Morgan Stanley

WEALTH MANAGEMENT

INVESTMENT STRATEGY

Global Investment Committee | April 20, 2020

# The GIC Weekly

## Too Far, Too Fast?

The stunning stock market sell-off, which hit a trough on March 23, has recently been matched in drama by a classic bear market rally that has produced gains of 28%, retracing more than half of the decline in just three weeks. The rebound is somewhat justified by the unprecedented size, scale, scope and speed of policy responses; the appreciation of the implications of a "sudden stop" recession that is yielding the worst economic data since the Great Depression; and an easing from extremes in volatility, the US dollar, credit spreads and financial conditions. Critically, there is some good news on COVID-19 with evidence of curve flattening in key hot spots. In addition, OPEC+ agreed to some production discipline, which bolstered the oil market. While the GIC recently increased exposure to risk assets given extreme valuations, the rally's speed suggests it should be met with some skepticism and not chased. Consumer behavior remains the single biggest unknown heading into 2021. **Consider** a dollar-cost averaging to rebuild positions to match strategic asset allocations.

After the stomach-churning bear market sell-off that took the S&P 500 Index on its swiftest 34% descent ever, falling from the Feb. 19 all-time high of 3,386 to the March 23 low of 2,237, a relief rally was not only inevitable but quite typical. Bear markets tend to climax when investors start to discount a worst-case scenario. No doubt, the COVID-19 shutdown of the economy and the credit market collapse that accompanied plummeting oil prices evoked those expectations. The sell-off also created buying opportunities among securities that were distressed sales made only to support portfolio liquidity. But just as stunning and ferocious as the drawdown has been, the snapback is noteworthy, too, with the S&P 500 surging 28% from the trough, retracing more than 50% of the original decline in merely three weeks.

There is some rationale for the bullish argument that the lows for this crisis are in. While the potential economic devastation of a two- or three-quarter economic shutdown is eye-popping, the policy response has been nothing short of gargantuan. The Federal Reserve launched unprecedented liquidity provision, lending and bond-buying programs that are likely worth between $7 trillion and $8 trillion. They support every corner of the fixed income market from Treasuries to repos, commercial paper, municipals, investment grade bonds, agency asset-backed securities, high yield and even bond exchanged-traded funds. Federal government

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### Upcoming Catalysts

**April 20**
Chicago Fed National Activity Index

**April 21**
US existing home sales
Euro Zone ZEW Economic Sentiment

**April 22**
FHFA House Price Index

**April 23**
US initial jobless claims
US continuing claims
US Markit Manufacturing PMI
US Markit Composite PMI
Euro Zone Markit Composite PMI
Euro Zone Markit Manufacturing PMI
US new home sales
Kansas City Fed Manufacturing Survey
Japan CPI

**April 24**
US durable goods orders

programs aimed at direct cash injections for the unemployed, low-income households and small-to-medium-sized businesses in addition to direct bailouts for targeted industries such as airlines come to approximately $3 trillion. All told, policymakers are throwing nearly 45% of annualized GDP, or $11 trillion, at what is potentially a $5 trillion problem.

In addition, corporate earnings forecasts have been drastically cut and expectations for a "U-shaped" recovery now appear to be part of the market consensus. As we approach midyear, investors will turn toward earnings estimates for 2021, a time when comparisons will likely be easy and year-over-year growth should register a strong double-digit pace. Furthermore, there has been progress on flattening the COVID-19 infection curve, and worse-case scenarios of fatalities and broken hospital systems appear to have been avoided. Finally, while the likely 7 million to 10 million barrel per day cuts by OPEC+ are unlikely to be enough to eliminate oil supply glut, it is progress toward putting a floor under oil prices.

However, even a 28% move taking the S&P 500 to 2,875 is still worthy of skepticism not only because it happened so quickly, but because this crisis comes with unique uncertainties. We do have strong convictions about investing where there is firm valuation support: In US equities, we favor financials, cyclicals, health care and small-cap stocks; in bonds, investment grade and high yield; and in alternatives, commodities. However, we remain highly skeptical of chasing the recent move in the broad S&P 500. Below we discuss three factors that are likely to keep volatility high, and the volatility of volatility high as well (see *Chart of the Week,* page 3). In our view, stocks will remain mostly range-bound through thepresidential election.

The first factor is the current imprecision around the path to reopening the economy, which hinges on both science and politics. None of us has been here before, and the calculus around trade-offs between preserving economic vitality and the public health risks often feels like the "prisoner's dilemma," a game which has no good outcomes. The Global Investment Committee's (GIC) base case leverages the work of Morgan Stanley & Co.'s biotechnology team led by Matthew Harrison, and we believe it is close to the consensus currently discounted by markets. It assumes that new US COVID-19 cases peak in mid-May, led by mid-April peaks in Los Angeles and San Francisco, with New York City cases also peaking in mid-May. They envision a gradual regional reopening of the economy starting in mid-June contingent on a peaking in cumulative mortality rates, the widespread availability of diagnostic testing, national surveillance monitoring to identify hot spots and finally, the availability of widespread testing for the virus' antibodies.

While most experts believe these criteria can be met over the next eight weeks, any slippage in the test kits' manufacturing, efficacy, distribution or application could easily cause delays in restarting the economy.

