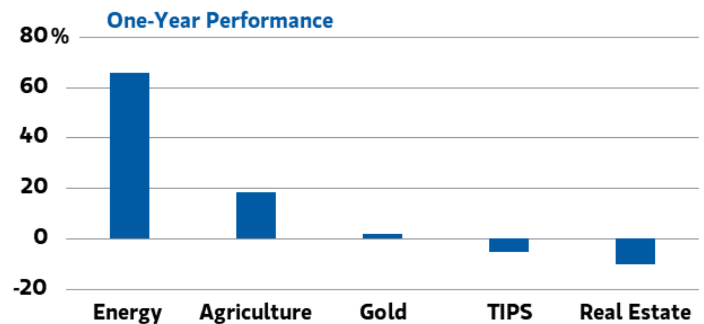


Source: Morningstar as of May 31, 2022

One of the most frustrating things about owning a mutual fund in a taxable account is receiving capital gains payouts. When managers engage in high turnover or are forced to sell portfolio assets to deal with outflows, unwanted capital gains can result in tax bills for investors even if they have not sold their funds. A capital gain may be expected and therefore more tolerable in an up year, but in a year like we've experienced so far, fund losses coupled with capital gains payouts underline a key drawback of the mutual fund wrapper. This year's outflows, which have expanded across asset classes, come on the heels of several years of market appreciation and may serve as an accelerant for capital gains in 2022. Investors should beware.–*Michael Jabara*

Taking the Pulse of the Inflation Hedges

With the US Consumer Price Index hovering at 8.6% after a full year of gains, it's a good time to take a step back and gauge the performance of several sectors typically perceived to be inflation hedges. Among them, energy has been the strongest. Underlying energy commodities, as measured by the Bloomberg Energy Subindex, are up 65.9% over the past 12 months, as Russia's invasion of Ukraine and related supply constraints pushed oil and gas prices even higher. Agricultural commodities have also risen sharply, as reflected somewhat painfully on supermarket shelves. Others, however, have disappointed so far. Gold, up only 2.0%, has been outpaced by inflation, while Treasury Inflation-Protected Securities (TIPS) and real estate equities have declined 5.1% and 10.3%, respectively.–*Georgia Fox*



Note: Returns based on Bloomberg Energy Subindex, Bloomberg Agriculture Subindex, Generic 1st Gold 'GC' Future Contract, Bloomberg US Treasury Inflation Notes Total Return Index, Dow Jones US Real Estate Index.
Source: Bloomberg as of June 30, 2022

US HOUSING

A House of Cards or of Bricks?

Brad Fulton, CFA, Investment Strategist, Morgan Stanley Wealth Management

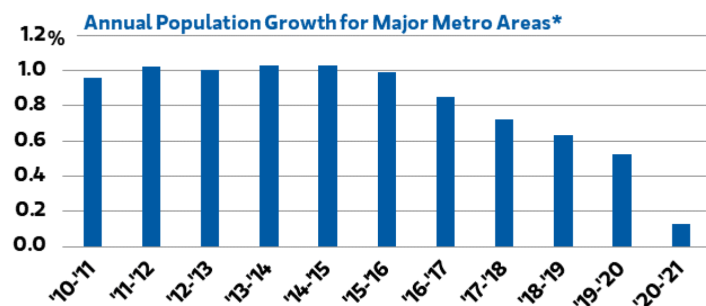
Jonah Silverman, Associate, Morgan Stanley Wealth Management

Matt Armstrong, Associate , Morgan Stanley Wealth Management

This year's tighter financial conditions and subsequent sell-off have hammered several previously frothy parts of the market, especially those that benefitted from a surplus of risk-taking and liquidity, such as cryptocurrencies and nonprofitable tech stocks. Citing higher rates and declining affordability, many expect the housing sector to be the next domino to fall. Several factors are likely to continue to support US housing, however, including demographics, moderate household debt and limited supply. In fact, given current dynamics, we believe prospects for a repeat of the housing market's experience during the Great Financial Crisis are at best remote.

THE BEST OF TIMES: 2020-2021. COVID-19 was immediately disruptive to trade, leading to global shutdowns and supply chain disruptions. In response to shutdown-induced unemployment, the US introduced a stimulus package that led to record excess savings. At the same time, historically low interest rates reduced borrowing costs, and major cities experienced "urban flight," spurred by the work-from-home trend and a desire to avoid densely populated areas amid the pandemic (see chart).

