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WEALTH MANAGEMENT

INVESTMENT STRATEGY

Global Investment Committee | October 2020

On the Markets

A Bull Market Consolidation

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During the past month, several key risks have surfaced, producing the first meaningful correction in this new bull market. The S&P 500 Index dropped over 10% from its recent highs, led by a 14% decline in the tech-heavy Nasdaq Composite Index. In our view, there are four reasons why this correction is happening.

First, fiscal stimulus is fading and, with Congress embroiled in election-year politics and a tussle over when to fill the Supreme Court vacancy, the odds of the CARES 2.0 legislation passing before the election have dropped considerably. Second is COVID-19, with a looming potential second wave and risk of further lockdowns. Third, real long-term interest rates appear to have bottomed as the Federal Reserve formally told us asset purchases won't increase from here. Finally, we have the election itself and the uncertainty surrounding both the process and the outcome.

The good news is that investors have started to discount these very visible concerns via lower prices. However, with uncertainty on these events remaining high for the next one to two months, volatility will likely remain high, too. Longer-term support for equity markets—still 5% to 10% lower than current prices—may be tested.

Looking beyond the near term, three of the aforementioned risks are likely to be resolved positively by the end of the year or shortly thereafter. More specifically, additional fiscal stimulus is likely as both parties want to spend more even if they can't come to terms before the election process is completed. More market pressure could assist in accelerating that timeline. Meanwhile, progress on a COVID-19 vaccine and natural herd immunity via a second wave should become clearer and, eventually, we will have a conclusion to the election. The one risk we think will remain with us is that long-term interest rates are likely to rise further from here. That suggests valuations remain vulnerable for the most expensive growth stocks that have done so well in recent years.

The bottom line is that the recent correction was inevitable, as all bull markets need to consolidate. Trying to trade these corrections is difficult and the best approach is to ride it out given how early we are in this new cycle. With the recovery likely to continue in 2021, those stocks most levered to the economic cycle should do best. They include consumer cyclicals and services, materials, industrials and financials. We also like high-quality growth stocks once they fully adjust to the rise in long-term interest rates we expect. ■

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ECONOMICS

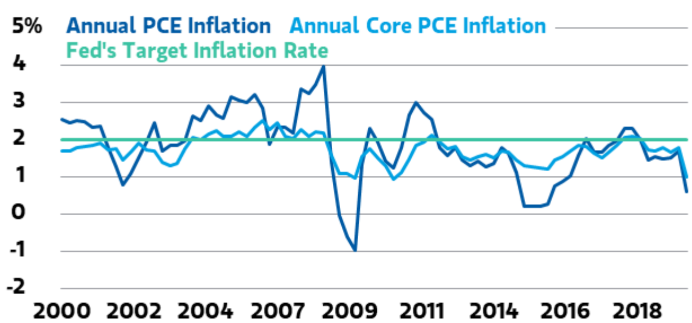
The Fed's New Framework: This Time Is Different

Ellen Zentner, Chief US Economist , Morgan Stanley & Co.

On Aug. 27, Federal Reserve Chair Jerome Powell and the Federal Open Market Committee made history, rolling out a new inflation-targeting framework. I believe the central bank is now more likely to achieve its desired inflation target in the current cycle. If it does, this new framework may well be Powell's legacy.

The change in the framework was broadly in line with expectations. The chair outlined a flexible average inflation-targeting (AIT) framework that avoids setting a formulaic time horizon over which the Fed seeks to maintain average inflation at 2% (see chart). Instead, the Fed seeks to target inflation overshoots in recoveries following inflation shortfalls during downturns. In our view, this means the fed funds rates will be zero-bound until the first half of 2024.

Policymakers Look for Inflation to Be Better Centered on the 2% Goal



Source: Bureau of Economic Analysis, Morgan Stanley Research as of Sept. 11, 2020

ECONOMIC AND POLICY OUTCOMES. The implications for the medium-term outlook for economic and policy outcomes are important. The Fed has now solidified a more dovish path compared with previous recoveries. This new outcome-based approach entails seeing inflation appear first before raising rates, rather than simply forecasting it to rise.

Assessing how this policy would have been implemented in the last cycle based on ex-post economic outcomes has pitfalls because a different policy framework would have affected not only monetary policy expectations but also inflation expectations dynamics. What we can say is that with this policy framework in place and with inflation and unemployment exactly where they stood in December 2015—5.0% unemployment rate and 1.5% core inflation based on the Personal Consumption Expenditure (PCE) Index—the Fed would not have raised interest rates at that time. It may instead have waited to begin removing accommodation until conditions looked more like 2018, with core inflation sustained around 2% and unemployment low.

MONETARY POLICY DYNAMICS. It's not just policy outcomes that are likely to differ. A change in monetary policy dynamics over time is likely to influence inflation expectations that are relevant for setting prices and wages. That, in combination with other factors that make it more likely for central bank inflation targets to be reached during this cycle, would make it more likely the Fed can actually achieve average 2% inflation outcomes over time (see sidebar). Accounting for such higher inflation outcomes together with a mark-to-market of our longer-term model simulations, we think the labor market and inflation conditions needed for the Fed to consider raising rates could be in place in the first half of 2024. In our view, policymakers will not be compelled to raise rates at the first signs of

Fed Chair Jerome Powell Explains Why Inflation Needs to Be Higher

In a Sept. 4 interview with Steve Inskeep, host of NPR's "Morning Edition," Fed Chair Jerome Powell explained why the Fed wants inflation to be higher:

We all know that high inflation can be a problem—and I'm old enough to remember when it was a serious problem in the 1970s and [former Federal Reserve] Chairman [Paul] Volcker at the Fed and his colleagues managed to get it under control.

But persistently low inflation can be a problem, too—and this is less obvious and intuitive, and the reason is really this: When inflation is very, very low, it means lower interest rates. For example, in every interest rate is built, whether we know it or not, an expectation of what inflation will be. And if people expect inflation to be very low, then interest rates will keep going down. Again, we've seen this around the world: lower and lower interest rates, lower and lower inflation.

When interest rates get very low, the Fed will have less room to cut interest rates to support the economy. That means that unemployment will be higher, more of the time. It means less attractive economic outcomes, and those burdens tend to fall most on those who are least able to bear them. So we really want some inflation. We want inflation to be around 2%—and that's sort of the global standard these days. We don't want inflation to slide down closer to zero, which frankly is happening in many places in the world. And it's not a good feature of an economy when that happens.

Source: NPR interview as of Sept. 4, 2020 success on inflation in order to demonstrate their full commitment to the new strategy. What's more, since the lookback period for 2% average inflation is undefined, policymakers could argue for continued accommodation given years of below-target inflation.

LIFTING OFF. Adopting a risk management approach, policymakers are likely to recognize the asymmetric risks of lifting off too soon with policy already at the zero lower bound. We expect the Fed will want to end asset purchases around a year before the expected timing of the first rate hike, suggesting an end to asset purchases in early 2023—though tapering is likely to come sooner, at some point in mid-2022. This would mean Fed communication around tapering as early as late 2021. The first hike could come sooner if the V-shaped economic recovery continues to run ahead of expectations.

Do the new framework and a protracted stretch of low rates imply more froth in asset markets? We'd highlight the reciprocity between the Fed and financial conditions that are underpinned by market expectations, and current market pricing reflects an expectation of no rate hikes through 2023. Chair Powell has also noted that "the connection between low interest rates and financial instability generally is not as tight as many people would think." Still, emerging signs of financial instability would pose a challenge for the Fed, particularly if they require quick action. ■

POLITICS

The 2020 Election: Learning From the Past, Preparing for the Future

Jodie M. Gunzberg, Institutional Investment Strategist, Morgan Stanley Wealth Management

Monica Guerra, Investment Strategist, Morgan Stanley Wealth Management

The 2020 presidential election is one month away, and many investors are questioning how the election may impact their portfolios. History suggests that investor fears related to election outcomes may often be misplaced. What's more, conventional wisdom frequently does not align with market results. Importantly, market performance is more closely correlated with the business cycle than political party control.

