RFP Response for
City of Gainesville General Employees' Pension Plan

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Graystone Consulting℠
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1. Table of Contents

2. Technical Proposals

Graystone Consulting Tampa (GCT) has provided institutional consulting services to public pension plan clients in Florida since 1985. GCT is a team of 12 full-time experienced investment professionals with members holding variety of industry certifications including: Chartered Financial Analyst (CFA); Certified Investment Management Analyst (CIMA); Chartered Retirement Plans Specialist; and Certified Financial Planner (CFP). GCT is offering to provide the investment consulting services requested in the City of Gainesville General Employees' Pension Plan Request for Proposal. These services include: the evaluation of investment manager performance, review of investment guidelines, asset allocation, and services relating to investment manager searches and other miscellaneous projects. We will utilize a disciplined investment consulting process (discussed in detail in "Section 4 – Qualifications") in providing these services.

1. <u>Requested Services Relating to the Evaluation of Fund Performance and Investment Manager Performance</u>

   a. Graystone Consulting will leverage third-party and in-house systems to provide monthly flash performance reports and quarterly detailed performance reports. Performance reports will include: economic & capital markets commentary; asset allocation versus targets & ranges; relative and risk-adjusted performance comparisons to appropriate benchmarks; and a compliance checklist.

   b. The primary Graystone Consulting Tampa (GCT) institutional consultants, Scott Owens and Andy McIlvaine will attend a minimum of six PRC meetings annually, including a minimum of once per quarter, to provide an oral presentation for the purpose of interpreting, explaining, and summarizing all quarterly evaluations and performance reports. The consultants will also provide appropriate recommendations and education at these meetings.

   c. GCT will provide a comprehensive performance report within 45 days of quarter end, provided all necessary information supplied to the Consultant is timely and accurate. The reports provided will contain information typical or standard for such reports provided to GCT's other pension fund evaluation clients. At a minimum, the reports will provide the following information:

      - Summary statistical information on the market value of assets and asset allocation.
      - Total time-weighted and dollar-weighted returns for the composite portfolio, each asset class, and each investment manager for the most recently completed quarter, 12 months, 3 years, and 5 years, 10 years, and since inception.
      - Separate detailed analysis for each investment manager's performance and risk metrics and their corresponding effect on the portfolio as a whole.
      - Comparisons of actual returns with generally recognized indices, and with an appropriate comparable universe of other similarly situated pension fund managers.
      - Information presented in both table and graph form.
      - Calculations which allocate the total return between general market forces and management decisions of the fund manager. The analysis includes the effects of asset allocation and security selection.

- A complete analysis of the risk of both the stock and bond portfolios. A style analysis to ensure no manager style drift is taking place.

- Evaluation of investment performance relative to the fund's written investment policies and guidelines and all major market indices and benchmarks.

- An indication of whether the manager is meeting the Board's goals and adhering to adopted investment guidelines and legal requirements.

- All fees and transaction costs.

2. Requested Services Relating to the Establishment of Investment Guidelines, Goals and Asset Allocation

   a. Graystone Consulting Tampa will advise City staff and the PRC in the review and updating of the Plan's written Statement of Investment Guidelines and Goals and any requisite Asset Allocation and Liability Analysis. In developing a statement and plan, GCT will consider the following:

   - The Plan's perpetual nature and ability to assume investment risk.

   - Identification of appropriate asset classes considered for investment.

   - Evaluation of the effect that any alternative asset class mixes may have on expected long term return and risk.

   - Evaluation and recommendation concerning the Plan's long-term investment goals.

   - Review the Fund's investment performance and ensure ongoing compliance with the written statement of Investment Guidelines and Goals. GCT will communicate any failure to meet policy goals and provide recommendations to maintain such compliance.

   - GCT will educate PRC members and City staff on investment related matters and products so that informed investment decisions can be made.

GCT will leverage the expertise of the Morgan Stanley Global Investment Committee in assisting City staff, the Board, and PRC in determining asset classes & investment styles that should continue to be used or new ones to be added. We have provided a sample asset allocation study in Exhibit 1 which demonstrates the expected return, risk, risk-adjusted ratio, and probability of meeting the return target for the Plan's target allocation and other optional allocations. GCT will also review the performance of the Fund's investment managers and will assist you to ensure your overall portfolio is in compliance with the Fund's Investment Guidelines and Goals. The compliance checklist provided in our quarterly performance reports assist in communicating compliance or non-compliance of the Fund with the Investment Guidelines and Goals. In addition, our firm partners with Clearwater Analytics to deliver sophisticated, web-based investment portfolio accounting and reporting. The Clearwater system independently performs daily checks of client portfolios against client investment policy statement parameters. Clearwater will notify Graystone Consulting Tampa if a portfolio is out of compliance with the guidelines and verifies appropriate corrective actions are being taken.

3. Requested Services Relating to Investment Manager and Custodian Search

   a. Graystone Consulting Tampa will conduct investment manager searches and make manager recommendations as needed. GCT will be proactive in the discussions of when manager replacement is required. Services to be provided include:

      - Analysis leading to identification of appropriate investment managers consistent with the Plan's long-term investment objectives.
      - Clarify and evaluate potential investment managers for the Plan.
      - Assist the City staff and the PRC in evaluating, interviewing, selecting and negotiating fees with investment managers. This is demonstrated in the sample Mid Cap Value search provided in Exhibit 3.
      - Review and recommend certain contract providers and reporting requirements.
      - Advise the City staff in appropriate procedures for transferring management of assets to new managers.

   Graystone Consulting Tampa leverages the expertise of the 50+ person Morgan Stanley Global Investment Manager Analysis (GIMA) team. The GIMA team utilizes a unique research process focusing on quantitative (performance) & qualitative (personnel, process, business stability) factors to identify managers or funds that can potentially provide investment success to our clients. The GIMA team conducts ongoing due diligence on traditional and alternative investment strategies. The GIMA team developed a patented proprietary ***Adverse Active Alpha***℠ manager ranking tool to help identify active managers with strong stock picking skills and the ability to outperform indexes and peers across cycles. This tool points towards managers whose investment processes incorporate factors linked with a greater likelihood of outperformance. The GIMA team has also developed two other proprietary ranking methods for evaluating the quality of active managers. The ***Value Score*** considers active investment strategies' value proposition relative to their costs. The ***Risk Score*** evaluates active managers' effectiveness in managing risk in absolute and relative terms. Copies of white papers explaining these tools are provided in Exhibit 5.

   In addition, Graystone Consulting Tampa will also render advice and recommendations in the review, search, and selection of custodial banks for pension fund assets if necessary.

A detailed explanation of the processes used to provide these services is discussed throughout our response to the City of Gainesville General Employees' Retirement Fund RFP.

Graystone Consulting Tampa understands the primary investment objective of the Plan is to ensure the long-term sustainability to provide vested benefits to participants and their beneficiaries over time. We will assist the Board and Pension Review Committee in continuing an investment program designed to achieve the actuarial assumed rate of return of the long term, while prudently managing the risk of the portfolio.

3. Price Proposal

Graystone Consulting is proposing to provide institutional investment consulting services to the City of Gainesville General Employees' Pension Plan for an annual hard dollar fee of $120,000 or $30,000 per quarter.

These services discussed in detail within this response include:

- Investment policy statement ongoing review;
- Asset allocation advice;
- Investment manager searches & ongoing due diligence;
- Detailed quarterly performance evaluation reports;
- Quarterly meetings and trustee education; and
- Other Services:
    - Coordinating with your legal counsel, actuary, accountant, and administrator in matters relating to the plan.
    - Providing information on the plans to comply with State requirements (i.e. Chapter 112).
    - Assist in identifying other service providers (i.e. ADR Tax Reclaim providers, securities litigation providers).

This fee proposal includes all expenses such as travel, lodging, meals, and other out-of-pocket expenses.

4. Qualifications

B. QUALIFICATIONS/STATEMENT OF QUALIFICATIONS

1. Letter of Understanding

Please provide a brief statement of the proposer's understanding of the Board of Trustees' and City's needs and a discussion of the services provided by your firm to meet those needs.

Our understanding of the Board of Trustees, Pension Review Committee, and the City's needs are to partner with a qualified firm to provide Investment Performance Evaluation and Consulting Services for the City of Gainesville General Employees' Pension Plan. As requested in Section II – Scope of Services (page 8) of your RFP, the consultants will provide evaluation of investment manager performance, review and make recommendations for the investment guidelines, asset allocation, investment manager searches, and other projects as needed.

<u>Compliance with Minimum Requirements</u>

Our firm and the proposed consulting team meet and/will adhere to all of the minimum requirements contained in the RFP as discussed below.

1. Graystone Consulting has over five years' experience providing investment consulting service to public defined benefit pension funds with over $500 million in assets, and has over five years' experience providing investment consulting service to at least one Florida public defined benefit pension fund with over $100 million in assets. Graystone Consulting Tampa, the consulting team responding to this RFP, has provided investment consulting services to several Florida public defined benefit pension funds with over $100 million in assets for over 15 years.
2. Graystone Consulting Tampa has been providing investment consulting services for over ten years to two defined benefit plans for a Florida municipality with combined assets of over $825 million. Scott Owens, CFA serves as lead consultant on this relationship.
3. To the best of our knowledge, none of the GCT key professionals and/or our firm have a material conflict of interest with the City of Gainesville or the Fund. GCT has served as the investment consultant for the City of Gainesville Retiree Health Fund since 2005.
4. Graystone Consulting will acknowledge they will be a fiduciary of the Fund as defined in Section 112.656, Florida Statutes.
5. In conformance with Section 175.071 and 185.06, Florida Statutes, Graystone Consulting verifies we qualify as "independent" by, at a minimum: a) providing services on a flat-fee basis; b) confirming that they are not associated in any manner with any broker/dealers or investment managers for the pension fund; c) making calculations in accordance with Global Investment Performance Standards, net of fees.
6. We have submitted Graystone Consulting's form ADV Part II including schedule F and a copy of Florida investment advisor registrations in Exhibit 7.
7. To the best of our knowledge, no member of Graystone Consulting Tampa has any pending lawsuits or past litigation relevant to subject matter of this RFP. Morgan Stanley along with its investment consultants & Financial Advisors are named from time to time as defendants in various matters incidental to, and typical of, the businesses in which we engage. These include civil actions and arbitration proceedings in which Morgan Stanley or its Financial Advisors have been named, arising in the normal course of business activities as a broker and dealer in securities, as an underwriter, as an investment banker or otherwise. Without admitting or denying the underlying facts, Morgan Stanley has agreed to settlements with the Securities and Exchange Commission, various state

regulators, administrative agencies and self-regulatory organizations such as the Financial Industry Regulatory Authority (the "FINRA") and the New York Stock Exchange ("NYSE"), and is often asked to provide information, documents or testimony in connection with investigations or proceedings conducted by those bodies. Information disclosing certain legal and regulatory matters is made publicly available through the FINRA website at www.finra.org. Information can also be found in Morgan Stanley's Form ADV that may be found on the SEC website at www.sec.gov.

8. Graystone Consulting has appropriate insurance to cover Professional Liability Insurance of at least $2,000,000 and Errors and Omissions Insurance of at least $5,000,000. Proof of these coverages is contained in the sample insurance certificates provided in Exhibit 6.

Experience & Qualifications of Firm and Proposed Consulting Team

Graystone Consulting (GC) is a business of Morgan Stanley and has been providing objective and unbiased investment advice to public pension plans for over 40 years. GC's disciplined consulting process is designed to meet the high standards required to make prudent fiduciary decisions. Graystone Consulting is comprised of 54 geographically diverse teams from across the country. These teams leverage the resources of Morgan Stanley, including: the Graystone Consulting management team, the Global Investment Management Analysis team, and the Global Investment Committee.

Graystone Consulting Tampa (GCT) is the consulting team responding to the City of Gainesville General Employees' Pension Plan RFP. The team is comprised of 12 full-time professionals, including 5 Institutional Consultants, 4 Analysts, and 3 Registered Client Service Associates. GCT has been providing institutional consulting services to governmental entities since 1985 and provides consulting services to over 60 governmental funds in Florida. These funds include: defined benefit pension plans; benefit plans (VEBA, OPEB, insurance trusts); reserve funds; and 457, 401a, & DROP plans. The team was selected for PLANADVISOR'S "Top 100 Retirement Plan Advisors" list from 2013 through 2018 for consulting to public Defined Benefit plans. GCT was also ranked recently on the Barron's Top 50 Institutional Consultants Leadership list for 2019. Scott Owens, CFA and Andy McIlvaine are the primary GCT institutional consultants that would service the City of Gainesville relationship. They are members of the Florida Public Pension Trustee Association (FPPTA) where Scott serves as a panelist and speaker at the organization's trustee conferences.

Graystone Consulting believes an array of characteristics differentiates us from our competitors:

- **Industry Leadership.** As part of Morgan Stanley, we are one of the industry's most established investment consultants and a pioneer in investment manager due diligence. Graystone Consulting and its teams have decades of experience with institutional clients, offering the service capabilities of a boutique firm with the resources of a global financial services institution.
- **Size and Scale.** The size and scale of Morgan Stanley creates a competitive advantage over many of our smaller, less resourced competitors. Graystone Consulting provides access to emerging and long-tenured managers we believe to be exceptional. We have also arranged exclusive access to managers. In addition, we have negotiated lower fees with investment managers for the benefit of our institutional clients.
- **Manager Due Diligence.** Our investment manager due diligence process is among the most rigorous in the industry. Over 50 investment manager analysts provide ongoing coverage of more than 1,900 separately managed accounts, mutual funds, exchange-traded funds (ETFs) annually in traditional and alternative strategies.

- **Independence and Objectivity.** Graystone Consulting does not restrict which manager(s) the client may choose. The program's open architecture platform utilizes independent, non-proprietary investment managers and products.
- **Dedicated Experience and Stability.** Perhaps most importantly, Graystone Consulting is based locally to provide ongoing support and client service, and supported nationally by a team of dedicated research and analytical investment professionals. Our belief is that client service should go beyond a "relationship manager." Graystone Consulting would be dedicated to the City of Gainesville engagement and is comprised of experienced financial professionals with deep knowledge of institutional consulting and a comprehensive array of resources to meet the needs of the plan. As our client, you will not be reassigned consultants.
- **Service Commitment.** Graystone Consulting Tampa is committed to providing high quality customer service. We utilize a team approach in providing services to our clients. To maintain high quality service, two consultants will typically attend quarterly meetings so that multiple professionals are familiar with the relationship. Detailed notes are taken at the meeting and entered into our client management system to ensure action items are completed in a timely manner. These notes are accessible by all team members so they are familiar with the relationship in the event a Board or staff member calls with a question or a status update for a pending action item. Two senior analysts and one junior analyst are involved in the preparation of quarterly performance reports and other analytical reports. We believe multiple professionals involved in this process allows for greater continuity in the event one of the analysts is unable to complete a report for a meeting due to illness, vacation, or another meeting. GCT believes timely response to clients' questions is of paramount importance. Whenever you call our main office number (813-227-2061), you will reach one of the 12 GCT professionals. The team member answering the call will either handle the request or inquiry directly or will re-direct you to the most appropriate individual to answer the question or handle the request. If a call is directed to another member of the team, our quality standard is to return the call within 24 hours. In addition, institutional consultants of GCT have their firm email forwarded to their phone and can respond to client requests or forward to another team member in the office to respond in the event they are attending client meetings out of the office. The quality standard for responding to email requests is within 24 hours.
- **Assistance with Coordinating Annual Investment Symposiums for Public Pension Clients.** We have assisted in coordinating an annual investment symposium for several of our public pension plan clients where the managers and consultants meet with the trustees for a 1-2 day offsite event. The manager presentations and roundtable discussions provide the trustees with valuable insights to help them in fulfilling their fiduciary obligation. If desired by the Board and Pension Review Committee, we would be happy to assist in coordinating this event for the City of Gainesville.

In this response to your Request for Proposal, GCT provided initial work in regards to some of the requested services. We conducted a preliminary review of your Investment Policy Statement and provided suggested improvements. We completed a sample asset allocation study using forward looking 7 and 20+ year return and risk assumptions comparing your target allocations to two optional mixes. The sample asset allocation study seeks to demonstrate the impact of different asset allocation mixes on the expected return, risk, risk-adjusted ratio, and probability of meeting your return target. We conducted a preliminary review of your current investment managers. Using the published returns of the managers, we evaluated trailing 1, 3, 5, and 11 year returns and risk measurements over 5 and 11 years. Most of the managers generated higher absolute and risk-adjusted performance than their appropriate index over various periods. Since the City of Gainesville General Employees' Pension Plan does not employ a Mid Cap Value manager at this time, we prepared a sample Mid Cap Value manager search (see Exhibit 3). The 3 managers shown in the sample search are employee-owned, boutique firms where we have been able to negotiate very competitive fees. For example, one of these managers has reduced fees as low as 0.35% for clients of Graystone Consulting Tampa.

Graystone Consulting[SM]

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Graystone Consulting Tampa strives to be a partner and trusted advisor to our clients. We have been honored to have worked with the City of Gainesville Retiree Health Fund for the past 14 years and appreciate the opportunity to submit this RFP response to expand our services to the City's General Employees' Pension Plan. If you have any questions or need additional information, please call us at (813) 227-2061.

Sincerely,

Scott Owens, CFA, CIMA
Vice President, Institutional Consulting Director

2. Organization

Please describe the organization and structure of your firm as it relates to investment consulting. Items to include:

a. When was your firm founded?

Graystone Consulting is a business of Morgan Stanley, a publicly traded company founded in 1935. Consulting Group (CG), the investment advisory services business unit of Morgan Stanley, began providing investment consulting services to institutional clients in 1973. To focus on the needs of the firm's institutional consulting clients and be better equipped to expand its institutional footprint, the firm created a separate business unit within CG specifically focused on institutional clients. To be included in this new business unit (which would become known as Graystone Consulting (GC)), consulting teams had to meet stringent eligibility criteria including: the number of institutional-level clients, team revenue, and existing team structure capable of servicing institutional clients. In 2006, GC was established with a dedicated management team and twenty-seven (27) geographically diverse teams. Today, GC has grown to 54 teams located in 21 states.

b. Location of national headquarters, and location of any branch offices. If you have a Florida branch office, would there be a Florida representative assigned to our account? What is the number of professional employees at your firm?

Graystone Consulting is based in Purchase, New York and is comprised of 54 geographically diverse teams located in 21 states. The 54 GC teams employ 217 investment consultants and staff of over 289 people. In addition, the teams are supported by over 270 professionals including the Graystone Consulting Management Team, the Global Investment Manager Analysis (GIMA) Team, and the Global Investment Committee. Overall, Morgan Stanley employs over 60,000 employees.

Yes, we have a local institutional consulting team in the branch office in Tampa. Graystone Consulting Tampa (GCT) is the consulting team responding to the City of Gainesville General Employees' Pension Plan RFP. GCT has been providing institutional consulting services to public pension plans since 1985. Morgan Stanley has over 45 branch offices in Florida and Graystone Consulting has 3 consulting teams located Florida.

Scott Owens, CFA and Andy McIlvaine, the primary consultants that would work with your plan, are members of the Florida Public Pension Trustee Association. Scott is a frequent speaker at the organization's trustee conferences.

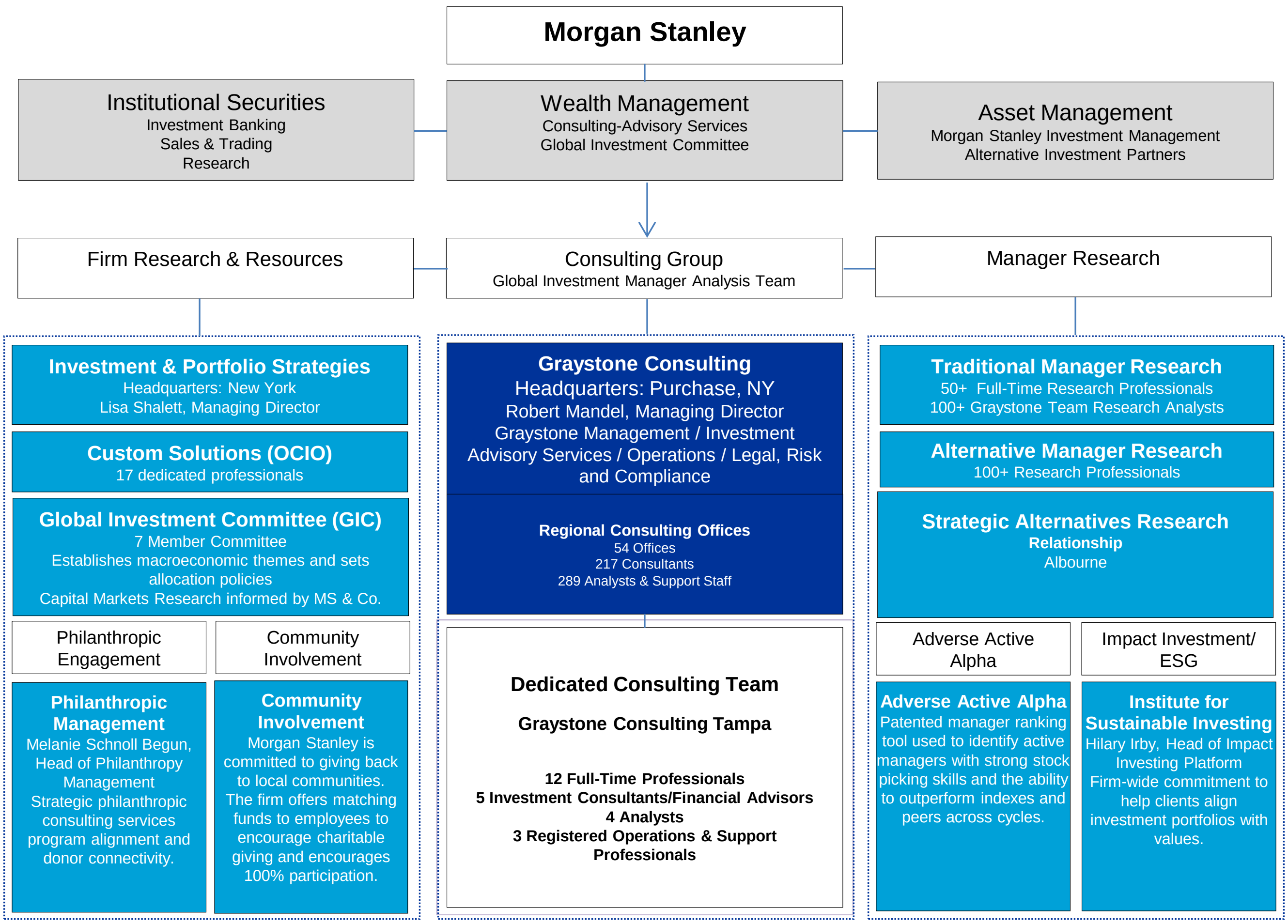
Graystone Consulting Corporate Office
2000 Westchester Avenue – 2nd Floor
Purchase, NY 10577

Morgan Stanley Global Corporate Headquarters
1585 Broadway
New York, NY 10036
1 New York Plaza
New York, NY 10004

Graystone Consulting Tampa
100 North Tampa St., Suite 3000
Tampa, Florida 33602

Primary Consultants:
Scott Owens, CFA®, CIMA® – Institutional Consulting Director
Andrew McIlvaine – Institutional Consultant
813-227-2061

c. Provide an organizational chart of your firm.



d. How do you customize your services to a particular client?

The core of Graystone Consulting's advisory philosophy is to utilize experienced investment professionals. These professionals leverage the unparalleled global resources of Morgan Stanley to provide objective advice and education to enhance your ability to meet or exceed realistic long-term objectives.

Graystone Consulting Tampa (GCT) views our role as your consultant is to be a partner and trusted advisor to the City of Gainesville General Employees' Pension Plan. We sit on the same side of the table with the trustees in assisting to develop, implement, and monitor an investment strategy customized to the specific needs of the plan. As a fiduciary, we strive to always act in the best interests of our clients and empower them to make informed investment decisions. We strive to help our clients reduce their overall investment costs and improve the efficiency of their portfolios net of fees and transaction costs. To accomplish this, we follow a disciplined investment consulting process consisting of the following steps.

- Education Regarding Investment Management, Capital Markets, & Economics
- Investment Policy Statement Development & Review
- Asset Allocation Advice
- Investment Manager Search & Review
- Performance Evaluation

Education Regarding Investment Management, Capital Markets, & Economics

As your consultant, Graystone Consulting Tampa has tremendous experience in providing investment consulting and advisory services to our clients. Graystone Consulting Tampa consultants average over 25 years of industry experience and hold industry certifications including: Chartered Financial Analyst (CFA); Certified Investment Management Analyst (CIMA); and Certified Financial Planner (CFP). We take pride in educating our clients with empirical and quantifiable data to make prudent and appropriate decisions regarding your foundation's portfolio. We leverage the expertise and research provided by our Global Investment Manager Analysis (GIMA) team and Global Investment Committee (GIC) in providing education regarding investment management, the capital markets, and the economy. The GIMA team is made up of over 50 dedicated research analysts who conduct due diligence on investment management firms. The GIC is a group of seasoned investment professionals who continually monitor developing economic and market conditions, review tactical outlooks, and produce a suite of strategy, research analysis, commentary, portfolio positioning suggestions, and other reports and broadcasts.

Investment Policy Statement Development & Review

The first and most important step in an investment management relationship is to review your long-term investment strategy. This strategy is codified in the investment policy's guidelines and objectives. GCT will work actively with you to review your current policy in light of your objectives and the strategies most appropriate to meet those objectives. We have conducted a preliminary review of the plan's investment policy statement and provided suggested improvements in Section C: Strategic Planning Overview.

Asset Allocation

The asset allocation decision is one of the most important decisions the Board, Pension Review Committee, and Graystone Consulting Tampa can make together. Comprehensive asset allocation studies incorporate data regarding expected return, standard deviation and correlation for different asset classes. The studies indicate which combination of asset classes and their respective weights in the portfolio will provide the highest probability of achieving the target rate of return within the acceptable risk tolerance. We conduct the studies by first using traditional asset classes (stocks, bonds and cash), then incorporate alternative asset classes. We leverage the economic and capital markets expertise of our firm's Global Investment Committee in assisting our clients to customize an asset allocation strategy suitable for achieving the investment objectives dictated in the plan's investment policy statement. A sample asset allocation study is provided in Exhibit 1.

Investment Manager Search and Review

Once the asset allocation policy is determined, Graystone Consulting Tampa conducts manager searches for investment managers to manage the selected asset classes and investment styles. There are a variety of ways we customize the manager search to the needs of the client. For example, if the client desires higher income generation from their equity investments, we will seek to identify equity managers who focus on buying companies with higher dividend yields. If a client seeks a portfolio more aggressive than the market, we may focus on managers within each investment style with a higher Beta and corresponding return while seeking to provide higher risk-adjusted performance than their benchmark(s). We utilize the qualitative and quantitative due diligence analysis prepared by our Global Investment Manager Analysis Team (GIMA) during this process. A sample investment manager search analysis is provided in Exhibit 2.

Performance Evaluation

We believe our performance evaluation reports provide valuable information to assist the trustees in making prudent investment decisions. Each quarter, we provide summary and detailed performance reports for each investment manager and the overall portfolio. The reports include relative and risk-adjusted performance comparisons over different time periods. The reports provide the trustees with the information needed to understand the performance of the individual managers and the overall portfolio. This data is used by the trustees to fulfill their fiduciary obligation to monitor investment performance relative to the established investment objectives and can be customized to the preferences of the trustees.

e. The average number of accounts per consultant.

GCT's 5 institutional consultants service approximately 80 institutional clients. We use a team approach in servicing our institutional relationships and believe it is extremely important that more than one consultant attend meetings with each client. While two or three consultants will typically be involved in attending meetings with institutional relationships, the average number of relationships for which a consultant within our team serves as lead consultant is 20.

f. Number of years your firm has been providing consulting services to tax exempt plans.

Our firm has been providing consulting services to tax exempt clients for over 43 years. Graystone Consulting Tampa has been providing services to tax exempt plans for 34 years.

g. Is your firm S.E.C. registered? If so, please provide a complete copy of your A.D.V. Form Part II or such other form that may disclose similar information.

Graystone Consulting, as a business of Morgan Stanley, is a registered investment advisor with the Securities and Exchange Commission (SEC) pursuant to The Investment Advisor Act of 1940 (SEC file number: 801-70103). A copy of our Form ADV, Part II is provided in Exhibit 5.

h. What percentage of revenues is a result of investment consulting? What other services or products are offered? Does your firm or affiliate manage money for clients?

100% of Graystone Consulting's revenue is derived from providing investment consulting services. GC's parent company, Morgan Stanley, provides services across three main business units; Wealth Management (which includes Graystone Consulting), Institutional Securities, and Asset Management. Morgan Stanley's affiliate, Morgan Stanley Investment Management (MSIM) does manage money for clients. ***Graystone Consulting Tampa <u>will not</u> recommend affiliated managers to institutional consulting clients.***

The three main business units are described below:

- **Consulting-Advisory Services**

  Institutional Consulting

  Graystone Consulting delivers a complete range of investment consulting services to institutional clients. Our tailored solutions have helped many institutional investors meet their investment objectives. Today, we help public and corporate plans, state and local governments, foundations & endowments, health care entities, and Taft-Hartley funds manage their fiduciary responsibilities.

  Research

  Morgan Stanley Investment Research is one of the financial industry's dominant thought leaders in equity and fixed income investing. Our analysts, economists, and strategists have earned this reputation through timely, in-depth analysis of companies, industries, markets, and the world's economies. Our team leverages this research and analysis throughout the entire investment consulting process.

  Wealth Management

  Morgan Stanley is dedicated to serving investors worldwide. We offer tailored solutions designed to help to manage long-term wealth as well as customized investment solutions and services for individuals of substantial means, families and foundations.

- **Institutional Securities**

  Sales & Trading

  Sales and Trading offers cash and electronic trading platforms where Morgan Stanley acts as principal (including as a market maker) and agent in executing transactions globally in equity and equity-related products, which include equity swaps, options, warrants and futures overlying individual securities, indices and baskets of securities. Trading for investment advisory clients under our all-inclusive consulting & advisory program is executed at no commission and is subject to best execution.

  Investment Banking

  A global leader in investment banking, Morgan Stanley consistently ranks among the top firms in mergers and acquisitions, equity underwriting and debt financings. Our Investment Banking Division offers unsurpassed financial advisory and capital raising services to corporations, organizations and governments around the world.

  Prime Brokerage

  Modern asset managers and investors face intense challenges in the quest to grow assets and achieve superior returns. Morgan Stanley Prime Brokerage is in a unique position to help address these challenges. For more than 25 years, Morgan Stanley has led the industry and set the standard for excellence in prime brokerage. Our large market share not only testifies to the value we provide, it also gives us the industry insight and experience to serve our clients better.

- **Asset Management**

  Investment Management

  Morgan Stanley Investment Management (MSIM) strives to provide outstanding long-term investment performance, service, and a comprehensive suite of investment management solutions to a diverse client base, which includes governments, institutions, corporations and individuals worldwide. Graystone Consulting Tampa does not recommend managers affiliated with our firm; however, MSIM provides additional intellectual capital on the markets.

i. Is your firm or its parent or affiliates a broker/dealer? Does your firm accept trades for client accounts through this broker/dealer? What are the commission rates per share? Does your firm accept soft dollars as a method of payment for services provided? If so, please provide details.

Graystone Consulting is affiliated with Morgan Stanley Smith Barney, LLC, a registered broker-dealer. Under certain advisory programs, we may offer the investment managers for our clients the ability to trade through our firm's trading desk at no commission where Best Execution can be achieved. The investment manager is not required to trade through our desk and Morgan Stanley is not considered a directed broker under this arrangement. Trades executed by your investment managers through Morgan Stanley's trading desk at Best Execution as part of their normal trading process may be subject to commissions; however, Graystone Consulting and the Graystone Consulting Tampa team do not receive any financial benefit from these trades.

Graystone Consulting does not accept soft dollars as a method of payment for services provided.

j. Describe the history, ownership, and organizational structure of your firm. Has there been a substantial change in ownership or organization during the past three years? If so, please explain. Does your firm anticipate any near-term changes in ownership or organization structure?

Founded in 1935, Morgan Stanley (MS) has grown to be one of the largest global financial services firms in the world. MS, through its subsidiaries and affiliates, provide products and services to a large and diversified group of clients and customers including public pension plans & insurance trusts, foundations and endowments, health care organizations, corporate retirement plans, Taft-Hartley funds, and family offices. MS is a publicly traded company on the New York Stock Exchange (NYSE: MS) and has an "A3" long-term rating by Moody's Investors Service.

The primary business focus of MS is to provide financial services advice. The firm provides services across three main business units; Wealth Management (includes Graystone Consulting), Institutional Securities, and Asset Management.

Consulting Group (CG), the investment advisory services business unit of Morgan Stanley, began providing investment consulting services to institutional clients in 1973 as a result of the new ERISA standards that were adopted. To focus on the needs of the firm's institutional consulting clients and be better equipped to expand its institutional footprint, the firm created a separate business unit within CG to specifically focus on servicing institutional clients. To be included in this new business unit (which would become known as Graystone Consulting (GC), consulting teams had to meet stringent eligibility criteria including: the number of institutional-level clients, team revenue, and existing team structure capable of servicing institutional clients. In 2006, Graystone Consulting was established with a dedicated management team and twenty-seven (27) geographically diverse teams. Today, Graystone Consulting has grown to 54 teams located in 21 states. As part of Morgan Stanley, these teams have full access to the capital markets research and investment manager due diligence of MS and the investment advisory platforms.

There have not been any changes in ownership during the past three years and no near-term changes are expected to the best of our knowledge.

k. If any or part of the work to be performed under this RFP is to be subcontracted, the respondent shall provide a complete description of services to be subcontracted together with a complete description of the qualifications and capabilities of the subcontractor to perform same. As part of the contract, the Board of Trustees reserves the right to approve or disapprove any and all subcontractors and to revoke any approval previously given.

Graystone Consulting does not plan to utilize subcontractors for any part of the work to be performed under this RFP.

l. Identify any clients lost and gained over the last two (2) years and circumstances.

Below are the clients lost and gained by the Graystone Consulting Tampa team over the last two (2) years.

<u>Institutional Clients Lost Over the Last Two Years</u>

2019 Police Officers' Pension Fund
- *Circumstances of Termination: Transitioned to the City's fire pension fund consultant to reduce costs.*

2018 Fire Control & Rescue District VEBA
- *Circumstances of Termination: Consolidated with the consulting firm servicing the City's pension fund.*

2017 Police Officers' Pension Fund
- *Circumstances of Termination: Changes in Board members who wanted to move in a different direction.*

<u>Institutional Clients Gained Over the Last Two Years</u>

2019 Overseas Shipholding Group, Inc. – 401(k) Plan
- *Circumstances of Hiring: As the long-time consultant for the Company's defined benefit plan, we were asked to submit a proposal to this additional plan and were awarded the contract.*

2019 Central State University
- *Circumstances of Hiring: Awarded contract after competitive RFP process in 2018.*

2018 Kentucky Affordable Prepaid Tuition Plan & Education Savings Plan Trust
- *Circumstances of Hiring: Awarded contract after competitive RFP process.*

2018 Florida City Elected Officials' Pension
- *Circumstances of Hiring: As the consultant for the City's Police pension fund, we were asked to submit a proposal to this additional plan and were awarded the contract.*

2017 Association to Advance Collegiate Schools of Business (AACSB)
- *Circumstances of Hiring: Awarded contract after competitive RFP process.*

m. Have there been any legal, administrative, or other proceedings against your firm, and/or the representatives who will be assigned to our account? Have there been any notices or actions taken against your firm, and/or representatives that could have ripened into such proceedings? If so, describe in detail.

Morgan Stanley along with its investment consultants & Financial Advisors are named from time to time as defendants in various matters incidental to, and typical of, the businesses in which we engage. These include civil actions and arbitration proceedings in which Morgan Stanley or its Financial Advisors have been named, arising in the normal course of business activities as a broker and dealer in securities, as an underwriter, as an investment banker or otherwise. Without admitting or denying the underlying facts, Morgan Stanley has agreed to settlements with the Securities and Exchange Commission, various state regulators, administrative agencies and self-regulatory organizations such as the Financial Industry Regulatory Authority (the "FINRA") and the New York Stock Exchange ("NYSE"), and is often asked to provide information, documents or testimony in connection with investigations or proceedings conducted by those bodies.

Information disclosing certain legal and regulatory matters is made publicly available through the FINRA website at www.finra.org. Information can also be found in Morgan Stanley's Form ADV that may be found on the SEC website at www.sec.gov.

n. What is the maximum professional liability and errors and omissions insurance coverage afforded to any of your existing clients?

Financial Institutions Bond:

Morgan Stanley and all its subsidiaries maintain a Financial Institutions Bond, which insures Morgan Stanley and all its Subsidiaries for loss due to dishonest or fraudulent acts by employees; loss caused by forgery or alteration of securities electronic and computer crime and voice-initiated money transfers. Details are given below:

Name of Insurer:	Chubb Limited, AIG, XLC, Zurich, WR Berkley, CNA, Berkshire, Markel, AWAC, Endurance, Chubb, Everest, HCC, Liberty, QBE, Sompo, Axis, Lloyds
Rating:	A+
Policy Number:	01-935-52-95
Extent of Cover:	USD 400 Million
Deductible	USD 20 Million
Expiry Date:	1 October 2019

Investment Advisers Errors and Omissions Policy: (Professional Indemnity Insurance)

Morgan Stanley maintains an Advisers Errors and Omissions Policy, which insures Morgan Stanley and all its subsidiaries for claims by clients regarding actual or alleged breach of duty, negligence and errors and omissions while in the business as an investment adviser. Details are given below.

Name of Insurer:	Travelers Casualty & Surety Co. of America
Policy Number:	105218442
Rating:	A++
Extent of Cover:	USD 20 Million
Deductible:	USD 100,000
Expiry Date:	31 January 2020

Directors and Officers (Fiduciary Liability)

Morgan Stanley maintains a Directors & Officers Liability policy which insures the Directors and officers against claims alleging wrongful acts (i.e., breach of duty, neglect, errors, misstatements, misleading statements, omission) committed while acting in their respective capacity as a firm Director or Officer if the firm is unable to indemnify the individual.

Name of Insurer:	Illinois National Insurance Company
Policy Number:	01-468-18-65
Extent of Cover:	USD 600 Million
Deductible:	USD 0
Expiry Date:	19 June 2019

3. Qualifications and Experience of Key Personnel

List your key personnel who will be assigned to our account including any advanced degrees or educational achievements and/or credentials (MBA, CFA, J.D., etc.) The following should also be included:

a. Professional history.

Please see detail below.

b. Current position and responsibilities.

Please see detail below.

c. Time in current position.

Please see detail below.

Graystone Consulting Tampa (GCT) is the consulting team responding to the City of Gainesville General Employees' Pension Plan RFP and is comprised of 5 Institutional Consultants, 4 Analysts, and 3 Registered Client Service Associates. GCT will utilize a team approach in servicing the City of Gainesville. Scott Owens, CFA and Andy McIlvaine will be the primary consultants working with the Plan. David Wheeler will serve as a secondary consultant. Tim Haugaard, CIMA, T.J. Loew, CFA, and Amanda Zugschwert will be the primary analysts and Richard Detweiler will be the primary registered client service/operations associate servicing the relationship. GCT's other team members will assist in servicing the City of Gainesville relationship as needed.

<u>Primary Consultants Responsible to City of Gainesville Relationship</u>

Scott Owens, CFA®, CIMA® – Vice President, Institutional Consulting Director. Scott holds the Chartered Financial Analyst and Certified Investment Management Analyst designations. He is a member of the CFA Institute, CFA Society of Tampa Bay, Investments & Wealth Institute (formerly IMCA) and is a member and speaker at the Florida Public Pension Trustee and the Georgia Association for Public Pension Trustee Associations. Scott obtained his Bachelor of Science degrees in Economics & Finance from Florida State University and has over 30 years of industry experience. He has been with the firm and a member of Graystone Consulting Tampa team for the past seven years.

Andrew McIlvaine – Institutional Consultant. He is a member of the Florida Public Pension Trustee Association. Andy obtained his Bachelor of Arts degree in Economics from Indiana University and his Master of Business Administration degree from Johns Hopkins Carey Business School. He worked 12 years in the Commercial Real Estate industry before joining Graystone Consulting Tampa in 2017.

<u>Additional Consultants Responsible to City of Gainesville Relationship</u>

David Wheeler, CFP®, CIMA®, CRPS® – Senior Vice President, Institutional Consulting Director, Corporate Retirement Director, Alternative Investments Director, Portfolio Manager. David holds the Certified Financial Planner, Certified Investment Management Analyst, and Chartered Retirement Plans Specialist designations. He is a member of the Certified Financial Planners Association and Investments and Wealth Institute (formerly IMCA). He obtained his Bachelor of Science degree in Business

Administration from University of Florida. David has over 30 years of industry and firm experience and has been a member of Graystone Consulting Tampa team since inception.

Analytical & Research Support Staff Responsible to City of Gainesville Relationship

Timothy P. Haugaard, CIMA® – Assistant Vice President, Institutional Consulting Analyst. Tim has the Certified Investment Management Analyst designation and is a member of Investments & Wealth Institute (formerly IMCA). He received his Bachelor of Business Administration degree in Finance from Stetson University. Tim received the Consulting Group Analyst of the Year Award for the Southern Division of the firm in 2003 and 2010. He has 24 years of industry and firm experience and has been a member of Graystone Consulting Tampa team since inception.

Theodore J. Loew, CFA® – Assistant Vice President, Institutional Consulting Analyst. TJ holds the Chartered Financial Analyst designation. TJ is a member of the CFA Institute and CFA Society of Tampa Bay. He received his Bachelor of Science degree in Finance from University of South Florida. TJ has 11 years of industry & firm experience and has been a member of Graystone Consulting Tampa team since inception.

Amanda M. Zugschwert – Client Service Associate, Analyst. Amanda received her Bachelor of Science degree in Business and a Minor in Marketing from Franklin University. She has 7 years of industry & firm experience and 6 years with the Graystone Consulting Tampa team. Before joining our team, Amanda worked in Ohio on the Morgan Stanley performance reporting help desk.

Richard T. Detweiler – Senior Registered Associate. Richard obtained his Bachelor of Arts degree in Communications from the University of South Florida. He has 12 years of industry experience, 5 years of firm experience, and 3 years with the Graystone Consulting Tampa team. Before joining our team, Richard worked in the Morgan Stanley Client Advisory Center which covered the entire country**.**

Institutional Consultants

Scott Owens, CFA®, CIMA® – Vice President, Institutional Consulting Director
BS– Florida State University
Chartered Financial Analyst® - CFA Institute
Certified Investment Management Analyst® – The Wharton School, Univ of Pennsylvania
Phone: 813-227-2027
E-mail: scott.owens@msgraystone.com
Years of Industry Experience: 30

Scott Owens, an institutional consultant with Graystone Consulting Tampa's team, has over 30 years of investment experience. He specializes in the development, implementation and monitoring of customized investment portfolios for institutional investors. For the past 15 years, he has focused specifically on advising public retirement plans. Mr. Owens earned B.S. degrees in both Economics and Finance from Florida State University, is a Chartered Financial Analyst (CFA) charterholder and completed an executive education course at the Wharton School of Business, University of Pennsylvania, and received a certification as a Certified Investment Management Analyst (CIMA). Scott is required to commit to professional education and adhere to the ethical standards of the investment industry. He is a member of the Georgia Association of Public Pension Trustees (GAPPT) and the Florida Public Pension Trustee Association (FPPTA). He is a panelist and speaker at the organizations' pension conferences. Mr.

Owens is also a member of the Investment Management Consultants Association (IMCA), the CFA Institute and the CFA Society of Tampa Bay.

Andrew McIlvaine – Institutional Consultant
MBA – Johns Hopkins University Carey Business School; BA– Indiana University

Phone: 813-227-2160
E-mail: andy.mcilvaine@msgraystone.com
Years of Industry Experience: 1 (Previously worked 12 years in Commercial Real Estate)

Andy McIlvaine, an institutional consultant, joined Graystone Consulting in 2017 after a 12 year career in Commercial Real Estate where he served as a Director for Cushman and Wakefield. He specializes in providing investment consulting services to public retirement plans. Andy earned a Master of Business Administration degree from the Carey Business School at Johns Hopkins University with a dual concentration in finance and real estate and a Bachelor of Arts degree in economics from Indiana University. Andy and his wife Kelley resides in Tampa. His leisure activities include tennis and outdoor activities.

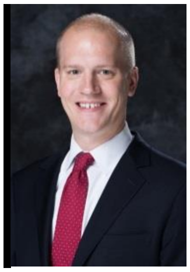
David A. Wheeler, CIMA®, CFP®, CRPS® – Senior Vice President, Institutional Consulting Director, Corporate Retirement Director, Alternative Investment Director
BS– University of Florida
Certified Investment Management Analyst® Certified Financial Planner®
Phone: 813-227-2178
E-mail: david.a.wheeler@msgraystone.com
Years of Industry Experience: 30

David Wheeler is a Senior Vice President and Institutional Consulting Director with Graystone Consulting and has been a fully licensed investment professional since 1989. David's primary responsibility is in providing investment consulting and advisory services to institutional investors. In addition, David oversees the analytics and client service/operations support staff of Graystone Consulting Tampa. He earned a Bachelor of Science degree in Business Administration from the University of Florida. He also completed an executive education course at the Wharton School of Business, University of Pennsylvania, and received a certification as a Certified Investment Management Analyst (CIMA). In 1996, David received a certification as a Certified Financial Planner. David is active in the local community and Idlewild Baptist Church. He resides in the Carrollwood Area with his wife, Lori and they have three sons.

Institutional Consulting Analysts

Timothy P. Haugaard, CIMA® – Assistant Vice President, Institutional Consulting Analyst
BBA– Stetson University
Phone: 386-740-2001
E-mail: timothy.p.haugaard@msgraystone.com
Years of Industry Experience: 24

Tim Haugaard has been with the firm and has worked with Graystone Consulting Tampa since 1995. His primary responsibilities include preparation of performance evaluation reports, asset allocation analysis, manager searches and due diligence, and responding to Request for Proposals. He is a graduate of Stetson University, where he earned a Bachelor of Business Administration degree with a major in Finance. He also completed an executive education course through the Yale School of Management and received a certification as a Certified Investment Management Analyst (CIMA). Tim is a member of the Investment Management Consultants Association (IMCA). In addition, Tim received the "Consulting Group Analyst of the Year Award" in 2003 and 2010 for the firm's Southern division. Tim resides in DeLand, FL with his two children, C.J. and Gracie.



Theodore J. Loew, CFA® – Assistant Vice President, Institutional Consulting Analyst
BS – University of South Florida
Phone: 813-227-2088
E-mail: theodore.loew@msgraystone.com
Years of Industry Experience: 11

TJ Loew has been a fully licensed investment professional since 2008. He earned a Bachelor of Science in Finance from the University of South Florida. TJ is responsible for preparing analytical reports, including asset allocations, manager searches, and performance monitoring. He also assists in servicing Graystone Consulting Tampa's defined contribution plan relationships. He is also a Chartered Financial Analyst (CFA) charterholder. TJ is originally from upstate New York and currently resides in the Tampa Bay area with his two children.

d. List significant new hires and terminations over the last three (3) years.

Graystone Consulting Tampa hired an additional institutional consultant (Andy McIlvaine) in 2017. There have been no terminations of key consulting team personnel over the last 3 years. One July 1, 2019, Charlie Mulfinger retired from Graystone Consulting Tampa after 35 years of service with the firm.

In 2019, Jodie Gunzberg, CFA was hired as Managing Director and Chief Investment Strategist at Graystone Consulting. Jodie is an industry veteran and well-respected investment strategist with more than 20 years of asset management and consulting experience. In her role, Jodie is responsible for providing access to the vast intellectual capital of Morgan Stanley as well as communicating Morgan Stanley's market views and investment strategies to our institutional clients and prospects. She also leads the development of institutionally-focused original thought leadership and intellectual capital and partners with Graystone Consulting teams in business development and ongoing client relationship management efforts.

e. Client assignments - number, type, length of relationship. Is there a cap on the number of clients our primary consultant will be responsible for?

Graystone Consulting Tampa's 5 institutional consultants service over 80 institutional clients. These clients include approximately 45 public pension funds, as well as, governmental insurance trust (VEBA & OPEB) funds, non-profit entities, defined contribution retirement plans, and Taft-Hartley funds. GCT is honored to have worked with approximately 8 institutional clients for over 20 years and approximately 45 clients for over 10 years.

Scott Owens and Adny McIlvaine will serve as the primary consultants for the City of Gainesville General Employees' Pension Plan. Neither Scott nor Andy serves as primary consultant for more than 20 institutional clients.

f. Please provide a sample of a current manager performance report and a sample of an equity manager search report that the primary consultant who would be assigned to our account has prepared and presented to an existing client.

A sample performance report and equity manager search report in a format provided to clients of Graystone Consulting Tampa is provided in Exhibits 3 and 4.

g. Briefly describe the staff resources available to support the consulting team.

Graystone Consulting Tampa (GCT) has 12 full-time team members dedicated to servicing the City of Gainesville relationship including four analysts and three registered client service/operations associates. Tim Haugaard and T.J. Loew serve as the lead analysts for GCT. Tim has been with the team for 24 years, is a Certified Investment Management Analyst (CIMA), and has won firm awards for his work. T.J. Loew has been with the team for 11 years and is a Chartered Financial Analyst (CFA). In addition to the local team, Graystone Consulting uses bi-weekly calls and a dedicated website for consultants to share information. As a client of GCT, you have access to the intellectual capital of the 54 GC teams employing 217 investment consultants and staff of over 289 people. In addition, the teams are supported by over 270 personnel including the Graystone Consulting Management Team, the Global Investment Manager Analysis team, and the Global Investment Committee.

<u>Graystone Consulting Management Team</u>

Graystone Consulting teams nationwide are supported by the Graystone Consulting Management Team. This team helps to resolve questions or issues pertaining to operations, technology, research, contracts and compliance issues.

<u>Global Investment Manager Analysis (GIMA) team</u>

Graystone Consulting Tampa leverages the expertise of the Global Investment Manager Analysis (GIMA) team. This robust team of over 50 analysts conducts qualitative and quantitative due diligence on over 1,900 traditional investment products and about 200 unique alternative investment strategies. The team is comprised of the following professionals who focus 100% of their time on manager research:

Alper Daglioglu, CAIA	Head of GIMA

Thomas Leeds	Head of Traditional Manager Due Diligence
Daniel Maccarrone	Head of Alternatives Manager Due Diligence
Grant Badura, CFA, CAIA	Head of Operational Due Diligence
Michael Delli Paoli	U.S. Equities, Energy Infrastructure, & MLPs
Niloy Ganuly	Mutual Funds/ETFs, & UITs
Paul Jodice	Private Equity, Private Credit, & Private Real Estate
Adam Liebman, CFA	Hedge Funds, Fund of Hedge Funds, & Liquid Alts
Susan McDowell, CPA	Fixed Income
Michelle Morris	Private Equity, Private Credit, & Private Real Estate
Joshua Rezak	Private Equity, Private Credit, & Private Real Estate
Drew Soffer	Tactical Opportunities List Strategies
Laura Thomas	International Equities & Offshore Investments
Al Troianello, CFA	Private Equity, Private Credit, & Private Real Estate
Bradley Ackerman	Alternative Investments Operational Due Diligence
Max Amster	Offshore Investments
Joanna Berg, CFA	Private Equity, Private Credit, & Private Real Estate
Danielle Dimitriou, CFA	Head of Strategic Initiatives with GIMA
Diptee Borkar	Value Equities
Bill Bridge, CIMA	Growth Equities
Jeffrey Chapracki	U.S. Growth Equities
Jose Cruz	U.S. Core & Growth Equities & Convertible Bonds
Daniel Debonis	Hedge Funds & Alternative Mutual Funds
Brandon Dees	Hedge Funds & Alternative Mutual Funds
Matthew Flood	Alternative Investments Operational Due Diligence
Keith Fortmiller	Alternative Investments Operational Due Diligence
Aloke Ghosh	Alternative Investments Operational Due Diligence
Brian Glanz	International Equities & Asset Allocation Strategies
Thomas Hagen	U.S. Value & Dividend-Focused Equities
Rafael Kilayko	Fixed Income
Anita Khartwadkar	International & Emerging Markets Equities
Douglas Kim, CAIA	Hedge Funds & Alternative Mutual Funds
Steven Lee, CFA	Fixed Income
John Meyer	U.S. Value Equities
Stephanie Mergenthaler	U.S. Core & Value Equities
Jason Park, CFA	Hedge Funds & Alternative Mutual Funds
Adriane Paris, CFA, CAIA	Hedge Funds & Alternative Mutual Funds
Lisa Pitts	Fixed Income
Olga Pujara, CFA	Fixed Income
Adriana Rattinger	International Equities
Calvin Roach, CFA, CAIA	Energy Infrastructure, MLPs, & U.S. Value Equities
William Ryan	International Equities
Adnan Sabih, CAIA	U.S. Core & Growth

Michael Suchanick, CIMA	International Equities
James Szestowicki	Fixed Income
Emily Thomas, CFA	Impact Investing Managers
Margarita Triantafyllidou, CFA	U.S. Growth Equities
Lori Villatoro	U.S. Value Equities
Keith Zaccaria, CFA	Hedge Funds & Alternative Mutual Funds
Christopher Gonzalez, CFA	Mutual Funds/ETFs, & UITs
Dana Dauletbayeva	Hedge Funds & Alternative Mutual Funds
Hilary Lee	Fixed Income
Amish Modi	Alternative Investments Operational Due Diligence
James St. Onge	Private Equity, Private Credit, & Private Real Estate
Pema Tashi	Mutual Funds/ETFs, & UITs

Global Investment Committee (GIC)

The Global Investment Committee (GIC) is a group of seven noted authorities and senior investment professionals who, supported by a large team of analysts and economists, meet regularly to review market outlook, provide asset allocation views, and incorporate capital markets intelligence. The GIC determines the investment outlook that guides our advice to clients. They continually monitor developing economic and market conditions, review and recommend tactical outlooks, and recommend model portfolio weightings. The GIC also produces a suite of strategy, research, analysis, commentary, portfolio positioning suggestions and other reports and broadcasts.

Michael Wilson	Chief Investment Officer (CIO) & Chief US Equity Strategist
Lisa Shalett	Head of Investment & Portfolio Strategies
Rui De Figueiredo	Co-Head & CIO of the Solutions & Multi-Asset Group
Andrew Sheets	Chief Cross-Asset Strategist
Andrew Slimmon	Head of Applied Equity Advisors
Martin Leibowitz	Global Research Strategy
Vishwanath Tirupattur	Head of US Fixed Income Research

h. What percentage of staff turnover has your investment-consulting group experienced in each of the last three years?

Graystone Consulting Tampa is a team comprised of 12 full-time professionals. The team has been providing institutional consulting services to governmental entities since 1985 and provides consulting services to over 60 governmental funds in Florida. Below is the staff turnover the Graystone Consulting Tampa team has experienced in each of the last three years.

2019: Charlie Mulfinger, Institutional Consulting Director retired from the firm on July 1, 2019 after 35 years of service.

2018: No staff turnover.

2017: Andy McIlvaine joined the firm as an Institutional Consultant after working 12 years in Commercial Real Estate industry.

i. What steps does your firm take to ensure continuity with an account?

Graystone Consulting encourages consulting teams to incorporate their own succession plan into their practices by building teams consisting of high caliber investment professionals who have ability to become future leaders of their teams. In some situations, teams in different geographical locations have developed partnerships to further foster succession planning. The goal is to provide each client with experienced and high quality consulting teams to continue to provide exceptional advice and service once a senior team member is no longer with the firm.

Charlie Mulfinger, one of the original members of Graystone Consulting, spent his entire 35-year investment career with the same firm before retiring on July 1, 2019. To develop a succession plan, Charlie developed a partnership with three other senior institutional consultants with varying ages to ensure long-term consistency within the team. In addition, the analyst and client support teams have been expanded in recent years to provide a forum for development of the next generation of Graystone Consulting Tampa leadership.

4. Review of Investment Managers

Please discuss your techniques for reviewing and evaluating investment Managers that will meet the Board's needs.

a. Describe your manager search database (i.e., the number of managers it contains, the sources of information, the types of information it contains, etc.).

Graystone Consulting maintains an extensive database with information compiled from more than 2,700 investment managers throughout the world encompassing over 19,800 various products (as of 9/2018). Our firm purchases the investment manager data from Informa Investment Solutions, Inc. Investment Solutions Plan Sponsor Network database. We also maintain an in-house due diligence database on approximately 1,900 managers and funds. The database includes historical investment performance results and information on each manager's investment style, minimum account size, assets under management, number of accounts managed, founding date, personnel, contact information, ownership structure and denotes whether the product is accepting new accounts. The database also includes a narrative on the firm level, the product level, as well as a composite description. **Managers do not and cannot pay for inclusion in our database.** In addition, we do not sell any proprietary due diligence research prepared on any manager included in our database. This information is for the exclusive of our clients.

b. Describe how your firm categorizes investment managers into specific styles.

Graystone Consulting will categorize investment managers in our database according to the market capitalization (Large, Mid, Small) of their portfolio, whether they have a "value", "growth", or "core" bias in selected companies for inclusion in their portfolio, and whether they invest domestically, internationally, or globally. We evaluate different quantitative factors of the manager's portfolio to ensure they are adhering to their specific investment style. We compare the capitalization of the manager's portfolio to the comparison index. We look at the P/E (forecasted & trailing), Price-to-Book, EPS Growth, Return on Equity, and Dividend Yield in determining whether the manager fits in the "Value", "Growth", or "Core" part of the style box. In addition, we look at the manager's underlying holdings to determine whether they are timing the market (indicated by their level of cash). We may further classify managers based on their sub-style. For example, value managers may have either a deep, traditional, or relative value sub-style. Growth managers may be further grouped as conservative, traditional, or aggressive. It is important to understand a manager's sub-style, as value or growth managers with different sub-styles may perform differently. For international managers, we dig deeper and classify whether the companies held are in developed or emerging markets countries.

Fixed income managers are classified based on their maturity (short, intermediate, long), quality (investment grade or high yield), and security sector (governments, corporates, agencies, mortgage/asset-backed). We further distinguish those managers who incorporate international fixed income holdings into their portfolio.

Alternative investment managers are categorized into the broad categories of hedge funds, real estate, managed futures, or private equity. Hedge funds are further classified according to their volatility (low, medium, or high) and investment focus (Relative Value, Event Driven, Equity Long/Short, Global Macro). Real estate funds are classified broadly as either public (REITs) or private (core, core-plus, enhanced value, or opportunistic). Private equity funds may be further categorized as venture capital, leveraged buyouts, or diversified.

c. How do you verify the validity of a manager's performance records?

The validity of the managers performance starts with a comprehensive due diligence long before the manager is recommended to our clients. The GIMA team requires the investment manager to complete an RFI (request for information) prior to review. The RFI includes pertinent information to assist in the analysis of the investment manager. GIMA may also request other information from the investment manager to complete its assessment. As part of the ongoing review process, a quarterly or annual questionnaire is sent to all investment managers.

Our dedicated manager due diligence team, the Global Investment Manager Analysis Team (GIMA) uses investment manager performance data provided in the Informa Plan Sponsor Network database. The database indicates whether the investment manager is in compliance with the CFA Institute's Global Investment Performance Standards (GIPS, formerly AIMR performance reporting standards). However, our GIMA team does not simply rely on the information provided in this database, but further investigates the validity of all information through their stringent due diligence process.

Graystone Consulting Tampa conducts independent investment manager performance calculations for portfolios managed for our clients. We reconcile independently calculated performance data versus what managers provide to determine any disparity. The performance results contained on a client report prepared by Graystone Consulting Tampa are manually reconciled by the assigned analyst working directly with the consultants. Performance results for all our advisory clients are compared for dispersion to the manager's composites. Additionally, the performance calculations we perform are subject to an annual, on site audit to ensure accuracy and completeness.

d. Do you conduct on-site visits to investment managers that are in your universe? How many on-site visits has your firm conducted in the last year?

Yes, our Global Investment Manager Analysis (GIMA) team conducts approximately 450 on-site visits with investment managers annually.

e. Please describe in detail your on-site review process.

The Global Investment Manager Analysis Team (GIMA) will periodically perform an on-site visit at an investment manager's headquarters. The on-site visit consists of detailed meetings with the firm's investment, business, trading, operations, and compliance personnel. These visits are designed to reinforce the analysis conducted by GIMA using information obtained from the manager through the RFI questionnaire, conference calls, and third party research databases (i.e. Informa PSN).

The GIMA team uses a rigorous, in-depth process for evaluating investment managers. GIMA analysts examine a range of issues they believe are indicative of potential investment manager quality – such as investment philosophy, buy and sell disciplines, research capabilities, business operations, qualifications of key personnel, and qualitative characteristics including ownership, compliance, business continuity, and cyber security.

Once the thorough review is conducted, a written due diligence report is prepared which affirms GIMA's opinion of the investment manager. This report is published, periodically updated, and can be provided to our clients.

f. Are managers charged fees for inclusion in your database? If so, please describe in detail.

No, investment managers do not pay for inclusion in our databases.

g. Are your software and manager databases developed in-house or contracted through an outside service?

Graystone Consulting has committed considerable financial resources to performance-measurement hardware and software. We use a proprietary system and technology developed with the assistance of third parties. We customize reports from the programs offered by these third parties through the programs themselves, as well as through the tenured relationship the firm has with the client support teams servicing these programs.

In-House System

Strategic Client Reporting (SCR): Graystone Consulting customized performance reports leverage a sophisticated software program that combines the data sources available through Morgan Stanley. This results in a flexible and comprehensive integrated report for maintaining and reporting information on the aggregate portfolio level, the individual account or manager level, and market indices. The performance reports are customizable based on the needs and objectives of each client and a variety of different time periods are available for displaying client returns.

Our consulting process includes the ongoing monitoring of manager results. Our performance reports compare individual managers to appropriate market indices, as well as to universes of similar managers. The aggregate portfolio is compared to a blended index, with market index weightings representative of the client's actual portfolio. Results are considered in light of absolute performance and risk-adjusted results. We seek to take into account the client's unique risk profile and performance objectives.

Time-weighted and dollar-weighted returns net and gross returns are provided. In addition, the reports can include an analysis of the overall asset allocation mix, equity portfolio composition, fixed income portfolio characteristics, risk-and-return charts, manager and sponsor peer universes and visual displays of account cash flows and the growth of client assets over time. Each report is carefully organized in a simple, graphical format.

Our performance reports also include advanced statistical indicators, such as beta, alpha, R^2 and the Sharpe Ratio, drawn from the teachings of Modern Portfolio Theory.

Additionally, Graystone teams have access to PARis (Performance Analysis & Reporting Information System), a proprietary investment tool developed for Graystone with Investment Metrics as discussed below.

Third Party Systems

PARis: PARis is a performance monitoring and reporting tool used to compute, track and evaluate investment performance for clients. Its features make it a comprehensive platform. It performs portfolio analytics, develops what-if scenarios, and customizes reports to meet clients' requirements.

Some of the important features of PARis are:

- Managing client investment accounts, including accounting data, performance, holdings and other attributes.

- Managing benchmark data. Varied sources provide index data in the form of performance as well as holdings. Custom benchmarks can be generated by combining indices or accounts utilizing returns-based hybrids.
- Creating and managing custom report templates. Reporting is automated by the ability to generate a client-specific book, which includes section pages, varied page numbering schemes and the ability to include non-PARis generated analytics, such as those provided by other software tools.
- Integrated holdings-based analysis.
- Returns-based analysis through a proprietary Style Analysis tool.
- Peer group analysis allows client accounts to be compared within standardized peer groups. Peer groups include separate accounts, commingled funds, mutual funds, hedge funds and recently added plan sponsors. PARis has the ability to generate custom peer groups from standard peer groups, other custom peer groups or client accounts.
- Constructed in-house utilizing industry standard combination of programming tools consisting of Visual Basic, C++ and SQL Server. This allows PARis to be easily modified and extended with new modules. PARis has been successfully deployed for an external systems client, which required business-specific modifications and custom modules.

PARis allows Graystone consultants to generate highly customized, comprehensive and concise performance reports for each account and composite. PARis reports may be produced based on specific needs of the client. The result is a single, integrated reporting system that delivers information to clients. PARis reports cover virtually every aspect of the investment program and include performance results for each manager and for the total aggregate portfolio, an analysis of the overall asset mix, benchmark comparisons, equity portfolio composition, fixed-income portfolio characteristics, risk and return charts, and visual displays of account cash flows and the growth of your assets over time. Each report is carefully organized in a simple, graphical format.

We prepare investment reports using primary data (sourced from the client's account, not reported by the manager). Although we reconcile the numbers versus what managers tell us for disparity, we are not reliant on a third party for these returns, with the exception of those funds that are limited partnerships. Every performance figure on a client report is manually reconciled by the assigned analyst working directly with the consultants. Whereas some consulting firms reproduce investment manager reported figures, we calculate and reconcile each client's manager performance by account. We also monitor the performance of all our client investments in the same fund for dispersion to the manager's composites. Our process of independently calculating client performance and comparing to the manager's calculated return can help reduce performance reporting errors. We are able to monitor this information broadly across thousands of client accounts. We also are subject internally to an annual audit of our performance reports, on-site, in our offices.

Because of our highly flexible performance measurement monitoring system, as well as having multiple in-house reporting analysts on staff, reports can be customized to meet the needs of our clients. Our clients have a very high level of input in the content and formation of their investment performance evaluation report.

Additionally, Graystone Consulting annually dedicates a portion of its budget to enhancing its performance reporting capabilities. This has led us to develop cutting-edge reporting capabilities delivered by the local team servicing the client. This design is important as it allows the analysts to control the timing, content, and delivery of the reports.

Zephyr Associates, Inc: Zephyr, an industry leader in analytical software and a division of Informa Investment Solutions, was originally founded by a world-class team of software engineers who created an entirely new program—one of the most sophisticated and functional style analysis and performance analysis software available. Graystone Consulting uses Zephyr to receive the most thorough and complete style analysis possible in their manager evaluations.

Morningstar®: Morningstar maintains data on mutual fund managers and funds allowing users to sort through manager or fund databases utilizing commonly requested criteria. Morningstar offers a powerful search, allowing us to screen on hundreds of data points and providing well-defined results. These screens allow Graystone Consulting to save search results as a Watch List, in case we would like to track the performance of these investment vehicles before making a decision. Morningstar will also "score" investment vehicles, providing a benchmark for our own analysis that ranks managers and funds that pass our test based on criteria important to us.

Informa Investment Solutions, Inc: Informa Investment Solutions, Inc. was founded in 1976 to provide objective performance measurement services to the institutional investment community. Since its founding, Informa Investment Solutions, Inc. has developed its position as an international provider of specialist information and services for the academic, professional and business communities. Graystone Consulting links to Informa Investment Solutions, Inc. databases to address the qualitative and quantitative factors needed for an extended level of analysis. Morgan Stanley's Global Investment Manager Analysis (GIMA) team utilizes a database—updated daily by Informa—to track investment analytics for more than 7,800 investment products across more than 80 asset classes and investment styles. The firm also utilizes the PSN database and analytic tools for capital markets research.

In addition, Graystone Consulting Tampa utilizes a proprietary portfolio optimization tool to provide asset allocation analysis incorporating traditional & alternative investments for qualified clients.

h. What do you believe differentiates your manager search services from the competition?

Research and Service. We believe the experience of our consultants and analysts along with our access to the full complement of resources of one of the largest most respected financial companies make us unique in our ability to serve our clients. Graystone Consulting Tampa has over 30 years of experience conducting manager searches for public pension plan clients and our manager due diligence team is among the most rigorous in the industry.

Our Global Investment Manager Analysis Team (GIMA) assists in the manager search process by constantly seeking new managers for our team to recommend to our clients. This team of over 50 professionals provide ongoing coverage of more than 1,900 separately managed accounts, mutual funds, exchange-traded funds (ETFs) annually in traditional and alternative strategies. The first step of the process is to identify managers who meet some basic criteria. These managers are screened for superiority of qualitative characteristics (Personnel, Process, Research Capabilities, Implementation, and Business Operations). Next, we screen the remaining investment managers for quantitative characteristics, such as absolute and risk-adjusted performance, volatility, consistency of returns, and adverse market performance. We further screen for investment managers from this narrowed universe to invest according to your outlined investment plan. We encourage our clients to participate in the development of the qualifications and constraints managers must meet to become bona fide candidates.

Our unique research process focuses on quantitative (performance) & qualitative (personnel, process, business stability) factors to identify managers or funds that can provide investment success to our clients. The GIMA team employs a large team of analysts that conduct due diligence on traditional and alternative investment strategies. In addition, the local Graystone Consulting teams located across the country employ analysts who analyze money managers.

The GIMA team has developed a rigorous, in-depth process for evaluating investment managers. Through this process, our consultants and clients have access to a wealth of detailed information about the investment products available through our programs. They have also developed a patented proprietary ***Adverse Active Alpha***[SM] manager ranking tool to help identify active managers with strong stock picking skills and the ability to outperform indexes and peers across cycles. This tool points towards managers whose investment processes incorporate factors linked with a greater likelihood of outperformance. The GIMA team has also developed two other proprietary ranking methods for evaluating the quality of active managers. The ***Value Score*** considers active investment strategies' value proposition relative to their costs. The ***Risk Score*** evaluates active managers' effectiveness in managing risk in absolute and relative terms. Copies of white papers explaining these tools are provided in Exhibit 5.

5. Comparative Analysis of Investment Results

Discuss your methods used to evaluate the manager's decisions in constructing the portfolio and how the pension fund is being rewarded for those actions. Discuss with which peer group universes our fund will be compared. Does your analysis include annualized rates of returns for various indices, including pension/tax exempt fund (on both balanced and specific asset class basis)?

Methods Used to Evaluate Manager Decisions

Monitoring a portfolio and the corresponding managers within the portfolio is a primary function of a consultant. Understanding the performance each manager contributes to the overall portfolio allows decisions that should, over a full market cycle, improve the portfolio performance. At the individual manager level, we analyze financial characteristics germane to the specific asset class and the manager's style of management. These characteristics are evaluated to assess the level of risk the manager is taking in the construction of its investment portfolio and identify sources of style drift inconsistent with the manager's stated investment discipline. We use "return pattern" and "holdings based" analysis to determine a manager's style as each method has strengths and weakness.

The return pattern analysis focuses on return and risk measurements to determine whether the pension fund is being rewarded for the level of risk taken by the manager. The holdings based analysis (portfolio attribution) seeks to identify the value added from sector allocation and security allocation. The manager may add value by overweighting securities that perform well relative to the benchmark. Conversely, the manager may add value by underweighting securities that perform poorly relative to the benchmark. It is also important to identify whether managers are adding value the way we expect (i.e. security selection, sector allocations, themes).

