UW Health Investment Sub-Committee

December 2, 2020, 4:00 - 5:30 PM

WebEx: https://uwhealth.webex.com/uwhealth/onstage/g.php?MTID=e11711546190646845498ab8b7683df52

Meeting number: 120 915 4906 // Password: 010220

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UW Health Investment Sub-Committee - December 2, 2020 - Public Meeting Notice

Agenda

4:00 PM  
I. Call to Order  
Mr. John Litscher

4:01 PM  
II. Open Session Meeting Minutes  
Mr. John Litscher  
Approval

4:02 PM  
III. Graystone Market Commentary  
Mr. Tom Parks, Mr. Matt Conway, Ms. Kelli Schrade, Ms. Kristina VanLiew  
(Graystone)  
Presentation - Graystone Market Commentary  
Page 3

4:12 PM  
IV. Robert W. Baird & Co. Market Commentary  
Mr. Warren Pierson, Ms. Sharon deGuzman  
Presentation - Robert W. Baird & Co. Market Commentary  
Page 31

4:22 PM  
V. Closed Session  
Motion to enter into closed session pursuant to Wisconsin Statutes section 19.85(1)(e) for the discussion of the following investment matters which for competitive reasons require a closed session: review and approval of closed session minutes, performance of UW Health investments, Capital Markets and Portfolio Review – Third Quarter, and review of UW Health’s investment portfolio managers.

5:29 PM  
VI. Return to Open Session

5:29 PM  
VII. ACTION: UW Health Investment Portfolio Manager Review  
Mr. John Litscher  
Endorsement  
Motion to endorse Graystone Consulting’s recommendation to the UWHCA Finance Committee regarding UW Health’s Investment portfolio manager reviews as discussed in Closed Session.

5:30 PM  
VIII. Adjourn
December 2, 2020

Investment Sub-Committee Meeting

UW Health

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Market Commentary
Bull Market Consolidation

Equities post gains despite September retreat from all-time highs

January 11th - China reports its first known death caused by the coronavirus

March 11th - The World Health Organization officially characterizes the COVID-19 outbreak as a pandemic

March 3rd - FED issues an Emergency 50 bps Rate Cut before March Meeting

March 27th - Congress passes $2 trillion CARES act to help nation amid COVID-19 crisis

May 8th - Bureau of Labor Statistics reports historic unemployment and job loss numbers

May 26th - Protests break out after the death of George Floyd

June 30th - S&P 500 records its best quarter since 1998

August 27th - FED Chairman Jerome Powell announces major policy shift to “average inflation targeting”

September 2nd - The S&P 500 index closes at record high of 3579.25

November 7th - Joe Biden is projected to become the next President of the United States

November 9th - Markets rally worldwide as Pfizer Inc. releases early data suggesting vaccine under development might be >90% effective at preventing COVID-19

Source: Bloomberg. Data as of August 31, 2020 - For index definitions to the indices referenced in this report please visit the following:
https://www.morganstanley.com/wealth-investmentsolutions/wmir-definitions

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Decoding 3Q 2020 Markets

After a sharp rally in the second quarter as the global economy moved towards recovery, the third quarter saw continued modest gains despite volatility in September.

September saw a stretch of volatility that dampened momentum. The September selloff was catalyzed by a trifecta of investor uncertainties.

1. Dwindling prospects for the passage of a second fiscal stimulus plan before November 3 - unlikely now that Congress is preoccupied with election-year politics and debate over the Supreme Court vacancy.
2. The Fed’s ambiguity on Quantitative Easing and average inflation targeting details.
3. The presidential election results but also its validity and timing of a definitive result.

Inflation

Inflation in the US increased since the previous quarter, according to the Bureau of Labor Statistics. The year-over-year Consumer Price Index was 1.4% in August, up from the 0.3% low in April. Morgan Stanley & Co. economists forecast a 1.1% inflation rate for Q3 2020 and 1.1% annual rate for 2020.

Morgan Stanley & Co. Projects Inflation to Pick up in 2021

US Stock Market Indices: Large Caps Outperform Small Caps
As of September 30, 2020

Heightened Levels of Volatility

VIX Index
As of October 6, 2020
Navigating Choppy Waters

Heightened Volatility in Light of COVID-19 and US Election Catalysts

Reduced Investor Visibility

Along with 2020’s V-shaped selloff and recovery in equity index levels, analysts have sought to process the company-by-company effects of COVID-19. That work has translated into greater variability for forward earnings revisions, reflecting reduced investor visibility.

US Election Uncertainty

Realized S&P 500 Index volatility has shown a mixed picture around presidential elections but has typically fallen in the month following election Day.

Watching the Shape of Recovery

- **V-shaped recovery still on track:** Global economic indicators continue to recover much faster than post-GFC. We expect global and DM GDP to reach their pre-COVID-19 levels by 4Q20 and 3Q21, respectively.
- **The outlook for a COVID-19 vaccine remains promising:** While uncertain, our biotechnology team remains optimistic on ongoing clinical trials.
- **Strong consumer to keep recovery on track:** Personal incomes of US households have already reached 2% above COVID-19 levels in August. High savings rates provide a source of consumption in 2021.

### We Expect a Recovery to pre-COVID-19 Levels by 3Q21

![Graph showing recovery to pre-COVID-19 levels by 3Q21](image)

Source: Haver Analytics, Morgan Stanley Research forecasts

### US Households Have Built Up a Large Savings Cushion

![Bar chart showing US personal savings](image)

Source: BEA, Haver Analytics, Morgan Stanley Research

### PMIs Have Seen a V-Shaped Recovery

![Graph showing PMIs](image)

Source: Markit, Haver Analytics, IMF, Morgan Stanley Research
The Tale of Two Worlds

Diverging market dynamics

K-Shaped Recovery

The low-wage sector accounts for 63% (5.9 million jobs) of the reduction in total employment relative to pre-Covid levels as September. Meanwhile, the mid-wage and high-wage sectors account for 10% and 16.9% of job losses, respectively.

V-Shaped Recovery

The unemployment rate fell to 7.9% in September after peaking at 14.7% in April. Morgan Stanley economists predicted we might get back to 8.5-9% by the end of the year, but we're already there in the month of August, indicating there's quite a recovery happening.

Consumer Confidence

Consumer confidence plummeted to six-year lows, likely on concerns about COVID-19, jobs and delays in further fiscal stimulus coming from Washington.

Stock Market

Last quarter, the S&P 500 reached all-time highs as anticipation of economic improvement and further stimulus seemed to stoke investor sentiment.

Real Estate: Retail

Lodging, malls, strips and office have all underperformed suggesting that the pandemic has accelerated a retail demise already underway before the new virus emerged.

Real Estate: Industrial

There are only three subsectors that are positive on the year, including industrial, storage and single-family rental.

CARES 2.0 Needed to Bridge Road Ahead

More COVID-19 cases could derail recovery, requiring additional stimulus to prop up struggling areas of the economy, including small businesses.

Self-Sustaining Path

The US has been able to lift some economic activities to a higher level despite a high COVID case count. There is skepticism that both political parties will be able to reach an agreement on additional US fiscal stimulus (CARES 2.0), especially as support in the Senate remains lacking.

Source: Bloomberg, Thomson Reuters, SNL Financial, Company data, Morgan Stanley Research
2020 US Election – Market & Policy Implications

Four election outcome scenarios and potential impacts

**Unified Government**

**Blue Wave**
- Biden: House, Senate

**Key Macro Impacts**
- (+) US GDP
- (+) US Dollar
- (–) US Treasuries

**Divided Government**

**Blue Tide**
- Biden: House
- Trump: Senate

**Key Macro Impacts**
- (+) EM
- (+) US Dollar
- (–) US Dollar

**Divided Government**

**Thin Red Line**
- Trump: House, Senate

**Key Macro Impacts**
- (+) US GDP
- (–) US Dollar
- (–) US Treasuries
- (–) EM

**Unified Government**

**Red Redux**
- Trump: House, Senate

**Key Macro Impacts**
- (+) US GDP
- (+) US Dollar
- (–) US Treasuries
- (–) EM

**The Economy:** Recession makes Trump vulnerable to criticism that his economic policies were not enough to keep the economy afloat amid the pandemic. High unemployment levels in battleground states that elected Trump in 2016 - particularly MI, PA, NV - undermine his message of economic revival to these voters.

**Health Care & Crisis Management:**
- The electorate views Joe Biden as more trustworthy on issues pertaining to health care and managing the public health impact of a second outbreak.

**Economic Recovery:** Trump benefits as the economy rebounds and recovers from the pandemic. An economic recovery – not necessarily v-shaped - is required for this situation, in our view.

**China:** Anti-China rhetoric resonates with voters. Trump adopts a more aggressive, anti-China stance and paints Biden as a weaker alternative as Americans are becoming increasingly wary of China in the context of the pandemic.
The Road Ahead

COVID-19 vaccines are navigating through the last stage of clinical trials, but hurdles still lie ahead for efficacy, distribution and FDA approval

Morgan Stanley has developed a methodology to establish overall COVID-19 risk ratings for each U.S. state (incl. Washington DC). These ratings are on a colored scale: red (highest risk), orange (high risk), yellow (moderate risk), and green (lowest risk). An overall color is determined by aggregating data from three key metrics: case count trend over a 7 day period, hospital/ICU occupancy levels (days left until ICUs and hospitals are full), and test positivity rate.

![Color Scale Diagram]


Race to a Vaccine - Front Runners & Fast Followers

Earliest Pivotal Data (est) and Global Supply Capacity

<table>
<thead>
<tr>
<th>Company</th>
<th>Pivotal Data</th>
<th>Global Supply Capacity</th>
</tr>
</thead>
<tbody>
<tr>
<td>BioNTech/Pfizer</td>
<td>4Q 2020: 1.3bn doses by 2021</td>
<td>4Q 2020: Up to 100m end 2020 1.3bn doses by end 2021</td>
</tr>
<tr>
<td>Moderna/Lonza</td>
<td>4Q 2020: 500m, possibly 1bn doses end 2021</td>
<td>4Q 2020: Up to 700m end 2020 towards 3bn dose run rate 2021</td>
</tr>
<tr>
<td>AstraZeneca</td>
<td>4Q 2020: Year End 2020/Early 2021: 1bn doses globally in 2021</td>
<td></td>
</tr>
<tr>
<td>JNJ</td>
<td>4Q 2020: 1Q 2021: Up to 100m end 2020 &gt;2bn doses mid-2021</td>
<td></td>
</tr>
<tr>
<td>Novavax</td>
<td>4Q 2020: May 2021: &gt;1bn doses 2H21</td>
<td></td>
</tr>
</tbody>
</table>

Source: Morgan Stanley Research. Vaccine Rollout and the Reopening of Trade. As of September 18, 2020

On November 9, Pfizer/BioNTech announced that its COVID-19 vaccine achieved >90% vaccine efficacy in preventing COVID infections based upon the first interim efficacy analysis of 94 confirmed cases. The efficacy is stronger than anticipated. Pfizer plans to submit Emergency Use Authorization (EUA) in the third week of November, after the 2-month median safety milestone is achieved.