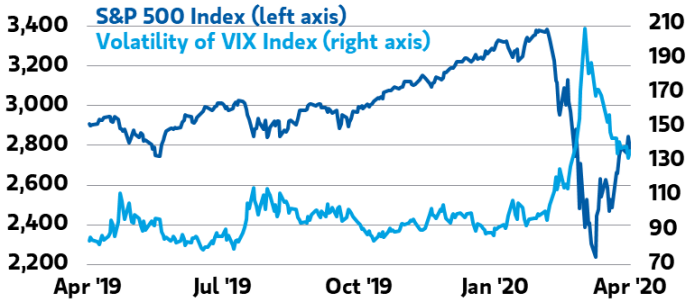
A second factor to determining the timing and shape of the recovery revolves around consumer psychology and the extent to which animal spirits revive quickly. Roughly two-thirds of the US economy is based on consumption, and recent high-frequency data like unemployment claims, consumer sentiment and headline retail sales have been weak as expected. While helicopter money for lower income households, extended unemployment benefits and moratoriums on taxes, mortgage payments and student loans are meant to bridge incomes, the key will be to what extent those measures have helped: if consumers opt for savings over spending and to what extent, and is cautious personal behavior a long-tailed residual of the trauma of social distancing and the threat of COVID-19?

Finally, without good visibility on the timing and shape of the economic recovery, it is hard to assess corporate earnings forecasts and valuations. The GIC's view on US stocks is premised on the equity risk premium, which is about 430 basis points today, down from 700 basis points on March 23. We expect the premium to return to the 350-basis-point average by the end of the year, a scenario which support's MS & Co.'s 2020 S&P 500 price target of 3,000. However, the equity risk premium is based on S&P 500 earnings of $130 per share in 2020 and $156 per share in 2021, scenarios which assume profit declines of 20% and 4%, respectively, from 2019 levels. If the recovery is delayed or the recession is much deeper than currently expected, the implied 19.5 forward price/earnings multiple embedded in MS & Co.'s targets could be much higher—a scenario that would challenge valuation and inhibit further gains.

**Bottom Line:** The current bear market rally is underpinned by some distinct and strong structural factors such as unprecedented policy support that is likely to approach 45% of annual US GDP. In many market pockets, extreme valuations are creating opportunities and, with more encouraging news on COVID-19 and for oil markets, some optimism is certainly warranted. However, markets have moved very far, very fast given the still-high level of uncertainty. Thus, we are not inclined to chase the rally, but stick with a longer-term strategy to rebuild risk exposures using volatility to our advantage. While the general direction of recovery now seems visible, investors will need to refine outlooks further around timing, shape and the role of lasting trauma from the COVID-19 lockdown on consumer behavior. **Watch** the volatility of volatility as measured by the VVIX. **Consider** a dollar-cost averaging strategy to rebuild positions to match strategic asset allocations.

# Chart of the Week: S&P 500 Responds to the Volatility of Volatility

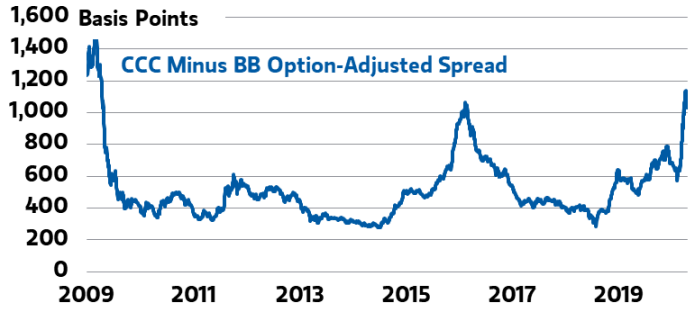
The most noteworthy characteristic of the bear market that began Feb. 19 has been its speed and ferocity—the S&P 500 plunged 1,150 points, or 34%, from the peak to the March 23 low in 23 trading days. Such spikes in volatility and the daily whipsaws have made the VVIX, a measure of the volatility of the implied volatility of the S&P 500, an important metric. As we illustrate (see chart), in the market retracement from the low there has been a strong relationship between a falling VVIX and rising stock prices. We will continue to watch this index to signal changes in near-term market direction.




Source: Bloomberg as of April 16, 2020

# Fixed Income Insight: Fed Actions Exacerbate High Yield Quality Spreads

Of the plethora of the Federal Reserve asset-buying programs, none has raised more eyebrows than the central bank's offer to purchase so-called "fallen angels." Those bonds are former BBBs, the lowest investment grade rating, which have been downgraded to BB, a high yield rating. While the aggregate impact would be positive and overall high yield option-adjusted spreads have narrowed, by helping BB issuers, the Fed would be further isolating the lower-rated CCC debt (see chart). This creates opportunities in distressed debt for the most patient investors.




Source: Bloomberg as of April 16, 2020

## Market Factor Data Points (for the week ending April 17, 2020)

| Report | Period | Consensus | Actual | Prior | Trend |
|---|---|---|---|---|---|
| US retail sales, month over month | Mar. '20 | -8.0% | -8.7% | -0.5% | ↓ |
| US industrial production, month over month | Mar. '20 | -4.0% | -5.4% | 0.6% | ↓ |
| US capacity utilization | Mar. '20 | 74.0% | 72.7% | 77.0% | ↓ |
| US initial jobless claims | Wk of Apr. 11 | 5,500,000 | 5,245,000 | 6,606,000 | ↓ |
| US continuing claims | Wk of Apr. 4 | 13,260,000 | 11,976,000 | 7,455,000 | ↑ |
| Empire State Manufacturing Survey | Apr. '20 | -35 | -78.2 | -21.5 | ↓ |
| Philadelphia Fed Survey | Apr. '20 | -32 | -56.6 | -12.7 | ↓ |
| US Leading Economic Index | Mar. '20 | -7.2% | -6.7% | 0.1% | ↓ |
| US housing starts | Mar. '20 | 1,300,000 | 1,216,000 | 1,599,000 | ↓ |
| US building permits | Mar. '20 | 1,296,000 | 1,353,000 | 1,464,000 | ↓ |
| China GDP, year over year | Q1 2020 | -6.0% | -6.8% | 6.0% | ↓ |