In conducting performance attribution analysis, we first determine the relative weights of each sector the manager chooses to include in their portfolio relative to the sector weights within the benchmark. If a manager chooses to underweight or overweight a sector that will have an impact on the value of the portfolio since each sector will have a different contribution to the performance of the portfolio. For example, if a manager underweights a sector that outperforms the other sectors, that decision would negatively impact the portfolio. Conversely, if a manager underweights a sector that underperforms the other sectors in the portfolio, that decision would positively impact the portfolio. The sector allocation return assumes within each sector, the manager held the same securities as the benchmark and in the same proportion. Therefore, the impact on performance as it's related to pure sector allocation is attributed only to the sector weighting decisions of the manager.

We then determine the impact the manager's stock selection decisions within each sector have on the portfolio return. The manager's allocations to a specific sector may be in the same proportion as the benchmark; however, the manager may hold securities different from the benchmark or have different weights from the benchmark. The impact on relative performance is attributed to the security selection decisions of the manager.

Once the pure sector allocation return and the security selection return within each sector is determined, we calculate the allocation/selection interaction return. This quantifies the net effect of the manager's sector and security weights within each sector relative to the benchmark.

Benchmark Comparisons

We compare annualized returns of individual investment managers to the appropriate benchmarks including market indices and peer universes. In addition, we compare the overall portfolio to the appropriate public plan universe.

Individual managers' absolute and risk-adjusted performance is compared to appropriate market indices. We assign benchmarks to managers based on their investment style classifications (i.e. large, mid, and small capitalization core, value and growth). Our firm subscribes to and tracks hundreds of market indices for performance comparisons in our reports. Graystone Consulting Tampa utilizes indices purchased by our firm from third party vendors including Russell, MSCI, Bloomberg Barclays, Hedge Fund Research Inc (HFRI), the National Association of Real Estate Investment Fiduciaries (NCREIF), and Alerian. The Russell indices are used for domestic equity comparisons; the MSCI indices for international and emerging markets equity comparisons; and the Bloomberg Barclays indices for fixed income comparisons. For alternative asset class comparisons, we use the HFRI indices for hedge fund comparisons; the NCREIF Property & ODCE indices for private real estate comparisons; and the Alerian MLP index for Master Limited Partnership comparisons.

To provide manager peer group comparisons, we have developed custom manager universes. Our custom manager universes sort Investment Metrics (EQuest) databases according to the relative return characteristics of each manager within the universe. This reduces the effect of manager style drift by grouping managers according to the behavior of their returns rather than by their pre-stated discipline or quarter-ending holdings. The returns in this universe are provided by the investment managers, who do not pay for inclusion in the universe.

We construct custom benchmarks for our portfolios to measure overall portfolio performance. These blended benchmarks reflect the true asset allocation of the fund on a month-end value weighted basis. We also build policy benchmarks specific to how the portfolios performance should be measured based on the client's investment policy statement requirements.

In addition, we utilize the Investment Metrics database for public fund peer universe comparisons that compares the client's total fund performance to the appropriate peer universe's total fund performance over varying time periods.

6. Strategic Planning Overview

Graystone Consulting employs an investment philosophy which empowers our clients to make informed investment decisions to help them to meet or exceed their investment objectives on a risk-adjusted basis, net of investment expenses. We accomplish this using a disciplined process to provide investment consulting services to our clients. This process consists of the following steps discussed in detail in the relevant questions below:

- Education Regarding Investment Management, Capital Markets, & Economics
- Investment Policy Statement Development & Review
- Asset Allocation Advice
- Investment Manager Search & Review
- Performance Evaluation

a. Briefly describe the approach you would use to assist the Board in strategic planning, including the review and possible revision of the investment policy and investment guidelines.

Board Member Consensus

The first and most important step in a consulting relationship is to facilitate the development or review of the plan's investment policy, guidelines, and objectives. We start the process by reviewing with the trustees the mission statement of the plan. The mission statement sets the stage for all decisions made relative to the long-term activities of the plan. The primary consultants, Scott Owens, CFA and Andy McIlvaine will present an educational discussion on the fundamentals of asset allocation to assure the trustees have an appropriate framework. Once the discussion on diversification and portfolio construction has occurred, a consensus view of members' attitudes on the long-term economic climate, the plan's income needs, desired asset allocation and degree of diversification, perceived risk tolerances, policy constraints, and other pertinent investment considerations is agreed on and an overall risk tolerance is developed for the plan. Language in the Plan's Statement of Investment Policy and question "6" in the RFP Addendum 1 indicates the Board seeks to "achieve a high level of investment return consistent with a prudent level of risk".

Policy Constraints

The policy constraints established in the consensus view play an integral role in the review of investment policy and the implementation of the investment strategy. Graystone Consulting Tampa along with the Board evaluates constraints and the impact of these constraints on the expected performance of the portfolio. These constraints include: statutory requirements limiting or excluding particular securities, asset classes, investment styles, investment vehicles, margin, short selling, or lack of liquidity and any unique circumstances specific to the plan.

Objectives

The next step in evaluating the plan's investment policy is to evaluate its investment objectives: the plan's absolute needs for liquidity, income, growth of income, growth of principal and preservation of capital. We balance these needs and develop an investment strategy to maximize the probability of achieving those needs. To determine if the decisions made are adding value relative to the overall market, Graystone Consulting Tampa develops customized performance benchmarks for the aggregate fund. We create benchmarks for each sub-fund of the plan to assess each respective manager's performance.

City of Gainesville General Employees' Pension Plan IPS

We have conducted a preliminary review of the plan's current Statement of Investment Policy and Attachments A and B and have provided suggested revisions below:

Statement of Investment Policy

- *Page 2- II. Investment Objectives: In letter "C", add "to be achieved over a full market cycle" after "Fund".*
- *Page 2- II. Investment Objectives: In number "1", add "with commensurate risk" after "Policy Index" and strike "while avoiding excessive risk".*
- *Page 2 - III. Performance Measurement: In letter "A", strike "(generally 3-5 years)".*
- *Page 2 - III. Performance Measurement: In the "Note" at the bottom, after "reviewed" add "using dollar-weighted performance".*
- *Page 3 - B. Investment Managers: In number "1", strike "(generally 3-5 years)" and consider adding comparisons to style benchmarks in addition to broad market benchmarks. Also, consider adding risk-adjusted comparisons.*

Investment Guidelines - Attachment A

- *Page 6 - C. Concentration: In letter "a", consider adding "overall plan" after "7% of the" to clarify this limit is not just of each equity investment managers' portfolio.*
- *Page 7 & 8 - D. Master Limited Partnerships (MLPs): Consider adding expanded language to include "corporations" and strike "(usually 3-5 years)".*

b. Describe your firm's process for conducting asset/liability studies. Who developed the software you use? How much flexibility is allowed in the model? How do you develop your risk, return, and correlation assumptions for the asset classes?

Process

The asset allocation decision is one of the most important decisions the trustees and Graystone Consulting Tampa can make together. Comprehensive asset allocation studies incorporate data regarding expected return, standard deviation and correlation for different asset classes. The studies indicate which combination of asset classes and their respective weights in the portfolio will provide the highest probability of achieving the target rate of return within the acceptable risk tolerance. We conduct the studies by first using traditional asset classes (stocks, bonds and cash) then incorporate alternative asset classes.

Graystone Consulting Tampa works with the Board and Pension Review Committee to develop an asset allocation strategy that has a realistic probability of helping a client achieve their investment objective within the guidelines of the investment policy statement. Our asset allocation methodology is predicated on time-tested relationships between fundamental drivers of financial markets and the return potential of asset classes. In a changing global landscape, this allows us to forecast market returns based on expected economic drivers of such returns, which can result in significant differences from historical performance. The framework allows for consistency of return expectations across traditional and alternative asset classes. To establish long-term returns for the major asset classes- Cash, Sovereign Bonds, and broad Stocks – our Global Investment Committee (GIC) employs a "building block" approach that draws on various theoretical tenets of economics and finance. For those investors considering Alternative Investments, we compute return estimates using forecasting models for hedge funds, managed futures, private equity, real estate and commodities.

We would review your liabilities (cash flow need) and your funding to advise when to increase your fixed income allocation. In this environment, we would be careful in how we fund the liabilities. Typically, linking assets to liabilities would require a higher degree of fixed income. In a rising interest rate environment, fixed income is negatively affected. Increasing your weighting to fixed income in either a low and/or rising rate environment would make it difficult to meet your actuarial assumption.

If your contributions (fundings) are expected to be greater than your withdrawals for the immediate future, we can position the asset class mixes to be more growth oriented to maximize the probability of meeting your return assumptions.

Software (Asset Allocation & Asset/Liability Studies)

In providing asset allocation analyses, we utilize a proprietary portfolio optimization tool developed by our firm. This tool provides asset allocation analysis incorporating traditional & alternative investments and incorporates the forward-looking return, risk, and correlation assumptions developed by the GIC (as discussed in detail below). To provide asset/liability studies, GC works with third party vendors to generate customized studies for defined benefit plan clients. The asset/liability analysis provides certain cash flow modeling, liability funding analysis, and funding strategies including custom contribution policies. Based on the funding status of the plan, the language in the Plan's Statement of Investment Policy regarding the desire for a "high level of investment return consistent with a prudent level of risk", and the current level of interest rates, we believe a standard asset allocation study versus an asset/liability study is appropriate for determining/confirming the appropriate asset allocation strategy at this time.

Methodology for Developing Risk, Return, & Correlation Assumptions

We use the forward-looking return and risk estimates developed by the Global Investment Committee to generate a strategic asset allocation analysis that calculates expected return, expected level of risk, and the probability of meeting a return objective for different asset allocation mixes. We use this analysis to determine an asset allocation strategy in-line with the investment objectives and risk profile reflected in your Investment Policy Statement. The 7 year strategic and 20+ year secular return and risk forecasts constructed by the Global Investment Committee drive our intermediate and long-term asset allocation strategies for our clients.

Strategic (7 year) estimates are influenced by market action or valuations; therefore, returns can change meaningfully over intermediate time periods. The 7 year estimate guides under and overweighting asset classes around the 20+ year secular long-term asset allocation for the portfolio. For example, based on today's interest rates, our 7 year risk and return estimates for fixed income are significantly lower than the 20+ year secular forecasted estimates; therefore, we are recommending an underweight to fixed income. We provide updates during the year for significant changes in market data, in the fundamentals of the market, our models, our asset class coverage, or in any other factor that can influence portfolio returns and asset allocations.

Our firm has developed a patent-pending approach to asset allocation that includes stocks, bonds, cash, hedge funds, private equity, private credit, real estate and even some of the more opportunistic investments, such as commodities. The result is a more accurate process to consider traditional and alternative investment strategies and present them in a single consolidated framework.

c. How often do you recommend reviewing or amending an asset allocation policy? Under what circumstances would you consider changing a client's asset allocation recommendations?

We recommend clients review their asset allocation guidelines when there is a material change to the client's circumstances or there is a material change in the economic environment. A material change in the client's circumstances may include but is not limited to a change in the client's investment objectives, time horizon, risk tolerance, asset/liability structure, cash flow or spending policy.

Our Global Investment Committee and the economists and analysts supporting them are constantly conducting research used to review our strategic and secular return & risk assumptions. This may lead to a tactical, secular, or strategic asset allocation change recommendation. This would be accomplished at the next quarterly meeting.

d. Describe the analytic basis for your recommendations of an investment manager structure. Include a discussion describing your firm's philosophy of core versus specialty portfolios, active versus passive management, and mix of investment styles.

We have prepared a hypothetical asset allocation studies (see Exhibit 1) utilizing the 20+ and 7 year risk & return assumptions to determine the impact of asset changes on the expected return & risk dynamic of the portfolio. Based on the output of this analysis, we will work with the trustees to develop a customized asset allocation strategy, within the framework of the IPS, to determine those asset classes to be included.

We compared the expected return, risk, risk-adjusted ratio, and probability of meeting a return target of 7.75% (5.25% + 2.00% Inflation Estimate + 0.50% Estimated Fees) of your target allocation and 2 other allocation mixes.

Your current target allocation consists of 47% domestic equities, 28% international equities, 8% fixed income, 12% core private real estate, and 5% Master Limited Partnerships (MLPs). Within domestic equities, we applied 15% each to large cap value & growth, 8% to small cap value, and 9% to mid cap growth. Within international equities, we applied 19% to international value and 9% to international growth. Using the 20+ year forward looking return and risk assumptions, the target allocation generated an expected return of 8.3%, risk of 12.4%, a risk-adjusted ratio of 0.43%, and a 52.7% probability of meeting the 7.75% return target. Using 7 year assumptions, the target allocation generated an expected return of 6.6%, risk of 11.8%, a risk-adjusted ratio of 0.37%, and a 47% probability of meeting the return target.

In mix 1, we further diversified mid and small cap equities by allocating 4.5% to value & growth. We also overweighted large cap value over large cap growth (19% vs. 10%) and reduced international value by 5% and allocated to emerging markets. These adjustments increased the expected return, risk, risk-adjusted ratio, and probability of meeting the return objective using the 7 and 20+ year risk & return assumptions.

In mix 2, we reduced large cap value by 3% and & large cap growth by 2% and allocated to private equity. We also eliminated MLPs and allocated 5% to private credit. These adjustments increased the expected return, risk-adjusted ratio, and probability of meeting the return target and decreased the risk using the 20+ year return and risk assumptions. Using the 7 year assumptions, the expected return remained the same, the risk decreased, and the risk- adjusted ratio and probability of meeting the return objective increased.

Active vs. Passive

Graystone Consulting Tampa may recommend a combination of active and passive management for asset classes within our clients' portfolios. We believe this approach can potentially provide a better opportunity for enhanced risk-adjusted performance. With active management, you would expect higher risk-adjusted returns than a passive index over a full market cycle; however, you accept the risk of underperformance relative to the benchmark and higher costs. A fully passive index fund approach may include lower overall investment costs, reduced single-manager risk and low style risk to the investor. This approach eliminates timing and manager selection as a means to add value (alpha) above the benchmark. The returns for a passive index fund will be less than the mirrored index returns due to the internal fees. This creates a negative alpha (value-added return) for each asset class. Consequently, the sole contributor to portfolio performance is asset allocation.

We may recommend passive index funds for more efficient asset classes (i.e. large cap equities). They have lower probability of value added returns relative to the benchmark. Active managers are typically recommended for asset classes (i.e. small cap & international equities and alternatives) that have a better opportunity to generate alpha. We will work with the trustees to determine the most appropriate approach.

Having such robust research and analytical teams staffed with senior professional and noted authorities allows Graystone Consulting to offer unique opportunities. For example, our patented proprietary ***Adverse Active Alpha℠*** manager ranking tool enhances our abilities to add value relative to an index fund. The purpose of this tool is to identify active managers with strong stock picking skills and the ability to outperform indexes and peers across cycles. This tool points towards managers whose investment processes incorporate factors linked with a greater likelihood of outperformance. We feel this tool increases the expected return where asset classes are less efficient. The GIMA team has also developed two other proprietary ranking methods for evaluating the quality of active managers. The ***Value Score*** considers active investment strategies' value proposition relative to their costs. The ***Risk Score*** evaluates active managers' effectiveness in managing risk in absolute and relative terms.

e. Please describe your firm's capabilities in evaluating alternative investments such as private equity, real estate, hedge funds, and hedge fund of funds. Please include the number of alternative searches conducted in the last 24 months and the type of alternative search.

In the twenty-first century, the investment universe for sophisticated clients with complex needs exceeds traditional investments such as stocks, bonds and cash. These clients typically require a holistic asset allocation model that incorporates alternative assets which are often illiquid such as real estate, private equity, managed futures and hedge funds, as well as other investments such as commodities and inflation-linked securities. In response to this need, the Global Investment Committee developed its proprietary approach to asset allocation, which employs sophisticated modeling techniques to address the challenges associated with alternative investments, including limited and sometimes biased historical data. This methodology underpins the GIC's portfolio construction process. As always, asset allocation does not assure a profit or protect against loss in declining financial markets, but done intelligently it can help improve the overall picture of risk and return, and reduce unintended concentrations and exposures that can compound losses in down markets. It is important to note that alternative investments include a high degree of risk, generally are illiquid, and may engage in significant leverage. Therefore, they are suitable only for eligible, long-term investors willing to forgo liquidity and put capital at risk for an indefinite period of time.

We believe inclusion of lower volatility, more liquid alternative investment vehicles can provide the ability to generate absolute return and dampen overall portfolio volatility due to the lower correlation with traditional equities and fixed income asset classes. Our firm has extensive experience in evaluating various types of alternative investments including private equity & credit, real estate, hedge funds, and funds of hedge funds.

Graystone Consulting Tampa has utilized private credit to diversify the fixed income risk. Since private credit has a variable interest rate (LIBOR plus a percentage) it can potentially be less sensitive to interest rate changes. However, there can be higher default risk with private credit than with traditional fixed income. With private credit, you are trading higher interest rate risk & lower default risk for lower interest rate risk & higher default risk.

We have utilized private equity where there may be opportunities to potentially earn higher returns in a private equity fund than in public equity. Private equity is a long-term investment vehicle that provides investors with unique opportunities not available to the general public. These investments can be difficult to value, as they are not priced on a “marked-to-market” basis. They are also considered “Blind Pool” investments meaning investors do not know the composition of the ultimate portfolio. Since private credit & equity are illiquid assets, we only recommend these investments to those clients that will not need their cash for a long period of time. Due to the illiquidity of private equity, we would not expect private equity to dampen volatility or reduce risk.

Within real estate, we typically recommend open-end core private real estate strategies to our clients. We believe with interest rates at historical lows, open-ended core private real estate offers an appropriate substitute for a portion of a client’s fixed income allocation. A core private real estate fund that invests in Class A properties, utilizes low leverage, and generates strong cash flow can be a good diversifier in a client’s portfolio. Some disadvantages in investing in an open-ended core private real estate fund are less liquidity and higher fees than traditional investments.

Graystone Consulting Tampa may recommend use of lower to medium volatility hedge funds or funds of hedge funds to clients. The overall size of the fund and the percentage allocation to hedge fund strategies determines if individual hedge funds or fund-of-funds hedge fund vehicles are appropriate. Unlike traditional asset classes which seek a relative return to a benchmark, hedge funds seek an absolute return objective. By using a fund-of-fund vehicle when the total hedge fund allocation is under $25 million, our clients are provided with diversified exposure to multiple hedge funds through one investment. Hedge funds tend to have a lower correlation to many traditional asset classes. We believe an appropriate allocation of hedge funds with traditional investments can help to reduce the overall volatility of the portfolio while providing the opportunity for enhanced returns. We have incorporated more non-directional (less reliance on the market) hedge fund of fund strategies than directional (focusing more on risk reduction). Fund of hedge fund investments often have lower minimums than single-manager hedge funds, but have additional management fees on top of the fees owed to the underlying fund managers.

Graystone Consulting Tampa may also utilize Master Limited Partnerships (MLPs) for certain clients. MLPs are utilized to provide additional income to the portfolio and are expected to provide increasing income over time. As the regulatory environment has changed and due to the unexpected volatility of returns, we have been recommending opportunistically reducing our MLP exposure.

Graystone Consulting adheres to the Prudent Investor Rule in concert with the overall objectives and constraints of the portfolio. Consequently, potential investments such as alternatives are not considered in isolation. Extensive research and analysis is performed to understand the impact a potential investment has on the risk and return of the portfolio. If, after all considerations are made, it is determined adding a specific asset to the portfolio is expected to have a positive impact on the portfolio net of fees and transaction costs, a recommendation would be made to the board to include the asset.

Our GIMA Team employs over 50 research analysts who conduct due diligence on traditional and alternative investments strategies. Morgan Stanley's 200+ person Alternative Investments Group provides additional support in the area of alternative investments. To ensure consistency and comparability, we utilize the same proprietary analysis framework used in the evaluation of traditional investment products to alternative investment products. Given some of the unique challenges associated with alternatives, such as the lack of operational and investment transparency in some cases, we will conduct additional analysis to gain a greater level of confidence. This process is outlined below:

- The analysis team identifies, sources and monitors managers of Fund of Hedge Funds, Private Equity, Private Real Estate and Special Opportunities funds

- The team employs a thorough and rigorous due diligence process wherein managers are screened based on quantitative and qualitative factors, in an effort to identify suitable candidates.

Alternative Investment due diligence process has "two pillars"

- *Investment Due Diligence*: identify, research and monitor alternative investment funds

- *Operations Due Diligence*: evaluate non-investment risk inherent in alternative investment businesses

<u>Identification & Sourcing</u>

For open-ended alternative products, such as Fund of Hedge Funds, the team narrows the universe of alternative investment managers by following a set of criteria which analyzes funds based on how managers have performed across market environments.

For illiquid private equity and private real estate funds, the team evaluates the current market landscape and identifies what it believes are the most appropriate opportunities (regional, buy-out, venture capital, property types, etc.), thus narrowing the list of suitable candidates with the experience in the identified opportunity set.

The Global Investment Manager Analysis team conducts due diligence on approximately 270 unique alternative investment strategies. Over the past 24 months, the Graystone Consulting Tampa team has conducted alternative investment searches for over 10 institutional clients. Types of searches conducted included: funds of hedge funds; liquid alternatives; core private real estate; master limited partnerships; private equity, and private credit.

7. Familiarity with Public Fund Investment Environment

Describe your familiarity and experience with issues facing Florida Public Retirement Systems.

The Graystone Consulting Tampa team has focused on providing investment consulting services to Florida Public Retirement Systems since 1985. Graystone Consulting Tampa professionals work daily with Florida Public Pension Plan attorneys, actuaries, CPA firms, audit firms, and third party administrators. As a fiduciary of the plan we understand the importance of understanding each and every issue that could potentially have an impact on the plan. The team works with over 45 public retirement plans in Florida and attends numerous meetings each quarter with the attorneys for these clients. At quarterly meetings, the plan attorneys discuss changes in federal and state legislation and we ensure the plan is in compliance with this legislation. We do not interpret the legislation; however, we have frequent contact with legal firms who specialize in this area. In addition, GCT Institutional Consulting Director Scott Owens is a frequent speaker at the Florida Public Pension Trustees Association (FPPTA) pension conferences. He and Andy McIlvaine also attend legal workshops at these conferences that address changes that have occurred in pension legislation. We believe we have unique advantages over consultants with less of a “Florida public sector footprint”. Additionally, Morgan Stanley (MS) has three dedicated legislation specialists in Washington, DC whose primary purpose is to keep MS apprised of all legislation that could potentially affect our clients. These personnel work in our Legal, Product and Government Relations business functions and are available to plan sponsors to answer questions and we also periodically publish newsletters and articles of interest to sponsors. We participate in many of the industry and trade associations (e.g. SIFMA, ICI, ASPPA) focused on these markets and we periodically host calls to update sponsors on items we think are of interest or concern. Making these individuals available to sponsors is not however intended to replace independent control functions of the sponsor. For example, our counsel may discuss our position and interpretation of regulatory action with a client but in doing so they represent our organization and are not rendering legal or tax advice to the client.

GCT understands the specific needs of public pension fund clients. We view our role as a part of your overall servicing team along with your legal counsel, actuary, accountant, auditor, and administrator. We will strive to coordinate with these providers in matters relating to the plan. For example, in recent years public pension funds in Florida have been subject to expanded financial reporting requirements (i.e. GASB 67/68/72 disclosures) and compliance with the scrutinized companies prohibition (Iran & Sudan) in the Protecting Florida’s Investments Act (PFIA). We assist our clients’ service professionals with compiling and preparing information pertaining to GASB reporting requirements. We also monitor our clients’ investment managers for compliance with PFIA.

GCT also understands the State Board of Administration requires local law plans to use the Florida Retirement System mortality rates. This may increase the unfunded liability for the plan and appears to make the plan less sound. We will work with you and your actuary to review your assumptions to accurately portray the strength of your plan.

8. Code of Ethics

Explain in detail any potential for conflict of interest that may be created by your firm's representation of the City's pension fund. Include other client relationships that may inhibit services to the Board. Please indicate:

a. Are there any circumstances under which you or any individual in your firm receive any compensation or benefits from investment managers or any third party? If yes, please describe.

All compensation and benefits received by individuals and the firm are in compliance with Financial Industry Regulatory Authority (FINRA) regulations. As a business of one of the world's largest financial services companies, it is possible one of our affiliates or businesses have a business relationship with a money manager is unaffiliated with MS and recommended to clients. Certain mutual funds may offer additional compensation to the firm in the form of 12b-1 fees, management and administrative fees, transfer agency fees, revenue sharing compensation, record keeping fees, shareholder serving fees or any other Fund related services fees. In addition, we may receive payments from various vendors (including money managers) in connection with MS-sponsored internal training and education conferences and meetings our Financial Advisors attend. Such vendors may make payments to, or for the benefit of, MS or its Financial Advisors to reimburse them for the expenses incurred for these events. MS provides sponsorship opportunities and access to our branch offices and Financial Advisors to third party service providers for educational, marketing and other promotional efforts. Other service providers may also, from time to time, provide non-monetary compensation to MS employees by paying or reimbursing for the cost of items such as meals, travel, lodging, registration fees and entertainment, in connection with training events or conferences and otherwise. Vendors participating in programs described in this document are not required to make any of these types of payments. These payments described in this section comply with Financial Industry Regulatory Authority (FINRA) rules relating to such educational activities.

For additional information and any compensation received from money managers please refer to the ADV Program Brochure applicable to your advisory program and attached form disclosure document prepared for ERISA-covered consulting clients in connection with ERISA section 408(b)(2) requirements.

MS *does not* consider the existence or extent of any such relationships or payments as a factor in making its recommendations.

b. Does your firm have any financial relationship or joint ventures with any organizations, such as an insurance company, brokerage firm, commercial bank, investment banking firm, etc? Please describe in detail the extent of this involvement with regard to both personnel and financial resources.

Graystone Consulting is a business of Morgan Stanley (MS), one of the world's largest financial services firms. Morgan Stanley is comprised of three primary business units that generate revenue; Wealth Management (which includes Graystone Consulting), Institutional Securities, and Asset Management. MS is a financial holding company regulated by the Board of Governors of the Federal Reserve System under the Bank Holding Company Act of 1956.

MS does not own an insurance company, but sells insurance products on behalf of insurance companies to wealth management clients. The firm and employees selling insurance products are compensated by the insurance company for providing this service.

MS owns a brokerage business (Morgan Stanley Smith Barney, LLC) that provides banking and lending services to wealth management clients and also provides investment banking services.

The only compensation derived by Graystone Consulting for the services provided to the City of Gainesville General Employees' Pension Plan would be the hard dollar consulting fee disclosed and agreed to in our contract.

c. Do you sell or broker any investment vehicles? If so, please describe in detail.

Graystone Consulting Tampa does not sell or broker investment vehicles to institutional clients.

d. Do you actively manage the investments of any accounts? If so, please describe in detail.

Graystone Consulting Tampa serves as an investment consultant to institutional funds, but does not actively manage the investments (i.e. security purchases and sales) of any institutional account.

e. Does your firm or any individual in your firm accept or pay finders fees from or to investment managers or any third party? If so, please describe in detail.

No, Graystone Consulting does not accept finders' fees from investment managers or third parties.

9. References

a. Please provide at least five (5) client references.

Below are Florida governmental fund clients serviced by Graystone Consulting Tampa with assets greater than $150 million.

Client Name:	JEA Inc. – 457(b) & 401(a) Plans
Contact Name:	Patricia Maillis – Director, Employee Services
Address:	21 W. Church Street, Jacksonville, FL 32202
Phone:	904-665-1432
Years Serviced:	11 years
Type of Services:	Investment Consulting Services to 457(b) & 401(a) Plans

Client Name:	St. Johns River Power Park System Employees' Retirement Plan
Contact Name:	Patricia Maillis – Director, Employee Services
Address:	21 W. Church Street, Jacksonville, FL 32202
Phone:	904-665-1432
Years Serviced:	11 years
Type of Services:	Investment Consulting Services to Defined Benefit Plan

Client Name:	City of Hallandale Beach Police & Fire Retirement Trust
Contact Name:	Alan Miller - Chairman
Address:	400 South Federal Highway, Hallandale Beach, FL 33009
Phone:	561-624-3277
Years Serviced:	14 years
Type of Services:	Investment Consulting Services to Defined Benefit Plan

Client Name: City of Pompano Beach Police & Fire Retirement System
Contact Name: Paul O'Connell
Address: 2335 E. Atlantic Blvd., Suite 400, Pompano Beach, FL 33062
Phone: 954-605-9788
Years Serviced: 17 years
Type of Services: Investment Consulting Services to Defined Benefit & DROP Plans

Client Name: City of Sarasota Firefighters' & General Employees' Pension
Contact Name: Anthony Ferrer
Address: 1565 First Street, Room 110, Sarasota, FL 34236
Phone: 941-954-4141
Years Serviced: Fire: 10 years / General: 25 years
Type of Services: Investment Consulting Services to Defined Benefit Plan

Client Name: City of St. Petersburg Employees' Retirement System
Contact Name: Vicki Grant, Administrator
Address: One 4th Street North, St. Petersburg, FL 33701
Phone: 727-893-7372
Years Serviced: 11 years
Type of Services: Investment Consulting Services to Defined Benefit & DROP Plans

Client Name: City of St. Petersburg Police Officers' Pension
Contact Name: Steve Aspinall, Chairman
Address: One 4th Street North, St. Petersburg, FL 33701
Phone: 727-644-5952
Years Serviced: 10 years
Type of Services: Investment Consulting Services to Defined Benefit & DROP Plans

b. Please list all Florida Public Plan clients.

Below are Florida Public Plan (retirement plans & VEBA/OPEB/insurance trusts) investment consulting clients served by Graystone Consulting Tampa as of June 2019 that have provided us permission to disclose their names. The clients below have received assistance in investment guidelines, asset allocation, manager searches, and quarterly evaluations.

Retirement Plans

- Aventura Police Pension Fund
- Bushnell Regular Employees' Pension
- Dania Beach Retirement Plan for General Employees
- Deerfield Beach Non-Uniformed Employees' Defined Benefit Plan
- DeLand Firefighters' Retirement Plan
- DeLand General Employees' Retirement Plan
- Frostproof Police Officers' Retirement System
- Golden Beach General & Police Retirement Plans
- Hallandale Beach Police Officers' & Firefighters' Retirement System
- Leesburg Retirement Plan for General Employees

- Live Oak Firefighters' Pension
- Longboat Key Consolidated Retirement System
- Marco Island Firefighters’ Pension Plan
- Marco Island Police Officers’ Pension Plan
- Naples General, Police, & Fire Retirement System (3 Plans)
- New Smyrna Beach Firefighters' Retirement Fund
- North Miami Beach General Employees’ Pension Fund
- North Miami Beach Police & Firefighters’ Pension Fund
- Ormond Beach General, Police, & Fire Pension Plans (3 Plans)
- Palmetto General Employees' Retirement Plan
- Pompano Beach Police Officers’ & Firefighters’ Retirement System
- Sarasota Firefighters’ Pension Plan
- Sarasota General Employees’ Pension Plan
- Sebastian Police Officers’ Retirement System
- Seminole Municipal Firefighters’ Retirement Trust Fund
- St. Pete Beach General Employees’ Pension Plan
- St. Petersburg Employees’ Retirement System
- St. Petersburg Police Officers’ Pension
- Tamarac Firefighters’ Pension Trust Fund

VEBA / OPEB / Insurance Trusts

- Dade County Firefighters’ Insurance Trust
- Fort Lauderdale Fraternal Order of Police Lodge 31 Insurance Trust
- Fort Lauderdale Firefighters’ Insurance Trust
- Fort Myers Beach Retiree Insurance Trust Fund
- Gainesville Retiree Health Fund
- Miramar Firefighters’ Local 2820 VEBA Trust Fund
- Sarasota Firefighters Insurance Trust
- Sarasota OPEB Trust

10. Compensation/Fees

Please state the annual hard dollar fee, payable quarterly to cover the required services listed in Section VI. The fee proposal must include all expenses such as travel, lodging, meals, and other out-of-pocket expenses. Please list any additional costs that may not be.

Graystone Consulting is proposing to provide institutional investment consulting services to the City of Gainesville General Employees' Pension Plan for an annual hard dollar fee of $120,000 or $30,000 per quarter.

These services discussed in detail within this response include:

- Investment policy statement ongoing review;
- Asset allocation advice;
- Investment manager searches & ongoing due diligence;
- Detailed quarterly performance evaluation reports;
- Quarterly meetings and trustee education; and
- Other Services:
  - Coordinating with your legal counsel, actuary, accountant, and administrator in matters relating to the plan.
  - Providing information on the plans to comply with State requirements.
  - Assist in identifying other service providers (i.e. ADR Tax Reclaim providers, securities litigation providers).

This fee proposal includes all expenses such as travel, lodging, meals, and other out-of-pocket expenses.

Important Disclosures

Asset Class and Security Type Risks:
The investment management services of Morgan Stanley Smith Barney LLC and investment vehicles managed by Morgan Stanley Smith Barney LLC or its affiliates are not guaranteed and could result in the loss of value to your account. You should note that investing in financial instruments carries with it the possibility of losses and that a focus on above-market returns exposes the portfolio to above-average risk. Performance aspirations are not guaranteed and are subject to market conditions. High volatility investments may be subject to sudden and large falls in value, and there could be a large loss on realization which could be equal to the amount invested.

Asset allocation, diversification and rebalancing do not assure a profit or protect against loss. There may be a potential tax implication with a rebalancing strategy. Please consult your tax advisor before implementing such a strategy.

Indices are unmanaged. An investor cannot invest directly in an index. They are shown for illustrative purposes only and do not represent the performance of any specific investment. Index returns include the reinvestment of all dividends, but do not reflect the payment of transaction costs, advisory fees or expenses that are associated with an investment. The indices selected by Morgan Stanley to measure performance are representative of broad asset classes. Morgan Stanley retains the right to change representative indices at any time.

Performance of indices may be more or less volatile than any investment product. The risk of loss in value of a specific investment 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 a client selects. Past performance does not guarantee future results.

Non diversification is attributed to 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.

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.

Value and **growth investing** also carry risks. Value investing involves the risk that the market may not recognize that securities are undervalued and they may not appreciate as anticipated. 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.

Equity securities' prices may fluctuate in response to specific situations for each company, industry, market conditions and general economic environment. Companies paying dividends can reduce or cut payouts at any time.

International securities may carry additional risks, including foreign economic, political, monetary and/or legal factors, changing currency exchange rates, foreign taxes and differences in financial and accounting standards. International investing may not be for everyone. These risks may be magnified in **emerging markets**.

Small- and mid- capitalization companies may lack the financial resources, product diversification and competitive strengths of larger companies. The securities of small capitalization companies may not trade as readily as, and be subject to higher volatility than, those of larger, more established companies.

Bonds are subject to interest rate risk. When interest rates rise, bond prices fall; generally the longer a bond's maturity, the more sensitive it is to this risk. Bonds may also be subject to call risk, which allows the issuer to retain the right to redeem the debt, fully or partially, before the scheduled maturity date. Proceeds from sales prior to maturity may be more or less than originally invested due to changes in market conditions or changes in the credit quality of the issuer.

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

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

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

Real estate investment values can fall due to environmental, economic or other reasons, and changes in interest rates can negatively impact the performance of real estate companies.

The risks of investing in **Real Estate Investment Trusts (REITs)** are similar to those associated with direct investments in real estate: lack of liquidity, limited diversification, and sensitivity to economic factors such as interest rate changes and market recessions.

Derivatives, in general, involve special risks and costs that may result in losses. The successful use of derivatives requires sophisticated management, in order to manage and analyze derivatives transactions. The prices of derivatives may move in unexpected ways, especially in abnormal market conditions. In addition, correlation between the particular derivative and an asset or liability of the manager may not be what the investment manager expected. Some derivatives are "leveraged" and therefore may magnify or otherwise increase investment losses. Other risks include the potential inability to terminate or sell derivative positions, as a result of counterparty failure to settle or other reasons.

Mortgage-backed securities ("MBS"), which include collateralized mortgage obligations ("CMOs"), also referred to as real estate mortgage investment conduits ("REMICs"), may not be suitable for all investors. There is the possibility of early return of principal due to mortgage prepayments, which can reduce expected yield and result in reinvestment risk. Conversely, return of principal may be slower than initial prepayment speed assumptions, extending the average life of the security up to its listed maturity date (also referred to as extension risk). Additionally, the underlying collateral supporting MBS may default on principal and interest payments. Investments in subordinated MBS involve greater credit risk of default than the senior classes of the same issue. MBS are also sensitive to interest rate changes which can negatively impact the market value of the security. During times of heightened volatility, MBS can experience greater levels of illiquidity and larger price movements.

Commodities markets may fluctuate widely based on a variety of factors including, but not limited to, changes in supply and demand relationships; governmental programs and policies; national and international political and economic events, war and terrorist events; changes in interest and exchange rates; trading activities in commodities and related contracts; pestilence, technological change and weather; and the price volatility of a commodity.

Real Assets may include precious metals, commodities, oil and gas interests and timber interests. The prices of real assets tend to fluctuate widely and in an unpredictable manner. Real assets may be affected by several factors, including global supply and demand, investors' expectations with respect to the rate of inflation, currency exchange rates, interest rates, investment and trading activities of hedge funds and commodity funds, and global or regional political, economic or financial events and situations.

Alternative/hedged strategies may use 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/hedged strategies are not appropriate for all investors. A short sales strategy includes the risk of loss due to an increase in the market value of borrowed securities. Such a strategy may be combined with purchasing long positions in an attempt to improve portfolio performance. A short sales strategy may result in greater losses or lower positive returns than if the portfolio held only long positions, and the portfolio's loss on a short sale is potentially unlimited. The use of leverage can magnify the impact of adverse issuer, political, regulatory, market, or economic developments on a company. A decrease in the credit quality of a highly leveraged company can lead to a significant decrease in the value of the company's securities. In a liquidation or bankruptcy, a company's creditors take precedence over the company's stockholders.

Alternative strategy mutual funds 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. Non-traditional investment options and strategies are often employed by a fund's 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." The fund's prospectus will contain information and descriptions of any non-traditional and complex strategies utilized by the fund.

MLPs involve risks that differ from an investment in common stock. MLPs are controlled by their general partners, which generally have conflicts of interest and limited fiduciary duties to the MLP, which may permit the general partner to favor its own interests over the MLPs. The potential return of MLPs depends largely on the MLPs being treated as partnerships for federal income tax purposes. As a partnership, an MLP has no federal income tax liability at the entity level. Therefore, treatment of one or more MLPs as a corporation for federal income tax purposes could affect the portfolio's ability to meet its investment objective and would reduce the amount of cash available to pay or distribute to you. Legislative, judicial, or administrative changes and differing interpretations, possibly on a retroactive basis, could negatively impact the value of an investment in MLPs and therefore the value of your investment.

For the reasons outlined below, where an otherwise tax exempt account (such as an IRA (as defined below), qualified retirement plan, charitable organization, or other tax exempt or deferred account) is invested in a pass through entity (such as a MLP), the income from such entity may be subject to taxation, and additional tax filings may be required. Further, the tax advantages associated with these investments are generally not realized when held in a tax-deferred or tax exempt account. Please consult your own tax advisor, and consider any potential tax liability that may result from such an investment in an otherwise tax exempt account.

Earnings generated inside most qualified retirement plans, including defined benefit pension plans, defined contribution plans and individual retirement accounts ("IRAs"), are generally exempt from federal income taxes, however, certain investments made by such retirement plans may generate taxable income referred to as "unrelated business taxable income" ("UBTI") that is subject to taxation at trust rates. Generally, passive types of income (when not financed with debt) such as dividends, interest, annuities, royalties, most rents from real property, and gains from the sale, exchange or other disposition of property (other than inventory or property held for sale in the ordinary course of a trade or business) do not generate UBTI. Active income associated with operating a trade or business, however, may constitute UBTI to an otherwise tax exempt investor such as a qualified retirement plan. In addition, UBTI may also be received as part of an investor's allocable share of active income generated by a pass-through entity, such as partnerships (including limited partnerships and MLPs), certain trusts, subchapter S corporations, and limited liability companies that are treated as disregarded entities, partnerships, or subchapter S corporations for federal income tax purposes.

If more than $1,000 of unrelated trade or business gross income is generated in a tax year, the retirement plan's custodian or fiduciary (on behalf of the retirement plan) must file an Exempt Organization Business Income Tax Return, Form 990-T. With respect to an individual investing through an IRA, in calculating the threshold amount and the retirement plan's UBTI for the year, each IRA is generally treated as a separate taxpayer, even if the same individual is the holder of multiple IRAs.

The passive activity loss limitation rules also apply for purposes of calculating a retirement plan's UBTI, potentially limiting the amount of losses that can be used to offset the retirement plan's income from an unrelated trade or business each year. It should be noted that these rules are applied to publicly traded partnerships, such as MLPs, on an entity-by-entity basis, meaning that the passive activity losses generated by one MLP generally can only be used to offset the passive activity income (including unrelated traded or business income) from the same MLP. The passive activity losses generated by one MLP generally cannot be used to offset income from another MLP (or any other source). The disallowed losses are suspended and carried forwarded to be used in future years to offset income generated by that same MLP. However, once the retirement plan disposes of its entire interest in the MLP to an unrelated party, the suspended losses can generally be used to offset any unrelated trade or business income generated inside the retirement plan (including recapture income generated on the sale of the MLP interest, as well as income generated by other MLPs).

In calculating the tax, trust tax rates are applied to the retirement plan's UBTI (i.e., unrelated trade or business gross income less any applicable deductions, including the $1,000 specific deduction). In addition to the passive loss limitation rules noted above, other limitations may apply to the retirement plan's potential tax deductions. In order to file Form 990-T, the retirement plan is required to obtain an Employer Identification Number ("EIN") because the plan (and not the plan owner or fiduciary) owes the tax. State and local income taxes may also apply. Accordingly, retirement plan investors (and their fiduciaries) should consult their tax and legal advisors regarding the federal, state, and local income tax implications of their investments.

Similar rules apply to other tax-exempt organizations (e.g., charitable and religious organizations), except that certain differences may apply. For instance, the UBTI of most other tax-exempt organizations is taxable at corporate rates, unless the organization is one that would be taxed as a trust if it were not tax-exempt in which case its UBTI is taxable at trust rates. Also, the passive activity loss limitation rules do not apply to all tax-exempt organizations. Tax-exempt investors should consult their tax and legal advisors regarding the federal, state, and local income tax implications of their investments.

The current yield of **preferred securities** is calculated by multiplying the coupon by par value divided by the market price. 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. The initial rate on a floating rate or index-linked preferred 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/linked index. However, there can be no assurance that these increases will occur.

Convertible securities are convertible to equity at the option of the holder. The market value of the securities, and the underlying common stock into which they are convertible, will fluctuate. In particular, securities whose value depends on the performance of an underlying security entail potentially higher volatility and risk of loss compared to traditional bond investments. You should be aware that the market value of convertible bonds may not correspond volatility and risk of loss compared to traditional bond directly to increases or decreases in the underlying stock.

Many **floating rate securities** specify rate minimums (floors) and maximums (caps). Floaters are not protected against interest rate risk. In a declining interest rate environment, floaters will not appreciate as much as fixed-rate bonds. A decline in the applicable benchmark rate will result in a lower interest payment, negatively affecting the regular income stream from the floater.

Closed-end funds, unlike open-end funds, are not continuously offered. There is a onetime public offering and once issued, shares of closed-end funds are sold in the open market through a stock exchange. Net asset value (NAV) is total assets less total liabilities divided by the number of shares outstanding. At the time of sale, your shares may have a market price that is above or below NAV. There is no assurance that the fund will achieve its investment objective. The fund is subject to investment risks, including possible loss of principal invested.

An investment in an **exchange-traded fund** involves risks similar to those of investing in a broadly based portfolio of equity securities traded on 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 prices. The investment return and principal value of ETF investments will fluctuate, so that an investor's ETF shares, if or when sold, may be worth more or less than the original cost.

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.

All mutual funds/exchange traded funds are sold by prospectus, which contains more complete information about the fund. Please contact Financial Advisor for copies. Please read the prospectus and consider the fund's objectives, risks, charges and expenses carefully before investing. The prospectus contains this and other information about the fund.

Non 1940 Investment Company Act registered funds not currently held by recipient must be preceded or accompanied by the prospectus.

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

The program account will be charged an asset-based wrap fee every quarter ("the Fee"). In general, the Fee covers investment advisory services, the execution of transactions through Morgan Stanley Smith Barney LLC or its affiliates, custody of the client's assets with Morgan Stanley Smith Barney LLC and its affiliates, and reporting. In addition to the Fee, you will pay the fees and expenses of any funds in which your account is invested. Fund fees and expenses are charged directly to the pool of assets the fund invests in and are reflected in each fund's share price. You understand that these fees and expenses are an additional cost to you and will not be included in the Fee amount in your account statements. Please see the applicable program disclosure document for more information including a description of the fee schedule.

Additional Disclosures:

Adverse Active Alpha Disclosure:

Adverse Active Alpha (AAA) is a patented screening and scoring process designed to help identify strong stock picking equity 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 outperform. 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 processes 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.

GIMA Disclosures:

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.

Global Investment Manager Analysis (GIMA) Focus List, Approved List and Tactical Opportunities List; Watch Policy. GIMA uses two methods to evaluate investment products in applicable advisory programs: Focus (and investment products meeting this standard are described as being on the Focus List) and Approved (and investment products meeting this standard are described as being on the Approved List). In general, Focus entails a more thorough evaluation of an investment product than Approved. Sometimes an investment product may be evaluated using the Focus List process but then placed on the Approved List instead of the Focus List.

Investment products may move from the Focus List to the Approved List, or vice versa. GIMA may also determine that an investment product no longer meets the criteria under either process and will no longer be recommended in investment advisory programs (in which case the investment product is given a "Not Approved" status).

GIMA has a 'Watch" policy and may describe a Focus List or Approved List investment product as being on "Watch" if GIMA identifies specific areas that (a) merit further evaluation by GIMA and (b) may, but are not certain to, result in the investment product becoming "Not Approved." The Watch period depends on the length of time needed for GIMA to conduct its evaluation and for the investment manager or fund to address any concerns.

Certain investment products on either the Focus List or Approved List may also be recommended for the Tactical Opportunities List based in part on tactical opportunities existing at a given time. The investment products on the Tactical Opportunities List change over time.

For more information on the Focus List, Approved List, Tactical Opportunities List and Watch processes, please see the applicable Form ADV Disclosure Document for Morgan Stanley Wealth Management. Your Financial Advisor or Private Wealth Advisor can also provide upon request a copy of a publication entitled "Manager Selection Process."

Cerulli Disclosure – **Cerulli Associates, 3Q 2016 Summary Report**. Cerulli Associates' data are based on data submitted by firms participating in Cerulli's survey. Morgan Stanley Wealth Management was ranked No. 1 in terms of assets under management out of the firms listed in the industry for the quarter with respect to Top Managed Account Program Sponsors across all Industry Segments. This category includes separate account consultant programs, mutual fund advisory programs, ETF advisory programs, rep as portfolio manager programs, rep as advisor programs and unified managed account programs. Separate account consultant programs are programs in which asset managers manage investors' assets in discretionary and non-discretionary programs designed to systematically allocate investors' assets across a wide range of mutual funds or ETFs. Rep as portfolio manager programs are discretionary programs in which advice is an essential element; planning is undertaken or advice is treated as a separate service from brokerage. Rep as advisor programs are non-discretionary programs where the advisor has not been given discretion by the client and must obtain approval each time a change is made to the account or its investments. Unified managed accounts are vehicle-neutral platforms that simplify the delivery of multiple investment vehicles, such as separate accounts, mutual funds, exchange-traded funds and individual securities through their integration within a single environment. Rankings are subject to change. Some historical figures may be revised due to newly identified programs, firm restatements, etc.

Barron's Disclosure (2015):

Source: Barron's "Ranking the Institutional Consultants," April 20, 2015. The teams in the ranking were evaluated on a range of criteria, including institutional investment assets overseen by the team, the revenue generated by those assets, the number of clients served by the team, and the number of team members and their regulatory records. Also considered were the advanced professional designations and accomplishments represented on the team. The rating is not indicative of the Institutional Consultant's past or future performance. Neither Morgan Stanley Smith Barney LLC nor its Institutional Consultants pay a fee to Barron's in exchange for the rating. Barron's is a registered trademark of Dow Jones & Company, L.P. All rights reserved.

Barron's Disclosure (2017):

Source: *Barron's* "Ranking the Institutional Consultants," April 17, 2017. The teams in the ranking were evaluated on a range of criteria, including institutional investment assets overseen by the team, the revenue generated by those assets, the number of clients served by the team, and the number of team members and their regulatory records. Also considered were the advanced professional designations and accomplishments represented on the team. The rating is not indicative of the Institutional Consulting Director's past or future performance. Neither Morgan Stanley Smith Barney LLC nor its Institutional Consulting Directors pay a fee to *Barron's* in exchange for the rating. *Barron's* is a registered trademark of Dow Jones & Company, L.P. All rights reserved.

Barron's Disclosure (2018) - 2018 Top 100 Financial Advisors

Barron's, April 2018 – The 2018 Top 100 Financial Advisor. The annual *Barron's* Top 100 Financial Advisor list evaluates advisors from large brokerage firms as well as independents. Rankings are based on assets under management, revenue generated for the advisors' firms, and the quality of the advisors' practices. Investment performance isn't an explicit factor because clients have varied goals and risk tolerances. Neither Morgan Stanley Smith Barney LLC nor its Financial Advisors paid a fee to the *Barron's* in exchange for the rating

Barron's Disclosure (2018) – Top 50 Institutional Consultants

Barron's, April 2018 – The 2018 Top 50 Institutional Consultants. The *Barron's* 2018 Top 50 Institutional Consultants list is based on an array of criteria, including the amount of institutional investments each team oversees, the revenue those assets generate, the size of client rosters, and the number of team members. Neither Morgan Stanley Smith Barney LLC nor its Financial Advisors paid a fee to the *Barron's* in exchange for the rating.

NAPA Disclosure:

NAPA Net's Top Women Advisors of 2015

NAPA Net's "Top Women Advisors of 2015", October 14, 2015 as appearing in NAPA Net or *www.NAPA-NET.org* is based on a combination of nominations by the NAPA members as well as votes from individuals across the spectrum of the retirement industry. Nominees are asked to respond to a series of questions, both quantitative and qualitative, about their experience and practice. A panel of judges reviewed the anonymized questionnaires and selected the women honored in four separate categories including All-Star, Captains, MVPs and Rising Stars. The rating is not indicative of the Financial Advisors future performance. Neither Morgan Stanley Smith Barney LLC nor its Financial Advisors pay a fee to NAPA-Net in exchange for the rating.

Financial Times Magazine Top 400 Financial Advisors Award Disclosure

Source: *The Financial Times Top 400 Financial Advisors* is an independent listing produced by the Financial Times [Insert Month, Year]. The FT 400 is based in large part on data gathered from and verified by broker-dealer home offices, and, as identified by the FT, reflected each advisor's performance in six primary areas, including assets under managements, asset growth, compliance record, experience, credentials and accessibility. The rating may not be representative of any one client's experience and is not indicative of the Financial Advisor's future performance. Neither Morgan Stanley Smith Barney LLC nor its Financial Advisors or Private Wealth Advisors pays a fee to *The Financial Times* in exchange for the rating.

Financial Times Magazine Top 401 Retirement Plan Advisors Award Disclosure

The Financial Times Top 401 Retirement Plan Advisors is an independent listing produced by the Financial Times [Insert Month, Year] The FT 401 is based on data gathered from financial advisors, firms, regulatory disclosures, and the FT's research. The listing reflects each advisor's performance in eight primary areas, including: Defined Contribution (DC) plan assets under management; DC plan assets as a percentage of overall Assets Under Management (AUM); growth in DC plan AUM; growth in DC plans advised; DC plan employee participation; professional designations; experience; and compliance record. Neither Morgan Stanley Smith Barney LLC nor its Financial Advisors pay a fee to The Financial Times in exchange for inclusion in the FT 401.

Planadviser's 2017 Top 100 Retirement Plan advisers Disclosure

The "PLANADVISER Top 100 Retirement Plan Advisers" list is compiled from responses to the PLANADVISER Retirement Plan Adviser Survey. The list is drawn solely from a set of quantitative variables and information in the survey supplied by the advisers themselves. For an adviser to be eligible for recognition in this year's Top 100, he had to submit a completed entry to our 2016 Retirement Plan Adviser Survey, which was fielded this past September. A sub-segment of the questions was used to determine eligibility for the Top 100.

PLANADVISER'S 2018 Retirement Plan Advisers of the Year Disclosure

PLANADVISER.com, January/February 2018 – PLANADVISER'S 2018 Retirement Plan Advisers of the Year. The "PLANADVISER'S 2018 Retirement Plan Advisers of the Year" list is compiled from nominations that were solicited online from retirement plan advisers, from their employers and/or broker/dealers and from plan sponsors, as well as from working partners of the advisers, including investment vendors, accountants, attorneys, and pension administrators. In order to be selected as a finalist, advisers had to meet requirements set by PLANADVISER, which reflect what is considered to be the evolving best practice standard. Advisers must have a significant majority of their business revenue derived from employer-sponsored retirement plans, serve as a fiduciary, show a commitment to fee-based compensation, set high standards for plan benchmarks and have most of their plans on their way to meeting those standard. The rating is not indicative of the Financial Advisor's future performance. Neither Morgan Stanley Smith Barney LLC nor its Financial Advisors paid a fee to PLANADVISER in exchange for the rating.

***Forbes* Best-In-State Wealth Advisors (February 2018) Disclosure**

Forbes, February 2018 – *Forbes* Best-In-State Wealth Advisors. To qualify for consideration on the "*Forbes* Best-In-State Wealth Advisors" list, a candidate must have had seven years of experience as a Financial Advisor and must have been nominated by their Firm. Each list is determined by an algorithm used by SHOOK Research that is based on qualitative and quantitative criteria which include in-person interviews, industry experience, community **involvement, client retention data and revenue trends. Portfolio performance is not a criterion. Neither Morgan Stanley Smith Barney LLC nor its Financial Advisors paid a fee to *Forbes* in exchange for the rating.**

***Forbes* Top Women Wealth Advisors Disclosure (May 2018)**

Forbes, May 2018 – 2018 Top Women Wealth Advisors**.** The *Forbes* ranking of America's Top Women Wealth Advisors, developed by SHOOK Research, is based on an algorithm of qualitative and quantitative data, rating thousands of wealth advisors with a minimum of seven years of experience and weighing factors like revenue trends, assets under management, compliance records, industry experience and best practices learned through telephone and in-person interviews. Portfolio performance is not a criteria due to varying client objectives and lack of audited data. Neither Morgan Stanley Smith Barney LLC nor its Financial Advisors paid a fee to *Forbes* in exchange for the rating**.**

Fee Structures Disclosure:

Actual fee structures will vary and are set by individual investment consulting firms. Actual portfolio management fees will vary over time based upon then-current asset allocation and selection of individual investment managers/products.

Client List Disclosure

The Graystone Consulting clients listed as of (Insert date) may participate in various investment advisory programs sponsored by MSSB. This list is based on objective criteria not related to performance. It is unknown whether any of the listed clients approve or disapprove of the services that we provide to them. Inclusion of a client name on this list is not intended to imply that client endorses us or the services that we provide to them in any way. This list should not be construed as an expression of any client's experience with Graystone Consulting or a suggestion that one client's past experience is in any way indicative of another client's future experience with Graystone Consulting. The clients listed above are a representative list of the Graystone Consulting or the MSWM Institutional Services business or the team name and are not intended to represent the clients of any individual Institutional consultant or all clients of Graystone Consulting or the MSWM Institutional Services business

Actual results may vary and past performance is no guarantee of future results.
Diversification does not ensure against loss.

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Graystone
Consulting

Tab 2:
Required Forms

PROPOSAL RESPONSE FORM – SIGNATURE PAGE

(submit this form with your proposal)

TO: City of Gainesville, Florida
200 East University Avenue
Gainesville, Florida 32601

PROJECT: **Investment Consulting Services for General Employees' Pension Plan**

RFP#: **FPEN-190042-DS**

RFP DUE DATE: **July 8, 2019 @ 3:00 p.m. (local time)**

Proposer's Legal Name: Graystone Consulting, a business of Morgan Stanley, LLC.

Proposer's Alias/DBA: ______

Proposer's Address: 100 N Tampa St, Suite 3000
Tampa, FL 33602

PROPOSER'S REPRESENTATIVE (to be contacted for additional information on this proposal):

Name: Stanley Carter

Telephone Number: 813-227-2061

Date: July 2, 2019

Fax Number: 941-306-2714

Email Address: stanley.g.carter@morganstanley.com

ADDENDA

The Proposer hereby acknowledges receipt of Addenda No.'s 1 ______, ______, ______, to these Specifications.

TAXES

The Proposer agrees that any applicable Federal, State and Local sales and use taxes, which are to be paid by City of Gainesville, are included in the stated bid prices. Since often the City of Gainesville is exempt from taxes for equipment, materials and services, it is the responsibility of the Contractor to determine whether sales taxes are applicable. The Contractor is liable for any applicable taxes which are not included in the stated bid prices.

LOCAL PREFERENCE (check one)

Local Preference requested: ☐ YES ☒ NO

A copy of your Business tax receipt and Zoning Compliance Permit should be submitted with your bid if a local preference is requested.

QUALIFIED LOCAL SMALL AND/OR DISABLED VETERAN BUSINESS STATUS (check one)

Is your business qualified as a Local Small Business in accordance with the City of Gainesville Small Business Procurement Program? (Refer to Definitions) ☐ YES ☒ NO

Is your business qualified as a Local Service-Disabled Veteran Business in accordance with the City of Gainesville Small and Service-Disabled Veteran Business Procurement Program? (Refer to Definitions) ☐ YES ☒ NO

SERVICE-DISABLED VETERANS' BUSINESS (check one)

Is your business certified as a service-disabled veterans' business? ☐ YES ☒ NO

LIVING WAGE COMPLIANCE

See Living Wage Decision Tree (Exhibit C hereto)

Check One:

[X] Living Wage Ordinance does not apply
(check all that apply)

- [X] Not a covered service
- [ ] Contract does not exceed $100,000
- [ ] Not a for-profit individual, business entity, corporation, partnership, limited liability company, joint venture, or similar business, who or which employees 50 or more persons, but not including employees of any subsidiaries, affiliates or parent businesses.
- [ ] Located within the City of Gainesville enterprise zone.

[ ] Living Wage Ordinance applies and the completed Certification of Compliance with Living Wage is included with this bid.

NOTE: If Contractor has stated Living Wage Ordinance does not apply and it is later determined Living Wage Ordinance does apply, Contractor will be required to comply with the provision of the City of Gainesville's living wage requirements, as applicable, without any adjustment to the bid price.

SIGNATURE ACKNOWLEDGES THAT: (check one)

[X] Proposal is in full compliance with the Specifications.

[ ] Proposal is in full compliance with specifications except as specifically stated and attached hereto.

Signature also acknowledges that Proposer has read the current City of Gainesville Debarment/Suspension/Termination Procedures and agrees that the provisions thereof shall apply to this RFP.

(CORPORATE SEAL)

ATTEST:

Signature

By: Margaret T. Dugan

Title: Assistant Secretary

PROPOSER:

Signature

By: Stanley Carter

Title: Executive Director - Complex Manager

DRUG-FREE WORKPLACE FORM

The undersigned vendor in accordance with Florida Statute 287.087 hereby certifies that

Graystone Consulting, a business of Morgan Stanley, LLC. ______________________________ does:
(Name of Business)

1. Publish a statement notifying employees that the unlawful manufacture, distribution, dispensing, possession, or use of a controlled substance is prohibited in the workplace and specifying the actions that will be taken against employees for violations of such prohibition.

2. Inform employees about the dangers of drug abuse in the workplace, the business's policy of maintaining a drug-free workplace, any available drug counseling, rehabilitation, and employee assistance programs, and the penalties that may be imposed upon employees for the drug abuse violations.

3. Give each employee engaged in providing the commodities or contractual services that are under bid a copy of the statement specified in subsection (1).

4. In the statement specified in subsection (1), notify the employees that, as a condition of working on the commodities or contractual services that are under bid, the employee will abide by the terms of the statement and will notify the employer of any conviction of, or plea of guilty or nolo contendere to, any violation of Chapter 893 or of any controlled substance law of the United States or any state, for a violation occurring in the workplace no later than five (5) days after such conviction.

5. Impose a sanction on, or require the satisfactory participation in a drug abuse assistance or rehabilitation program if such is available in the employee's community, by any employee who is so convicted.

6. Make a good faith effort to continue to maintain a drug-free workplace through implementation of this section.

As the person authorized to sign the statement, I certify that this firm complies fully with the above requirements.

____
Bidder's Signature

July 2, 2019
Date

Graystone Consulting

Tab 3: Exhibit 1
Sample Asset Allocation Study

Asset Allocation Review

Graystone Consulting℠
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Presentation for:

Scott Owens, CFA, CIMA
Vice President
Institutional Consulting Director
Scott.owens@msgraystone.com
100 North Tampa St., Suite 3000
Tampa, FL 33602

City of Gainesville General Employees' Pension Plan

July 2019

City of Gainesville General Employees' Pension Plan
Sample Asset Allocation Analysis - July 2019

	Risk / Return Characteristics	Target Allocation	Mix 1	Mix 2
20+ Year Secular Assumptions	Expected Return	8.3%	8.4%	8.5%
	Risk	12.4%	12.5%	11.9%
	Sharpe Ratio	0.43%	0.44%	0.47%
	Probability of Loss in Any Given Year	24.5%	24.5%	23.0%
	Probability > 7.75% ROR - Any Given Year *	52.7%	53.0%	53.5%
7 Year Strategic Assumptions	Expected Return	6.6%	6.8%	6.8%
	Risk	11.8%	11.9%	11.3%
	Sharpe Ratio	0.37%	0.38%	0.40%
	Probability of Loss in Any Given Year	28.0%	27.6%	26.4%
	Probability > 7.75% ROR - Any Given Year *	47.0%	47.7%	47.8%
	US Large Cap Value	15.00%	19.00%	16.00%
	US Large Cap Growth	15.00%	10.00%	8.00%
	US Mid Cap Value		4.50%	4.50%
	US Small Cap Value	8.00%	4.50%	4.50%
	US Mid Cap Growth	9.00%	4.50%	4.50%
	US Small Cap Growth		4.50%	4.50%
	International Value	19.00%	14.00%	14.00%
	International Growth	9.00%	9.00%	9.00%
	Emerging Markets		5.00%	5.00%
	Total Equities	75.00%	75.00%	70.00%
Fixed Income	Core	8.00%	8.00%	8.00%
	Total Fixed Income	8.00%	8.00%	8.00%
Alternatives	Core Private Real Estate	12.00%	12.00%	12.00%
	Master Limited Partnerships	5.00%	5.00%	
	Private Equity			5.00%
	Private Credit			5.00%
	Total Alternatives	17.00%	17.00%	22.00%
	TOTAL ASSETS	100.00%	100.00%	100.00%

* Target Return = 5.25% + 2.0% Inflation Estimate + 0.50% Estimated Investment Expenses

INVESTMENT PROFILE

Report Prepared for Gainesville General

OVERVIEW

The following profile reflects our current understanding of your situation based upon information provided to us on June 25, 2019, as does your current portfolio allocation depicted on slide 4 and the fee assumptions most appropriate for your circumstances depicted on page 5 of the Appendix. The Current Portfolio is also depicted on page 1 of the Appendix, broken into more granular asset classes

Portfolio Value	$425,000,000
Investment Objectives[1]:	The primary investment objective of the Plan is to ensure over the long-term life of the Plan, an adequate level of assets are available to fund the benefits guaranteed to City employees and their beneficiaries at the time they are payable.
Risk Tolerance:	Moderate
Spending Policy:	Exceed assumed actuarial rate.

[1]This statement of Investment Objectives should not be construed as a guarantee of any specific investment outcomes.

Please see the Appendix for important disclosures about this presentation.

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STATISTICAL COMPARISON - HYPOTHETICAL RANGE OF RETURNS AT 3 HORIZONS

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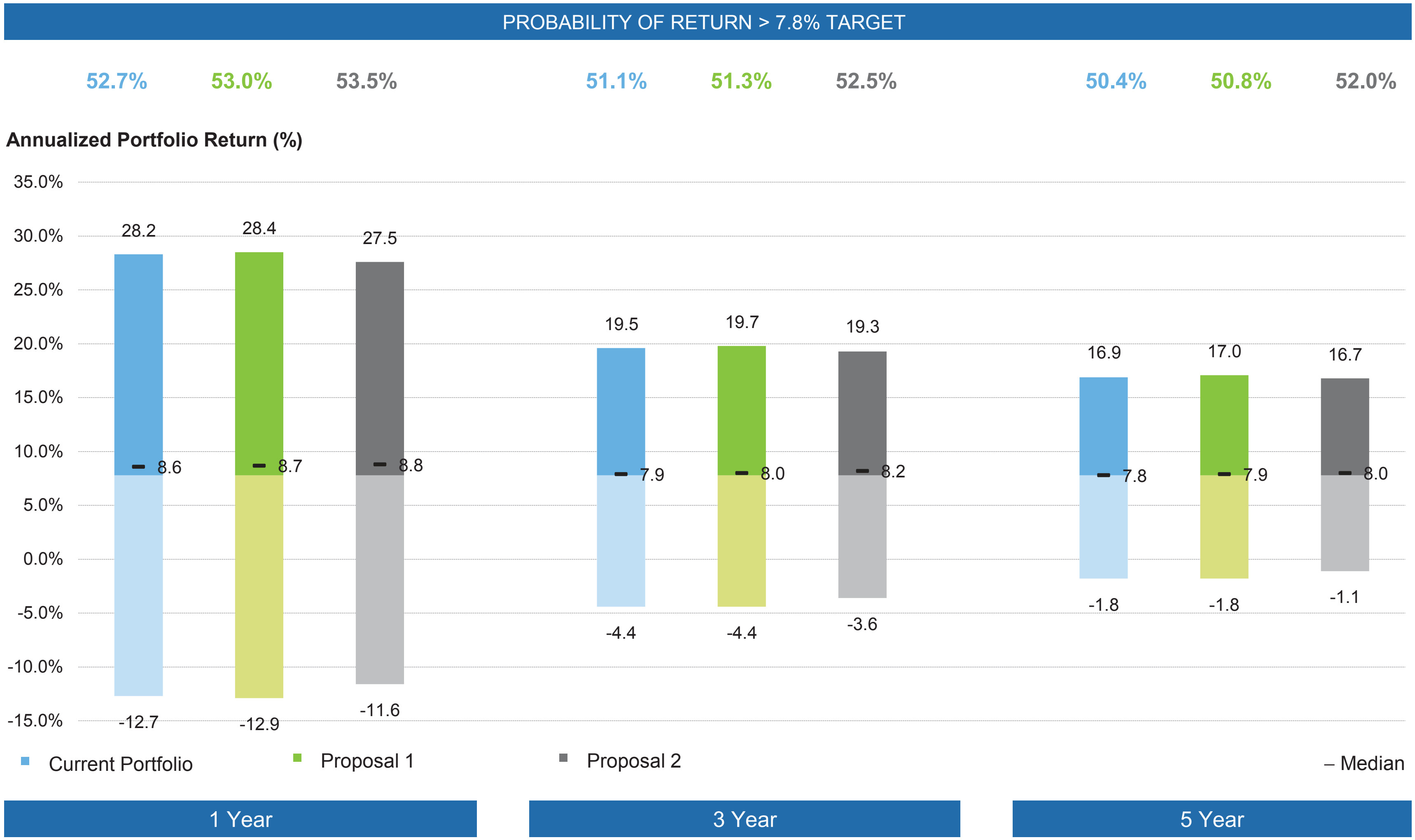

Source: Global Investment Committee

All figures above arebased on assumptions of risk and return detailed on pages 4-6 of the Appendix. Please see the Glossary in the Appendix for definitions of certain terms used above.

IMPORTANT: The projections or other information generated by the Asset Allocation Center, the investment analysis tool used to compile this report, regarding the likelihood of various investment outcomes are hypothetical in nature, do not reflect any actual investment results, and are not guarantees of future results. Results generated using this simulation analysis will vary with each use and over time. Please see the Appendix for important disclosures about this presentation.

APPENDIX

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GRANULAR PORTFOLIO ALLOCATIONS

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GRANULAR ALLOCATIONS			
	Current Portfolio	**Proposal 1**	**Proposal 2**
US Fixed Income	8.0%	8.0%	8.0%
Total Bonds	**8.0%**	**8.0%**	**8.0%**
US Large Cap Growth Equity	15.0%	10.0%	8.0%
US Large Cap Value Equity	15.0%	19.0%	16.0%
US Mid Cap Growth Equity	9.0%	4.5%	4.5%
US Mid Cap Value Equity		4.5%	4.5%
US Small Cap Growth Equity		4.5%	4.5%
US Small Cap Value Equity	8.0%	4.5%	4.5%
Europe Equity	15.3%	12.7%	12.7%
Japan Equity	5.8%	4.9%	4.9%
Asia Pacific ex Japan Equity	2.9%	2.4%	2.4%
Emerging Markets Equity	4.0%	8.0%	8.0%
Total Equities	**75.0%**	**75.0%**	**70.0%**
Master Limited Partnerships	5.0%	5.0%	
Private Credit			5.0%
Private Equity			5.0%
Core Private Real Estate Funds	12.0%	12.0%	12.0%
Total Alternatives	**17.0%**	**17.0%**	**22.0%**
TOTAL	**100.0%**	**100.0%**	**100.0%**

Table depicts assumed allocations to *granular asset classes* for the Current and Proposed Portfolios presented on page . The preceding analysis was based on the allocations listed above and the risk and return assumptions to follow on Pages 4-6 of the Appendix.