In our two-part report, *US Policy Pulse: A History of General Election Performance, Part 1 and Part 2,* we analyzed market performance from 1928 through Aug. 31, 2020. We examined both election- and nonelection- year performance, as well as historical market performance by political party and individual presidential term, and patterns do emerge.

MACRO CONSIDERATIONS. To start with, GDP growth tended to be stronger during presidential election years than in other years and, when assessing the average annual GDP growth of all years of a presidential term by political party since 1928, we found that GDP growth under Democratic presidents outperformed Republicans by 2.6%. We also found that, regardless of political party, the US dollar weakened significantly in the six months prior to the inauguration and remained flat for the subsequent six months. Notably, performance tended to improve in the latter part of a president's first year in office, increasing 4%. Watch for the dollar to continue to weaken.

EQUITY PERFORMANCE. We also found that Democratic administrations had higher S&P 500 average annual returns for all years in office compared with GOP administrations, outperforming by 6%. Furthermore, US equities analyzed by size, style and sector reported their strongest results on average under the Democrats, with the S&P 500 Pure Growth Total Return Index up 134.1%, the S&P MidCap 400 Pure Growth Total Return Index up 120.6% and the S&P 500 Information Technology Index up 138.4%.

However, the far-reaching strength of equities under Democratic presidents does not tell the whole story. It's also important to consider who controls the House of Representatives and the Senate. We found that Democratic control of the executive and legislative branches was more positive for markets in the first two years in office versus GOP counterparts. However, when the House and Senate were controlled by different parties, results were mixed. Value and growth stocks reported stronger average returns within the first year of a Republican president and divided Congress, at 24% and 29%, respectively. Under a Democratic president and a divided Congress, small-cap and large-cap stock returns were stronger, 31% and 25%, respectively.

OTHER ASSET CLASSES. In an analysis of 108 indexes covering multiple asset classes, on average, 77% performed best under Democratic presidencies, while 23% did better with Republicans. Although performance on a whole was weaker under Republican presidents, when we found that other than US equities, returns were mixed when comparing the average term performance by party and the greatest return by president. Notably, these two components do not always align. For example, the Nikkei 225 Index reported its best average term performance by party under Democratic administrations (see table). Even so, its best single-term performance was under a Republican president, gaining 160.5% during Ronald Reagan's second term.

Homogenous results were also uncovered. The Bloomberg Barclays US Aggregate Index performed better under Republican presidents. Also doing better under the GOP were the Bloomberg Commodity Total Return Index and China's CSI 300 Index. When reviewing performance by individual presidential term, we found these assets also posted their strongest returns under Republicans. ■

Presidential and Party Performance Is Mixed for Major Asset Classes

Index	Republican Term Avg.	Democratic Term Avg.	Average Difference	Best Term	Worst Term	Best Presidential Term	Worst Presidential Term
CSI 300	77.7%	28.7%	49.0%	111.8%	28.2%	George W. Bush (2)	Barack Obama (1)
Bloomberg Commodity Total Return	46.0%	34.1%	11.9%	204.6%	-37.2%	Richard M. Nixon (2)	Barack Obama (2)
Bloomberg Barclays US Aggregate	31.2%	24.1%	7.1%	55.3%	7.4%	George H.W. Bush	Barack Obama (2)
Hang Seng	20.5%	97.9%	77.4%	259.8%	-62.0%	Jimmy Carter	Richard M. Nixon (2)
Euro STOXX 50	-11.4%	68.2%	79.5%	139.3%	-37.8%	William J. Clinton (2)	George W. Bush (1)
S&P Real Assets	14.3%	50.2%	35.9%	91.6%	8.7%	Barack Obama (1)	Barack Obama (2)
S&P 500	16.5%	46.5%	30.0%	205.5%	-77.1%	Franklin D. Roosevelt (1)	Herbert Hoover
Nikkei 225	18.6%	28.5%	9.9%	160.5%	-47.0%	Ronald Reagan (2)	George H.W. Bush

Note: Red indicates Republican presidency and blue indicates Democratic presidency.
Source: Morgan Stanley Wealth Management as of Aug. 31, 2020

EQUITIES

Going Abroad

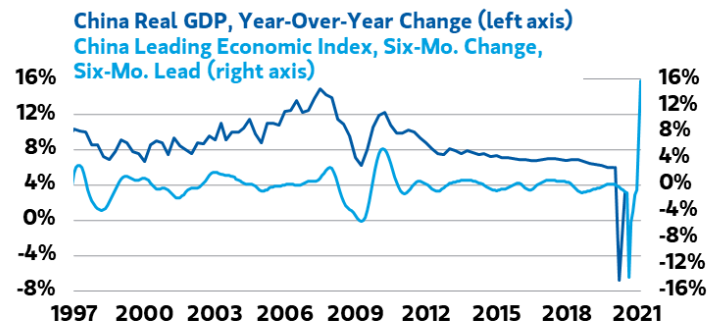
Lisa Shalett, Chief Investment Officer and Head of Wealth Management Investment Resources, Morgan Stanley Wealth Management

As has been the case for much of the past four years, non-US equities have been disappointing in 2020. Even after the September sell-off, stocks in Europe, Japan and the emerging markets were trailing the S&P 500 Index's 2.8% total return. In US dollars, stocks in Europe were down 12.9% and emerging markets down 3.9%, while Japan was barely positive at 0.2%. Even though US management of the COVID-19 pandemic has been poor as measured by deaths per million, policymakers' outsized policy response has supported relative outperformance. As leadership within US equities moves to cyclicals, and small-cap and mid-cap stocks, we also expect a rotation toward non-US stocks.

We see US relative outperformance fading based on growing relative risks. The recent mini-meltdown in megacap tech stocks confirmed that these stocks were at valuation extremes, crowded concentration and potentially peak demand. As the global recovery gains steam, the perceived defensive characteristics of many of those stocks may pale against more cyclical companies, which have significant operating leverage from improving volumes and increased economic activity. Equally concerning are rising risks associated with the potential fiscal cliff and a material pause in the V-shaped recovery as unemployment benefits roll off due to the apparent failure/delay of the CARES 2.0 legislation. Already, labor market momentum appears to be slowing and consumer confidence has yet to rebound. Finally, US markets are prone to churn around the contentious presidential election, not only because of the usual policy uncertainty but because the chances of delayed and/or contested results are increasing. A final headwind is the apparent inflection in the US dollar after a nearly seven-year bull market; the greenback peaked in February and is down roughly 7% for the year to date.

CHINA'S RECOVERY. On the other hand, non-US markets exhibit notable advantages. To start with, the economic recovery in China leads the West by as much as a year (see chart). For the year to date, the MSCI China Index is the best-performing regional market, benefitting from a solid pickup in global trade and a robust cycle of initial public offerings by emerging technology companies. Although trade tensions with the US cast a shadow, Morgan Stanley & Co.'s China strategists note that the COVID-19 recession has had a positive impact on the domestic economy: Nearly $300 billion that would have otherwise been spent by Chinese tourists and students abroad is now being recycled at home. Unlike many Western countries, whose coronavirus-related stimulus programs dwarf what was spent in 2009, that is not so for China, leaving policymakers with ample capacity to sustain their new business cycle—one that will likely be aided by a stronger renminbi. Although a strengthening currency can be a headwind for exports, we view it as absolutely critical to the country's goal of making the renminbi an international currency. Our analysts estimate that China's global sovereign bond issuance priced in renminbi will triple in the next three to five years while the currency's share of central bank foreign exchange reserves will double to 4%.

China' Economic Data Is on the Upswing



Source: Bloomberg as of Sept. 18, 2020

For the rest of emerging markets, most of which are linked to China, the weaker US dollar/stronger renminbi is a Goldilocks scenario; it should aid capital flows and debt repayments while supporting trade competitiveness. Interestingly, the typically strong positive correlation between the emerging markets and commodities has yet to be fully priced, with the emerging markets lagging the big gains in industrial and precious metals for the year to date. With the Federal Reserve planning to keep the fed funds rate at zero through 2023 while driving inflation higher, the emerging markets should be the world's biggest beneficiary.

CONSIDER EUROPE AND JAPAN. The stories in Europe and Japan are equally compelling. The latest PMI data in Europe and the ZEW Euro Zone Expectation of Economic Growth Index, as well as the more procyclical attributes of their stock market indexes, should allow better relative operating leverage to the 2021 growth rebound (see chart).