COVID-19 and Low Mortgage Rates Drove Americans to the Suburbs



*Major metro areas with populations exceeding 1 million.
Source: US Census Bureau as of March 24, 2022

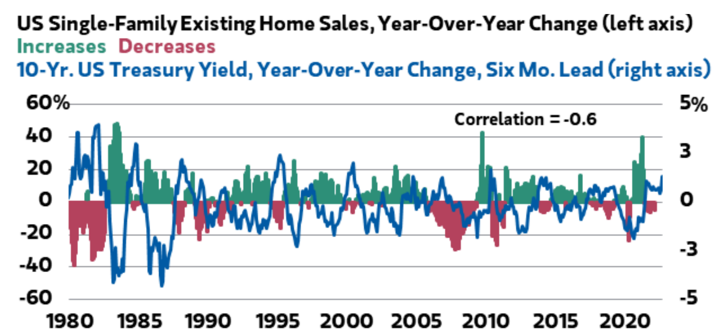
Meanwhile, just as urban flight was boosting demand, severe COVID-related supply chain disruptions were exacerbating already-insufficient housing supply. Existing homes for sale hit a historic low at the end of 2021, with inventories down 18% from the prior month and off 14.2% on the year.

Moreover, wealthy individuals, taking advantage of the low interest rate environment began to purchase vacation homes at a faster pace. A volatile stock market, which had plummeted just months earlier, made real estate look like a more appealing investment. In 2020, loan applications for vacation homes rose 30%. The combination of increased demand and tight supply strengthened the housing market, pushing home and rental prices up meaningfully. The FHFA US House Price Index rose 11.2% in 2020 for its strongest increase since 1979.

RUDE AWAKENING? While ongoing migration to the suburbs and rising disposable income continued to support the housing sector, this March it finally experienced a setback, as borrowing costs began to tick up with the Federal Reserve's first increase to the federal funds rate since 2018. With fed funds having climbed past 1.5% since then, mortgage rates have responded in kind. According to the US Mortgage Bankers Association (MBA), the average 30-year mortgage rate has risen from 3.3% in January to a recent post-2009 high of 6.0%—the fastest pace since 1981.

Periods of rapid rate increases, such as what typically occurs amid Fed tightening, are historically associated with contracting home sales. In 1994, for example, fed funds increased by 300 basis points, and by the following spring existing single-family home sales were down 16.5% on a year-over-year basis. Since 1980, the correlation between the change in existing single-family home sales and the change in the 10-Year US Treasury yield (on a six-month lead basis) has been -0.6, underlining the impact higher rates can have on home demand (see chart). Already, we are seeing evidence of weaker demand for housing loans, with the MBA US Purchase Index down 15% from a year ago.

Rising Rates Should Lead to Falling Home Sales



Source: National Association of Realtors, Haver Analytics as of May 31, 2022

As borrowing costs have risen, the average monthly mortgage payment has increased 39% over the past 12 months, reaching 25% of average US household income. Based on the historical tendency of declining housing affordability to impact homebuilder activity with a six-month lag, lower residential investment appears likely in the months ahead.

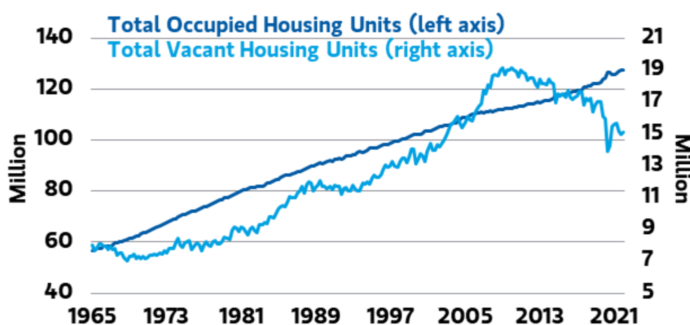
NOT A REPEAT OF 2008. For some investors, the sudden decline in affordability, coupled with lower demand for

mortgages, brings to mind the Great Financial Crisis. Investors should exercise caution in drawing parallels, however. As pointed out in Morgan Stanley & Co. Research's June report, "How to Invest in Housing," there are some key differences between then and now. Lax lending standards, in particular, were an important driver of the earlier experience, as overleveraged buyers fueled stronger demand and drove up prices at a time when supply was already growing faster than dictated by demographics. This time—though recent years' price gains may give pause—the root of the increases is much different, as are some related factors.