GIC STRATEGIC MODEL ALLOCATIONS

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Level 2 Strategic Model Allocations	Model 1	Model 2	Model 3	Model 4	Model 5
Ultra-Short Fixed Income	15.0%	13.0%	8.0%	4.0%	3.0%
Total Cash	**15.0%**	**13.0%**	**8.0%**	**4.0%**	**3.0%**
Short Term Fixed Income	20.0%	16.0%	10.0%	5.0%	
US Fixed Income	25.0%	21.0%	14.0%	8.0%	
International Fixed Income	1.0%	1.0%	2.0%	1.0%	
High Yield	6.0%	3.0%	4.0%	1.0%	
Total Bonds	**52.0%**	**41.0%**	**30.0%**	**15.0%**	
US Large Cap Growth Equity	2.0%	2.0%	5.0%	7.0%	9.0%
US Large Cap Value Equity	2.0%	4.0%	7.0%	8.0%	11.0%
US Mid Cap Growth Equity				1.0%	1.0%
US Mid Cap Value Equity	1.0%	1.0%	1.0%	2.0%	2.0%
US Small Cap Growth Equity				1.0%	1.0%
US Small Cap Value Equity	1.0%	1.0%	1.0%	2.0%	2.0%
Europe Equity	5.0%	7.0%	12.0%	14.0%	19.0%
Japan Equity	3.0%	4.0%	4.0%	6.0%	7.0%
Asia Pacific ex Japan Equity		1.0%	1.0%	1.0%	1.0%
Emerging Markets Equity	3.0%	3.0%	5.0%	6.0%	8.0%
Total Equities	**17.0%**	**23.0%**	**36.0%**	**48.0%**	**61.0%**
Real Estate Investment Trusts	1.0%	1.0%	2.0%	2.0%	2.0%
Master Limited Partnerships	3.0%	3.0%	3.0%	4.0%	4.0%
Absolute Return Assets	2.0%	4.0%	2.0%	1.0%	
Equity Hedge Assets		1.0%	5.0%	5.0%	6.0%
Equity Return Assets				3.0%	6.0%
Private Credit	1.0%	2.0%	2.0%	3.0%	4.0%
Private Equity	3.0%	6.0%	8.0%	9.0%	8.0%
Private Real Estate Funds	6.0%	6.0%	4.0%	6.0%	6.0%
Total Alternatives	**16.0%**	**23.0%**	**26.0%**	**33.0%**	**36.0%**
Total	**100.0%**	**100.0%**	**100.0%**	**100.0%**	**100.0%**

Model Portfolios are globally diversified balanced portfolios that reflect the best thinking of the Global Investment Committee for specific client circumstances, and range in market risk exposure from lowest (Model 1) to highest (Model 5). Level 1 Model Portfolios are recommended for clients with fewer than $25mm in investable assets. Level 2 Model Portfolios are recommended for clients with more than $25mm in investable assets. The difference between Level 1 and Level 2 is owed to the higher account minimums and lesser liquidity of Private Equity and Private Real Estate. The model allocations above are current as of the date of this Presentation, but are subject to change. Morgan Stanley has no obligation to notify you when they may change. Please refer to the end of this Appendix for important disclosures about this presentation.

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GIC RISK AND RETURN ASSUMPTIONS

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	Secular Forecasts			
	Return	Volatility	Skewness	Kurtosis
Cash & Bonds				
Ultra-Short Fixed Income	2.9%	0.9%	0.22	3.06
Short Term Fixed Income	3.3%	1.4%	0.14	3.06
US Fixed Income	3.9%	5.3%	0.23	3.62
Municipal Bond	3.0%	6.7%	-0.05	3.63
International Fixed Income	3.6%	4.1%	-0.03	3.01
Inflation-Linked Securities	4.9%	7.3%	-0.15	3.30
High Yield	5.8%	8.2%	-0.30	3.76
Emerging Markets Fixed Income	7.2%	12.1%	-0.60	4.19
Convertible Bond	7.1%	10.9%	-0.44	3.61
Preferred Stock	5.4%	10.5%	-0.85	5.63
Equities				
US Large Cap Growth Equity	8.6%	16.8%	-0.18	3.16
US Large Cap Value Equity	8.9%	14.4%	-0.20	3.22
US Mid Cap Growth Equity	9.7%	19.8%	-0.21	3.26
US Mid Cap Value Equity	9.7%	15.5%	-0.27	3.33
US Small Cap Growth Equity	8.5%	22.3%	-0.18	3.17
US Small Cap Value Equity	9.7%	17.2%	-0.27	3.29
Europe Equity	8.2%	17.2%	-0.11	3.15
Japan Equity	8.1%	20.6%	0.07	3.08
Asia Pacific ex Japan Equity	11.0%	22.9%	-0.17	3.42
Emerging Markets Equity	11.0%	22.5%	-0.17	3.16
Non-Traditional Asset Classes*				
Real Estate Investment Trusts	8.1%	16.7%	-0.10	3.51
Commodities	5.0%	15.9%	0.28	3.61
Master Limited Partnerships	8.3%	16.6%	-0.10	3.12
Infrastructure	6.7%	12.8%	-0.20	3.23
Natural Resources	11.3%	19.9%	-0.09	3.07
Absolute Return Assets	5.3%	3.9%	-0.62	3.88
Equity Hedge Assets	5.8%	8.2%	0.06	3.01
Equity Return Assets	7.0%	8.1%	-0.18	3.18
Private Credit	5.9%	6.9%	-0.18	3.50
Private Equity	13.6%	13.2%	-0.14	3.25
Private Real Estate Funds	10.0%	16.8%	-1.22	5.62
Core Private Real Estate Funds	6.8%	9.5%	-1.65	8.49

Source: Global Investment Committee as of Feb 28, 2019. Annual return is the forecasted arithmetic average annual return. Annualized volatility, skewness and kurtosis estimates are based on the longest available data through Feb 28, 2019. Strategic Forecasts are calibrated to a 7 year investment horizon. Secular Forecasts are calibrated to a 20+ year horizon.

Forecast estimates are for illustrative purposes only, are based on proprietary models and are not indicative of the future performance of any specific investment, index or asset class. Actual performance may be more or less than the estimates shown in this table. Estimates of future performance are based on assumptions that may not be realized.

* The GIC applies significant statistical adjustments to correct for distortions typically associated with hedge fund, private equity and private real estate index returns. For more information, see the 'Return Series Adjustments' section on Appendix page 18.

Investor Suitability: Morgan Stanley recommends that investors independently evaluate each asset class, investment style, issuer, security, instrument or strategy discussed. Legal, accounting and tax restrictions, transaction costs and changes to any assumptions may significantly affect the economics and results of any investment. Investors should consult their own tax, legal or other advisors to determine suitability for their specific circumstances. Investments in private funds (including hedge funds, managed-futures funds and private-equity funds) are speculative and include a high degree of risk.

All figures annualized. Asset class returns are assumed to be serially independent. In some cases, the asset classes in the forgoing presentation are aggregations of the asset classes listed above, as per the mapping detailed on page 2 of the Appendix. Assumptions for aggregated asset class are simply aggregates of the above assumptions with weights as per the Granular Portfolio Allocations on Page 1 of the Appendix and Model Allocations on page 3 of the Appendix respectively. Please refer to the end of this Appendix for important disclosures about this presentation.

GLOSSARY

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- **Beta:** A measure of the linear relationship between an asset or asset class and the asset or asset class it is being compared to, most typically that between an individual stock and a market index. In the context of a stock to a market index, a stock's beta dictates the average degree to which its historical returns coincided with the returns to the index. A beta of 2, for example, implies that a stock has, on average, moved in the same direction as the index, (given that the beta is positive), but with double its magnitude (i.e. a market increase of 5% would, on average, portend a stock increase of 10%, while a market decrease of 5% would, on average, portend a stock decrease of 10%). In this presentation, beta is used to model the relationship between a stock and a proxy index, in conjunction with the stock's overall volatility (defined subsequently here).
- **Conditional Value-at-Risk (Annual):** A measure of the downside risk of an investment portfolio, Conditional Value-at-Risk is the *expected (*annual) loss in the event the portfolio experiences a 'one year in twenty' downside event, i.e. a downside returns event so severe one might probabilistically expect it to occur, on average, once every 20 years. In other words, Conditional Value-at-Risk is the average portfolio loss *conditional* on the portfolio experiencing particularly adverse circumstances. As contrasts with Value-at-Risk, (defined subsequently), the metric is affected not just by the dispersion across all downside extremes, but by the dispersion within downside extremes.
- **Correlation**: Correlation, or correlation coefficient, is a mathematical representation of the relationship between two asset classes and ranges between -1 and +1. Perfect positive correlation (a correlation co-efficient of 1) implies that as a security moves, either up or down, the correlated security moves in lockstep. Perfect negative correlation, alternatively, means that if one security moves in either direction the security that is perfectly negatively correlated will move by an equal degree in the opposite direction. If the correlation is 0, the movements of the securities or asset classes are independent, meaning one's moving does not increase or decrease the likelihood of the other's moving.
- **Efficiency Analysis**: Efficiency analysis plots portfolios along two dimensions, one corresponding to an investment objective, most typically forecasted return, and the second to risk, most typically forecasted volatility, so as to evaluate the *efficiency* by which one is achieved at the expense of the other. Graphically speaking, more 'efficient' portfolios appear in an efficiency analysis chart above less efficient ones controlled for forecasted risk, i.e. at the same point along the horizontal axis. Research suggests that skillful blending of asset classes can maximize the tradeoff between objective and risk, and thus 'efficiency' is relevant to the determination of an appropriate strategic asset allocation.
- **Fat-Tailed Return Distribution**: A probability distribution implying that large deviations from the average are materially more probable than what so-called 'normal' probability distributions imply is commonly referred to as being 'fat tailed'. For further on this property of distributions, please see the '**Skewness'** and '**Kurtosis**' entries further in this Glossary.
- **Kurtosis**: A statistical measure of the "peakedness" of a distribution. In a return series that is leptokurtic, i.e. one that exhibits higher kurtosis than the normal distribution, risk is manifested through low frequency high impact 'events', both positive and negative, measured as returns several standard deviations away from the average. These distributions are called 'fat tailed' because their extremes are *thick* with probability (the normal distribution is 'thin tailed' such that returns 3 or more standard deviations away from the average are exceedingly rare). In 'low kurtosis' return series, i.e. kurtosis less than or equal to normal, risk is manifested through high frequency deviations close to the average. The vast majority of financial return series are leptokurtic, however some investments, e.g. hedge funds, are significantly more so than other investments, which is an unfavorable attribute of their profile.
- **Percentile Return**: a measure of uncertainty based upon the forecast likelihood of events. For example, 5th percentile return is defined as the portfolio return that only 5% of potential returns are less than (and by implication 95% of returns are greater than), a number which will vary greatly with the forecast frequency of adverse return events.
- **Probability of Return**: In simple terms, the likelihood of a given return threshold being passed. Specifically, in the context of a model of capital market dynamics, risk and return forecasts can be used to infer the likelihood that a given portfolio's return will be above or below any nominal threshold at any specific future point in time.
  - **Probability < 0% or Probability of Loss** is the probability that portfolio return will be *less than or equal to* zero.
  - **Probability > Target Return or Probability > 7520 Rate** is the probability that portfolio return will be *greater than or equal to* the supplied target or 7520 rate. As with other such figures, the accuracy of those predictions are based on the accuracy of the risk, return and distributional assumptions applied to the calculation.

GLOSSARY (CONT'D)

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- **Probability Density:**one way to express the likelihood of a particular event is to display its probability density. The more a given event is 'dense with probability' the more likely it is. In this analysis, probability density is used to elaborate the relative likelihood of a portfolio's achieving a specified value at a specified time in the investment horizon.
- **Probability of Return**:In the context of an internally consistent model, risk and return forecasts can be used to infer the likelihood that a given portfolio's return will be above or below any nominal threshold.
  - **Probability < 0% or Probability of Loss** is the probability that portfolio return will be *less than or equal to* zero.
  - **Probability of Target Return** is the probability that portfolio return will be *greater than or equal to* the supplied target. As with the other figures in this analysis, the accuracy of those predictions are based on the accuracy of the risk, return and distributional assumptions applied to the calculation.
- **Return Forecast**: Projected annual rate of change in the price of an asset class or portfolio. In the foregoing analysis, Portfolio Return Forecasts are based on a weighted average of the return assumptions for granular asset classes, detailed Appendix 4, where the weights are equal to the portfolio itself.
- **Scenario Analysis**: An examination of the effect of a specified event- historical, hypothetical or some combination of the two (here conditional)- on a portfolio's return. Another name for 'what if' analysis.
- **Sharpe Ratio**: Developed by William F. Sharpe, this calculation measures the risk-adjusted return, or 'efficiency', of a portfolio. The Sharpe Ratio is calculated as the *excess* expected return an investment or portfolio delivers divided by its expected volatility, i.e. standard deviation, where excess means expected return minus the risk free rate of return. One criticism of Sharpe ratios is that the measure of risk, portfolio standard deviation, penalizes all forms of dispersion equally, upside and downside, and does not sufficiently control for downside event risk.
- **Skewness**: A statistical measure of asymmetry of an asset class or portfolio return distribution. Negative skew is an undesirable characteristic of some investments, e.g. private real estate, indicating that left hand tail of a return distribution (representing the likelihood of downside deviation from average) is 'longer' than the right hand, i.e. that downside events are bigger than their reciprocally plausible upside ones. By corollary, the bulk of the values of negatively skewed distributions lie above the average. Positive skewed distributions, such as private equity and managed futures, exhibit the opposite behavior, and distributions with zero skew are balanced about the average.
- **Standard Deviation**: A statistical measure of the dispersion of data (in the context of this report, return data). Standard deviation can be thought of as the *average* difference between an individual data point and the average value of all data points under consideration. All else equal, more broadly distributed returns will have a higher standard deviation than more narrowly distributed returns.
- **Turnover**: A measure of the average holding period of an investment in a client's portfolio. Portfolio turnover is calculated by taking either the total value of securities bought or sold – whichever is less – over a 12-month time period, divided by net asset value. The GIC's assumptions of asset class turnover are based on the average turnover values of managers in that category.
- **Value-at-Risk (Annual)**: A measure of the downside risk of an investment portfolio, it is defined in this presentation as the portfolio loss that is less than 95% of projected one year returns. One way to interpret the statistic is that drawdowns of this magnitude or greater would be, on average, anticipated in one out of every twenty years, subject to the accuracy of the risk, return and distributional assumptions applied to the calculation.
- **Volatility**: A measure of the magnitude of variability of the returns of an asset class or security, measured statistically as the forecasted standard deviation of those returns (see above). It is generally the case that a larger dispersion of return implies greater risk, as this implies more substantially adverse outcomes for a given level of likelihood of their occurrence.

ASSET CLASS DEFINITIONS

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- **Cash**: Representative Index- Bloomberg US Generic Government 3M Yield (1954 – 2019)
  - Treasury bills and other money markets debt securities with very short-term maturities are called cash or cash equivalents. They earn interest based on agreed upon rates that are in practice heavily influenced Federal Reserve overnight policy interest rates.
- **Short Duration**: Representative Index- Barclays U.S. Government/Credit 1-3 Year Bond Index (1976 – 2019)
  - Fixed-rate, short-term debt of developed-market countries. Currency exposure is hedged to the US dollar.
- **US Investment Grade Fixed Income**: Representative Index- Barclays Capital US Aggregate Bond Index (hedged) (1976 – 2019)
  - US investment grade (treasury, government agency, investment grade corporate, agency mortgage-backed security, etc.) debt securities with a maturity of 1 year or greater.
- **International Investment Grade Fixed Income**: Representative Index- Barclays Capital Non-USD Aggregate Bond Index (hedged) (1990 – 2019)
  - Global investment-grade, fixed-rate corporate debt securities as well as the securitized component that includes mortgage-backed securities, asset-backed securities, and commercial mortgage-backed securities. Currency exposure is hedged to the US dollar.
- **Municipal Bonds**: Representative Index- Barclays Capital Municipal Bond Index, (1980 - 2019)
  - Bonds issued by US state and local governments or their agencies which are tax advantaged for investors subject to federal (and sometimes state) US income tax liability.
- **Floating Rate Notes**: Representative Index- Barclays Capital US Floating Rate Note Index (2003 – 2019)
  - Bonds whose coupon payments are reset periodically based on a reference index, most commonly a money market interest rate such as LIBOR, plus an explicit spread to the reference rate contractually specified at issuance. Floating Rate Notes have low interest rate risk due to the fact that their baseline interest rate 'floats' on prevailing interest rates, however, they have the same exposure to credit and credit spread risk as other corporate bonds with similar risk factors and spread duration.
- **High Yield**: Representative Index- Barclays Capital Global High Yield Index (hedged) (1990 – 2019)
  - Globally issued speculative grade corporate and securitized bonds, typically without a long track record of sales or of questionable credit quality, and generally rated BB+ (S&P/Fitch) or Ba+ (Moody's) or lower. High yield bonds trade at a premium yield to investment grade bonds to compensate investors for their higher risk (which accounts for their name). Currency exposure is hedged to the US dollar.
- **High Yield Municipal Bonds**: Representative Index- Barclays Capital Municipal High Yield Index, (2003- 2019)
  - Bonds issued by financially distressed US state and local governments or their agencies which, like investment grade Municipal Bonds, are tax advantaged for investors subject to federal (and sometimes state) US income tax liability. High Yield Municipal Bonds, like the corporate variety, are typically rated speculative grade by the credit rating agencies- BB+ (S&P/Fitch) or Ba+ (Moody's) or lower. They also trade at a premium yield to investment grade bonds to compensate investors for their higher risk.
- **Emerging Market Bonds**: Representative Index- JP Morgan Government Bond Index, Emerging Markets Global Diversified Composite (local currency, unhedged) (2003 – 2019)
  - Debt instruments issued by emerging market sovereigns and corporations and denominated in the currency of their domicile. Securities issued by foreign corporations or governments may be subject to market, economic, political or other conditions affecting the respective government, company, industry or country.
- **Emerging Market Corporate Bonds**: Representative Indices- JP Morgan Corporate Emerging Markets Bond Index, US dollar (2007 – 2019), JP Morgan Emerging Market Bond Index, US Dollar (1994 – 2007)
  - Debt instruments issued by emerging market corporations and quasi-sovereign corporations (more than 50% government ownership) domiciled in the emerging markets of Latin American, Eastern Europe, the Middle East/Africa, and Asia and denominated in US dollars. Securities issued by foreign corporations may be subject to market, economic, political or other conditions affecting the respective government, company, industry or country.

Representative indexes are subject to change at any time based on the Global Investment Committee's judgments as to their appropriateness for the asset class. **Please see Page 17 of the Appendix, under the section "What else is important to know?", for important disclosures about representative indexes.**

ASSET CLASS DEFINITIONS (CONT'D)

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- **Inflation-Linked Securities**: Representative Index- Barclays Capital Universal Government Inflation-Linked Bond Index (1997 – 2019)
  - A special type of government bond whose principal and coupon payments are reset based on changes in a reference measure of retail inflation, (e.g. the Bureau of Economic Analysis's Consumer Price Index in the US), thereby attempting to reduce its exposure to the potentially deleterious effects of inflation on bond investments.
- **Preferred Stock** : Representative Index- The BofA Merrill Lynch Fixed Rate Preferred Securities Total Return Index (1989 – 2019)
  - Ownership in a corporation with a higher claim on the assets and earnings than common stock, but no residual claim on earnings beyond the contractually specified dividends, and usually no voting rights. Preferred stock is generally junior to the secured, unsecured and subordinated debt of an issuing company in the corporation's capital structure, which implies greater credit and cash flow risks than traditional debt and debentures. As a result, preferred stocks tend to trade at higher yields than similar cash flow/issuer credit quality bonds to compensate investors (preferred stock pays a contractually formalized dividend that in practice functions like a coupon).
- **Convertible Bonds :** Representative Index- Merrill Lynch Convertible Bond Index (2003 – 2019)
  - Convertible bonds are corporate bonds embedded with equity warrants that give the owner the right to 'convert' the bond security into common stock, ADRs, or a cash equivalent at a contractually specified conversion ratio. Depending on the ratio and the performance of the reference equity security, convertible bonds can trade like equities, like bonds, or as a hybrid of the two. Convertible bonds are also considered to be exposed to equity volatility via the embedded warrant, and the spread on the baseline bond security.
- **US Large-Cap Growth Equities**: Representative Index- Russell 1000 Growth Index (1979 – 2019)
  - US traded stocks with higher price-to-book ratios and higher forecasted growth values in the approximately 1000 largest securities on a combination of market and current index membership in the US equity universe.
- **US Large-Cap Value Equities**: Representative Index- Russell 1000 Value Index (1979 – 2019)
  - US traded stocks with lower price-to-book ratios and lower forecasted growth values in the approximately 1000 largest securities on a combination of market and current index membership in the US equity universe.
- **US Mid-Cap Growth Equities**: Representative Index- Russell Midcap Growth Index (1986 – 2019)
  - US traded stocks with higher price-to-book ratios and higher forecasted growth values in medium capitalization companies in the US equity universe.
- **US Mid-Cap Value Equities**: Representative Index- Russell Midcap Value Index (1986 – 2019)
  - US traded stocks with lower price-to-book ratios and lower forecasted growth values in medium capitalization companies in the US equity universe.
- **US Small-Cap Growth Equities**: Representative Index- Russell 2000 Growth Index (1979 – 2019)
  - US traded stocks with higher price-to-book ratios and higher forecasted growth values in the approximately 2000 smallest securities on a combination of market and current index membership in the US equity universe.
- **US Small-Cap Value Equities**: Representative Index- Russell 2000 Value Index (1979 – 2019)
  - US traded stocks with lower price-to-book ratios and lower forecasted growth values in the approximately 2000 smallest securities on a combination of market and current index membership in the US equity universe.

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ASSET CLASS DEFINITIONS (CONT'D)

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- **International Developed Market Equities:** Representative Index- MSCI Europe Asia Far East IMI Index (1970 – 2019).
  - Stocks traded in developed markets outside the United States. Investing in the securities of such companies and countries adds foreign exchange rate risk for US based investors, however can also provide diversification.
    - **Canada Equities:** Representative Index- MSCI Canada IMI Index (1970 – 2019)
      - Stocks traded in Canada.
    - **Europe Equities:** Representative Index- MSCI Europe IMI Index (1970 – 2019)
      - Stocks traded in Developed Europe.
    - **UK Equities**: Representative Index- MSCI UK IMI Index (1970 – 2019)
      - Stocks traded in the United Kingdom.
    - **Japan Equities**: Representative Index- MSCI Japan IMI Index (1970 – 2019)
      - Stocks traded in Japan.
    - **Pacific ex Japan Equities**: Representative Index- MSCI Pacific ex Japan IMI Index (1970 – 2019)
      - Stocks traded in the developed markets of the Pacific region excluding Japan (i.e., primarily Australia, Hong Kong, New Zealand and Singapore).
    - **World ex US Small-Cap Equities**: Representative Index- MSCI World ex US Small Cap IMI Index (1995 – 2019)
      - Small capitalization stocks traded throughout the developed markets outside the US.
- **Emerging Market Equities**: Representative Index- MSCI Emerging Markets IMI Index (1988 – 2019)
  - Stock issued by companies domiciled in emerging markets. Investing in the securities of such companies and countries involves certain consideration not usually associated with investing in developed countries, including political and economic situations and instability, adverse diplomatic developments, price volatility, lack of liquidity and fluctuations in the currency exchange.
- **Frontier Emerging Market Equities**: Representative Index- MSCI Frontier Markets Index (2002 – 2019)
  - Stock issued by companies domiciled in frontier emerging markets, which are the least developed emerging market countries. Investing in the securities of such companies and countries exacerbates the considerations associated with investing in emerging market countries, including political and economic situations and instability, adverse diplomatic developments, price volatility, lack of liquidity and fluctuations in the currency exchange.
- **US & Global Equity Market Sector, Style and Capitalization Segments**: Representative Indices as per the relevant component of the MSCI World IMI Index (1988 – 2019)
  - Under certain circumstances, it may be necessary to capture the sector and/or capitalization specifics of an underlying client holding. In these cases, the GIC will model the exposure according to the component of the MSCI All Country World IMI Index which it best matches. For example, a position in a global energy sector fund would be modeled as the MSCI World Energy Sector Index.
- **Real Estate Investment Trusts (REITS)**: Representative Index- FTSE EPRA NAREIT Global Total Return Index (1990 – 2019)
  - A security that is usually traded like a stock on the major exchanges and invests in real estate directly, either through properties or mortgage loans and securities and 'pas through' the income generated by its investments to shareholders.
- **Master Limited Partnerships (MLPs)**: Representative Index- Alerian MLP Total Return Index (1996 – 2019)
  - MLPs are limited partnerships that are publicly traded on a securities exchange. MLPs invest in the cash flow generating assets of qualifying commercial enterprises, commonly energy infrastructure (e.g. pipelines). Similarly to REITs, MLPs pass through the vast majority of its earnings to investors as dividend distributions.

Representative indexes are subject to change at any time based on the Global Investment Committee's judgments as to their appropriateness for the asset class. **Please see Page 17 of the Appendix, under the section "What else is important to know?", for important disclosures about representative indexes.**

ASSET CLASS DEFINITIONS (CONT'D)

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- **Commodities:** Representative Index- Dow Jones / UBS Commodity Total Return Index (1970 – 2019)
  - Commodities are distinguished from financial investments in that they are tangible or 'real' assets, such Precious Metals, Cereals, Oil, Copper, Timber, etc. The prices of real assets tend to fluctuate widely and to a large extent unpredictably, due to their high exposure to idiosyncratic factors (e.g. weather). Moreover, commodity prices are affected by a broad range factors including global supply and demand, investors' expectations with respect to the rate of inflation, currency exchange rates, interest rates, investment and trading activities of hedge funds and commodity funds, and global or regional political, economic or financial events and situations.
- **Precious Metals:** Representative Index- Dow Jones / UBS Precious Metals Total Return Index (1973 – 2019)
  - Subset of the larger commodity asset class consisting only of precious metals, including gold, silver, platinum, and palladium, whose low storage costs yield them substantial demand as a monetary store of value/inflation hedge. Precious metals demand is derived largely from jewelry and investors/central banks, with lesser industrial applications compared with base metals and other commodities. Precious metals have high historical volatility and attendant risks, and low historical returns relative to other risk assets, however their reputation for maintaining value in highly adverse geopolitical circumstances ensures a substantial and dedicated investor base. **Note**: The representative index for Precious Metals, S&P GSCI Precious Metals Total Return Index, includes only gold and silver, and assumes they are an effective proxy for precious metals as a whole. Precious metals are more appropriate for the risk capital portion of your portfolio and for investors who have speculative investment objectives.
- **Managed Futures and Managed Futures Sectors**: Representative Indices- Barclay BTop50 Index, Barclay Currency Traders Index, Barclay Agricultural Traders Index, Barclay Discretionary Traders Index, Barclay Diversified Traders Index, Barclay Financial & Metals Traders Index, Barclay Systematic Traders Index, (1980 – 2019)
  - Managed Futures are alternative investment vehicles that trade financial and commodity futures, forwards and options on such futures and forwards. Assets in managed futures are managed by professional trading managers called Commodity Trading Advisors or CTAs. The BTOP50 Index seeks to replicate the overall composition of the managed futures industry with regard to trading style and overall market exposure and includes the largest investable trading advisor programs, as measured by assets under management, provided the program is open for investment, willing to furnish daily returns, has at least two years of trading activity and its advisor has at least three years of operating history. The BTOP50's portfolio is equally weighted among the selected programs at the beginning of each calendar year and is rebalanced annually. Barclay CTA Sub-Indices group specific managers within the Barclay estimation universe according to their investment strategy (e.g. which markets they invest in, whether they generate their signals through quantitative or qualitative means, etc.).
- **Hedged Strategies and Hedged Strategy Sectors**: Representative Indices- HFRI Fund of Funds Composite Index, HFRI Relative Value Index , HFRI Event-Driven Index, HFRI Equity Hedge Index, HFRI Macro Index, (1990 – 2019)
  - A private and unregistered investment pool that may employ sophisticated hedging and arbitrage techniques, using long and short positions, leverage and derivatives and investments in many markets. The HFRI Monthly Indices (HFRI) are equally weighted performance indexes, utilized by numerous hedge fund managers as a benchmark for their own hedge funds. Fund of Funds invest with multiple managers, creating a diversified portfolio of managers with the intent to lower the risk of investing with individual managers. Hedge Fund Research, Inc. ("HFRI"), Funds of Funds 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.
- **Natural Resources**: Representative Index- MSCI All Country World Infrastructure Utility Total Return Index (1999 – 2019)
  - Natural resource investments are investment in private and publicly listed enterprises that procure basic resources like timber, water and energy. Private natural energy investments are illiquid and often bear both substantial risks and opportunities for their investors.
- **Leveraged Loans**: Representative Index- S&P/LSTA Leveraged Loan Index (1997 – 2019)
  - A leveraged loan is a loan, most commonly of low credit quality (often to relatively highly leveraged/speculative entities) that is underwritten, securitized and administered by a financial intermediary, most typically an investment bank, and then syndicated/sold on to ultimate investors. Leveraged loans are often though not always illiquid, concentrated and high risk/return securities.

Representative indexes are subject to change at any time based on the Global Investment Committee's judgments as to their appropriateness for the asset class. **Please see Page 17 of the Appendix, under the section "What else is important to know?", for important disclosures about representative indexes.**

ASSET CLASS DEFINITIONS (CONT'D)

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- **Private Equity:** Representative Indexes- Venture Economics Private Equity Index/Venture Economics LBO Index/Venture Economics Venture Capital Index/Venture Economics Mezzanine Funds Index (1988 – 2019), Venture Economics European LBO Index (1988 – 2019) , MSCI World Infrastructure Total Return Index (1999 – 2019)
  - Private equity firms that provide equity, debt and debt equity hybrid capital (mezzanine debt) to a wide variety of firms, from start-ups to small, medium and, in certain cases, large capitalization firms, both public and private. Private equity interests are typically highly illiquid, involve a high degree of risk and leverage on the underlying portfolio of companies and can be subject to transfer restrictions. Venture Economics collects quarterly information on individual private equity funds across the private equity sub-strategies listed below. The Venture Economics data set is based on voluntary reporting of fund returns by private equity firms and their limited partners.
    - **Leveraged Buyouts**: Ownership, equity or interest in funds that primarily conduct leveraged buyouts of public and private firms for the purposes of enhancing their efficiency and most typically, resale onto the public market or private entities after several years.
    - **Venture Capital**: Venture Capital funds provide equity capital and other services to enterprises in the early stages of their development for the primary objective of ushering the company through its preliminary development and ultimately selling the company, most commonly through initial public offerings.
    - **Mezzanine Debt**: Private equity transactions often create hybrid capital instruments with both debt and equity features, whether through their speculative nature, their optionality, etc. Mezzanine Debt funds invest in these securities and pass their typically high yield, illiquidity and risk onto their ultimate investors.
    - **European Leveraged Buyouts**: Ownership, equity or interest in funds that primarily conduct leveraged buyouts of public and private firms in Europe for the purposes of enhancing their efficiency and most typically, resale onto the public market or private entities after several years.
    - **Infrastructure**: Ownership interest in infrastructure projects that typically generate reliable cash flows with lesser volatility and upside than other private equity types.
    - **Partnership Interests**: Ownership interests in professional partnerships (e.g. law firms, etc.). There are no indices nor financial returns series that directly measure returns to partnership stakes, but they are often a highly significant component of their owner's net worth. As such, the GIC proxies Partnership Interests with Private Equity, (as per the above), with adjustments to take account of their unique risks, (i.e. lesser leverage and greater exposure to the specific risks of a single enterprise).

- **Private Real Estate**: Representative Indexes- NCREIF Property Index (1980 – 2019), Investment Property Databank Global Property Index (1980 – 2019), NCREIF Townsend Fund Index (1988 – 2019)
  - Commercial real estate properties or funds from all market sectors, unleveraged in the case of property exposure, and varying in the case of real estate funds in their degree of leverage and speculative nature, acquired and held in the private market for investment purpose. Real estate investments are subject to special risks, including interest rate and property value fluctuations, as well as risk related to general and economic conditions.
    - **US Real Estate**: Private Real Estate domiciled within the United States.
    - **Canada Real Estate**: Private Real Estate domiciled within Canada.
    - **UK Real Estate**: Private Real Estate domiciled within the United Kingdom.
    - **Europe ex UK Real Estate**: Private Real Estate domiciled within the developed markets of Europe excluding the United Kingdom.
    - **Japan Real Estate**: Private Real Estate domiciled within Japan.
    - **Dev AP ex Japan Real Estate**: Private Real Estate domiciled within the Pacific Region's developed markets excluding Japan.
    - **Latin America Real Estate**: Private Real Estate domiciled within Latin America.
    - **Emerging Asia Real Estate**: Private Real Estate domiciled within the emerging markets of Asia
    - **Real Estate Funds**: Private Equity Real Estate funds domiciled in the United States, including Core, Value-Added and Opportunistic investments/funds.
    - **Core Real Estate Funds**: Core Private Equity Real Estate funds domiciled in the United States.
    - **Value-Added Real Estate Funds**: Value-Added Private Equity Real Estate funds domiciled in the United States.
    - **Opportunistic Real Estate Funds**: Opportunistic Private Equity Real Estate funds domiciled in the United States.

Representative indexes are subject to change at any time based on the Global Investment Committee's judgments as to their appropriateness for the asset class. **Please see Page 17 of the Appendix, under the section "What else is important to know?", for important disclosures about representative indexes.**

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ASSET CLASS RISK CONSIDERATIONS

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There are risks associated with different investment options. For example, **Bonds** are subject to interest rate risk. When interest rates rise, bond prices fall; generally the longer a bond's maturity, the more sensitive it is to this risk. Bonds may also be subject to call risk, which is the risk that the issuer will redeem the debt at its option, fully or partially, before the scheduled maturity date. The market value of debt instruments may fluctuate, and proceeds from sales prior to maturity may be more or less than the amount originally invested or the maturity value due to changes in market conditions or the credit quality of the issuer. Bonds are subject to the credit risk of the issuer. This is the risk that the issuer might be unable to make interest and/or principal payments on a timely basis. Bonds are subject to reinvestment risk, which is the risk that principal and/or interest payments from a given investment may be reinvested at a lower interest rate. Bonds are also subject to secondary market risk, as there is no guarantee that a secondary market will exist for a particular fixed income security.

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

Interest on **Municipal Bonds** and is generally exempt from federal income tax; however, some bonds may be subject to the alternative minimum tax (AMT). Typically, state tax-exemption applies if securities are issued within one's state of residence and, if applicable, local tax-exemption applies if securities are issued within one's city of residence The tax-exempt status of municipal securities may be changed by legislative process, which could affect their value and marketability. Insurance does not pertain to market values which will fluctuate over the life of the bonds; it covers only the timely payment of interest and principal. Credit quality varies depending on the specific issuer and insurer. Credit ratings shown may be the higher of the 'underlying' rating of the issuer or the rating of any insurer providing credit enhancement to the bonds.

High Yield Municipal Bonds are often but not always exempt from federal tax, and are subject to many of the same risks as Municipal Bonds. In addition, High Yield Municipals, which often do not have recourse to the credit of the governmental issuer, have a substantial risk of default relative to investment grade Municipal Bonds. In this, they are analogous to **Corporate and Securitized High Yield Bonds**, which have speculative characteristics and present significant risks beyond those of other securities, including substantially greater credit risk, price volatility, call option risk and limited liquidity in the secondary market, the latter of which can be substantially exacerbated during periods of market duress. High Yield debt across all sectors should comprise only a limited portion of a balanced portfolio.

Investing in the bonds of foreign **Emerging Markets** entail greater risks than those normally associated with domestic markets, such as political, currency, economic and market risks. Investors should be careful to consider these risks alongside their individual circumstances, objectives and risk tolerance. Emerging market debt should comprise only a limited portion of a balanced portfolio.

Convertible Bonds and **Preferred Stocks** are subject to market risk including interest risk, credit (default) risk, liquidity risk, and equity risk of the underlying common stocks. They are also subject to dividend risk that the underlying company increases its common stock dividend without similarly adjusting the convertible bond's yield or preferred stock's dividend. This may reduce or even negate the yield advantage over the common stock. The majority of convertible bonds and preferred stocks are 'callable' meaning that the issuer may retire the securities at specific prices and dates prior to maturity, and/or at a lower price than the purchase price. Interest/dividend payments on certain preferred issues maybe 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.

Treasury Inflation Protected Securities (TIPS) coupon payments and underlying principal are automatically increased, or if above par, decreased, to compensate for inflation as measured by the consumer price index (CPI). While the real rate of return is guaranteed, TIPS tend to offer a low initial interest. Because the return of TIPS is linked to inflation, TIPS may significantly underperform versus conventional US Treasuries in times of low inflation or deflation. Some inflation-linked securities may be subject to call risk.

Floating Rate Notes may have lower initial rate than fixed-rate securities of the same maturity because investors expect to receive additional income due to future increases in the floating/linked index. However, there can be no assurance that these increases will occur. Furthermore, floating rate notes expose their issuers to substantial interest rate risk, which can lead to financial duress and potential credit events.

ASSET CLASS RISK CONSIDERATIONS (CONT'D)

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Publicly traded **Equity** securities may fluctuate in response to news on companies, industries, market conditions and the general economic environment. There are 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. In addition, the securities markets of many of the **emerging markets** are substantially smaller, less liquid and more volatile than the securities of the US and other developed market countries, and historically have been subject to a greater degree of geopolitical and other specific 'country' risk than have developed market securities. All of these risks are even more acute in the context of investing in equity securities traded in **Frontier Emerging Markets**.

Equity portfolios concentrated in specific **Styles** or **Sectors** of the market tend to have greater risks than more diversified portfolios. **Growth** investing does not guarantee a profit or eliminate risk. The stocks of 'growth' 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.

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

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

Investing in **Commodities**, including commodity futures contracts, and physical **Precious Metals**, entails significant risks. Commodity and Precious Metal 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, (vii) the price volatility of a commodity and (viii) changes in inflationary and other monetary conditions. 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. Commodities and Precious Metals are more appropriate for the risk capital portion of your portfolio and for investors who have speculative investment objectives.

Real Estate Investment Trusts, (REITs) investing risks include property value fluctuations, lack of liquidity, limited diversification and sensitivity to several economic and financial factors including but not limited to interest rate changes, equity market drawdowns and economic recessions.

Master Limited Partnerships (MLPs) investing risks include financial leverage, energy demand destruction, lack of liquidity, limited diversification, and sensitivity to several economic and financial factors including but not limited to interest rate changes, equity market drawdowns, credit freezes and economic recessions. MLPs are also exposed to changes in tax and regulatory policy and are subject to complex tax reporting requirements.

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.

ASSET CLASS RISK CONSIDERATIONS (CONT'D)

Report Prepared for Gainesville General

Alternative Investments which may be referenced in this report, including Private Equity funds (including Venture Capital, Leveraged Buyouts and Mezzanine Debt funds), Private Real Estate funds, Hedged Strategies, Managed Futures funds, Funds of Hedge Funds, Infrastructure funds, Leveraged Loan funds and Natural Resource funds, are speculative and entail significant risks that can include losses due to leveraging or other speculative investment practices, lack of liquidity, volatility of returns, restrictions on transferring interests in a fund, potential lack of diversification, absence and/or delay of information regarding valuations and pricing, complex tax structures and delays in tax reporting, less regulation and higher fees than mutual funds and risks associated with the operations, personnel and processes of the advisor.

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

Private Real Estate investing risks include those applicable to publicly traded real estate, like REITs, including exposure to economic developments, however in practice private real estate entails substantially greater concentrations (less diversification) and far less liquidity than public real estate (the secondary market for private real estate is limited and transaction and market impact costs can be prohibitive, especially during market dislocations). As a consequence, Private Real Estate investments are exposed to high levels of asymmetric downside risk. The risk of Private Real Estate increases on an increasing basis (i.e. non-linearly) with the degree to which the underlying properties are leveraged.

Private Equity investing risks includes those applicable to publically traded equities, however in practice private equity entails substantially greater concentrations and risk, and far less liquidity than public real estate (the secondary market for private equity is limited and transaction and market impact costs can be prohibitive, especially during market dislocations). In addition, Private Equity investing often exposes investors to high levels of leverage and strategy specific risk, both of which can contribute to adverse events. Though Private Equity Infrastructure generates high yields, it is not a bond substitute tends to be highly illiquid and carries a host of specific risks relating to the inherent concentrations of any given investment.

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

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

ASSET ALLOCATION METHODOLOGY

Report Prepared for Gainesville General

Morgan Stanley Wealth Management Global Investment Committee Expected Return Estimates Methodology

This tool incorporates a methodology for making hypothetical financial projections approved by the Global Investment Committee. Opinions expressed in this presentation may differ materially from those expressed by other departments or divisions or affiliates of Morgan Stanley Wealth Management.

About Expected Return Estimates, Rate of Return, Standard Deviation, and Asset Class Indices

Expected Return Estimates (EREs)

What are EREs?

Expected Return Estimates (EREs) represent one set of assumptions regarding rates of return for specific asset classes approved by the Global Investment Committee.

How are EREs derived?

EREs are derived using a proprietary methodology using a building block approach. Our EREs reflect expectations for a number of long-term economic and market-related factors we expect to influence capital market returns, such as population growth, productivity, earnings expectations, etc.

Index returns are used for calculation of volatility and correlations. For most indices, we use data since 1994. Regarding several types of alternative investments such as hedged strategies, private equity and real estate, we apply significant statistical adjustments to historical returns in order to correct for distortions such as survivorship biases, selection biases, and returns measurement error (e.g. by consequence of stale prices in the illiquid asset classes).

What else is important to know?

It is important to remember that future rates of return can't be predicted with certainty and that investments that may provide higher rates of return are generally subject to higher risk and volatility. The actual rate of return on investments can vary widely over time. This includes the potential loss of principal on your investment.

Investors should carefully consider several important factors when making asset allocation decisions using projected investment performance data based on assumed rates of return on indices:

Indices illustrate the investment performance of instruments that have certain similar characteristics and are intended to reflect broad segments of an asset class. Indices do not represent the actual or hypothetical performance of any specific investment, including any individual security within an index. Although some indices can be replicated, it is not possible to directly invest in an index. It is important to remember the investment performance of an index does not reflect deductions for investment charges, expenses, or fees that may apply when investing in securities and financial instruments such as commissions, sales loads, or other applicable fees. Also, the stated investment performance assumes the reinvestment of interest and dividends at net asset value without taxes, and also assumes that the portfolio is consistently "rebalanced" to the initial target weightings. Asset allocations which deviate significantly from the initial weightings can significantly affect the likelihood of achieving the projected investment performance.

Another important factor to keep in mind when considering the historical and projected returns of indices is that the risk of loss in value of a specific asset, such as a stock, a bond or a share of a mutual fund, is not the same as, and does not match, the risk of loss in a broad asset class index. As a result, the investment performance of an index will not be the same as the investment performance of a specific instrument, including one that is contained in the index. Such a possible lack of "investment performance correlation" may also apply to the future of a specific instrument relative to an index.

For these reasons, the ultimate decision to invest in specific instruments should not be premised on expectations that the historical or projected returns of indices will be the same as those for specific investments made.

ASSET ALLOCATION METHODOLOGY (CONT'D)

Report Prepared for Gainesville General

Rates of Return, Standard Deviation and Asset Class Indices

Standard deviation is a common risk measurement that estimates how much an investment's return will vary from its predicted average. Generally, the higher an investment's standard deviation, the more widely its returns will fluctuate, implying greater volatility. In the past, asset classes that have typically provided the highest returns have also carried greater risk. For purposes of this Presentation, the standard deviation for the asset classes shown below are calculated using data going back to 1994.

It is important to note that the rates of return of the listed indices may be significantly different than the ERE or your own assumptions about the rates of return used in the Presentation. As always, keep in mind that past performance is no guarantee of future results. EREs are for illustrative purposes only and are not indicative of the future performance of any specific investment.

Performance of an asset class within a portfolio is dependent upon the allocation of securities within the asset class and the weighting or the percentage of the asset class within that portfolio. Potential for a portfolio's loss is exacerbated in a downward trending market. A well-diversified portfolio is less vulnerable in a falling market. Asset allocation and diversification, however, do not assure a profit or protect against loss in a declining market.

Asset class returns and standard deviations of returns projections are based on reasoned estimates of drivers of capital market returns and historical relationships. As with any return estimation discipline, the assumptions and inputs underlying the GIC's EREs may or may not reconcile with, or reflect, each investor's individual investment horizon, risk tolerance, capital markets outlook, and world view. For these reasons, and because return estimation methods are complicated, investors are encouraged to discuss returns estimation with a Morgan Stanley Financial Advisor/Private Wealth Advisor.

As described, financial returns estimation involves developing a methodology for extracting expected returns and standard deviations of returns from historical data. Each returns estimation methodology is developed by selecting objective and subjective factors that vary among those developing the returns estimation model. The GIC has formulated several different methodologies and makes its return estimates available to Morgan Stanley customers. Differences exist between the various methodologies because different objective and subjective factors are incorporated into each methodology. These differences can include: the indices used as proxies for various asset categories and classes, the length of time historical index data is input into the calculations, and the resulting expected returns and volatility for each asset class. Each model may cover a greater or lesser number of asset classes than other models, the indices used to represent asset classes may be different for certain classes of assets in the models, and the GIC has more asset classes in the Alternative Investments asset category than are available in other models. Additionally, other differences may develop in the future as these methodologies are dynamic in nature and are likely to change over time.

While Morgan Stanley Smith Barney LLC has not designed its returns estimation methodologies to match or address its inventory as a broker-dealer of financial products, an appearance of a conflict of interest could exist in which the GIC's EREs, if followed, guide investors in directions that support Morgan Stanley Smith Barney LLC's inventory. To the extent this is a concern to customers, they should request that a return estimation be prepared using a different third party methodology, either alone or in conjunction with a GIC model for comparison purposes. Your Financial Advisor/Private Wealth Advisor is available to explain the different returns estimation methodologies and can compare and contrast different models upon request.

Return Series Adjustments

A common way to forecast standard deviation, correlation and other risk metrics is to observe their average magnitude in historical return series data. We agree this is appropriate for traditional asset classes- cash, bonds and equities- and for 'alternative or absolute return' asset classes that are priced in liquid public markets and have consistent, transparent reporting requirements. However, we believe this approach dramatically understates the risk of hedged strategies and private investments, such as private equity and private real estate, while overstating their potential to diversify other risks in the portfolio. These asset classes have several pronounced biases due to voluntary reporting of performance to index providers and lack of liquidity in the underlying investments. The biases that arise include return smoothing, survivorship bias, selection bias, stale pricing and appraisal bias each of which has implications for reported risk, return and correlation of the investments (foremost amongst which is the artificial reduction of their actual risks).

To address these challenges, the Global Investment Committee use econometric models to estimate the impact of each of these biases to create synthetic 'true' return series, based on the reported returns, from which we glean forecasts of the risk, return and correlation of these investments. The adjustments made are on balance conservative. They substantially increase forecasted risk, reduce forecasted return and decrease the diversification properties compared to what the historical averages of reported index returns suggest. Your Financial Advisor/Private Wealth Advisor is available to explain these methodological choices in greater detail upon request.

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DISCLOSURES

Report Prepared for Gainesville General

IMPORTANT INFORMATION

The Global Investment Committee (GIC) Asset Allocation Models represent asset allocation recommendations made by the GIC based on general client characteristics such as investable assets and risk tolerance. The GIC Asset Allocation Models are not representations of 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) associated with actual trading or accounts are reflected in the GIC Asset Allocation Models. The GIC Asset Allocation Models are not intended to represent a client-specific suitability analysis or recommendation. The suitability of an asset allocation for a particular client must be based on the client's existing portfolio, investment objectives, risk profile and liquidity needs. Any such suitability determination could lead to asset allocation results that may differ materially from those presented herein. Each client should consult with his or her Financial Advisor/Private Wealth Advisor to determine whether the GIC Asset Allocation Models are relevant to the client's investment objectives.

Every client's financial circumstances, needs and risk tolerances are different. This Presentation ("Asset Allocation Review") is based on the information you provided to us, the assumptions you have asked us to make and the other assumptions indicated herein as of the date of the Presentation. This Presentation should be considered a working document that can assist you in achieving your investment objectives. You should carefully review the information and suggestions found in this Presentation and then decide on future steps.

This Presentation does not constitute an offer to buy, sell, or recommend any particular investment or asset, nor does it recommend that you engage in any particular investment, manager or trading strategy. It reflects only allocations among broad asset classes. All investments have risks. The decisions as to when and how to invest are solely your responsibility.

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

The assumed return rates in this Presentation are not reflective of any specific investment and do not include any transaction costs, management fees or expenses that may be incurred by investing in specific products. Such fees would reduce a client's returns. The actual returns of a specific investment may be more or less than the returns used in this Presentation. The return assumptions are based on historic rates of return of securities indices, which serve as proxies for the asset classes. Moreover, different forecasts may choose different indices as a proxy for the same asset class, thus influencing the return of the asset class.

The return assumptions used in this are estimates based on models that employ fundamental macroeconomic and econometric data together with average annual returns for the index used as a proxy for each asset class to forecast returns prospectively. The portfolio returns are calculated by weighting the individual return assumptions disclosed herein for each asset class according to your portfolio allocation. During the preparation of this Presentation, your Financial Advisor/Private Wealth Advisor may have refined the asset allocation strategy to develop a strategy that optimizes the potential returns that could be achieved with the appropriate level of risk that you would be willing to assume.

Morgan Stanley cannot give any assurances that any estimates, assumptions or other aspects of the Presentation will prove correct. It is subject to actual known and unknown risks, uncertainties and other factors that could cause actual results to differ materially from those shown.

This Presentation speaks only as of the date of this Presentation. Morgan Stanley Smith Barney expressly disclaims any obligation or undertaking to update or revise any statement or other information contained herein to reflect any change in past results, future expectations or circumstances upon which that statement or other information is based.

DISCLOSURES (CONT'D)

Report Prepared for Gainesville General

Hypothetical Portfolio Returns

The proposed asset allocations (also referred to herein as Hypothetical Portfolios) in this report are hypothetical and do not reflect actual portfolios but simply reflect selected indices that are representative for asset classes in the GIC's current strategic allocations. Hypothetical performance results have inherent limitations. 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. 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, idea or strategy for the periods indicated.

Despite the limitations of hypothetical performance, these hypothetical performance results may allow clients and Financial Advisors to obtain a sense of the risk / return trade-off of different asset allocation constructs. The hypothetical returns are not intended to forecast potential returns but rather to help identify relative patterns of behavior among asset classes which, when put in different combinations, assume various levels of risk. Each analysis in this report contains simulations of performance. The calculation of the performance of these Hypothetical Portfolios begins with the applicable GIC Asset Allocation Model for a particular risk profile. The GIC has established eight model portfolios conforming to various risk tolerance levels. The least risky model corresponds to risk profile 1 with the most risky being risk profile 8. Thus, as the risk profile increases, so does the level of risk.

Once the appropriate risk profile levels have been determined, your Financial Advisor/Private Wealth Advisor then customizes the GIC model based on each client's circumstances. The GIC models reflect historical performance of the indices used as proxies.

The calculation of the Hypothetical Portfolio returns assumes reinvestment of dividends, capital gains and interest but do not reflect any transaction costs, such as taxes, fees or charges, that would apply to actual investments. Such fees and charges would reduce performance.

Hypothetical performance is shown for illustration purposes only, has inherent limitations and does not reflect actual performance, trading or decision making. The results may vary and reflect economic or market factors such as liquidity constraints or volatility, which have an important impact on decision making and actual performance. This hypothetical performance is likely to differ from actual practice in client accounts.

Fees reduce the performance of actual accounts: Unless specified in the Client Fee Assumptions portion of this Appendix, none of the fees or other expenses (e.g. commissions, mark-ups, mark-downs, advisory fees) associated with actual trading or accounts are reflected in the GIC asset allocation strategy or ideas. 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.

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

Indices are unmanaged and 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.

This report is not a financial plan and does not, in and of itself, create an investment advisory relationship between you and your Financial Advisor/Private Wealth Advisor to the extent that one did not exist. In providing you with this report, we are not providing services as a fiduciary either under the Employee Retirement Income Security Act of 1974 (ERISA) or the Internal Revenue Code of 1986, and any information contained in this report is not intended to form the primary basis for any investment decision by you, or investment advice or a recommendation relating to the purchase or sale of any securities for either ERISA or Internal Revenue Code purposes.

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Tab 4: Exhibit 2
Review of Current Investment Managers

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City of Gainesville General Employees' Pension Plan
Current Manager Analysis
As of March 31, 2019

Large Cap Equity

	Performance				5 Year - Risk Characteristics					11 Year - Risk Characteristics				
	1 Year	3 Year	5 Year	11 Year	Alpha	Sharpe	Beta	Std. Dev.	R2	Alpha	Sharpe	Beta	Std. Dev.	R2
Twin Capital	7.08	12.37	10.40	9.59	0.03	0.87	0.98	11.07	99.26	0.21	0.61	0.97	14.95	99.45
+ / - Index Below	*(2.22)*	*(1.15)*	*(0.23)*	*0.01*		*(0.01)*		*(0.24)*			*0.02*		*(0.40)*	
Russell 1000 Index	***9.30***	***13.52***	***10.63***	***9.58***		***0.88***		***11.31***			***0.59***		***15.35***	

Large Cap Value Equity

	Performance				5 Year - Risk Characteristics					11 Year - Risk Characteristics				
	1 Year	3 Year	5 Year	11 Year	Alpha	Sharpe	Beta	Std. Dev.	R2	Alpha	Sharpe	Beta	Std. Dev.	R2
Barrow, Hanley, Mehinney & Strauss	7.74	11.43	7.97	8.31	0.44	0.66	0.97	11.04	95.55	1.07	0.52	0.94	15.11	96.86
+ / - Index Below	*2.07*	*0.98*	*0.25*	*0.73*		*0.03*		*(0.04)*			*0.07*		*(0.69)*	
Russell 1000 Value Index	***5.67***	***10.45***	***7.72***	***7.58***		***0.63***		***11.08***			***0.45***		***15.80***	

Large Cap Growth Equity

	Performance				5 Year - Risk Characteristics					11 Year - Risk Characteristics				
	1 Year	3 Year	5 Year	11 Year	Alpha	Sharpe	Beta	Std. Dev.	R2	Alpha	Sharpe	Beta	Std. Dev.	R2
Brown Advisory	18.40	18.32	13.54	13.22	0.16	0.99	1.00	12.99	88.82	1.48	0.77	1.02	16.65	90.86
+ / - Index Below	*5.65*	*1.79*	*0.04*	*1.75*		*(0.05)*		*0.71*			*0.06*		*1.13*	
Russell 1000 Growth Index	***12.75***	***16.53***	***13.50***	***11.47***		***1.04***		***12.28***			***0.71***		***15.52***	

Small Cap Value

	Performance				5 Year - Risk Characteristics					11 Year - Risk Characteristics				
	1 Year	3 Year	5 Year	11 Year	Alpha	Sharpe	Beta	Std. Dev.	R2	Alpha	Sharpe	Beta	Std. Dev.	R2
Pzena Investment Management	(2.17)	9.54	7.86	11.56	1.60	0.46	1.12	18.48	91.87	3.05	0.48	1.13	23.63	92.47
+ / - Index Below	*(2.34)*	*(1.32)*	*2.27*	*3.74*		*0.07*		*2.67*			*0.11*		*3.55*	
Russell 2000 Value Index	***0.17***	***10.86***	***5.59***	***7.82***		***0.39***		***15.81***			***0.37***		***20.08***	

Mid Cap Growth Equity

	Performance				5 Year - Risk Characteristics					11 Year - Risk Characteristics				
	1 Year	3 Year	5 Year	11 Year	Alpha	Sharpe	Beta	Std. Dev.	R2	Alpha	Sharpe	Beta	Std. Dev.	R2
Disciplined Growth Investors	13.22	17.61	12.41	14.20	1.37	0.83	1.01	14.16	89.85	3.06	0.71	1.03	19.24	93.20
+ / - Index Below	*1.71*	*2.55*	*1.52*	*3.51*		*0.06*		*0.90*			*0.14*		*1.18*	
Russell Midcap Growth Index	***11.51***	***15.06***	***10.89***	***10.69***		***0.77***		***13.26***			***0.57***		***18.06***	

International Value Equity (Performance from Plan's April 30, 2019 Flash Report - Data not available in Informa PSN)

	Performance				5 Year - Risk Characteristics					11 Year - Risk Characteristics				
	1 Year	3 Year	5 Year	10 Year	Alpha	Sharpe	Beta	Std. Dev.	R2	Alpha	Sharpe	Beta	Std. Dev.	R2
Silchester International Investors	(7.59)	7.14	4.16	10.86	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
+ / - Index Below	*(0.78)*	*0.80*	*3.46*	*4.21*										
MSCI EAFE Value (Net) Index	***(6.81)***	***6.34***	***0.70***	***6.65***										

International Growth Equity

	Performance				5 Year - Risk Characteristics					11 Year - Risk Characteristics				
	1 Year	3 Year	5 Year	11 Year	Alpha	Sharpe	Beta	Std. Dev.	R2	Alpha	Sharpe	Beta	Std. Dev.	R2
Baillie Gifford Overseas	(5.51)	15.48	6.55	6.09	1.48	0.30	1.45	19.24	88.70	3.00	0.24	1.18	23.12	93.38
+ / - Index Below	*(4.21)*	*7.87*	*2.62*	*3.09*		*0.04*		*6.73*			*0.11*		*4.22*	
MSCI EAFE Growth (Net) Index	***(1.30)***	***7.61***	***3.93***	***3.00***		***0.26***		***12.51***			***0.13***		***18.90***	

Fixed Income

	Performance				5 Year - Risk Characteristics					11 Year - Risk Characteristics				
	1 Year	3 Year	5 Year	11 Year	Alpha	Sharpe	Beta	Std. Dev.	R2	Alpha	Sharpe	Beta	Std. Dev.	R2
Loomis Sayles	5.31	3.10	3.66	5.16	0.92	1.02	0.99	2.87	97.45	1.05	1.15	1.10	4.09	77.08
+ / - Index Below	*0.83*	*1.07*	*0.92*	*1.45*		*0.31*		*0.01*			*0.16*		*0.84*	
Bloomberg Barclays US Aggregate	***4.48***	***2.03***	***2.74***	***3.71***		***0.71***		***2.86***			***0.99***		***3.25***	

Master Limited Partnerships

	Performance				5 Year - Risk Characteristics					10 3/4 Year - Risk Characteristics				
	1 Year	3 Year	5 Year	10 3/4 Yr	Alpha	Sharpe	Beta	Std. Dev.	R2	Alpha	Sharpe	Beta	Std. Dev.	R2
Harvest Fund Advisors MLP	15.98	8.56	(0.99)	10.66	4.04	(0.08)	1.01	20.44	95.89	4.38	0.53	0.97	19.40	95.10
+ / - Index Below	*0.87*	*2.87*	*3.74*	*4.38*		*0.19*		*0.53*			*0.23*		*(0.16)*	
Alerian MLP Index	***15.11***	***5.69***	***(4.73)***	***6.28***		***(0.27)***		***19.91***			***0.30***		***19.56***	

For illustrative or discussion purposes only. Performance as of March 31, 2019

Graystone Consulting

Tab 5: Exhibit 3
Sample Investment Manager Search

City of Gainesville General Employees' Pension Plan

Sample Mid Capitalization Value Manager Search Summary

Information as of March 31, 2019

	Chartwell Investments	Earnest Partners	Nuance Investments	Russell Mid Value
Sub-Style	***Traditional Value***	***Relative Value***	***Traditional Value***	
GIMA Status	***Focus***	***Focus***	***Focus***	
Adverse Active Alpha Manager	***Yes***	***Yes***	***Yes***	
Forecasted P/E (1 Year)	16.4	15.9	15.4	15.3
vs. Index	Higher	Higher	Higher	
Market Cap ($M)	$14.4 Billion	$20.6 Billion	$14.8 Billion	$15.0 Billion
vs. Index	Lower	Higher	Lower	
Security Selection	Bottom-up	Bottom-up	Bottom-up	
# of Securities	33	56	50	589
Foreign Securities Permitted	Yes	No	Yes (15% Maximum)	
Market Timer	Cash < 10%	Cash < 5%	Cash < 10%	
RISK **(5 year)**				
Standard Deviation	11.81	12.80	10.62	12.04
PERFORMANCE				
Equity				
1 year	6.43	6.09	8.71	2.89
3 year	13.43	14.75	13.49	9.50
5 year	10.59	10.56	10.25	7.22
10 year	17.09	17.21	18.49	16.39
OTHER IMPORTANT CONSIDERATIONS				
Year Firm Established	1997	1998	2008	
Who Est. Performance	Team	Team	Team	
Commitment	Owners/Well Paid	Owners/Well Paid	Owners/Well Paid	
Total Assets	$9.7B Firm/$607M Strategy	$22.0B Firm/$117M Strategy	$2.2B Firm/$1.3B Strategy	
Total PMs & Analysts	3	11	7	
Pooled vs. Separate / ETF	Separate	Separate	Separate	

Performance calculated Gross of Fees

The prices, quotes or statistics contained herein have been obtained from sources believed to be reliable, however, the accuracy cannot be guaranteed.

Graystone Consulting

SAMPLE MID CAPITALIZATION VALUE MANAGER SEARCH ANALYSIS

Prepared for:

City of Gainesville
General Employees' Pension Plan

As of March 31, 2019

Graystone Consulting Tampa

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Investment Manager Analysis

Prepared for: Gainesville General

For the Period Ending 3/31/2019

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It is not sufficient basis on which to make an investment decision. This document is not complete unless it includes all of the pages indicated. Please refer to the "Important Disclosures" and "Performance Information" sections at the end of this document for further information, including information about the impact of fees on performance.

IMPORTANT NOTE: All performance and statistics in this analysis are calculated based on gross performance and do not reflect the deduction of investment management fees and expenses. See the "Important Disclosure" and "Performance Information" sections at the end of this document for further information. Past performance does not guarantee future results. Actual individual account results will differ.