European Growth Expectations Highest Since 2004

Source: Bloomberg as of Sept. 17, 2020

Furthermore, both regions boast more reasonable valuations with forward price/earnings multiples of 16 and 15, respectively. Specifically, in the case of Europe, we are excited at the prospects for recent moves toward fiscal integration with the EU's recovery fund. Not only will the fund be financed in euro-denominated EU sovereign bonds but its loans and grants will be distributed based on need and not economic heft—a breakthrough that should finally channel aid to the southern periphery. Equally compelling is the vow that nearly one-third of proceeds will be directed toward job-creating, green-energy projects that should improve productivity. Such a shift represents a material breakthrough that MS & Co. strategists believe will lead to higher across-the-board valuations for European equities.

ONGOING TRANSFORMATION. In Japan, our investment narrative is premised on both ongoing economic transformation and an important break we see in the dollar/yen correlation. For most of the past decade and business cycle, there was a strong positive correlation between the two because both currencies were seen as safe havens in risk-off markets. In the next cycle, we see the yen continuing to weaken even against a weaker US dollar. At the heart of that dynamic is Japan's unique positioning in a multipolar world; it is uniquely positioned to optimize trade relationships with both China and the US, and incremental yen weakness is an outgrowth of relative strength in the renminbi. Beyond the more constructive currency backdrop, MS & Co. analysts are excited about the momentum Japan has coming out of the COVID-19 crisis and the transition in the government. Japan went into the crisis on the back of nearly a decade of success driving improvements in return on equity that should now be recognized by global investors as technology investing shifts to Japan's expertise in artificial intelligence, robotics, the internet of things, virtual reality, natural language processing and voice recognition. Already, MS & Co. economists note a double-digit gain in capital investment this year. That should fuel a productivity pickup in an economy that has the lowest level of unemployment and least COVID-19 mortality of any developed country.

PORTFOLIO ADJUSTMENT. All told, it appears that US equities' outperformance relative to non-US stocks over the past decade was idiosyncratic—not permanently structural as some assert—and appears poised to end with the COVID-19 recession. US stock indexes now seem fragile under the weight of excessive valuations, crowding and concentration. Meanwhile, the dollar is weakening, and the Fed is singularly focused on reflating the economy, unfettered by historical constraints of inflation and employment. This suggests procyclical factors could ultimately dominate, and they're more robustly expressed through non-US stocks currently. Watch the weakening of the dollar and the strengthening of the MSCI All Country World Index ex US for signs the regional stock rotation is gaining steam. Consider rebalancing global portfolios away from the US. For US-biased portfolios, enhance both risk management and diversification. ■

ECONOMICS/EQUITIES

Despite COVID-19, China's Super-City Initiative Remains on Track

Robin Xing, Chief China Economist, Morgan Stanley Asia Limited+
Laura Wang, Chief Equity Strategist, Morgan Stanley Asia Limited+

In 2017 and 2019, Morgan Stanley's Bluepapers on China forecast that the country would reach high-income status by 2025 amid easing structural imbalances, transition to higher value-added activities and next-phase urbanization, the marriage of mega-city clusters and digitalization. Together, these changes, we argued, would allow China to overcome structural headwinds of trade barriers and aging demographics. However, with COVID-19 and heightened US-China tensions and the associated tech barriers, investors have cast doubts on our thesis.

In our view, COVID-19 and rising external challenges have not derailed China's "Urbanization 2.0." In fact, Chinese equities have so far this year outperformed such major indexes as the S&P 500, TOPIX, MSCI Europe and MSCI Emerging Markets (see chart). Chinese equities that we have determined are directly tied to the Urbanization 2.0 theme have done even better (see chart). On a sectoral basis, we see "new economy" sectors such as consumer staples, consumer discretionary, health care, information technology and media/entertainment benefiting more from the urbanization trend than such "old economy" as energy, industrials and materials (see chart).

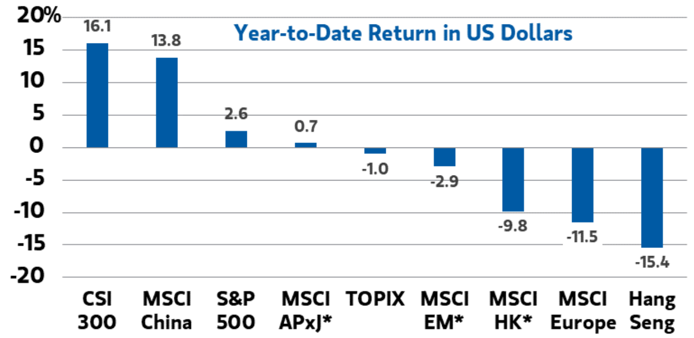
In particular, we see robust progress on Urbanization 2.0 through these key enablers:

Digitalization: New Infrastructure Push And Smooth 5G Rollout

We have argued that digitalization is key for China to reap the benefits of further urbanization by accommodating higher concentration of population and resources while minimizing inefficiencies typically seen in mega-cities such as traffic congestion and pollution.

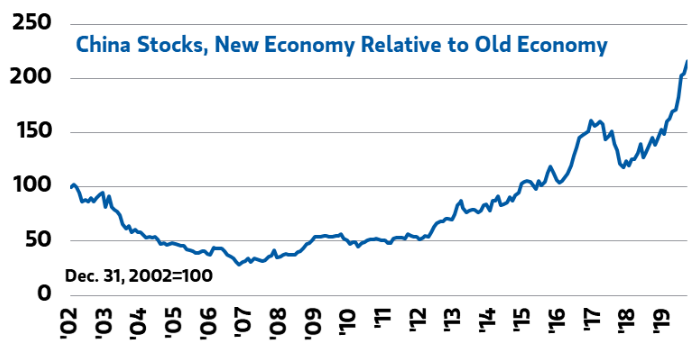
Echoing our view, China has initiated "new infrastructure" projects to mitigate the economic impact of COVID-19 while fast-tracking the smart-city buildup. These efforts include construction of 5G base stations; the industrial internet of things; artificial intelligence (AI) and data centers; ultrahigh voltage; high-speed intercity railways and rail transit; and electrical vehicle charging stations. Our bottom-up estimates suggest that the annual average investment in new infrastructure would reach $180 billion between 2020 and 2030, almost twice the average over the past three years, led by AI/data centers, high-speed intercity and rail transit, and 5G base stations.

China Has Among 2020's Best-Performing Markets



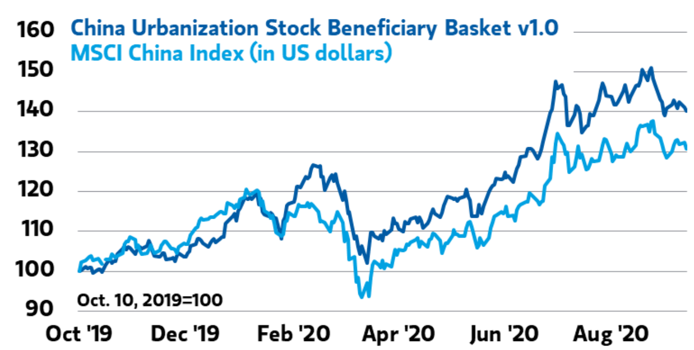
*MSCI Asia-Pacific ex Japan, MSCI Emerging Markets and MSCI Hong Kong Indexes
Source: Bloomberg as of Sept. 22, 2020

In the Past Decade, China's New Economy Stocks Have Outperformed



MSCI China sector-level subindexes are used to construct performance index for New Economy (consumer staples, consumer discretionary, media/entertainment, information technology, health care) and Old Economy (materials, energy and industrials).
Source: FactSet, Morgan Stanley Research as of Sept. 22, 2020

Stocks Tied to Urbanization 2.0 Initiative Have Outperformed the Broader Chinese Market



China Urbanization stock beneficiary basket v1.0 was effective from Oct. 10, 2019, until Sept. 1, 2020, after which we published v2.0, effective since Sept. 2, 2020. The basket can be found in Exhibit 15 of our Sept. 2 report, "Revisit: Progress on Track."
Morgan Stanley Research as of Sept. 1, 2020

Reflecting the steady progress of smart-city development, the rollout of 5G network, a key pillar, has been on track. In the first half of 2020, China built about 250,000 5G base transceiver stations, and it is on track to meet our telecom team's expected target of 550,000 to 600,000 this year. Meanwhile, 5G coverage is now in more than 50 cities, and the country's three main domestic telco operators plan to provide coverage to urban areas of all cities at prefecture level or above (337 in total) by the end of the year. Consumer adoption has been faster than expected, already exceeding operator targets for the year, while take-up has also been more rapid than that of 4G.