Source: MS Research. COVID vaccine succeeded beyond expectation
### Morgan Stanley Forecasts: October 2020

#### S&P 500 Earnings Estimates

<table>
<thead>
<tr>
<th>Year</th>
<th>2020E</th>
<th>2021E</th>
<th>2022E</th>
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<tbody>
<tr>
<td>Morgan Stanley Consensus</td>
<td>$130</td>
<td>$158</td>
<td>$177</td>
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<tr>
<td>$166</td>
<td>$187</td>
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</table>

Note: 2022 consensus is as of June 14, 2020

#### MS & Co. S&P 500 Price Target: Midyear 2021

<table>
<thead>
<tr>
<th>LANDSCAPE</th>
<th>EARNINGS</th>
<th>PRICE/EARNINGS MULTIPLE</th>
<th>PRICE TARGET</th>
<th>UPSIDE/ DOWNSIDE</th>
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</thead>
<tbody>
<tr>
<td>Bull Case</td>
<td>$176</td>
<td>21.0</td>
<td>3,700</td>
<td>10.5%</td>
</tr>
<tr>
<td>Base Case</td>
<td>$168</td>
<td>20.0</td>
<td>3,350</td>
<td>0.0%</td>
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<tr>
<td>Bear Case</td>
<td>$152</td>
<td>19.0</td>
<td>2,900</td>
<td>-13.4%</td>
</tr>
</tbody>
</table>

Current S&P 500 Price: 3,348

Note: Price targets are based on estimated June 2021 earnings.
Source: MS & Co. Research as of Oct. 2, 2020

#### Morgan Stanley & Co. Forecasts (as of Oct. 16, 2020)

<table>
<thead>
<tr>
<th>Region</th>
<th>REAL GDP GROWTH (%)</th>
<th>10-YR. GOVT. BOND YIELD (%)</th>
<th>HEADLINE INFLATION (%)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Global</td>
<td>3.1</td>
<td>-3.7</td>
<td>6.4</td>
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<td>US</td>
<td>2.2</td>
<td>-3.6</td>
<td>5.5</td>
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<td>Euro Zone</td>
<td>1.3</td>
<td>-8.7</td>
<td>5.5</td>
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<tr>
<td>UK</td>
<td>1.4</td>
<td>-10.7</td>
<td>5.4</td>
</tr>
<tr>
<td>Japan</td>
<td>0.7</td>
<td>-5.8</td>
<td>1.7</td>
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<tr>
<td>Emerging Markets</td>
<td>4.1</td>
<td>-2.2</td>
<td>7.4</td>
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<tr>
<td>China</td>
<td>6.1</td>
<td>2.3</td>
<td>8.9</td>
</tr>
</tbody>
</table>

Source: Morgan Stanley & Co. Research
Important Disclosures
Disclosures

The performance data shown reflects past performance, which does not guarantee future results.

Investment return and principal will fluctuate so that an investor’s shares when redeemed may be worth more or less than original cost. Please note, current performance may be higher or lower than the performance data shown. For up to date month-end performance information, please contact your Financial Advisor or visit the funds’ company website.

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Mortgage backed securities also involve prepayment risk, in that faster or slower prepayments than expected on underlying mortgage loans can dramatically alter the yield-to-maturity of a mortgage-backed security and prepayment risk includes the possibility that a fund may invest the proceeds at generally lower interest rates.

Tax managed funds may not meet their objective of being tax-efficient.

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Moody's) are considered to be investment grade-quality securities. If two or more of the agencies have assigned different ratings to a security, the highest rating is applied. Securities that are not rated by all three agencies are listed as "NR".

"Alpha tilt strategies comprise a core holding of stocks that mimic a benchmark type index such as the S&P 500 to which additional securities are added to help tilt the fund toward potentially outperforming the market in an effort to enhance overall investment returns. Tilt strategies are subject to significant timing risk and could potentially expose investors to extended periods of underperformance."

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Peer Groups

Peer Groups are a collection of similar investment strategies that essentially group investment products that share the same investment approach. Peer Groups are used for comparison purposes to compare and illustrate a clients investment portfolio versus its peer across various quantitative metrics like performance and risk. Peer Group comparison is conceptually another form of benchmark comparison whereby the actual investment can be ranked versus its peer across various quantitative metrics.

All Peer Group data are provided by Investment Metrics, LLC.

The URL below provides all the definitions and methodology about the various Peer Groups

https://www.invmetrics.com/style-peer-groups

Peer Group Ranking Methodology

A percentile rank denotes the value of a product in which a certain percent of observations fall within a peer group. The range of percentile rankings is between 1 and 100, where 1 represents a high statistical value and 100 represents a low statistical value.

The 30th percentile, for example, is the value in which 30% of the highest observations may be found, the 65th percentile is the value in which 65% of the highest observations may be found, and so on.

Percentile rankings are calculated based on a normalized distribution ranging from 1 to 100 for all products in each peer group, where a ranking of 1 denotes a high statistical value and a ranking of 100 denotes a low statistical value. It is important to note that the same ranking methodology applies to all statistics, implying that a ranking of 1 will always mean highest value across all statistics.

For example, consider a risk/return assessment using standard deviation as a measure of risk. A percentile ranking equal to 1 for return denotes highest return, whereas a percentile ranking of 1 for standard deviation denotes highest risk among peers.

In addition, values may be used to demonstrate quartile rankings. For example, the third quartile is also known as the 75th percentile, and the median is the 50th percentile.

Alternatives

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The Global Investment Committee is a group of seasoned investment professionals 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 model portfolio weightings, as well as produce a suite of strategy, analysis, commentary, portfolio positioning suggestions and other reports and broadcasts.

The GIC Asset Allocation Models are not available to be directly implemented as part of an investment advisory service and should not be regarded as a recommendation of any Morgan Stanley investment advisory service. The GIC Asset Allocation Models do not represent actual trading or any type of account or any type of investment strategies and none of the fees or other expenses (e.g. commissions, mark-ups, mark-downs, advisory fees, fund expenses) associated with actual trading or accounts are reflected in the GIC Asset Allocation Models which, when compounded over a period of years, would decrease returns.

Adverse Active Alpha (AAA) is a patented screening and scoring process designed to help identify high-quality equity and fixed income managers with characteristics that may lead to future outperformance relative to index and peers. While highly ranked managers performed well as a group in our Adverse Active Alpha model back tests, not all of the managers will
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outperform. Please note that this data may be derived from back-testing, which has the benefit of hindsight. In addition, highly ranked managers can have differing risk profiles that might not be suitable for all investors. Our view is that Adverse Active Alpha is a good starting point and should be used in conjunction with other information. Morgan Stanley Wealth Management’s qualitative and quantitative investment manager due diligence process are equally important factors for investors when considering managers for use through an investment advisory program. Factors including, but not limited to, manager turnover and changes to investment process can partially or fully negate a positive Adverse Active Alpha ranking. Additionally, highly ranked managers can have differing risk profiles that might not be suitable for all investors. For more information on AAA, please see the Adverse Active investment advisory program. Factors including, but not limited to, manager turnover and changes to investment process can partially or fully negate a positive Adverse Active Alpha Management’s qualitative and quantitative investment manager due diligence process are equally important factors for investors when considering managers for use through an adverse active alpha ranking model and selecting managers with adverse active alpha whitepapers. The whitepapers are available from your financial advisor or private wealth advisor.

The Global Investment Manager Analysis (GIMA) Services Only Apply to Certain Investment Advisory Programs. GIMA evaluates certain investment products for the purposes of some – but not all – of Morgan Stanley Smith Barney LLC’s investment advisory programs (as described in more detail in the applicable Form ADV Disclosure Document for Morgan Stanley Wealth Management). If you do not invest through one of these investment advisory programs, Morgan Stanley Wealth Management is not obligated to provide you notice of any GIMA Status changes even though it may give notice to clients in other programs.

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Consider Your Own Investment Needs: The model portfolios and strategies discussed in the material are formulated based on general client characteristics including risk tolerance. This material is not intended to be a client-specific suitability analysis or recommendation, or offer to participate in any investment. Therefore, clients should not use this profile as the sole basis for investment decisions. They should consider all relevant information, including their existing portfolio, investment objectives, risk tolerance, liquidity needs and investment time horizon. Such a suitability determination may lead to asset allocation results that are materially different from the asset allocation shown in this profile. Talk to your Financial Advisor about what would be a suitable asset allocation for you, whether CGCM is a suitable program for you.

No obligation to notify – Morgan Stanley Wealth Management has no obligation to notify you when the model portfolios, strategies, or any other information, in this material changes. Please consider the investment objectives, risks, fees, and charges of expenses of mutual funds, ETFs, closed end funds, unit investment trusts, and variable insurance products carefully before investing. The prospectus contains this and other information about each fund. To obtain a prospectus, contact your Financial Advisor or Private Wealth Advisor or
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visit the Morgan Stanley website at www.morganstanley.com. Please read it carefully before investing.

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.

The type of mutual funds and ETFs discussed in this presentation utilizes nontraditional or complex investment strategies and/or derivatives. Examples of these types of funds include those that utilize one or more of the below noted investment strategies or categories or which seek exposure to the following markets: (1) commodities (e.g., agricultural, energy and metals), currency, precious metals; (2) managed futures; (3) leveraged, inverse or inverse leveraged; (4) bear market, hedging, long-short equity, market neutral; (5) real estate; (6) volatility (seeking exposure to the CBOE VIX Index). Investors should keep in mind that while mutual funds and ETFs may, at times, utilize nontraditional investment options and strategies, they should not be equated with unregistered privately offered alternative investments. Because of regulatory limitations, mutual funds and ETFs that seek alternative-like investment exposure must utilize a more limited investment universe. As a result, investment returns and portfolio characteristics of alternative mutual funds and ETFs may vary from traditional hedge funds pursuing similar investment objectives. Moreover, traditional hedge funds have limited liquidity with long “lock-up” periods allowing them to pursue investment strategies without having to factor in the need to meet client redemptions and ETFs trade on an exchange. On the other hand, mutual funds typically must meet daily client redemptions. This differing liquidity profile can have a material impact on the investment returns generated by a mutual or ETF pursuing an alternative investing strategy compared with a traditional hedge fund pursuing the same strategy.