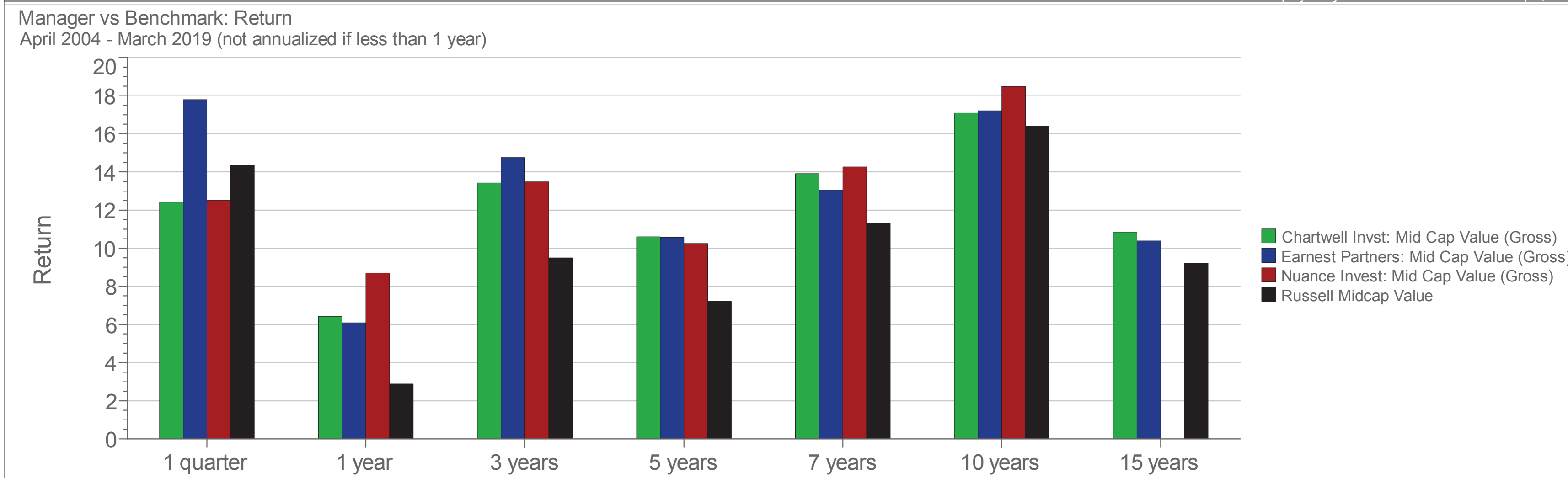
Mid Capitalization Value
(Quantitative Analysis)

Trailing Periods Return Analysis

Graystone Consulting

Zephyr StyleADVISOR

Zephyr StyleADVISOR: MSSB - Tampa, FL



Manager vs Benchmark: Return

April 2004 - March 2019 (not annualized if less than 1 year)

	1 quarter	1 year	3 years	5 years	7 years	10 years	15 years
Chartwell Invst: Mid Cap Value (Gross)	12.41%	6.43%	13.43%	10.59%	13.92%	17.09%	10.85%
Earnest Partners: Mid Cap Value (Gross)	17.79%	6.09%	14.75%	10.56%	13.05%	17.21%	10.38%
Nuance Invest: Mid Cap Value (Gross)	12.52%	8.71%	13.49%	10.25%	14.26%	18.49%	N/A
Russell Midcap Value	14.37%	2.89%	9.50%	7.22%	11.30%	16.39%	9.22%

Calendar-Year Return Analysis

Graystone Consulting

Calendar Year Return

As of March 2019

	YTD	2018	2017	2016	2015	2014	2013	2012	2011	2010	2009	2008	2007	2006	2005	2004
Chartwell Invst: Mid Cap Value (Gross)	12.41%	-9.64%	20.64%	27.89%	-1.45%	9.78%	36.41%	17.46%	0.28%	22.77%	27.62%	-30.96%	-0.61%	21.91%	15.10%	21.65%
Earnest Partners: Mid Cap Value (Gross)	17.79%	-9.40%	22.50%	17.50%	1.07%	10.88%	33.74%	16.06%	-4.99%	26.20%	42.54%	-41.73%	7.66%	11.28%	17.52%	24.69%
Nuance Invest: Mid Cap Value (Gross)	12.52%	-4.19%	16.18%	21.86%	2.95%	9.79%	35.46%	22.01%	4.05%	21.07%	38.70%	N/A	N/A	N/A	N/A	N/A
Russell Midcap Value	14.37%	-12.29%	13.34%	20.00%	-4.78%	14.75%	33.46%	18.51%	-1.38%	24.75%	34.21%	-38.44%	-1.42%	20.22%	12.65%	23.71%

3-Year Rolling Periods Return Analysis

Graystone Consulting

Manager vs Benchmark: Return

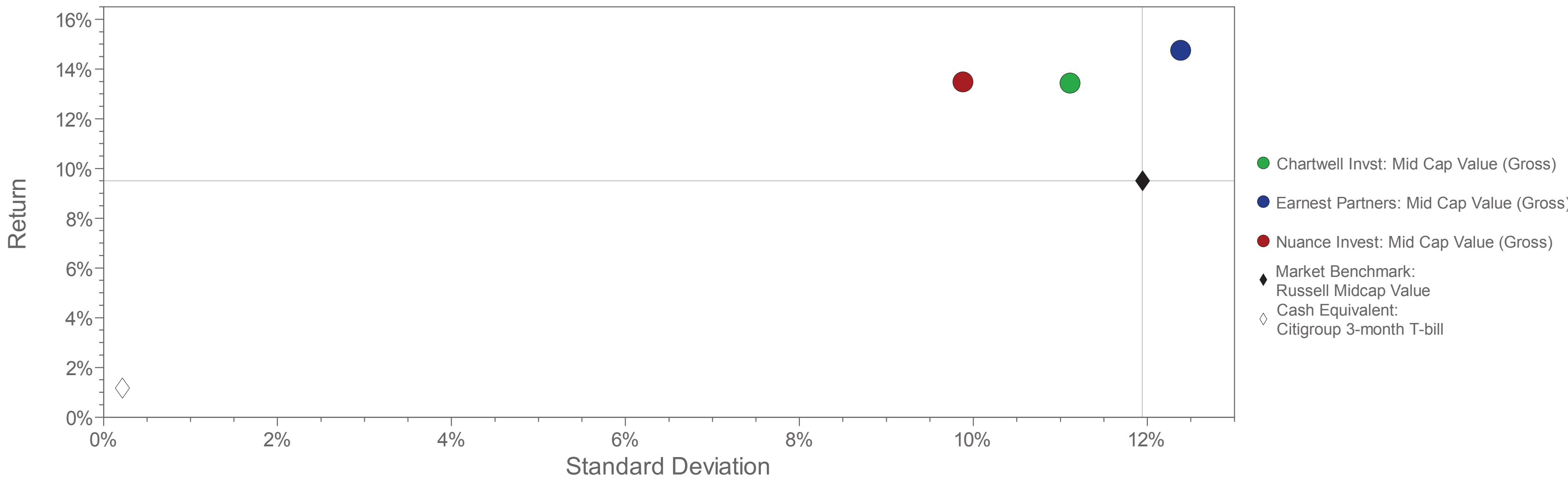
October 2003 - March 2019 (36-Month Moving Windows, Computed Quarterly)

	Mar 2019	Mar 2018	Mar 2017	Mar 2016	Mar 2015	Mar 2014	Mar 2013	Mar 2012	Mar 2011	Mar 2010	Mar 2009	Mar 2008	Mar 2007
Chartwell Invst: Mid Cap Value (Gross)	13.43%	11.44%	12.07%	12.52%	19.13%	15.36%	15.23%	24.85%	8.78%	-4.25%	-12.53%	7.64%	18.87%
Earnest Partners: Mid Cap Value (Gross)	14.75%	12.00%	10.15%	11.05%	16.56%	12.54%	12.30%	27.51%	7.08%	-1.35%	-15.50%	7.91%	16.07%
Nuance Invest: Mid Cap Value (Gross)	13.49%	12.33%	10.49%	12.18%	18.17%	19.33%	17.87%	28.97%	N/A	N/A	N/A	N/A	N/A
Russell Midcap Value	9.50%	7.23%	8.94%	9.88%	18.60%	15.17%	14.95%	29.18%	6.61%	-5.22%	-16.68%	6.56%	18.58%

Risk/Return Analysis – 3 Years

Graystone Consulting

Risk / Return
April 2016 - March 2019 (Single Computation)



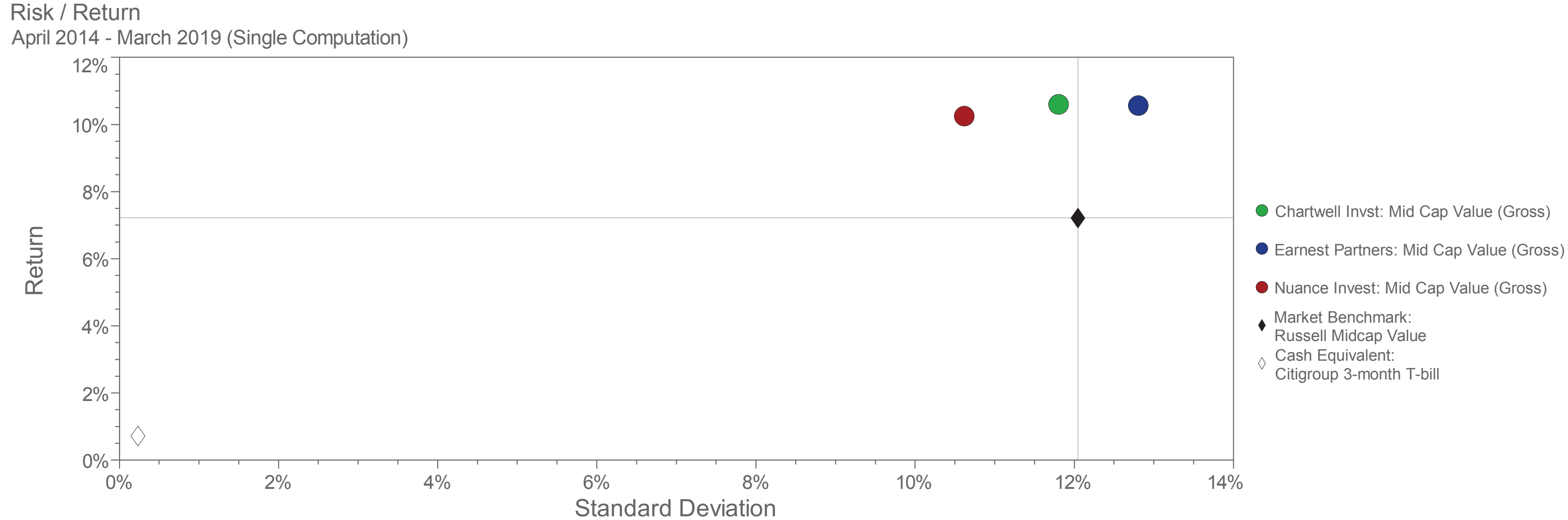
Return & Risk Analysis

April 2016 - March 2019: Summary Statistics

	Return	Excess Return vs. Market	Standard Deviation	Beta vs. Market	Maximum Drawdown	Up Capture vs. Market	Down Capture vs. Market	Alpha vs. Market	Sharpe Ratio	R-Squared vs. Market
Chartwell Invst: Mid Cap Value (Gross)	13.43%	3.93%	11.11%	0.89	-12.85%	104.40%	75.08%	4.63%	1.10	91.58%
Earnest Partners: Mid Cap Value (Gross)	14.75%	5.25%	12.39%	0.99	-17.34%	111.27%	74.85%	5.00%	1.10	91.03%
Nuance Invest: Mid Cap Value (Gross)	13.49%	3.99%	9.88%	0.75	-6.59%	94.89%	59.28%	6.01%	1.25	81.69%
Russell Midcap Value	9.50%	0.00%	11.94%	1.00	-15.63%	100.00%	100.00%	0.00%	0.70	100.00%

Risk/Return Analysis – 5 Years

Graystone Consulting



Return & Risk Analysis

April 2014 - March 2019: Summary Statistics

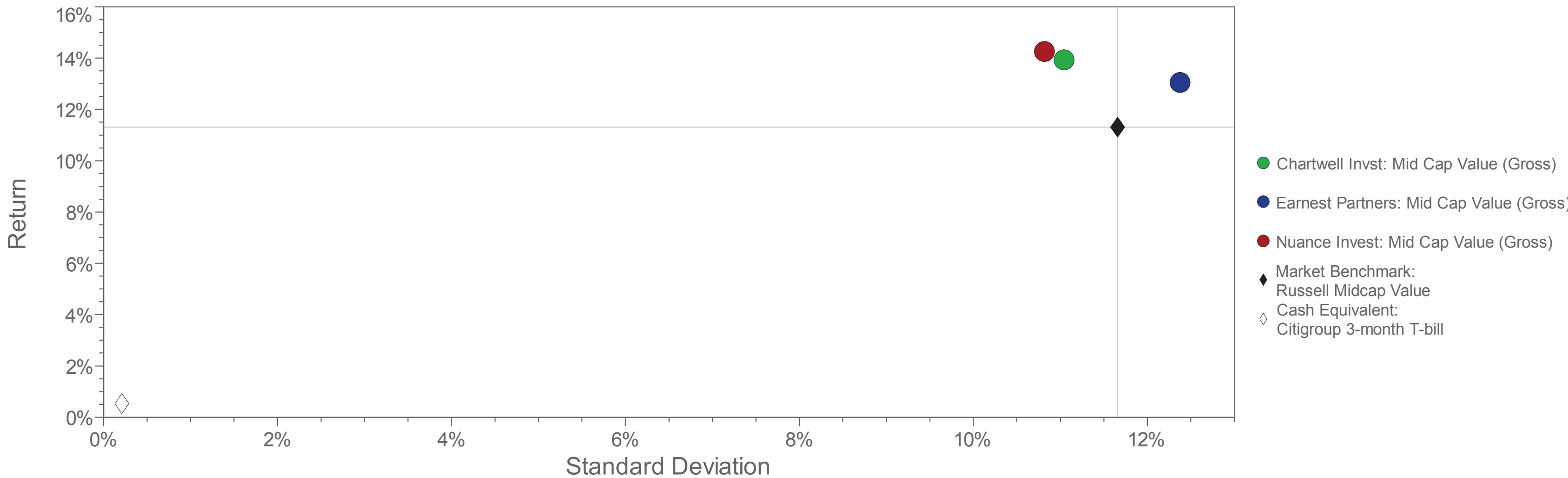
	Return	Excess Return vs. Market	Standard Deviation	Beta vs. Market	Maximum Drawdown	Up Capture vs. Market	Down Capture vs. Market	Alpha vs. Market	Sharpe Ratio	R-Squared vs. Market
Chartwell Invst: Mid Cap Value (Gross)	10.59%	3.38%	11.81%	0.94	-12.85%	108.45%	87.58%	3.60%	0.84	92.19%
Earnest Partners: Mid Cap Value (Gross)	10.56%	3.35%	12.80%	1.02	-17.34%	108.70%	88.08%	3.11%	0.77	91.28%
Nuance Invest: Mid Cap Value (Gross)	10.25%	3.03%	10.62%	0.80	-7.03%	92.04%	69.40%	4.28%	0.90	81.86%
Russell Midcap Value	7.22%	0.00%	12.04%	1.00	-15.63%	100.00%	100.00%	0.00%	0.54	100.00%

Risk/Return Analysis – 7 Years

Graystone Consulting

Risk / Return

April 2012 - March 2019 (Single Computation)



Return & Risk Analysis

April 2012 - March 2019: Summary Statistics

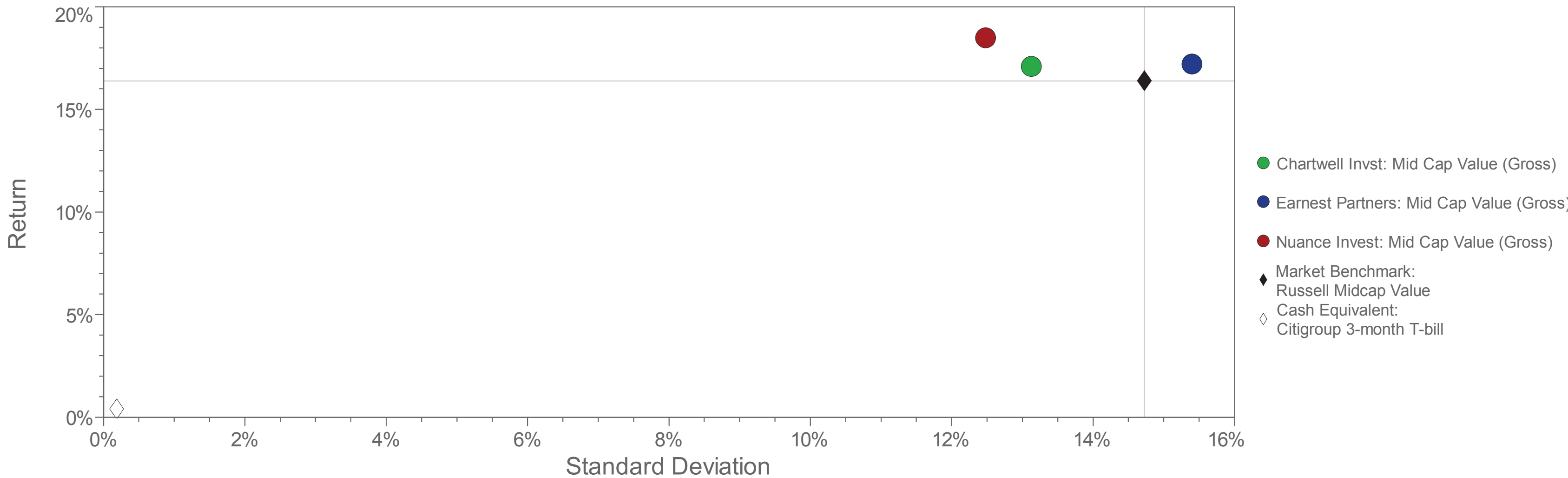
	Return	Excess Return vs. Market	Standard Deviation	Beta vs. Market	Maximum Drawdown	Up Capture vs. Market	Down Capture vs. Market	Alpha vs. Market	Sharpe Ratio	R-Squared vs. Market
Chartwell Invst: Mid Cap Value (Gross)	13.92%	2.61%	11.04%	0.90	-12.85%	100.04%	80.65%	3.47%	1.21	90.35%
Earnest Partners: Mid Cap Value (Gross)	13.05%	1.75%	12.38%	1.01	-17.34%	104.42%	93.85%	1.53%	1.01	90.99%
Nuance Invest: Mid Cap Value (Gross)	14.26%	2.96%	10.82%	0.85	-7.53%	98.35%	75.30%	4.32%	1.27	84.31%
Russell Midcap Value	11.30%	0.00%	11.66%	1.00	-15.63%	100.00%	100.00%	0.00%	0.92	100.00%

Risk/Return Analysis – 10 Years

Graystone Consulting

Risk / Return

April 2009 - March 2019 (Single Computation)



Return & Risk Analysis

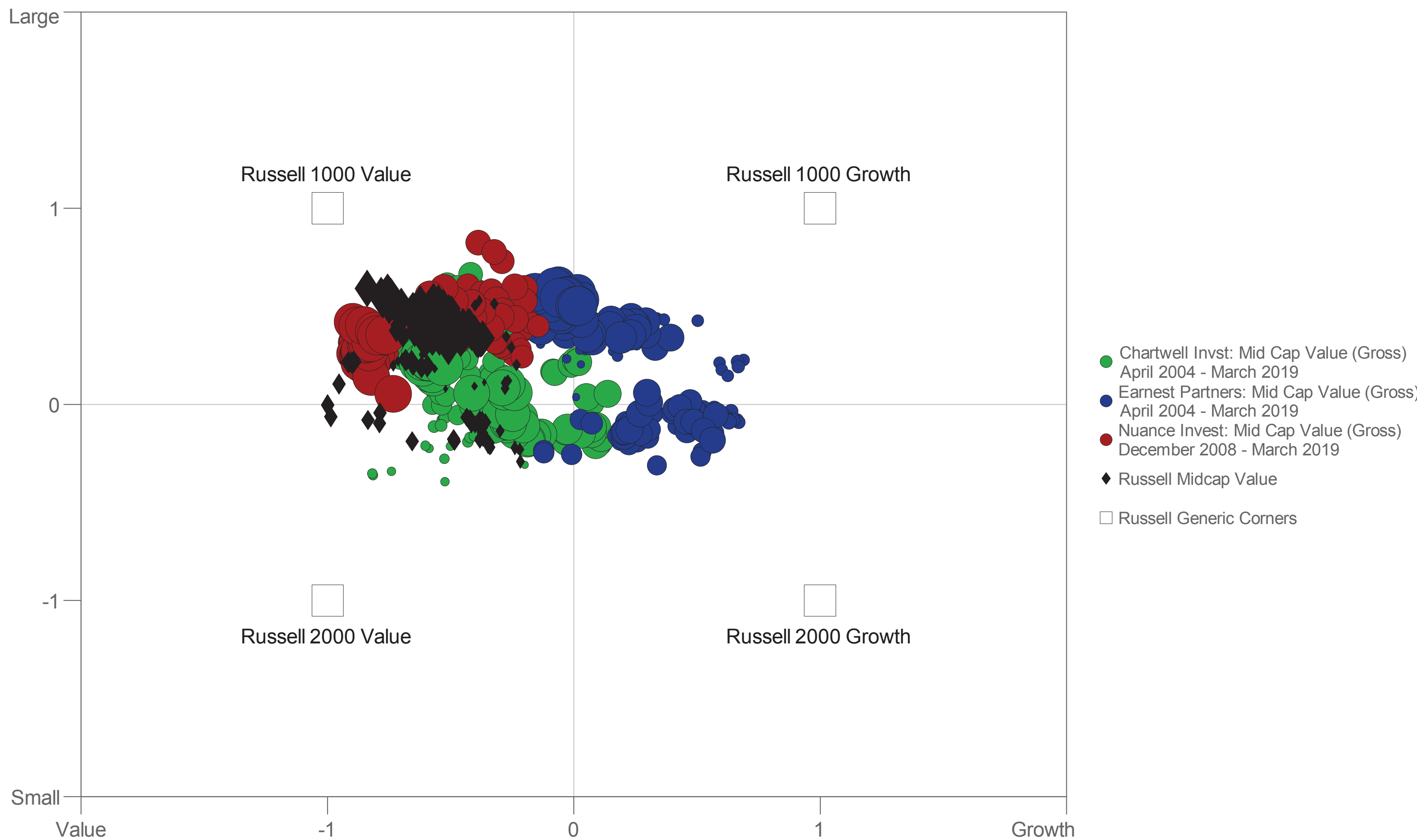
April 2009 - March 2019: Summary Statistics

	Return	Excess Return vs. Market	Standard Deviation	Beta vs. Market	Maximum Drawdown	Up Capture vs. Market	Down Capture vs. Market	Alpha vs. Market	Sharpe Ratio	R-Squared vs. Market
Chartwell Invst: Mid Cap Value (Gross)	17.09%	0.70%	13.13%	0.86	-18.11%	91.46%	82.42%	2.69%	1.27	93.25%
Earnest Partners: Mid Cap Value (Gross)	17.21%	0.82%	15.40%	1.01	-23.93%	101.58%	97.75%	0.61%	1.09	93.65%
Nuance Invest: Mid Cap Value (Gross)	18.49%	2.10%	12.48%	0.80	-16.45%	91.68%	74.20%	4.95%	1.45	88.18%
Russell Midcap Value	16.39%	0.00%	14.72%	1.00	-20.95%	100.00%	100.00%	0.00%	1.09	100.00%

Manager Style Analysis

Graystone Consulting

Manager Style
April 2004 - March 2019 (36-Month Moving Windows, Computed Monthly)



Graystone Consulting

Mid Capitalization Value
(Qualitative Due Diligence)

Due diligence report for one manager shown for illustration.

Morgan Stanley

WEALTH MANAGEMENT

Global Investment Manager Analysis | September 17, 2018

Chartwell Mid Cap Value Strategy

Focus List Report

Summary of Opinion

- GIMA has a favorable view of the investment team, particularly David Dalrymple, who has a long and successful track record managing this strategy. Mr. Dalrymple is supported by a team of two additional portfolio managers and a portfolio analyst. The team as a whole averages approximately 19 years of experience. All portfolio managers are involved in conducting investment research.

- The team's investment philosophy is based on the belief that a broader blend of valuation tools, rather than a single discipline, provides a broader opportunity set and will contribute to more consistent results. Additionally the team focuses on attractive names relative to their own history rather than the market which to an extent differentiates the process from other value managers and keeps the team focused on bottom up analysis.

THOMAS J. HAGEN

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STRATEGY DETAILS

Investment Style:
US Mid Cap Value

Sub-Style:
Traditional Value

Benchmark:
Russell Mid Cap Value

GIMA Status:
Focus List

Product Type:
Separately Managed Account

Ticker Symbol:
N/A

Strategy Description

Chartwell's Mid Cap Value Equity investment team seeks stocks with below average historical valuation as they believe a company's valuation, relative to its history, is a more important indicator of potential than its valuation relative to the market.

Strategy Snapshot

INVESTMENT CAPABILITIES	BUSINESS EVALUATION	INVESTMENT RESOURCES	PORTFOLIO CONSTRUCTION CAPABILITIES	HIGH ADVERSE ACTIVE ALPHA	SHORT –TERM PERFORMANCE ANALYSIS (≤ 3 YRS)	LONG -TERM PERFORMANCE ANALYSIS (> 3 YRS)
Above Average	Average	Above Average	Average	Yes	Above Expectations	Above Expectations

See Strategy Snapshot description at the end of this report.

Strategy Attributes

Positive Attributes

- Consistently implemented investment philosophy driven by a strong lead portfolio manager; David Dalrymple, who is supported by a seasoned research team that averages approximately 19 years of experience as a whole.
- The investment process tends to lean toward companies with strong balance sheets, solid business models, and recurring cash flow.

Points to Consider

- The portfolio consists of about 30-40 stocks with portfolio turnover averaging around 30%.
- The initial investment universe consists of stocks with a market capitalization between $1.5 billion and $15 billion (i.e., within the market range of the Russell Mid Cap Value Index.
- Portfolio construction risk controls (sector and security limits) help reduce volatility in portfolios.
- Historically, the portfolio has demonstrated low volatility versus the Russell Mid Cap Value Index; however, recently the three year standard deviation through June 30th, 2018 has risen above the benchmark.

Areas of Concern

- Chartwell is a fully-owned subsidiary of Tristate Capital Holdings (Tristate). While the firm has operated autonomously in the past, GIMA would be concerned if Tristate started to interfere in the day-to-day management of the firm as well as in portfolio management decisions.
- While the team manages approximately $2 bn. across three strategies, the mid cap value strategy is relatively small, at approximately $500 mm, with approximately 50% of the AUM concentrated at Morgan Stanley.

Performance Expectations

- The portfolio is expected to potentially perform well in most market environments that are broad based and balanced in terms of style.
- Given the strategy’s focus on companies with strong cash flows and relative strength, the portfolio may not keep pace in a high-beta, low-quality market environment, where companies with high debt and lower return on equity tend to outperform.
- The portfolio may struggle in speculative markets where more attractive valuations and fundamentals are not generally rewarded by investors.

Investment Capabilities Overview

Portfolio Management Team & Decision-Making

- David Dalrymple joined the firm in 1997 and is the lead portfolio manager on the mid cap value strategy. From 1991 to 1997, Mr. Dalrymple was a Portfolio Manager for Delaware Investment Advisers, managing a small-cap value mutual fund, the Value Fund.
- Ryan Harkins is considered the back-up portfolio manager on this strategy. He also manages a Long/Short strategy and has generalist research responsibilities on all the value products.
- Mark Goodman and Reid Halloran are generalists/analysts on the mid cap and small cap value products.

Investment Process & Portfolio Construction

- The team seeks stocks with below-average historical valuation as they believe a company's valuation relative to its history is a more important indicator of potential than its valuation relative to the market. Company performance and fundamentals tend to vary around a central tendency, which reflects the basic economics of its business and its industry, not that of the market. Reversion to this mean is likely to occur; therefore cycles in this valuation are important indicators of potential.
- The team believes that a broader blend of valuation tools (P/E, P/Sales, P/Book, P/CashFlow) will potentially contribute to more consistent results. Any single discipline may uncover companies concentrated in a limited range of industries or with common characteristics, which can outperform or underperform for extended periods.
- The team seeks to gain a fundamental understanding of a company's underlying competitive advantage which they think is critical in evaluating the likelihood that it can regain historical valuation levels. Assessing a company's ability to retain or recover to its prior margins or returns on capital is the critical activity in their research process.
- The team focuses on longer term trends as they think the extent to which a company can become a larger enterprise contributes to its valuation upside potential.
- The investment universe consists of companies in the $1.5 billion to $15 billion market cap range.
- A screening process which combines good valuation relative to the universe of mid cap stocks with valuation at the low end of a company's historical valuation range gives them a starter universe of stocks from which to select. They then seek to identify statistically inexpensive stocks with the highest potential based on an examination of a range of valuation tools. This working universe approximates 600-700 companies.

Track Record Reliability

- GIMA considers the track record to be highly representative of the decision making at Chartwell as Mr. Dalrymple has managed this strategy since inception (1/2004).

Portfolio Traits

EQUITY	
Range of Holdings	35-50
Maximum Position Size	5%
Econ Sector Constraints	Sector weights are constrained to +/- 50% of the Russell Midcap Value Index weight of +/-5% of the benchmark weight.
Country Constraints	N/A
Emerging Mkts Constraints	No
Currency Hedging	No
Tracking Error Target	3-6%
Typical Annual Turnover	30%
Invests in ADRs	Yes – Typically 2-3%
Invests in ETFs	No
Invests in Derivatives	No
Invests in IPOs	No
Liquidity Constraints	None
Maximum Cash	10%
Typical Cash Position	1-5%
Est. Product Capacity	$5 bn.

Source: Chartwell

Ownership And Parent Company

NAME OF OWNER	PERCENT OWNED
TriState Capital Hldgs	100%
PUBLICLY TRADED	**TICKER SYMBOL**
Yes	TSC

Source: Chartwell

Assets Under Management ($ Millions)

YEAR	FIRM	PRODUCT
2Q 2018	$9,531	$518
2017	$8,292	$431
2016	$8,052	$180
2015	$7,999	$60
2014	$7,737	$56
2013	$7,457	$50
2012	$5,238	$38
2011	$4,765	$30

Source: Chartwell

Legal/Compliance

- The firm states that it is not facing any legal or compliance issues at this time. The last SEC audit commenced in April 2015 and Chartwell considers the exam closed based on their final response in August of 2016.

Definitions

Sub-Styles: Subjective classifications designed to assist with investment product selection and performance evaluation based on GIMA's understanding of the long term investment philosophy and portfolio structuring biases and techniques. At points in time investment products may display attributes of other sub-style classifications, and these classifications may change due to changes in the capital markets, evolution of performance benchmarks, industry trends, or changes involving a manager's personnel or process.
Traditional Value: Tend to search for what they believe to be undervalued companies based on traditional valuation measures such as P/E ("Price/Earnings"), P/CF ("Price/Cash Flow") and P/B ("Price/Book") and typically have a greater awareness of and correlation to the benchmark although not necessarily strict constraints.
Russell Midcap Value - Russell Midcap Value Index measures the performance of those Russell Midcap companies with lower price-to-book ratios and lower forecasted growth values.

Strategy Snapshot

Investment Capabilities – Represents GIMA's opinion of the investment manager's investment capabilities with respect to the product under evaluation. This section covers the areas of quality of investment professionals, portfolio management, research and process execution. As these areas are not mutually exclusive, but rather interrelated, it is important to render a cohesive opinion on these areas of an organization. This section has three potential opinion outcomes: **Above Average, Average** and **Needs Improvement**.

Business Evaluation - Represents GIMA's opinion of the state of the investment manager's overall business condition. This area reviews items such as ownership structure, trends in assets under management, legal and/or compliance issues, investment professional incentives and trading policies. This area has three potential opinion outcomes: **Above Average, Average** and **Needs Improvement**.

Investment Resources – Represents several important components dedicated to a strategy, such as the level and quality of investment personnel (portfolio managers, analysts, etc.), analytical tools and methodologies, and the parent firm's overall commitment to support of the strategy. This area has three potential opinion outcomes: **Above Average, Average** and **Needs Improvement**.

Portfolio Construction Capabilities – Represents an assessment of a manager's ability to utilize its investment resources and select securities in order to effectively build portfolios. This includes elements of diversification, risk management, sell discipline, position sizing, and turnover management. This area has three potential opinion outcomes: **Above Average, Average** and **Needs Improvement**.

High Adverse Active Alpha* – High Adverse Active Alpha rankings are generally defined as falling into the top two quintiles (40%). Separately Managed Account and mutual fund rankings could differ. In some cases where the separately managed account product and mutual fund are substantially similar, the separately managed account rating may be applied to the mutual fund and vice versa. This area has three potential opinion outcomes: **Yes**, **No**, and **NA**.

Short-Term & Long-Term Performance Analysis – The opinion for performance is broken into two components: 1) Short-Term Performance Analysis represents GIMA's opinion of the investment product's performance typically over a time period of the trailing three years or less, 2) Long-Term Performance Analysis represents GIMA's opinion of the investment product's performance typically over a time period of more than the trailing three years. These areas have three potential opinion outcomes: **Above Expectations, In-Line** and **Below Expectations**.

*Global Investment Manager Analysis (GIMA) defines Adverse Active Alpha (AAA) as follows:

Adverse refers to the demonstrated ability to outperform in a variety of market environments and when conditions were difficult for active manager relative performance. "Difficult" periods were times when active management did not perform well relative to the index, as opposed to down market periods. At various times, active management has experienced difficult relative performance periods in up, down, and flat markets. We developed a set of factors to help discern which periods were more difficult for active managers that we utilize to identify managers that were able to overcome these headwinds and outperformed in the face of adversity.

Active refers to managers with portfolios that looked different from the index and had moderate to low tracking error. For equity products, we utilize active share to measure the degree of differentiation from the benchmark, while the fixed income model uses r2. By using these measures in conjunction with tracking error, the ranking seeks to find managers that were active, but not taking outsized bets, and that had some degree of style consistency. The combination of high active share and low tracking error is fairly uncommon among active managers, but we believe these traits may point toward managers with strong stock picking skills.

Alpha refers to the demonstrated ability to add value relative to an index and/or peers. Back tests indicate that highly ranked managers as a group outperformed the index and style peer group over subsequent periods and relative to active share alone. By combining the "adverse" component with the "active" component, we believe we increase the odds of finding some of the most proficient stock pickers.

Important Considerations Regarding the Adverse Active Alpha ranking process:

In our view, the Adverse Active Alpha manager ranking model is an important part of evaluating managers for consideration. However, we do recognize that AAA cannot, in and of itself, tell us which managers' strategies to invest in or when to buy or sell the strategies. While highly ranked managers historically performed well as a group in our analysis, past performance is not a guarantee of future results for any manager or strategy. Index returns assume reinvestment of dividends and, unlike fund or strategy returns, do not reflect any fees or expenses. Indices are unmanaged and not available for direct investment.
It is also important to keep in mind that just because a manager has high active share (top two deciles), a portfolio that looks different than the index (benchmark) doesn't necessarily mean the portfolio had or will have better performance than the index. Being different than the index does not consider factors such as: the timeliness of data provided by the manager, the appropriateness of the benchmark used for comparison to the portfolio, the relevancy of the period(s) being analyzed between the portfolio and the benchmark, knowing the difference between the securities and their concentration in a manager's portfolio vs. the benchmark and the potential that the data provided by the manager looked significantly different in periods before and after the performance snapshot(s) used for analysis. While the preceding considerations are not part of the AAA ranking model, GIMA's strives to evaluate other material and forward looking factors as part of the overall manager evaluation process. Factors such as 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 Alpha*SM*: Adding Value Through Manager Selection* and *Adding Value to Fixed Income Manager Selection With Adverse Active Alpha*SM whitepapers. The whitepapers are available from your Financial Advisor or Private Wealth Advisor.

ADVERSE ACTIVE ALPHA is a registered service mark of Morgan Stanley and/or its affiliates. U.S. Pat. No. 8,756,098 applies to the Adverse Active Alpha system and/or methodology.

Glossary of Terms

Active Share is a measure of the percentage of stock holdings in a manager's portfolio that differ from the benchmark index; Active Share is calculated by taking the sum of the absolute value of the differences of the weight of each holding in the manager's portfolio versus the weight of each holding in the benchmark index and dividing by two.

ADRs – American Depositary Receipts are U.S. dollar denominated forms of equity ownership in non-U.S. companies. These shares are issued against the local market shares held in the home market. ADRs are typically listed on U.S. exchanges such as NYSE, AMEX and NASDAQ.

Alpha – measures the difference between a portfolio's actual returns and its expected performance, given its level of risk as measured by Beta. A positive Alpha figure indicates the portfolio has performed better than its Beta would predict. A negative Alpha indicates the portfolio's underperformance given the expectations established by the Beta. The accuracy of the Alpha is therefore dependent on the accuracy of the Beta. Alpha is often viewed as a measurement of the value added or subtracted by a portfolio's manager.

Beta – measures a portfolio's volatility relative to its benchmark. A portfolio with a Beta higher than 1.0 has historically been more volatile than the benchmark, while a portfolio with a Beta lower than 1.0 has been less volatile. The accuracy of the Beta is dependent on R-Squared.

Correlation – measures the degree to which the returns of two securities or indices are related. The range of possible correlations is between 1.0 and -1.0. Positive correlation indicates that returns tend to move in the same direction. Negative correlation indicates that returns tend to move in opposite directions. Zero correlation implies that there is no relationship between the securities' returns.

EPS Growth – Forecast – a measure of one year earnings (cash flow or dividends) per share growth from the prior fiscal year (FY0) to the current fiscal year (FY1) using analyst consensus forecasts. Growth is expressed as a percent. The FY1 EPS (earnings per share) growth rate for the portfolio is a weighted average of the forecasts for the individual stocks in the portfolio.

EPS Growth – 5 Year Historical – The weighted average annualized earnings per share growth for a portfolio over the past five years.

Excess Return – represents the average quarterly total return of the portfolio relative to its benchmark. A portfolio with a positive Excess Return has on average outperformed its benchmark on a quarterly basis. This statistic is obtained by subtracting the benchmark return from the portfolio's return.

Historical EPS Growth - calculated by regressing over time the quarterly earnings per share for the past 20 quarters to determine the share's historical growth rate in earnings. The quarterly historical growth rate for each share is then annualized and the Historical EPS Growth shown in this report is the weighted average of these results.

Information Ratio – represents the Excess Return divided by the Tracking Error. It provides a measure of the historical consistency of the portfolio's outperformance or underperformance relative to its benchmark. A higher, positive Information Ratio suggests that the portfolio's excess returns may have been the result of making measured or moderate bets against the relevant benchmark's risk exposures.

Long Term EPS Growth Rate – analyst consensus of expected annual increase in operating earnings per share over the company's next full business cycle - usually three to five years. The Long Term EPS Growth Rate for the portfolio is a weighted average of the results for the individual stocks in the portfolio.

P/E - Forecast 12-Mo. – The price/earnings ratio for the stock based on the most recent closing price divided by the annual mean expected earnings for the current fiscal year (FY1 EPS forecast). P/E for the portfolio is a weighted average of the results for the individual stocks in the portfolio.

P/E – Trailing 12-Mo. – the current price of a stock divided by the most recent 12 months trailing earnings per share. P/E for the portfolio is a weighted average of the results for the individual stocks in the portfolio.

Price-to-Book – price per share divided by book value per share. Price-to-Book for the portfolio is a weighted average of the results for the individual stocks in the portfolio.

R-Squared (R^2) – represents the percentage of the volatility of returns that is attributable to movements of the benchmark. It is a measure of "co-movement" between portfolio returns and benchmark returns. The closer the portfolio's R^2 is to 100%, the more closely the portfolio correlates to, or follows, the benchmark. Generally, highly diversified portfolios have higher R^2 percentages.

Return on Equity (ROE) – is another profitability ratio which gauges return on investment by measuring how effectually stockholder money is being employed by the company. ROE is calculated by dividing a company's net income by average total equity. Unlike Return on Assets (ROA), ROE considers the degree to which a company uses leveraging, as interest expense paid to creditors is generally deducted from earnings to arrive at net income. ROE for the portfolio is a weighted average of the results for the individual stocks in the portfolio.

Sharpe Ratio – measures a portfolio's rate of return based on the risk it assumed and is often referred to as its risk-adjusted performance. Using Standard Deviation and returns in excess of the returns of T-bills, it determines reward per unit of risk. This measurement can help determine if the portfolio is reaching its goal of increasing returns while managing risk.

Standard Deviation – quantifies the volatility associated with a portfolio's returns. The statistic measures the variation in returns around the mean return. Unlike Beta, which measures volatility relative to the aggregate market, Standard Deviation measures the absolute volatility of a portfolio's return.

Tracking Error – represents the Standard Deviation of the Excess Return. This provides a historical measure of the variability of the portfolio's returns relative to its benchmark. A portfolio with a low Tracking Error would have quarterly Excess Returns that have exhibited very low volatility.

Important Disclosures

Report for Use Only in Investment Advisory Programs
This report is only to be used in Morgan Stanley Wealth Management investment advisory programs and not in connection with brokerage accounts.

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.

Focus List, Approved List and Tactical Opportunities List; Watch Policy
GIMA uses two methods to evaluate investment products in applicable advisory programs: Focus (and investment products meeting this standard are described as being on the Focus List) and Approved (and investment products meeting this standard are described as being on the Approved List). In general, Focus entails a more thorough evaluation of an investment product than Approved. Sometimes an investment product may be evaluated using the Focus List process but then placed on the Approved List instead of the Focus List. Investment products may move from the Focus List to the Approved List, or vice versa. GIMA may also determine that an investment product no longer meets the criteria under either process and will no longer be recommended in investment advisory programs (in which case the investment product is given a "Not Approved" status).

GIMA has a 'Watch" policy and may describe a Focus List or Approved List investment product as being on "Watch" if GIMA identifies specific areas that (a) merit further evaluation by GIMA and (b) may, but are not certain to, result in the investment product becoming "Not Approved." The Watch period depends on the length of time needed for GIMA to conduct its evaluation and for the investment manager or fund to address any concerns. GIMA may, but is not obligated to, note the Watch status in this report with a "W" or "Watch" next to the "Status" on the cover page.

Certain investment products on either the Focus List or Approved List may also be recommended for the Tactical Opportunities List based in part on tactical opportunities existing at a given time. The investment products on the Tactical Opportunities List change over time.

For more information on the Focus List, Approved List, Tactical Opportunities List and Watch processes, please see the applicable Form ADV Disclosure Document for Morgan Stanley Wealth Management. Your Financial Advisor or Private Wealth Advisor can also provide upon request a copy of a publication entitled "GIMA at a Glance."

No Obligation to Update
Morgan Stanley Wealth Management has no obligation to update you when any information or opinion in this report changes.

Strategy May Be Available as a Separately Managed Account or Mutual Fund
Strategies are sometimes available in Morgan Stanley Wealth Management investment advisory programs both in the form of a separately managed account ("SMA") and a mutual fund. These may have different expenses and investment minimums. Your Financial Advisor or Private Wealth Advisor can provide more information on whether any particular strategy is available in more than one form in a particular investment advisory program.

Consider Your Own Investment Needs
This report is not intended to be a client-specific suitability analysis or recommendation, an offer to participate in any investment, or a recommendation to buy, hold or sell securities (includes securities of Morgan Stanley, and/or their affiliates if shown in this report). Do not use this report as the sole basis for investment decisions. Do not select an asset class or investment product based on performance alone. Consider all relevant information, including your existing portfolio, investment objectives, risk tolerance, liquidity needs and investment time horizon.

Performance and Other Portfolio Information
General
Past performance does not guarantee future results. There is no guarantee that this investment strategy will work under all market conditions. As a result of recent market activity, current performance may vary from the performance referenced in this report.

For mutual funds, the investment return and principal value of an investment will fluctuate so that an investor's shares, when redeemed, may be worth more or less than their original cost. To obtain performance information, current to the most recent month-end, please contact the fund directly at the website set out on the cover page of this report.

Benchmark index
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.

Other data

Portfolio analysis may be based on information on less than all of the securities held in the portfolio. For equity portfolios, the analysis typically reflects securities representing at least 95% of portfolio assets. This may differ for other strategies, including those in the fixed income and specialty asset classes, due to availability of portfolio information.

Other data in this report is accurate as of the date this report was prepared unless stated otherwise. Data in this report may be calculated by the investment manager, Morgan Stanley Wealth Management or a third party service provider, and may be based on a representative account or a composite of accounts.

Securities holdings

Holdings are subject to change daily, so any securities discussed in this report may or may not be included in your portfolio if you invest in this investment product. Your portfolio may also include other securities in addition to or instead of any securities discussed in this report. Do not assume that any holdings mentioned were, or will be, profitable.

Sources of Data

Material in this report has been obtained from sources that we believe to be reliable, but we do not guarantee its accuracy, completeness or timeliness. Third party data providers make no warranties or representations relating to the accuracy, completeness or timeliness of the data they provide and are not liable for any damages relating to this data.

Asset Class and Other Risks

Investing in ***stocks***, ***mutual funds*** and ***exchange-traded funds (“ETFs”)*** entails the risks of market volatility. The value of all types of investments may increase or decrease over varying time periods. Besides the general risk of holding securities that may decline in value, ***closed-end funds*** may have additional risks related to declining market prices relative to net asset values (NAVs), active manager underperformance, and potential leverage. Some funds also invest in foreign securities, which may involve currency risk.

Value and ***growth investing*** also carry risks. Value investing involves the risk that the market may not recognize that securities are undervalued and they may not appreciate as anticipated. 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.

International securities may carry additional risks, including foreign economic, political, monetary and/or legal factors, changing currency exchange rates, foreign taxes and differences in financial and accounting standards. International investing may not be for everyone. These risks may be magnified in ***emerging markets***.

Small- and mid- capitalization companies may lack the financial resources, product diversification and competitive strengths of larger companies. The securities of small capitalization companies may not trade as readily as, and be subject to higher volatility than, those of larger, more established companies.

No Tax Advice

Tax laws are complex and subject to change. Morgan Stanley Smith Barney LLC (“Morgan Stanley”), its affiliates and Morgan Stanley Financial Advisors and Private Wealth Advisors do not provide tax or legal advice and are not “fiduciaries” (under ERISA, the Internal Revenue Code or otherwise) with respect to the services or activities described herein except as otherwise provided in writing by Morgan Stanley and/or as described at www.morganstanley.com/disclosures/dol. Individuals are encouraged to consult their tax and legal advisors (a) before establishing a retirement plan or account, and (b) regarding any potential tax, ERISA and related consequences of any investments made under such plan or account.

If any investments in this report are described as “tax free”, the income from these investments may be subject to state and local taxes and (if applicable) the federal Alternative Minimum Tax. Realized capital gains on these investments may be subject to federal, state and local capital gains tax.

Conflicts of Interest

GIMA’s goal is to provide professional, objective evaluations in support of the Morgan Stanley Wealth Management investment advisory programs. We have policies and procedures to help us meet this goal. However, our business is subject to various conflicts of interest. For example, ideas and suggestions for which investment products should be evaluated by GIMA come from a variety of sources, including our Morgan Stanley Wealth Management Financial Advisors and their direct or indirect managers, and other business persons within Morgan Stanley Wealth Management or its affiliates. Such persons may have an ongoing business relationship with certain investment managers or mutual fund companies whereby they, Morgan Stanley Wealth Management or its affiliates receive compensation from, or otherwise related to, those investment managers or mutual funds. For example, a Financial Advisor may suggest that GIMA evaluates an investment manager or fund in which a portion of his or her clients’ assets are already invested. While such a recommendation is permissible, GIMA is responsible for the opinions expressed by GIMA. See the conflicts of interest section in the applicable Form ADV Disclosure Document for Morgan Stanley Wealth Management for a discussion of other types of conflicts that may be relevant to GIMA’s evaluation of managers and funds. In addition, Morgan Stanley Wealth Management, MS&Co., managers and their affiliates provide a variety of services (including research, brokerage, asset management, trading, lending and investment banking services) for each other and for various clients, including issuers of securities that may be recommended for purchase or sale by clients or are otherwise held in client accounts, and managers in various advisory programs. Morgan Stanley Wealth Management, managers, MS&Co., and their affiliates receive compensation and fees in connection with these services. Morgan Stanley Wealth Management believes that the nature and range of clients to which such services are rendered is such that it would be inadvisable to exclude categorically all of these companies from an account.

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ZEPHYR STYLE ADVISOR DISCLAIMER

The following analysis is directed only to the client for whom the evaluation was prepared and is based on published investment manager rate of return data, capital market indices, custom (benchmarks, indices and universes), as well as software developed by Zephyr Associates. Investment manager rate of return data includes: Informa Plan Sponsor Network, Morgan Stanley (MSSB) Fiduciary Services, Morgan Stanley Global Investment Solutions, Collective Trust Funds and Consulting Group Capital Market Funds Databases. Capital markets index data includes: Capital market indices (supplied by Zephyr), Canadian indices (supplied by Zephyr), Salomon Brothers Fixed Income indices, Morgan Stanley Capital International indices, and Dow Jones Global indices.

Zephyr StyleADVISOR uses principles of William Sharpe's theory of returns-based style analysis. Returns-based style analysis assists in identifying investment style without examining the individual security holdings of a portfolio. StyleADVISOR regresses the historical returns of the individual manager(s) against different style indices to identify the pattern of returns that the fund is most closely correlated to. MSSB does not recommend the use of returns-based style analysis without the supporting fundamental research of the fund (research attribution reports).

The underlying data is believed to be reliable but accuracy and completeness cannot be assured. While the historical rates of return described in this report are believed to accurately reflect the overall nature of the portfolio, the constituent securities have not been reviewed. This evaluation is for informational purposes only and is not intended to be an offer, solicitation or recommendation with respect to the purchase or sale of any security or a recommendation of the services provided by any money management organization. Past results are not necessarily indicative of future performance.

Gross Rates of Return

The investment results depicted herein represent historical Gross performance before the deduction of investment management fees and are based on settlement date accounting methods. Annual, cumulative and annualized total returns are calculated assuming reinvestment of dividends and income plus capital appreciation. The client is referred applicable Morgan Stanley ADV brochures, available at www.smithbarney.com/adv or from your Financial Advisor. Actual returns will be reduced by expenses that may include management fees and cost of transactions. As fees are deducted quarterly, the compounding effect will be to increase the impact of the fees by an amount directly related to the gross account performance. For example, on an account with a 2% fee, if the gross performance is 10%, the compounding effect of the fees will result in a net performance of approximately 7.81%. This Report is for one-on-one client presentations only.

International and Small Capitalization Securities

To the extent the investments depicted herein represent international securities, you should be aware that there may be additional risks associated with international investing involving foreign, economic, political, and/or legal factors. International investing may not be for everyone. In addition, small capitalization securities may be more volatile than those of larger companies, but these companies may present greater growth potential.

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This document has been prepared at your request for your personal use in order to assist you in evaluating asset allocation strategies, investment objectives and disciplines and various available investment products. It is not a recommendation of a particular program, portfolio, investment manager, fund or other investment product. It is not tax or legal advice. If you have asked us to do so, we have included one or more investment managers or funds that are not available in Morgan Stanley 's investment advisory programs. Morgan Stanley does not recommend any such manager or fund and takes no responsibility for the accuracy of any information provided by such manager or fund. You should contact such managers or the sponsors of such funds directly for performance and other information. You should not use the document as the sole basis for investment decisions. Moreover, you should not use investment performance alone to make any investment decision. You should consider other factors such as the experience and investment style of an investment manager as compared to your individual investment objectives, risk tolerance and time horizons.

Performance Information

The investment results depicted herein represent historical Gross performance with no deduction for investment management fees or transaction costs. Such figures reflect the reinvestment of dividends. Actual returns will be reduced by such expenses. You should refer to Morgan Stanley 's ADV brochure for full disclosure of Morgan Stanley 's fees. As fees are deducted from an account on a quarterly basis, the compounding effect will be to increase the impact of the fees by an amount directly related to the gross account performance. For example, on an account with a 2% fee, if the gross performance is 10%, the compounding effect of the fees will result in a net performance of approximately 7.81%.

You would not necessarily have obtained the performance results shown in the document if you had been invested with these managers or funds over the time periods illustrated. Actual performance of individual accounts will vary due to factors such as the timing of contributions and withdrawals, individual client restrictions, rebalancing schedules and fees.

Moreover, the illustrations set forth in the document benefit from the availability of actual historical returns. Manager or funds that have not performed as well as those illustrated may not have been considered for inclusion in the document. Such hindsight is obviously not available to an investment adviser such as Morgan Stanley when making "real time" investment recommendations.

SOURCE OF PERFORMANCE INFORMATION FOR FUNDS: For any fund shown in this report, the performance data is obtained from databases maintained by parties outside Morgan Stanley . This data has been included for your information, and has not been verified by Morgan Stanley in any way. See "Sources of Information" below.

NET PERFORMANCE

See the attached Morningstar profiles for each fund in the report for standardized fund performance (i.e. returns net of any maximum sales charges that apply if you purchase the fund outside of our investment advisory programs) and also returns net of the maximum annual investment advisory fees that apply if you purchase the fund in one of our investment advisory programs. You should carefully read the manager/fund profiles, which may contain more up-to-date performance information than in this report.

Investment Options May be Managed by or Affiliated with Morgan Stanley

This report may include investment options that are managed by or affiliated with Morgan Stanley . Morgan Stanley may have incentive to recommend such investment options to you because we may earn more compensation if you invest in these investment options than if you invest in other investment options.

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Alpha: Alpha is a risk (beta adjusted) measurement. Officially, alpha measures the difference between a portfolio's actual returns and what it might be expected to deliver based on its level of risk. Higher risk generally means higher reward. A positive alpha means the fund has beaten expectations. A negative alpha means that the manager failed to match performance with risk. If two managers had the same return but one had a lower beta, that manager would have a higher alpha. StyleADVISOR uses the standard intercept calculation.

Beta: Beta represents the systematic risk of a portfolio and measures its sensitivity to a benchmark. A portfolio with a beta of one is considered as risky as the benchmark and would therefore provide expected returns equal to those of the market during both up and down periods. A portfolio with a beta of two would move approximately twice as much as the benchmark.
Excess Return - The difference between the returns of two portfolios. Usually excess return is the difference between a manager's return and the return of a benchmark for that manager. In the context of a beta benchmark, excess return refers to the difference between a manager or market benchmark and Tbills.

Down Capture Ratio: the ratio of the manager's overall performance to the benchmark's overall performance, considering only periods that are negative in the benchmark.

Excess Returns: represent the average quarterly total returns of the manager relative to its benchmark. A manager with a positive Excess Return has on average outperformed its benchmark on a quarterly basis. This statistic is obtained by subtracting the benchmark return from the manager's return.

Manager Style Graph: an attempt to depict how the manager's historical returns (not actual portfolio holdings) "track" a group of benchmarks. For example, Domestic Equity products will be presented versus Large and Small, Growth and Value benchmarks. If the R2 of the Style Benchmark is lower than 80%, then the attempt to measure the manager's style was problematic (this will often happen with non- diversified portfolios, or eclectic investment disciplines.)

Moving Window: multiple data calculations can be done within a single span of time. For example, in a 5 year period you can display five 1-year values with non-overlapping data, or you can display nine 3-year values by moving each 3-year "moving window" one quarter at a time. Each discrete time period, either overlapping or not, is referred to as a "moving window."

Return: A compounded and annualized rate of return.

R-Squared: (Correlation Squared) - A measure of how well two portfolios track each other. R-squared ranges between zero and 100%. An R-squared of 100% indicates perfect tracking, while an R-squared of zero indicates no tracking at all. R-squared is used in style analysis to determine how much information about a return series the style benchmark has been able to capture. The higher the R-squared, the better the benchmark.

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Sharpe Ratio: The Sharpe Ratio, developed by Professor William F. Sharpe, is a measure of reward per unit of risk -- the higher the Sharpe Ratio, the better. It is a portfolio's excess return over the risk-free rate divided by the portfolio's standard deviation. The portfolio's excess return is its geometric mean return minus the geometric mean return of the risk-free instrument (by default, t-bills).

Standard Deviation: quantifies the volatility associated with a given product. The statistic measures the quarterly variation in returns around the mean return.

Style Benchmark: the blended benchmark that best matches the manager's returns (lowest tracking error.)

Tracking Error: represents the Standard Deviation of the Excess Return and provides a historical measure of the variability of the manager's returns relative to its benchmark. **Up Capture Ratio:** measures the manager's overall performance to the benchmark's overall performance, considering only periods that are positive in the benchmark. **Universe:** a peer group of managed investment products with reasonably similar characteristics.

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Tab 6: Exhibit 4
Sample Quarterly Performance Report

SUMMARY OF RELEVANT FACTS
SAMPLE
As of September 30, 2018

Distribution of Assets		
Equity		
- Large Cap. Value	$74,545,576	
- Large Cap. Growth	$80,010,802	
- Mid Cap Value	$25,426,332	
- Small/Mid Cap Growth	$28,094,940	
- International Value	$31,318,196	
- International Growth	$30,915,202	
Total Equity		$270,311,048
Fixed Income		$84,502,118
Fund of Hedge Funds		$20,923,524
Master Limited Partnerships		$20,612,873
Private Real Estate		$41,374,727
Cash		$0
Total Portfolio		$437,724,289

Current IPS

Distribution by Percentages	Policy	Current
Equity Breakdown		
- Large Cap. Value	15.00%	17.03%
- Large Cap. Growth	15.00%	18.28%
- Mid Cap Value	5.00%	5.81%
- Small/Mid Cap Growth	5.00%	6.42%
- International Value	7.50%	7.15%
- International Growth	7.50%	7.06%
Total Equity	55.00%	61.75%
Fixed Income	25.00%	19.30%
Fund of Hedge Funds	5.00%	4.78%
Master Limited Partnerships	5.00%	4.71%
Private Real Estate	10.00%	9.45%
Cash	0.00%	0.00%
Total	100.00%	100.00%

Other Important Facts:

Total Portfolio	$437,724,289
Total Gain or (Loss) - Gross-of-Fees	$16,413,302
Total Gain or (Loss) - Net-of-Fees	$15,889,473
Total Fees	($523,829)

BOSTON			**VANGUARD LCG ETF**		**POLEN/SAWGRASS**	
Total Assets	100.00%	$74,545,576	100.00%	$39,813,594	100.00%	$40,197,208
Equity	99.63%	$74,271,581	100.00%	$39,813,594	98.66%	$39,660,544
Cash	0.37%	$273,995	0.00%	$0	1.34%	$536,664
Fees		($74,384)		$0.00		($86,554)
Gain or (Loss) - Gross-of-Fees		$4,297,610		$3,462,263		$3,903,883
Gain or (Loss) - Net-of-Fees		$4,223,226		$3,462,263		$3,817,329
BARROW HANLEY			**SYSTEMATIC**		**WELLS**	
Total Assets	100.00%	$12,182,347	100.00%	$13,243,985	100.00%	$28,094,940
Equity	99.19%	$12,083,880	98.17%	$13,001,180	97.36%	$27,352,563
Cash	0.81%	$98,467	1.83%	$242,805	2.64%	$742,377
Fees		($23,083)		($17,694)		($52,947)
Gain or (Loss) - Gross-of-Fees		$150,914		$394,142		$2,196,925
Gain or (Loss) - Net-of-Fees		$127,831		$376,448		$2,143,978
TEMPLETON			**RENAISSANCE (INT'L)**		**MARCO**	
Total Assets	100.00%	$31,318,196	100.00%	$30,915,202	100.00%	$35,282,989
Equity	97.87%	$30,652,603	98.41%	$30,423,428	98.90%	$34,894,196
Cash	2.13%	$665,593	1.59%	$491,774	1.10%	$388,792
Fees		($78,435)		($20,984)		($17,258)
Gain or (Loss) - Gross-of-Fees		$136,997		$388,750		$138,501
Gain or (Loss) - Net-of-Fees		$58,561		$367,766		$121,243
VANDERBILT			**BLACKROCK L/S CREDIT**		**BLACKSTONE**	
Total Assets	100.00%	$49,219,129	100.00%	$10,433,846	100.00%	$10,489,678
Equity	86.56%	$42,604,930	100.00%	$10,433,846	100.00%	$10,489,218
Cash	13.44%	$6,614,199	0.00%	$0	0.00%	$460
Fees		($42,809)		$0		$0
Gain or (Loss) - Gross-of-Fees		$265,017		$80,183		$252,216
Gain or (Loss) - Net-of-Fees		$222,208		$80,183		$252,216
SWANK/CUSHING			**UBS**			
Total Assets	100.00%	$20,612,873	100.00%	$41,374,727		
Equity	98.89%	$20,383,672	100.00%	$41,374,727		
Cash	1.11%	$229,201	0.00%	$0		
Fees		($25,438)		($84,242)		
Gain or (Loss) - Gross-of-Fees		$167,714		$578,188		
Gain or (Loss) - Net-of-Fees		$142,276		$493,946		

BREAKDOWN OF RETURNS
SAMPLE
As of September 30, 2018

EQUITY Boston Large Cap. Value	Your Returns (Gross-of-Fees)	Your Returns (Net-of-Fees)	Russ 1000 Value	PSN Money Mgrs	S&P 500
Quarter	6.12	6.01	5.70	5.46	7.71
1 year	13.66	13.19	9.45	11.00	17.91
3 year	15.63	15.15	13.55	14.40	17.31
5 year	12.33	11.91	10.72	11.30	13.95
Since 9/30/2005	8.34	7.91	7.47	8.52	9.14
Vanguard ETF Large Cap. Growth			**Russ 1000 Growth**	**PSN Money Mgrs**	
Quarter	9.52	9.52	9.17	7.79	
Since 5/31/2018	10.19	10.19	10.22	NA	
Polen/Sawgrass Large Cap. Growth			**Russ 1000 Growth**	**PSN Money Mgrs**	
Quarter	10.74	10.49	9.17	7.79	
1 year	24.31	23.57	26.30	21.58	
3 year	16.79	16.17	20.55	17.77	
5 year	14.17	13.58	16.58	14.57	
Since 3/31/2007	9.84	9.27	11.10	10.29	
Barrow Hanley Mid Cap. Value			**Russ Midcap Value**	**PSN Money Mgrs**	
Quarter	1.25	1.06	3.30	2.96	
1 year	0.44	(0.32)	8.81	9.60	
3 year	9.65	8.81	13.09	14.04	
5 year	8.03	7.18	10.72	10.78	
Since 9/30/2005	8.63	7.79	8.70	9.52	
Systematic Mid Cap. Value			**Russ Midcap Value**	**PSN Money Mgrs**	
Quarter	3.06	2.92	3.30	2.96	
1 year	11.52	10.95	8.81	9.60	
3 year	15.08	14.55	13.09	14.04	
5 year	9.41	8.87	10.72	10.78	
Since 9/30/2005	9.49	8.91	8.70	9.52	

The prices, quotes, or statistics contained herein have been obtained from sources believed to be reliable, however, its accuracy cannot be guaranteed. Past performance is not a guarantee of future results.

Wells Small/Mid Cap. Growth	Your Returns (Gross-of-Fees)	Your Returns (Net-of-Fees)	Russ 2500 Growth	PSN Money Mgrs	
Quarter	8.47	8.26	7.17	7.45	
1 year	25.30	24.29	23.13	26.07	
3 year	19.30	18.33	17.96	19.79	
5 year	12.76	11.84	12.88	13.33	
Since 4/30/2008	12.39	11.53	11.39	NA	
Templeton International Value			**MSCI AC Wrd x US**	**MSCI EAFE (Net)**	**50/50 Blend**
Quarter	0.44	0.19	0.71	1.36	1.03
1 year	(0.28)	(0.90)	1.76	2.74	2.25
3 year	7.55	6.88	9.97	9.23	9.60
5 year	3.32	2.67	4.12	4.42	4.27
Since 4/30/2008	1.90	1.24	1.82	2.12	1.97
Renaissance International Growth			**MSCI AC Wrd x US**	**MSCI EAFE (Net)**	
Quarter	1.27	1.20	0.71	1.36	
1 year	(0.16)	(0.48)	1.76	2.74	
3 year	9.27	8.79	9.97	9.23	
5 year	5.43	4.92	4.12	4.42	
Since 1/31/2009	9.95	9.41	9.20	9.19	
FIXED INCOME Marco			**BC Int. G/C Bonds**	**BC G/C Bonds**	**90-Day T-Bills**
Quarter	0.36	0.32	0.21	0.06	0.50
1 year	(0.70)	(0.87)	(0.96)	(1.37)	1.57
3 year	1.15	0.98	0.91	1.45	0.80
5 year	1.88	1.71	1.52	2.23	0.49
Since 9/30/2005	3.68	3.51	3.41	3.87	1.15
Vanderbilt			**BC Int. G/C Bonds**	**BC G/C Bonds**	**90-Day T-Bills**
Quarter	0.54	0.45	0.21	0.06	0.50
1 year	(0.21)	(0.55)	(0.96)	(1.37)	1.57
3 year	1.29	0.94	0.91	1.45	0.80
5 year	1.70	1.34	1.52	2.23	0.49
Since 9/30/2005	3.31	2.95	3.41	3.87	1.15
LONG/SHORT CREDIT BlackRock			**HFRX Credit**	**BC Agg**	
Quarter	0.77	0.77	0.22	0.02	
1 year	1.17	1.17	1.08	(1.22)	
Since 11/30/2016	2.62	2.62	2.95	1.10	

The prices, quotes, or statistics contained herein have been obtained from sources believed to be reliable, however, its accuracy cannot be guaranteed. Past performance is not a guarantee of future results.

MULTI-STRATEGY **Blackstone**	**Your Returns** **(Gross-of-Fees)**	**Your Returns** **(Net-of-Fees)**	**HFRX Global** **Hedge Fund**	**BC Agg**	
Quarter	2.44	2.44	(0.39)	0.02	
1 year	1.41	1.41	0.25	(1.22)	
Since 11/30/2016	4.95	4.95	3.01	1.10	
MLP **Swank/Cushing**			**Alerian MLP Index**	**BC Agg**	
Quarter	0.82	0.69	6.57	0.02	
1 year	3.25	2.75	4.89	(1.22)	
Since 10/31/2015	1.97	1.52	1.29	1.34	
PRIVATE REAL ESTATE **UBS**			**NCREIF**	**NCREIF ODCE**	**BC Agg**
Quarter	1.41	1.20	1.67	2.09	0.02
1 Year	7.60	6.68	7.16	8.68	(1.22)
3 Year	6.86	5.84	7.76	8.80	1.31
5 Year	8.39	7.32	9.58	10.72	2.16
6/30/2012	8.74	7.69	9.81	11.12	1.70
TOTAL RETURN **Time-Weighted (TWR)**			**Policy Index***		
Quarter	3.86	3.73	3.48		
1 year	8.41	7.91	8.17		
3 year	9.40	8.91	9.35		
5 year	7.80	7.33	7.69		
Since 9/30/2005	6.95	6.50	6.54		
TOTAL RETURN **Dollar-Weighted Net (IRR)**			**Actuarial Rate**	**CPI +3**	
Quarter		3.74	1.87	1.22	
1 year		7.94	7.70	5.43	
3 year		8.88	7.70	5.05	
5 year		7.28	7.70	4.53	
Since 9/30/2005		6.43	7.70	4.87	

For periods since 10/31/2015: 17.5% Russ 1000 Value/ 17.5% Russ 1000 Growth/ 5% Russ Midcap Value/ 5% Russ 2500 Growth/ 7.5% MSCI AC World ex US / 2.5% MSCI EAFE (net) / 25% BC Int GC / 10% HFRI FOF Consv / 5% Alerian MLP / 5% NCREIF

For periods from 9/30/2015 to 10/31/2015: 17.5% Russ 1000 Value/ 17.5% Russ 1000 Growth/ 5% Russ Midcap Value/ 5% Russ 2500 Growth/ 7.5% MSCI AC World ex US / 2.5% MSCI EAFE (net) / 25% BC Int GC / 10% HFRI FOF Consv / 5% 90-Day T-Bill / 5% NCREIF

For periods from 8/31/2013 to 9/30/2015: 18.75% Russ 1000 Value/ 18.75% Russ 1000 Growth/ 5% Russ Midcap Value/ 5% Russ 2500 Growth/ 7.5% MSCI AC World ex US / 2.5% MSCI EAFE (net) / 27.5% BC Int GC / 10% HFRI FOF Consv / 5% NCREIF

For periods from 6/30/2012 to 8/31/2013: 18.75% Russ 1000 Value/ 18.75% Russ 1000 Growth/ 5% Russ Midcap Value/ 5% Russ 2500 Growth/ 7.5% MSCI AC World ex US / 2.5% MSCI EAFE (net) / 32.5% BC Int GC / 5% HFRI FOF Consv / 5% NCREIF

For periods from 8/31/2010 to 6/30/2012: 18.75% Russ 1000 Value/ 18.75% Russ 1000 Growth/ 5% Russ Midcap Value/ 5% Russ 2500 Growth/ 7.5% MSCI AC World ex US / 2.5% MSCI EAFE (net) / 37.5% BC Int GC / 5% HFRI FOF Consv

For periods from 1/31/2009 to 8/31/2010: 15% Russ 1000 Value/ 25% Russ 1000 Growth/ 7.5% Russ Midcap Value/ 2.5% Russ 2500 Growth/ 7.5% MSCI AC World ex US / 2.5% MSCI EAFE (net) / 40% BC Int GC

For periods from 4/30/2008 to 1/31/2009: 15% Russ 1000 Value/ 25% Russ 1000 Growth/ 7.5% Russ Midcap Value/ 2.5% Russ 2500 Growth/ 5% MSCI AC World ex US / 5% MSCI EAFE (net) / 40% BC Int GC

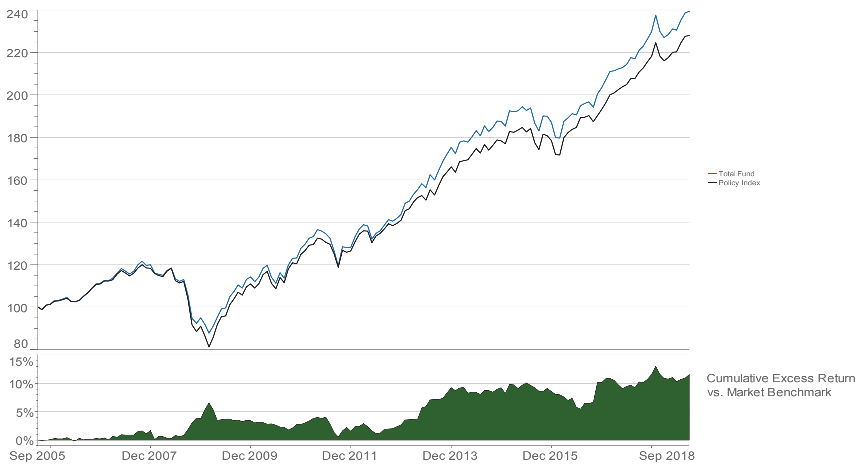
For periods prior to 4/30/2008:15% Russ 1000 Value/ 25% Russ 1000 Growth/ 10% Russ Midcap Value/ 50% BC Int. Gov/Credit

Risk/Return Analysis - Since Inception

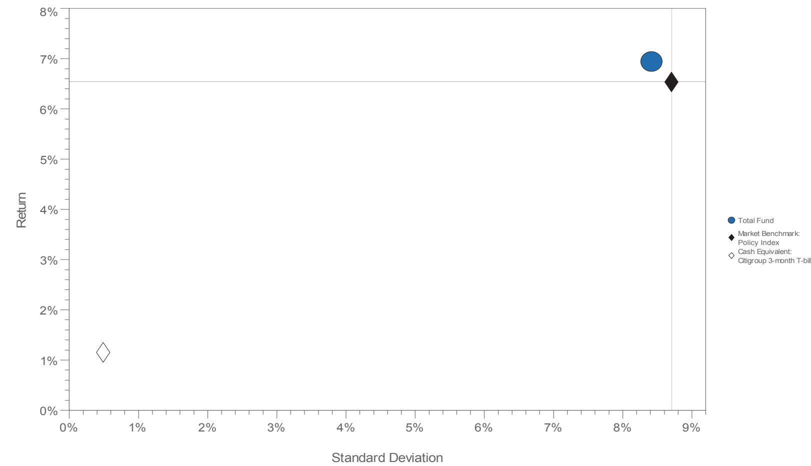
Zephyr StyleADVISOR

Zephyr StyleADVISOR

Manager Performance
October 2005 - September 2018 (Single Computation)



Risk / Return
October 2005 - September 2018 (Single Computation)



Return & Risk Analysis

October 2005 - September 2018: Summary Statistics

	Return	Excess Return vs. Market	Standard Deviation	Beta vs. Market	Maximum Drawdown	Up Capture vs. Market	Down Capture vs. Market	Alpha vs. Market	Sharpe Ratio	R-Squared vs. Market
Total Fund	6.95%	0.41%	8.41%	0.95	-27.84%	101.58%	98.12%	0.72%	0.69	95.88%
Policy Index	6.54%	0.00%	8.71%	1.00	-32.36%	100.00%	100.00%	0.00%	0.62	100.00%

The prices, quotes, or statistics contained herein have been obtained from sources believed to be reliable, however, its accuracy cannot be guaranteed. Past performance is not a guarantee of future results.

SAMPLE

As of September 30, 2018

GUIDELINES	In Compliance	
Equity Portfolio		
Listed on recognized exchange	Yes	
Single issue not to exceed 10% at market value for each equity in each separately managed portfolio	Yes	
Total equity portfolio < 60% & > 50% of total fund at market value	Yes	
Boston Company		
Large Capitalization Value Equity Portfolio		
Market Value < 17.5% & > 12.5% of total fund	Yes	
Performance (Inception 9/30/2005)	5 years	Since Inception
Rank in the Top 50% of manager universe	Yes	No
Return > Russell 1000 Value	Yes	Yes
Positive Risk Adjusted Performance	Yes*	Yes
**Positive Alpha, Sharpe is lower than the benchmark*		
Vanguard ETF		
Large Capitalization Growth Equity Portfolio		
Market Value < 8.75% & > 6.25% of total fund	No (9.10%)	
Performance (Inception 5/31/2018)	5 years	Since Inception
Rank in the Top 50% of manager universe	N/A	N/A
Return > Russell 1000 Growth	N/A	No
Positive Risk Adjusted Performance	N/A	No
Polen/Sawgrass		
Large Capitalization Growth Equity Portfolio		
Market Value < 8.75% & > 6.25% of total fund	No (9.18%)	
Performance (Inception 3/31/2007)	5 years	Since Inception
Rank in the Top 50% of manager universe	No	No
Return > Russell 1000 Growth	No	No
Positive Risk Adjusted Performance	Yes*	Yes
**Positive Alpha, Sharpe is lower than the benchmark*		
Barrow Hanley		
Mid Capitalization Value Equity Portfolio		
Market Value < 3.75% & > 1.25% of total fund	Yes	
Performance (Inception 9/30/2005)	5 years	Since Inception
Rank in the Top 50% of manager universe	No	No
Performance > Russell Midcap Value	No	No
Positive Risk Adjusted Performance	No	Yes
Systematic		
Mid Capitalization Value Equity Portfolio		
Market Value < 3.75% & > 1.25% of total fund	Yes	
Performance (Inception 9/30/2005)	5 years	Since Inception
Rank in the Top 50% of manager universe	No	No
Return > Russell Midcap Value	No	Yes
Positive Risk Adjusted Performance	No	Yes

GUIDELINES	In Compliance	
Total Portfolio	5 years	Since Inception
Exceed Target Index	No	Yes
Exceed actuarial assumption (7.70%)*	No	No
Exceed CPI + 3%*	Yes	Yes
Positive Risk Adjusted Performance	No	Yes
**Performance compared to dollar weighted net returns*		
Wells		
Small/Mid Capitalization Growth Equity Portfolio		
Market Value < 7.5% & > 2.5% of total fund	Yes	
Performance (Inception 4/30/2008)	5 years	Since Inception
Rank in the Top 50% of manager universe	No	Yes
Performance > Russell 2500 Growth	No	Yes
Positive Risk Adjusted Performance	Yes	Yes
Templeton		
International Value Equity Portfolio		
Market Value < 10.0% & > 5.0% of total fund	Yes	
Performance (Inception 4/30/2008)	5 years	Since Inception
Performance > MSCI AC World x US	No	Yes
Performance > MSCI EAFE (Net)	No	No
Performance > 50/50 Blend	No	No
Positive Risk Adjusted Performance	No	Yes
Renaissance		
International Growth Equity Portfolio		
Market Value < 10.0% & > 5.0% of total fund	Yes	
Performance (Inception 4/30/2008)	5 years	Since Inception
Performance > MSCI EAFE (Net)	Yes	Yes
Performance > MSCI AC World x US	Yes	Yes
Positive Risk Adjusted Performance	Yes	Yes

SAMPLE

As of September 30, 2018

GUIDELINES		In Compliance
Fixed Income Portfolio Managers		
Market Value < 30% & > 20% of total fund		No (19.30%)
Marco	5 years	Since Inception
Performance > Barclays Interm. Gov't/Credit	Yes	Yes
Positive Risk Adjusted Performance	Yes	Yes
U.S. Government / Agency or U.S. Corporations	Yes	
Bonds rated "BBB" or better	Yes	
Single corporate issuer not exceed 10% of bond portfolio (except U.S. Government/Agency)	Yes	
Non-Dollar (G-7) Bond investment < 5% of bond portfolio	Yes	
Vanderbilt	5 years	Since Inception
Performance > Barclays Interm. Gov't/Credit	Yes	No
Positive Risk Adjusted Performance	Yes	Yes
U.S. Government / Agency or U.S. Corporations	Yes	
Bonds rated "BBB" or better	Yes	
Single corporate issuer not exceed 10% of bond portfolio (except U.S. Government/Agency)	Yes	
Non-Dollar (G-7) Bond investment < 5% of bond portfolio	Yes	
Funds of Hedge Funds		
Market Value < 10% & > 0% of total fund	Yes	
BlackRock		
Performance (Inception 11/30/2016)	3 years	Since Inception
Performance > HFRX Credit	N/A	No
Performance > BC Agg	N/A	Yes
Positive Risk Adjusted Performance	N/A	Yes
Blackstone		
Performance (Inception 11/30/2016)	3 years	Since Inception
Performance > HFRX Global Hedge Fund	N/A	Yes
Performance > BC Agg	N/A	Yes
Positive Risk Adjusted Performance	N/A	Yes

GUIDELINES		In Compliance
Swank/Cushing MLP		
Market Value < 10% & > 0% of total fund	Yes	
Performance (Inception 10/31/2015)	3 years	Since Inception
Performance > Alerian MLP Index	N/A	Yes
Positive Risk Adjusted Performance	N/A	Yes
Core Private Real Estate (UBS)		
Market Value < 15% & > 5% of total fund	Yes	
Performance (Inception 6/30/2012)	3 years	Since Inception
Performance > NCREIF Property Index	No	No
Performance > NCREIF ODCE Index**	No	No
Performance > BC Agg	Yes	Yes
Positive Risk Adjusted Performance	Yes*	Yes*

**Positive Alpha, Sharpe is lower than the benchmark*

**NCREIF ODCE has not report a return for the quarter

QUARTERLY PERFORMANCE EVALUATION

Prepared for:

SAMPLE

As of September 30, 2018

Table of Contents

Capital Markets Overview: 3Q 2018

Introduction

As of 3Q 2018

- The summer of 2018 generally passed quietly in financial markets, with the S&P 500 not registering a single 1% move in the third quarter as the index reached new all-time highs. U.S. and international markets performance continued to diverge, especially in emerging markets. This was driven, in part, by geopolitical tensions and partly by increasingly positive economic data coming out of the US, epitomized by the 4.2% GDP growth in 2Q 2018. The Consultant maintains his price target of 2,750 for the S&P 500 and expects limited upside for equities in the near term, emphasizing recent defensive leadership will likely continue into year end.

- US equities generated positive returns in the third quarter, as the S&P 500 rose 7.71% and all 11 sectors finished in the black. Health Care led the way, jumping 14.53% as investors rotated into the traditionally defensive sector. It was followed by Industrials and Communication Services (formerly Telecoms), which increased by 10.0% and 9.94%, respectively. Materials were the greatest laggards, gaining only 0.36%. They were followed closely by Energy, which gained only 0.61%. Other major US indices were positive on the quarter; the Dow Jones rose 9.63% and the NASDAQ returned 7.42%.

- International under performance continued in the third quarter, as divergences in US and world economic data widened. Emerging markets currencies remained under pressure, and the sell-off in China deepened. The MSCI EAFE Index (a benchmark for international developed markets) rose just 1.42% for US-currency investors. In the third quarter, the MSCI Emerging Markets Index dropped 0.95% for US-currency investors as weaknesses in China, Turkey, and Argentina were amplified by the continued strength of the dollar. The MSCI Europe Index rose 0.84% for US-currency investors, while MSCI Japan rose 3.81%. Japanese equity indices such as the Nikkei and TOPIX have now returned to highs not seen since 1991.