Policymakers are also increasingly focused on industrial 5G applications. Sectors under the radar include health care, power grid, autos and education. As an example, Qingdao city announced in July that it had completed the largest 5G smart grid in the country, allowing the city to shorten the length of power shutdowns and facilitate repair work.

Connectivity: High-Speed Rail to Be Longer and Smarter

China's city clusters rest on the world's longest and fastest high-speed rail system. As an example, it takes just 45 to 60 minutes to travel from Shanghai to Hangzhou by high-speed rail, much faster than the 80 to 120 minutes required to travel from London to Birmingham, UK, a comparable distance.

In light of the secular external challenges in the post-COVID world, Beijing announced a high-speed railway upgrade plan, which outlines mid- to long-term targets on network coverage, technological development and operational efficiency. The total mileage target under the new blueprint is 200,000 kilometers by 2035. It is worth noting that execution of the previous railway blueprints has usually surprised to the upside. For example, Beijing's 2025 high-speed rail target was 38,000 kilometers in its 2016 blueprint, and the goal will likely be reached by the end of this year—five years earlier than planned.

Does the blueprint mean another wave of unproductive investments and massive debt buildup? Our answer is no. In our view, the plan suggests that length is no longer the only thing that matters, with the focus now moving to enhancing connectivity within major city clusters instead of aggressive buildouts into less-populated inland regions. Meanwhile, the plan calls for leveraging cutting-edge technology to improve the consumer experience through improvements such as electronic ticketing and gates driven by facial recognition.

Reform: Stronger Integration in Key Clusters

We have argued that the productivity gains from deeper urban agglomeration would arise from labor matching, the spillover of knowledge and tech know-how, specialized supply chains, and synergies across different sectors. In turn, given lingering Hukou restrictions and a locally segregated social security safety net, structural reforms are needed to enable productive factors (particularly human capital) to accumulate and concentrate in China's mega-city clusters. In fact, concerted reform initiatives have been rolled out to facilitate factor mobility and regional integration.

From a top-down perspective, an article by the president of China in December 2019 emphasized the importance of respecting economic principles and allowing further concentration of industry and population in more advanced regions, with city clusters and hub cities becoming the key growth engines. In April 2020, China issued a comprehensive guideline on deepening factor market reforms (on land, labor, capital, technology and data), which, if successfully implemented, would improve China's land and labor mobility and economy-wide resource allocation. ■

The above was excerpted from the Sept. 2, 2020, report, "Revisit: Progress on Track." *For the full report, please contact your Financial Advisor.*

SCIENCE

Energy & Climate Change—a Story in 23 Charts

Martijn Rats, CFA, Equity Analyst and Commodity Strategist, Morgan Stanley & Co. International PLC+

Climate change is often referred to as the defining challenge of our time. How the world meets this challenge has profound implications for the global energy system and the companies that operate within it.

Although detailed information on energy and climate change is available freely and in the public domain, it is not always easily accessible. Hence we collected key facts and figures to help investors navigate this issue.

This is not a forward-looking note and we express no opinions. Instead, we simply document the facts as they have already taken place. Among others, this provides answers to the following questions:

How much energy does the world consume, and how much of this comes from fossil fuels?

How much carbon does each fuel emit, and what is the concentration of carbon dioxide in the atmosphere?

As a result, how much has the global temperature risen already?

Which countries emit the most, in absolute terms and per head of population? How has this changed over time, and which countries are growing/shrinking emissions the fastest?

What do emissions look like when we adjust them for trade? Does it make a difference?

Which fuels emit the most, and which end-use sector?

What other gases besides carbon dioxide (CO2) contribute to the greenhouse effect? What has the relationship between oil, GDP and population growth been?

Can GDP grow while carbon emissions shrink?

What are scenarios for the future? Where does the global energy system need to end up?

To what extent has the energy system already electrified? Is electricity demand growing, and what does this look like in a "well below 2 degree" world?

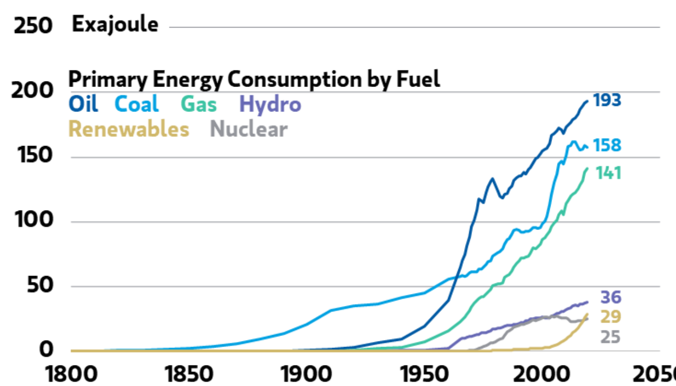
How Big Is the Energy System?

In 2019, the world consumed about 100 million barrels of oil products, which contained about 193 exajoule (EJ) of energy (exa means 10 followed by 18 zeroes). Adding other sources such as coal, gas and renewables, total primary energy demand amounted to about 584 EJ in 2019, according to the *BP Statistical Review.* The International Energy Agency puts its estimate at 605 EJ.

Given there are 31.5 million seconds in a year, this meant the world consumed energy at a rate of 19 trillion Joule per second. Numbers of this order of magnitude are often hard to relate to, but a comparison may provide some context: If the world's 2019 energy consumption had been spread out over the lifetime of the universe, it would have been sufficient to power 27 50-watt light bulbs since the Big Bang, 13.8 billion years ago.

Also noteworthy is that energy consumption has been growing consistently. Primary energy demand has increased by 20% over the past decade, and has only shrunk on two occasions in the past 55 years: in 1980-1982, after oil prices tripled; and in 2009, a result of the financial crisis and recession. ■

How Primary Energy Consumption Breaks Down by Fuel



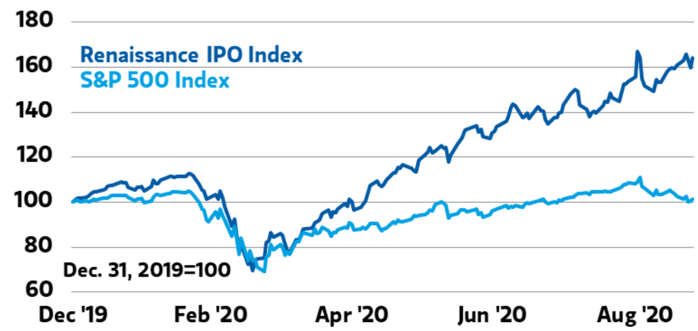
Note: Renewables include energy from wind, geothermal, biomass and waste, stated on an input-equivalent basis.
Source: SMIL (2010), BP Statistical Review, Morgan Stanley Research as of Sept. 2, 2020

For the other 22 charts, ask your Financial Advisor for the Sept. 2, 2020, Morgan Stanley & Co. report, Energy & Climate Change—a Story in 23 Charts.