Color coding shows how actual data compares with consensus estimates. Green implies better than expected, red implies worse than expected. Trend shows the one period change between actual and prior reports.
Source: Morgan Stanley Wealth Management GIC

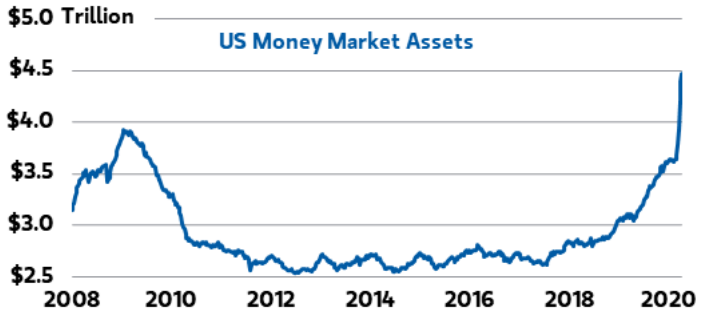
## Macro Factor Heat Map (as of April 17, 2020)

| | Economic Growth | Rates | Inflation / Deflation | Liquidity | Sentiment And Risk | Valuation | Earnings | GIC Conclusion |
|---|---|---|---|---|---|---|---|---|
| China | ↓ | ↑ | ↑ | ↑ | ↓ | ↓ Rising Valuations | ↑ | Could Benefit from Post Corona-Virus Stimulus and V-Shaped Recovery |
| Japan | ↓ | ↑ | ↑ | ↓ | ↑ | ↓ | ↓ | Valuations Still Discounting Recession, Fundamentals Improving on Margins |
| Brazil | ↓ | ↑ | ↑ | ↓ | ↑ | ↓ | ↑ | Could Benefit When Currency Markets Stabilize |
| Europe | ↓ | ↓ | ↓ Lower CPI | ↓ Widening Libor OIS Spread | ↓ | ↓ | ↓ | Awaiting Fiscal Stimulus |
| | Risk Asset Positive | Neutral | Risk Asset Negative | | | | | |

Note: Text in a factor box denotes a color change; In Europe, inflation decreased from positive to neutral on lower CPI readings; In Europe, liquidity decreased from neutral to negative on widening Libor OIS spreads; In China, valuations decreased from positive to neutral as valuations reflate from trough levels; for further explanation of the chart, see page 9.
Source: Morgan Stanley Wealth Management GIC

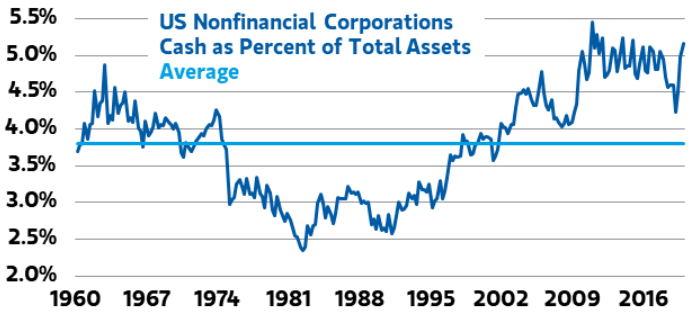
## Charts in Focus

### US Money Market Assets Higher Than in 2008




Source: Bloomberg as of April 8, 2020

### Corporate Cash Levels Sit Near All-Time Highs

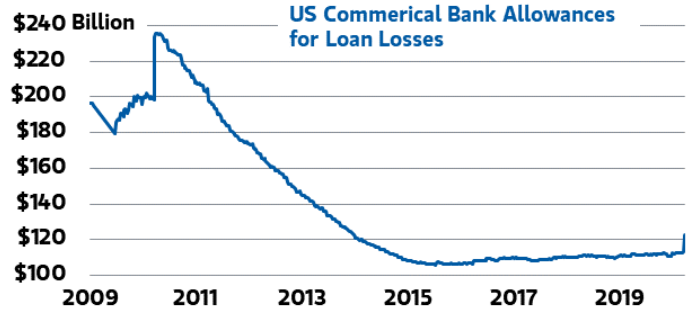



Source: Strategas as of April 13, 2020

### S&P 500 Forward P/E Spikes as Earnings Collapse

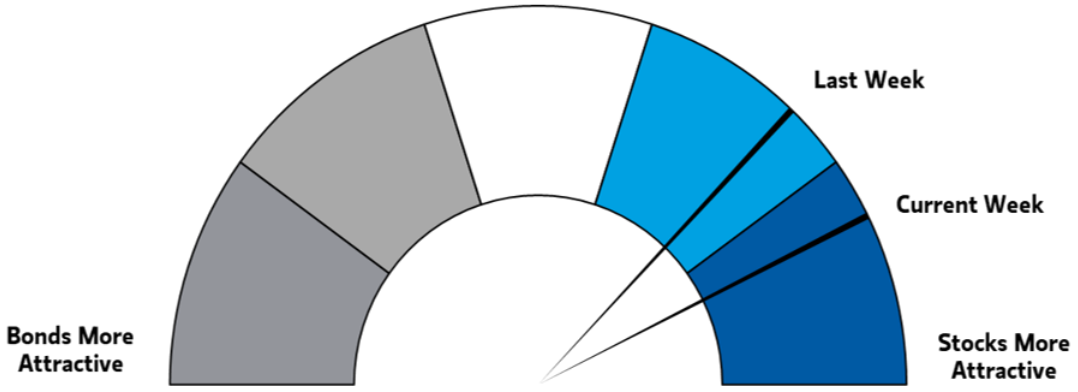

Source: Bloomberg as of April 17, 2020

### Bank Loan-Loss Provisions Climbing, Expect More




Source: Bloomberg as of April 1, 2020

## Short-Term Stock and Bond Indicator




| | MACRO | | POLICY | | FUNDAMENTALS | | SENTIMENT & TECHNICALS | |
|---|---|---|---|---|---|---|---|---|
| | Growth | Inflation | Rates | Liquidity | Valuation & Market | Earnings | Sentiment | Technicals |
| **Current** | Neutral | Neutral | Very Positive | Neutral | Very Positive | Very Positive | Neutral | Neutral |
| **Last Week** | Neutral | Neutral | Very Positive | Neutral | Neutral | Very Positive | Neutral | Neutral |