- The bond market registered basically flat returns during the third quarter. The Bloomberg Barclays US Aggregate Bond Index, a general measure of the bond market, rose 0.02%.

- Consultant's economists expect US real GDP will be 2.9% in 2018, amid an environment of 3.8% global GDP growth.

- Commodities were down in the third quarter; the Bloomberg Commodity Index lost 2.53%.

Source: FactSet, Bloomberg, Consultant's Research

Capital Markets Overview: 3Q 2018

The US Economy

As of 3Q 2018 (with most recent data available)

The Bureau of Economic Analysis estimated that real Gross Domestic Product increased at an annual rate of 4.2% in 2Q18, in comparison to a 2.2% increase in 1Q18. Consultant's economists forecast US Real GDP growth will be 2.9% in 2018 and 2.4% in 2019.

The seasonally adjusted unemployment rate for August 2018 was 3.9%. Job gains occurred in construction, professional and business services, health care, and retail. The number of unemployed was 6.2 million in August, up slightly from 6.1 million in May of this year. The number of long-term unemployed (those jobless for 27 weeks or more) was 1.3 million, an increase of around 100,000 from May. These individuals accounted for 21.5% of the unemployed vs. 19.4% at the end of last quarter.

According to the most recent data from the Federal Reserve Bank of St. Louis, corporate profits increased 2.4% quarter over quarter and are up 16.1% year over year as of Q2 2018.

Inflation increased in the US, according to the Bureau of Labor Statistics. The year-over-year Consumer Price Index was 2.7% in August, up from the 2.2% figure in February. Consultant's economists forecast a 2.5% annual inflation rate for 2018 and 2.1% for 2019.

The Census Bureau reported that the number of new private-sector housing starts in August 2018 was at a seasonally adjusted annual rate of 1,282,000—5.5% below housing starts this time last year.

The Census Bureau also reported that seasonally adjusted retail and food services sales increased at 6.6% year over year in August. Consumer confidence increased in 3Q18, with Conference Board Consumer Confidence reading 138.4 in August, the highest level it has been since 2000.

In August, the Institute for Supply Management's (ISM) Purchasing Managers Index (PMI), a manufacturing sector index, arrived at 61.3, up 1.8% from June's reading of 60.2, and its highest reading since 1987. Generally speaking, a PMI or NMI (ISM Non-Manufacturing Index) over 50 indicates that the sector is expanding, and a PMI below 50 but over 43 indicates that the sector is shrinking but the overall economy is expanding. PMI has registered above 50 for 29 out of the last 32 months, indicating an expansion in manufacturing since March 2016. Overall, PMI has been above 43 for 110 consecutive months, indicating overall economic recovery and expansion since June 2009.

The ISM's Non-Manufacturing Index (NMI) for August was 58.5—0.1 points lower than in May 2018. The index has now been above 50 for 103 consecutive months, indicating non-manufacturing expansion since February 2010.

Source: FactSet, Bloomberg, Consultant's Research, Federal Reserve Bank of St. Louis

Capital Markets Overview: 3Q 2018

US Equity Markets

As of 3Q 2018

The Dow Jones Industrial Average gained 9.63% in the second quarter, while the NASDAQ Composite Index was up 7.42%. The S&P 500 Index rose 7.71% over the same period.

Every sector was up on a total return basis in 3Q18. Health Care led the way, jumping 14.53% as investors rotated into the traditionally defensive sector. It was followed by Industrials and Communication Services (formerly Telecoms), which increased by 10.0% and 9.94%, respectively. Materials were the greatest laggards, gaining only 0.36%. They were followed closely by Energy, which gained only 0.61%.

The Russell 1000, a large-cap index, increased 7.42% for the quarter, with large-cap growth (+9.17%) outperforming large-cap value (+5.70%).

The Russell Midcap gained 5.00% on the quarter, with mid-cap growth (+7.57%) outperforming mid-cap value (+3.30%).

The Russell 2000, a small-cap index, appreciated 3.58% for the quarter, with small-cap growth (+5.50%) outperforming small-cap value (+1.60%).

Key US Stock Market Index Returns (%) for the Period Ending 9/28/2018

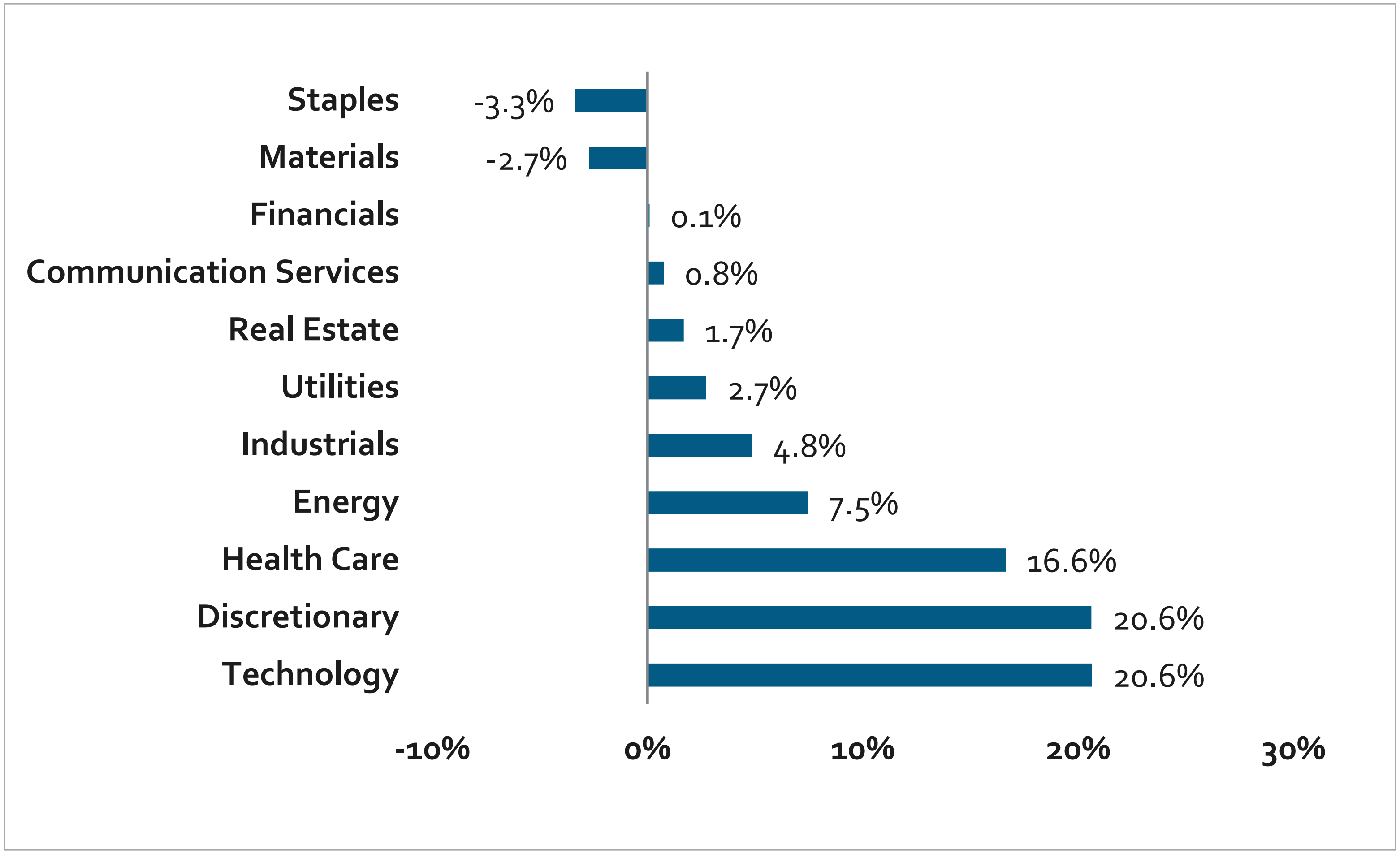
INDEX IN USD	Quarter	12 Months	5-Years (Annualized)	7-Years (Annualized
S&P 500	7.71%	18.35%	13.80%	16.61%
Dow Jones	9.63%	20.89%	14.37%	16.19%
Russell 2000	3.58%	15.41%	11.06%	16.22%
Russell Midcap	5.00%	14.41%	11.58%	15.70%
Russell 1000	7.42%	18.19%	13.53%	16.59%

Source: FactSet, Bloomberg, Consultant's Research

S&P 500 Sectors

YTD 2018 Total Return

As of September 28, 2018



Source: Bloomberg

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Capital Markets Overview: 3Q 2018

Global Equity Markets

As of 3Q 2018

International underperformance continued in the third quarter, as divergences in US and world economic data widened. Emerging markets currencies remained under pressure, and the sell-off in China deepened. The MSCI EAFE Index (a benchmark for international developed markets) rose just 1.42% for US-currency investors.

In the third quarter, the MSCI Emerging Markets Index dropped 0.95% for US-currency investors as weaknesses in China, Turkey, and Argentina were amplified by the continued strength of the dollar. The MSCI Europe Index rose 0.84% for US-currency investors, while MSCI Japan rose 3.81%. Japanese equity indices such as the Nikkei and TOPIX have now returned to highs not seen since 1991.

The S&P 500 Index gained 7.71% for the quarter.

Emerging economy equity market indices were down further in the third quarter. The MSCI BRIC (Brazil, Russia, India and China) Index fell 4.02% in US dollar terms, while the MSCI EM Asia Index was down 2.74%.

Key Global Stock Market Index Returns (%) for the Period Ending 9/28/2018

INDEX IN USD	Quarter	12 Months	5-Years (Annualized)	7-Years (Annualized)
MSCI EAFE	1.42%	3.80%	4.70%	8.56%
MSCI EAFE Growth	1.57%	6.80%	5.84%	9.36%
MSCI EAFE Value	1.26%	0.79%	3.49%	7.69%
MSCI Europe	0.84%	1.10%	4.17%	8.64%
MSCI Japan	3.81%	10.57%	6.69%	8.98%
S&P 500	7.71%	18.35%	13.80%	16.61%
MSCI Emerging Markets	-0.95%	0.43%	3.73%	5.22%

Source: FactSet, Bloomberg, Consultant

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Capital Markets Overview: 3Q 2018

The US Bond Market

As of 3Q 2018

The bond market registered basically flat returns during the third quarter. The Bloomberg Barclays US Aggregate Bond Index, a general measure of the bond market, rose 0.02%.

Interest rates increased during the third quarter, as the yield on the 10-year US Treasury note increased to a quarter-end 3.06% from 2.86% at the end of June. During the final week of the quarter, the yield approached 3.10%, challenging the cycle-high of 3.11% before fading slightly.

Riskier parts of the bond market such as US high yield debt fared better in the third quarter. The Bloomberg Barclays Capital High Yield Index, a measure of lower-rated corporate bonds, gained 2.40%.

Mortgage-backed had slight losses in the third quarter. The Bloomberg Barclays Capital Mortgage-Backed Securities Index fell 0.12%. Municipal bonds were also down slightly; the Bloomberg Barclays Capital Muni Index saw losses of 0.15%.

Key US Bond Market Index Returns (%) for the Period Ending 9/28/2018

INDEX IN USD	Quarter	12 Months	5-Years (Annualized)	7-Years (Annualized)
Bloomberg Barclays Capital US Aggregate	0.02%	-1.22%	2.16%	2.07%
Bloomberg Barclays Capital High Yield	2.40%	3.12%	5.50%	7.44%
Bloomberg Barclays Capital Government/Credit	0.03%	-1.41%	2.17%	2.11%
Bloomberg Barclays Capital Government	-0.59%	-1.66%	1.34%	1.14%
Bloomberg Barclays Capital Intermediate Govt/Credit	0.20%	-1.06%	1.51%	1.64%
Bloomberg Barclays Capital Long Govt/Credit	-0.47%	-2.46%	5.14%	4.21%
Bloomberg Barclays Capital Mortgage Backed Securities	-0.12%	-0.95%	2.02%	1.80%
Bloomberg Barclays Capital Muni	-0.15%	0.34%	3.54%	3.35%

Source: FactSet, Bloomberg, Consultant's Research

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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.

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Please consider the investment objectives, risks, fees, and charges and 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 visit the Consultants website. 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 relative 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 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; and Risks associated with the operations, personnel, and processes of the manager. 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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. 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While the HFRI indices are frequently used, they have limitations (some of which are typical of other widely used indices). 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.

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, 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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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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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 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 your Consultant's standard advisory fees is available in the Form ADV Part 2. 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 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 your Consultant** to measure performance are representative of broad asset classes. Your Consultant 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.

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SAMPLE

Asset Allocation & Time Weighted Performance
as of September 30, 2018

	Allocation		Performance(%)								
	Market Value ($)	%	Current Quarter	Fiscal YTD	1 Year	3 Years	5 Years	7 Years	10 Years	Since Inception	Inception Date
Total Fund	**437,724,289**	**100.00**	**3.86**	**8.41**	**8.41**	**9.40**	**7.80**	**10.47**	**8.52**	**6.95**	**10/01/2005**
Policy Index			3.48	8.17	8.17	9.35	7.69	9.76	8.17	6.54	
Domestic Equity											
Boston - Large Cap Value	74,545,576	17.03	6.12	13.66	13.66	15.63	12.33	17.25	10.32	8.34	10/01/2005
Russell 1000 VL			5.70	9.45	9.45	13.55	10.72	15.02	9.79	7.47	
Vanguard - Russell 1000 Growth ETF	39,813,594	9.10	9.52	N/A	N/A	N/A	N/A	N/A	N/A	10.19	06/01/2018
Russell 1000 Gr			9.17	N/A	N/A	N/A	N/A	N/A	N/A	10.22	
Polen/Sawgrass - Large Cap Growth	40,197,208	9.18	10.74	24.31	24.31	16.79	14.17	16.99	12.66	9.84	04/01/2007
Russell 1000 Gr			9.17	26.30	26.30	20.55	16.58	18.69	14.31	11.09	
Barrow, Hanley - Mid Cap Value	12,182,347	2.78	1.25	0.44	0.44	9.65	8.03	14.25	11.42	8.63	10/01/2005
Russell Midcap Value			3.30	8.81	8.81	13.09	10.72	15.54	11.29	8.70	
Systematic - Mid Cap Value	13,243,985	3.03	3.06	11.52	11.52	15.08	9.41	14.68	10.72	9.49	10/01/2005
Russell Midcap Value			3.30	8.81	8.81	13.09	10.72	15.54	11.29	8.70	
Wells - Small/Mid Cap Growth	28,094,940	6.42	8.47	25.30	25.30	19.30	12.76	18.48	14.42	12.39	05/01/2008
Russell 2500 GR			7.17	23.13	23.13	17.96	12.88	17.72	13.61	11.39	
International Equity											
Templeton - International Value	31,318,196	7.15	0.44	-0.28	-0.28	7.55	3.32	7.94	4.50	1.90	05/01/2008
MSCI AC World ex US Net			0.71	1.76	1.76	9.97	4.12	7.25	5.18	1.82	
Renaissance - International Growth	30,915,202	7.06	1.27	-0.16	-0.16	9.27	5.43	9.53	N/A	9.95	02/01/2009
MSCI AC World ex US Net			0.71	1.76	1.76	9.97	4.12	7.25	N/A	9.20	

SAMPLE

Asset Allocation & Time Weighted Performance
as of September 30, 2018

	Allocation		Performance(%)								
	Market Value ($)	%	Current Quarter	Fiscal YTD	1 Year	3 Years	5 Years	7 Years	10 Years	Since Inception	Inception Date
Fixed Income											
Marco - Fixed Income	35,282,989	8.06	0.36	-0.70	-0.70	1.15	1.88	1.92	3.62	3.68	10/01/2005
BC Gov/Cr Intm			0.21	-0.96	-0.96	0.91	1.52	1.63	3.22	3.41	
Vanderbilt - Fixed Income	49,219,129	11.24	0.54	-0.21	-0.21	1.29	1.70	1.70	3.14	3.31	10/01/2005
BC Gov/Cr Intm			0.21	-0.96	-0.96	0.91	1.52	1.63	3.22	3.41	
Alternatives											
BlackRock - Global L/S Credit	10,433,846	2.38	0.77	1.17	1.17	N/A	N/A	N/A	N/A	2.62	12/01/2016
HFRX Fixed Income - Credit Index			0.22	1.08	1.08	N/A	N/A	N/A	N/A	2.95	
Blackstone - Multi-Strategy	10,489,678	2.40	2.44	1.41	1.41	N/A	N/A	N/A	N/A	4.95	12/01/2016
HFRX Global Hedge Fund			-0.39	0.25	0.25	N/A	N/A	N/A	N/A	3.01	
Swank/Cushing - MLPs	20,612,873	4.71	0.82	3.25	3.25	N/A	N/A	N/A	N/A	1.97	11/01/2015
Alerian MLP Index			6.57	4.89	4.89	N/A	N/A	N/A	N/A	1.29	
UBS - Private Real Estate	41,374,727	9.45	1.41	7.60	7.60	6.86	8.39	N/A	N/A	8.74	07/01/2012
NCREIF Property Idx			1.67	7.16	7.16	7.76	9.58	N/A	N/A	9.81	

SAMPLE

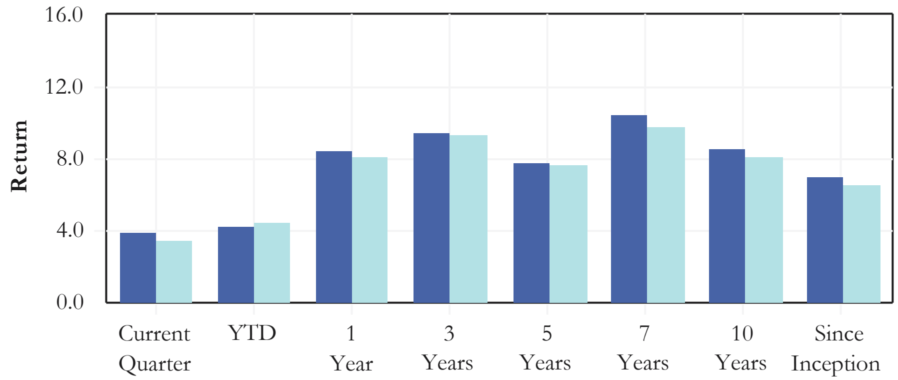
Asset Allocation & Net Dollar Weighted Performance (IRR)
as of September 30, 2018

	%	Current Quarter	Fiscal YTD	1 Year	3 Years	5 Years	7 Years	10 Years	Since Inception	Inception Date
Total Fund	**100.00**	**3.74**	**7.94**	**7.94**	**8.88**	**7.28**	**10.08**	**8.03**	**6.43**	**09/30/2005**
Domestic Equity										
Boston - Large Cap Value	17.03	6.01	13.19	13.19	15.16	11.74	18.13	11.57	9.38	09/30/2005
Vanguard - Russell 1000 Growth ETF	9.10	9.52	N/A	N/A	N/A	N/A	N/A	N/A	10.18	05/31/2018
Polen/Sawgrass - Large Cap Growth	9.18	10.49	23.54	23.54	15.73	13.29	16.93	11.02	7.91	03/05/2007
Barrow, Hanley - Mid Cap Value	2.78	1.06	-0.32	-0.32	8.54	7.08	14.33	10.23	6.43	09/30/2005
Systematic - Mid Cap Value	3.03	2.93	10.95	10.95	14.54	8.87	14.73	9.78	8.51	09/30/2005
Wells - Small/Mid Cap Growth	6.42	8.26	23.82	23.82	18.09	11.65	18.38	15.74	14.15	04/30/2008
International Equity										
Templeton - International Value	7.16	0.19	-0.90	-0.90	6.08	2.60	7.20	3.35	0.37	04/30/2008
Renaissance - International Growth	7.06	1.20	-0.48	-0.48	7.61	4.57	8.64	N/A	10.05	01/30/2009
Fixed Income										
Marco - Fixed Income	8.06	0.32	-0.69	-0.69	1.18	1.87	1.92	4.15	4.15	09/30/2005
Vanderbilt - Fixed Income	11.24	0.45	-0.55	-0.55	0.94	1.34	1.37	2.90	3.08	09/30/2005
Alternatives										
BlackRock - Global L/S Credit	2.38	0.77	1.17	1.17	N/A	N/A	N/A	N/A	1.95	11/30/2016
Blackstone - Multi-Strategy	2.40	2.45	1.26	1.26	N/A	N/A	N/A	N/A	3.05	11/30/2016
Swank/Cushing - MLPs	4.71	0.70	2.86	2.86	1.60	N/A	N/A	N/A	1.59	09/19/2015
UBS - Private Real Estate	9.45	1.20	6.67	6.67	5.73	6.86	N/A	N/A	7.22	06/30/2012

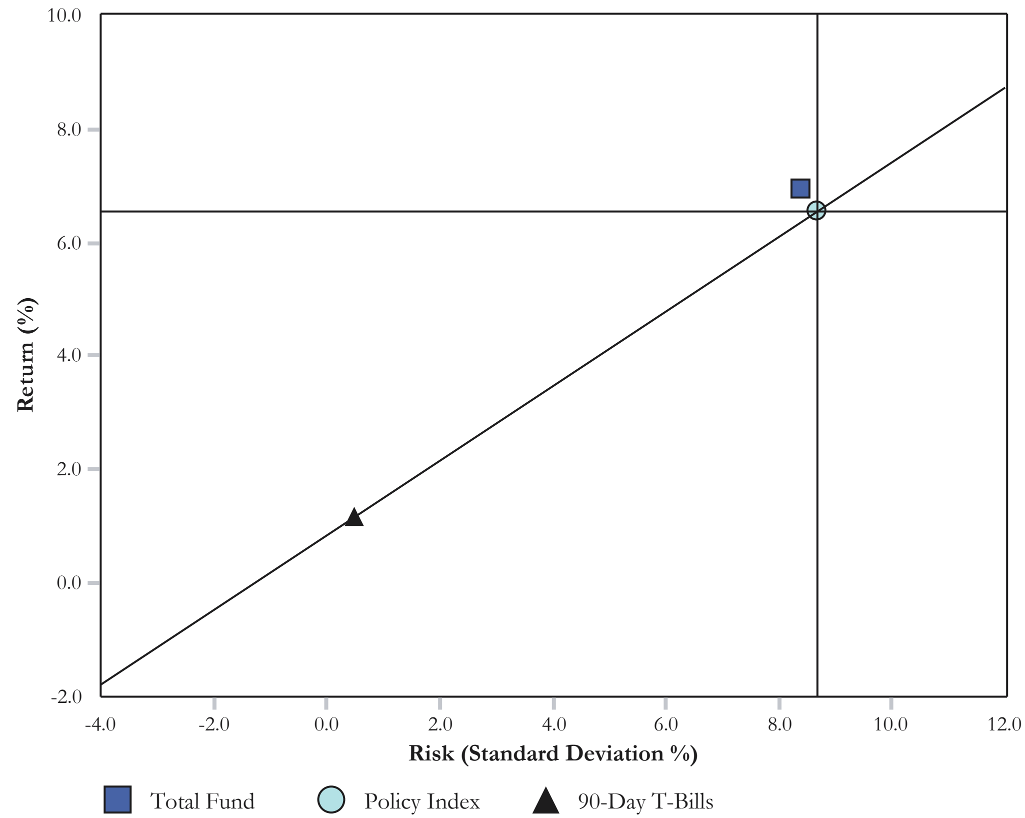
SAMPLE

Total Fund - Executive Summary
as of September 30, 2018

Manager Performance Chart



Manager Risk & Return



Manager Annualized Performance

	Current Quarter	Fiscal YTD	1 Year	3 Years	5 Years	7 Years	10 Years	Inception 10/01/2005
Total Fund	3.86	8.41	8.41	9.40	7.80	10.47	8.52	6.95
Policy Index	3.48	8.17	8.17	9.35	7.69	9.76	8.17	6.54
Differences	0.38	0.24	0.24	0.05	0.11	0.71	0.35	0.41

Historic Asset Growth

	Current Quarter	YTD	1 Year	3 Years	5 Years	7 Years	10 Years	Inception 10/01/2005
Total Fund								
Beginning Market Value	427,954	430,710	416,578	378,093	343,743	256,864	234,383	218,180
Net Contributions	-6,120	-9,533	-11,582	-42,875	-43,865	-50,600	-54,655	-48,306
Fees/Expenses	-524	-1,488	-1,964	-5,488	-8,615	-11,022	-14,174	-17,040
Income	2,886	7,830	10,388	27,049	39,740	52,404	72,142	95,775
Gain/Loss	13,528	10,206	24,305	80,945	106,721	190,079	200,028	189,115
Ending Market Value	437,724	437,724	437,724	437,724	437,724	437,724	437,724	437,724

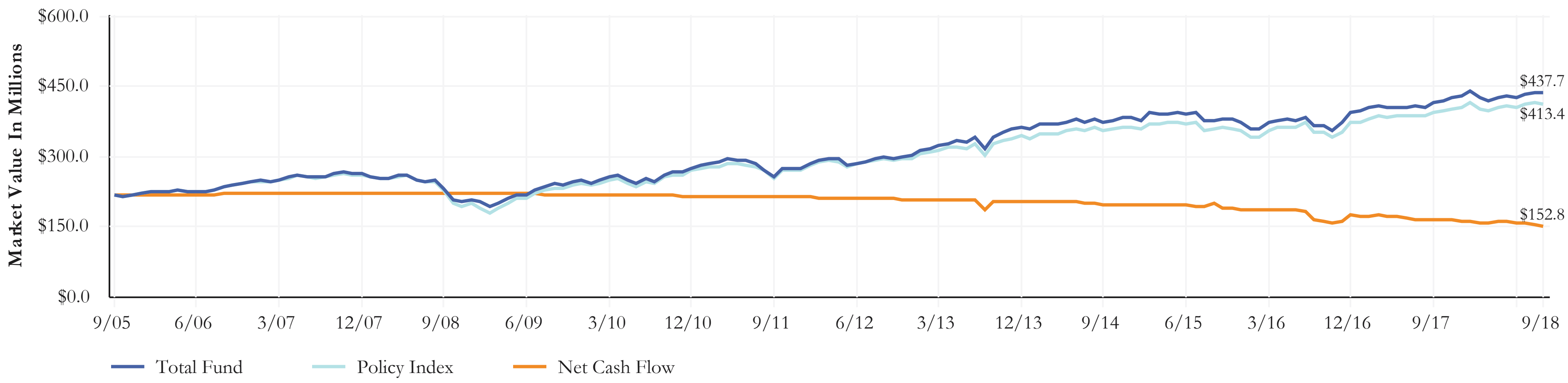
Modern Portfolio Statistics

	Return	Standard Deviation	Beta	Maximum Drawdown	Up Market Capture	Down Market Capture	Alpha	Sharpe Ratio	R-Squared	Inception Date
Total Fund	6.95	8.39	0.95	-27.85	101.41	98.08	0.73	0.71	0.96	10/01/2005
Policy Index	6.54	8.68	1.00	-32.36	100.00	100.00	0.00	0.64	1.00	10/01/2005

SAMPLE

Total Fund - Change in Assets & Distribution of Returns
as of September 30, 2018

Historic Change in Assets



Quarterly Change in Assets

	Market Value As of 07/01/2018	Net Transfers	Net Contributions	Fees	Expenses	Income	Return On Investment	Market Value As of 09/30/2018
Total Fund	427,954.34	-	-6,119.52	-523.83	-	2,885.62	16,413.30	437,724.29

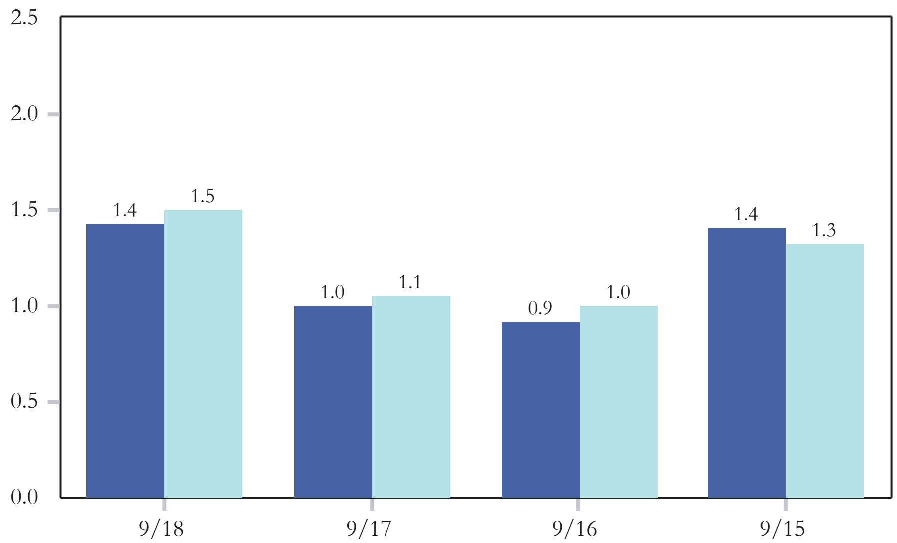
Distribution of Returns

The prices, quotes, or statistics contained herein have been obtained from sources believed to be reliable, however, its accuracy cannot be guaranteed. Past performance is not a guarantee of future results.

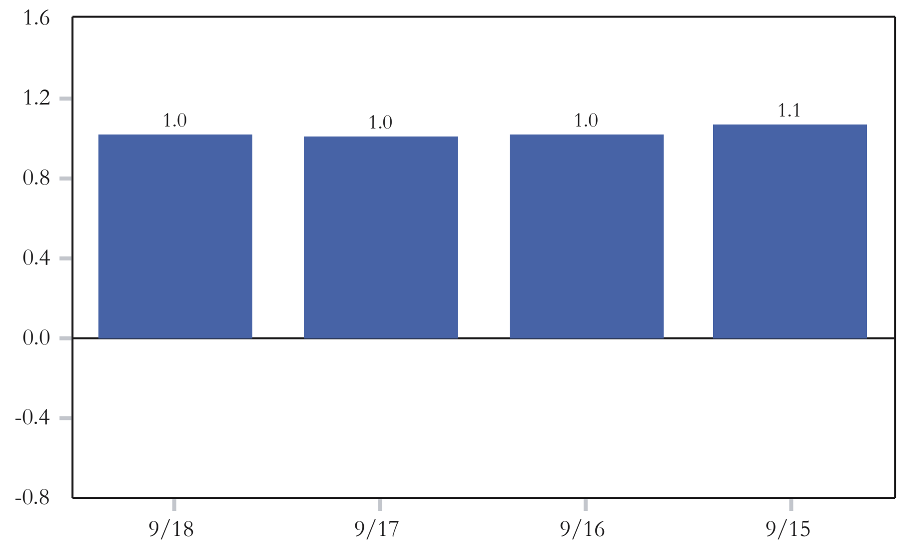
SAMPLE

Total Fund - Rolling Three Year MPT Statistics
as of September 30, 2018

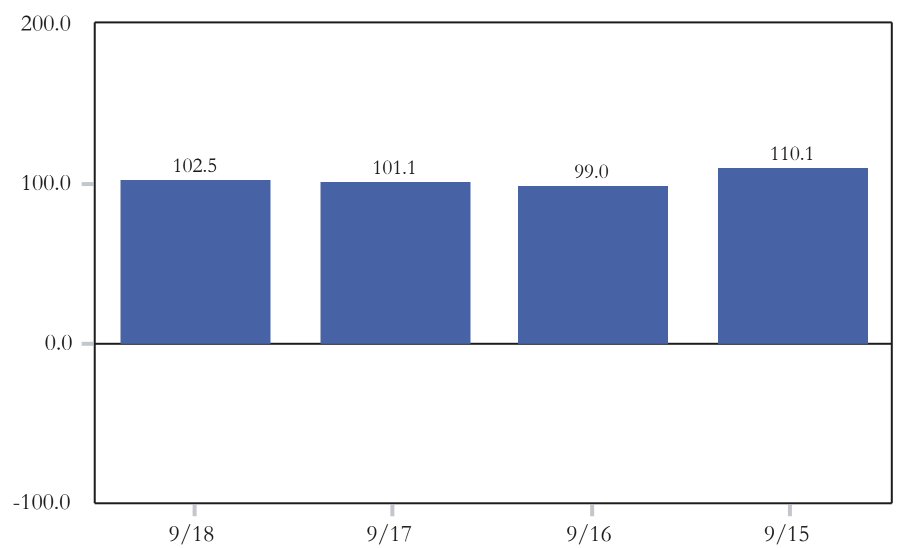
Sharpe Ratio



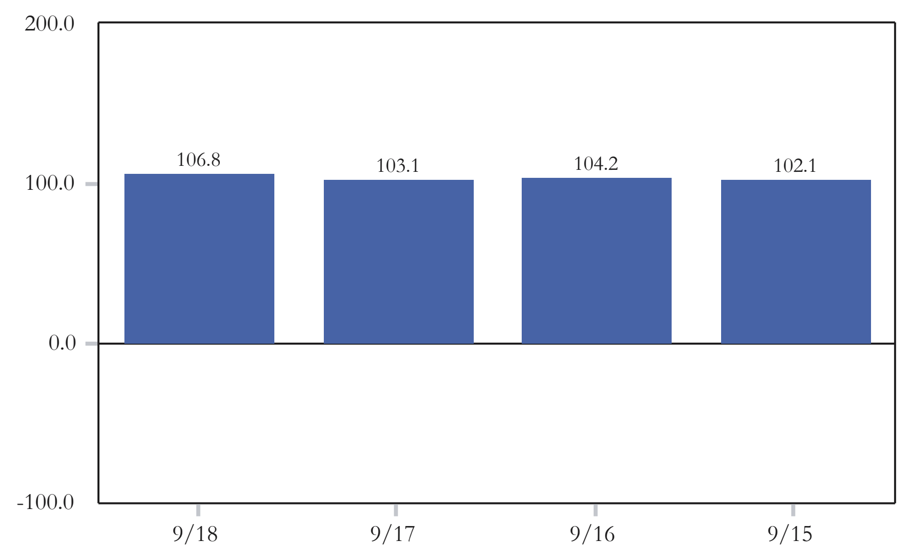
Beta



Up Market Capture



Down Market Capture



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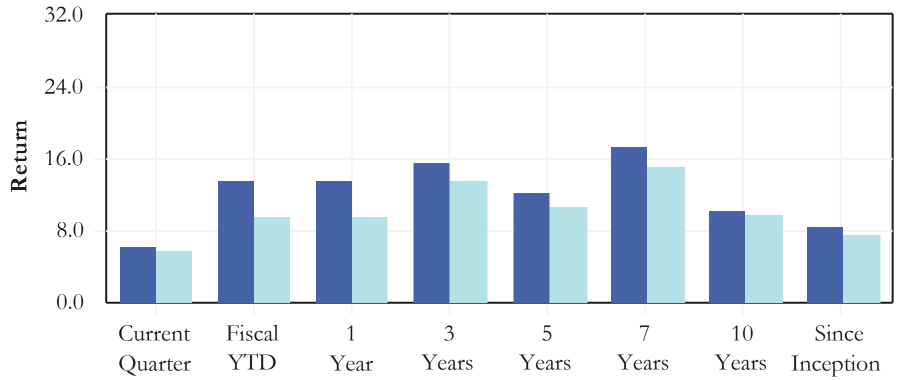
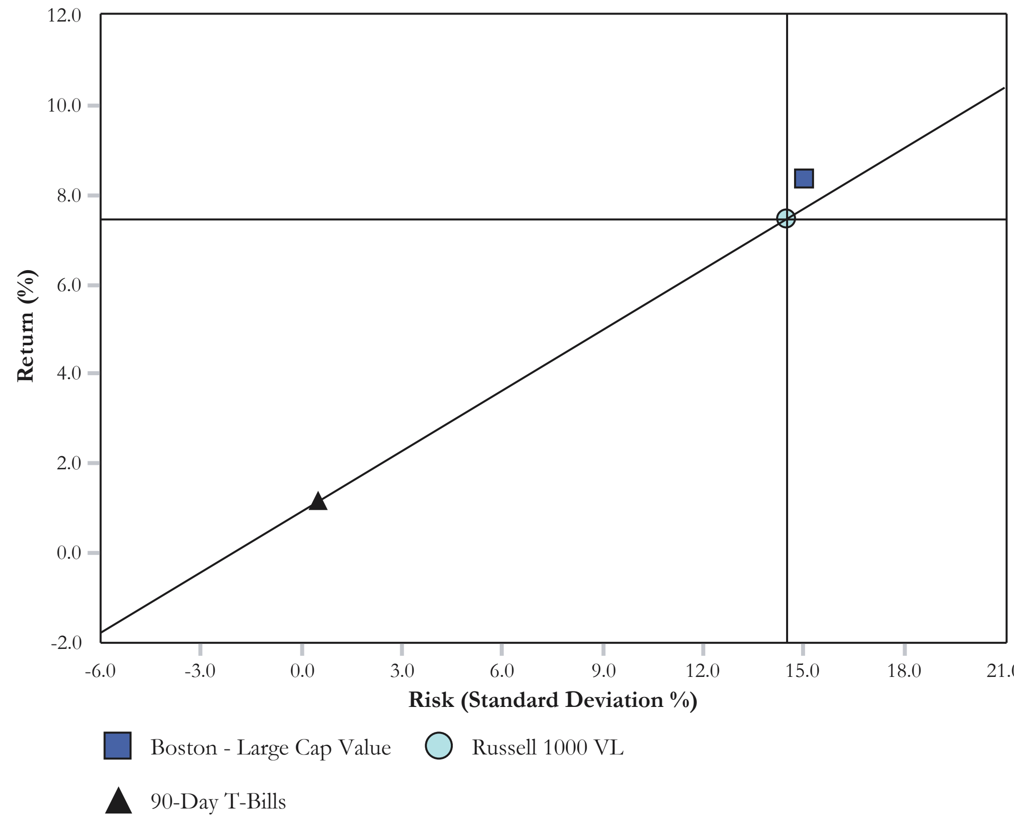
SAMPLE

Boston Company - Large Cap Value - Executive Summary
as of September 30, 2018

Manager Performance Chart



Manager Risk & Return



Manager Annualized Performance

	Current Quarter	Fiscal YTD	1 Year	3 Years	5 Years	7 Years	10 Years	Inception 10/01/2005
Boston - Large Cap Value	6.12	13.66	13.66	15.63	12.33	17.25	10.32	8.34
Russell 1000 VL	5.70	9.45	9.45	13.55	10.72	15.02	9.79	7.47
Differences	0.42	4.21	4.21	2.08	1.61	2.23	0.53	0.87

Historic Asset Growth

	Current Quarter	Fiscal YTD	1 Year	3 Years	5 Years	7 Years	10 Years	Inception 10/01/2005
Boston - Large Cap Value								
Beginning Market Value	70,325	69,741	69,741	66,748	64,159	46,285	33,325	34,507
Net Contributions	-2	-4,105	-4,105	-22,986	-30,468	-44,225	-30,534	-33,306
Fees/Expenses	-74	-298	-298	-923	-1,385	-1,745	-2,311	-2,799
Income	414	1,590	1,590	4,848	7,601	10,206	12,954	15,709
Gain/Loss	3,884	7,617	7,617	26,858	34,637	64,024	61,112	60,435
Ending Market Value	74,546	74,546	74,546	74,546	74,546	74,546	74,546	74,546

Modern Portfolio Statistics

	Return	Standard Deviation	Beta	Maximum Drawdown	Up Market Capture	Down Market Capture	Alpha	Sharpe Ratio	R-Squared	Inception Date
Boston - Large Cap Value	8.34	15.01	1.01	-51.86	104.94	101.81	0.81	0.53	0.95	10/01/2005
Russell 1000 VL	7.47	14.50	1.00	-55.56	100.00	100.00	0.00	0.49	1.00	10/01/2005

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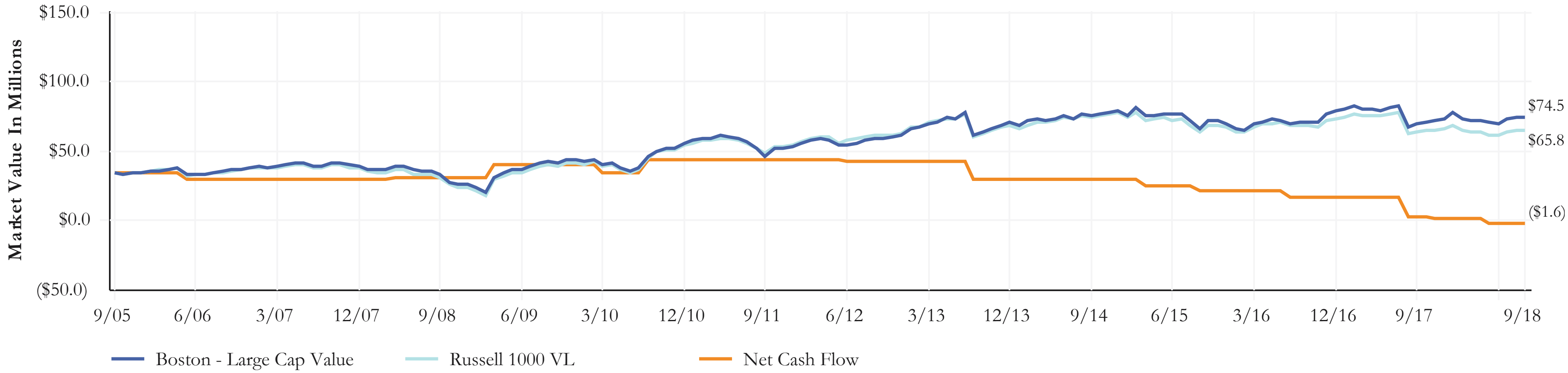
SAMPLE

Boston Company - Large Cap Value - Change in Assets & Distribution of Returns
as of September 30, 2018

Historic Change in Assets



Quarterly Change in Assets

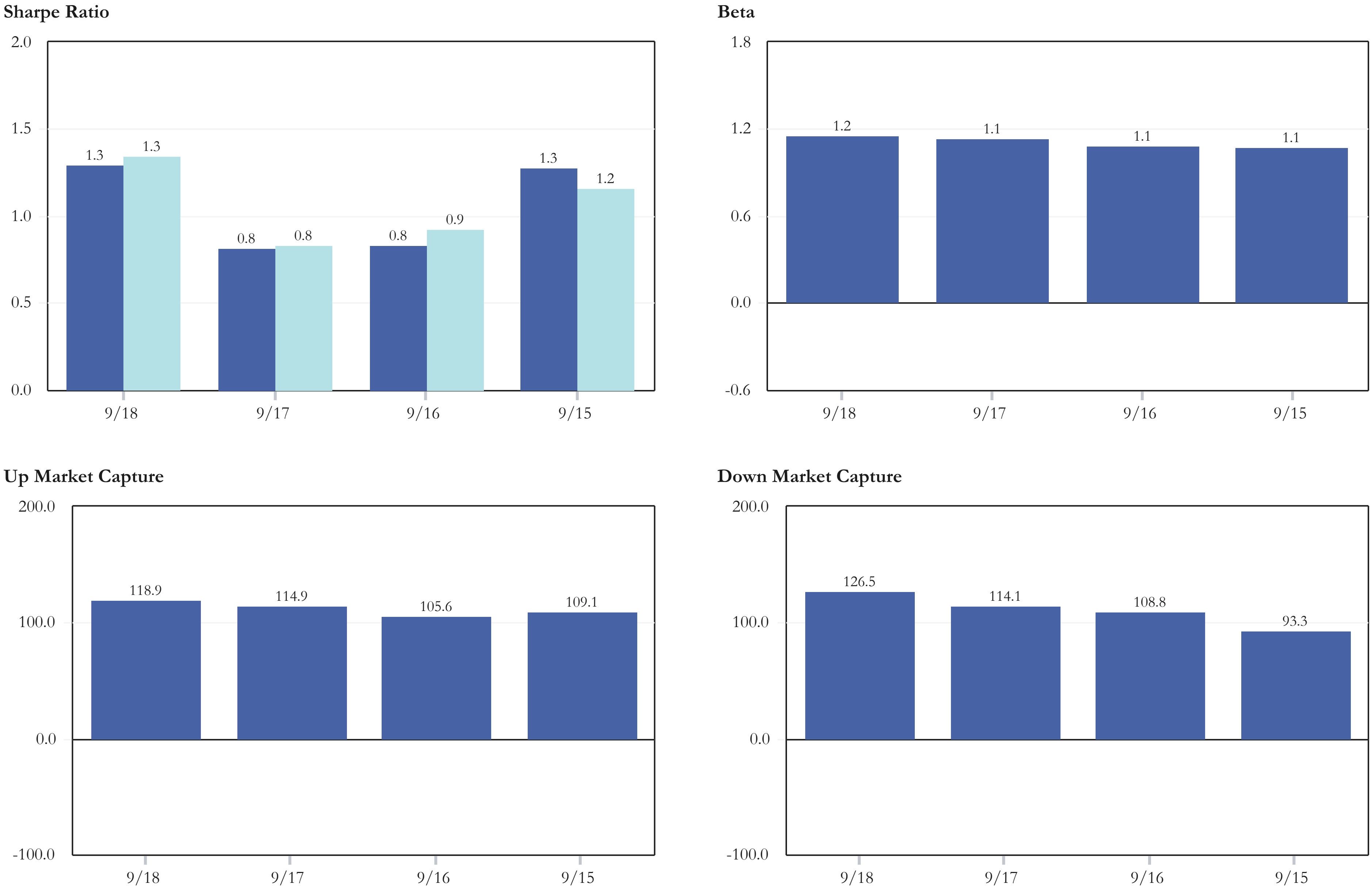
	Market Value As of 07/01/2018	Net Transfers	Net Contributions	Fees	Expenses	Return On Investment	Market Value As of 09/30/2018
Boston - Large Cap Value	70,324,506.70	-	-2,157.18	-74,383.93	-	4,297,610.11	74,545,575.70

Distribution of Returns

The prices, quotes, or statistics contained herein have been obtained from sources believed to be reliable, however, its accuracy cannot be guaranteed. Past performance is not a guarantee of future results.

SAMPLE

Boston - Large Cap Value - Rolling Three Year MPT Statistics
as of September 30, 2018

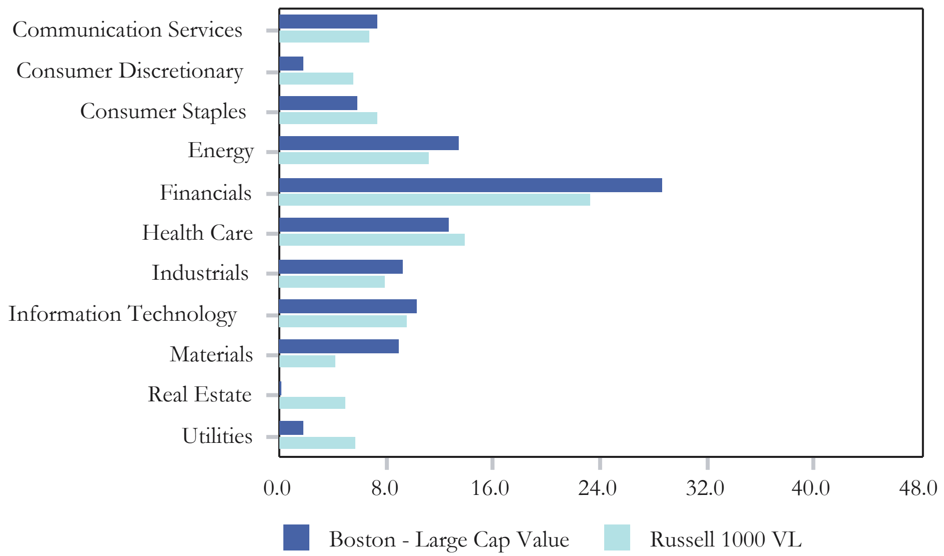


The prices, quotes, or statistics contained herein have been obtained from sources believed to be reliable, however, its accuracy cannot be guaranteed. Past performance is not a guarantee of future results.

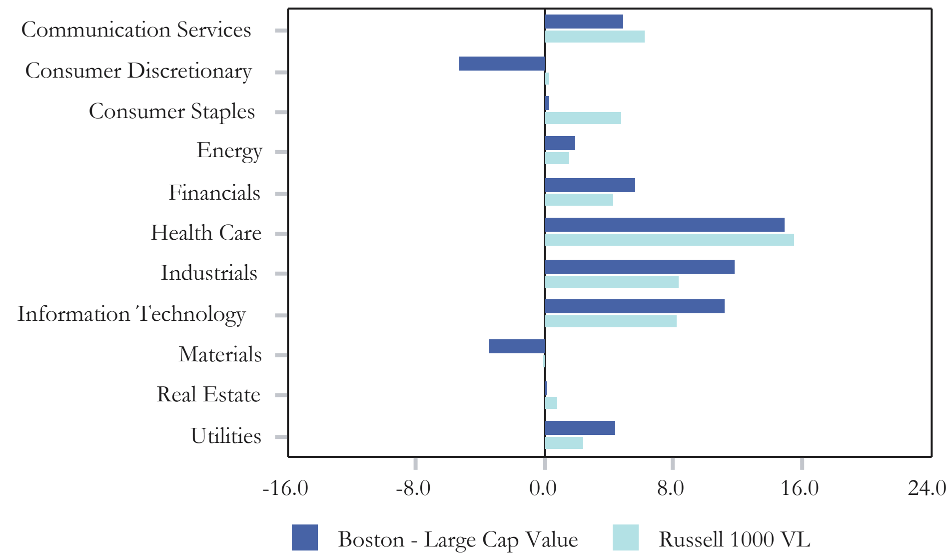
SAMPLE

Boston - Large Cap Value - Quarterly Performance Attributes
as of September 30, 2018

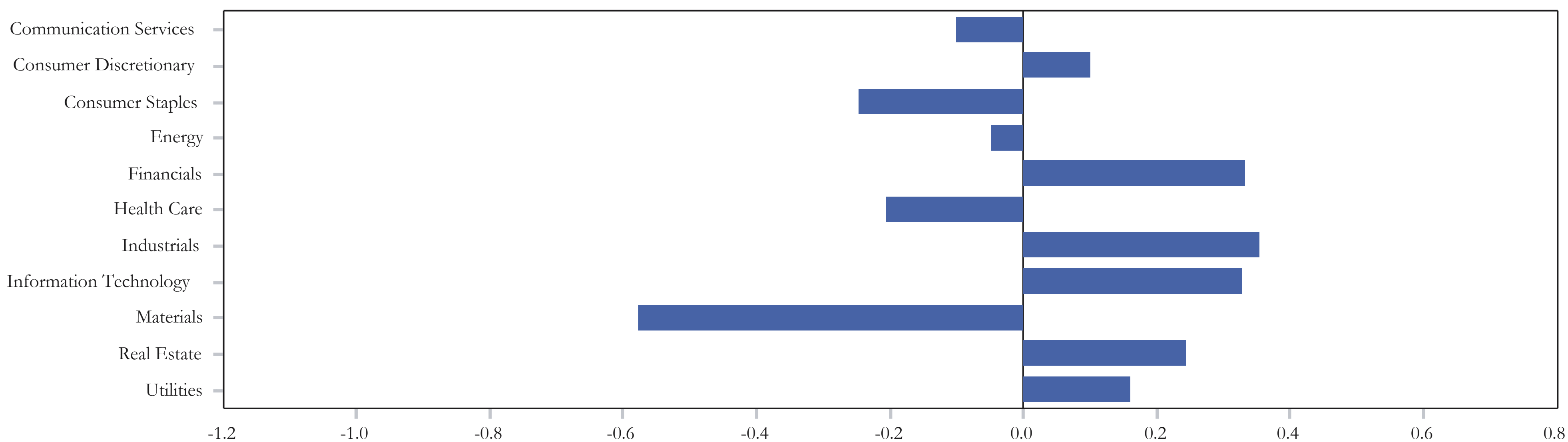
Allocation



Performance



Total Attribution



The prices, quotes, or statistics contained herein have been obtained from sources believed to be reliable, however, its accuracy cannot be guaranteed. Past performance is not a guarantee of future results.

SAMPLE

Boston - Large Cap Value - Quarterly Performance Attributes
as of September 30, 2018

	Allocation - 07/01/2018		Performance - Quarter Ending September 30, 2018		Attribution			
	Portfolio	Benchmark	Portfolio	Benchmark	Sector	Stock	Interaction	Total
Communication Services	7.38	6.72	4.81	6.21	0.00	-0.09	-0.01	-0.10
Consumer Discretionary	1.80	5.54	-5.26	0.32	0.20	-0.31	0.21	0.10
Consumer Staples	5.88	7.27	0.28	4.71	0.01	-0.32	0.06	-0.25
Energy	13.47	11.12	1.85	1.48	-0.10	0.04	0.01	-0.05
Financials	28.59	23.29	5.63	4.19	-0.08	0.34	0.08	0.33
Health Care	12.64	13.85	14.91	15.60	-0.12	-0.10	0.01	-0.21
Industrials	9.18	7.87	11.82	8.32	0.03	0.28	0.05	0.36
Information Technology	10.28	9.60	11.23	8.21	0.02	0.29	0.02	0.33
Materials	8.94	4.10	-3.42	-0.09	-0.28	-0.14	-0.16	-0.58
Real Estate	0.00	4.91	0.00	0.72	0.24	0.00	0.00	0.24
Utilities	1.83	5.72	4.36	2.44	0.13	0.11	-0.07	0.16
Total	100.00	100.00	6.03	5.69	0.06	0.09	0.19	0.34

All the values for Allocation, Performance and Attribution are expresssed in Percentage(%) terms

SAMPLE

Boston - Large Cap Value - Portfolio Characteristics
as of September 30, 2018

Portfolio Characteristics

	Portfolio	Benchmark
Wtd. Avg. Mkt. Cap ($000)	144,786,256.68	126,935,326.98
Median Mkt. Cap ($000)	47,823,259.24	9,935,306.04
Price/Earnings ratio	16.56	16.45
Price/Book ratio	2.43	2.24
5 Yr. EPS Growth Rate (%)	5.69	7.25
Beta (5 Years, Monthly)	1.12	1.00
Number of Stocks	87	727
Debt to Equity	1.17	0.74

Top Ten Equity Holdings

	Portfolio Weight (%)	Benchmark Weight (%)	Active Weight (%)	Quarterly Return (%)
Berkshire Hathaway Inc	4.62	2.66	1.96	14.71
JPMorgan Chase & Co	4.37	2.77	1.60	8.88
Verizon Communications Inc	3.46	1.62	1.84	7.36
Cisco Systems Inc	3.29	1.68	1.61	13.94
Bank of America Corp	3.25	2.01	1.24	5.01
Pfizer Inc	2.73	1.88	0.85	22.51
AT&T Inc	2.53	1.79	0.74	6.20
Marathon Petroleum Corp	2.39	0.26	2.13	14.66
CF Industries Holdings Inc	2.10	0.09	2.01	23.38
Merck & Co Inc.	2.07	1.29	0.78	17.67
% of Portfolio	30.81	16.05	14.76	

Ten Best Performers

	Portfolio Weight (%)	Benchmark Weight (%)	Active Weight (%)	Quarterly Return (%)
HCA Healthcare Inc	0.54	0.08	0.46	35.95
QUALCOMM Inc.	1.25	0.78	0.47	29.49
Corning Inc	0.76	0.21	0.55	29.01
Advance Auto Parts Inc.	0.50	0.06	0.44	24.09
CF Industries Holdings Inc	2.10	0.09	2.01	23.38
CVS Health Corp	1.14	0.59	0.55	23.26
Pfizer Inc	2.73	1.88	0.85	22.51
Apple Inc	0.76	0.00	0.76	22.38
Biogen Inc	0.51	0.03	0.48	21.73
Dover Corp	0.50	0.09	0.41	21.62
% of Portfolio	10.79	3.81	6.98	

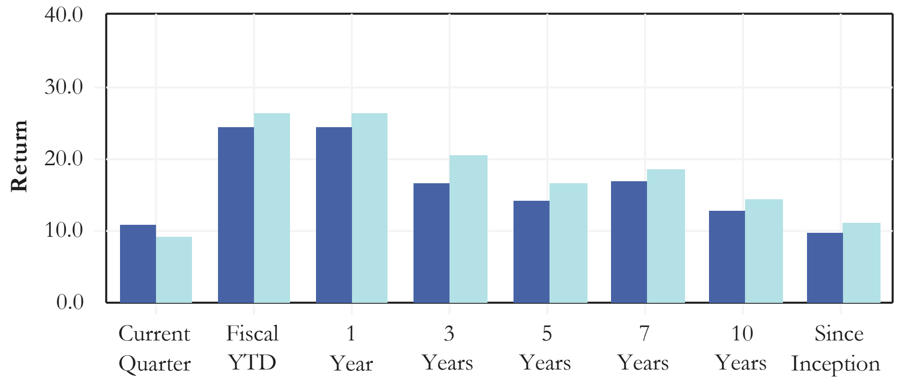
Ten Worst Performers

	Portfolio Weight (%)	Benchmark Weight (%)	Active Weight (%)	Quarterly Return (%)
Las Vegas Sands Corp	0.49	0.06	0.43	-21.34
Newmont Mining Corp	0.47	0.12	0.35	-19.54
Freeport-McMoran Cpr & Gld	0.71	0.15	0.56	-19.35
Martin Marietta Materials Inc.	1.34	0.01	1.33	-18.33
Vulcan Materials Co	1.00	0.01	0.99	-13.62
General Motors Co	0.66	0.32	0.34	-13.60
The Kraft Heinz Co	0.44	0.24	0.20	-11.36
Omnicom Group Inc.	0.49	0.04	0.45	-10.05
Schlumberger Ltd	0.89	0.62	0.27	-8.38
Anadarko Petroleum Corp	1.31	0.17	1.14	-7.61
% of Portfolio	7.80	1.74	6.06	

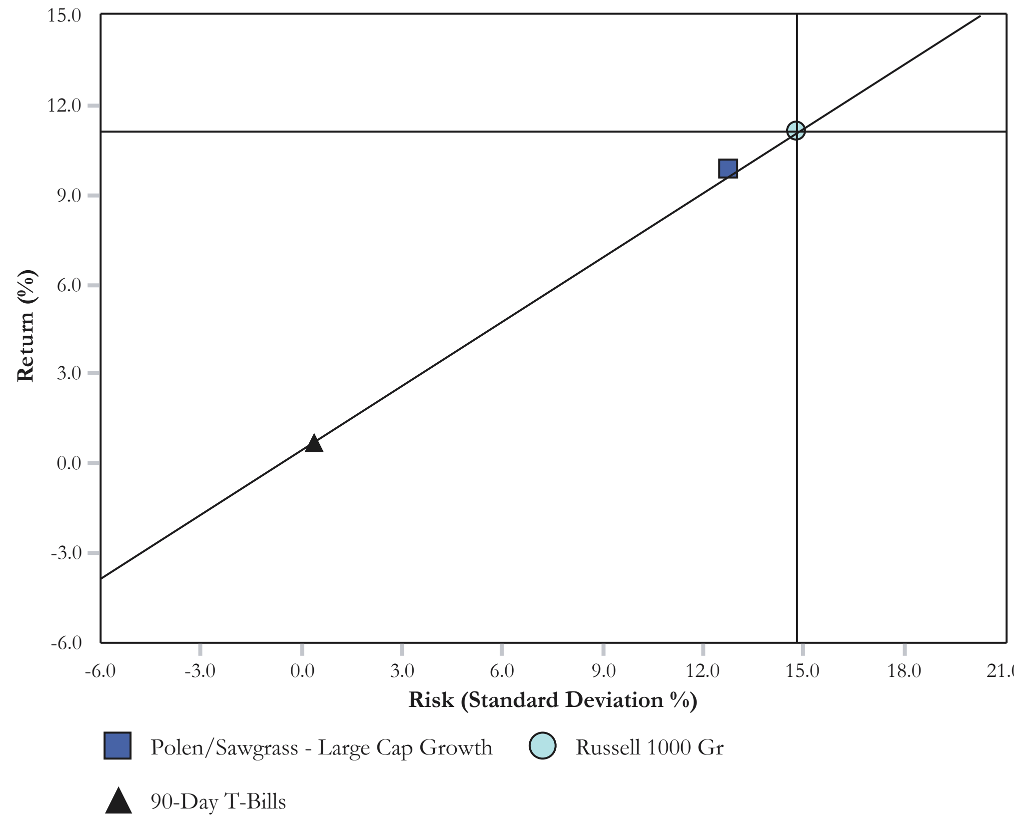
SAMPLE

Sawgrass - Large Cap Growth - Executive Summary
as of September 30, 2018

Manager Performance Chart



Manager Risk & Return



Manager Annualized Performance

	Current Quarter	Fiscal YTD	1 Year	3 Years	5 Years	7 Years	10 Years	Inception 04/01/2007
Polen/Sawgrass - Large Cap Growth	10.74	24.31	24.31	16.79	14.17	16.99	12.66	9.84
Russell 1000 Gr	9.17	26.30	26.30	20.55	16.58	18.69	14.31	11.10
Differences	1.57	-1.99	-1.99	-3.76	-2.41	-1.70	-1.65	-1.26

Historic Asset Growth

	Current Quarter	Fiscal YTD	1 Year	3 Years	5 Years	7 Years	10 Years	Inception 04/01/2007
Polen/Sawgrass - Large Cap Growth								
Beginning Market Value	36,381	34,992	34,992	34,137	32,398	26,260	28,748	32,084
Net Contributions	-1	-2,607	-2,607	-10,456	-15,635	-22,237	-26,740	-26,328
Fees/Expenses	-87	-219	-219	-583	-956	-1,253	-1,662	-1,950
Income	370	766	766	1,925	3,108	4,128	5,406	6,005
Gain/Loss	3,534	7,265	7,265	15,175	21,281	33,300	34,445	30,386
Ending Market Value	40,197	40,197	40,197	40,197	40,197	40,197	40,197	40,197

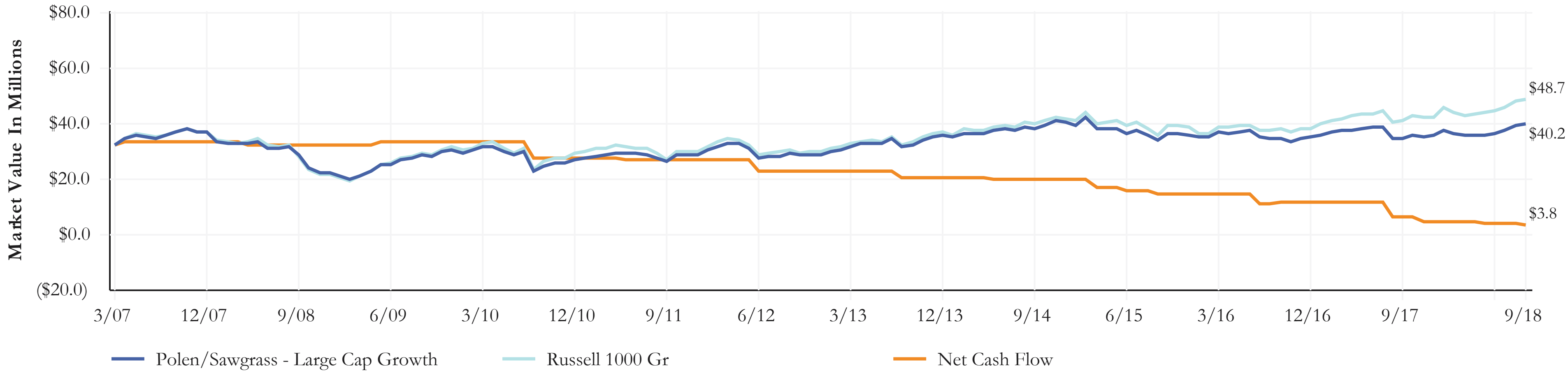
Modern Portfolio Statistics

	Return	Standard Deviation	Beta	Maximum Drawdown	Up Market Capture	Down Market Capture	Alpha	Sharpe Ratio	R-Squared	Inception Date
Polen/Sawgrass - Large Cap Growth	9.84	12.80	0.84	-45.66	84.92	82.64	0.42	0.74	0.95	04/01/2007
Russell 1000 Gr	11.10	14.82	1.00	-47.99	100.00	100.00	0.00	0.74	1.00	04/01/2007

SAMPLE

Sawgrass - Large Cap Growth - Change in Assets & Distribution of Returns
as of September 30, 2018

Historic Change in Assets



Quarterly Change in Assets

	Market Value As of 07/01/2018	Net Transfers	Net Contributions	Fees	Expenses	Return On Investment	Market Value As of 09/30/2018
Polen/Sawgrass - Large Cap Growth	36,380,551.19	-	-671.63	-86,554.20	-	3,903,883.02	40,197,208.38

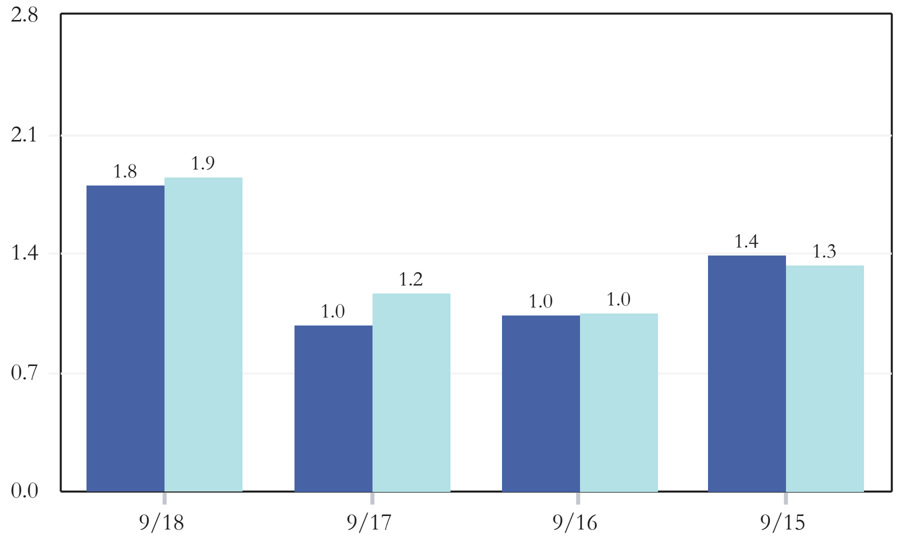
Distribution of Returns

The prices, quotes, or statistics contained herein have been obtained from sources believed to be reliable, however, its accuracy cannot be guaranteed. Past performance is not a guarantee of future results.

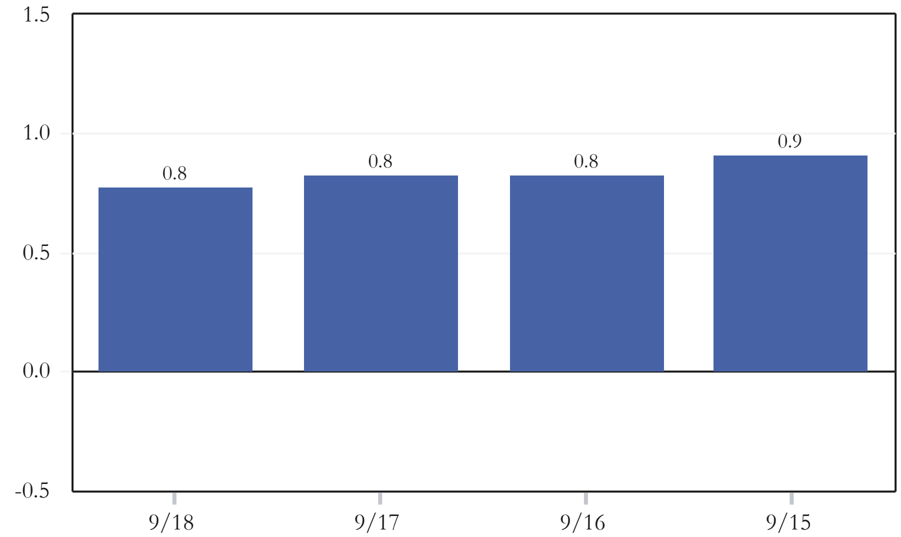
SAMPLE

Polen/Sawgrass - Large Cap Growth - Rolling Three Year MPT Statistics
as of September 30, 2018

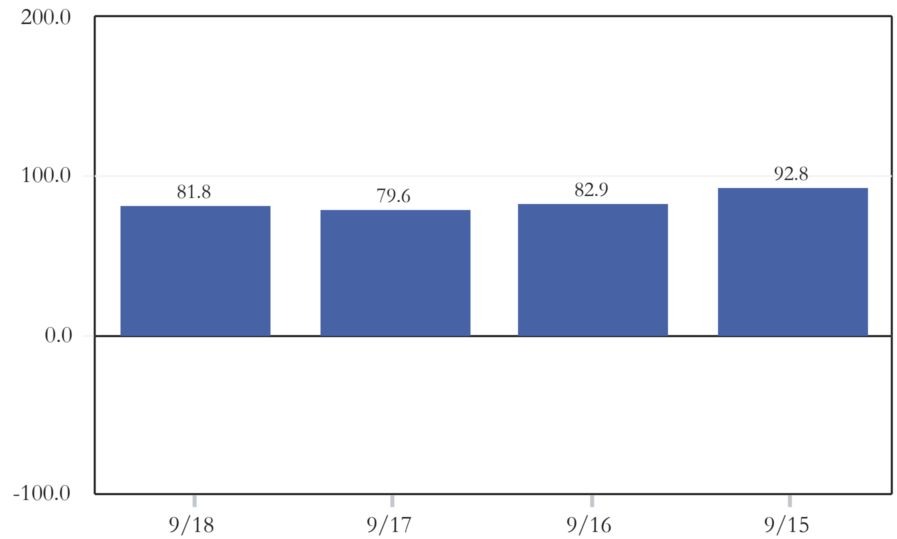
Sharpe Ratio



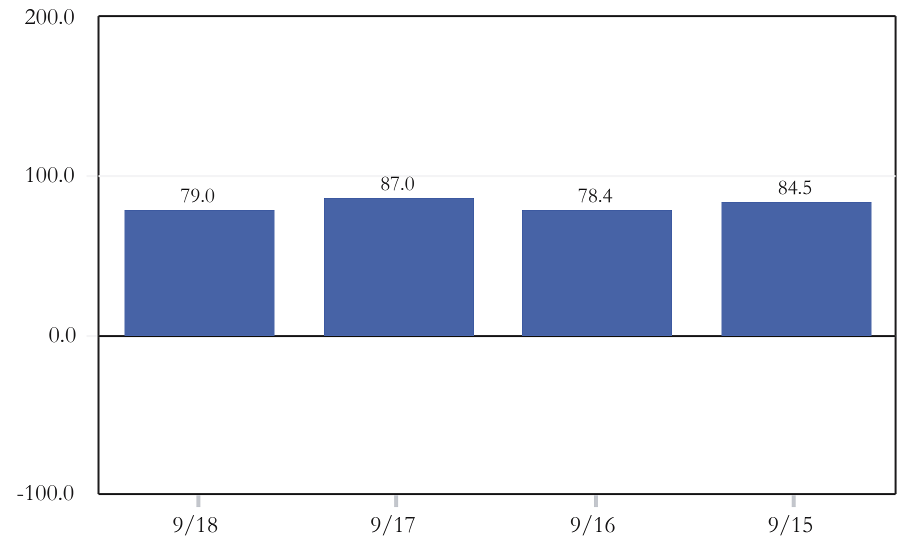
Beta



Up Market Capture



Down Market Capture

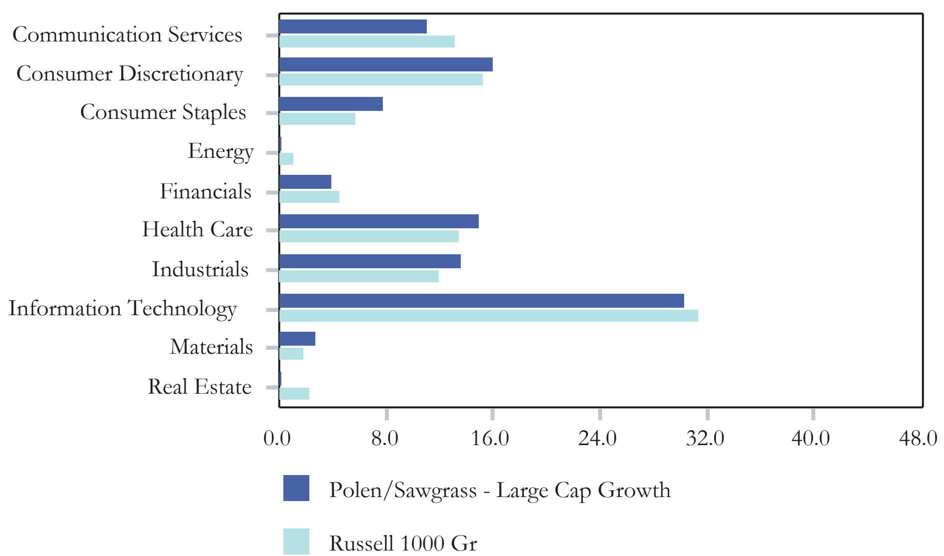


The prices, quotes, or statistics contained herein have been obtained from sources believed to be reliable, however, its accuracy cannot be guaranteed. Past performance is not a guarantee of future results.