Nontraditional investment options and strategies are often employed by a portfolio manager to further a fund’s investment objective and to help offset market risks. However, these features may be complex, making it more difficult to understand the fund’s essential characteristics and risks, and how it will perform in different market environments and over various periods of time. They may also expose the fund to increased volatility and unanticipated risks particularly when used in complex combinations and/or accompanied by the use of borrowing or “leverage.”

KEY ASSET CLASS CONSIDERATIONS AND OTHER RISKS

Investing in the markets entails the risk of market volatility. The value of all types of investments, including stocks, mutual funds, exchange-traded funds (“ETFs”), closed-end funds, and unit investment trusts, may increase or decrease over varying time periods. To the extent the investments depicted herein represent international securities, you should be aware that there may be additional risks associated with international investing, including foreign economic, political, monetary and/or legal factors, changing currency exchange rates, foreign taxes, and differences in financial and accounting standards. These risks may be magnified in emerging markets and frontier markets. Small- and mid-capitalization companies may lack the financial resources, product diversification and competitive strengths of larger companies. In addition, the securities of small- and mid-capitalization companies may not trade as readily as, and be subject to higher volatility than, those of larger, more established companies. The value of fixed income securities will fluctuate and, upon a sale, may be worth more or less than their original cost or maturity value. Bonds are subject to interest rate risk, call risk, reinvestment risk, liquidity risk, and credit risk of the issuer. High yield bonds are subject to additional risks such as increased risk of default and greater volatility because of the lower credit quality of the issues. In the case of municipal bonds, income is generally exempt from federal income taxes. Some income may be subject to state and local taxes and to the federal alternative minimum tax. Capital gains, if any, are subject to tax. 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. There is no guarantee that investors will receive par if TIPS are sold prior to maturity. The returns on a portfolio consisting primarily of environmental, social, and governance-aware investments (“ESG”) may be lower or higher than a portfolio that is more diversified or where decisions are based solely on investment considerations. Because ESG criteria exclude some investments, investors may not be able to take advantage of the same opportunities or market trends as investors that do not use such criteria. The companies identified and investment examples are for illustrative purposes only and should not be deemed a recommendation to purchase, hold or sell any securities or investment products. They are intended to demonstrate the approaches taken by managers who focus on ESG criteria in their investment strategy. There can be no guarantee that a client’s account will be managed as described herein. Options and margin trading involve substantial risk and are not suitable for all investors. Besides the general investment risk of holding securities that may decline in value and the possible loss of principal invested, closed-end funds may have additional risks related to declining market prices relatively to net asset values (NAVs), active manager underperformance and potential leverage. Closed-end funds, unlike open-end funds, are not continuously offered. There is a one-time public offering and once issued, shares of closed-end funds are sold in the open market through a stock exchange. NAV is total assets less...
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total liabilities divided by the number of shares outstanding. At the time an investor purchases shares of a closed-end fund, shares may have a market price that is above or below NAV. Portfolios that invest a large percentage of assets in only one industry sector (or in only a few sectors) are more vulnerable to price fluctuation than those that diversify among a broad range of sectors.

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; Risks associated with the operations, personnel, and processes of the manager; and Risks associated with cybersecurity. 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These limitations include survivorship bias (the returns of the indices may not be representative of all the hedge funds in the universe because of the tendency of lower performing funds to leave the index); heterogeneity (not all hedge funds are alike or comparable to one another, and the index may not accurately reflect the performance of a described style); and limited data (many hedge funds do not report to indices, and the index may omit funds, the inclusion of which might significantly affect the performance shown. The HFRI indices are based on information self-reported by hedge fund managers that decide on their own, at any time, whether or not they want to provide, or continue to provide, information to HFR Asset Management, L.L.C. Results for funds that go out of business are included in the index until the date that they cease operations. Therefore, these indices may not be complete or accurate representations of the hedge fund universe, and may be biased in several ways. Composite index results are shown for illustrative purposes and do not represent the performance of a specific investment. Individual funds have specific tax 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 Wealth Management and certain of its affiliates, and (1) are not FDIC-insured, (2) are not deposits or other obligations of Morgan Stanley Wealth Management or any of its affiliates, (3) are not guaranteed by Morgan Stanley Wealth Management and its affiliates, and (4) involve investment risks, including possible loss of principal. Morgan Stanley Wealth Management is a registered broker-dealer, not a bank. 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Investment products in this category may employ various investment strategies and techniques for both hedging and more speculative purposes such as short-selling, leverage, derivatives and options, which can increase volatility and the risk of investment loss. Alternative investments are not suitable for all investors. As a diversified global financial services firm, Morgan Stanley Wealth Management engages in a broad spectrum of activities including financial advisory services, investment management activities, sponsoring and managing private investment funds, engaging in broker-dealer transactions and principal securities, commodities and foreign exchange transactions, research publication, and other

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activities. In the ordinary course of its business, Morgan Stanley Wealth Management therefore engages in activities where Morgan Stanley Wealth Management’s interests may conflict with the interests of its clients, including the private investment funds it manages. Morgan Stanley Wealth Management can give no assurance that conflicts of interest will be resolved in favor of its clients or any such fund. 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.

It should be noted that the majority of hedge fund indexes are comprised of hedge fund manager returns. This is in contrast to traditional indexes, which are comprised of individual securities in the various market segments they represent and offer complete transparency as to membership and construction methodology. As such, some believe that hedge fund index returns have certain biases that are not present in traditional indexes. Some of these biases inflate index performance, while others may skew performance negatively. However, many studies indicate that overall hedge fund index performance has been biased to the upside. Some studies suggest performance has been inflated by up to 260 basis points or more annually depending on the types of biases included and the time period studied. Although there are numerous potential biases that could affect hedge fund returns, we identify some of the more common ones throughout this paper. Self-selection bias results when certain manager returns are not included in the index returns and may result in performance being skewed up or down. Because hedge funds are private placements, hedge fund managers are able to decide which fund returns they want to report and are able to opt out of reporting to the various databases. Certain hedge fund managers may choose only to report returns for funds with strong returns and opt out of reporting returns for weak performers. Other hedge funds that close may decide to stop reporting in order to retain secrecy, which may cause a downward bias in returns. Survivorship bias results when certain constituents are removed from an index. This often results from the closure of funds due to poor performance, “blow ups,” or other such events. As such, this bias typically results in performance being skewed higher. As noted, hedge fund index performance biases can result in positive or negative skew. However, it would appear that the skew is more often positive. While it is difficult to quantify the effects precisely, investors should be aware that idiosyncratic factors may be giving hedge fund index returns an artificial “lift” or upwards bias.

Hedge Funds of Funds and many funds of funds are private investment vehicles restricted to certain qualified private and institutional investors. They are often speculative and include a high degree of risk. Investors can lose all or a substantial amount of their investment. They may be highly illiquid, can engage in leverage and other speculative practices that may increase volatility and the risk of loss, and may be subject to large investment minimums and initial lockups. They involve complex tax structures, tax inefficient investing and delays in distributing important tax information. Categorically, hedge funds and funds of funds have higher fees and expenses than traditional investments, and such fees and expenses can lower the returns achieved by investors. Funds of funds have an additional layer of fees over and above hedge fund fees that will offset returns. 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. An investment in a target date portfolio is subject to the risks attendant to the underlying funds in which it invests, in these portfolios the funds are the Consulting Group Capital Market funds. A target date portfolio is geared to investors who will retire and/or require income at an approximate year. The portfolio is managed to meet the investor’s goals by the pre-established year or “target date.” A target date portfolio will transition its invested assets from a more aggressive portfolio to a more conservative portfolio as the target date draws closer. An investment in the target date portfolio is not guaranteed at any time, including, before or after the target date is reached. Managed futures investments are speculative, involve a high degree of risk, use significant leverage, are generally illiquid, and may be highly illiquid, have substantial charges, subject investors to conflicts of interest, and are suitable only for the risk capital portion of an investor’s portfolio. Managed futures investments do not replace equities or bonds but rather may act as a complement in a well diversified portfolio. Managed Futures are complex and not appropriate for all investors. Rebalancing does not protect against a loss in declining financial markets. There may be a potential tax implication with a rebalancing strategy.

Asset allocation and diversification do not assure a profit or protect against loss in declining financial markets. Past performance is no guarantee of future results. Actual results may vary.

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We may act in the capacity of a broker or that of an advisor. As your broker, we are not your fiduciary and our interests may not always be identical to yours. Please consult with your Private Wealth Advisor to discuss our obligations to disclose to you any conflicts we may from time to time have and our duty to act in your best interest. We may be paid both by you and by others who compensate us based on what you buy. Our compensation, including that of your Private Wealth Advisor, may vary by product and over time.

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

GLOBAL INVESTMENT COMMITTEE (GIC) ASSET ALLOCATION MODELS: The Asset Allocation Models are created by Morgan Stanley Wealth Management’s GIC.

HYPOTHETICAL MODEL PERFORMANCE (GROSS): Hypothetical model performance results do not reflect the investment or performance of an actual portfolio following a GIC Strategy, but simply reflect actual historical performance of selected indices on a real-time basis over the specified period of time representing the GIC’s strategic and tactical allocations as of the date of this report. The past 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 or trading strategy. Hypothetical performance results do not represent actual trading and are generally designed with the benefit of hindsight. Actual performance results of accounts vary due to, for example, market factors (such as liquidity) and client-specific factors (such as investment vehicle selection, timing of contributions and withdrawals, restrictions and rebalancing schedules). Clients would not necessarily have obtained the performance results shown here if they had invested in accordance with any GIC Asset Allocation Model for the periods indicated. Despite the limitations of hypothetical performance, these hypothetical performance results allow clients and Financial Advisors to obtain a sense of the risk/return trade-off of different asset allocation constructs. The hypothetical performance results in this report are calculated using the returns of benchmark indices for the asset classes, and not the returns of securities, fund or other investment products. Models may contain allocations to Hedge Funds, Private Equity and Private Real Estate. The benchmark indices for these asset classes are not issued on a daily basis. When calculating model performance on a day for which no benchmark index data is issued, we have assumed straight line growth between the index levels issued before and after that date.