For one thing, despite a modest uptick in use lately, adjustable-rate mortgages are a small part of the overall mortgage market compared to their 32% share in May 2006. Post-Great Financial Crisis borrowers have exhibited an overwhelming preference for the more stable and predictable 30-year fixed-rate mortgage, and mortgage providers have implemented far more responsible lending standards. Without adjustable payments, households should be better able to service their mortgage debt amid rising rates. Several years of deleveraging, along with government support during the pandemic, should help as well.

Household debt relative to disposable income has declined from 130% in March 2008 to approximately 100% as of March 2022. The mortgage payment-to-income ratio has also declined from its high of 32.5% to 25.0%. Given these reductions and the fact that default rates are approximately 200 basis points below prepandemic levels, we do not expect forced sales from current homeowners to contribute meaningfully to supply. An increase would need to come primarily from housing starts, which may have peaked at 1.8 million units in April after a prolonged rise off their multidecade low of 478,000 in April 2009. Notably, Fannie Mae has predicted that housing starts will keep the supply of existing homes close to its 5.5-month 10-year average—well below the 12.3-month peak in 2006—rather than rising sufficiently to depress prices (see chart).

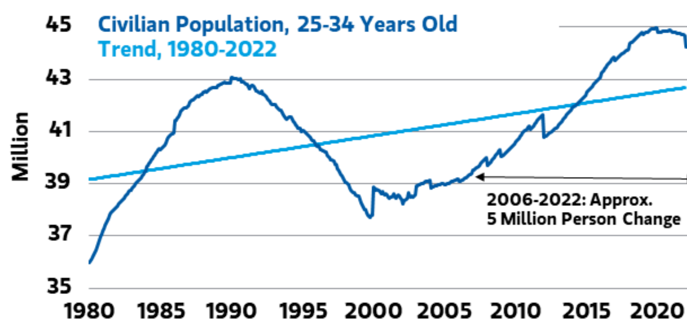
Supply Constraints Should Continue to Support Housing Prices



Source: US Census Bureau, Haver Analytics as of May 31, 2022

FUNDAMENTALS COULD BODE WELL FOR CREDIT. Demographics have also changed over the last 16 years. At 46.1 million, the US has significantly more 25- to 34-year-olds than it did in 2006 (see chart). These prime-age, often first-time, homebuyers provide additional support for the housing market that was not present during the Great Financial Crisis. A larger addressable market should ultimately foster continued demand for housing, while the combination of tighter lending standards, stronger borrowers and limited supply should also bolster credit strength.

Demographics May Drive Continued Housing Demand



Source: Bureau of Labor Statistics, Haver Analytics as of May 31, 2022

As rates have risen, however, debt markets have largely priced in risks related to economic downturn and the Fed's quantitative tightening (QT) policy, bringing agency mortgage-backed securities (MBS) prices back to 2018 levels. Amid those declines, we see some structural tailwinds for agency MBS. Specifically, interest rates at multiyear highs decrease the likelihood of refinancing while lowering prepayment risk. Importantly, we have already seen prepayments decline, with the rate for single-family houses falling 43% on a year-over-year basis in April, according to the Federal Housing Administration. In addition, less than 1% of loans backing the conventional 30-year MBS index can be profitably refinanced at current mortgage rates, which should keep prepayments low and predictable. Notably, Morgan Stanley & Co. Research's securitized products team considers agency MBS to be one of its core fixed income ideas over the coming year. ■

Q&A

What Does the Future Hold for Large-Cap Growth?

While the broad US equity market, as measured by the S&P 500 Index, is down 20% for the year through June 30, growth stocks have been hit especially hard: The Nasdaq Composite fell 29.2% over the same period. Does this present a tremendous buying opportunity in what—after multiple years of outperformance—had become an increasingly overheated sector, or does the risk of an impending recession mean there may be further declines to come? To find out, our Global Investment Manager Analysis (GIMA) team checked in with the portfolio managers of its high-conviction strategies in the large-cap growth space. The following are edited comments based on their responses.

The recent valuation reset amid the Federal Reserve pivot has driven the growth stock selloff. Has it created an opportunity, or is there a "part two" earnings reset ahead?