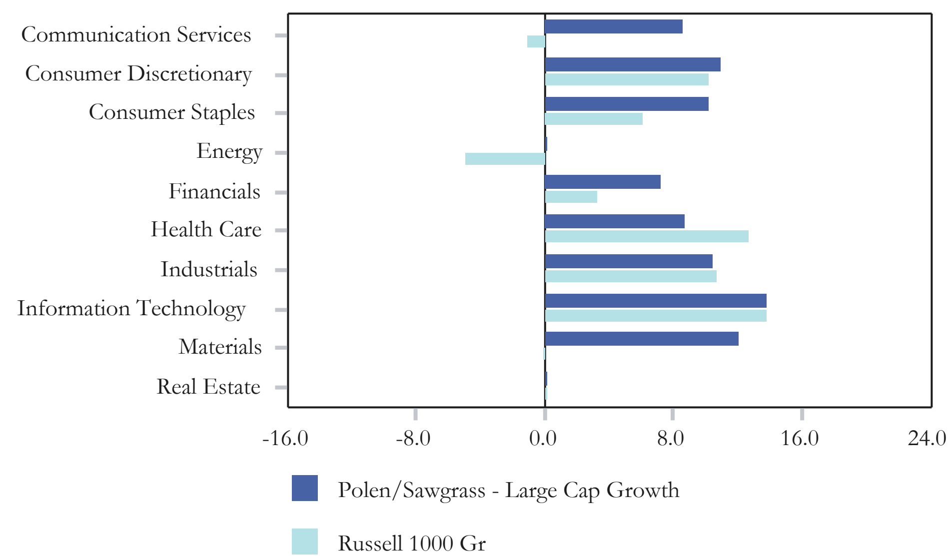
SAMPLE

Polen/Sawgrass - Large Cap Growth - Quarterly Performance Attributes
as of September 30, 2018

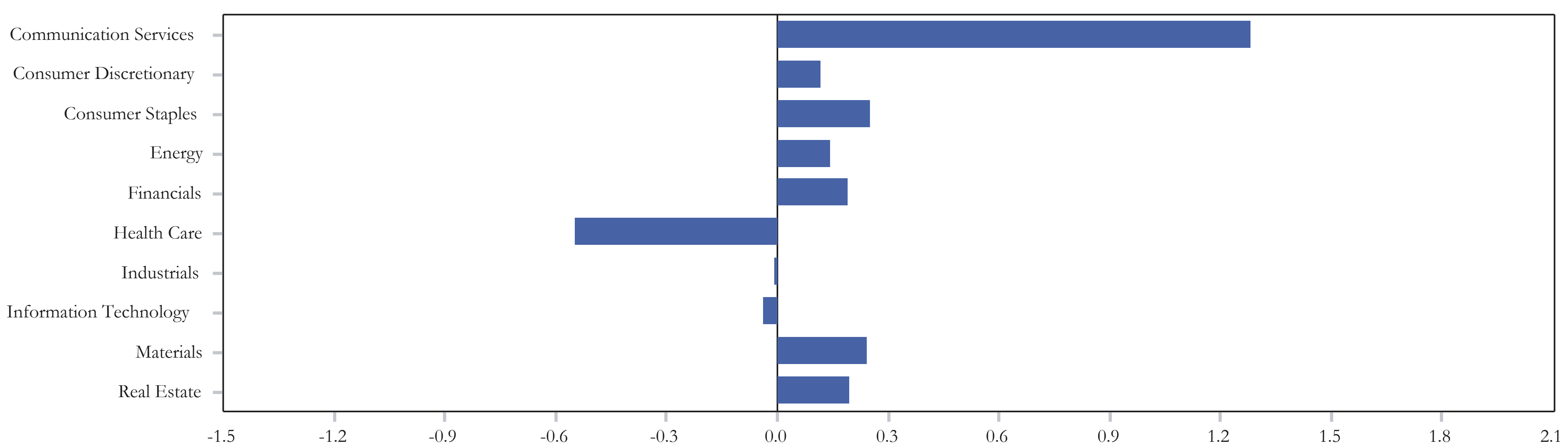
Allocation



Performance



Total Attribution



SAMPLE

Polen/Sawgrass - Large Cap Growth - Quarterly Performance Attributes
as of September 30, 2018

	Allocation - 07/01/2018		Performance - Quarter Ending September 30, 2018		Attribution			
	Portfolio	Benchmark	Portfolio	Benchmark	Sector	Stock	Interaction	Total
Communication Services	11.09	13.19	8.56	-1.07	0.21	1.27	-0.20	1.28
Consumer Discretionary	15.91	15.16	10.93	10.27	0.01	0.10	0.00	0.11
Consumer Staples	7.71	5.72	10.17	6.11	-0.06	0.23	0.08	0.25
Energy	0.00	1.01	0.00	-4.95	0.14	0.00	0.00	0.14
Financials	3.83	4.44	7.22	3.25	0.04	0.18	-0.02	0.19
Health Care	14.97	13.37	8.69	12.72	0.06	-0.54	-0.06	-0.55
Industrials	13.50	11.87	10.40	10.66	0.02	-0.03	0.00	-0.01
Information Technology	30.27	31.27	13.82	13.80	-0.05	0.01	0.00	-0.04
Materials	2.70	1.80	12.02	-0.10	-0.08	0.22	0.11	0.24
Real Estate	0.00	2.16	0.00	0.19	0.19	0.00	0.00	0.19
Total	100.00	100.00	10.97	9.14	0.49	1.44	-0.10	1.82

All the values for Allocation, Performance and Attribution are expresssed in Percentage(%) terms

SAMPLE

Polen/Sawgrass - Large Cap Growth - Portfolio Characteristics
as of September 30, 2018

Portfolio Characteristics

	Portfolio	Benchmark
Wtd. Avg. Mkt. Cap ($000)	249,273,344.86	313,613,099.48
Median Mkt. Cap ($000)	108,620,414.04	12,897,250.56
Price/Earnings ratio	37.63	29.31
Price/Book ratio	10.66	7.54
5 Yr. EPS Growth Rate (%)	15.95	16.26
Beta (5 Years, Monthly)	0.82	1.00
Number of Stocks	22	542
Debt to Equity	1.24	0.77

Top Ten Equity Holdings

	Portfolio Weight (%)	Benchmark Weight (%)	Active Weight (%)	Quarterly Return (%)
Microsoft Corp	9.13	5.93	3.20	16.43
Visa Inc	7.26	1.94	5.32	13.49
Alphabet Inc	6.71	2.62	4.09	6.98
Nike Inc	6.37	0.77	5.60	6.58
Adobe Inc	6.32	0.96	5.36	10.72
Automatic Data Processing Inc.	6.21	0.48	5.73	12.84
Starbucks Corp	5.96	0.54	5.42	17.17
O'Reilly Automotive Inc	5.56	0.20	5.36	26.96
Gartner Inc	5.03	0.10	4.93	19.26
Accenture PLC	4.96	0.79	4.17	4.04
% of Portfolio	63.51	14.33	49.18	

Ten Best Performers

	Portfolio Weight (%)	Benchmark Weight (%)	Active Weight (%)	Quarterly Return (%)
O'Reilly Automotive Inc	5.56	0.20	5.36	26.96
Gartner Inc	5.03	0.10	4.93	19.26
NVIDIA Corp	4.11	1.18	2.93	18.69
Oracle Corp	3.83	0.10	3.73	17.48
Starbucks Corp	5.96	0.54	5.42	17.17
Regeneron Pharma	3.31	0.23	3.08	17.12
Microsoft Corp	9.13	5.93	3.20	16.43
Align Technology Inc	4.70	0.22	4.48	14.35
Visa Inc	7.26	1.94	5.32	13.49
Mastercard Inc	2.95	1.48	1.47	13.42
% of Portfolio	51.84	11.92	39.92	

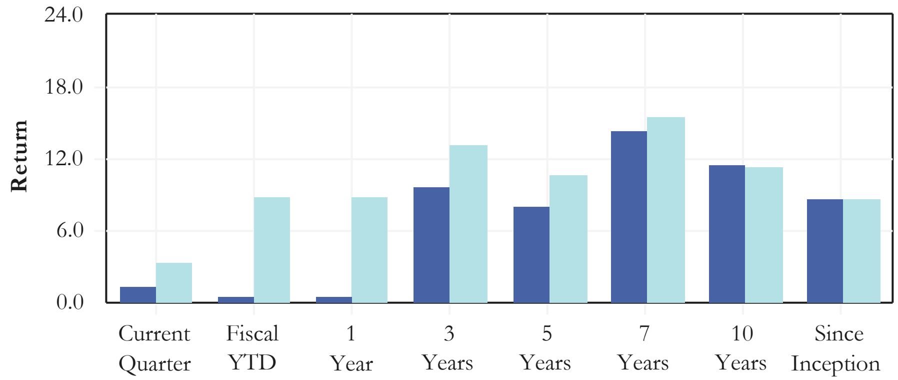
Ten Worst Performers

	Portfolio Weight (%)	Benchmark Weight (%)	Active Weight (%)	Quarterly Return (%)
Facebook Inc	3.63	2.82	0.81	-15.37
Booking Holdings Inc	2.32	0.68	1.64	-2.13
Accenture PLC	4.96	0.79	4.17	4.04
Nike Inc	6.37	0.77	5.60	6.58
Alphabet Inc	2.48	2.60	-0.12	6.90
Alphabet Inc	6.71	2.62	4.09	6.98
Zoetis Inc	4.79	0.32	4.47	7.64
Adobe Inc	6.32	0.96	5.36	10.72
Dollar General Corp	4.38	0.21	4.17	11.18
Automatic Data Processing Inc.	6.21	0.48	5.73	12.84
% of Portfolio	48.17	12.25	35.92	

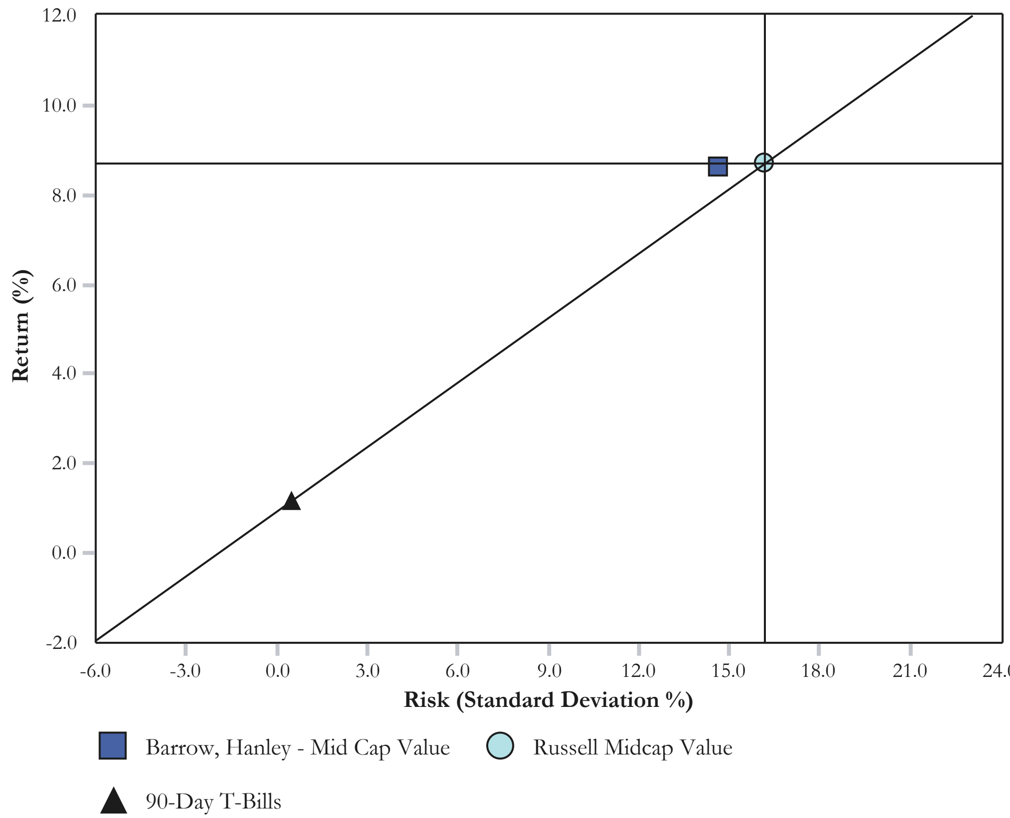
SAMPLE

Barrow Hanley - Mid Cap Value - Executive Summary
as of September 30, 2018

Manager Performance Chart



Manager Risk & Return



Manager Annualized Performance

	Current Quarter	Fiscal YTD	1 Year	3 Years	5 Years	7 Years	10 Years	Inception 10/01/2005
Barrow, Hanley - MC Value	1.25	0.44	0.44	9.65	8.03	14.25	11.42	8.63
Russell Midcap Value	3.30	8.81	8.81	13.09	10.72	15.54	11.29	8.70
Differences	-2.05	-8.37	-8.37	-3.44	-2.69	-1.29	0.13	-0.07

Historic Asset Growth

	Current Quarter	Fiscal YTD	1 Year	3 Years	5 Years	7 Years	10 Years	Inception 10/01/2005
Barrow, Hanley - MC Value								
Beginning Market Value	12,055	12,224	12,224	9,393	8,763	6,702	8,953	11,768
Net Contributions	-1	-2	-2	143	-108	-2,359	-5,860	-8,607
Fees/Expenses	-23	-94	-94	-256	-415	-543	-744	-1,037
Income	69	255	255	722	1,259	1,728	2,446	3,398
Gain/Loss	82	-200	-200	2,181	2,683	6,654	7,387	6,661
Ending Market Value	12,182	12,182	12,182	12,182	12,182	12,182	12,182	12,182

Modern Portfolio Statistics

	Return	Standard Deviation	Beta	Maximum Drawdown	Up Market Capture	Down Market Capture	Alpha	Sharpe Ratio	R-Squared	Inception Date
Barrow, Hanley - Mid Cap Value	8.63	14.68	0.86	-48.50	91.08	87.68	1.08	0.56	0.89	10/01/2005
Russell Midcap Value	8.70	16.22	1.00	-57.43	100.00	100.00	0.00	0.53	1.00	10/01/2005

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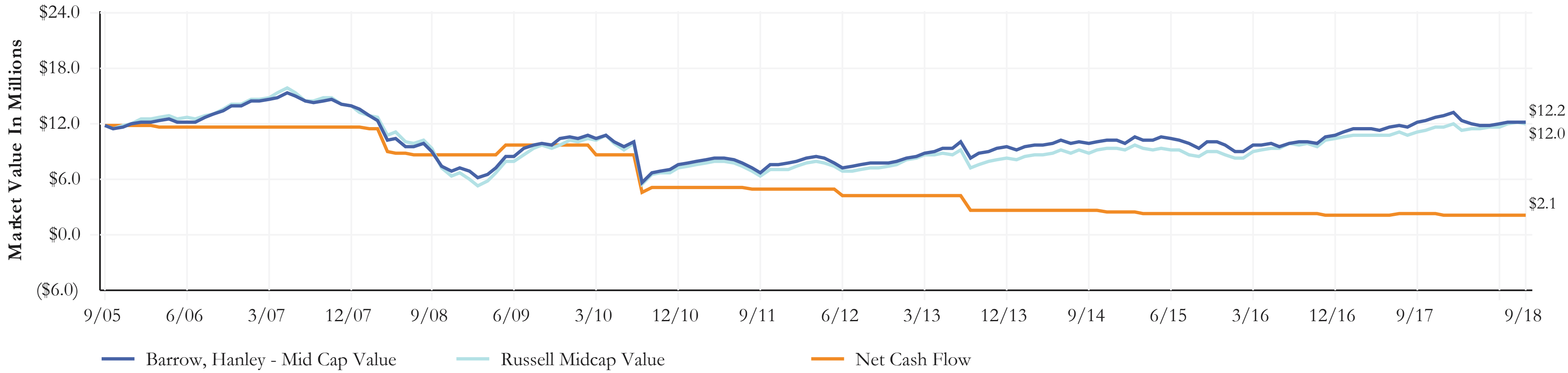
SAMPLE

Barrow Hanley - Mid Cap Value - Change in Assets & Distribution of Returns
as of September 30, 2018

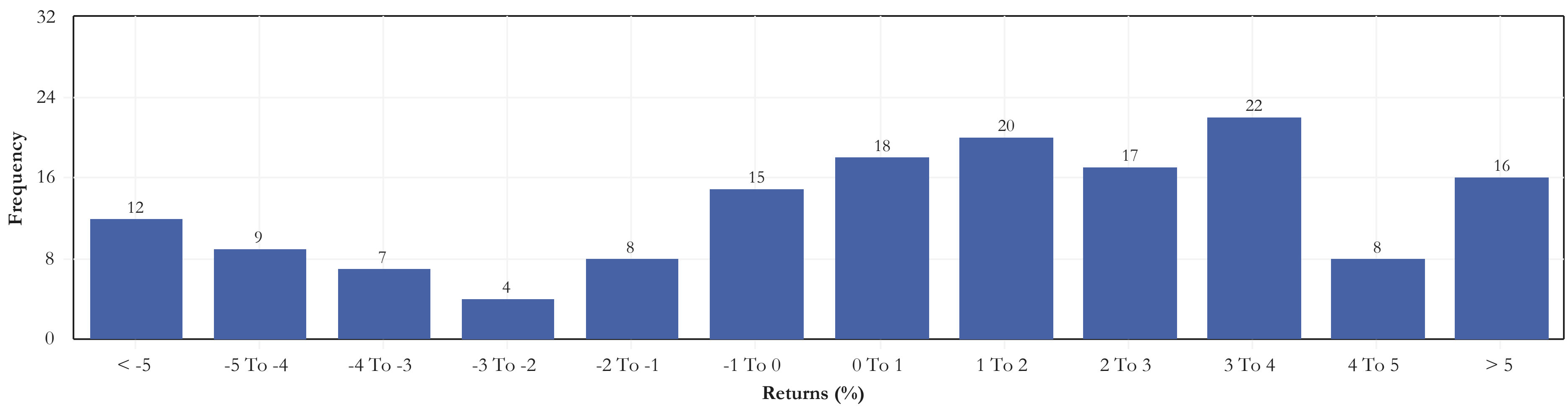
Historic Change in Assets



Quarterly Change in Assets

	Market Value As of 07/01/2018	Net Transfers	Net Contributions	Fees	Expenses	Return On Investment	Market Value As of 09/30/2018
Barrow, Hanley - Mid Cap Value	12,055,200.56	-	-684.35	-23,083.00	-	150,914.20	12,182,347.41

Distribution of Returns



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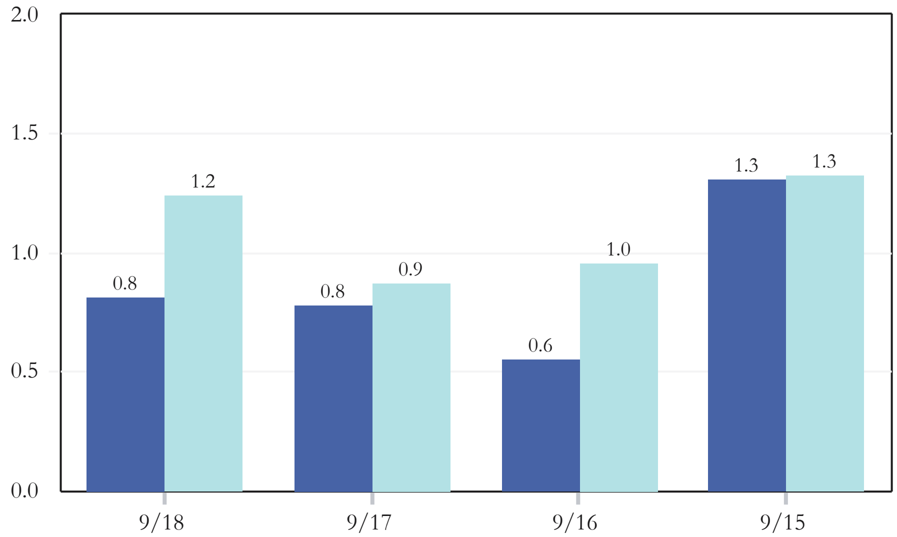
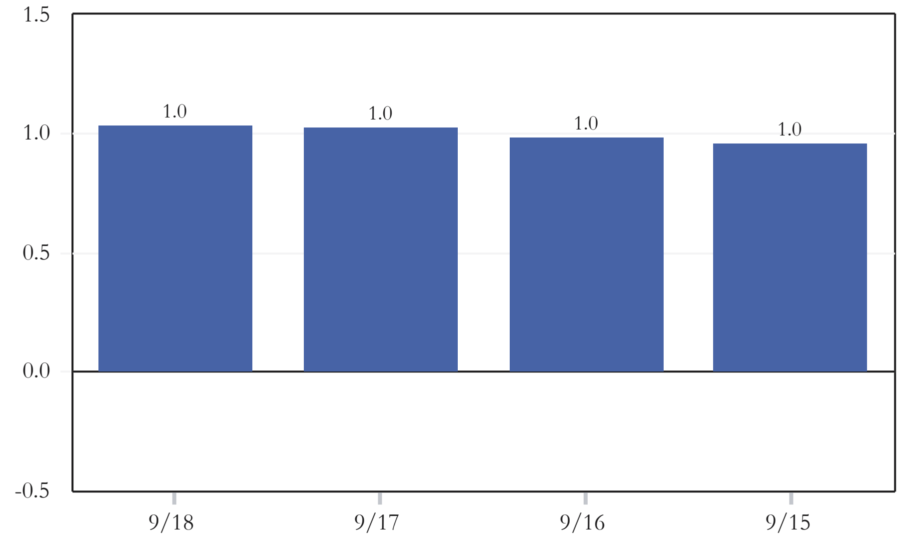
SAMPLE

Barrow, Hanley - Mid Cap Value - Rolling Three Year MPT Statistics
as of September 30, 2018

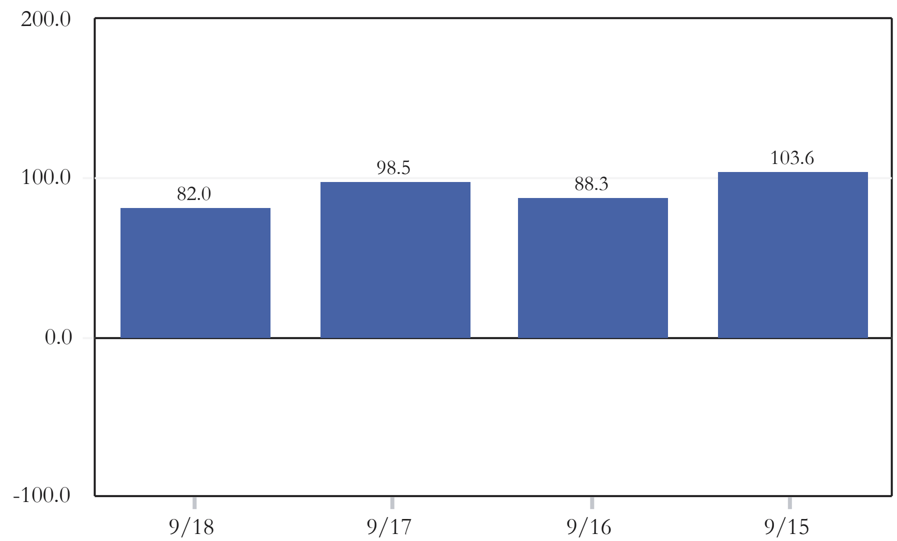
Sharpe Ratio



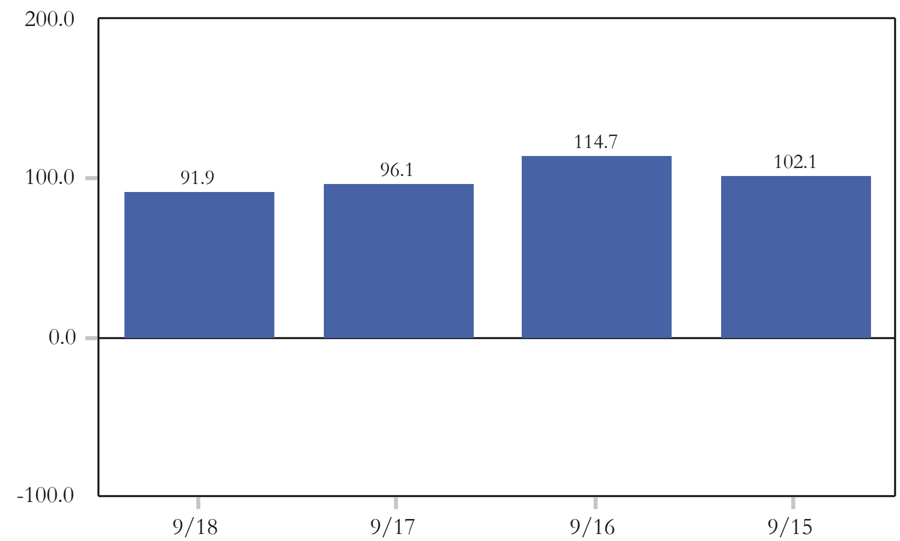
Beta



Up Market Capture



Down Market Capture



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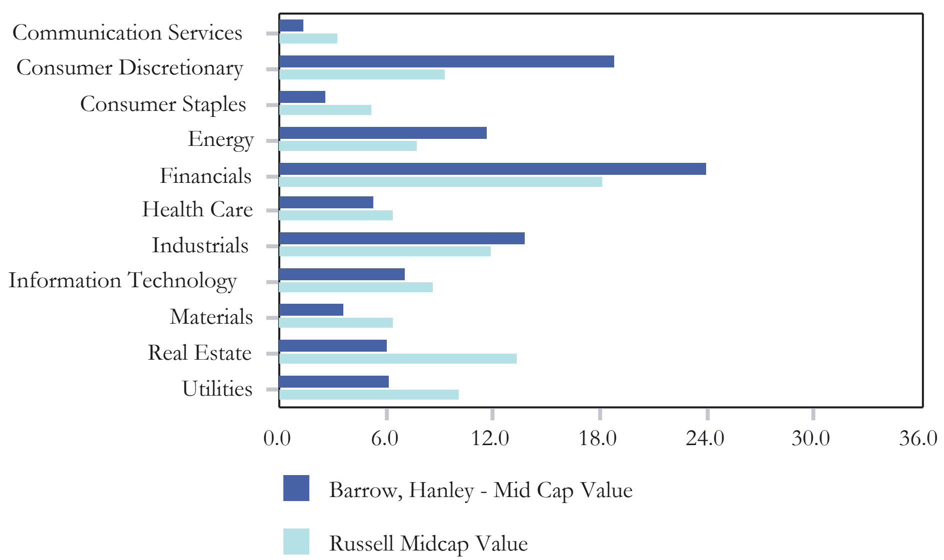
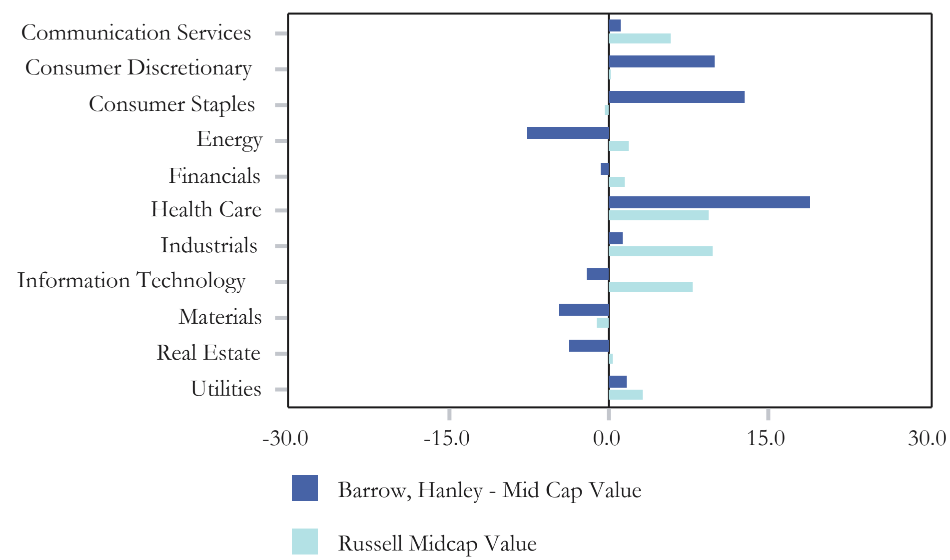
SAMPLE

Barrow, Hanley - Mid Cap Value - Quarterly Performance Attributes
as of September 30, 2018

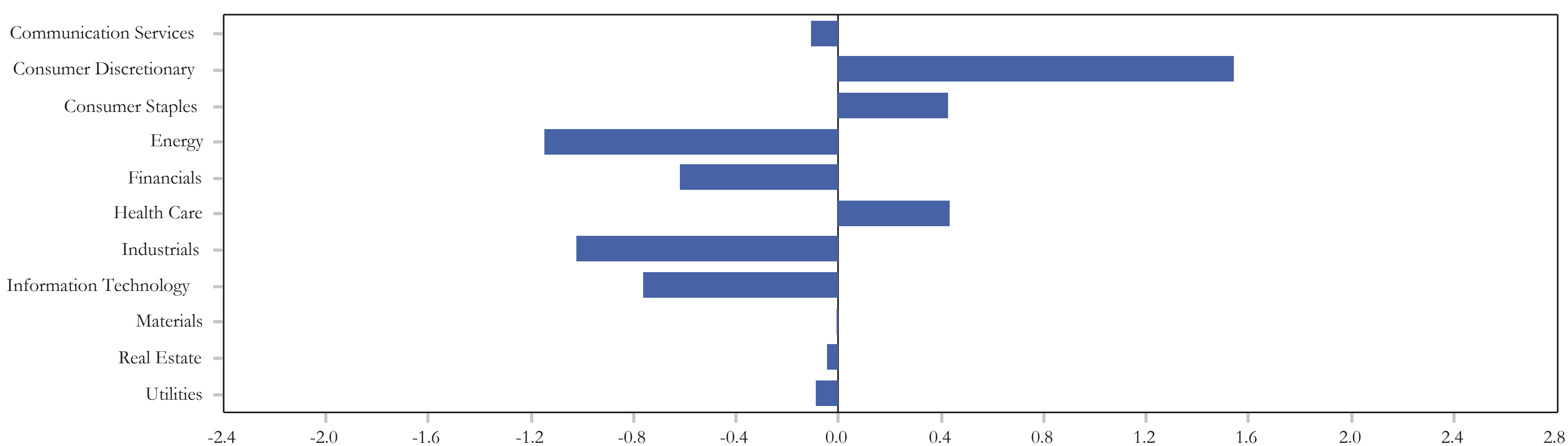
Allocation



Performance



Total Attribution



SAMPLE

Barrow, Hanley - Mid Cap Value - Quarterly Performance Attributes
as of September 30, 2018

	Allocation - 07/01/2018		Performance - Quarter Ending September 30, 2018		Attribution			
	Portfolio	Benchmark	Portfolio	Benchmark	Sector	Stock	Interaction	Total
Communication Services	1.39	3.20	1.16	5.83	-0.05	-0.15	0.08	-0.11
Consumer Discretionary	18.75	9.25	9.96	0.13	-0.30	0.91	0.93	1.54
Consumer Staples	2.56	5.10	12.68	-0.35	0.09	0.66	-0.33	0.43
Energy	11.58	7.71	-7.59	1.80	-0.06	-0.72	-0.36	-1.15
Financials	23.95	18.10	-0.69	1.45	-0.11	-0.39	-0.13	-0.62
Health Care	5.27	6.41	18.77	9.23	-0.07	0.61	-0.11	0.44
Industrials	13.76	11.83	1.28	9.60	0.12	-0.98	-0.16	-1.02
Information Technology	7.01	8.65	-2.07	7.77	-0.07	-0.85	0.16	-0.76
Materials	3.59	6.35	-4.60	-1.07	0.12	-0.22	0.10	-0.01
Real Estate	6.04	13.35	-3.82	0.43	0.21	-0.57	0.31	-0.05
Utilities	6.11	10.04	1.62	3.14	0.01	-0.15	0.06	-0.09
Total	100.00	100.00	1.89	3.28	-0.10	-1.85	0.56	-1.40

All the values for Allocation, Performance and Attribution are expresssed in Percentage(%) terms
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SAMPLE

Barrow, Hanley - Mid Cap Value - Portfolio Characteristics
as of September 30, 2018

Portfolio Characteristics

	Portfolio	Benchmark
Wtd. Avg. Mkt. Cap ($000)	14,604,035.72	14,887,151.15
Median Mkt. Cap ($000)	8,866,101.32	8,009,187.52
Price/Earnings ratio	19.20	16.91
Price/Book ratio	2.33	2.17
5 Yr. EPS Growth Rate (%)	17.99	10.45
Beta (5 Years, Monthly)	1.02	1.00
Number of Stocks	46	594
Debt to Equity	1.88	0.65

Top Ten Equity Holdings

	Portfolio Weight (%)	Benchmark Weight (%)	Active Weight (%)	Quarterly Return (%)
Cigna Corp	4.23	0.00	4.23	22.54
Spirit Aerosystems Holdings Inc	3.72	0.00	3.72	6.85
Advance Auto Parts Inc.	3.66	0.18	3.48	24.09
Dollar General Corp	3.54	0.00	3.54	11.18
Royal Caribbean Cruises Ltd	3.50	0.48	3.02	26.09
Devon Energy Corp	3.35	0.45	2.90	-8.97
Stanley Black & Decker Inc	3.21	0.50	2.71	10.78
MGM Growth Properties LLC	3.12	0.00	3.12	-1.72
Xcel Energy Inc.	3.12	0.53	2.59	4.16
Pinnacle West Capital Corp	3.02	0.20	2.82	-0.86
% of Portfolio	34.47	2.34	32.13	

Ten Best Performers

	Portfolio Weight (%)	Benchmark Weight (%)	Active Weight (%)	Quarterly Return (%)
Royal Caribbean Cruises Ltd	3.50	0.48	3.02	26.09
Advance Auto Parts Inc.	3.66	0.18	3.48	24.09
Cigna Corp	4.23	0.00	4.23	22.54
Norwegian Cruise Line Holdings Ltd	2.99	0.26	2.73	21.55
Total System Services Inc.	2.11	0.00	2.11	16.98
Coca-Cola European Partners Plc	2.85	0.00	2.85	12.68
Cardinal Health Inc	1.99	0.37	1.62	11.56
Dollar General Corp	3.54	0.00	3.54	11.18
Stanley Black & Decker Inc	3.21	0.50	2.71	10.78
Discover Financial Services	1.58	0.31	1.27	9.13
% of Portfolio	29.66	2.10	27.56	

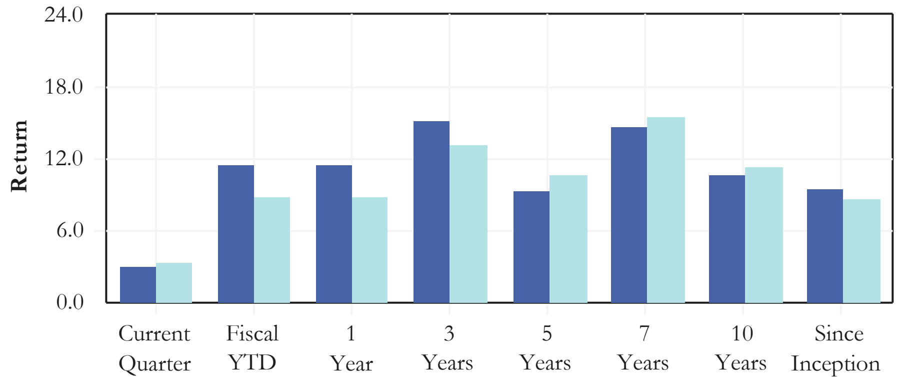
Ten Worst Performers

	Portfolio Weight (%)	Benchmark Weight (%)	Active Weight (%)	Quarterly Return (%)
Adient Plc	0.99	0.08	0.91	-19.64
Whirlpool Corp	1.83	0.17	1.66	-18.05
Hanesbrands Inc	1.08	0.00	1.08	-15.61
Chesapeake Energy Corp	0.93	0.09	0.84	-14.31
Owens Corning	2.04	0.13	1.91	-14.08
Microchip Technology Inc	2.61	0.00	2.61	-12.85
Lennar Corp	0.88	0.14	0.74	-11.00
Nielsen Holdings plc	1.54	0.22	1.32	-9.37
Devon Energy Corp	3.35	0.45	2.90	-8.97
Vermilion Energy Inc	2.92	0.00	2.92	-7.04
% of Portfolio	18.17	1.28	16.89	

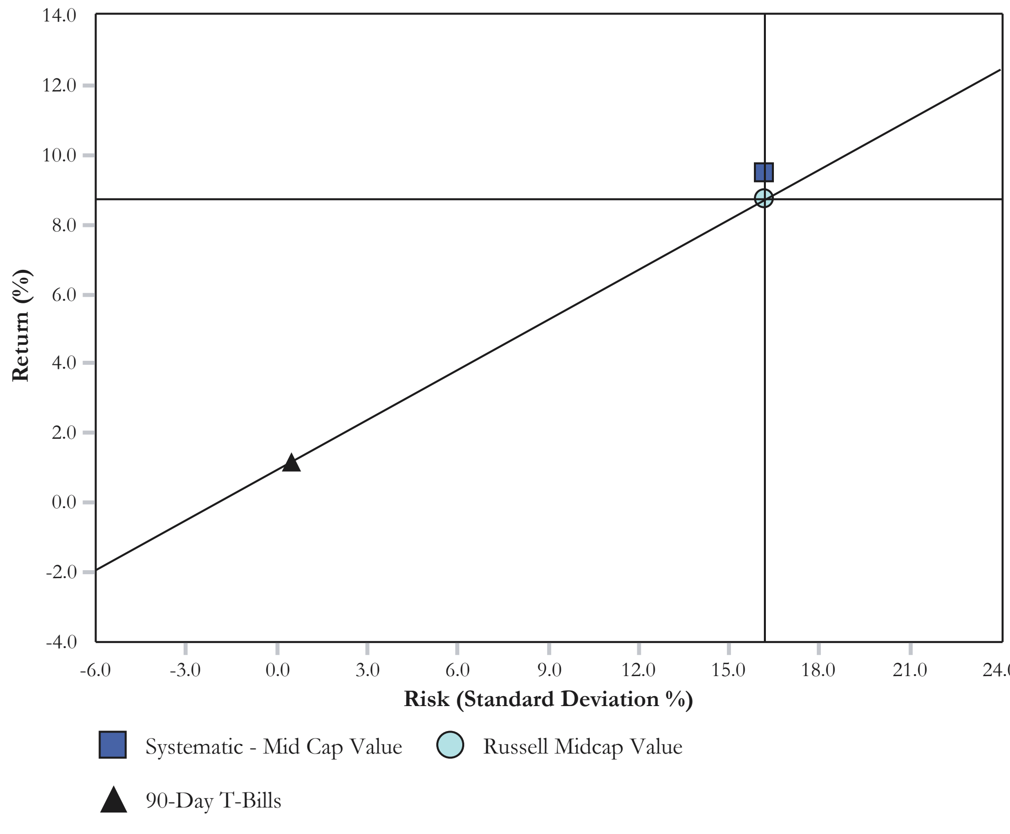
SAMPLE

Systematic - Mid Cap Value - Executive Summary
as of September 30, 2018

Manager Performance Chart



Manager Risk & Return



Manager Annualized Performance

	Current Quarter	Fiscal YTD	1 Year	3 Years	5 Years	7 Years	10 Years	Inception 10/01/2005
Systematic - Mid Cap Value	3.06	11.52	11.52	15.08	9.41	14.68	10.72	9.49
Russell Midcap Value	3.30	8.81	8.81	13.09	10.72	15.54	11.29	8.70
Differences	-0.24	2.71	2.71	1.99	-1.31	-0.86	-0.57	0.79

Historic Asset Growth

	Current Quarter	Fiscal YTD	1 Year	3 Years	5 Years	7 Years	10 Years	Inception 10/01/2005
Systematic - Mid Cap Value								
Beginning Market Value	12,868	11,940	11,940	8,822	8,846	6,560	9,288	11,771
Net Contributions	-1	-4	-4	-14	-217	-1,857	-5,356	-10,154
Fees/Expenses	-18	-66	-66	-155	-261	-349	-495	-724
Income	59	236	236	622	922	1,247	1,709	2,430
Gain/Loss	335	1,137	1,137	3,969	3,955	7,644	8,098	9,920
Ending Market Value	13,244	13,244	13,244	13,244	13,244	13,244	13,244	13,244

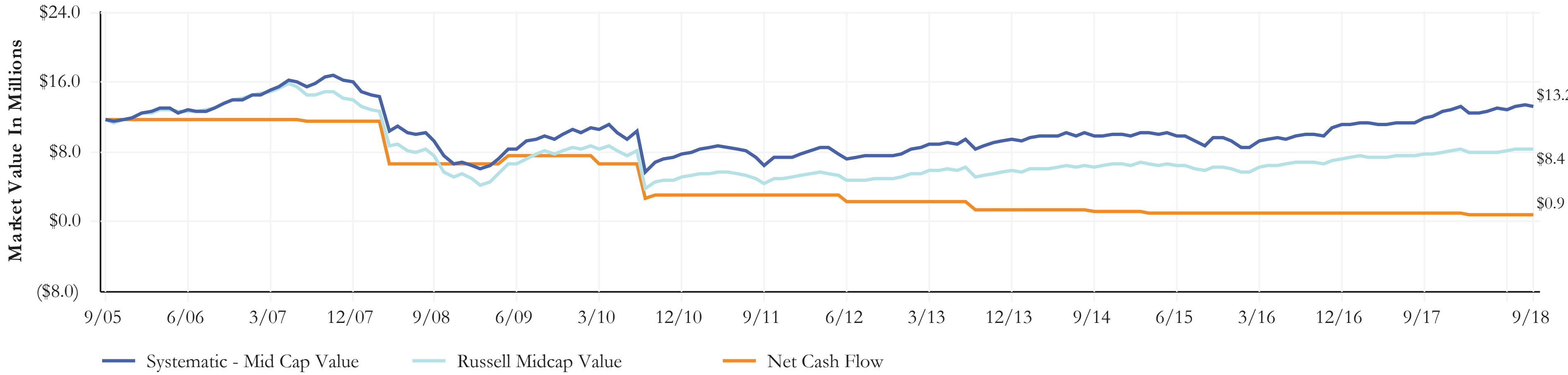
Modern Portfolio Statistics

	Return	Standard Deviation	Beta	Maximum Drawdown	Up Market Capture	Down Market Capture	Alpha	Sharpe Ratio	R-Squared	Inception Date
Systematic - Mid Cap Value	9.49	16.16	0.94	-46.05	101.63	98.19	1.29	0.57	0.89	10/01/2005
Russell Midcap Value	8.70	16.22	1.00	-57.43	100.00	100.00	0.00	0.53	1.00	10/01/2005

SAMPLE

Systematic - Mid Cap Value - Change in Assets & Distribution of Returns
as of September 30, 2018

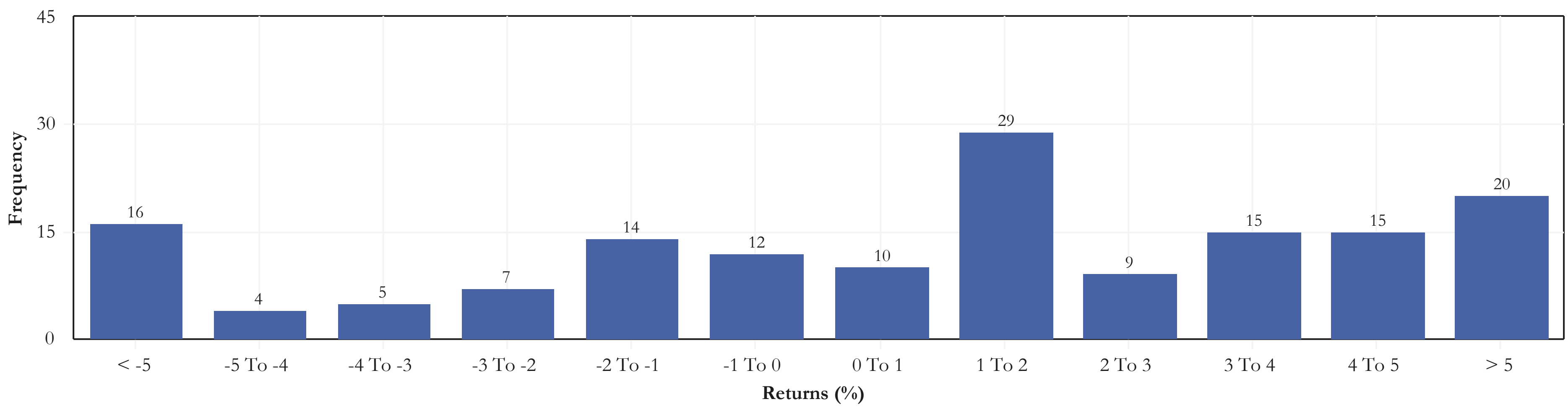
Historic Change in Assets



Quarterly Change in Assets

	Market Value As of 07/01/2018	Net Transfers	Net Contributions	Fees	Expenses	Return On Investment	Market Value As of 09/30/2018
Systematic - Mid Cap Value	12,868,409.41	-	-872.26	-17,693.70	-	394,141.63	13,243,985.08

Distribution of Returns



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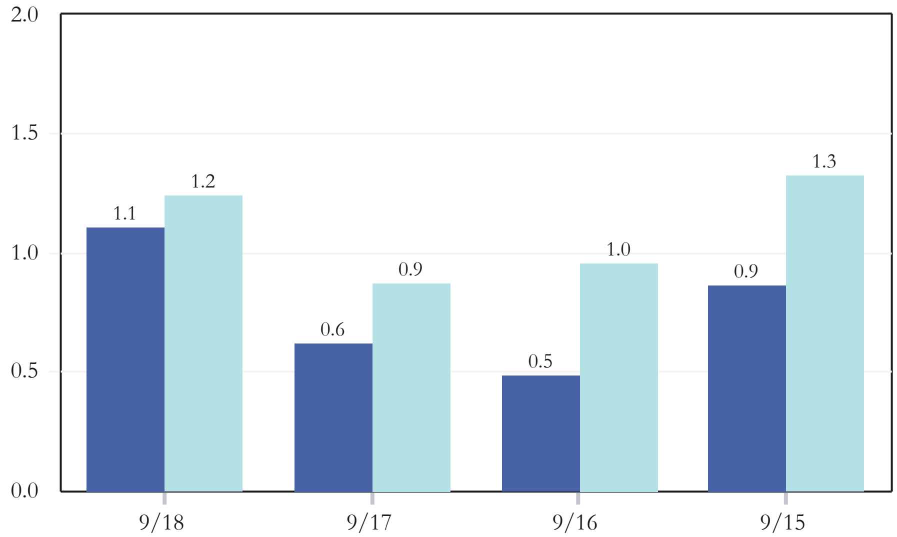
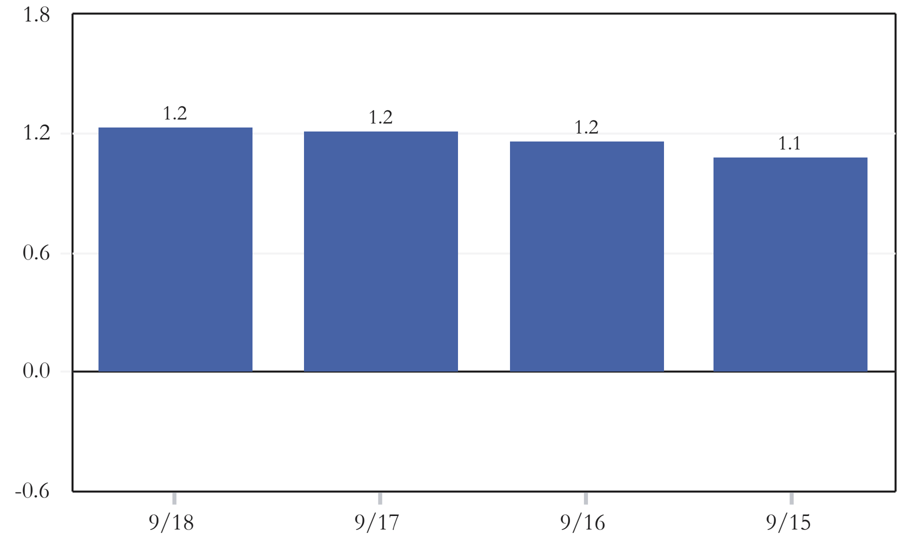
SAMPLE

Systematic - Mid Cap Value - Rolling Three Year MPT Statistics
as of September 30, 2018

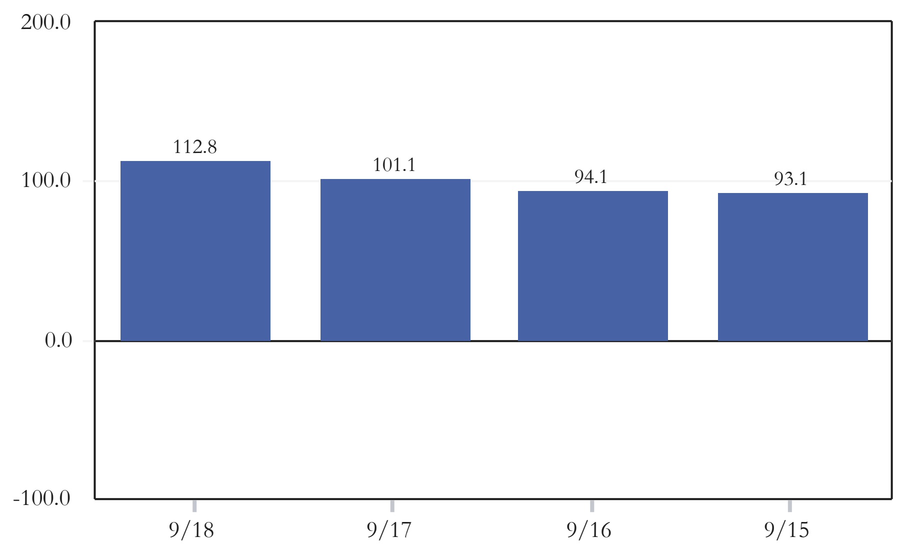
Sharpe Ratio



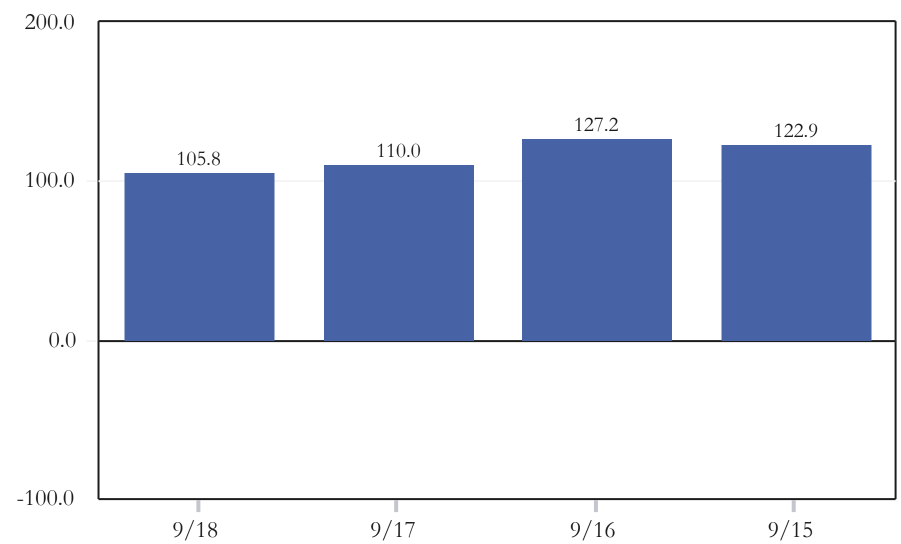
Beta



Up Market Capture



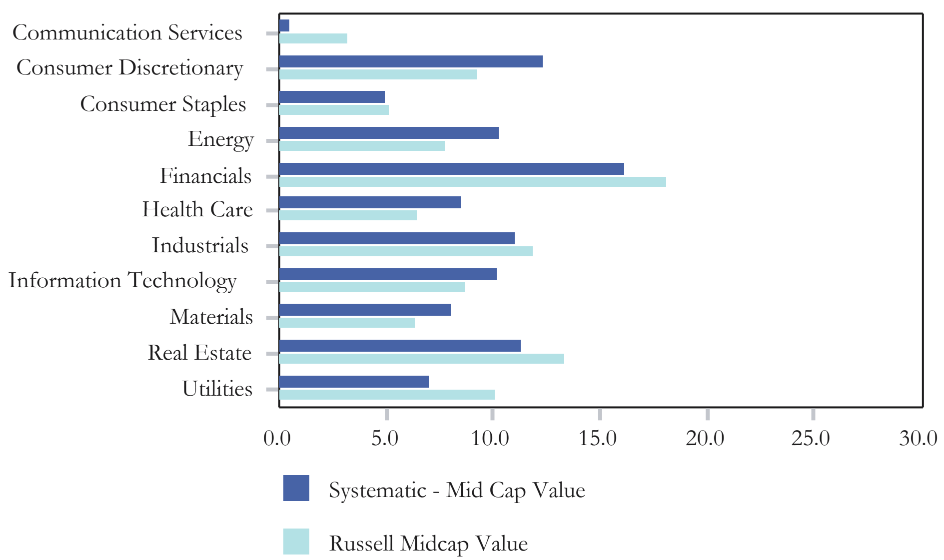
Down Market Capture



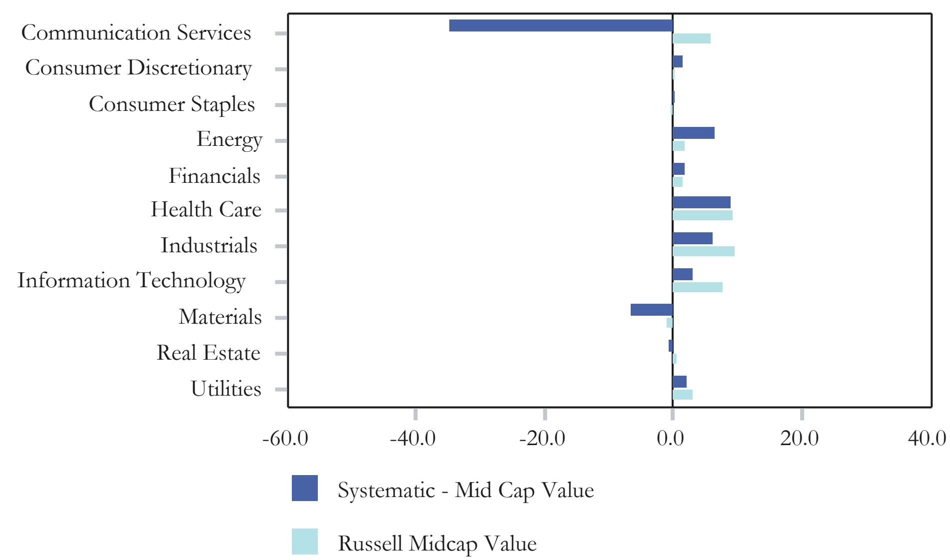
SAMPLE

Systematic - Mid Cap Value - Quarterly Performance Attributes
as of September 30, 2018

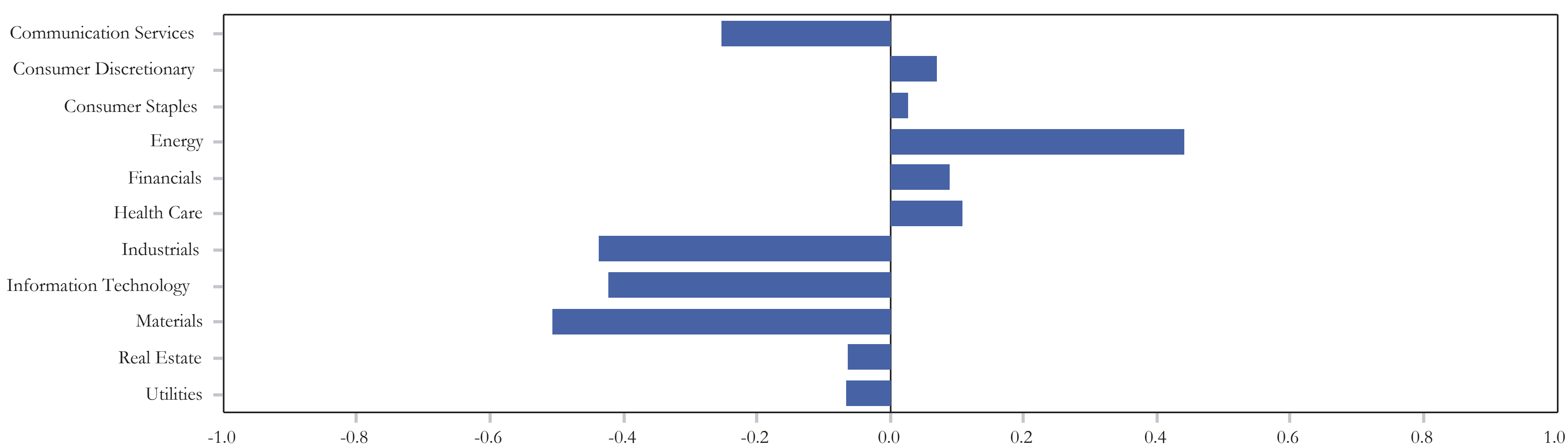
Allocation



Performance



Total Attribution



SAMPLE

Systematic - Mid Cap Value - Quarterly Performance Attributes
as of September 30, 2018

	Allocation - 07/01/2018		Performance - Quarter Ending September 30, 2018		Attribution			
	Portfolio	Benchmark	Portfolio	Benchmark	Sector	Stock	Interaction	Total
Communication Services	0.45	3.20	-34.83	5.83	-0.07	-1.30	1.12	-0.25
Consumer Discretionary	12.33	9.25	1.48	0.13	-0.10	0.13	0.04	0.07
Consumer Staples	4.95	5.10	0.11	-0.35	0.01	0.02	0.00	0.03
Energy	10.27	7.71	6.48	1.80	-0.04	0.36	0.12	0.44
Financials	16.11	18.10	1.77	1.45	0.04	0.06	-0.01	0.09
Health Care	8.50	6.41	9.04	9.23	0.12	-0.01	0.00	0.11
Industrials	11.03	11.83	6.09	9.60	-0.05	-0.41	0.03	-0.44
Information Technology	10.19	8.65	2.93	7.77	0.07	-0.42	-0.07	-0.42
Materials	7.98	6.35	-6.52	-1.07	-0.07	-0.35	-0.09	-0.51
Real Estate	11.23	13.35	-0.67	0.43	0.06	-0.15	0.02	-0.06
Utilities	6.97	10.04	2.13	3.14	0.00	-0.10	0.03	-0.07
Total	100.00	100.00	2.28	3.28	-0.03	-2.17	1.19	-1.01

All the values for Allocation, Performance and Attribution are expresssed in Percentage(%) terms

SAMPLE

Systematic - Mid Cap Value - Portfolio Characteristics

as of September 30, 2018

Portfolio Characteristics

	Portfolio	Benchmark
Wtd. Avg. Mkt. Cap ($000)	12,894,326.93	14,887,151.15
Median Mkt. Cap ($000)	10,197,040.75	8,009,187.52
Price/Earnings ratio	15.86	16.91
Price/Book ratio	2.10	2.17
5 Yr. EPS Growth Rate (%)	12.81	10.45
Beta (5 Years, Monthly)	1.18	1.00
Number of Stocks	93	594
Debt to Equity	0.96	0.65

Top Ten Equity Holdings

	Portfolio Weight (%)	Benchmark Weight (%)	Active Weight (%)	Quarterly Return (%)
Citizens Financial Group Inc	2.90	0.41	2.49	-0.18
Entergy Corp.	2.72	0.32	2.40	1.50
Marathon Oil Corp	2.01	0.44	1.57	11.87
Athene Holding Ltd	1.96	0.18	1.78	17.84
Liberty Property Trust	1.93	0.14	1.79	-3.79
Aptiv Plc	1.70	0.06	1.64	-8.23
KBR Inc	1.70	0.00	1.70	18.39
Michael Kors Holdings Ltd	1.70	0.10	1.60	2.94
Comerica Inc	1.69	0.32	1.37	-0.15
Jazz Pharmaceuticals Plc	1.69	0.02	1.67	-2.42
% of Portfolio	20.00	1.99	18.01	

Ten Best Performers

	Portfolio Weight (%)	Benchmark Weight (%)	Active Weight (%)	Quarterly Return (%)
PerkinElmer Inc.	0.79	0.24	0.55	32.95
Corning Inc	0.51	0.62	-0.11	29.01
United Continental Holdings Inc	0.79	0.48	0.31	27.72
Royal Caribbean Cruises Ltd	1.49	0.48	1.01	26.09
Zebra Technologies Corp.	1.56	0.00	1.56	23.44
Jacobs Engineering Group Inc.	1.13	0.22	0.91	21.00
Helix Energy Solutions	0.72	0.00	0.72	18.61
KBR Inc	1.70	0.00	1.70	18.39
Energen Corp.	1.46	0.17	1.29	18.33
Athene Holding Ltd	1.96	0.18	1.78	17.84
% of Portfolio	12.11	2.39	9.72	

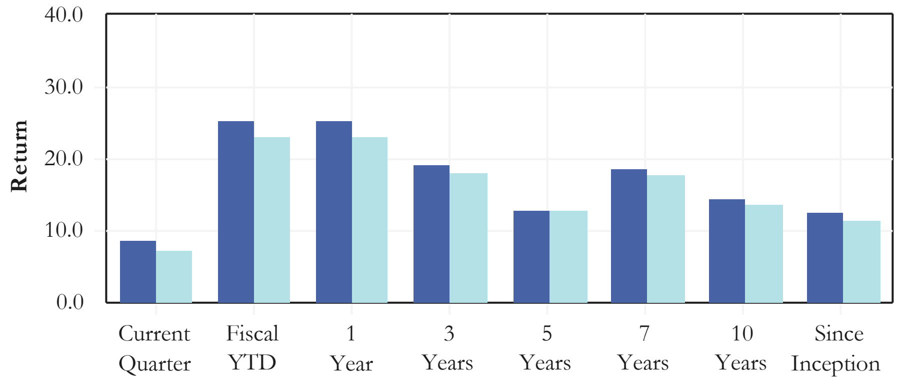
Ten Worst Performers

	Portfolio Weight (%)	Benchmark Weight (%)	Active Weight (%)	Quarterly Return (%)
Venator Materials PLC	0.50	0.00	0.50	-44.99
US Foods Holding Corp	0.65	0.14	0.51	-18.51
Granite Construction Inc.	0.67	0.00	0.67	-17.66
Delek US Holdings Inc	0.96	0.00	0.96	-15.01
Alcoa Corp	1.04	0.17	0.87	-13.82
Teva Pharmaceutical	0.51	0.00	0.51	-11.43
Knight-Swift Transportation Holdings Inc	1.12	0.10	1.02	-9.60
Cadence Bancorporation	0.60	0.00	0.60	-9.05
Aptiv Plc	1.70	0.06	1.64	-8.23
CBRE Group Inc	1.04	0.16	0.88	-7.63
% of Portfolio	8.79	0.63	8.16	

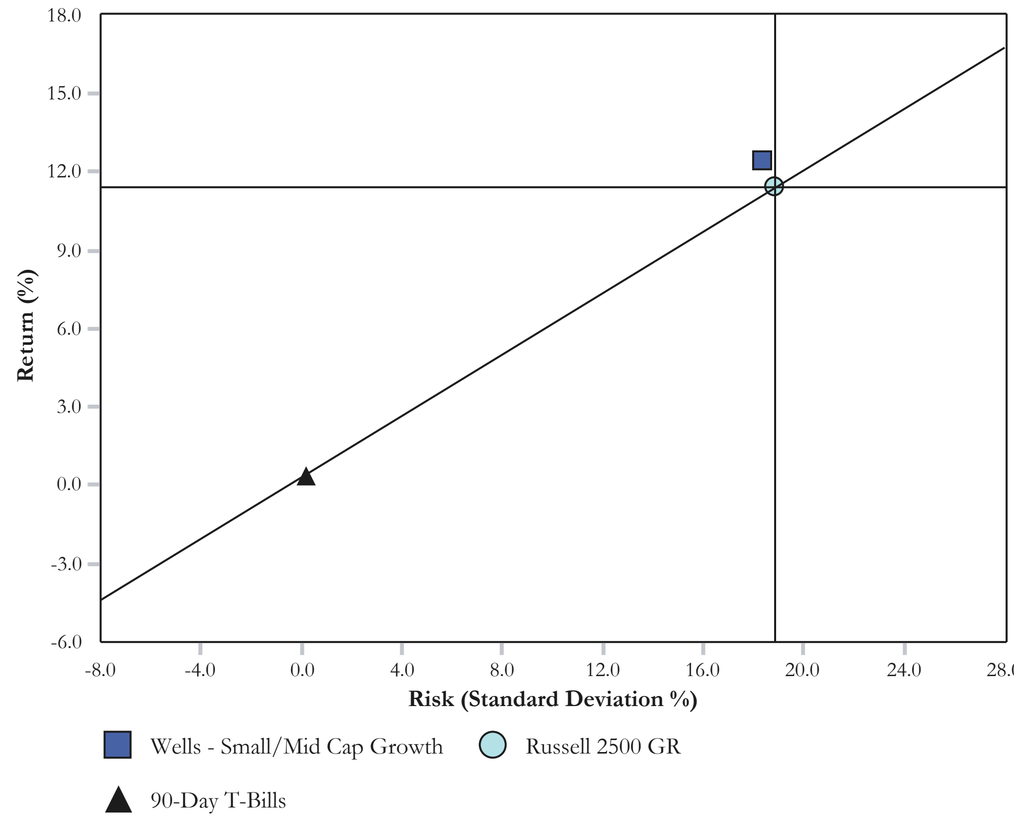
SAMPLE

Wells - Small/Mid Cap Growth - Executive Summary
as of September 30, 2018

Manager Performance Chart



Manager Risk & Return



Manager Annualized Performance

	Current Quarter	Fiscal YTD	1 Year	3 Years	5 Years	7 Years	10 Years	Inception 05/01/2008
Wells - Small/Mid Cap Growth	8.47	25.30	25.30	19.30	12.76	18.48	14.42	12.39
Russell 2500 GR	7.17	23.13	23.13	17.96	12.88	17.72	13.61	11.39
Differences	1.30	2.17	2.17	1.34	-0.12	0.76	0.81	1.00

Historic Asset Growth

	Current Quarter	Fiscal YTD	1 Year	3 Years	5 Years	7 Years	10 Years	Inception 05/01/2008
Wells - Small/Mid Cap Growth								
Beginning Market Value	25,953	25,323	25,323	19,003	18,089	13,622	5,562	6,288
Net Contributions	-2	-3,006	-3,006	-3,016	-3,121	-8,001	-2,539	-2,482
Fees/Expenses	-53	-218	-218	-559	-890	-1,131	-1,328	-1,338
Income	24	116	116	316	464	640	749	759
Gain/Loss	2,173	5,881	5,881	12,352	13,552	22,965	25,652	24,868
Ending Market Value	28,095	28,095	28,095	28,095	28,095	28,095	28,095	28,095

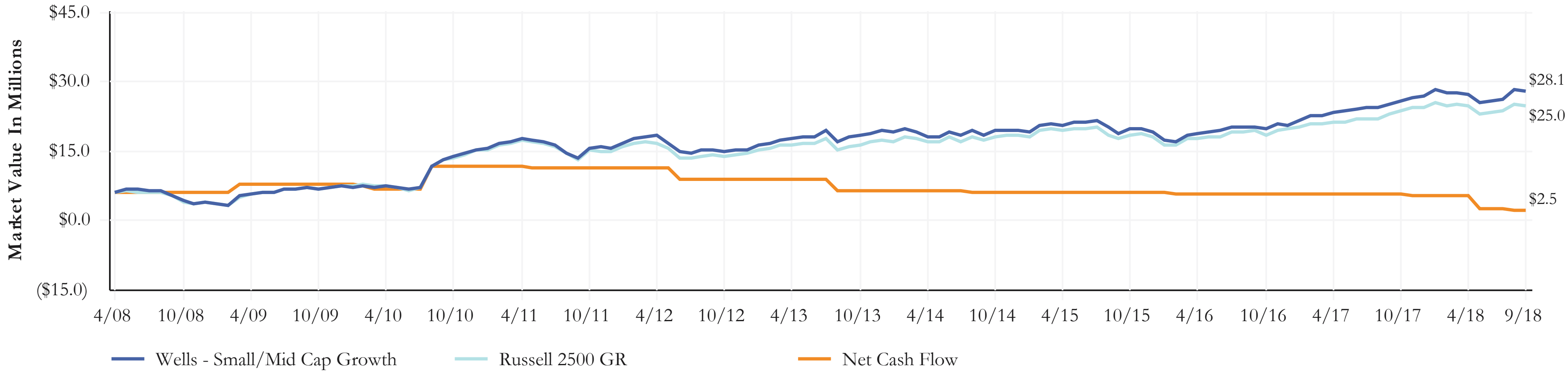
Modern Portfolio Statistics

	Return	Standard Deviation	Beta	Maximum Drawdown	Up Market Capture	Down Market Capture	Alpha	Sharpe Ratio	R-Squared	Inception Date
Wells - Small/Mid Cap Growth	12.39	18.42	0.94	-49.33	98.71	93.62	1.55	0.71	0.93	05/01/2008
Russell 2500 GR	11.39	18.86	1.00	-49.40	100.00	100.00	0.00	0.65	1.00	05/01/2008

SAMPLE

Wells - Small/Mid Cap Growth - Change in Assets & Distribution of Returns
as of September 30, 2018

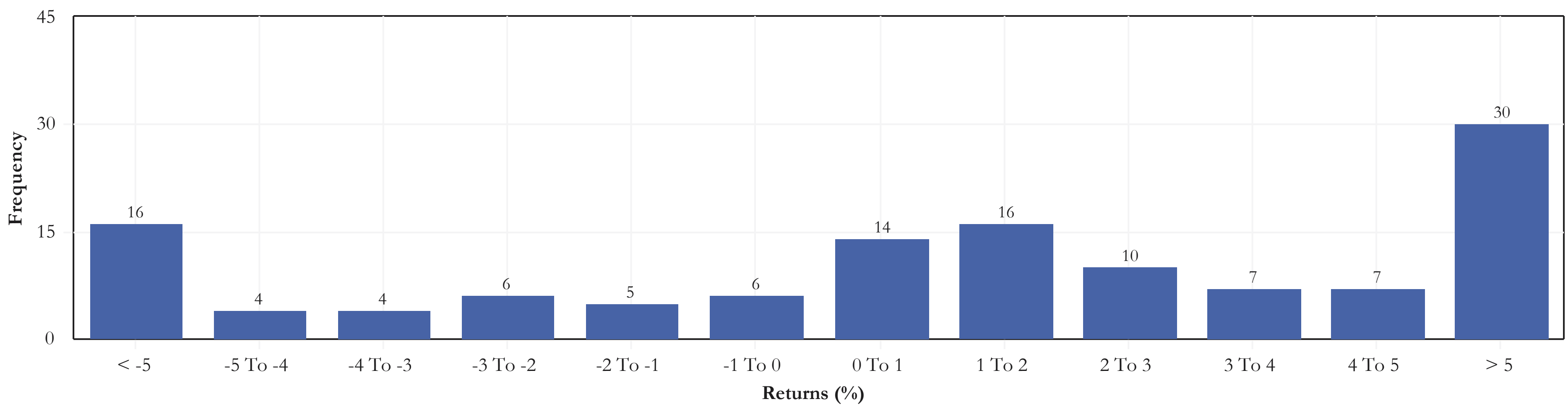
Historic Change in Assets



Quarterly Change in Assets

	Market Value As of 07/01/2018	Net Transfers	Net Contributions	Fees	Expenses	Return On Investment	Market Value As of 09/30/2018
Wells - Small/Mid Cap Growth	25,952,690.22	-	-1,728.37	-52,947.45	-	2,196,925.18	28,094,939.58

Distribution of Returns



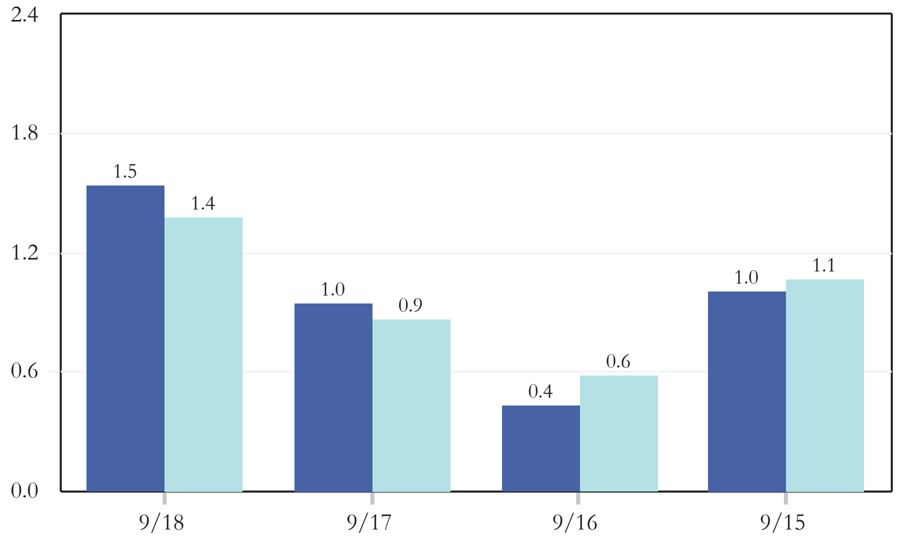
The prices, quotes, or statistics contained herein have been obtained from sources believed to be reliable, however, its accuracy cannot be guaranteed. Past performance is not a guarantee of future results.