Short Takes

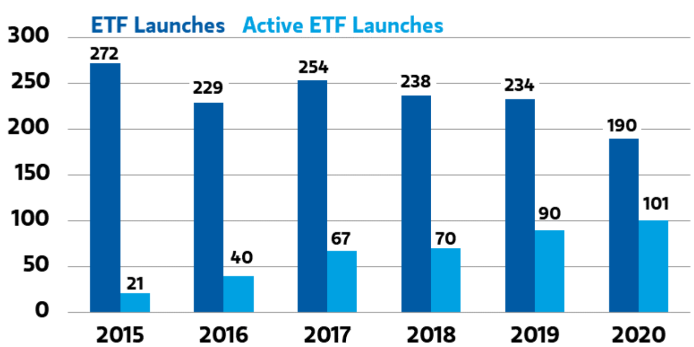
Initial Public Offerings Are Having a Banner Year

The market for initial public offerings (IPOs) is hot, with the Renaissance IPO Index outpacing the S&P 500 Index by 65% since the March 23 market low (see chart). The index represents companies that have gone public in the past three years, and is largely made up of flashy tech companies with limited financial histories. We see this record performance as a sign of market exuberance that was fueled by the market rally. Flows into new IPOs have powered record-setting returns on their opening days. "Special purpose acquisition vehicles," which are an alternative way to go public, are also booming. Although we recognize that an early-cycle environment is an appropriate time to tilt portfolios toward risk, it is important to remain disciplined. Gains that are driven by manic buying are equally susceptible to sentiment swings in the opposite direction.—*Nick Lentini*



Source: Bloomberg as of Sept. 24, 2020

More Actively Managed Exchange-Traded Funds Are Coming to Market

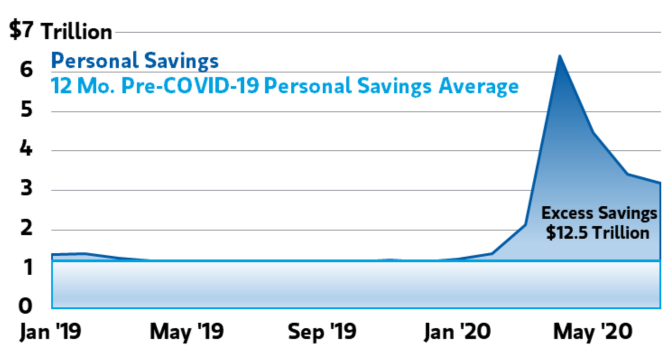


Source: Bloomberg as of Sept. 28, 2020

Not only have more actively managed exchange-traded funds (ETFs) come to market recently, but the issuer base is broadening impressively. Looking back to 2015, there were 272 new ETFs launched, of which 21 were active, representing 8% of new launches (see chart). So far this year, 98 active ETFs have launched, or 55% of the total. While BlackRock, Vanguard and State Street are the largest ETF providers and combine for roughly 80% of ETF market share, only one of the 101 new active funds launched in 2020 has come from this group. The other 100 have been issued by 33 other ETF providers across equity, fixed income and alternatives. While active ETFs comprise only 3% of US-listed ETF assets, they continue to make up an increasing percentage of new funds. We expect this trend to continue, providing additional options for investors in the still-expanding investment vehicle.—*Michael Suchanick*

Savings Float Could Help Keep the US Economy Above Water

Morgan Stanley & Co.'s economists believe the US economy has remained resilient despite expiring benefits, due largely to the cushion of savings households have built since the COVID-19 lockdown. Indeed, we estimate that from April through July, the US consumer built up a cumulative $12.5 trillion (annualized) in excess savings—that is, above the monthly pre-COVID average (see chart). Of course, much of the savings sits with higher-income households that typically carry high saving rates. However, unlike most downturns, savings have accrued to lower-income households as well. The willingness of consumers to draw upon these savings in the coming months is yet to be known, but our economists believe it can provide an important stop-gap to the loss of government transfers.—*Ellen Zentner*



Note: We calculate excess savings by taking the cumulative difference in personal savings from April to July compared with the 12-month average personal savings level from March 2019 to February 2020.
Source: Bureau of Economic Analysis, Morgan Stanley Research as of July 31, 2020

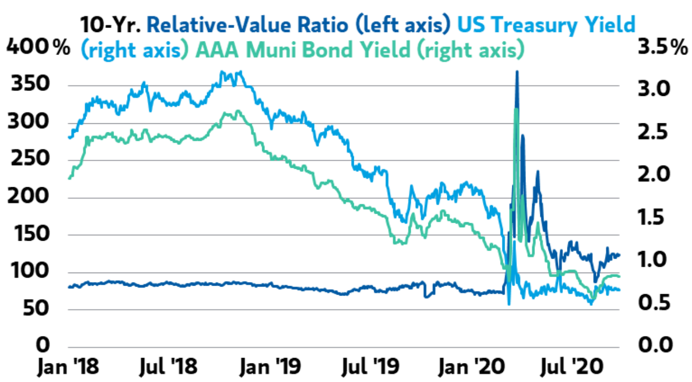
FIXED INCOME

Even With the Recent Sell-Off, Muni Bond Valuations Remain Solid

Daryl Helsing, CFA, Associate, Morgan Stanley Wealth Management
Matthew Gastall, Investment Strategist, Morgan Stanley Wealth Management

Following March's historic sell-off, the municipal market staged an impressive recovery that lasted through much of the summer, culminating in record-high valuations/low yields for higher-quality bonds (see chart). However, the positive momentum stalled in mid-August as Treasury yields moved higher, driving modest weakness in municipals and the first month of negative total returns since April.

Muni Bonds Made a Strong Recovery



Source: Refinitiv as of Sept. 25, 2020

ABOVE EXPECTATIONS. Even so, the monetary and fiscal responses, unprecedented in terms of their immediacy, size and scope, have supported a faster-than-expected pace of economic recovery and financial performance that has been above expectations. According to estimates by Moody's Analytics, extraordinary income support through expanded unemployment insurance and economic income impact checks constituted more than 9% of personal income during the second quarter. Strong stock market performance, corresponding to higher realized capital gains taxes and surging sales taxes derived from e-commerce activity, has also helped boost state revenue collections. As a result of these developments, Moody's now forecasts a two-year 50-state revenue decline of 11.2% from fiscal year 2019 to the current 2021 fiscal year compared with the prior forecast of 14%, which is comparable to what took place from 2008 to 2010.

The economic rebound occurred during a supportive seasonal backdrop of heavy redemptions and reduced issuance. Positive fundamental and technical dynamics kept the municipal market on an upward trajectory through much of the summer. Improved market sentiment has fueled the healthy demand made evident by the fact that municipal bond funds have recovered nearly all of the assets lost in March's historic outflow.

CLOUDIER OUTLOOK. Now, the outlook is cloudier. Morgan Stanley & Co.' s public policy strategists no longer expect another round of federal municipal aid in 2020. The firm's economists have recently flagged the downside risk posed by the lack of further fiscal support, as it has significantly helped blunt the economic effects of COVID-19. In order to fill budget gaps, state and local governments may need to accelerate public sector layoffs and spending cuts, which would slow the recovery. In light of the fundamentals, municipals are vulnerable to near-term volatility as the risk of negative headlines and credit rating downgrades has risen.

It is also important to consider the Federal Reserve's role in the muni market. Its zero interest rate policy and balance sheet expansion have driven yields lower across fixed income asset classes, municipals included. This has buoyed valuations and provided issuers an opportunity to refinance their debt at lower interest costs. Now limited in their ability to issue tax-exempt advance refunding bonds, issuers have instead used proceeds from taxable deals to refinance outstanding tax-exempt debt, putting taxable issuance on pace to be the highest since 2010 when the Build America Bonds program expired. Furthermore, low yields have driven less traditional investor types such as banks and insurance companies to increase their holdings as municipals have continued to offer value on a tax-adjusted basis.

LIQUIDITY HELP. What's more, the Fed's Municipal Liquidity Facility serves as a funding backstop through which large issuers can borrow directly to meet near-term liquidity needs. While utilization has been very low thus far, the Fed has shown a willingness to modify the terms by expanding eligibility to more borrowers and lowering the financing costs. Should financial conditions deteriorate, there appears to be ample room for further modification, and perhaps even additional forms of support.