David Powell, Portfolio Manager, Brown Sustainable Large-Cap Growth (Brown): As active managers with a bottom-up fundamental approach and a three-to-five-year investment horizon, we view the broad market pullback as an opportunity to judiciously upgrade our portfolio at a discount. While we're aware of the possibility of a recessionary environment in the near-term, many of the companies we own—or actively follow—are trading near or below their 10-year historical averages despite minimal erosion, if any, of their fundamental strengths or long-term growth outlooks.

Alan Breed, Portfolio Manager, Edgewood Large Cap Growth (Edgewood): We believe the sell-off has created a tremendous opportunity in growth stocks because, in many ways, it has been indiscriminate. That said, we also believe that there are businesses that have to reset earnings. The question is, how much of that is already reflected in the stock price? We are focused on trying to differentiate businesses where the earnings reset is temporary—due to macro factors like China shutdowns or short-term economic slowdown—from those where earnings are more permanently impacted. From a portfolio construction standpoint, we seek to balance the portfolio with businesses that are doing well now, alongside those longer-duration growth assets that should do better when conditions improve.

Giri Devulapally, Portfolio Manager, JP Morgan Large Cap Growth (JPM): When the year began, large high-growth companies were expensive and carried high expectations. This was evident in valuation spreads, which had risen to historic highs. We continue to exercise caution in this cohort of stocks —either by selling them outright or by managing risk through careful sizing of positions. We continue to be cautious where expectations remain high, most notably in long-duration, high-multiple growth stocks. Throughout last year and into 2022, we have been generally reducing our positions in this cohort to manage risk. This has occurred either modestly, if we continue to believe in the long-term fundamentals of a given company, or more expeditiously, if conviction has waned.

Portfolio Management Team, Pioneer Fundamental Growth (Pioneer): The growth selloff has been exacerbated by the Federal Reserve's drive to lower inflation—which has remained higher for longer as a result of the Russian invasion of Ukraine and supply chain issues globally. Opportunities are beginning to present themselves, though given the volatility, we are building positions slowly on down days. Only highly profitable growth companies are being considered; the more speculative, profitless companies could easily remain out of favor for a protracted period. Earnings estimates for the second half of 2022 and for 2023 are likely too high, but the equity market is now beginning to price that in.

Will earnings be more resilient across the leading innovators of today?

Brown: We see a challenging road ahead for unproven or unprofitable companies but maintain the belief that high-quality companies with established market leadership will be able to use the strength of their balance sheets to weather the storm and continue to deliver resilient earnings.

Edgewood: Yes, but depending on the industry. We believe you will have resiliency in cloud computing and semiconductors, for example, but see challenges in retail as consumers shift more of their spending budget to essentials like food and gas. We have been positioning the portfolio more toward business-to-business spending trends, which we believe are more resilient during economic slowdowns because innovative businesses have the ability to look past a two-to-three-quarter slowdown to continue to reinvest in their business through technology, people, etc.

JPM: We have seen a significant reset in valuations against a backdrop where fundamentals have largely remained intact. Most companies in the portfolio have reported first quarter earnings results, and they have been fairly typical, with 72% beating consensus revenue estimates and 70% beating on earnings. The market has been very unforgiving of companies that have missed expectations or provided negative guidance, regardless of sector.

Pioneer: Likely so, but only for those companies that are already highly profitable and dominant in their respective industry. Companies that are earlier in their growth cycle—or profitless—may find raising capital rather difficult.

What areas of growth do you prefer and why?

Brown: Consistent with our long-standing approach, we believe it's important to have a healthy mix of high-quality companies with durable growth profiles to provide the downside protection that enables us to take calculated risks

with select higher-growth companies with stronger upside potential.

Edgewood: We believe you want to own growth companies that are in structurally advantaged industries. A few examples would be the cloud, sequencing of the human genome, digitization of businesses, the desire to onshore semiconductor chip manufacturing and financial technology. These are big trends that we believe are still very much intact.

JPM: Consistent with our process, we continue to shift to where we see the widest disconnects between fundamentals and expectations. We're agnostic as to the "style" of growth, and we're not making a top-down style decision. Our process is a bottom-up exercise. Currently, we are finding opportunity in franchises that benefit from durable earnings growth and strong free cash flow and those that are poised to exceed more modest expectations.

Pioneer: We are finding opportunities in most sectors, though all stocks in the portfolio must meet our four pillars: high returns on growth capital, strong and sustainable competitive advantages to enable those high returns to continue for years, tailwinds to growth and—most importantly—a reasonable and rational valuation.