| CATEGORY | INDICATOR | READING |
|---|---|---|
| **Growth** | PMI (+) | Risk On |
| | Durable Goods (+) | Neutral |
| | Retail Sales (+) | Risk Off |
| | Manufacturing Hours Worked (+) | Risk On |
| **Inflation** | Commodity Prices (+) | Risk On |
| **Rates** | Yield Curve: 10-Yr./Three-Mo.(-) | Risk On |
| | Yield Curve: Two-Yr./Three-Mo.(-) | Risk On |
| | Pace of Interest Rate Hikes (-) | Risk On |
| | Term Premium Model (-) | Risk Off |
| **Liquidity** | High Yield Spreads (-) | Risk On |
| | Investment Grade Spreads (-) | Risk Off |
| | Financial Conditions (-) | Risk On |
| **Valuation & Market Behavior** | S&P 500 Earnings/Baa Yield (+) | Risk On |
| | Large vs. Small Performance (-) | Risk On |
| | High- vs. Low-Quality Performance (-) | Risk On |
| | High- vs. Low-Beta Performance (+) | Neutral |
| | S&P 500 Forward Price/Earnings Ratio (+) | Risk On |
| **Earnings** | Earnings Revisions Breadth (-) | Risk On |
| **Sentiment** | Global Risk Demand (+) | Neutral |
| | Implied Currency Volatility (-) | Risk On |
| | Five-Yr. Macro Sensitivity (-) | Risk Off |
| **Technicals** | % Stocks Above 200-Day Moving Avg. (+) | Neutral |
| | Cumulative Advance/Decline (+) | Neutral |
| | S&P 500 Put/Call Ratio (-) | Neutral |
| | Emerging Market Fund Flows (+) | Risk On |
| | Smart Money Flow Index (+) | Risk Off |

Note: + Indicates that a rise in the indicator is linked to a more favorable outlook for risk assets;
- indicates that a rise in the indicator is linked to a less favorable outlook for risk assets.
Color coding is set in accordance with the impact on risk assets.

| |
|---|
| Positive for Stocks Relative to Bonds |
| Neutral |
| Negative for Stocks Relative to Bonds |

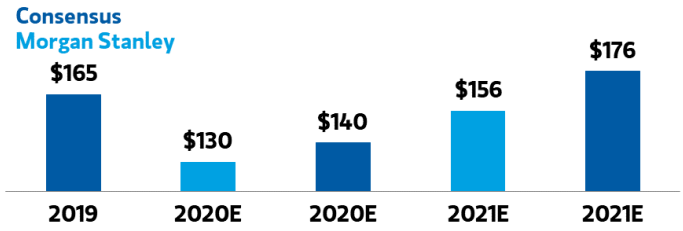
Note: Commodity prices are represented by the Bloomberg Commodity Index; pace of interest rate hikes by the Morgan Stanley Pace of Rate Hikes Index; high yield spreads by the Bloomberg Barclays Aggregate US High Yield Index; investment grade spreads by the Bloomberg Barclays US Aggregate Index; financial conditions by the Morgan Stanley Financial Conditions Index; global risk demand and implied currency volatility by the Morgan Stanley Standardized Global Risk Demand Index. For more information on our Term Premium Model, please refer to our special report, Using the Term Premium to Manage Portfolio Duration, March 2016.
Source: Morgan Stanley Wealth Management GIC, Morgan Stanley & Co., Haver Analytics, Bloomberg, FactSet as of April 17, 2020