All told, we believe investors should remain comfortable holding highly rated state and local government bonds and those of essential-service providers, as they are likely well-positioned to navigate the COVID-19 recession. Credit selection is paramount as the pandemic's impact has varied across the market, and an issuer's prior credit strength will likely be an important determinant of its performance going forward. We are cautious on sectors that have been hardest hit by the pandemic, borrowers that may be deemed "unessential" and lower-rated credits. They may face a greater likelihood of negative rating actions, reduced public support and fewer resources. Thus, we stress that investors stay close to their Financial Advisors, review portfolios and consider adding a modest amount of high-quality exposure. Importantly, remain prepared for opportunity if pandemic-related volatility affects highly rated issuers. ■

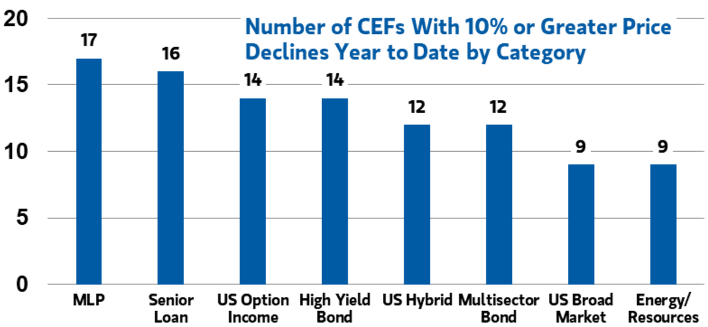
INVESTING

Tax Swap Opportunities Abound in CEFs and ETFs

John Duggan, Investment Strategist, Morgan Stanley Wealth Management
Gray Perkins, Associate, Morgan Stanley Wealth Management
Michael Suchanick, Investment Strategist, Morgan Stanley Wealth Management

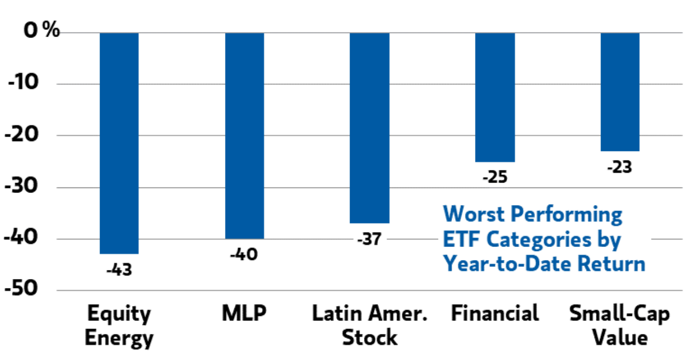
With the market's strong rebound, investors might assume that opportunities for "tax swaps" with closed-end funds (CEFs) and exchange-traded funds (ETFs) have disappeared. That's not the case. The rebound was narrow, leaving many sectors—and the ETFs and CEFs that track them—in the red. Widening of CEF market price discounts to net asset value has contributed as well (see charts).

CEFs With Losses Offer Chances for Tax Savings



Source: Bloomberg as of Sept. 28, 2020

Energy-Related ETFs Have the Year's Worst Returns



Source: Morningstar as of Sept. 28, 2020

Tax swaps involve the sale of one security/fund to capture a loss alongside the simultaneous purchase of another security/fund with generally similar objectives. The losses can offset gains realized in 2020 or going forward. In the case of CEFs, by buying the replacement at a discount to NAV, investors may profit both from portfolio appreciation and discount narrowing. Importantly, tax swaps may not violate "wash sale" rules. That means if an investor sells a security at a loss and, within 30 days before or after the sale, buys a "substantially identical" stock or security, the write-off can be negated.

CLOSED-END BOND FUNDS. The taxable bond CEF universe is dominated by credit portfolios, and, as such, many large fund categories have come back strongly, thus reducing opportunities. However, senior loan CEFs—depressed by investor sentiment and weaker earnings related to lower interest rates—show multiple instances of price declines versus prior years. Funds that concentrate on areas not directly supported by government or central bank buying, such as nonagency mortgage-backed securities and commercial mortgage-backed securities, likewise have lagged, thereby offering a chance to capture losses.

In a twist on tax swap strategies, we encourage investors in high yield muni CEFs, some of which are down so far this year, to consider swapping into higher-quality portfolios, many of which continue to trade at wide discounts. Notably, several higher-quality muni CEFs have experienced dividend increases driven by lower borrowing costs on leverage, making for compelling distribution rates and less of a yield sacrifice than would otherwise be the case. A partial move into higher quality would also be consistent with the views of Morgan Stanley & Co.'s municipal bond strategists.

EQUITY CLOSED-END FUNDS. Since the bottoming of global equity markets on March 23, the average equity CEF has delivered a price total return of 54.0%. That said, the steep first quarter decline left its mark, whereby year-to-date price total returns for the group remain in the red at -17.3%. As a result, equity CEF holders are left with various tax-loss harvesting opportunities. Notably, funds concentrating on energy, particularly master limited partnerships or those with partial energy exposure, may be ripe for harvesting.

Looking ahead, investors may find opportunities to swap into dividend-oriented strategies, which currently are trading below historical valuations, along with several differentiated sector and style funds. For those more cautious on equity markets through the end of 2020, option income CEFs, most of which are not leveraged, may be a relatively desirable choice; they are also trading at attractive valuations.

EXCHANGE-TRADED FUNDS. Like CEFs, tax swaps on ETFs need to be structured to comply with wash sale rules. This poses challenges, as swap opportunities within the same market segments may not satisfy those requirements. Given its broad geographical and sector scope, however, the expanding ETF universe offers numerous opportunities to build diversified portfolios while navigating year-end tax plans. New issuance trends have also boosted the number of active ETFs, which may enhance opportunities for investors holding active strategies to employ ETFs for swaps without converting to passive exposure. ■

Q&A

Maximizing Returns With Tax-Aware Strategies

The prospect of generally lower-than-average investment returns going forward has made long-term planning around investment goals more difficult. Consider the S&P 500 Index, which has returned an average of more than 8% per year since 1928. Over the next two decades, our Global Investment Committee estimates US equities will return an average of less than 5%. Tax-related investing strategies can help improve realized returns without adding substantially more portfolio risk or reducing flexibility. “Tax planning really should be a year-round endeavor,” explains David Gordon, director of the Eaton Vance Advisor Institute. “You never know when opportunities are going to present themselves.” He recently spoke with Morgan Stanley Wealth Management’s Tara Kalwarski about the tax implications of investing, and discussed strategies for maximizing aftertax gains. The following is an edited version of their conversation.

TARA KALWARSKI (TK): Why is it important for investors to think about taxes?

DAVID GORDON (DG): Although I'm not a tax advisor, I have spent a few decades in investment management. I believe most people tend to evaluate their investment choices based on published returns. When you’re looking at a ranking of mutual funds, the returns that you are seeing—for year to date, one year, three years, etc.—are always presented before taxes because asset managers don't know what each individual investor’s tax rate is going to be.

For many people, taxes can take a big bite out of investment returns. The experience you have is often quite different from the experience that you expect, which is why it's really important for investors to think about what is going to be available after taxes, and what is really going to be available to them to pursue their goals and to grow their wealth.

TK: Is there a “why now?” element to this topic?

DG: I don't have a crystal ball on what will happen after the election, and certainly taxes are part of both major parties’ campaign platforms. As a response to the pandemic, we’ve seen that governments at all levels are spending an awful lot of money to try to keep the economy afloat, battle the pandemic and help people who have been affected by unemployment.

With government spending on a tear, the question around how that gets answered through taxes is open-ended. Tax rates could go up significantly across the board. They could go up selectively, affecting only certain people. If the economy stagnates, taxes could even go down as a way to stimulate the economy. The important takeaway is that they're almost guaranteed not to stay exactly where they are today.

TK: Does the current market environment impact how much—or how little—an investor should pay attention to tax implications in any given year?

DG: An excellent example of how taxes and current market conditions affect investors is to think about mutual funds. Most mutual funds have to distribute their net realized capital gains each year. As a fund sells positions, some of those holdings may have increased in value. The result for many investors is if you hold a mutual fund outside of a tax-sheltered account like a 401(k) or IRA, at the end of the year you may receive a Form 1099 telling you what your share of capital gains is on that mutual fund—and that can happen even if the value of the mutual fund has gone down during the year.

It's a head-scratcher for a lot of investors, but it really speaks to how you have to think about where you locate different investments in your overall investment strategy.

TK: What are some strategies to enhance aftertax returns?

DG: What's interesting about the tax code in comparison with the investment industry is that Uncle Sam has a progressive tax system, which means the more you make, the higher the tax rate. The investment management industry, meanwhile, is often organized in the opposite way; the larger your account, the more likely you are to experience a break on your fees or expenses. So, ultimately, as wealth increases, it’s really important to think about taxes as an investment “fee” that you can reduce. That’s the first "tax tenet" investors should think about.