Do you see today as a cycle shift away from growth over the long term?

Edgewood: No. In fact, we believe this is a unique opportunity to buy growth at a reasonable price. We believe inflation, which was somewhat artificially created by the federal government putting too much money into the system, will get under control. We also believe the trends in technology are an incredibly deflationary force. If you look back prior to the pandemic, it was very difficult to get inflation and GDP growth much above 2%. The combination of technological advancements, innovation, demographics (low birth rates) and high federal government deficits all lead to lower inflation from here. We believe you are already seeing early signs of that with lumber and copper prices coming down and inventories beginning to build.

JPM: We don't have a strong view on growth versus value; we've long preached the merits of owning growth but also maintaining balance. We just want to build conviction in companies where we can build a differentiated perspective on the fundamentals and the long-term growth profile.

Pioneer: No. As the economy slows and should the US enter a recession, then growth is likely to outperform the more cyclically exposed value index.

How did you make money from 2000 to 2008—when non-US stocks, value, emerging markets and commodities led markets—and are there lessons you can apply to today?

Edgewood: We were able to generate attractive returns during that period by being selective. Selectively finding companies that can generate earnings—and attractive levels of earnings growth as an outcome—is imperative. Our more concentrated approach of only owning 22 companies focuses on those that we would define as high-quality businesses with sustainable competitive advantages, positive cash flow and solid balance sheets. Ultimately, it should be earnings growth that drives performance.

JPM: From my inception as lead PM in July 2005 through 2008, the materials sector was a notable contributor. A key takeaway is that it's necessary to stay open-minded and take an agnostic approach toward where new growth ideas can orignate.

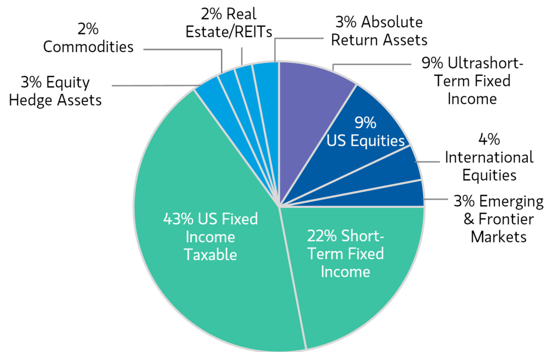
Pioneer: By sticking to the investment philosophy at all times. Our focus is on companies that can grow their intrinsic value through the compounding of high returns on capital. The key is to maintain a valuation focus and not to overpay for them. ■

David Powell, Alan Breed, Giri Devulapally and the Pioneer Fundamental Growth Portfolio Management Team are not employees of Morgan Stanley Wealth Management or its affiliates. Opinions expressed by them are their own and may not necessarily reflect those of Morgan Stanley Wealth Management or its affiliates.

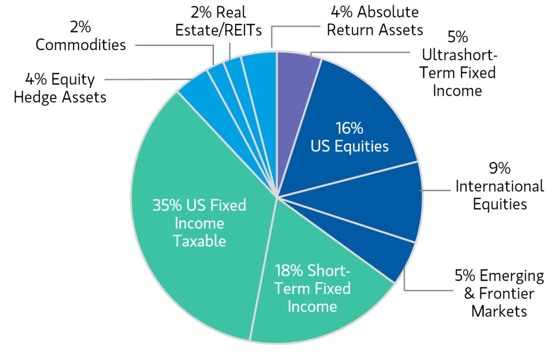
Global Investment Committee Tactical Asset Allocation

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.