FEES REDUCE THE PERFORMANCE OF ACTUAL ACCOUNTS: None of the fees or other expenses (e.g. commissions, mark-ups, mark-downs, fees) associated with actual trading or accounts are reflected in the GIC Asset Allocation Models. The GIC Asset Allocation Models and any model performance included in this presentation are intended as educational
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materials. Were a client to use these models in connection with investing, any investment decisions made would be subject to transaction and other costs which, when compounded over a period of years, would decrease returns. Information regarding Morgan Stanley’s standard advisory fees is available in the Form ADV Part 2, which is available at www.morganstanley.com/adv. The following hypothetical illustrates the compound effect fees have on investment returns: For example, if a portfolio’s annual rate of return is 15% for 5 years and the account pays 50 basis points in fees per annum, the gross cumulative five-year return would be 101.1% and the five-year return net of fees would be 96.8%. Fees and/or expenses would apply to clients who invest in investments in an account based on these asset allocations, and would reduce clients’ returns. The impact of fees and/or expenses can be material.

Variable annuities are long-term investments designed for retirement purposes and may be subject to market fluctuations, investment risk, and possible loss of principal. All guarantees, including optional benefits, are based on the financial strength and claims-paying ability of the issuing insurance company and do not apply to the underlying investment options. Optional riders may not be able to be purchased in combination and are available at an additional cost. Some optional riders must be elected at time of purchase. Optional riders may be subject to specific limitations, restrictions, holding periods, costs, and expenses as specified by the insurance company in the annuity contract. If you are investing in a variable annuity through a tax-advantaged retirement plan such as an IRA, you will get no additional tax advantage from the variable annuity. Under these circumstances, you should only consider buying a variable annuity because of its other features, such as lifetime income payments and death benefits protection. Taxable distributions (and certain deemed distributions) are subject to ordinary income tax and, if taken prior to age 59½, may be subject to a 10% federal income tax penalty. Early withdrawals will reduce the death benefit and cash surrender value.

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

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.

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. 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.

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. Risks of private real estate include: illiquidity; a long-term investment horizon with a limited or nonexistent secondary market; lack of transparency; volatility (risk of loss); and leverage. Principal is returned on a monthly basis over the life of a mortgage-backed security. Principal
Disclosures

Prepayment can significantly affect the monthly income stream and the maturity of any type of MBS, including standard MBS, CMOs and Lottery Bonds. 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. Credit ratings are subject to change. 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. 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.

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

Nondiversification: For a portfolio that holds a concentrated or limited number of securities, a decline in the value of these investments would cause the portfolio’s overall value to decline to a greater degree than a less concentrated portfolio. The indices selected by Morgan Stanley Wealth Management to measure performance are representative of broad asset classes. Morgan Stanley Wealth Management retains the right to change representative indices at any time. Because of their narrow focus, sector investments tend to be more volatile than investments that diversify across many sectors and companies.

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. 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. Any type of continuous or periodic investment plan does not assure a profit and does not protect against loss in declining markets. Since such a plan involves continuous investment in securities regardless of fluctuating price levels of such securities, the investor should consider his financial ability to continue his purchases through periods of low price levels. This material is disseminated in the United States of America by Morgan Stanley Smith Barney LLC. Morgan Stanley Wealth Management is not acting as a municipal advisor to any municipal entity or obligated person within the meaning of Section 15B of the Securities Exchange Act (the “Municipal Advisor Rule”) and the opinions or views contained herein are not intended to be, and do not constitute, advice within the meaning of the Municipal Advisor Rule. This material, or any portion thereof, may not be reprinted, sold or redistributed without the written consent of Morgan Stanley Smith Barney LLC.

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Glossary of Terms

Active Contribution Return: The gain or loss percentage of an investment relative to the performance of the investment benchmark.

Active Exposure: The percentage difference in weight of the portfolio compared to its policy benchmark.

Active Return: Arithmetic difference between the manager’s return and the benchmark’s return over a specified time period.

Actual Correlation: A measure of the correlation (linear dependence) between two variables X and Y, with a value between +1 and -1 inclusive. This is also referred to as coefficient of correlation.

Alpha: A measure of a portfolio’s time weighted return in excess of the market’s return, both adjusted for risk. A positive alpha indicates that the portfolio outperformed the market on a risk-adjusted basis, and a negative alpha indicates the portfolio did worse than the market.

Best Quarter: The highest quarterly return for a certain time period.

Beta: A measure of the sensitivity of a portfolio’s time weighted return (net of fees) against that of the market. A beta greater than 1.00 indicates volatility greater than the market.

Consistency: The percentage of quarters that a product achieved a rate of return higher than that of its benchmark. The higher the consistency figure, the more value a manager has contributed to the product’s performance.

Core: Refers to an investment strategy mandate that is blend of growth and value styles without a pronounced tilt toward either style.

Cumulative Selection Return (Cumulative Return): Cumulative investment performance over a specified period of time.

Distribution Rate: The most recent distribution paid, annualized, and then divided by the current market price. Distribution rate may consist of investment income, short-term capital gains, long-term capital gains, and/or return or capital.

Down Market Capture: The ratio of average portfolio returns over the benchmark during periods of negative benchmark return. Lower values indicate better product performance.

Downside Risk: A measure similar to standard deviation, but focuses only on the negative movements of the return series. It is calculated by taking the standard deviation of the negative quarterly set of returns. The higher the value, the more risk the product has.

Downside Semi Deviation: A statistical calculation that measures the volatility of returns below a minimum acceptable return. This return measure isolates the negative portion of volatility: the larger the number, the greater the volatility.

Drawdown: A drawdown is the peak-to-trough decline during a specific period of an investment, fund or commodity.

Excess over Benchmark: The percentage gain or loss of an investment relative to the investment’s benchmark.

Excess Return: Arithmetic difference between the manager’s return and the risk-free return over a specified time period.

Growth: A diversified investment strategy which includes investment selections that have capital appreciation as the primary goal, with little or no dividend payouts. These strategies can include reinvestment in expansion, acquisitions, and/or research and development opportunities.

Growth of Dollar: A diversified investment strategy which includes investment selections that have capital appreciation as the primary goal, with little or no dividend payouts. These strategies can include reinvestment in expansion, acquisitions, and/or research and development opportunities.

Growth and Income: The highest quarterly return for a certain time period.

Information Ratio: Measured by dividing the active rate of return by the tracking error. The higher the Information Ratio, the more value-added contribution by the manager.

Jensen’s Alpha: The Jensen’s alpha measure is a risk-adjusted performance measure that represents the average return on a portfolio or investment above or below that predicted by the capital asset pricing model (CAPM) given the portfolio’s or investment’s beta and the average market return. This metric is also commonly referred to as alpha.

Kurtosis: A statistical measure that is used to describe the distribution, or skewness, of observed data around the mean, sometimes referred to as the volatility of volatility.

Maximum Drawdown: The drawdown is defined as the percent retrenchment from a fund’s peak to the fund’s trough value. It is in effect from the time the fund’s retrenchment begins until a new fund high is reached. The maximum drawdown encompasses both the period from the fund’s peak to the fund’s valley (length), and the time from the fund’s valley to a new fund high (recovery). It measures the largest percentage drawdown that has occurred in any fund’s data record.

Modern Portfolio Theory (MPT): An investment analysis theory on how risk-averse investors can construct portfolios to optimize or maximize expected return based on a given level of market risk, emphasizing that risk is an inherent part of higher reward.

Mutual Fund (MF): An investment program funded by shareholders that trade in diversified holdings and is professionally managed.

Peer Group: A combination of funds that share the same investment style combined as a group for comparison purposes.

Peer/ Plan Sponsor Universe: A combination of asset pools of total plan investments by specific sponsor and plan types for comparison purposes.
Glossary of Terms

Performance Ineligible Assets: Performance returns are not calculated for certain assets because accurate valuations and transaction data for these assets are not processed or maintained by us. Common examples of these include life insurance, some annuities and some assets held externally.

Performance Statistics: A generic term for various measures of investment performance measurement terms.

Portfolio Characteristics: A generic term for various measures of investment portfolio characteristics.

Preferred Return: A term used in the private equity (PE) world, and also referred to as a “Hurdle Rate.” It refers to the threshold return that the limited partners of a private equity fund must receive, prior to the PE firm receiving its carried interest or “carry.”

Ratio of Cumulative Wealth: A defined ratio of the Cumulative Return of the portfolio divided by the Cumulative Return of the benchmark for a certain time period.

Regression Based Analysis: A statistical process for estimating the relationships among variables. It includes many techniques for modeling and analyzing several variables, when the focus is on the relationship between a dependent variable and one or more independent variables.

Residual Correlation: Within returns-based style analysis, residual correlation refers to the portion of a strategy’s return pattern that cannot be explained by its correlation to the asset-class benchmarks to which it is being compared.

Return: A rate of investment performance for the specified period.

Rolling Percentile Ranking: A measure of an investment portfolio’s ranking versus a peer group for a specific rolling time period (i.e. Last 3 Years, Last 5 years, etc.).

R-Squared: The percentage of a portfolio’s performance explained by the behavior of the appropriate benchmark. High R-Squared means a higher correlation of the portfolio’s performance to the appropriate benchmark.


Sector Benchmark: A market index that serves as a proxy for a sector within an asset class.

Sharpe Ratio: Represents the excess rate of return over the risk free return divided by the standard deviation of the excess return. The result is the absolute rate of return per unit of risk. The higher the value, the better the product’s historical risk-adjusted performance results in.

Standard Deviation: A statistical measure of the range of a portfolio’s performance; the variability of a return around its average return over a specified time period.

Total Fund Benchmark: The policy benchmark for a complete asset pool that could consist of multiple investment mandates.

Total Fund Composite: The aggregate of multiple portfolios within an asset pool or household.

Treynor Ratio: A ratio that divides the excess return (above the risk free rate) by the portfolio’s beta to arrive at a unified measure of risk adjusted return. It is generally used to rank portfolios, funds and benchmarks. A higher ratio is indicative of higher returns per unit of market risk. This measurement can help determine if the portfolio is reaching its goal of increasing returns while managing market risk.

Up Market Capture: The ratio of average portfolio returns over the benchmark during periods of positive benchmark return. Higher values indicate better product performance.

Upside Semi Deviation: A statistical calculation that measures the volatility of returns above an acceptable return. This return measure isolates the positive portion of volatility: the larger the number, the greater the volatility.

Value: A diversified investment strategy that includes investment selections which tend to trade at a lower price relative to its dividends, earnings, and sales. Common attributes are stocks that include high dividend, low price-to-book ratio, and/or low price-to-earnings ratio.