## Asset Class Performance and Heat Map (as of April 17, 2020)

| ASSET CLASS | ANNUALIZED RETURNS (%) | | | | | | | YIELD | VALUATION | | VOLATILITY (%) | | CORRELATION TO GLOBAL EQUITIES | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **CASH** | YTD | 1-Yr | 2019 | 3-Yr[1] | 5-Yr[1] | 10-Yr[1] | 20-Yr[1] | Current YTM | Current YTM | Avg YTM[2] | 30 Days | 20 Yrs.[1] | 30 Days | 20 Yrs.[1] |
| 90-Day US Treasury Bills | 0.4 | 2.0 | 2.3 | 1.7 | 1.1 | 0.6 | 1.6 | 1.31 | 1.31 | 1.61 | 0.0 | 0.52 | -0.04 | -0.08 |
| **GLOBAL EQUITIES** | | | | | | | | Current Div. Yld. | Current P/E | Avg. P/E[2] | | | | |
| US Large-Cap Growth | -1.4 | 14.2 | 38.2 | 12.4 | 11.0 | 13.5 | 3.6 | 1.13 | 24.1 | 19.8 | 59.9 | 16.7 | 0.94 | 0.90 |
| US Large-Cap Value | -16.8 | -8.0 | 25.6 | -0.4 | 3.5 | 8.0 | 5.2 | 3.80 | 12.7 | 13.5 | 64.7 | 13.9 | 0.96 | 0.91 |
| US Mid-Cap Growth | -9.2 | -0.1 | 34.8 | 4.7 | 4.4 | 10.5 | 3.0 | 0.74 | 24.8 | 23.6 | 64.8 | 20.7 | 0.97 | 0.86 |
| US Mid-Cap Value | -27.8 | -21.5 | 26.7 | -6.0 | -0.3 | 7.3 | 7.6 | 3.93 | 11.4 | 14.3 | 80.1 | 16.1 | 0.97 | 0.89 |
| US Small-Cap Growth | -18.4 | -10.3 | 31.8 | 2.4 | 3.5 | 10.0 | 6.1 | 0.77 | 25.8 | 23.7 | 72.3 | 20.4 | 0.94 | 0.87 |
| US Small-Cap Value | -33.4 | -29.8 | 22.9 | -9.9 | -2.9 | 5.6 | 7.0 | 4.35 | 12.1 | 17.3 | 86.0 | 17.5 | 0.92 | 0.86 |
| Europe Equity | -21.8 | -15.2 | 24.6 | -1.7 | -0.7 | 3.1 | 2.7 | 4.54 | 14.9 | 13.5 | 50.4 | 17.9 | 0.90 | 0.95 |
| Japan Equity | -13.6 | -3.6 | 20.1 | 1.3 | 2.2 | 4.1 | 0.6 | 2.81 | 13.4 | 17.5 | 39.7 | 16.0 | 0.41 | 0.72 |
| Asia Pacific ex Japan Equity | -20.6 | -17.8 | 18.5 | -4.6 | -1.4 | 2.3 | 6.2 | 4.94 | 15.4 | 14.4 | 52.5 | 19.3 | 0.75 | 0.88 |
| Emerging Markets | -18.7 | -15.0 | 18.9 | -1.3 | 0.0 | 1.0 | 5.5 | 3.20 | 12.3 | 11.0 | 44.9 | 21.5 | 0.67 | 0.88 |
| **GLOBAL FIXED INCOME** | | | | | | | | Current YTM | Current Spread | Avg. Spread[2] | | | | |
| Short-Term Fixed Income | 2.2 | 5.1 | 4.0 | 2.6 | 1.9 | 1.6 | 3.2 | 0.69 | 44.0 | 31.0 | 2.1 | 1.4 | 0.15 | -0.17 |
| US Fixed Income | 4.7 | 11.0 | 8.7 | 4.8 | 3.4 | 3.9 | 5.1 | 1.46 | 83.0 | 52.5 | 10.5 | 3.4 | 0.09 | -0.06 |
| International Fixed Income | -1.8 | 2.6 | 5.8 | 2.7 | 2.2 | 1.7 | 4.1 | 0.94 | 71.0 | 49.0 | 14.2 | 7.8 | 0.28 | 0.33 |
| Inflation-Protected Securities | -3.2 | 2.4 | 9.2 | 1.8 | 1.8 | 2.7 | 5.4 | - | - | - | 25.0 | 7.7 | 0.17 | 0.45 |
| High Yield | -10.7 | -6.3 | 12.6 | -0.6 | 2.3 | 5.1 | 7.0 | 9.15 | 857.0 | 494.5 | 25.1 | 9.5 | 0.49 | 0.76 |
| Emerging Markets Fixed Income | -13.3 | -5.7 | 13.5 | -0.8 | 0.3 | 0.5 | 6.0 | 5.05 | 576.0 | 322.5 | 25.3 | 11.5 | 0.62 | 0.66 |
| **ALTERNATIVE INVESTMENTS** | | | | | | | | Current Div. Yld. | | | | | | |
| Real Estate/REITs | -24.8 | -17.8 | 23.6 | -2.4 | -0.8 | 5.0 | 7.6 | 4.98 | - | - | 63.6 | 17.7 | 0.88 | 0.80 |
| Master Limited Partnerships[3] | -47.5 | -51.5 | 6.6 | -28.9 | -20.7 | -5.0 | - | 18.69 | - | - | 112.9 | 17.6 | 0.39 | 0.50 |
| Commodities ex Prec. Metals | -28.8 | -30.8 | 5.9 | -11.2 | -10.1 | -8.5 | -2.1 | - | - | - | 27.3 | 16.7 | 0.41 | 0.49 |
| Precious Metals | 5.5 | 25.3 | 17.0 | 3.7 | 3.2 | 1.7 | 7.6 | - | - | - | 39.6 | 18.9 | 0.45 | 0.20 |
| Hedged Strategies[4] | -4.9 | 0.4 | 8.6 | -0.5 | -0.6 | 0.2 | - | - | - | - | 8.6 | 5.2 | 0.74 | 0.70 |
| Managed Futures[5] | 0.0 | 5.3 | 4.8 | 1.2 | -1.1 | -0.7 | - | - | - | - | 5.8 | 7.1 | -0.44 | 0.13 |
| **S&P 500** | -10.5 | 0.9 | 31.5 | 5.1 | 6.7 | 10.5 | 4.8 | 2.02 | 19.1 | 15.4 | 62.32 | 14.6 | 0.97 | 0.96 |
| **Russell 2000** | -26.0 | -20.3 | 25.5 | -4.6 | -0.2 | 6.9 | 5.3 | 1.81 | 26.0 | 20.5 | 81.13 | 19.2 | 0.90 | 0.84 |
| **MSCI EAFE** | -19.6 | -12.7 | 22.7 | -1.3 | -0.1 | 3.2 | 2.4 | 4.11 | 14.5 | 14.2 | 41.20 | 16.3 | 0.90 | 0.97 |
| **MSCI AC World** | -14.4 | -5.6 | 27.3 | 2.0 | 3.4 | 6.4 | 3.7 | 2.99 | 16.6 | 14.8 | 50.33 | 15.3 | 1.00 | 1.00 |