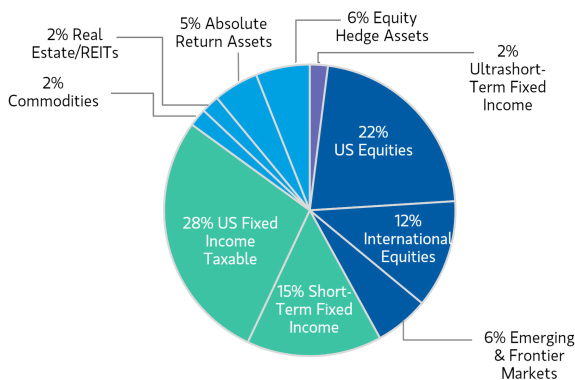
Wealth Conservation



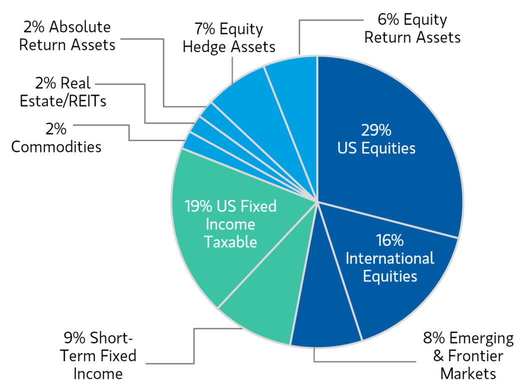
Income



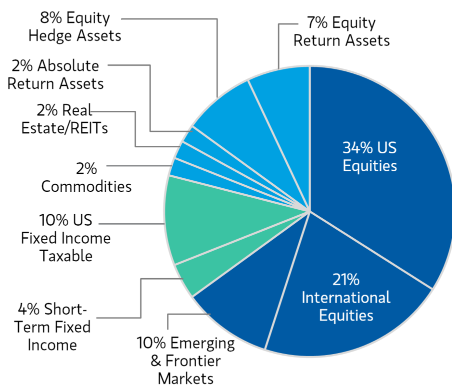
Balanced Growth



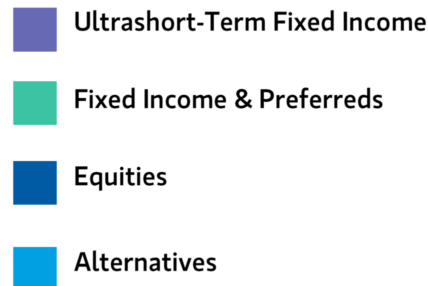
Market Growth



Opportunistic Growth

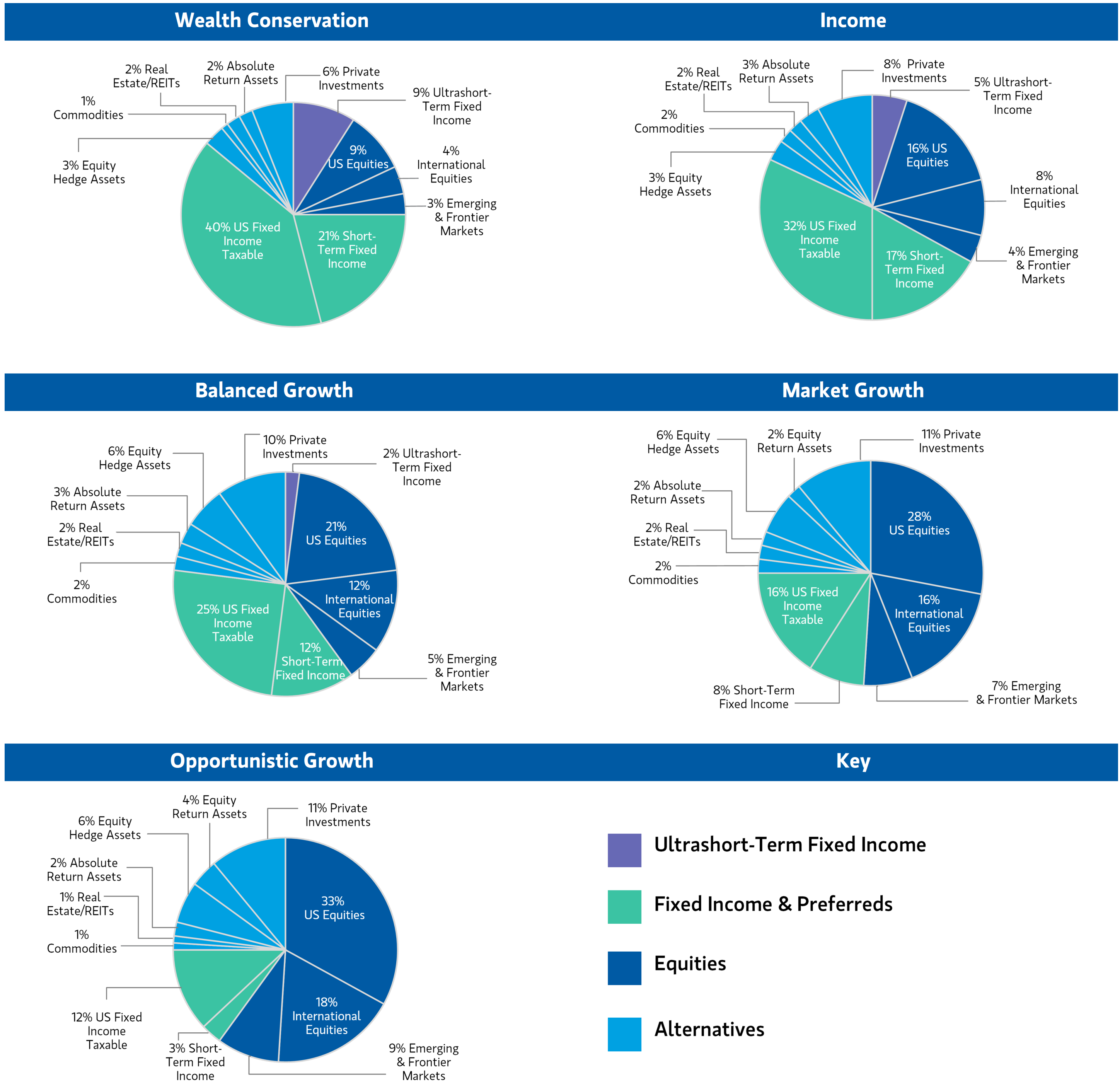


Key



Source: Morgan Stanley Wealth Management GIC as of June 30, 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 June 30, 2022

Tactical Asset Allocation Reasoning

Global Equities	Relative Weight Within Equities	
US	Market Weight	With the Fed launching aggressive tightening, supply chains improving and global growth slowing on the back of Russia/Ukraine war 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 and headwinds to valuation multiples. We expect volatile but rangebound trading plus/minus another 5% to 10%.
International Equities (Developed Markets)	Market Weight	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.
Emerging Markets	Overweight	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.
Global Fixed Income	**Relative Weight Within Fixed Income**	
US Investment Grade	Overweight	Markets have aggressively priced the Fed's hawkish rate path and with yield curves apt to face ongoing flattening pressure as 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.
International Investment Grade	Underweight	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.
Inflation-Protection Securities	Underweight	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.
High Yield	Underweight	We recently halved our exposure to the equity-like asset class to reduce equity beta of portfolios. High yield bonds have 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. With spreads near all-time tights, the upside is limited.
Alternative Investments	**Relative Weight Within Alternative Investments**	
REITs	Overweight	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.
Commodities	Market Weight	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 remain severe and may take multiple quarters to cure.
Hedged Strategies (Hedge Funds and Managed Futures)	Overweight	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.

*For more about the risks to Duration, please see the Risk Considerations section beginning on page 18 of this report.
Source: Morgan Stanley Wealth Management GlC as of June 30, 2022