The second tax tenet is that asset location can be as important as asset allocation, and I alluded to this earlier when I talked about Form 1099 on mutual funds.

Asset allocation refers to the kinds of investments you make, including whether you have equities or bonds or cash. How you're invested is very important because, of course, your return from an asset class that you don't own is zero by definition, but owning the right investment in the wrong place can also be costly. If you own certain investments that offer a lot of tax protection such as municipal bond funds in a tax-protected account like an IRA, you haven’t optimized that protection. Likewise, if you own a growth-oriented fund that typically generates a 1099 form, you might want that in a tax-deferred account.

The third tax tenet is that Uncle Sam can be a coach and not just a referee. Congress encourages certain behavior and discourages others, and so the tax code can be viewed as a collection of carrots and sticks. A smart investor knows it’s all about picking up more of the carrots—that is, the things that Uncle Sam wants you to do—and avoiding getting hit by the sticks, or the things that Uncle Sam doesn't want you to do. By doing so, you start to realize that there are a lot of opportunities to reduce your taxes in fairly simple ways that a lot of investors don't take advantage of, but should.

TK: Let's dig a bit deeper into these tenets. Why is it important for investors to look at taxes as a fee and employ strategies to reduce that fee?

DG: Imagine you're a married couple filing jointly with $500,000 in income and you live in a state with no income tax. Let's say you're still working, but you have to start taking money out of your IRA or 401(k). If you take a required minimum distribution of 5.0%, it will be taxed at the 35% ordinary income tax rate, which means you will pay 35% of 5%, which is *1.75% of the total value* of your traditional IRA or 401(k). That's likely more than all of your management and advisory fees combined.

Another example is if you sell an asset for more than you paid for it, incurring what is called a capital gain. If you pay $10 and sell for $12, you have a $2 capital gain. How that capital gain is taxed depends not only on your overall income level, but also on how long you've held that asset. If you sell something that's held for less than a year, you pay taxes at a much higher rate than if you held it for a year or longer.

The same thing is true with dividends. A lot of people like receiving dividends, but there are two different types: There's qualified dividend income, which receives favorable tax treatment, and there's nonqualified dividend income, which does not. If you can find the same dividends in a qualified form versus a nonqualified form, you will end up keeping more of those dollars.

TK: Why is asset location important?

DG: It boils down to where you hold your investments. You want to own them in the place that's most tax-optimal for that type of investment. The key to asset location is figuring out whether the type of investment return that you're going to receive needs a high or a low level of tax protection.

If it's likely to be taxed at a high rate, then it needs a high level. Ordinary income and nonqualified dividends ought to be realized in accounts that have a high level of tax protection, like traditional IRA and 401(k). These types of accounts are not taxed annually, and in the case for Roth IRAs and 401(k)s, they may never be taxed at all.

The flip side is things that are taxed at a low level. Many forms of muni bond interest income, for example, aren't taxed at all. These types of holdings need a low level of tax protection and should go in fully taxable accounts where you can enjoy the full benefits.

TK: Regarding the third tenet, what can investors learn?

DG: One of the best examples is the idea of tax losses, which the government allows investors to use to their advantage.

It's tough for us to get past the word "loss." If I say the word "loss" in a sentence, you hear almost nothing that I say after that—but a tax loss is when the IRS loses money. It's not the same thing as you losing money. Think of tax losses like a coupon.

We understand that if we take a coupon to the store, the store gets less of our money. Tax losses work the same, because in taxable accounts, you can accumulate your tax losses and use them to reduce the amount of capital gains that you pay taxes on. The great news is that there's no expiration date. If you can't use the losses this year because you don't have any gains, you can carry them forward to next year. However, they do expire at the taxpayer's passing.

TK: Does tax-aware investing have much impact?

DG: Our long-term research shows that successful tax-loss harvesting strategies alone can add 1.5% to 2.0% a year over long periods, through both up markets and down markets.

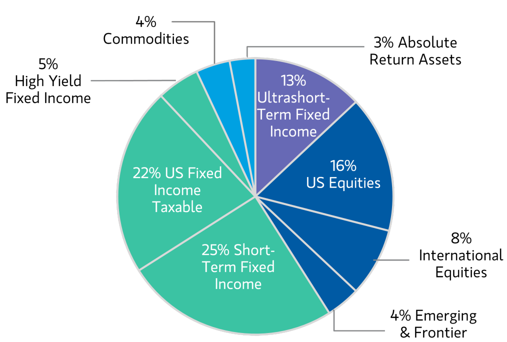
In 2018, the S&P 500 was down 4.3%, but over the course of the year, if you looked at all of the stocks that were a part of that index, one third were up for the year and two thirds were down. However, close to 90% of the stocks in the index had "drawdowns" or price declines of 10% or more at some point during the year. Last year, when the market was up over 30%, only 65 stocks were down for the year. Even so, north of 80% of all stocks in the index had drawdowns at some point of 10% or more. Those are real opportunities to harvest tax losses. ■

David Gordon is not an employee of Morgan Stanley Wealth Management or its affiliates, nor is he a tax advisor. Opinions expressed by him are his own and may not necessarily reflect those of Morgan Stanley Wealth Management or its affiliates.

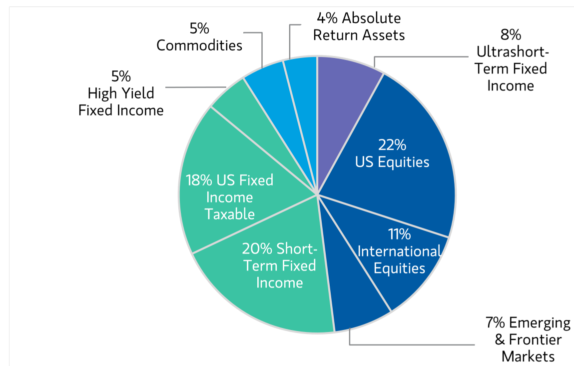
Global Investment Committee Tactical Asset Allocation

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

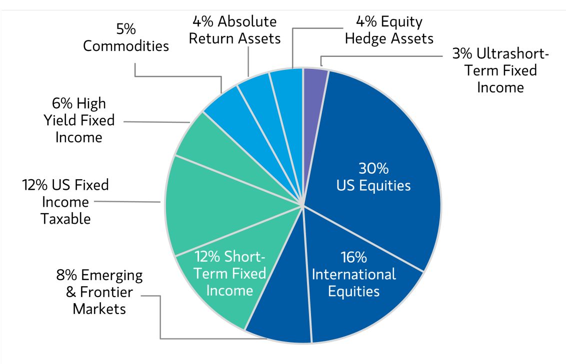
Wealth Conservation



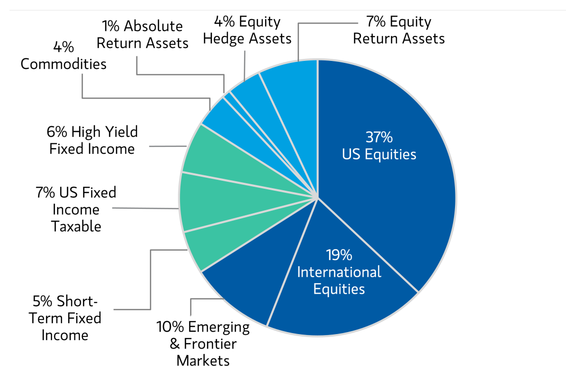
Income



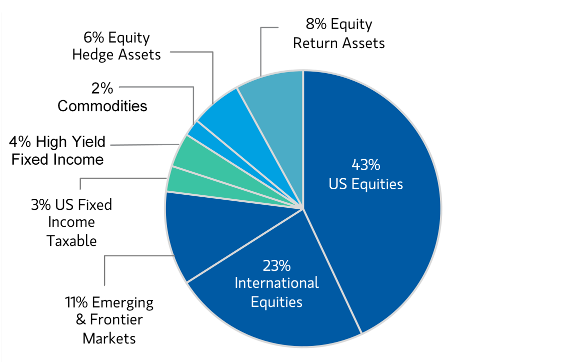
Balanced Growth



Market Growth



Opportunistic Growth



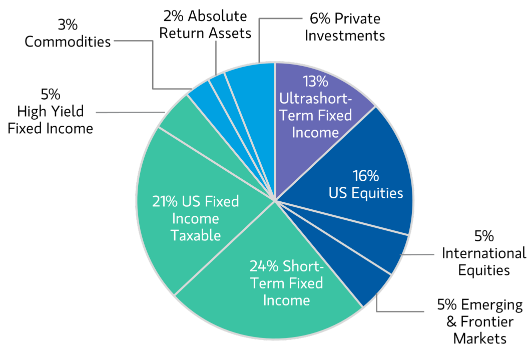
Key

- Ultrashort-Term Fixed Income
- Fixed Income & Preferreds
- Equities
- Alternatives

Source: Morgan Stanley Wealth Management GIC as of Sept. 30, 2020

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.