Worst Quarter: The lowest rolling quarterly return for a certain time period.
Benchmark Indices

For index definitions to the indices referenced in this report please visit the following:
https://www.morganstanley.com/wealth-investmentsolutions/wmir-definitions

Benchmark Indices

Depending on the composition of your account and your investment objectives, any indices shown in this report may not be an appropriate measure for comparison purposes and are therefore presented for illustration only. Indices are unmanaged. They do not reflect any management, custody, transaction or other expenses, and generally assume reinvestment of dividends, accrued income and capital gains. Past performance of indices does not guarantee future results. You cannot invest directly in an index. Performance of indices may be more or less volatile than any investment product. The risk of loss in value of a specific investment (such as with an investment manager or in a fund) is not the same as the risk of loss in a broad market index. Therefore, the historical returns of an index will not be the same as the historical returns of a particular investment product.

MSCI ACWI Ex USA NR USD: The MSCI ACWI Index is a free float-adjusted market capitalization weighted index that is designed to measure the equity market performance of developed and emerging markets. The MSCI ACWI consists of 46 country indexes comprising 23 developed and 23 emerging market country indexes. The developed market country indexes included are: Australia, Austria, Belgium, Canada, Denmark, Finland, France, Germany, Hong Kong, Ireland, Israel, Italy, Japan, Netherlands, New Zealand, Norway, Portugal, Singapore, Spain, Sweden, Switzerland, the United Kingdom and the United States. The emerging market country indexes included are: Brazil, Chile, China, Colombia, Czech Republic, Egypt, Greece, Hungary, India, Indonesia, Korea, Malaysia, Mexico, Peru, Philippines, Poland, Qatar, Russia, South Africa, Taiwan, Thailand, Turkey, and United Arab Emirates (as of June 2014). This index is excluding the United States. Performance is showing net withholding tax. Net total return indices reinvest dividends after the deduction of withholding taxes, using (for international indices) a tax rate applicable to non-resident institutional investors who do not benefit from double taxation treaties. For historical purposes the AC World ex US Gross returns are being used from 1/29/1988 - 1/1/2001 and the net returns begin as of 1/1/2001.

MSCI EAFE (Net) - The MSCI EAFE Index (Europe, Australasia, Far East) is a free float-adjusted market capitalization index that is designed to measure developed market equity performance, excluding the US & Canada. As of December 2003 the MSCI EAFE Index consisted of the following 21 developed market country indices: Australia, Austria, Belgium, Denmark, Finland, France, Germany, Greece, Hong Kong, Ireland, Italy, Japan, the Netherlands, New Zealand, Norway, Portugal, Singapore, Spain, Sweden, Switzerland and the United Kingdom.

MSCI EM (Emerging Markets) (Net) - The MSCI Emerging Markets Index is a free float-adjusted market capitalization index that is designed to measure equity market performance in the global emerging markets. This series approximates the minimum possible dividend reinvestment. The dividend is reinvested after deduction of withholding tax, applying the rate to non-resident individuals who do not benefit from double taxation treaties. MSCI uses withholding tax rates applicable to Luxembourg holding companies, as Luxembourg applies the highest rates. For historical return purposes the Emerging Markets gross returns are being used from 1/31/1988 to 1/31/2001 and the net returns begin as of 2/28/2001.

Russell 2000 - Russell 2000 Index measures the performance of the 2,000 smallest companies in the Russell 3000 Index, which represents approximately 11% of the total market capitalization of the Russell 3000 Index.

S&P 500 Total Return : The S&P 500 has been widely regarded as the best single gauge of the large cap U.S. equities market since the index was first published in 1957. The index has over $5.58 trillion benchmarked, with index assets comprising approximately $1.31 trillion of this total. The index includes 500 leading companies in leading industries of the U.S. economy, capturing 75% coverage of U.S. equities. This index includes dividend reinvestment.

MSCI Europe - The MSCI Europe Index represents the performance of large and mid-cap equities across 15 developed countries in Europe. The Index has a number of sub-Indexes which cover various sub-regions market segments/sizes, sectors and covers approximately 85% of the free float-adjusted market capitalization in each country.

MSCI Japan - The MSCI Japan Index is designed to measure the performance of the large and mid cap segments of the Japanese market. With 322 constituents, the index covers approximately 85% of the free float-adjusted market capitalization in Japan.

MSCI ACWI - The MSCI ACWI Index is a free float-adjusted market capitalization weighted index that is designed to measure the equity market performance of developed and emerging markets. The MSCI ACWI consists of 46 country indexes comprising 23 developed and 23 emerging market country indexes. The developed market country indexes included are: Australia, Austria, Belgium, Canada, Denmark, Finland, France, Germany, Hong Kong, Ireland, Israel, Italy, Japan, Netherlands, New Zealand, Norway, Portugal, Singapore, Spain, Sweden, Switzerland, the United Kingdom and the United States. The emerging market country indexes included are: Brazil, Chile, China, Colombia, Czech Republic, Egypt, Greece, Hungary, India, Indonesia, Korea, Malaysia, Mexico, Peru, Philippines, Poland, Qatar, Russia, South Africa, Taiwan, Thailand, Turkey, and United Arab Emirates (as of June 2014). This index is excluding the United States. Performance is showing net withholding tax. Net total return indices reinvest dividends after the deduction of withholding taxes, using (for international indices) a tax rate applicable to non-resident institutional investors who do not benefit from double taxation treaties. For historical purposes the AC World ex US Gross returns are being used from 1/29/1988 - 1/1/2001 and the net returns begin as of 1/1/2001.
Benchmark Indices

NASDAQ - The Nasdaq Composite Index is the market capitalization-weighted index of over 3,300 common equities listed on the Nasdaq stock exchange. The types of securities in the index include American depositary receipts, common stocks, real estate investment trusts (REITs) and tracking stocks, as well as limited partnership interests. The index includes all Nasdaq-listed stocks that are not derivatives, preferred shares, funds, exchange-traded funds (ETFs) or debenture securities.

Fixed Income Indices:


Securitized: Bloomberg Barclays US Securitized Index is comprised of predominantly MBS Agency securities, but also includes ABS, CMBS and covered securities.


US High Yield: Bloomberg Barclays US Corporate High Yield Caa Index is comprised of predominantly US high yield corporate bonds.

Global EM: Barclays Capital Global Emerging Markets comprises fixed income debt issues from countries with developing economies. These include government bonds and corporate bonds in Asia, Latin America, Africa and elsewhere.

MSCI ESG Indices:

MSCI EU ESG Leaders - The MSCI Europe ESG Leaders Index is a capitalization weighted index that provides exposure to companies with high Environmental, Social and Governance (ESG) performance relative to their sector peers. MSCI Europe ESG Leaders Index consists of large and mid cap companies in 15 developed markets countries.

MSCI USA ESG Leaders - The MSCI USA ESG Leaders Index is a capitalization weighted index that provides exposure to companies with high Environmental, Social and Governance (ESG) performance relative to their sector peers. MSCI USA ESG Leaders Index consists of large and mid cap companies in the US market.

MSCI Japan ESG Leaders - The MSCI Japan ESG Leaders Index is a capitalization weighted index that provides exposure to companies with high Environmental, Social and Governance (ESG) performance relative to their sector peers. MSCI Japan ESG Leaders Index consists of large and mid cap companies in Japanese markets.

MSCI World ESG Leaders - The MSCI World ESG Leaders Index is a capitalization weighted index that provides exposure to companies with high Environmental, Social and Governance (ESG) performance relative to their sector peers.

Indices are unmanaged. An investor cannot invest directly in an index. They are shown for illustration purposes only and do not show the performance of any specific investment. Reference to an index does not imply that the portfolio will achieve return, volatility or other results similar to the index. The composition of an index may not reflect the manner in which a portfolio is constructed in relation to expected or achieved returns, portfolio guidelines, restrictions, sectors, correlations, concentrations, volatility, or tracking error target, all of which are subject to change over time.

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Strategic Leaders

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Chief Investment Officer
President of Baird Funds

Gary A. Elfe, CFA
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Research Director Emeritus
Senior Portfolio Manager

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Vice President of Baird Funds

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Research Director
Senior Portfolio Manager

Warren D. Pierson, CFA
Managing Director
Deputy Chief
Investment Officer

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Jeffrey E. Simmons, CFA
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Portfolio Construction & Risk Monitoring

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Managing Director
Senior Investment & Systems Analyst

Alice M. Ambrowiak, CFA, CPA
Senior Vice President
Investment Analyst

Allison L. Parra, CFA
Vice President
Investment Analyst
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Section 1

Firm/Team Overview
Morningstar recognizes Baird Funds

- Baird Aggregate and Baird Short-Term Bond Funds receive **Morningstar’s highest gold rating**
- Mary Ellen Stanek again named 1 of 5 Nominees for 2020 **Morningstar Outstanding Portfolio Manager Award**
- Baird Core Plus, Aggregate, and Short-Term Bond Funds selected for Morningstar’s **Thrilling 36** mutual fund list out of more than 8,000 mutual funds
- Baird Funds recognized as the **Top 2 Fund Family** out of the Largest 150 Fund Families

Refinitiv Lipper Fund Awards
Baird Short-Term Municipal Bond Fund was rated **Best Fund** for the past 3 years in the Short Municipal Debt category.