Note: Performance values calculated using USD. 1. As of March 31, 2020. 2. 20-year average as of March 31, 2020. 3. Volatility and Correlation: June 30, 2006 – Present. 4. Volatility and Correlation: Jan 31, 1998 – Present Hedged strategies consist of hedge funds and managed futures 5. Volatility and Correlation: February 28, 1998 – Present. Cheap = Below -0.5 standard deviation; Moderate = Between +0.5 standard deviation and -0.5 standard deviation; Expensive = Above +.5 std dev. Standard deviation (volatility) is a measure of the dispersion of a set of data from its mean.
Source: Factset, Bloomberg, Morgan Stanley Wealth Management GIC

## S&P 500 Earnings Estimates




Source: Refinitiv, S&P, MS & Co. Research as of April 17, 2020

## MS & Co. S&P 500 Price Target: Year-End 2020

| LANDSCAPE | EARNINGS | PRICE/EARNINGS MULTIPLE | PRICE TARGET | UPSIDE/ DOWNSIDE |
|---|---|---|---|---|
| **Bull Case** | $170 | 19.1 | 3,250 | 13.1% |
| **Base Case** | $156 | 19.1 | 3,000 | 4.4% |
| **Bear Case** | $149 | 16.7 | 2,500 | -13.0% |
| **Current S&P 500 Price** | | | 2,875 | |

Note: Price targets are based on estimated 2021 earnings.
Source: MS & Co. Research as of April 17, 2020

## S&P 500 Sector Performance and Valuation (as of April 17, 2020)

| INDEX NAME | TOTAL RETURN WTD (%) | TOTAL RETURN YTD (%) | TOTAL RETURN 1-YEAR (%) | DIVIDEND YIELD (%) | BETA | 20-YEAR AVG. FORWARD 12-MO. PE | FORWARD 12-MO. P/E* |
|---|---|---|---|---|---|---|---|
| ***S&P 500*** | ***3.06*** | ***-10.49*** | ***0.94*** | ***2.02*** | | ***15.4*** | ***19.1*** |
| Energy | 0.24 | -42.28 | -45.40 | 6.82 | 1.24 | 16.1 | **-227.6** |
| Materials | -2.13 | -17.51 | -10.62 | 2.37 | 1.02 | 14.1 | **18.2** |
| Industrials | -0.11 | -21.99 | -17.50 | 2.31 | 1.05 | 15.9 | **19.3** |
| Consumer Discretionary | 7.86 | -5.96 | -0.76 | 1.34 | 0.90 | 17.8 | **27.3** |
| Consumer Staples | 4.20 | -3.06 | 9.27 | 2.77 | 0.75 | 16.8 | **19.8** |
| Health Care | 6.22 | -0.64 | 20.32 | 1.68 | 0.85 | 16.1 | **16.2** |
| Financials | -4.01 | -26.56 | -15.93 | 2.71 | 1.21 | 12.5 | **13.2** |
| Information Technology | 4.80 | -2.12 | 16.69 | 1.29 | 1.14 | 19.2 | **21.2** |
| Telecommunication Services | 4.16 | -8.78 | 0.60 | 1.38 | 0.87 | 15.5 | **18.5** |
| Utilities | -0.49 | -5.50 | 9.39 | 3.29 | 0.95 | 14.5 | **18.5** |
| Real Estate | -2.68 | -9.98 | 0.74 | 3.27 | 1.01 | 15.7 | **18.4** |

Source: Morgan Stanley & Co. Research

## Equity Market Relative Valuation (as of April 17, 2020)

| | Forward 12 Months | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|
| | Price/Earnings | | Price/Cash Flow | | Price/Sales | | Price/Book Value | | Equity Risk Premium | |
| | Level | %-ile | Level | %-ile | Level | %-ile | Level | %-ile | Level | %-ile |
| **US Equities** | | | | | | | | | | |
| Large-Cap Growth | 24.2 | 100% | 17.9 | 99% | 3.2 | 99% | 6.8 | 96% | 349 | 67% |
| Large-Cap Value | 16.5 | 98% | 7.5 | 36% | 1.4 | 65% | 1.6 | 43% | 541 | 79% |
| Mid-Cap Growth | 28.0 | 100% | 19.6 | 100% | 2.2 | 92% | 4.9 | 82% | 294 | 69% |
| Mid-Cap Value | 16.7 | 71% | 4.7 | 6% | 1.1 | 56% | 1.4 | 27% | 535 | 89% |
| Small-Cap Growth | 68.3 | 99% | | 88% | 1.4 | 63% | 3.1 | 64% | 82 | 45% |
| Small-Cap Value | 18.3 | 59% | 8.4 | 44% | 0.6 | 13% | 0.9 | 3% | 482 | 93% |
| **International Equities** | | | | | | | | | | |
| Europe | 14.9 | 88% | 8.1 | 55% | 1.1 | 51% | 1.4 | 16% | 718 | 77% |
| Japan | 13.1 | 27% | 7.6 | 60% | 0.7 | 51% | 1.0 | 20% | 763 | 82% |
| Asia Pacific ex Japan | 15.2 | 68% | 10.3 | 29% | 2.1 | 54% | 1.3 | 3% | 572 | 97% |
| **Emerging & Frontier Markets** | 12.1 | 67% | 5.8 | 15% | 1.1 | 41% | 1.2 | 15% | 772 | 59% |
| **Total Equities** | | | | | | | | | | |
| US | 20.5 | 100% | 11.4 | 77% | 1.9 | 91% | 2.8 | 84% | 424 | 75% |
| International | 14.4 | 75% | 8.1 | 51% | 1.0 | 46% | 1.3 | 11% | 643 | 69% |
| Emerging Markets | 12.1 | 67% | 5.8 | 15% | 1.1 | 41% | 1.2 | 15% | 772 | 59% |

Note: Dark blue, light blue and gray fill denotes whether the group is relatively attractive, neutral or unattractive to other groups under the same metric.
Source: Bloomberg