Wealth Conservation



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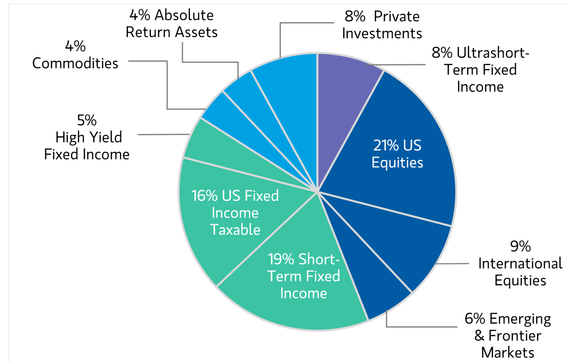

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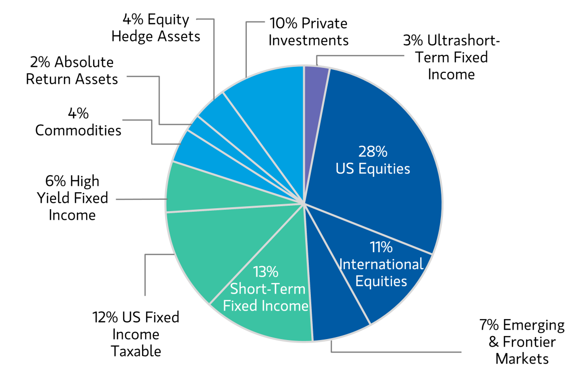

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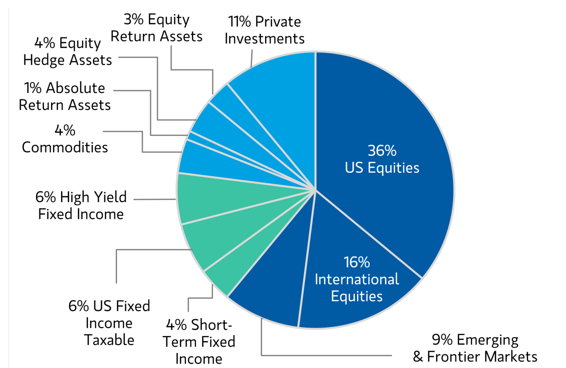
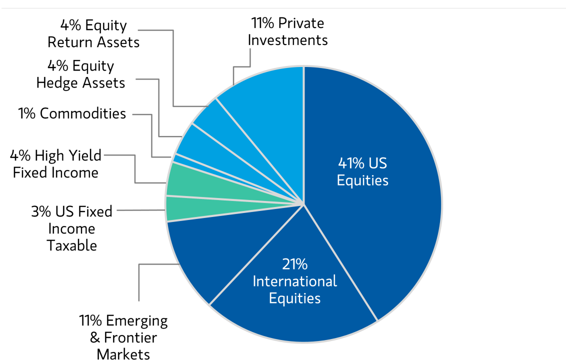


Opportunistic Growth



Key

- Ultrashort-Term Fixed Income
- Fixed Income & Preferreds
- Equities
- Alternatives

Source: Morgan Stanley Wealth Management GIC as of Sept. 30, 2020

Tactical Asset Allocation Reasoning

Global Equities	Relative Weight Within Equities	
US	Overweight	Global stock markets have entered a bear market on concerns about the negative growth impact of the coronavirus. Although we expect US and global recessions in the second quarter of 2020, our base case is that recent extraordinary policy actions from both central banks and national governments will help cushion the economic impact. Markets are already pricing the most likely scenarios. We recently upgraded our exposure to large-cap growth and small- and mid-cap equities, believing that active stock pickers have a good entry point over the next several months.
International Equities (Developed Markets)	Market Weight	We recently reduced exposure to both Europe and Japan believing that, while policy responses were meaningful, their impact may ultimately be lumpy and diluted by additional headwinds—in the case of Europe, the lack of fiscal integration, and in Japan, the strength of yen.
Emerging Markets	Overweight	China was the first country to enter the COVID-19 crisis and appears poised to be the first out. Resumption of economic activity during the second quarter should jump-start global growth, especially given huge government stimulus programs. Ample liquidity from the Fed and a weakening dollar should catalyze investor interest. China stands to gain the most from US tariff rollbacks and global trade dynamics should improve. Valuations are attractive and local central banks should be able to maintain accommodation and stimulus. For most countries, especially China, the collapse in oil prices is a material tailwind for consumer purchasing power.
Global Fixed Income	**Relative Weight Within Fixed Income**	
US Investment Grade	Market Weight	We have recommended shorter-duration* (maturities) since March 2018, given the extremely low yields and potential capital losses associated with rising interest rates from such low levels, and had been pairing that position with a large exposure to long-term US Treasuries to hedge what we expected would be a modest correction in stocks. With long-term Treasury yields troughing for the cycle, we recently removed that position and resumed a benchmark exposure to duration. Recent dislocation of investment grade credit spreads and market illiquidity have created opportunities. Fed programs aimed at backstopping this market give reason to be an active bond selector.
International Investment Grade	Underweight	Negative interest rates suggest that this is not a preferred asset class for US-dollar clients at this time. Actively managed funds may provide very patient, risk-tolerant clients with income opportunities in select corporate credits.
Inflation-Protection Securities	Underweight	The "sudden stop" recession has caused a severe pricing of real interest rates, pushing them negative and near all-time lows. In the near term, upside appears limited.
High Yield	Overweight	High yield bonds remain at the epicenter of the dual risks from COVID-19 and the collapse in oil prices from the failure of OPEC negotiations. In our view, some of the most extreme risks have been discounted, especially in light of unprecedented monetary and fiscal policy intervention aimed not only at market liquidity but in bridging cash flow requirements. It's time to ease in opportunistically, using active managers.
Alternative Investments	**Relative Weight Within Alternative Investments**	
REITs	Underweight	Real estate investment trusts (REITs) have performed very well as global growth slowed and interest rates fell. However, REITs remain expensive and are vulnerable to credit risks. We will revisit our position as nominal GDP troughs and/or valuations become more attractive.
Commodities	Overweight	The "sudden stop" global recession has driven commodities such as oil to multidecade lows. The rush to the "safe haven" US dollar, which is near its multiyear high, has exacerbated these dynamics. While we recognize the complexity of the geopolitical issues that surround oil, we believe that on a six-to-12-month basis the outlook for the global economy and overall demand will improve materially. Thus, we suggest risk-oriented clients establish exposure to the broad diversified asset class through the use of active managers. Pure passive exposure is not advised at this time.
Hedged Strategies (Hedge Funds and Managed Futures)	Overweight	The bear market associated with COVID-19 has driven volatility to historic extremes and led to wide dispersion in price performance and stock-level idiosyncratic risk. These factors tend to create a constructive environment for hedge fund managers who are good stock-pickers and can use leverage and risk management techniques to amplify returns. We prefer very active and fundamental strategies, especially equity long/short.

*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 GIC as of Sept. 30, 2020

Disclosure Section

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.

John Duggan, Matthew Gastall, Monica Guerra, Jodie Gunzberg, Daryl Helsing, Nick Lentini, Gray Perkins, Martijn Rats, Laura Wang, Robin Xing and Ellen Zentner 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

For 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.

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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.

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