**Pensions & Investments’** “Best Places to Work in Money Management” for 8 Straight Years

**Barron’s**
- 100 Most Influential Women in U.S. Finance: Mary Ellen Stanek
- June 2020 Baird Short-Term Municipal Bond Fund Profile: A Muni-Bond Fund That Lets You Sleep at Night
Baird Advisors Overview
Experienced Team with a Competitive Track Record in High-Quality Fixed Income Management

- $106.9 billion of assets under management as of October 31, 2020
- Average client relationship exceeds 12 years
- Seasoned investment professionals working together for over 30 years, 27 CFA Charterholders
- Emphasize service and communication
Baird Advisors
Competitive Advantages

- Stable team of experienced investment professionals
- Risk-controlled discipline delivering over 30 years of competitive returns
- Consistency of returns versus peers
- Strategically sized, emphasizing bottom-up versus top-down approach
- All cash bonds, all U.S. dollar-denominated, no derivatives, no leverage
- Attractive expense ratio benefits future returns (30 bps Institutional Class)
- Employee-owned, strong financial services firm
Baird Advisors - Representative Clients
Average client relationship exceeds 12 years

Note: The clients listed above represent various industry groups and geographic locations and were not selected based upon performance. Their appearance is not an indication of approval or disapproval of the investment management services provided.
Baird Taxable Bond Funds
Total Net Returns as of October 31, 2020

<table>
<thead>
<tr>
<th>Fund</th>
<th>YTD 2020</th>
<th>1-Year</th>
<th>3-Year</th>
<th>5-Year</th>
<th>10-Year</th>
<th>Since Inception</th>
<th>Lipper Rank &amp; Percentile</th>
</tr>
</thead>
<tbody>
<tr>
<td>Baird Core Plus Bond Fund – Institutional</td>
<td>7.02%</td>
<td>7.14%</td>
<td>5.55%</td>
<td>4.92%</td>
<td>4.50%</td>
<td>5.92%</td>
<td>7 of 53</td>
</tr>
<tr>
<td>Bloomberg Barclays Universal Bond Index</td>
<td>5.82%</td>
<td>5.96%</td>
<td>4.98%</td>
<td>4.35%</td>
<td>3.83%</td>
<td>5.20%</td>
<td>13%</td>
</tr>
<tr>
<td>Baird Aggregate Bond Fund – Institutional</td>
<td>7.11%</td>
<td>7.09%</td>
<td>5.46%</td>
<td>4.59%</td>
<td>4.36%</td>
<td>5.47%</td>
<td>12 of 130</td>
</tr>
<tr>
<td>Bloomberg Barclays Aggregate Index</td>
<td>6.32%</td>
<td>6.19%</td>
<td>5.08%</td>
<td>4.08%</td>
<td>3.55%</td>
<td>4.97%</td>
<td>10%</td>
</tr>
<tr>
<td>Baird Intermediate Bond Fund – Institutional</td>
<td>6.36%</td>
<td>6.38%</td>
<td>4.60%</td>
<td>3.73%</td>
<td>3.44%</td>
<td>4.88%</td>
<td>3 of 45</td>
</tr>
<tr>
<td>Bloomberg Barclays Intermediate Govt/Credit Index</td>
<td>5.69%</td>
<td>5.67%</td>
<td>4.36%</td>
<td>3.37%</td>
<td>2.84%</td>
<td>4.44%</td>
<td>7%</td>
</tr>
<tr>
<td>Baird Short-Term Bond Fund – Institutional</td>
<td>3.71%</td>
<td>3.97%</td>
<td>3.24%</td>
<td>2.67%</td>
<td>2.31%</td>
<td>2.88%</td>
<td>25 of 117</td>
</tr>
<tr>
<td>Bloomberg Barclays 1-3 Year Govt/Credit Index</td>
<td>3.14%</td>
<td>3.39%</td>
<td>2.85%</td>
<td>2.10%</td>
<td>1.54%</td>
<td>2.48%</td>
<td>22%</td>
</tr>
<tr>
<td>Baird Ultra Short Bond Fund – Institutional</td>
<td>1.54%</td>
<td>1.91%</td>
<td>2.27%</td>
<td>1.87%</td>
<td>n/a</td>
<td>1.60%</td>
<td>18 of 87</td>
</tr>
<tr>
<td>Bloomberg Barclays Short-Term Govt/Corporate Index</td>
<td>1.28%</td>
<td>1.55%</td>
<td>2.03%</td>
<td>1.54%</td>
<td>n/a</td>
<td>1.19%</td>
<td>21%</td>
</tr>
</tbody>
</table>

Performance data quoted represents past performance. Past performance does not guarantee future results. Investment return and principal value of an investment in the fund will fluctuate so that an investor’s shares when redeemed may be worth more or less than their original cost. The funds’ current performance may be lower or higher than the performance data quoted. For performance current to the most recent month-end, please visit [www.bairdfunds.com](http://www.bairdfunds.com).

Expense Ratio for the Institutional Share Classes is 0.30%; for the Investor Share Classes is 0.55%. The Advisor has contractually agreed to waive management fees for the Baird Ultra Short Bond Fund in an amount equal to an annual rate of 0.15% of the average daily net assets for the Fund until April 30, 2021. The agreement may only be terminated prior to the end of this term by or with the consent of the Board of Directors of Baird Funds, Inc.

Returns shown include the reinvestment of all dividends and capital gains.

## Baird Taxable Bond Funds
### Lipper Rankings as of October 31, 2020

<table>
<thead>
<tr>
<th>Fund Name</th>
<th>Lipper Rank &amp; Percentile</th>
<th>YTD (%)</th>
<th>1 Yr (%)</th>
<th>3 Yr (%)</th>
<th>5 Yr (%)</th>
<th>10 Yr (%)</th>
<th>Since Inception (%)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Baird Core Plus Bond Fund – Institutional</td>
<td>92 of 291 32%</td>
<td>75 of 290 26%</td>
<td>44 of 248 18%</td>
<td>36 of 199 18%</td>
<td>27 of 148 19%</td>
<td>7 of 53 13%</td>
<td></td>
</tr>
<tr>
<td>(BCOIX) Fund Inception 9/29/00</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Baird Aggregate Bond Fund – Institutional</td>
<td>102 of 491 21%</td>
<td>97 of 490 20%</td>
<td>66 of 451 15%</td>
<td>66 of 403 17%</td>
<td>20 of 307 7%</td>
<td>12 of 130 10%</td>
<td></td>
</tr>
<tr>
<td>(BAGIX) Fund Inception 9/29/00</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Baird Intermediate Bond Fund – Institutional</td>
<td>20 of 166 12%</td>
<td>20 of 166 12%</td>
<td>3 of 150 2%</td>
<td>7 of 141 5%</td>
<td>5 of 87 6%</td>
<td>3 of 45 7%</td>
<td></td>
</tr>
<tr>
<td>(BIMIX) Fund Inception 9/29/00</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Baird Short-Term Bond Fund – Institutional</td>
<td>46 of 357 13%</td>
<td>44 of 354 13%</td>
<td>37 of 321 12%</td>
<td>65 of 283 23%</td>
<td>28 of 186 15%</td>
<td>25 of 117 22%</td>
<td></td>
</tr>
<tr>
<td>(BSBIX) Fund Inception 8/31/04</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Baird Ultra Short Bond Fund – Institutional</td>
<td>49 of 156 32%</td>
<td>42 of 155 27%</td>
<td>25 of 128 20%</td>
<td>30 of 97 31%</td>
<td>N/A 18%</td>
<td>18 of 87 21%</td>
<td></td>
</tr>
<tr>
<td>(BUBIX) Fund Inception 12/31/13</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Lipper rankings are based on average annual total returns for the 1, 3, 5, 10-year life periods for each respective Lipper category. Each fund is ranked based on average annual total returns assuming reinvestment of dividends and capital gains distributions, at net asset value and the deduction of all fund expenses. Since inception Lipper rankings are calculated from the month end following the fund’s inception. Past performance is no guarantee of future returns.
Baird Municipal Bond Funds
Total Net Returns as of October 31, 2020

<table>
<thead>
<tr>
<th>Fund Name</th>
<th>YTD 2020</th>
<th>1-Year</th>
<th>3-Year</th>
<th>5-Year</th>
<th>10-Year</th>
<th>Since Inception</th>
<th>Lipper Rank &amp; Percentile</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Baird Short-Term Municipal Bond Fund – Institutional</strong></td>
<td>2.53%</td>
<td>2.96%</td>
<td>2.69%</td>
<td>2.40%</td>
<td>n/a</td>
<td>2.46%</td>
<td>1 of 101</td>
</tr>
<tr>
<td>Bloomberg Barclays 1-5 Year Short Municipal Bond Index</td>
<td>2.33%</td>
<td>2.76%</td>
<td>2.37%</td>
<td>1.84%</td>
<td>n/a</td>
<td>1.90%</td>
<td>1</td>
</tr>
<tr>
<td><strong>Baird Core Intermediate Municipal Bond Fund – Institutional</strong></td>
<td>3.56%</td>
<td>4.16%</td>
<td>4.04%</td>
<td>3.79%</td>
<td>n/a</td>
<td>3.85%</td>
<td>4 of 155</td>
</tr>
<tr>
<td>Bloomberg Barclays 1-15 Year Municipal Bond Index</td>
<td>3.09%</td>
<td>3.66%</td>
<td>3.69%</td>
<td>3.22%</td>
<td>n/a</td>
<td>3.33%</td>
<td>3</td>
</tr>
<tr>
<td><strong>Baird Quality Intermediate Muni Bond Fund – Institutional</strong></td>
<td>3.41%</td>
<td>3.93%</td>
<td>3.24%</td>
<td>2.63%</td>
<td>2.73%</td>
<td>3.97%</td>
<td>20 of 53</td>
</tr>
<tr>
<td>Bloomberg Barclays Quality Intermediate Municipal Bond Index</td>
<td>3.33%</td>
<td>3.87%</td>
<td>3.46%</td>
<td>2.93%</td>
<td>3.17%</td>
<td>4.02%</td>
<td>38%</td>
</tr>
<tr>
<td><strong>Baird Municipal Bond Fund – Institutional</strong></td>
<td>7.14%</td>
<td>n/a</td>
<td>n/a</td>
<td>n/a</td>
<td>n/a</td>
<td>8.41%</td>
<td>1 of 273</td>
</tr>
<tr>
<td>Bloomberg Barclays Municipal Bond Index</td>
<td>3.02%</td>
<td>n/a</td>
<td>n/a</td>
<td>n/a</td>
<td>n/a</td>
<td>3.88%</td>
<td>1</td>
</tr>
<tr>
<td><strong>Baird Strategic Municipal Bond Fund – Institutional</strong></td>
<td>6.76%</td>
<td>n/a</td>
<td>n/a</td>
<td>n/a</td>
<td>n/a</td>
<td>7.70%</td>
<td>1 of 72</td>
</tr>
<tr>
<td>Bloomberg Barclays 1-10 Year Municipal Blend Index</td>
<td>2.99%</td>
<td>n/a</td>
<td>n/a</td>
<td>n/a</td>
<td>n/a</td>
<td>3.66%</td>
<td>2</td>
</tr>
</tbody>
</table>

Performance data quoted represents past performance. Past performance does not guarantee future results. Investment return and principal value of an investment in the fund will fluctuate so that an investor’s shares when redeemed may be worth more or less than their original cost. The funds’ current performance may be lower or higher than the performance data quoted. For performance current to the most recent month-end, please visit www.bairdfunds.com.

Expense Ratio for the Institutional Share Classes is 0.30%; for the Investor Share Classes is 0.55%

Returns shown include the reinvestment of all dividends and capital gains.