## Government Debt Monitor & Fixed Income Spread Dashboard

| US | YIELD (%) | | | TOTAL RETURN (%) |
|---|---|---|---|---|
| **Treasury Benchmark** | **Current** | **ΔWTD** | **ΔYTD** | **YTD** |
| 3-Month | 0.09 | -0.11 | -1.46 | 0.43 |
| 2-Year | 0.20 | -0.02 | -1.37 | 2.81 |
| 5-Year | 0.36 | -0.04 | -1.33 | 6.69 |
| 10-Year | 0.64 | -0.08 | -1.28 | 12.17 |
| 30-Year | 1.26 | -0.08 | -1.13 | 28.27 |
| 2-Yr./10-Yr. Spread (bp) | 44 | -5.39 | 9.14 | - |
| 10-Yr. TIPS Breakeven (bp) | 102 | -21.55 | -76.71 | - |
| Interest Rate Volatility† (bp) | 70 | -4.55 | 3.26 | - |

| | | DURATION (YRS.) | YIELD-TO-WORST | OAS (BP) | OAS RANGE** RICH | CHEAP |
|---|---|---|---|---|---|---|
| INVESTMENT GRADE | MBS* | 3.10 | 1.33 | 61 | 25 | 132 |
| | AAA | 5.39 | 0.90 | 31 | 12 | 55 |
| | AA | 7.51 | 1.85 | 126 | 50 | 199 |
| | A | 8.30 | 2.25 | 160 | 70 | 301 |
| | BBB | 8.27 | 3.47 | 280 | 124 | 462 |
| HIGH YIELD | BB | 4.39 | 5.48 | 484 | 162 | 865 |
| | B | 3.66 | 7.64 | 699 | 295 | 1,108 |
| | CCC | 3.54 | 15.11 | 1,464 | 512 | 1,902 |

Current  Two-Year Average

Unless stated, indexes utilized are FTSE Broad Investment Grade, FTSE High Yield, and FTSE Global Indexes †Interest Rate Volatility measured by Merrill Lynch Option Volatility Estimate (MOVE) Index *MBS distills high grade agency-rated mortgage-backed securities, a substantial subsector of investment grade indexes. **OAS stands for Option-Adjusted Spread or spread over the Treasury. Grey diamond denotes current OAS; blue circle denotes two-year average.
Source: Bloomberg, The Yield Book® Software and Services.  Data as of April 17, 2020

## Government Debt Monitor & Benchmark Returns

| Global | YIELD (%) | | | TOTAL RETURN (%)* |
|---|---|---|---|---|
| **10-Year Govt. Bond** | **Current** | **ΔWTD** | **ΔYTD** | **YTD** |
| France | 0.03 | -0.07 | 0.00 | 1.15 |
| Germany | -0.48 | -0.12 | 0.00 | 2.68 |
| Japan | 0.02 | 0.02 | 0.04 | 0.46 |
| Spain | 0.81 | 0.03 | 0.00 | -1.77 |
| UK | 0.30 | 0.00 | -0.52 | 4.90 |
| 3-Month LIBOR | 1.11 | -0.11 | -1.70 | - |
| **US Tax Exempt** | | | | |
| 10-Year AAA Muni | 1.13 | -1.03 | -1.18 | -0.18 |
| 10-Yr. Muni/UST Ratio | 176.56 | 94.52 | 90.24 | - |

| | TOTAL RETURN (%) | | |
|---|---|---|---|
| **Index** | **YTD** | **MTD** | **2019** |
| Bloomberg Barclays US Aggregate | 4.74 | 1.54 | 8.72 |
| Bloomberg Barclays US MBS | 3.07 | 0.24 | 6.35 |
| Bloomberg Barclays US IG Corporate | 1.23 | 5.05 | 14.54 |
| Bloomberg Barclays Municipal | -0.18 | 0.45 | 7.54 |
| Bloomberg Barclays US High Yield | -7.57 | 5.85 | 14.32 |
| Bloomberg Barclays Global Aggregate | 0.71 | 1.04 | 6.84 |
| JPMorgan Emerging Market | -10.08 | 1.90 | 14.42 |

*Global total returns reflect Citigroup 7- to 10-year bond indexes and Muni total returns reflect Bloomberg Barclays Municipal Bond Index Total Return
Source: Bloomberg, Thomson Reuters Municipal Market Data (MMD) as of April 17, 2020

## Morgan Stanley & Co. Forecasts (as of April 17, 2020)

| | REAL GDP GROWTH (%) | | | 10-YR. GOVT. BOND YIELD (%) | | HEADLINE INFLATION (%) | | |
|---|---|---|---|---|---|---|---|---|
| | **2019** | **2020E** | **2021E** | **Q2 '20E** | **Q4 '20E** | **2019** | **2020E** | **2021E** |
| **Global** | 3.1 | -2.2 | 5.8 | | | 2.6 | 2.9 | 2.5 |
| **US** | 2.3 | -5.5 | 5.3 | 0.70 | .80 | 1.8 | 2.2 | 2.4 |
| **Euro Zone** | 1.2 | -5.0 | 5.5 | | | 1.2 | 0.3 | 1.1 |
| **UK** | 1.4 | -5.1 | 5.6 | 0.70 | 1.20 | 1.8 | 1.0 | 1.8 |
| **Japan** | 0.7 | -3.5 | 0.6 | -0.03 | 0.00 | 0.5 | 0.5 | 0.3 |
| **Emerging Markets** | 4.1 | -0.4 | 6.6 | | | 3.4 | 4.0 | 3.1 |
| **China** | 6.1 | 2.0 | 9.2 | | | 2.9 | 3.8 | 2.2 |