SAMPLE

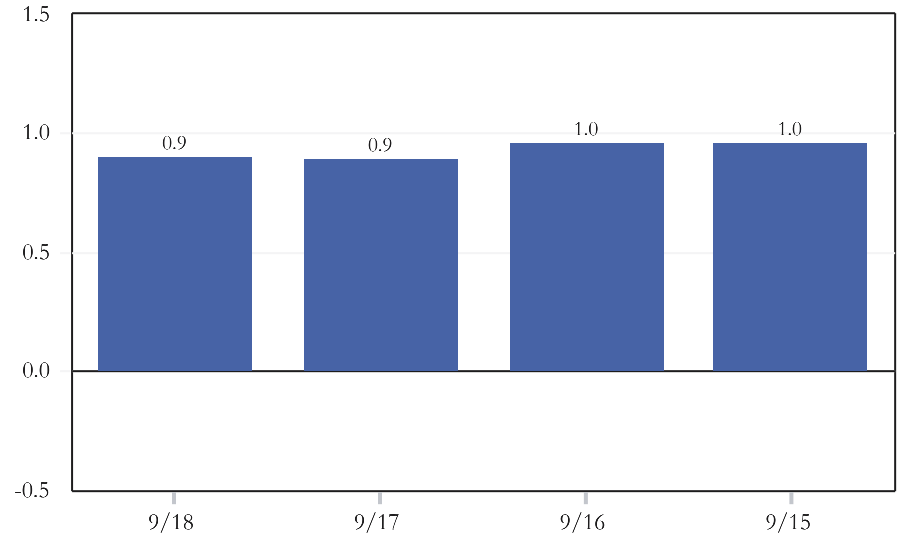
Wells - Small/Mid Cap Growth - Rolling Three Year MPT Statistics

as of September 30, 2018

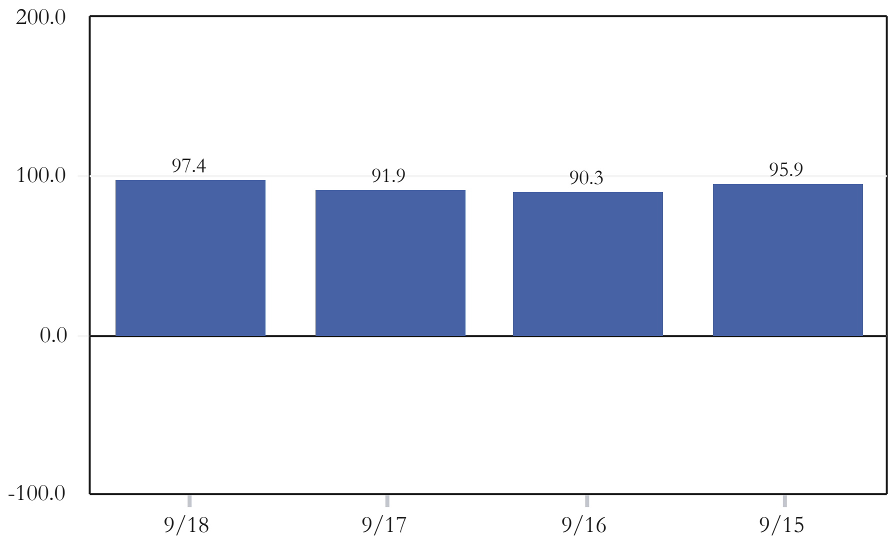
Sharpe Ratio



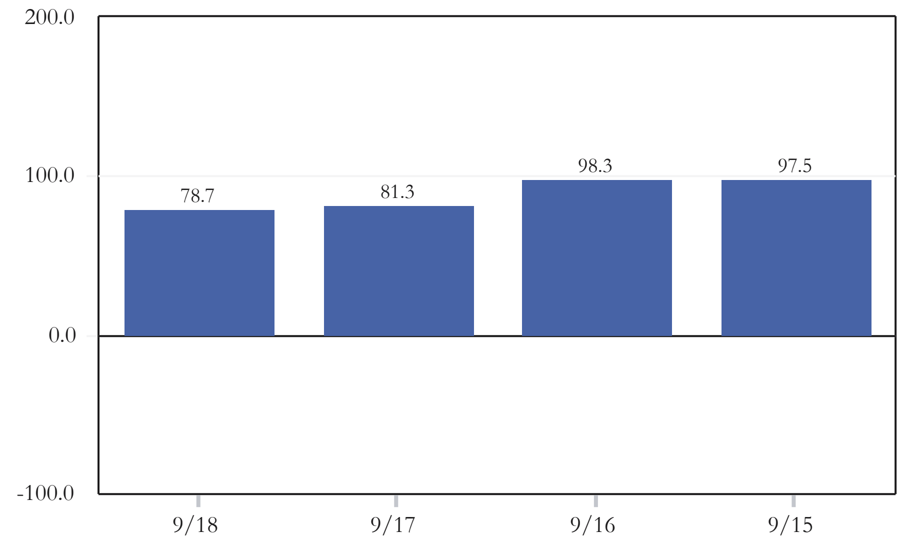
Beta



Up Market Capture



Down Market Capture



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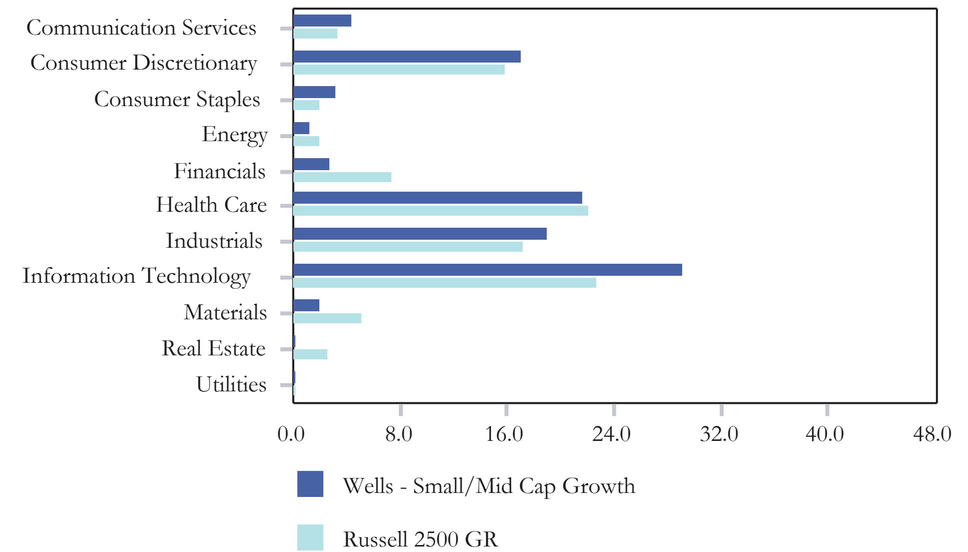
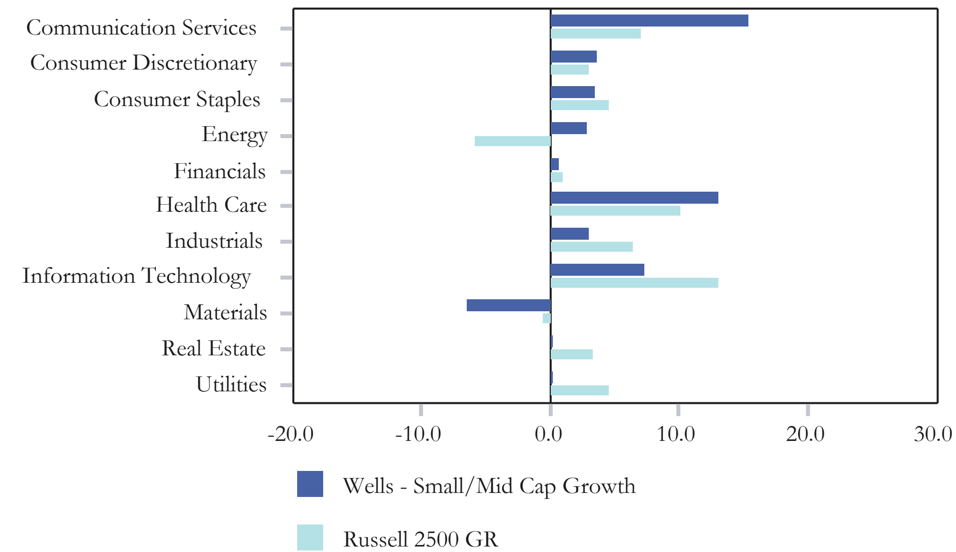
SAMPLE

Wells - Small/Mid Cap Growth - Quarterly Performance Attributes
as of September 30, 2018

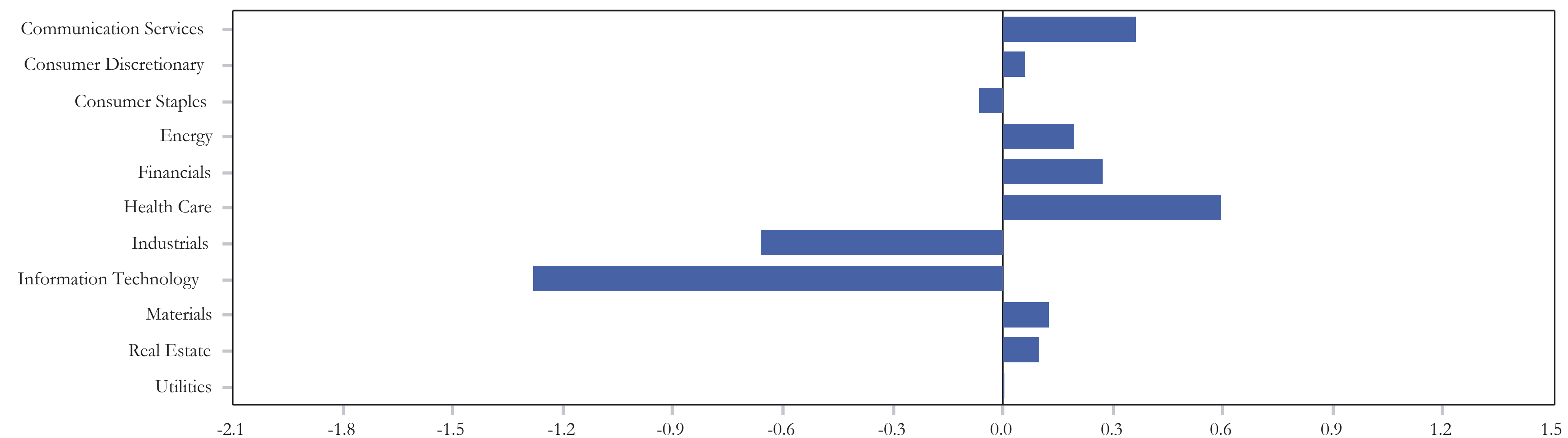
Allocation



Performance



Total Attribution



SAMPLE

Wells - Small/Mid Cap Growth - Quarterly Performance Attributes
as of September 30, 2018

	Allocation - 07/01/2018		Performance - Quarter Ending September 30, 2018		Attribution			
	Portfolio	Benchmark	Portfolio	Benchmark	Sector	Stock	Interaction	Total
Communication Services	4.36	3.33	15.40	7.05	0.00	0.28	0.09	0.36
Consumer Discretionary	17.05	15.87	3.61	2.96	-0.05	0.10	0.01	0.06
Consumer Staples	3.16	1.99	3.47	4.55	-0.03	-0.02	-0.01	-0.06
Energy	1.21	1.91	2.86	-5.84	0.09	0.17	-0.06	0.20
Financials	2.75	7.36	0.60	1.01	0.28	-0.03	0.02	0.27
Health Care	21.56	22.04	13.01	10.18	-0.01	0.62	-0.01	0.60
Industrials	18.89	17.11	3.00	6.44	-0.01	-0.59	-0.06	-0.66
Information Technology	29.02	22.59	7.33	13.05	0.38	-1.29	-0.37	-1.28
Materials	1.99	5.11	-6.45	-0.62	0.24	-0.30	0.18	0.12
Real Estate	0.00	2.50	0.00	3.23	0.10	0.00	0.00	0.10
Utilities	0.00	0.21	0.00	4.47	0.01	0.00	0.00	0.01
Total	100.00	100.00	6.82	7.11	0.99	-1.06	-0.22	-0.29

All the values for Allocation, Performance and Attribution are expresssed in Percentage(%) terms

SAMPLE

Wells - Small/Mid Cap Growth - Portfolio Characteristics
as of September 30, 2018

Portfolio Characteristics

	Portfolio	Benchmark
Wtd. Avg. Mkt. Cap ($000)	7,988,906.29	5,677,105.70
Median Mkt. Cap ($000)	5,868,580.46	1,330,655.04
Price/Earnings ratio	31.46	26.35
Price/Book ratio	5.52	5.17
5 Yr. EPS Growth Rate (%)	23.88	21.03
Beta (5 Years, Monthly)	0.96	1.00
Number of Stocks	84	1,501
Debt to Equity	1.10	59.99

Top Ten Equity Holdings

	Portfolio Weight (%)	Benchmark Weight (%)	Active Weight (%)	Quarterly Return (%)
Waste Connections Inc.	2.63	0.00	2.63	6.15
WEX Inc	2.47	0.36	2.11	5.40
WellCare Health Plans Inc	2.19	0.64	1.55	30.15
Veeva Systems Inc	1.93	0.56	1.37	41.65
First Data Corp.	1.91	0.00	1.91	16.91
Zebra Technologies Corp.	1.90	0.40	1.50	23.44
Gartner Inc	1.83	0.00	1.83	19.26
Insulet Corp	1.80	0.27	1.53	23.63
Ultimate Software Group Inc (The)	1.74	0.42	1.32	25.21
Vail Resorts Inc.	1.72	0.47	1.25	0.08
% of Portfolio	20.12	3.12	17.00	

Ten Best Performers

	Portfolio Weight (%)	Benchmark Weight (%)	Active Weight (%)	Quarterly Return (%)
AVROBIO Inc	0.44	0.01	0.43	81.62
DexCom Inc	1.39	0.54	0.85	50.60
Match Group Inc	1.57	0.13	1.44	49.48
Amedisys Inc	1.01	0.14	0.87	46.22
Mercury Systems Inc	1.25	0.06	1.19	45.35
Veeva Systems Inc	1.93	0.56	1.37	41.65
AnaptysBio Inc	0.61	0.08	0.53	40.44
Universal Display Corp	1.39	0.22	1.17	37.16
World Wrestling Entertainment Inc.	1.54	0.18	1.36	33.02
Rogers Corp.	0.93	0.06	0.87	32.17
% of Portfolio	12.06	1.98	10.08	

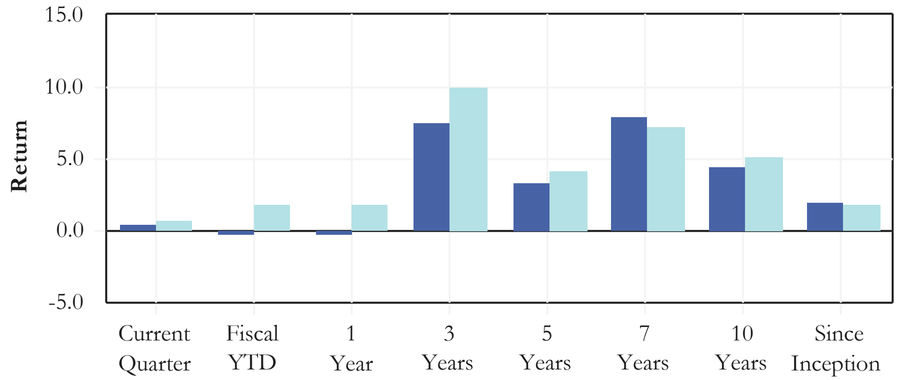
Ten Worst Performers

	Portfolio Weight (%)	Benchmark Weight (%)	Active Weight (%)	Quarterly Return (%)
Flexion Therapeutics Inc	0.86	0.03	0.83	-27.62
CRISPR Therapeutics AG	0.43	0.00	0.43	-24.52
Melco Crown Entertainment	0.95	0.00	0.95	-24.00
Skyline Champion Corp	0.71	0.04	0.67	-18.46
Exelixis Inc	0.04	0.22	-0.18	-17.66
GreenSky Inc	0.66	0.00	0.66	-14.89
Vulcan Materials Co	0.99	0.00	0.99	-13.62
Evoqua Water Technologies Corp	1.07	0.06	1.01	-13.27
Littelfuse Inc	1.01	0.17	0.84	-13.10
Brink's Co (The)	1.14	0.15	0.99	-12.38
% of Portfolio	7.86	0.67	7.19	

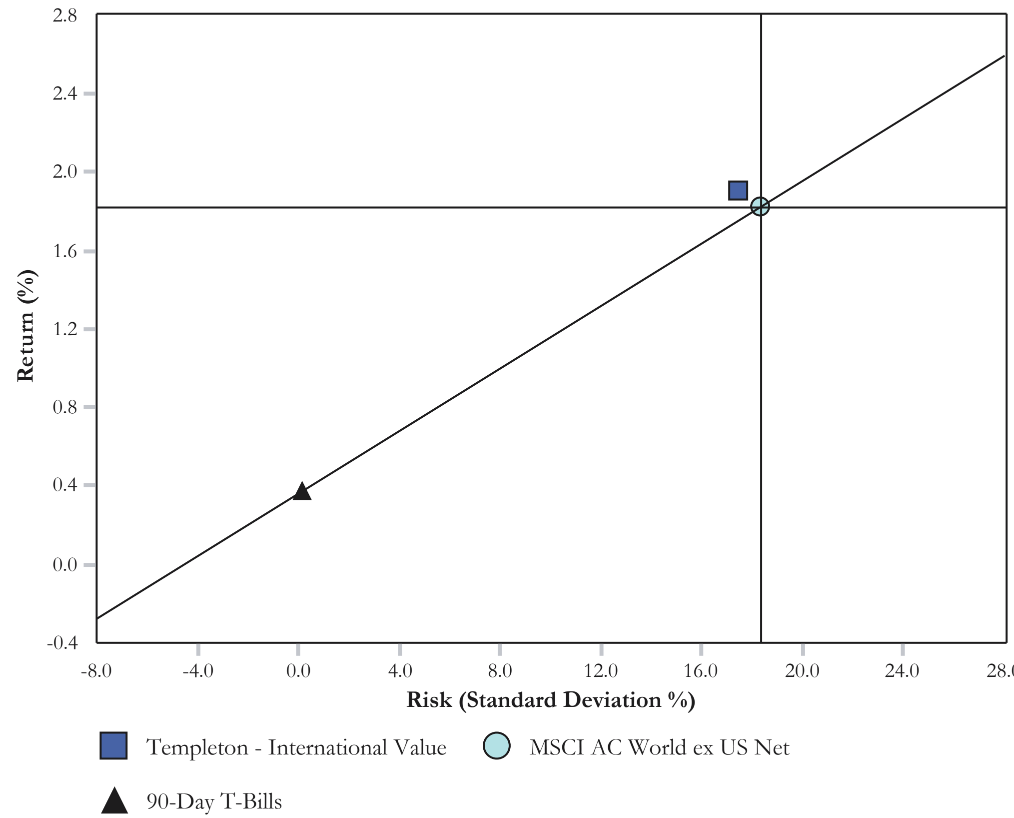
SAMPLE

Templeton - International Value - Executive Summary
as of September 30, 2018

Manager Performance Chart



Manager Risk & Return



Manager Annualized Performance

	Current Quarter	Fiscal YTD	1 Year	3 Years	5 Years	7 Years	10 Years	Inception 05/01/2008
Templeton - International Value	0.44	-0.28	-0.28	7.55	3.32	7.94	4.50	1.90
MSCI AC World ex US Net	0.71	1.76	1.76	9.97	4.12	7.25	5.18	1.82
Differences	-0.27	-2.04	-2.04	-2.42	-0.80	0.69	-0.68	0.08

Historic Asset Growth

	Current Quarter	Fiscal YTD	1 Year	3 Years	5 Years	7 Years	10 Years	Inception 05/01/2008
Templeton - International Value								
Beginning Market Value	31,260	31,606	31,606	17,413	18,142	11,933	19,815	25,199
Net Contributions	-1	-2	-2	9,850	10,347	10,547	5,139	5,253
Fees/Expenses	-78	-200	-200	-435	-684	-886	-1,166	-1,191
Income	201	785	785	1,760	2,744	3,649	5,003	5,396
Gain/Loss	-64	-870	-870	2,730	769	6,076	2,526	-3,338
Ending Market Value	31,318	31,318	31,318	31,318	31,318	31,318	31,318	31,318

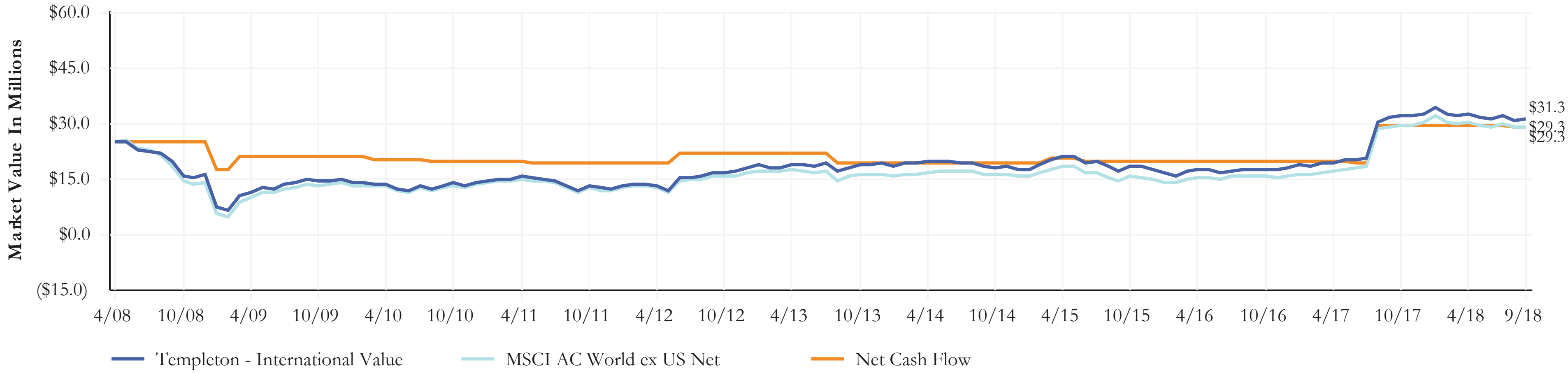
Modern Portfolio Statistics

	Return	Standard Deviation	Beta	Maximum Drawdown	Up Market Capture	Down Market Capture	Alpha	Sharpe Ratio	R-Squared	Inception Date
Templeton - International Value	1.90	17.44	0.92	-46.95	96.84	96.74	0.18	0.18	0.94	05/01/2008
MSCI AC World ex US Net	1.82	18.32	1.00	-54.00	100.00	100.00	0.00	0.17	1.00	05/01/2008

SAMPLE

Templeton - International Value - Change in Assets & Distribution of Returns
as of September 30, 2018

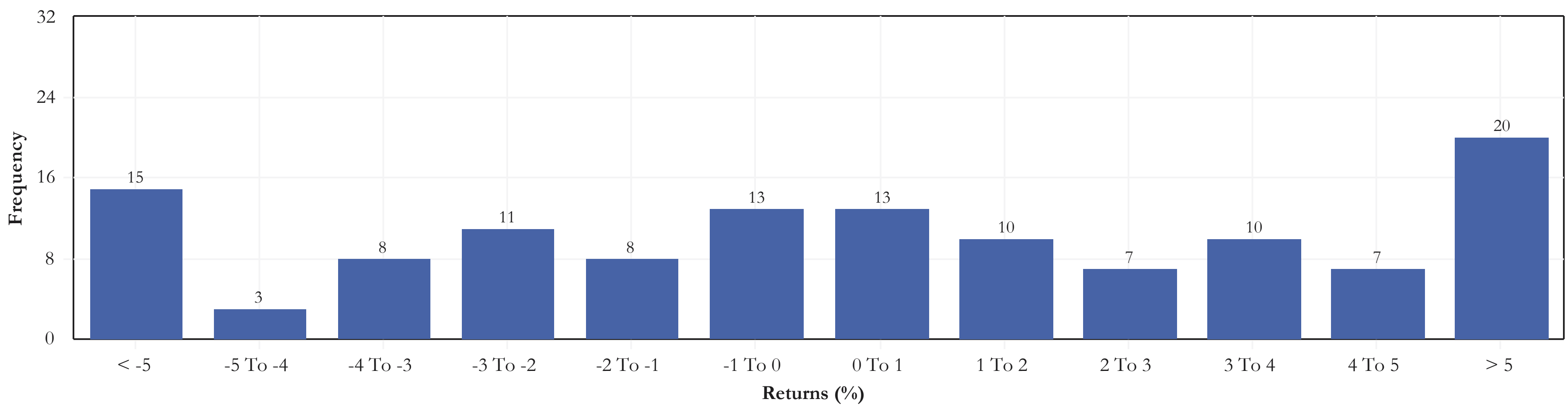
Historic Change in Assets



Quarterly Change in Assets

	Market Value As of 07/01/2018	Net Transfers	Net Contributions	Fees	Expenses	Return On Investment	Market Value As of 09/30/2018
Templeton - International Value	31,260,380.87	-	-746.07	-78,435.49	-	136,996.85	31,318,196.16

Distribution of Returns



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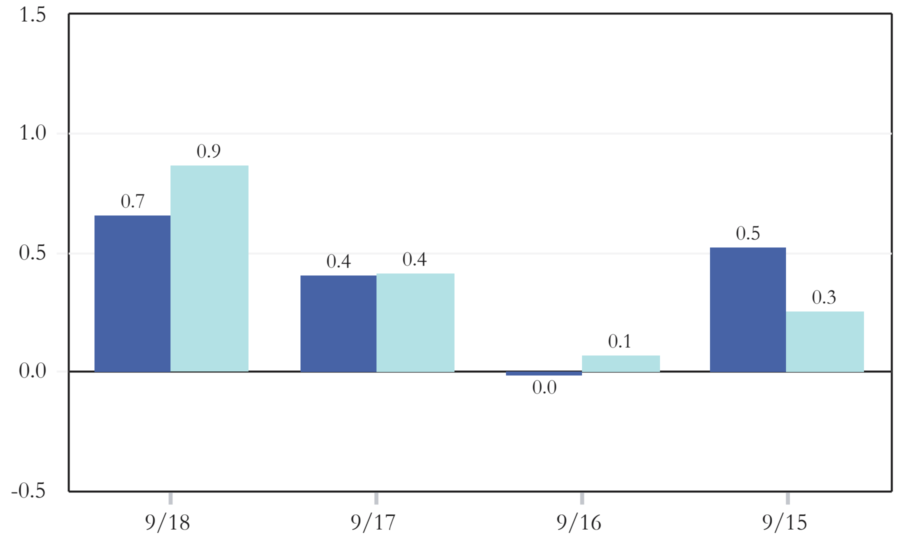
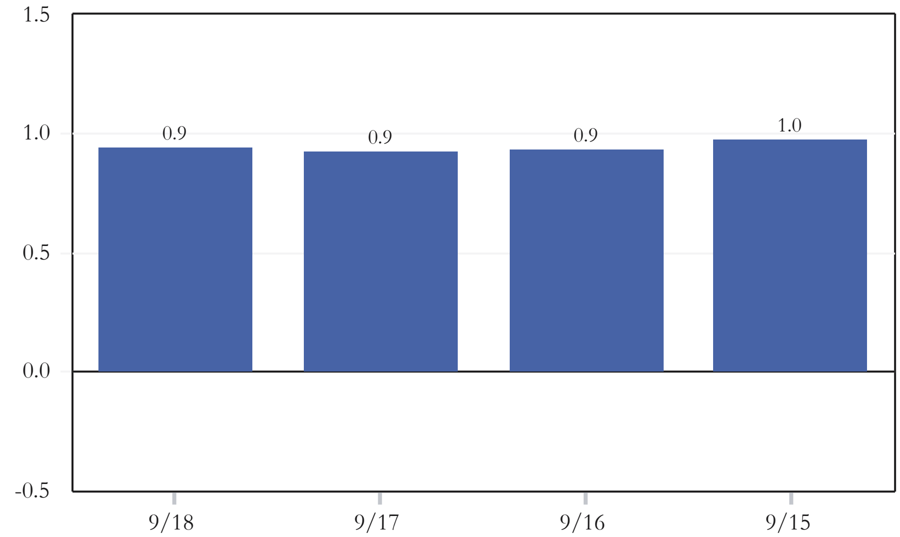
SAMPLE

Templeton - International Value - Rolling Three Year MPT Statistics
as of September 30, 2018

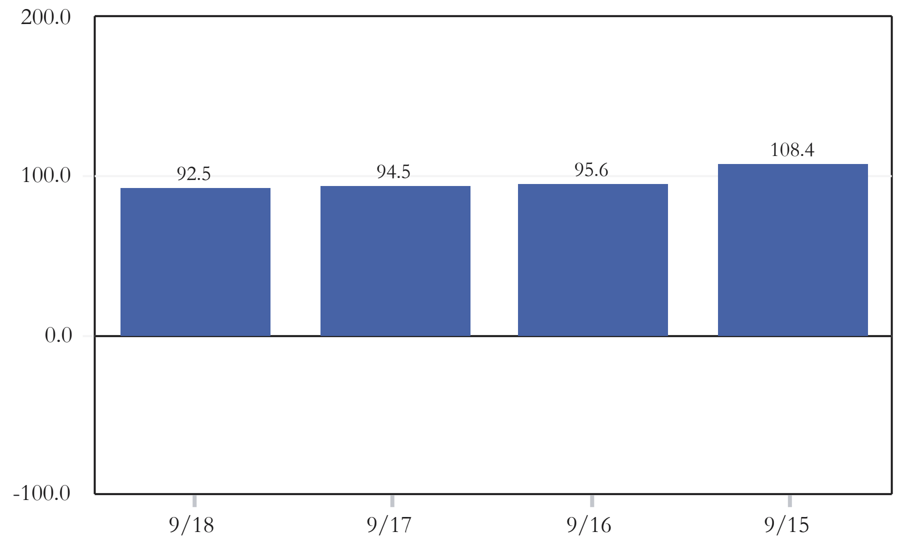
Sharpe Ratio



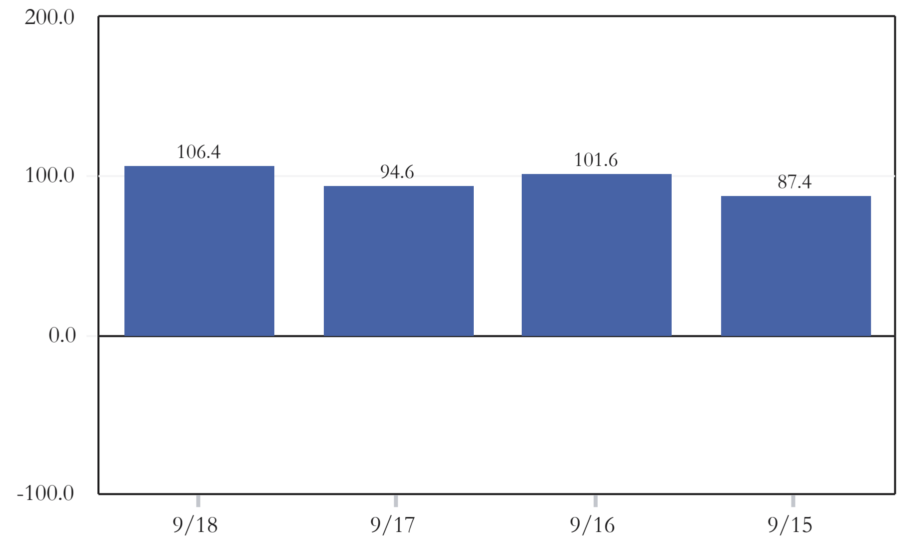
Beta



Up Market Capture



Down Market Capture



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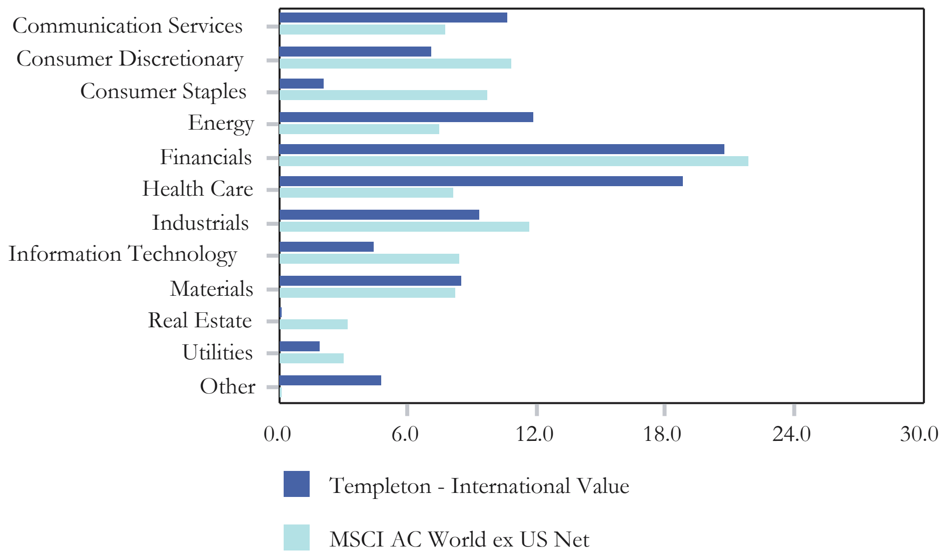
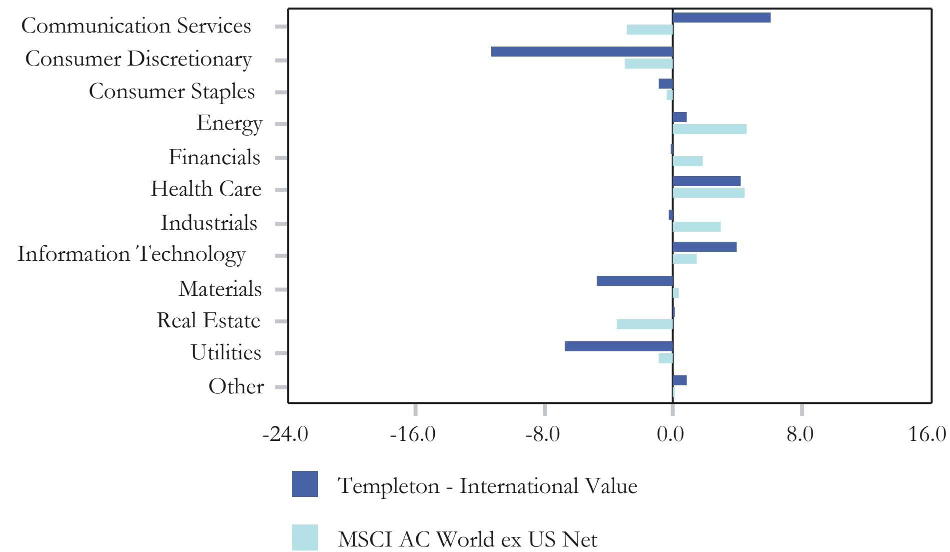
SAMPLE

Templeton - International Value - Quarterly Performance Attributes
as of September 30, 2018

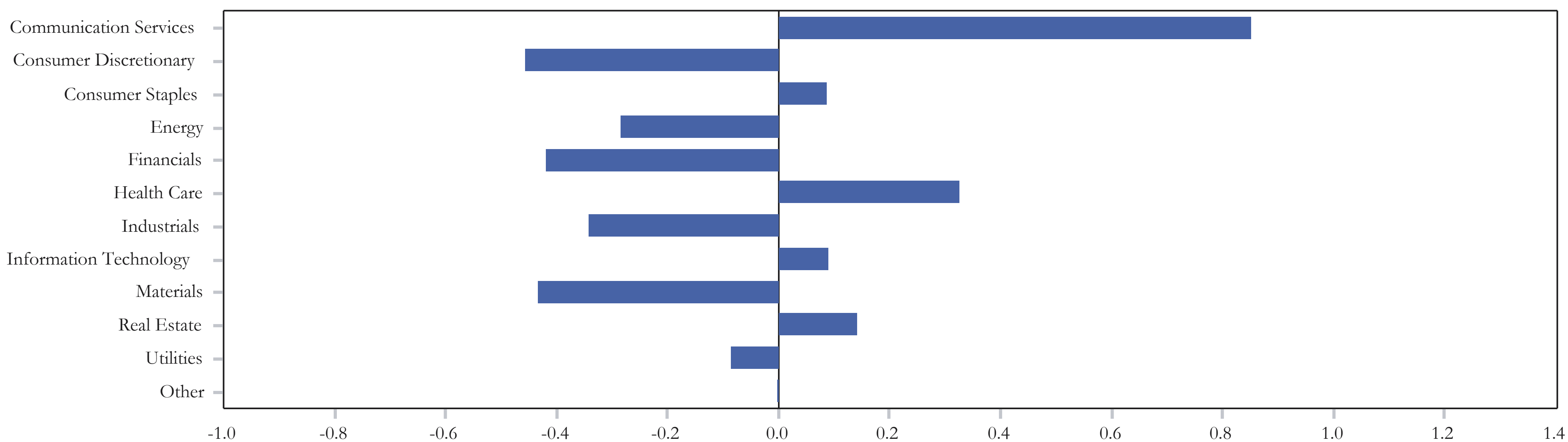
Allocation



Performance



Total Attribution



SAMPLE

Templeton - International Value - Quarterly Performance Attributes
as of September 30, 2018

	Allocation - 07/01/2018		Performance - Quarter Ending September 30, 2018		Attribution			
	Portfolio	Benchmark	Portfolio	Benchmark	Sector	Stock	Interaction	Total
Communication Services	10.65	7.69	6.11	-2.92	-0.11	0.69	0.27	0.85
Consumer Discretionary	7.13	10.80	-11.32	-2.95	0.14	-0.90	0.31	-0.46
Consumer Staples	2.01	9.66	-0.83	-0.37	0.09	-0.04	0.04	0.09
Energy	11.85	7.42	0.81	4.59	0.16	-0.28	-0.17	-0.28
Financials	20.81	21.91	-0.14	1.82	-0.01	-0.43	0.02	-0.42
Health Care	18.82	8.12	4.15	4.46	0.38	-0.03	-0.03	0.32
Industrials	9.31	11.64	-0.25	2.91	-0.05	-0.37	0.07	-0.34
Information Technology	4.36	8.36	3.99	1.43	-0.02	0.21	-0.10	0.09
Materials	8.48	8.19	-4.74	0.37	0.00	-0.42	-0.01	-0.43
Real Estate	0.00	3.21	0.00	-3.50	0.14	0.00	0.00	0.14
Utilities	1.85	3.00	-6.71	-0.93	0.02	-0.17	0.07	-0.09
Other	4.73	0.00	0.83	0.00	0.00	0.00	0.00	0.00
Total	100.00	100.00	0.34	0.87	0.75	-1.74	0.45	-0.53

All the values for Allocation, Performance and Attribution are expresssed in Percentage(%) terms
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SAMPLE

Templeton - International Value - Portfolio Characteristics
as of September 30, 2018

Portfolio Characteristics

	Portfolio	Benchmark
Wtd. Avg. Mkt. Cap ($000)	64,688,453.50	64,560,338.57
Median Mkt. Cap ($000)	29,381,647.50	8,008,619.92
Price/Earnings ratio	14.47	14.09
Price/Book ratio	1.81	2.20
5 Yr. EPS Growth Rate (%)	4.99	11.33
Beta (5 Years, Monthly)	0.94	1.00
Number of Stocks	61	2,166
Debt to Equity	0.89	1.06

Top Ten Equity Holdings

	Portfolio Weight (%)	Benchmark Weight (%)	Active Weight (%)	Quarterly Return (%)
iShares MSCI South Korea Capped ETF	4.73	0.00	4.73	0.83
BP PLC	2.99	0.73	2.26	2.39
Eni SpA	2.93	0.23	2.70	4.06
Astellas Pharma Inc	2.89	0.16	2.73	14.43
Royal Dutch Shell PLC	2.72	0.75	1.97	-1.01
BNP Paribas	2.60	0.33	2.27	-1.42
Softbank Group Corp	2.58	0.40	2.18	40.29
Sanofi	2.34	0.48	1.86	11.65
HSBC Holdings PLC	2.30	0.83	1.47	-5.65
Taiwan Semiconductor	2.26	1.01	1.25	20.79
% of Portfolio	28.34	4.92	23.42	

Ten Best Performers

	Portfolio Weight (%)	Benchmark Weight (%)	Active Weight (%)	Quarterly Return (%)
Softbank Group Corp	2.58	0.40	2.18	40.29
Getinge AB	0.48	0.00	0.48	26.39
LivaNova PLC	2.02	0.00	2.02	24.19
Taiwan Semiconductor	2.26	1.01	1.25	20.79
Yara International ASA	1.90	0.04	1.86	18.36
Astellas Pharma Inc	2.89	0.16	2.73	14.43
China Mobile Ltd	1.09	0.29	0.80	12.91
Sanofi	2.34	0.48	1.86	11.65
Aegon NV	1.72	0.05	1.67	11.56
Axa, Paris	1.91	0.25	1.66	9.59
% of Portfolio	19.19	2.68	16.51	

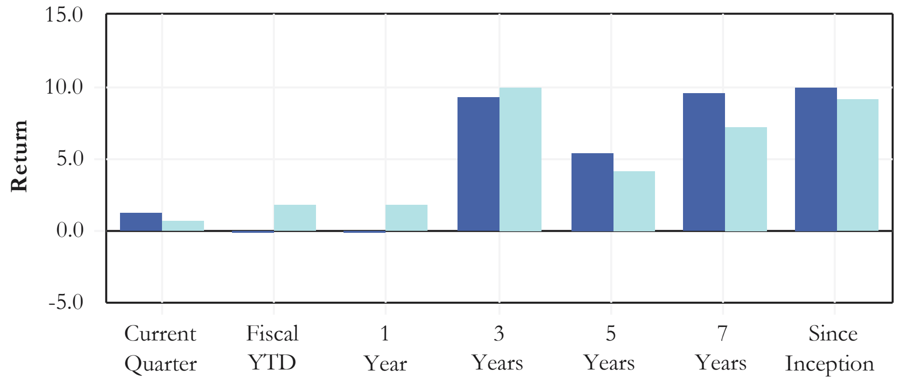
Ten Worst Performers

	Portfolio Weight (%)	Benchmark Weight (%)	Active Weight (%)	Quarterly Return (%)
NXP Semiconductors NV	0.95	0.14	0.81	-21.54
Wheaton Precious Metals Corp	1.18	0.04	1.14	-20.27
Bayer AG	1.70	0.39	1.31	-19.33
Ryohin Keikaku Co Ltd	1.67	0.03	1.64	-15.48
Kingfisher PLC	0.87	0.03	0.84	-14.19
Panasonic Corp	2.04	0.12	1.92	-13.59
Morphosys AG, Martinsried	1.08	0.00	1.08	-12.00
Teva Pharmaceutical	1.92	0.10	1.82	-11.43
China Life Insurance Co Ltd	1.03	0.08	0.95	-10.88
Infineon Technologies	1.04	0.12	0.92	-10.82
% of Portfolio	13.48	1.05	12.43	

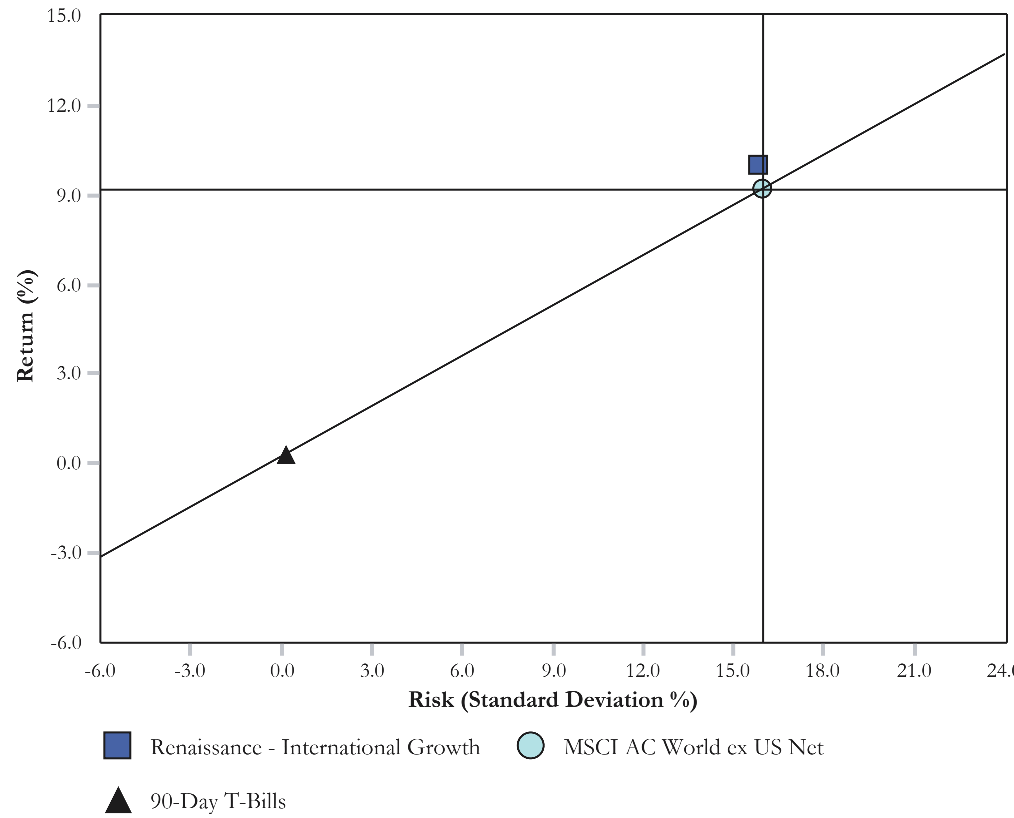
SAMPLE

Renaissance - International Growth - Executive Summary
as of September 30, 2018

Manager Performance Chart



Manager Risk & Return



Manager Annualized Performance

	Current Quarter	Fiscal YTD	1 Year	3 Years	5 Years	7 Years	Inception 02/01/2009
Renaissance - International Growth	1.27	-0.16	-0.16	9.27	5.43	9.53	9.95
MSCI AC World ex US Net	0.71	1.76	1.76	9.97	4.12	7.25	9.20
Differences	0.56	-1.92	-1.92	-0.70	1.31	2.28	0.75

Historic Asset Growth

	Current Quarter	Fiscal YTD	1 Year	3 Years	5 Years	7 Years	Inception 02/01/2009
Renaissance - International Growth							
Beginning Market Value	30,548	31,069	31,069	17,065	18,084	12,575	7,339
Net Contributions	-1	-6	-6	8,881	7,978	7,825	9,120
Fees/Expenses	-21	-101	-101	-291	-507	-674	-866
Income	269	787	787	1,550	2,370	3,222	4,126
Gain/Loss	120	-834	-834	3,711	2,990	7,967	11,196
Ending Market Value	30,915	30,915	30,915	30,915	30,915	30,915	30,915

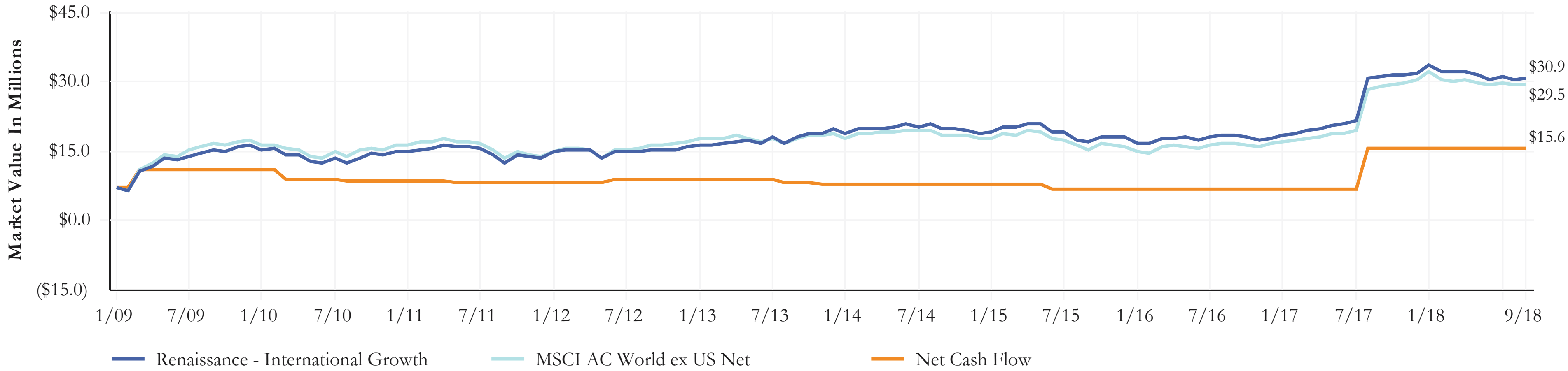
Modern Portfolio Statistics

	Return	Standard Deviation	Beta	Maximum Drawdown	Up Market Capture	Down Market Capture	Alpha	Sharpe Ratio	R-Squared	Inception Date
Renaissance - International Growth	9.95	15.88	0.94	-22.92	96.55	90.17	1.33	0.66	0.89	02/01/2009
MSCI AC World ex US Net	9.20	15.96	1.00	-23.29	100.00	100.00	0.00	0.61	1.00	02/01/2009

SAMPLE

Renaissance - International Growth - Change in Assets & Distribution of Returns
as of September 30, 2018

Historic Change in Assets



Quarterly Change in Assets

	Market Value As of 07/01/2018	Net Transfers	Net Contributions	Fees	Expenses	Return On Investment	Market Value As of 09/30/2018
Renaissance - International Growth	30,548,191.41	-	-755.48	-20,983.87	-	388,749.64	30,915,201.70

Distribution of Returns

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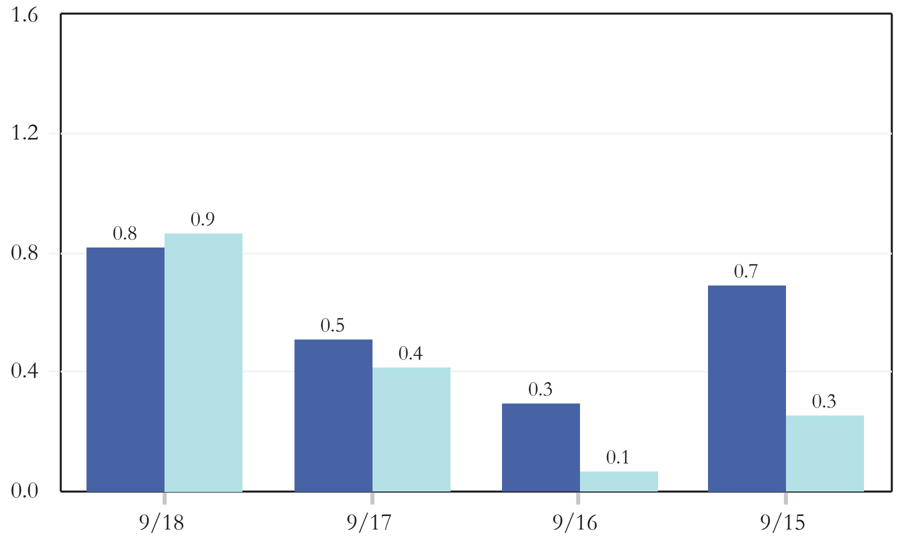
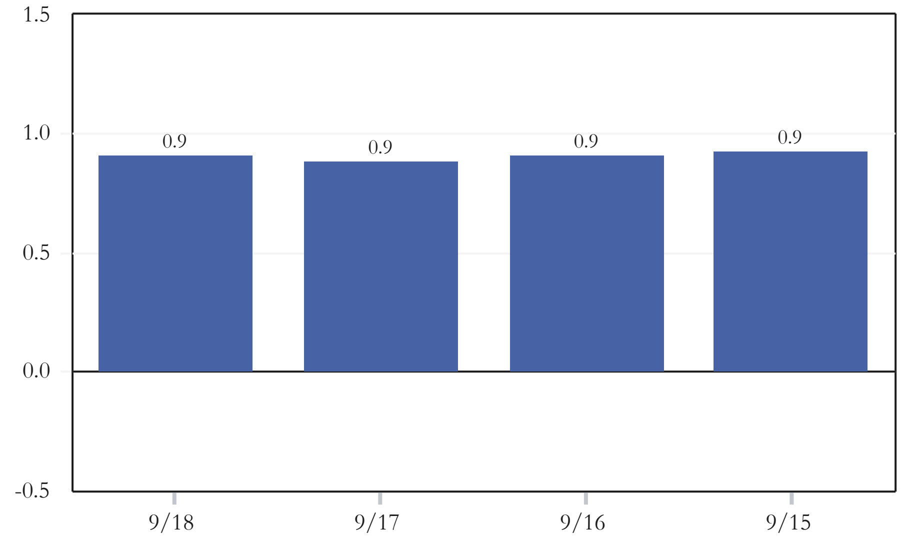
SAMPLE

Renaissance - International Growth - Rolling Three Year MPT Statistics
as of September 30, 2018

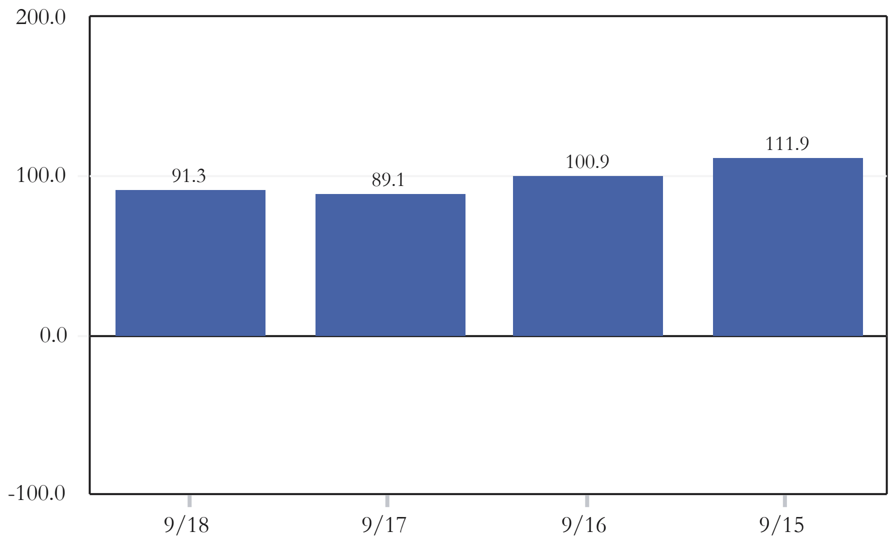
Sharpe Ratio



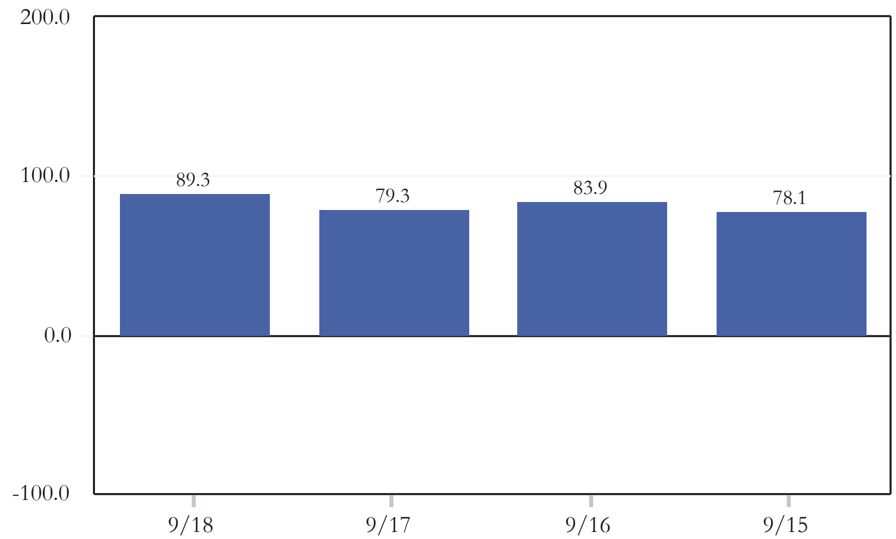
Beta



Up Market Capture



Down Market Capture



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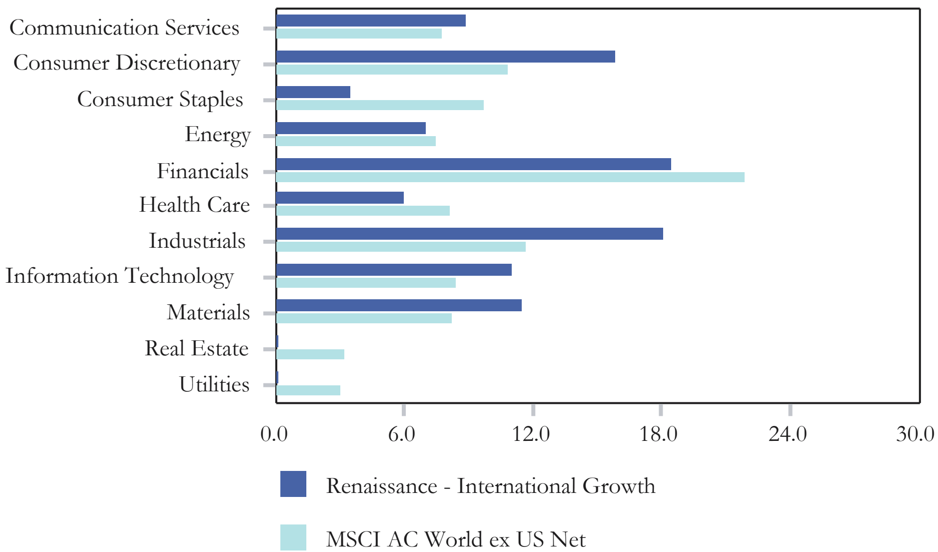
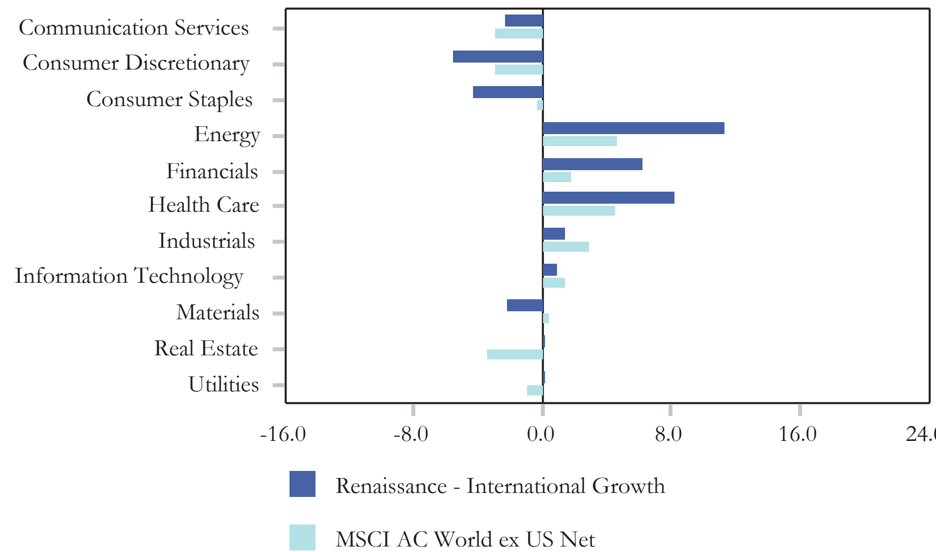
SAMPLE

Renaissance - International Growth - Quarterly Performance Attributes
as of September 30, 2018

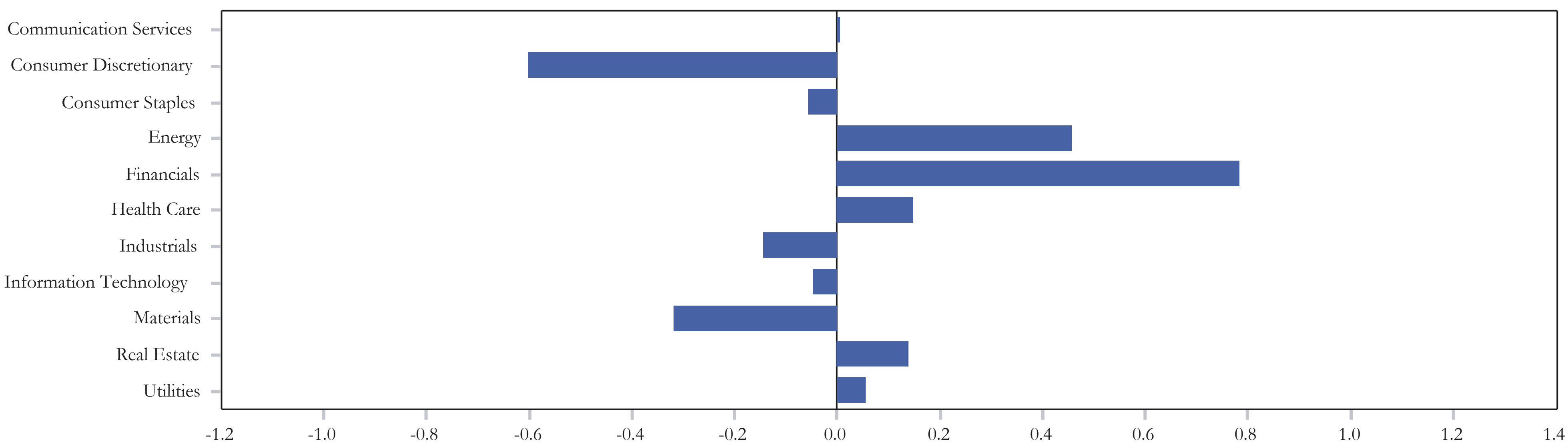
Allocation



Performance



Total Attribution



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SAMPLE

Renaissance - International Growth - Quarterly Performance Attributes
as of September 30, 2018

	Allocation - 07/01/2018		Performance - Quarter Ending September 30, 2018		Attribution			
	Portfolio	Benchmark	Portfolio	Benchmark	Sector	Stock	Interaction	Total
Communication Services	8.85	7.69	-2.38	-2.92	-0.04	0.04	0.01	0.00
Consumer Discretionary	15.82	10.80	-5.55	-2.95	-0.19	-0.28	-0.13	-0.60
Consumer Staples	3.41	9.66	-4.35	-0.37	0.08	-0.38	0.25	-0.06
Energy	6.97	7.42	11.38	4.59	-0.02	0.50	-0.03	0.46
Financials	18.42	21.91	6.25	1.82	-0.03	0.97	-0.15	0.78
Health Care	6.01	8.12	8.19	4.46	-0.08	0.30	-0.08	0.15
Industrials	18.08	11.64	1.39	2.91	0.13	-0.18	-0.10	-0.14
Information Technology	10.95	8.36	0.87	1.43	0.01	-0.05	-0.01	-0.05
Materials	11.48	8.19	-2.26	0.37	-0.02	-0.21	-0.09	-0.32
Real Estate	0.00	3.21	0.00	-3.50	0.14	0.00	0.00	0.14
Utilities	0.00	3.00	0.00	-0.93	0.05	0.00	0.00	0.05
Total	100.00	100.00	1.29	0.87	0.04	0.71	-0.34	0.42

All the values for Allocation, Performance and Attribution are expresssed in Percentage(%) terms

SAMPLE

Renaissance - International Growth - Portfolio Characteristics
as of September 30, 2018

Portfolio Characteristics

	Portfolio	Benchmark
Wtd. Avg. Mkt. Cap ($000)	43,532,560.07	64,560,338.57
Median Mkt. Cap ($000)	23,698,198.48	8,008,619.92
Price/Earnings ratio	12.04	14.09
Price/Book ratio	1.99	2.20
5 Yr. EPS Growth Rate (%)	19.04	11.33
Beta (5 Years, Monthly)	0.93	1.00
Number of Stocks	56	2,166
Debt to Equity	0.63	1.06

Top Ten Equity Holdings

	Portfolio Weight (%)	Benchmark Weight (%)	Active Weight (%)	Quarterly Return (%)
Oil Co LUKOIL PJSC	2.87	0.16	2.71	13.78
Sony Corp	2.36	0.37	1.99	18.32
Safran SA	2.21	0.22	1.99	15.40
AerCap Holdings NV	2.15	0.03	2.12	6.22
Acs, Actividades De Construccion Y Servicios SA	2.11	0.05	2.06	5.16
Jazz Pharmaceuticals Plc	2.10	0.00	2.10	-2.42
olseley PLC	2.09	0.09	2.00	4.63
Magna International Inc.	2.03	0.08	1.95	-9.10
Canadian National Railway	2.03	0.31	1.72	10.29
Teck Resources Ltd	2.02	0.06	1.96	-5.15
% of Portfolio	21.97	1.37	20.60	

Ten Best Performers

	Portfolio Weight (%)	Benchmark Weight (%)	Active Weight (%)	Quarterly Return (%)
Scor SE	1.94	0.04	1.90	25.06
Taiwan Semiconductor	1.92	1.01	0.91	20.79
Check Point Software	1.98	0.07	1.91	20.46
SK Telecom Co Ltd	1.96	0.02	1.94	19.55
Sony Corp	2.36	0.37	1.99	18.32
Cnooc Ltd	2.01	0.17	1.84	17.99
Icon PLC	2.02	0.00	2.02	16.01
Banco Santander Mexico SA	1.30	0.01	1.29	16.00
Safran SA	2.21	0.22	1.99	15.40
Astellas Pharma Inc	1.86	0.16	1.70	14.43
% of Portfolio	19.56	2.07	17.49	