1 The Baird Quality Intermediate Municipal Bond Fund Since Inception net return is based on performance from March 31, 2001 through October 31, 2020.
2 The Baird Municipal and Strategic Municipal Bond Fund Since Inception net return is based on performance from November 15, 2019 through October 31, 2020.
## Baird Municipal Bond Funds

### Lipper Rankings as of October 31, 2020

<table>
<thead>
<tr>
<th>Fund Name</th>
<th>YTD Lipper Rank &amp; Percentile</th>
<th>1 Yr Lipper Rank &amp; Percentile</th>
<th>3 Yr Lipper Rank &amp; Percentile</th>
<th>5 Yr Lipper Rank &amp; Percentile</th>
<th>10 Yr Lipper Rank &amp; Percentile</th>
<th>Since Inception Lipper Rank &amp; Percentile</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Baird Short-Term Municipal Bond Fund – Institutional</strong> (BTMIX) Fund Inception 8/31/15</td>
<td>4 of 132 4%</td>
<td>2 of 130 2%</td>
<td>1 of 114 1%</td>
<td>1 of 101 1%</td>
<td>N/A</td>
<td>1 of 101 1%</td>
</tr>
<tr>
<td><strong>Baird Core Intermediate Municipal Bond Fund – Institutional</strong> (BMNIX) Fund Inception 8/31/15</td>
<td>9 of 190 5%</td>
<td>9 of 190 5%</td>
<td>4 of 171 3%</td>
<td>3 of 155 2%</td>
<td>N/A</td>
<td>4 of 155 3%</td>
</tr>
<tr>
<td><strong>Baird Quality Intermediate Municipal Bond Fund – Institutional</strong> (BMBIX) Fund Inception 3/30/01</td>
<td>13 of 190 7%</td>
<td>12 of 190 7%</td>
<td>84 of 171 49%</td>
<td>103 of 155 67%</td>
<td>87 of 116 75%</td>
<td>20 of 53 38%</td>
</tr>
<tr>
<td><strong>Baird Municipal Bond Fund – Institutional</strong> (BMQIX) Fund Inception 11/15/19</td>
<td>1 of 277 1%</td>
<td>N/A</td>
<td>N/A</td>
<td>N/A</td>
<td>N/A</td>
<td>1 of 273 1%</td>
</tr>
<tr>
<td><strong>Baird Strategic Municipal Bond Fund – Institutional</strong> (BSNIX) Fund Inception 11/15/19</td>
<td>1 of 72 2%</td>
<td>N/A</td>
<td>N/A</td>
<td>N/A</td>
<td>N/A</td>
<td>1 of 72 2%</td>
</tr>
</tbody>
</table>

Lipper rankings are based on average annual total returns for the 1, 3, 5, 10-year life periods for each respective Lipper category. Each fund is ranked based on average annual total returns assuming reinvestment of dividends and capital gains distributions, at net asset value and the deduction of all fund expenses. Since inception Lipper rankings are calculated from the month end following the fund’s inception. Past performance is no guarantee of future returns.
Section 2

Philosophy/Process Overview
## Investment Philosophy & Process: A Two-Fold Approach

### Step 1: Structure Portfolio to Achieve Return of the Benchmark

| **Complete Understanding of the Benchmark** | • Quantify duration, sector and subsector weightings  
• Evaluate pricing, turnover and projected changes to benchmark  
• Purchase only U.S. dollar-denominated securities |
|------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| **Remain *Duration Neutral* to Control Portfolio Risk** | • Precisely match duration to index at all times  
• Immediately adjust portfolio as contributions and withdrawals occur  
• Rebalance at month-end to match benchmark changes |
| **Maintain Strict Adherence to Portfolio Guidelines** | • Continuously monitor risk-control measures  
• Use scenario analysis  
• Compliance systems for all portfolio trades |
| **Emphasis on Security Structure/Credit Research** | • Evaluate specific security covenants, cash flows and liquidity concerns  
• Assess company financials and management  
• Consider prospects for sector and position in industry |
### Investment Philosophy & Process: A Two-Fold Approach

#### Step 2: Add Incremental Value through Bottom-Up, Risk-Controlled Process

<table>
<thead>
<tr>
<th>Sources of Added Value:</th>
<th></th>
</tr>
</thead>
</table>
| **Yield Curve Positioning** | - Optimize yield and “roll down”  
- Analyze yield curve on a continual basis |
| **Sector Allocation** | - Evolve sector allocations around long-term biases  
- Focus on relative value  
- Yield spreads and underlying risks change constantly |
| **Security Selection** | - Structure  
- Attributes  
- Liquidity |
| **Competitive Execution** | - Capitalize on market inefficiencies  
- Receive timely market information  
- Utilize long-standing dealer relationships |

We seek to consistently add 15-50 basis points of incremental return
Implementation – A Holistic Approach

Risk control is the foundation of our investment discipline.

All cash bonds, no derivatives, 100% U.S. dollar-denominated, no leverage.

Optimize Portfolio Structure

- Yield Curve Positioning
- Sector Allocation
- Security Selection
- Competitive Execution

Cross-Sector Relative Value Analysis

Credit

Treasuries

Mortgages, ABS
Internal Research Drives Our Investment Process

Internal Expertise: Identifying Value from the Bottom Up

Yield Curve Positioning
- Optimize yield
- Search for roll-down opportunities
- Maintain neutral duration

Mortgages/ABS
- Analyze both structure and collateral
- Prefer senior secured with limited cash flow timing risk, lower LTV
- Top-tier originators and servicers

Credit
- Look at specific issues by structure
- Review issuers by fundamentals, management and benchmark weighting
- Consider sector trends, regulatory environment and benchmark weighting

External Tools:
- **Interactive Data BondEdge:** Portfolio and benchmark analysis, guideline compliance
- **Barclays Live:** Benchmark analysis
- **Bloomberg:** Benchmark analysis, Security analysis, company research
- **MarketAxess:** Corporate trading platform and TRACE data market monitor
- **TradeWeb:** Treasury and agency trading platform, historical curve information
- **Intex Solutions and Bond Studio:** Residential and commercial loan analysis
- **Yield Book:** Option-adjusted spread (OAS) and scenario analysis
- **CreditSights:** Independent credit research from a team of highly ranked analysts
- **Investor Tools Perform:** Municipal portfolio management and analytics system
- **Custom Index Manager:** Municipal portfolio risk and attribution system
- **Access to Baird equity and credit analysts and other Wall Street-leading fixed income and equity research**
Section 3

Current Market Review
Outlook Improving but Still Cloudy
Weak Economy Supported by Massive Government Policy Response

Uncertain Economy

- Calendar 2020 GDP -2 to -5%
- Calendar 2021 GDP ~ +2 to +3%
  (base case estimates)
- Resurgent COVID-19 is slowing economic recovery
- Unemployment is falling, but still stands at 6.9% versus 3.5% pre-COVID
- Upward pressure on marginal Federal, corporate and individual tax rates
- Material long-term changes to business and economy developing
  - Some definite winners and losers

Coordinated Policy Response

- Monetary Policy
  - Fed continues to provide unprecedented liquidity and backstop credit markets
  - Balance sheet stays above $7T and grows further
- Fiscal Policy
  - $2.2T CARES Act benefits to affected businesses and workers are soon expiring
  - Second fiscal package needed
Consumer Balance Sheets in Good Shape

Debt Ratios Have Fallen Sharply

Source: FRB, BEA, Goldman Sachs Global Investment Research
Data as of: 6/30/20
Household Net Worth is Strong
Helped by Rise in Housing and Equity Markets
Treasury Yields Edge Up in October

<table>
<thead>
<tr>
<th>Maturity</th>
<th>December 31, 2019</th>
<th>September 30, 2020</th>
<th>October 31, 2020</th>
<th>1 Mo. Change</th>
<th>YTD Change</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>1.60%</td>
<td>0.12%</td>
<td>0.12%</td>
<td>0.00%</td>
<td>-1.48%</td>
</tr>
<tr>
<td>2</td>
<td>1.57%</td>
<td>0.13%</td>
<td>0.15%</td>
<td>0.02%</td>
<td>-1.42%</td>
</tr>
<tr>
<td>3</td>
<td>1.61%</td>
<td>0.15%</td>
<td>0.19%</td>
<td>0.04%</td>
<td>-1.42%</td>
</tr>
<tr>
<td>5</td>
<td>1.69%</td>
<td>0.27%</td>
<td>0.38%</td>
<td>0.11%</td>
<td>-1.31%</td>
</tr>
<tr>
<td>7</td>
<td>1.83%</td>
<td>0.47%</td>
<td>0.63%</td>
<td>0.16%</td>
<td>-1.20%</td>
</tr>
<tr>
<td>10</td>
<td>1.92%</td>
<td>0.68%</td>
<td>0.86%</td>
<td>0.18%</td>
<td>-1.06%</td>
</tr>
<tr>
<td>20</td>
<td>2.25%</td>
<td>1.22%</td>
<td>1.41%</td>
<td>0.19%</td>
<td>-0.84%</td>
</tr>
<tr>
<td>30</td>
<td>2.39%</td>
<td>1.45%</td>
<td>1.64%</td>
<td>0.19%</td>
<td>-0.75%</td>
</tr>
</tbody>
</table>