Disclosure Section

Important Information

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.

Matt Armstrong, Steve Edwards, Georgia Fox, Brad Fulton, Lisha Ge, Daniel Hunt, Michael Jabara, Adam Jonas, Doug Moglia, Jonah Silverman, Daniel Skelly and Michael Zezas are not members of the Global Investment Committee and any implementation strategies suggested have not been reviewed or approved by the Global Investment Committee.

Index Definitions

Bloomberg Agriculture Subindex: This index is a commodity group subindex of the Bloomberg CI. It is composed of futures contracts on coffee, corn, cotton, soybeans, soybean oil, soybean meal, sugar and wheat. It reflects the return of underlying commodity futures price movements only and is quoted in USD.

Bloomberg Energy Subindex: This index is a commodity group subindex of the Bloomberg CI. It is composed of futures contracts on crude oil, heating oil, unleaded gasoline and natural gas. It reflects the return of underlying commodity futures price movements only and is quoted in USD.

Bloomberg US Treasury Inflation Notes TR Index Value Unhedged: This index measures the performance of the US Treasury Inflation Protected Securities (TIPS) market. Federal Reserve holdings of US TIPS are not index eligible and are excluded from the face amount outstanding of each bond in the index.

Dow Jones US Real Estate Index: This index is designed to track the performance of real estate investment trusts (REIT) and other companies that invest directly or indirectly in real estate through development, management, or ownership, including property agencies.

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

Risk Considerations

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(s). 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. 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 economics. ETFs 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 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 low 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 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 a 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 transferrable. 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) from "airdrops" 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.

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