Source: Morgan Stanley & Co. Research

## Macro Factor Heat Map Key

| | Economic Growth | Rates | Inflation / Deflation | Liquidity | Sentiment and Risk | Valuation | Earnings | Conclusion |
|---|---|---|---|---|---|---|---|---|
| **Dark Blue** | Economic growth robust | Steep yield curve | Low-moderate and rising inflation | Liquidity robust in economy / banking system | Shorter-term sentiment and technicals bearish | Risk assets attractively valued | Earnings outlook robust | Confluence of factors supports a risk-on investment approach |
| **Light Blue** | Economic growth neutral | Normal yield curve | Low-moderate and declining inflation; moderate inflation; higher and falling inflation | Liquidity neutral in the economy / banking system | Shorter-term sentiment and technicals neutral | Risk assets neutral | Earnings outlook neutral | Confluence of factors supports a neutral investment approach |
| **Gray** | Economic growth anemic | Flat/inverted yield curve | Very high/low inflation/deflation; high and rising inflation | Liquidity low in economy / banking system | Shorter-term sentiment and technicals bullish | Risk assets are richly valued | Earnings outlook anemic | Confluence of factors supports a risk-off investment approach |
| **Up** | Growth accelerating | Yield curve steepening | Inflation rising | Liquidity increasing | Sentiment becoming more bullish | Valuations rising | Earnings outlook improving | |
| **Down** | Growth declining | Yield curve flattening | Inflation falling | Liquidity decreasing | Sentiment becoming more bearish | Valuations falling | Earnings outlook worsening | |
| **Signal Horizon** | One to three years | One to three years | One to three years | One to three years | One to three months | Six months to two years | Six months to two years | |
| **Inputs** | • Industrial production<br>• Unemployment<br>• Total return<br>• Earnings revisions<br>• Home prices<br>• OECD LEI (China and Brazil)<br>• MS & Co. ARIA (US) | • 10-year vs. 2-year government bond yield spread | • Consumer Price Index | • M1 growth<br>• Private credit growth<br>• Libor-OIS spread | • MS US Equity Risk Indicator (US)<br>• MS Combined Market Timing Indicator (Europe)<br>• MS Global Risk Demand Index<br>• Relative strength index<br>• Members above / below moving average.<br>• Index above / below moving average<br>• Consumer confidence | • Forward price/earnings ratio<br>• Price/book ratio<br>• Equity risk premium<br>• High yield option-adjusted spread | • Earnings revisions breadth<br>• Earnings surprise<br>• Return on equity | • Weighted average z-score of all factors |

# Tactical Asset Allocation Reasoning

| Global Equities | Relative Weight Within Equities | |
|---|---|---|
| US | Market Weight | 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) | Overweight | We maintain a positive bias for Japanese and European equity markets. Recent bear market sell-offs have created extreme valuations and, as in the US, policymakers look to be ready to provide policy stabilizers. A global recovery in the second half coupled with US-dollar depreciation from crisis level highs are likely to provide the catalysts |
| 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 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 bottoming for the cycle, we recently sold 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 is 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 safety of the US dollar, which is near 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 improves materially. Thus, we suggest risk-oriented clients to establish exposure to the broad diversified asset class through the use of active managers. Pure passive exposure is not advised. |
| 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 11 of this report.
Source: Morgan Stanley Wealth Management GIC as of April 17, 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.

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

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.

Investing in foreign markets entails greater risks than those normally associated with domestic markets, such as political, currency, economic and market risks. 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.

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 suitable 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 of these risks may include but are not limited to: Loss of all or a substantial portion of the investment due to leveraging, short-selling, or other speculative practices; Lack of liquidity in that there may be no secondary market for a fund; Volatility of returns; Restrictions on transferring interests in a fund; Potential lack of diversification and resulting higher risk due to concentration of trading authority when a single advisor is utilized; Absence of information regarding valuations and pricing; Complex tax structures and delays in tax reporting; Less regulation and higher fees than mutual funds; and Risks associated with the operations, personnel, and processes of the manager. Further, opinions regarding Alternative Investments expressed herein may differ from the opinions expressed by Morgan Stanley Wealth Management and/or other businesses/affiliates of Morgan Stanley Wealth Management.

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.

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 suitable 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.

Hedge funds may involve a high degree of risk, often engage in leveraging and other speculative investment practices that may increase the risk of investment loss, can be highly illiquid, are not required to provide periodic pricing or valuation information to investors, may involve complex tax structures and delays in distributing important tax information, are not subject to the same regulatory requirements as mutual funds, often charge high fees which may offset any trading profits, and in many cases the underlying investments are not transparent and are known only to the investment manager.

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 suitable 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 bond funds Ultra-short bond funds are mutual funds and exchange-traded funds that generally invest in fixed income securities with very short maturities, typically less than one year. They are not money market funds. While money market funds attempt to maintain a stable net asset value, an ultra-short bond fund's net asset value will fluctuate, which may result in the loss of the principal amount invested. They are therefore subject to the risks associated with debt securities such as credit and interest rate risk.

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.

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.

Asset-backed securities generally decrease in value as a result of interest rate increases, but may benefit less than other fixed-income securities from declining interest rates, principally because of prepayments.

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

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.

Investing in smaller companies involves greater risks not associated with investing in more established companies, such as business risk, significant stock price fluctuations and illiquidity.

Stocks of medium-sized companies entail special risks, such as limited product lines, markets, and financial resources, and greater market volatility than securities of larger, more-established companies.

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.

Credit ratings are subject to change.

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.

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.

Certain securities referred to in this material may not have been registered under the U.S. Securities Act of 1933, as amended, and, if not, may not be offered or sold absent an exemption therefrom. Recipients are required to comply with any legal or contractual restrictions on their purchase, holding, and sale, exercise of rights or performance of obligations under any securities/instruments transaction.

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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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