Source: Bloomberg
Data as of: 10/31/20
Yield Spreads Tighten Again in October

<table>
<thead>
<tr>
<th>Option-Adjusted Spreads (bps)</th>
<th>11/30/08</th>
<th>2/11/16</th>
<th>12/31/19</th>
<th>9/30/20</th>
<th>10/31/20</th>
<th>March Wides</th>
<th>1 Mo. Change</th>
<th>YTD Change</th>
<th>Post Crisis Avg.</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>U.S. Aggregate Index</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>239</td>
<td>68</td>
<td>39</td>
<td>60</td>
<td>54</td>
<td>127 (3/20)</td>
<td>-6</td>
<td>15</td>
<td>54</td>
</tr>
<tr>
<td><strong>U.S. Agency Sector (Non-MBS)</strong></td>
<td>154</td>
<td>21</td>
<td>10</td>
<td>16</td>
<td>13</td>
<td>53 (3/25)</td>
<td>-3</td>
<td>3</td>
<td>19</td>
</tr>
<tr>
<td><strong>MBS and ABS Sectors</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>U.S. Agency Pass-Throughs</td>
<td>157</td>
<td>21</td>
<td>39</td>
<td>61</td>
<td>52</td>
<td>132 (3/19)</td>
<td>-9</td>
<td>13</td>
<td>38</td>
</tr>
<tr>
<td>U.S. Agency CMBS</td>
<td>N/A</td>
<td>56</td>
<td>53</td>
<td>62</td>
<td>56</td>
<td>144 (3/23)</td>
<td>-6</td>
<td>3</td>
<td>N/A</td>
</tr>
<tr>
<td>Non-Agency CMBS</td>
<td>1298</td>
<td>178</td>
<td>85</td>
<td>139</td>
<td>140</td>
<td>348 (3/25)</td>
<td>1</td>
<td>55</td>
<td>173</td>
</tr>
<tr>
<td>Consumer ABS</td>
<td>935</td>
<td>68</td>
<td>44</td>
<td>41</td>
<td>39</td>
<td>325 (3/26)</td>
<td>-2</td>
<td>-5</td>
<td>65</td>
</tr>
<tr>
<td><strong>Investment Grade Credit Sectors</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>U.S. Corporates</td>
<td>607</td>
<td>214</td>
<td>93</td>
<td>136</td>
<td>125</td>
<td>373 (3/23)</td>
<td>-11</td>
<td>32</td>
<td>145</td>
</tr>
<tr>
<td>Industrials</td>
<td>546</td>
<td>235</td>
<td>99</td>
<td>140</td>
<td>131</td>
<td>383 (3/23)</td>
<td>-9</td>
<td>32</td>
<td>139</td>
</tr>
<tr>
<td>Utilities</td>
<td>545</td>
<td>165</td>
<td>97</td>
<td>141</td>
<td>131</td>
<td>298 (3/24)</td>
<td>-10</td>
<td>34</td>
<td>137</td>
</tr>
<tr>
<td>Financials</td>
<td>697</td>
<td>185</td>
<td>80</td>
<td>126</td>
<td>112</td>
<td>378 (3/23)</td>
<td>-14</td>
<td>32</td>
<td>157</td>
</tr>
<tr>
<td>Other Govt. Related</td>
<td>218</td>
<td>135</td>
<td>72</td>
<td>84</td>
<td>79</td>
<td>180 (3/23)</td>
<td>-5</td>
<td>7</td>
<td>97</td>
</tr>
<tr>
<td><strong>High Yield Credit Sectors</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>U.S. High Yield Corporates</td>
<td>1833</td>
<td>839</td>
<td>336</td>
<td>517</td>
<td>509</td>
<td>1100 (3/23)</td>
<td>-8</td>
<td>173</td>
<td>501</td>
</tr>
<tr>
<td>Emerging Market Debt¹</td>
<td>1229</td>
<td>846</td>
<td>573</td>
<td>638</td>
<td>638</td>
<td>1370 (3/23)</td>
<td>0</td>
<td>65</td>
<td>585</td>
</tr>
</tbody>
</table>

¹ Emerging Market Debt is a subindex of the Bloomberg Barclays U.S. Universal Index and is primarily rated below Investment Grade.
² Average since 6/30/09.
Source: Bloomberg Barclays
Data as of: 10/31/20
Record Issuance Absorbed by Strong Demand
2nd Half Supply Not as Weak as Expected

U.S. Investment Grade Credit Gross Issuance

<table>
<thead>
<tr>
<th>1st Half</th>
<th>2nd Half</th>
</tr>
</thead>
</table>

Credit Supply Through 10/31 ($Billions)

<table>
<thead>
<tr>
<th></th>
<th>YTD 2020</th>
<th>YTD 2019</th>
<th>YoY% Change</th>
</tr>
</thead>
<tbody>
<tr>
<td>Gross Supply</td>
<td>1,943.2</td>
<td>1,172.6</td>
<td>66%</td>
</tr>
<tr>
<td>Net Supply</td>
<td>1,068.6</td>
<td>349.7</td>
<td>206%</td>
</tr>
</tbody>
</table>

Source: Barclays
Data as of: 10/31/20
Domestic Fixed Income Flows are Strongly Positive Again

**Investment Company Institute (ICI) Monthly Fixed Income Flows**

- MTD Oct 2020*

**Investment Company Institute (ICI) Monthly Fixed Income Flows**

**Total Flows**

- 2013**: -71,164
- 2014: 94,605
- 2015: 29,679
- 2016: 190,380
- 2017: 380,785
- 2018: 100,432
- 2019: 458,531
- YTD 2020: 315,041

*Weekly data ending 10/28/20 (October 2020 numbers are estimated)

** 2013 Flows are only Mutual Fund flows, ETF Flows are not available

Source: Investment Company Institute, Bloomberg

Data as of: 10/31/20
Fed’s Balance Sheet Expands to New Records

Federal Reserve Bank’s Balance Sheet Composition

- U.S. Treasury Securities
- Mortgage-Backed Securities
- Other

Source: Strategas
Data as of: 11/4/20
Federal Debt up Sharply
Interest Cost Steady For Now

Source: Congressional Budget Office and Federal Reserve Bank of St. Louis
Formulation of Investment Outlook & Portfolio Strategy

Baird Advisors

Key Areas of Focus:
- Portfolio Construction & Risk Monitoring
- Credit
- MBS/ABS

Portfolio Management Team

Mary Ellen Stanek, CFA: MD, Chief Investment Officer - 41 years
Gary Elfe, CFA: MD, Research Director Emeritus - 41 years
Charles Groeschell: MD, Senior Portfolio Manager - 41 years
Jay Schwister, CFA: MD, Research Director - 36 years
Warren Pierson, CFA: MD, Deputy Chief Investment Officer - 34 years
Duane McAllister, CFA: MD, Senior Portfolio Manager - 33 years
Lyle Fitterer, CFA: MD, Senior Portfolio Manager - 33 years
Jeffrey Simmons, CFA: MD, Senior Portfolio Manager - 31 years
Daniel Tranchita, CFA: MD, Senior Portfolio Manager - 31 years
Sharon deGuzman: MD, Senior Portfolio Manager - 29 years
Jeffrey Schrom, CFA: MD, Senior Portfolio Manager - 26 years
Patrick Mutsune, CFA: MD, Senior Investment & Systems Analyst - 23 years
Meghan Dean, CFA: MD, Senior Portfolio Manager - 20 years
Patrick Brown, CFA: MD, Senior Investment Analyst - 17 years
Andrew O’Connell, CFA: SVP, Senior Investment Analyst - 13 years
Abhishek Pulakanti, CFA, FRM: SVP, Senior Investment Analyst - 12 years
Ian Elfe, CFA: SVP, Senior Investment Analyst - 12 years
Alice Ambrowiak, CFA, CPA: SVP, Investment Analyst - 18 years
Gabriel Diederich, CFA: SVP, Portfolio Manager-Muni - 17 years
Erik Schleicher, CFA: SVP, Portfolio Manager-Muni - 16 years
Joseph Czechowicz, CFA: SVP, Portfolio Manager-Muni - 13 years
Jed Bruss, CFA: VP, Investment Analyst - 11 years
John Cremer, CFA: VP, Investment Analyst - 8 years
Donald Smiley, CFA: VP, Investment Analyst - 7 years
Lauren Vollrath, CFA: VP, Investment Analyst - 5 years
Allison Parra, CFA: VP, Investment Analyst - 4 years
Kristiyan Trukov, CFA: Investment Analyst - 3 years
Jaclyn Godwin: Investment Analyst - 3 years

Baird Resource Partners

Legal & Compliance (81)  Information Technology (227)  Human Resources (60)  Finance (69)  Research (Equity & Credit) (118)
Benefits

- Long-term relationships focused on client and direct communication
- Experienced management team implementing proven investment discipline
  - Structured, risk-controlled process
  - No derivatives, no non-$ currency exposure, no leverage
  - Focus on *bottom-up* added value from sector allocation and security selection
- Total focus on fixed income management
- Culture and resources key to future success
- Importance of the relationship to Baird Advisors
Important Disclosures

Investors should consider the investment objectives, risks, charges and expenses of the fund carefully before investing. This, and other information can be found in the prospectus or summary prospectus. A prospectus or summary prospectus may be obtained by visiting www.bairdfunds.com. Please read the prospectus or summary prospectus carefully before you invest or send money.

Performance data quoted represents past performance. Past performance does not guarantee future results. Investment return and principal value of an investment in the fund will fluctuate so that an investor's shares when redeemed, may be worth more or less than their original cost. The funds' current performance may be lower or higher than the performance data quoted. For performance current to the most recent month-end, please visit www.bairdfunds.com.

Funds may invest in U.S. dollar denominated foreign securities which involve additional risks such as the potential for political and economic instability and less strict regulation. The Fund may also invest in mortgage and asset-backed securities which include interest rate and prepayment risks more pronounced than those of other fixed income securities.

Baird Funds are offered through Robert W. Baird & Co., a registered broker/dealer, member NYSE and SIPC. Robert W. Baird & Co. also serves as investment advisor for the Fund and receives compensation for these services as disclosed in the current prospectus.

Lipper rankings are based on average annual total returns for the 1, 3, 5, 10-year/life periods for each respective Lipper category. Baird Core Plus Bond Fund is ranked among the Core Plus Bond Funds, Baird Aggregate Bond Fund is ranked among the Core Bond Funds, Baird Intermediate Bond Fund is ranked among Short-Intermediate Investment Grade Debt Funds, Baird Short-Term Bond Fund is ranked among the Short Investment Grade Debt Funds, Baird Ultra Short Bond Fund is ranked among the Ultra-Short Obligations Funds, Baird Quality Intermediate Municipal and Baird Core Intermediate Municipal Bond Funds are ranked among the Intermediate Municipal Debt Funds, Baird Municipal Bond Fund is ranked among the General & Insured Municipal Debt Funds, Baird Strategic Municipal Bond Fund is ranked among the Short-Intermediate Municipal Debt Funds and Baird Short-Term Municipal Bond Fund is ranked among the Short Municipal Debt Funds. Each fund is ranked based on average annual total returns assuming reinvestment of dividends and capital gains, distributions, at net asset value and the deduction of all fund expenses. Past performance is no guarantee of future results.


The quality profile is calculated on a market value-weighted basis using the highest credit quality rating given by S&P, Moody's or Fitch for each security in the fund. Per the Baird Funds prospectus, each security in the bond fund is assigned the highest credit quality rating provided by a nationally recognized statistical rating organization (e.g. S&P, Moody’s, Fitch). Per the Bloomberg Barclays index controlling rating methodology, each security in the index is assigned a rating using S&P, Moody’s, and Fitch (middle of three ratings, lower of two ratings, or singular rating if rated by one rating agency).

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