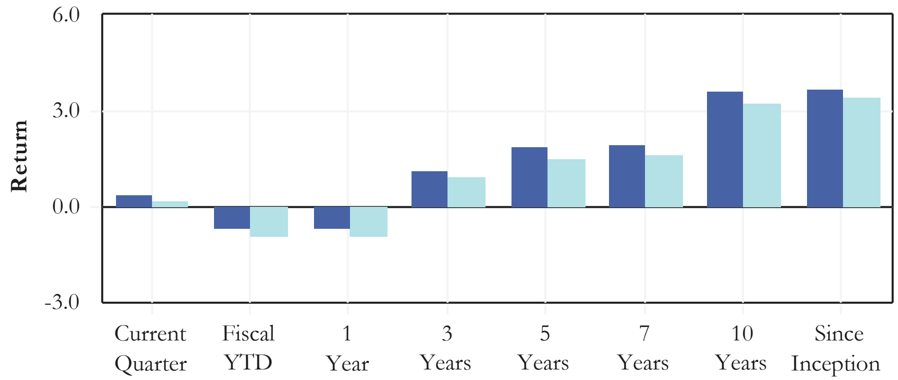
Ten Worst Performers

	Portfolio Weight (%)	Benchmark Weight (%)	Active Weight (%)	Quarterly Return (%)
Stars Group Inc	1.33	0.00	1.33	-31.41
YY Inc	1.24	0.02	1.22	-25.43
NXP Semiconductors NV	1.37	0.14	1.23	-21.54
Valeo SA	1.16	0.05	1.11	-20.54
Ryanair Holdings PLC	1.32	0.01	1.31	-15.92
WH Group Ltd	1.58	0.03	1.55	-12.84
Smc Corp	1.81	0.09	1.72	-12.73
Infineon Technologies	1.65	0.12	1.53	-10.82
Magna International Inc.	2.03	0.08	1.95	-9.10
Persimmon PLC	1.60	0.05	1.55	-7.78
% of Portfolio	15.09	0.59	14.50	

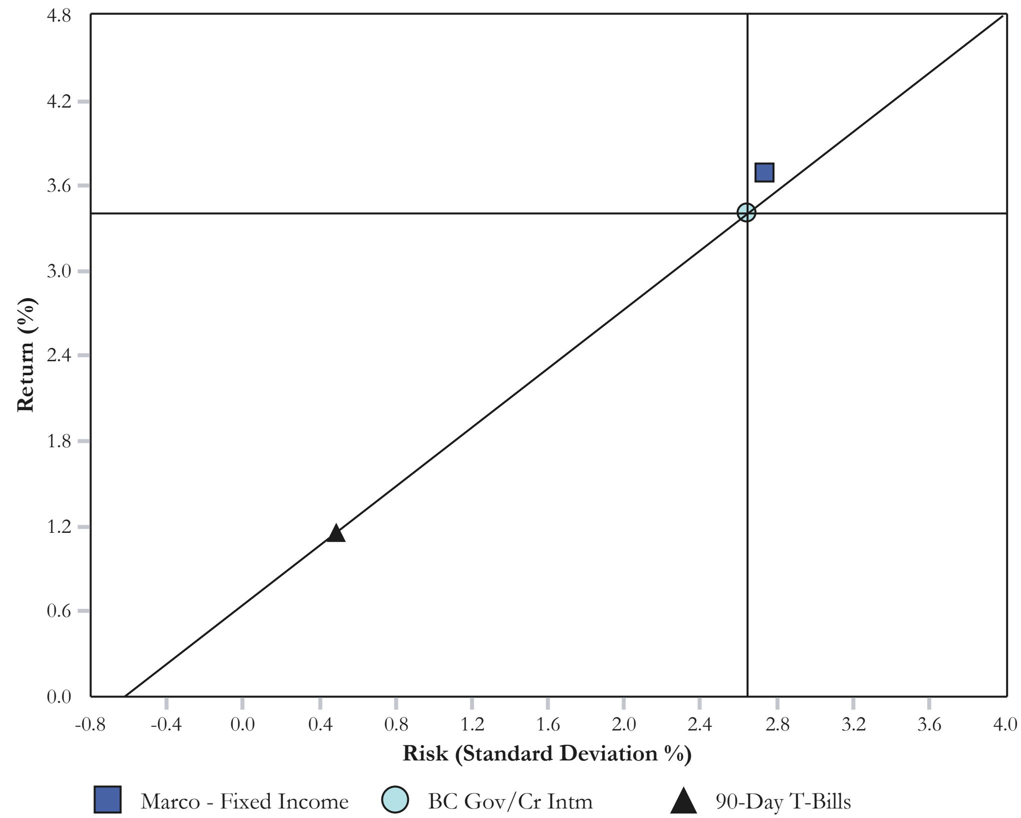
SAMPLE

Marco - Fixed Income - Executive Summary
as of September 30, 2018

Manager Performance Chart



Manager Risk & Return



Manager Annualized Performance

	Current Quarter	Fiscal YTD	1 Year	3 Years	5 Years	7 Years	10 Years	Inception 10/01/2005
Marco - Fixed Income	0.36	-0.70	-0.70	1.15	1.88	1.92	3.62	3.68
BC Gov/Cr Intm	0.21	-0.96	-0.96	0.91	1.52	1.63	3.22	3.41
Differences	0.15	0.26	0.26	0.24	0.36	0.29	0.40	0.27

Historic Asset Growth

	Current Quarter	Fiscal YTD	1 Year	3 Years	5 Years	7 Years	10 Years	Inception 10/01/2005
Marco - Fixed Income								
Beginning Market Value	39,748	29,965	29,965	46,198	44,556	48,921	56,424	64,568
Net Contributions	-4,586	5,563	5,563	-12,238	-13,012	-19,188	-37,597	-54,199
Fees/Expenses	-17	-59	-59	-199	-358	-515	-745	-1,036
Income	349	1,105	1,105	3,635	6,750	10,455	17,303	27,759
Gain/Loss	-210	-1,291	-1,291	-2,113	-2,653	-4,391	-103	-1,809
Ending Market Value	35,283	35,283	35,283	35,283	35,283	35,283	35,283	35,283

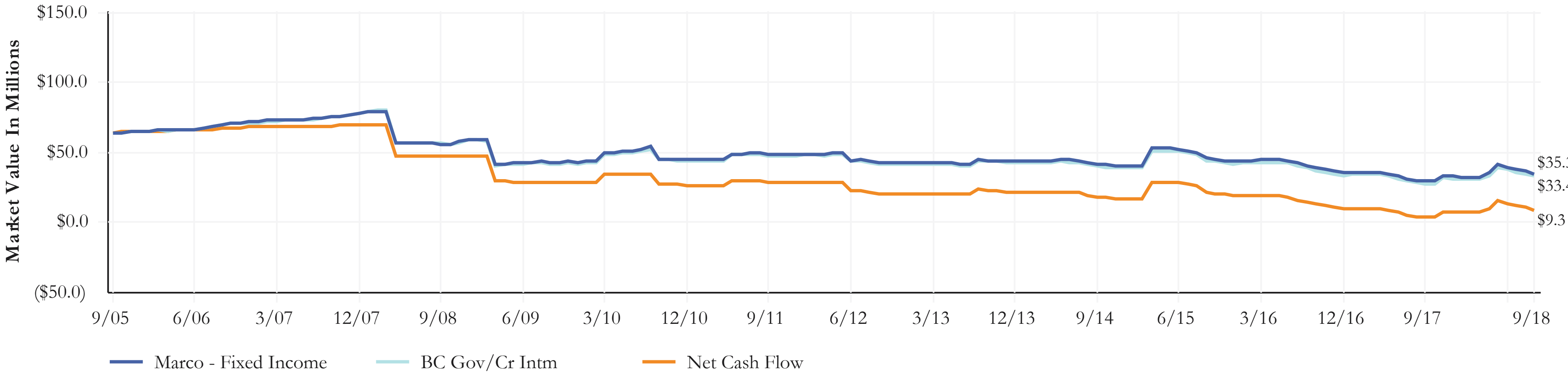
Modern Portfolio Statistics

	Return	Standard Deviation	Beta	Maximum Drawdown	Up Market Capture	Down Market Capture	Alpha	Sharpe Ratio	R-Squared	Inception Date
Marco - Fixed Income	3.68	2.74	0.96	-3.72	99.49	85.16	0.41	0.91	0.86	10/01/2005
BC Gov/Cr Intm	3.41	2.65	1.00	-4.05	100.00	100.00	0.00	0.84	1.00	10/01/2005

SAMPLE

Marco - Fixed Income - Change in Assets & Distribution of Returns
as of September 30, 2018

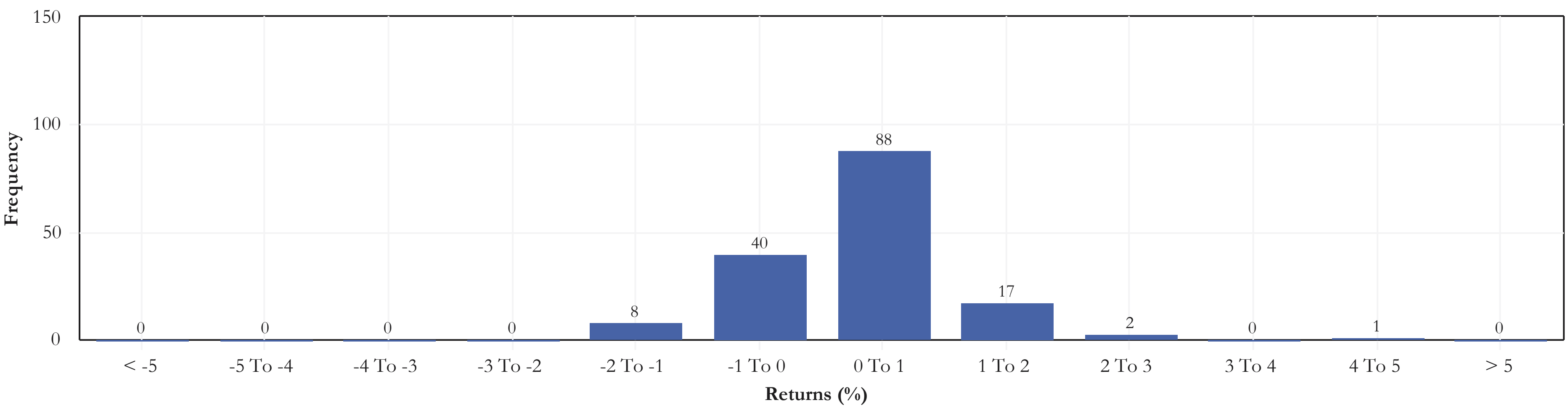
Historic Change in Assets



Quarterly Change in Assets

	Market Value As of 07/01/2018	Net Transfers	Net Contributions	Fees	Expenses	Return On Investment	Market Value As of 09/30/2018
Marco - Fixed Income	39,747,721.52	-	-4,585,975.97	-17,258.00	-	138,501.02	35,282,988.57

Distribution of Returns



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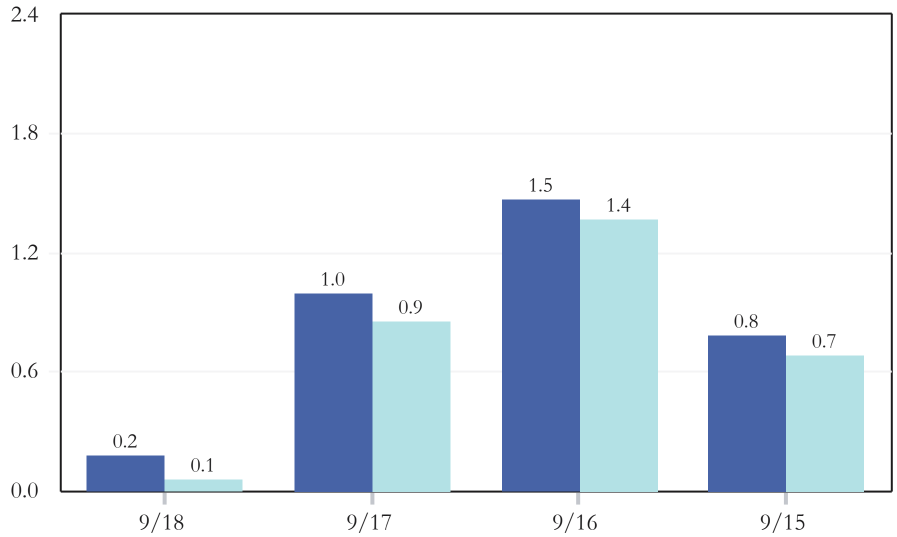
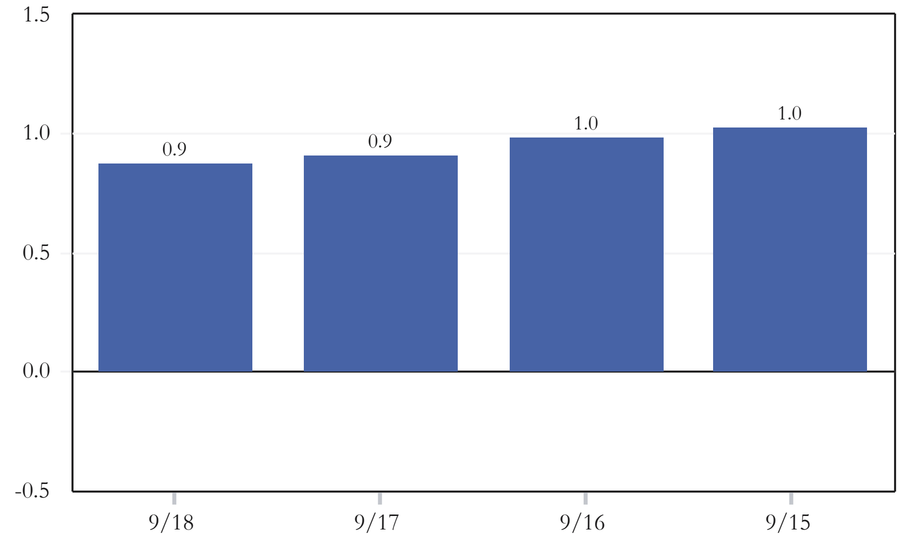
SAMPLE

Marco - Fixed Income - Rolling Three Year MPT Statistics
as of September 30, 2018

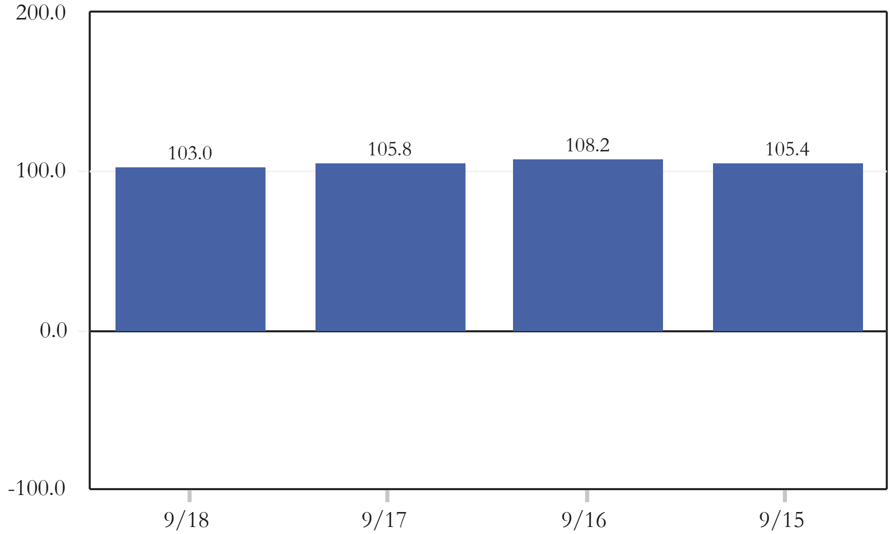
Sharpe Ratio



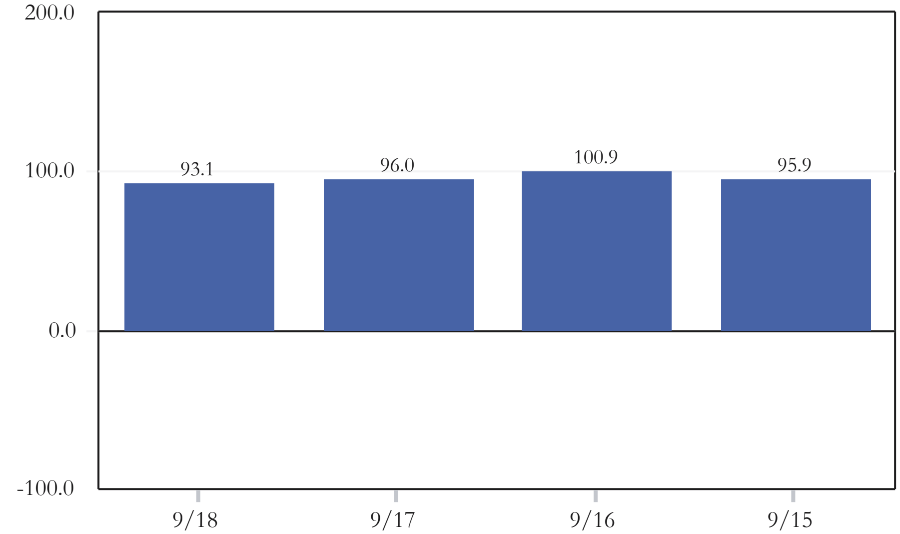
Beta



Up Market Capture



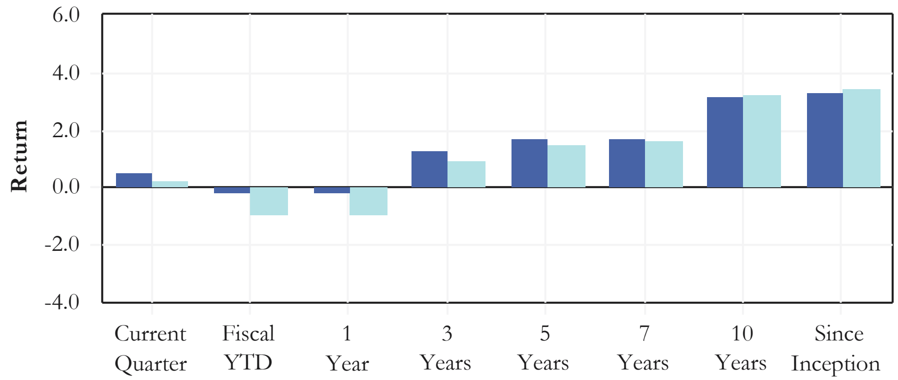
Down Market Capture



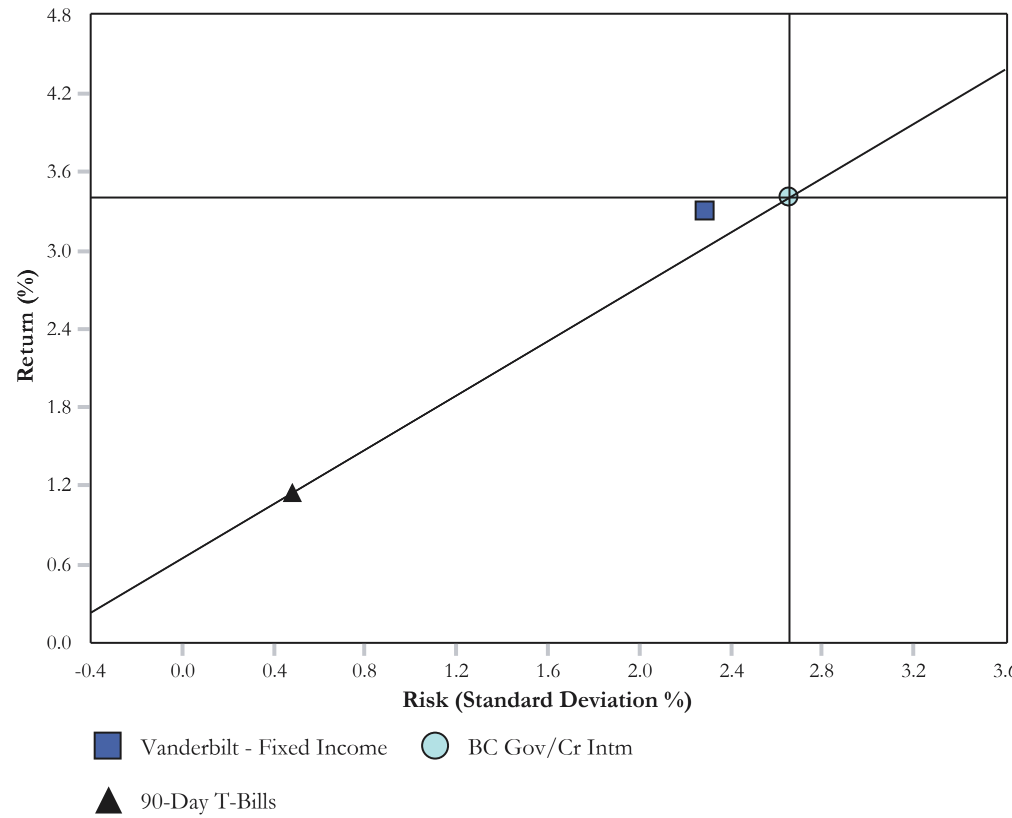
SAMPLE

Vanderbilt - Fixed Income - Executive Summary
as of September 30, 2018

Manager Performance Chart



Manager Risk & Return



Manager Annualized Performance

	Current Quarter	Fiscal YTD	1 Year	3 Years	5 Years	7 Years	10 Years	Inception 10/01/2005
Vanderbilt - Fixed Income	0.54	-0.21	-0.21	1.29	1.70	1.70	3.14	3.31
BC Gov/Cr Intm	0.21	-0.96	-0.96	0.91	1.52	1.63	3.22	3.41
Differences	0.33	0.75	0.75	0.38	0.18	0.07	-0.08	-0.10

Historic Asset Growth

	Current Quarter	Fiscal YTD	1 Year	3 Years	5 Years	7 Years	10 Years	Inception 10/01/2005
Vanderbilt - Fixed Income								
Beginning Market Value	48,998	49,496	49,496	47,866	47,171	49,848	44,108	31,545
Net Contributions	-1	-3	-3	-9	-1,164	-5,186	-7,703	590
Fees/Expenses	-43	-172	-172	-511	-851	-1,183	-1,670	-2,101
Income	279	1,158	1,158	3,023	4,900	6,797	10,995	16,827
Gain/Loss	-14	-1,260	-1,260	-1,151	-836	-1,057	3,489	2,359
Ending Market Value	49,219	49,219	49,219	49,219	49,219	49,219	49,219	49,219

Modern Portfolio Statistics

	Return	Standard Deviation	Beta	Maximum Drawdown	Up Market Capture	Down Market Capture	Alpha	Sharpe Ratio	R-Squared	Inception Date
Vanderbilt - Fixed Income	3.31	2.29	0.77	-4.07	85.62	66.45	0.66	0.93	0.81	10/01/2005
BC Gov/Cr Intm	3.41	2.65	1.00	-4.05	100.00	100.00	0.00	0.84	1.00	10/01/2005

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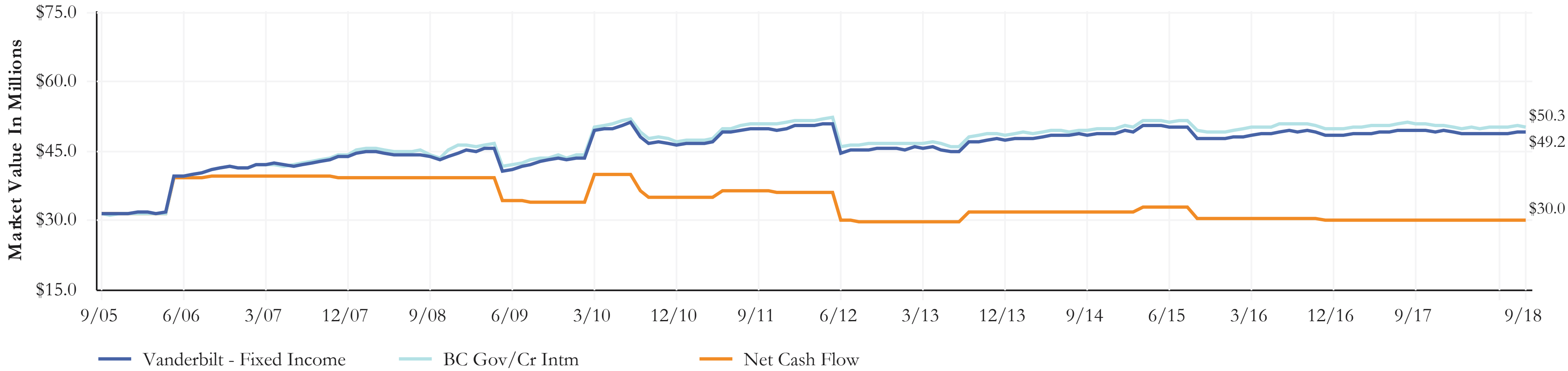
SAMPLE

Vanderbilt - Fixed Income - Change in Assets & Distribution of Returns
as of September 30, 2018

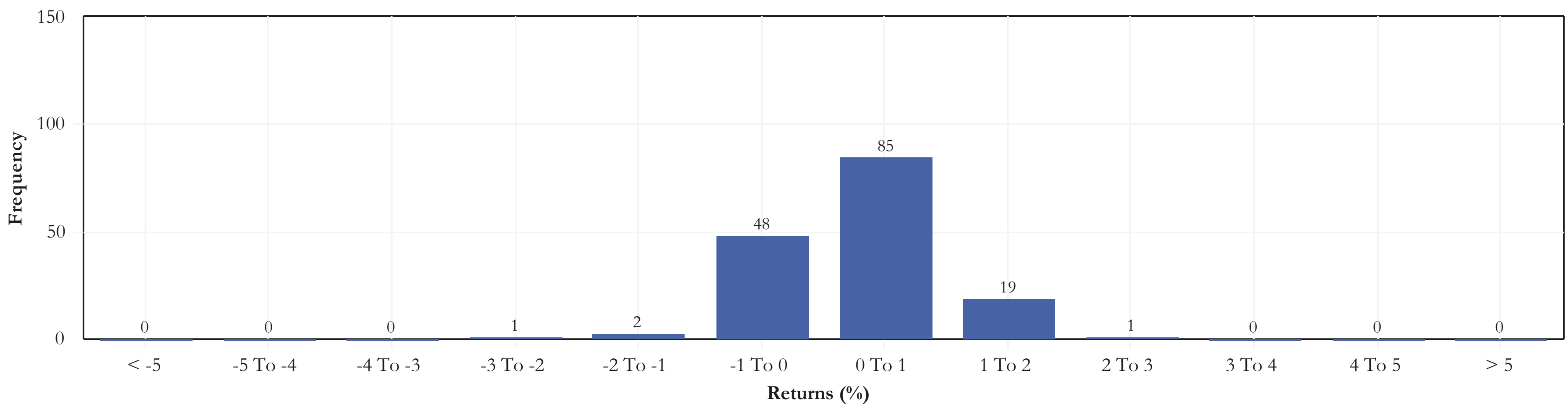
Historic Change in Assets



Quarterly Change in Assets

	Market Value As of 07/01/2018	Net Transfers	Net Contributions	Fees	Expenses	Return On Investment	Market Value As of 09/30/2018
Vanderbilt - Fixed Income	48,997,693.36	-	-772.37	-42,809.00	-	265,017.11	49,219,129.10

Distribution of Returns



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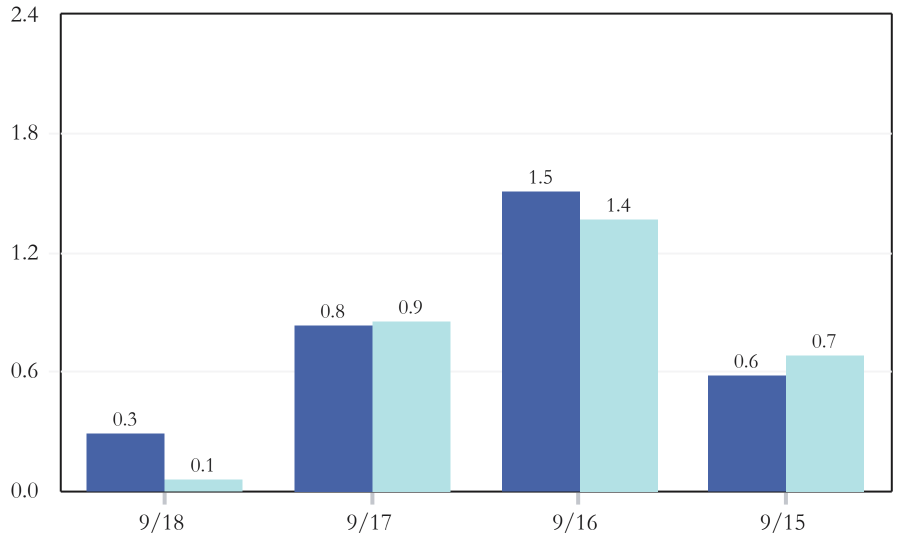
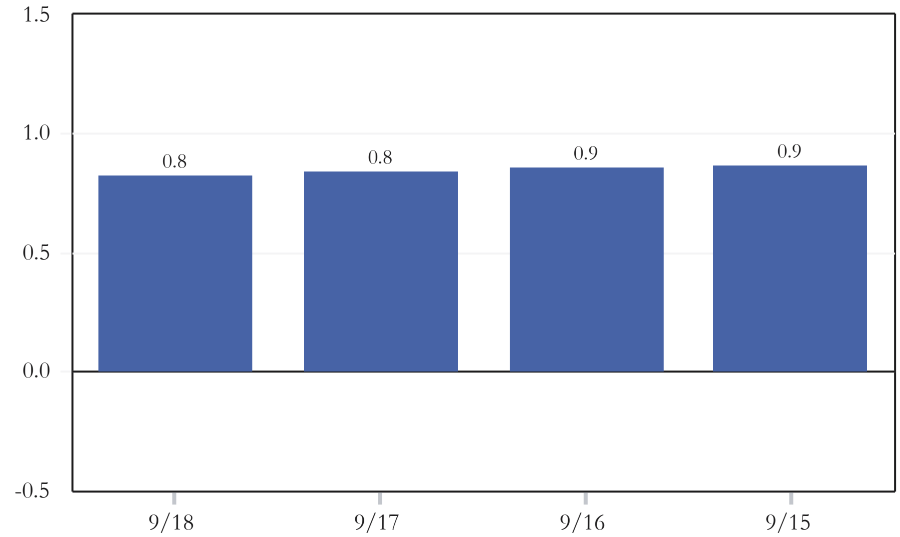
SAMPLE

Vanderbilt - Fixed Income - Rolling Three Year MPT Statistics
as of September 30, 2018

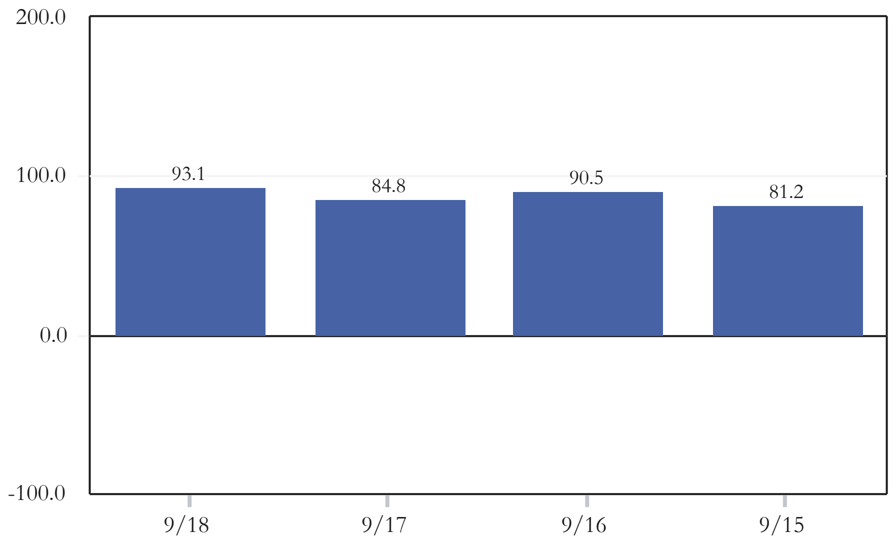
Sharpe Ratio



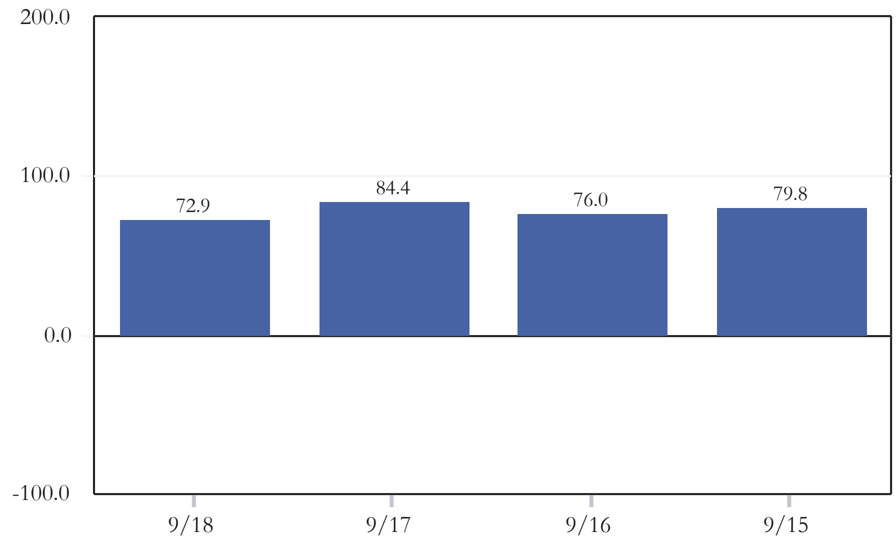
Beta



Up Market Capture



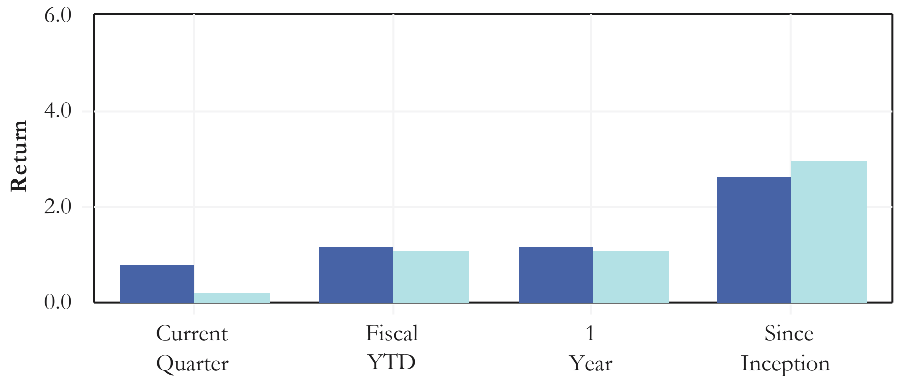
Down Market Capture



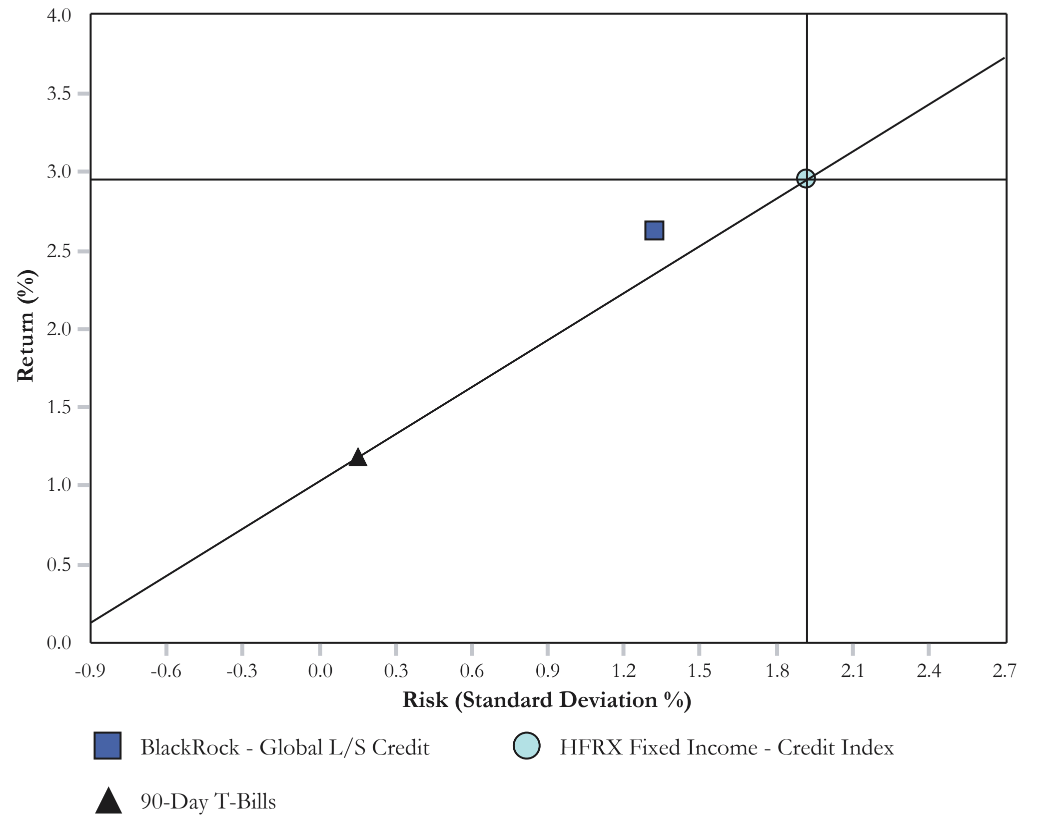
SAMPLE

BlackRock - Global Long/Short Credit - Executive Summary
as of September 30, 2018

Manager Performance Chart



Manager Risk & Return



Manager Annualized Performance

	Current Quarter	Fiscal YTD	1 Year	Inception 12/01/2016
BlackRock - Global L/S Credit	0.77	1.17	1.17	2.62
HFRX Fixed Income - Credit Index	0.22	1.08	1.08	2.95
Differences	0.55	0.09	0.09	-0.33

Historic Asset Growth

	Current Quarter	Fiscal YTD	1 Year	Inception 12/01/2016
BlackRock - Global L/S Credit				
Beginning Market Value	10,354	10,434	10,434	2,711
Net Contributions	-	-121	-121	7,446
Fees/Expenses	-	-	-	-
Income	-	121	121	121
Gain/Loss	80	-	-	156
Ending Market Value	10,434	10,434	10,434	10,434

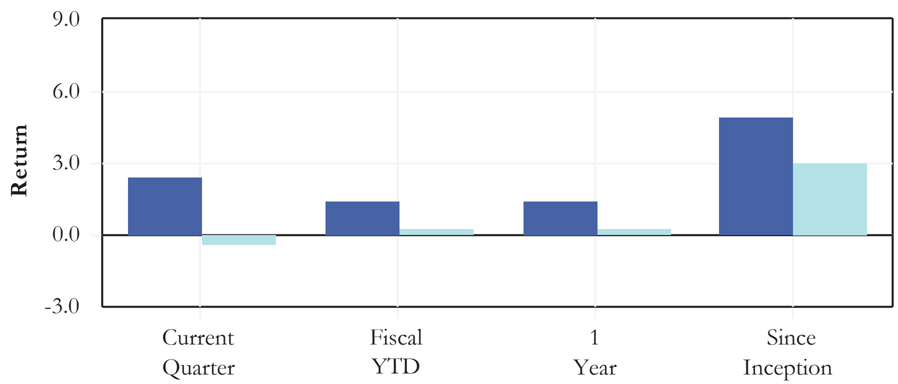
Modern Portfolio Statistics

	Return	Standard Deviation	Beta	Maximum Drawdown	Up Market Capture	Down Market Capture	Alpha	Sharpe Ratio	R-Squared	Inception Date
BlackRock - Global L/S Credit	2.62	1.32	0.42	-1.05	68.05	26.25	1.37	1.02	0.38	12/01/2016
HFRX Fixed Income - Credit Index	2.95	1.92	1.00	-1.58	100.00	100.00	0.00	0.89	1.00	12/01/2016

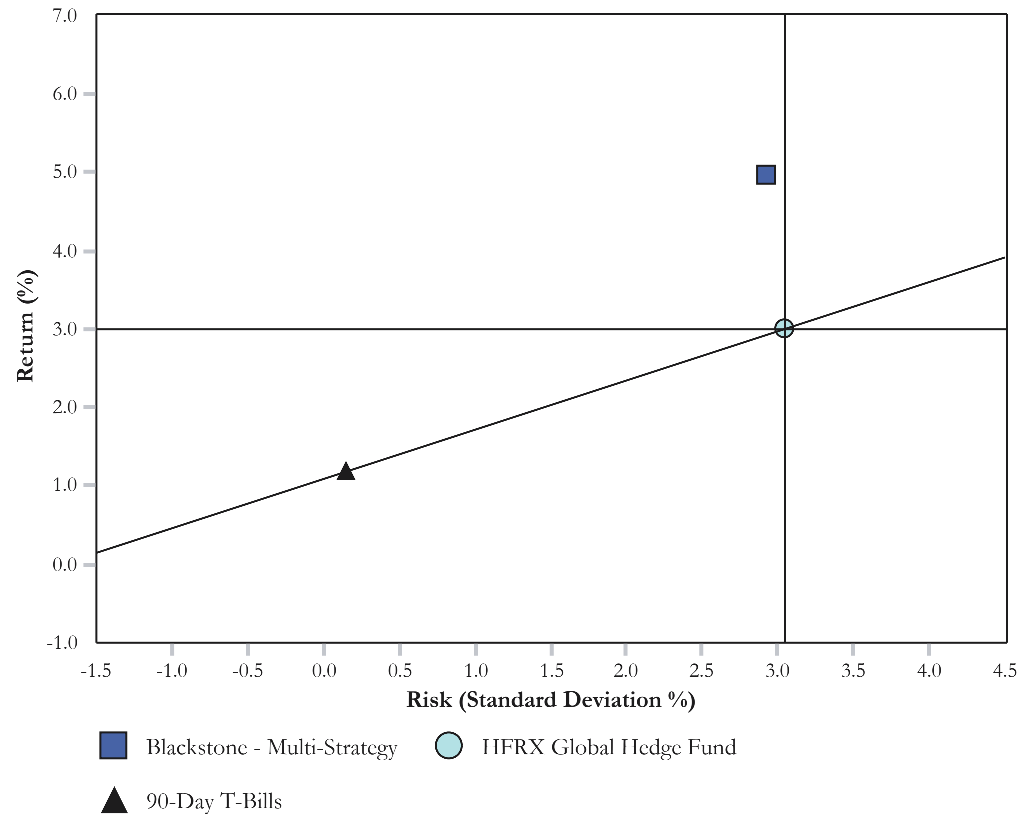
SAMPLE

Blackstone - Multi-Strategy - Executive Summary
as of September 30, 2018

Manager Performance Chart



Manager Risk & Return



Manager Annualized Performance

	Current Quarter	Fiscal YTD	1 Year	Inception 12/01/2016
Blackstone - Multi-Strategy	2.44	1.41	1.41	4.95
HFRX Global Hedge Fund	-0.39	0.25	0.25	3.01
Differences	2.83	1.16	1.16	1.94

Historic Asset Growth

	Current Quarter	Fiscal YTD	1 Year	Inception 12/01/2016
Blackstone - Multi-Strategy				
Beginning Market Value	10,591	10,441	10,441	2,708
Net Contributions	-354	-84	-84	7,348
Fees/Expenses	-	-13	-13	-13
Income	1	84	84	97
Gain/Loss	251	61	61	350
Ending Market Value	10,490	10,490	10,490	10,490

Modern Portfolio Statistics

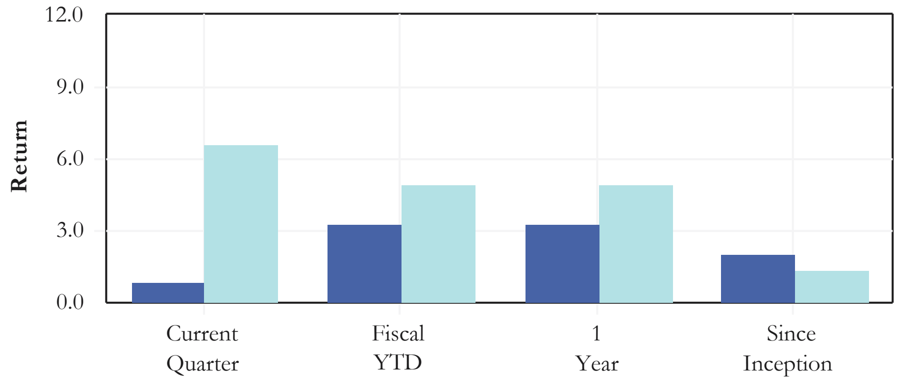
	Return	Standard Deviation	Beta	Maximum Drawdown	Up Market Capture	Down Market Capture	Alpha	Sharpe Ratio	R-Squared	Inception Date
Blackstone - Multi-Strategy	4.95	2.94	0.28	-1.90	78.19	-26.60	4.12	1.24	0.09	12/01/2016
HFRX Global Hedge Fund	3.01	3.05	1.00	-3.59	100.00	100.00	0.00	0.59	1.00	12/01/2016

The prices, quotes, or statistics contained herein have been obtained from sources believed to be reliable, however, its accuracy cannot be guaranteed. Past performance is not a guarantee of future results.

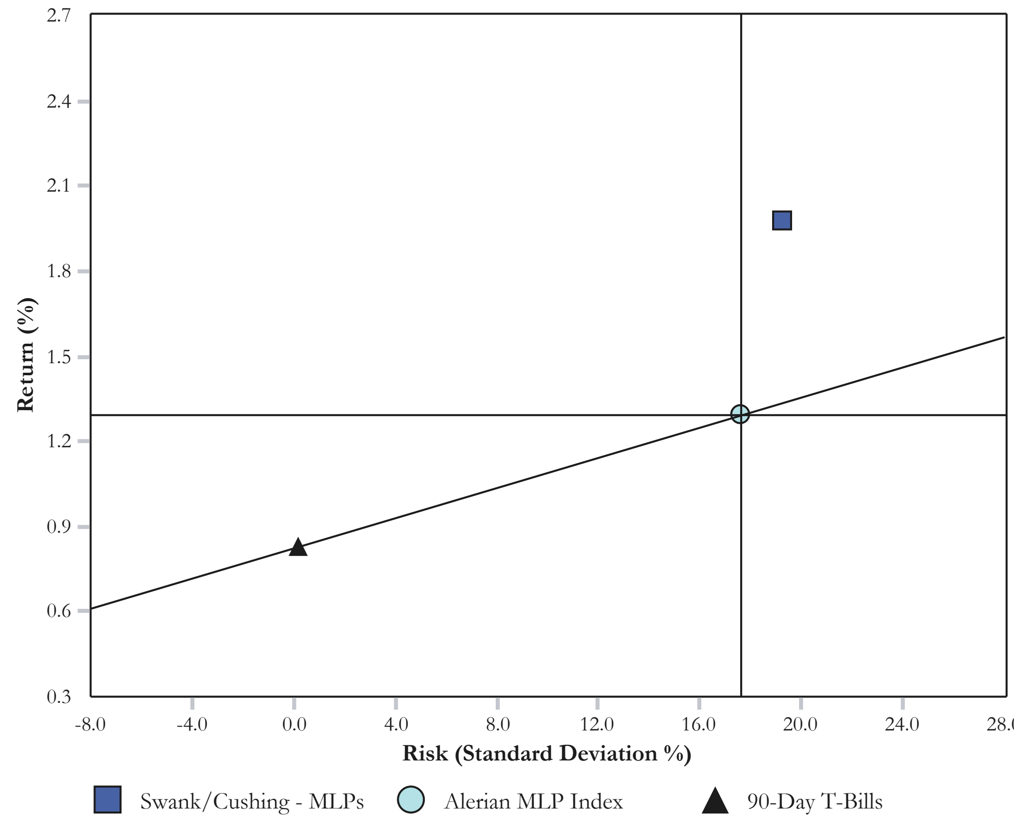
SAMPLE

Cushing - MLPs - Executive Summary
as of September 30, 2018

Manager Performance Chart



Manager Risk & Return



Manager Annualized Performance

	Current Quarter	Fiscal YTD	1 Year	Inception 11/01/2015
Swank/Cushing - MLPs	0.82	3.25	3.25	1.97
Alerian MLP Index	6.57	4.89	4.89	1.29
Differences	-5.75	-1.64	-1.64	0.68

Historic Asset Growth

	Current Quarter	Fiscal YTD	1 Year	Inception 11/01/2015
Swank/Cushing - MLPs				
Beginning Market Value	20,471	19,812	19,812	9,727
Net Contributions	-	232	232	9,782
Fees/Expenses	-25	-98	-98	-230
Income	288	1,117	1,117	2,766
Gain/Loss	-120	-450	-450	-1,432
Ending Market Value	20,613	20,613	20,613	20,613

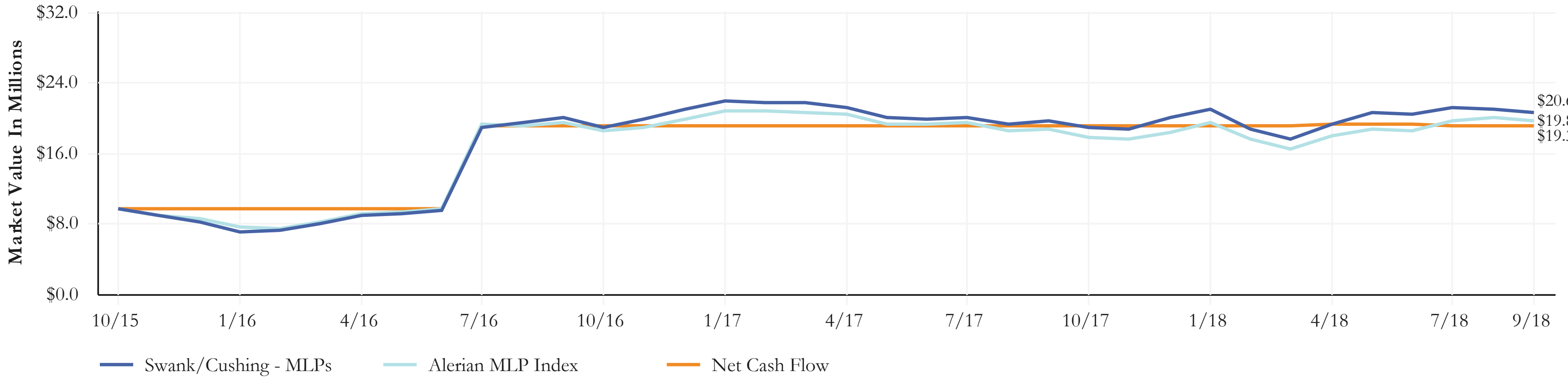
Modern Portfolio Statistics

	Return	Standard Deviation	Beta	Maximum Drawdown	Up Market Capture	Down Market Capture	Alpha	Sharpe Ratio	R-Squared	Inception Date
Swank/Cushing - MLPs	1.97	19.29	1.04	-25.93	101.71	97.60	0.88	0.16	0.91	11/01/2015
Alerian MLP Index	1.29	17.63	1.00	-21.58	100.00	100.00	0.00	0.11	1.00	11/01/2015

SAMPLE

Cushing - MLPs - Change in Assets & Distribution of Returns
as of September 30, 2018

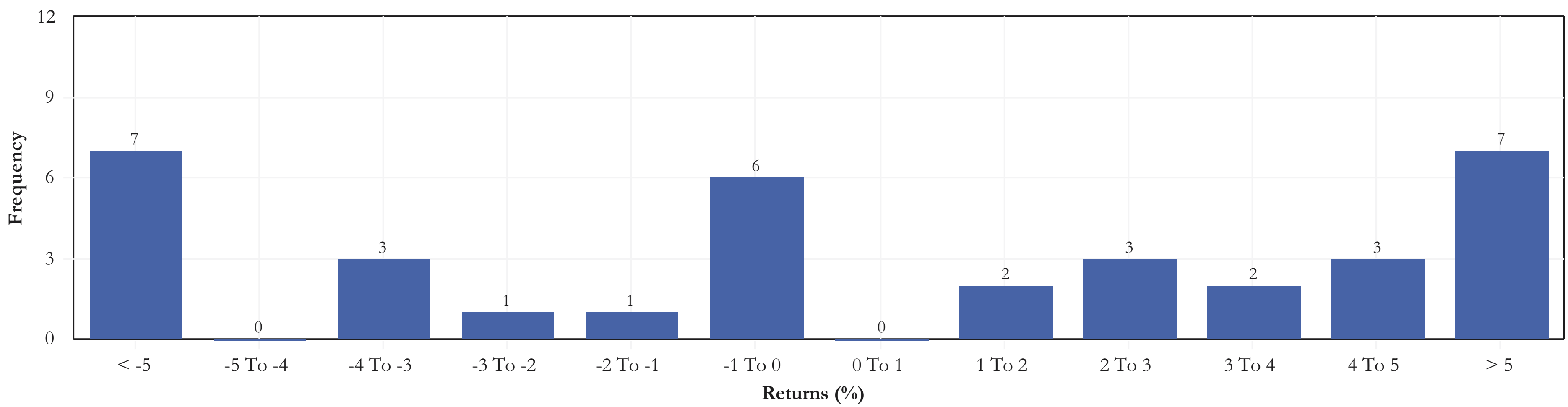
Historic Change in Assets



Quarterly Change in Assets

	Market Value As of 07/01/2018	Net Transfers	Net Contributions	Fees	Expenses	Return On Investment	Market Value As of 09/30/2018
Swank/Cushing - MLPs	20,470,596.58	-	-	-25,438.11	-	167,714.05	20,612,872.52

Distribution of Returns



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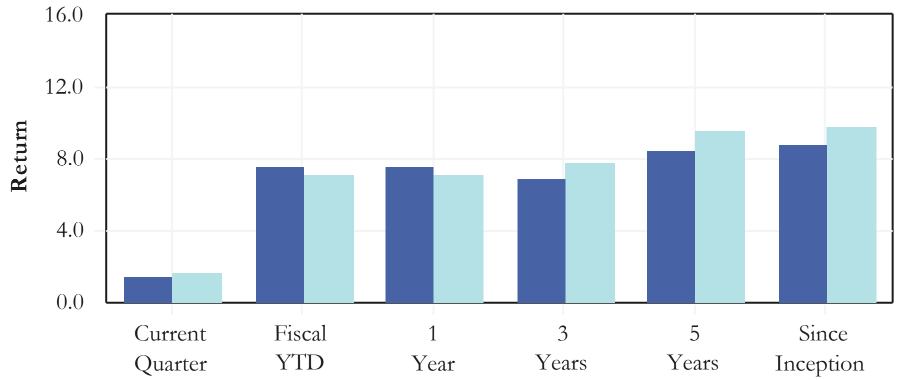
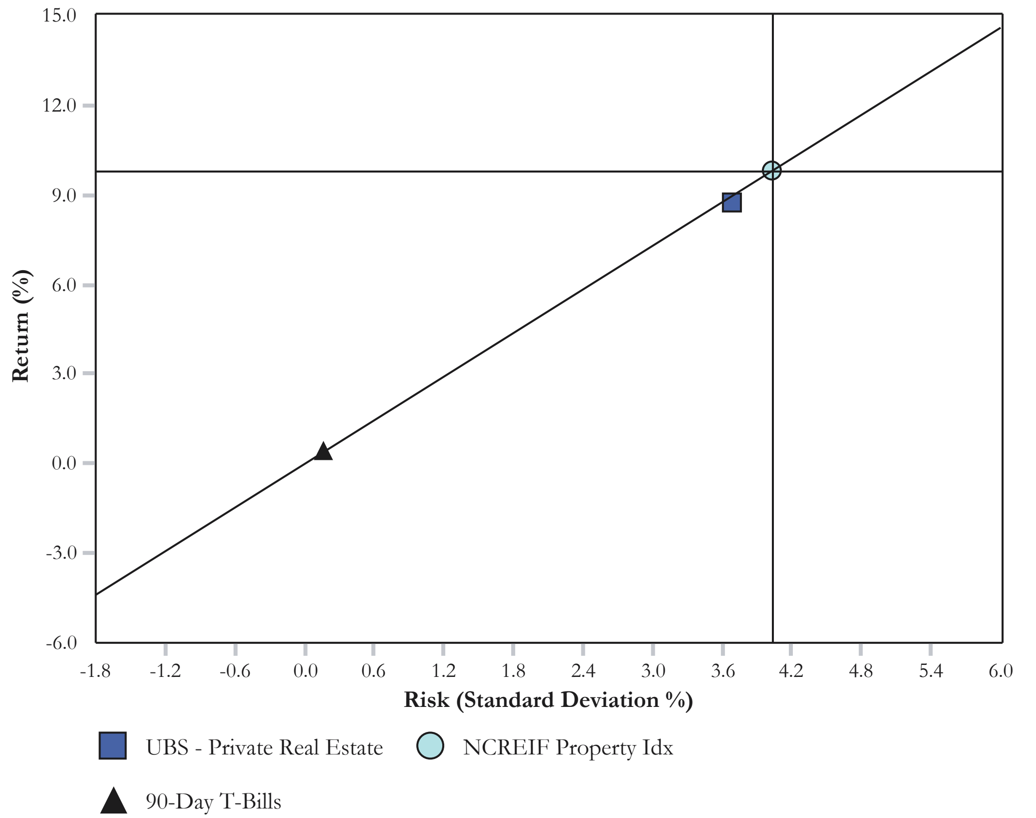
SAMPLE

UBS Trumbull Property Fund - Executive Summary
as of September 30, 2018

Manager Performance Chart



Manager Risk & Return



Manager Annualized Performance

	Current Quarter	Fiscal YTD	1 Year	3 Years	5 Years	Inception 07/01/2012
UBS - Private Real Estate	1.41	7.60	7.60	6.86	8.39	8.74
NCREIF Property Idx	1.67	7.16	7.16	7.76	9.58	9.81
Differences	-0.26	0.44	0.44	-0.90	-1.19	-1.07

Historic Asset Growth

	Current Quarter	Fiscal YTD	1 Year	3 Years	5 Years	Inception 07/01/2012
UBS - Private Real Estate						
Beginning Market Value	41,218	40,061	40,061	21,945	16,266	15,000
Net Contributions	-338	-1,322	-1,322	13,865	16,284	15,834
Fees/Expenses	-84	-351	-351	-948	-1,323	-1,494
Income	454	1,834	1,834	4,129	4,129	4,129
Gain/Loss	124	1,153	1,153	2,383	6,019	7,905
Ending Market Value	41,375	41,375	41,375	41,375	41,375	41,375

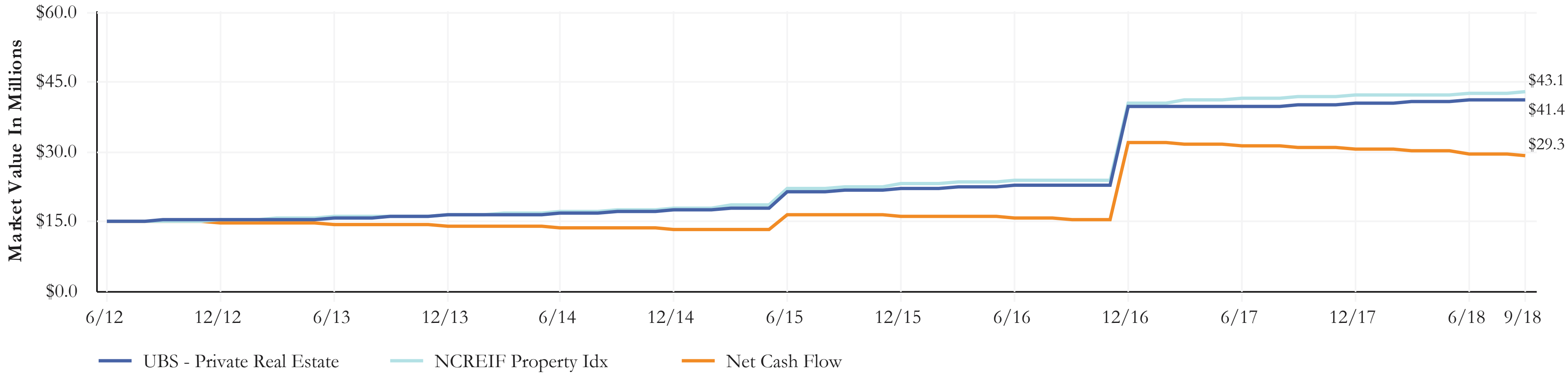
Modern Portfolio Statistics

	Return	Standard Deviation	Beta	Maximum Drawdown	Up Market Capture	Down Market Capture	Alpha	Sharpe Ratio	R-Squared	Inception Date
UBS - Private Real Estate	8.74	3.69	0.89	0.00	89.42	N/A	0.08	2.17	0.94	07/01/2012
NCREIF Property Idx	9.81	4.03	1.00	0.00	100.00	N/A	0.00	2.24	1.00	07/01/2012

SAMPLE

UBS Trumbull Property Fund - Change in Assets & Distribution of Returns
as of September 30, 2018

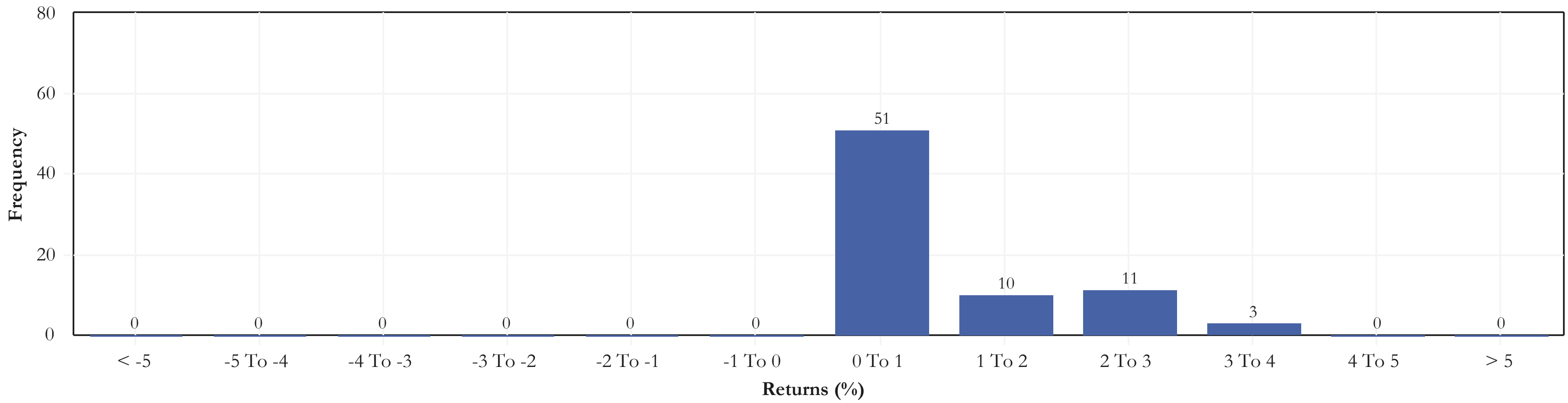
Historic Change in Assets



Quarterly Change in Assets

	Market Value As of 07/01/2018	Net Transfers	Net Contributions	Fees	Expenses	Return On Investment	Market Value As of 09/30/2018
UBS - Private Real Estate	41,218,473.97	-	-337,692.38	-84,241.95	-	578,187.74	41,374,727.38

Distribution of Returns



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Performance Appendix

Portfolio Name	QTD	YTD	1 Year	3 Years	5 Years	10 Years	Since Inception	Inception Date
Barrow, Hanley - Mid Cap Value	1.06	-4.81	-0.32	8.81	7.18	10.56	7.74	09/01/2005
BlackRock - Global L/S Credit	0.77	0.58	1.17	--	--	--	2.61	11/01/2016
Blackstone - Multi-Strategy	2.44	1.06	1.28	--	--	--	4.72	11/01/2016
Boston - Large Cap Value	6.01	5.18	13.19	15.15	11.91	9.90	7.86	09/01/2005
Marco - Fixed Income	0.32	-0.64	-0.87	0.98	1.71	3.44	3.49	09/01/2005
Polen/Sawgrass - Large Cap Growth	10.49	15.36	23.57	16.17	13.58	12.09	9.43	03/01/2007
Renaissance - International Growth	1.20	-3.10	-0.48	8.79	4.92	--	9.33	01/01/2009
Swank/Cushing - MLPs	0.69	1.02	2.75	0.55	--	--	0.53	09/01/2015
Systematic - Mid Cap Value	2.92	2.74	10.95	14.55	8.87	10.14	8.85	09/01/2005
Templeton - International Value	0.19	-4.27	-0.90	6.88	2.67	3.81	1.23	04/01/2008
UBS - Private Real Estate	1.20	4.47	6.68	5.84	7.32	--	7.58	06/01/2012
Vanderbilt - Fixed Income	0.45	-0.52	-0.55	0.94	1.34	2.78	2.93	09/01/2005
Vanguard - Russell 1000 Growth ETF	9.52	--	--	--	--	--	10.85	05/01/2018
Wells - Small/Mid Cap Growth	8.26	17.19	24.29	18.33	11.84	13.53	11.45	04/01/2008

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 of 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: The aggregate amount an investment has gained or lost over a certain time period, also referred to as Cumulative Return, stated in terms of the amount to which an initial dollar investment would have grown over the given time period.

Investment Decision Process (IDP): A model for structuring the investment process and implementing the correct attribution methodologies. The IDP includes every decision made concerning the division of the assets under management over the various asset categories. To analyze each decision‘s contribution to the total return, a modeling approach must measure the marginal value of every individual decision. In this respect, the hierarchy of the decisions becomes very important. We therefore use the IDP model, which serves as a proper foundation for registering the decisions and relating them to each other.

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.

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.

SA/CF (Separate Account/Comingled Fund): Represents an acronym for Separate Account and Commingled Fund investment vehicles.

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.

Tracking Error: A measure of standard deviation for a portfolio's investment performance, relative to the performance of an appropriate market benchmark.

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.

Information 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.

Investors should carefully consider the fund's investment objectives, risks, charges and expenses before investing. The prospectus and, if available the summary prospectus, contains this and other information that should be read carefully before investing. Investors should review the information in the prospectus carefully. To obtain a prospectus, please contact your Financial Advisor or visit the funds' company website.

Past performance is no guarantee of future results.

Investing involves market risk, including possible loss of principal. **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** involves the risk that the market may not recognize that securities are undervalued and they may not appreciate as anticipated. **Small and mid-capitalization companies** may lack the financial resources, product diversification and competitive strengths of larger companies. The securities of small capitalization companies may not trade as readily as, and be subject to higher volatility than those of larger, more established companies. **Bond funds** and bond holdings have the same interest rate, inflation and credit risks that are associated with the underlying bonds owned by the funds. The return of principal in bond funds, and in funds with significant bond holdings, is not guaranteed. **International securities'** prices may carry additional risks, including foreign economic, political, monetary and/or legal factors, changing currency exchange rates, foreign taxes and differences in financial and accounting standards. International investing may not be for everyone. These risks may be magnified in emerging markets. **Alternative investments**, including private equity funds, real estate funds, hedge funds, managed futures funds, and funds of hedge funds, private equity, and managed futures funds, are speculative and entail significant risks that can include losses due to leveraging or\other speculative investment practices, lack of liquidity, volatility of returns, restrictions on transferring interests in a fund, potential lack of diversification, absence and/or delay of information regarding valuations and pricing, complex tax structures and delays in tax reporting, less regulation and higher fees than mutual funds and risks associated with the operations, personnel and processes of the advisor. **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; and MLP interests in the real estate sector are subject to special risks, including interest rate and property value fluctuations, as well as risks related to general and economic conditions. Because of their narrow focus, MLPs maintain exposure to price volatility of commodities and/or underlying assets and tend to be more volatile than investments that diversify across many sectors and companies. MLPs are also subject to additional risks including: investors having limited control and rights to vote on matters affecting the MLP, limited access to capital, cash flow risk, lack of liquidity, dilution risk, conflict of interests, and limited call rights related to acquisitions.

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.

Real estate investments are subject to special risks, including interest rate and property value fluctuations, as well as risks related to general and economic conditions. **High yield** fixed income securities, also known as "junk bonds", are considered speculative, involve greater risk of default and tend to be more volatile than investment grade fixed income securities.

Credit quality is a measure of a bond issuer's creditworthiness, or ability to repay interest and principal to bondholders in a timely manner. The credit ratings shown are based on security rating as provided by Standard & Poor's, Moody's and/or Fitch, as applicable. Credit ratings are issued by the rating agencies for the underlying securities in the fund and not the fund itself, and the credit quality of the securities in the fund does not represent the stability or safety of the fund. Credit ratings shown range from AAA, being the highest, to D, being the lowest based on S&P and Fitch's classification (the equivalent of Aaa and C, respectively, by Moody(s). Ratings of BBB or higher by S&P and Fitch (Baa or higher by 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."

Custom Account Index: The Custom Account Index is an investment benchmark based on your historical target allocations and/or manager selection that you may use to evaluate the performance of your account. The Custom Account index does take into consideration certain changes that may have occurred in your portfolio since the inception of your account, i.e., asset class and/or manager changes. However, in some circumstances, it may not be an appropriate benchmark for use with your specific account composition. For detailed report of the historical composition of this blend please contact your Financial Advisor.

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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As fees are deducted quarterly, the compounding effect will be to increase the impact of the fees by an amount directly related to the gross account performance. For example, for an account with an initial value of $100,000 and a 2.5% annual fee, if the gross performance is 5% per year over a three year period, the compounding effect of the fees will result in a net annual compound rate of return of approximately 2.40% per year over a three year period, and the total value of the client’s portfolio at the end of the three year period would be approximately $115,762.50 without the fees and $107,372.63 with the fees. Please see the applicable Form ADV Part 2A for more information including a description of the fee schedule.

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Graystone Consulting

Tab 7: Exhibit 5
Sample Research Publications

WEALTH MANAGEMENT

Graystone Consulting
A business of Morgan Stanley

GLOBAL INVESTMENT COMMITTEE / COMMENTARY

JUNE 2019

On the Markets

Midyear Investment Outlook

MICHAEL WILSON

Chief Investment Officer
Chief US Equity Strategist
Morgan Stanley & Co.

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Payback Time

With all of the attention being paid to US-China trade talks, many investors have failed to see the significance of recent economic reports. First, core durable goods orders, down 0.9% year over year, were much weaker than expected, with a big downward revision to the prior month as well. Capital spending also disappointed, leading our economists to reduce their forecast of second quarter US GDP growth to just 0.6%, which is the weakest since the 2015's fourth quarter—the last time we had an earnings recession. Finally, both the manufacturing and services components of the Markit Purchasing Managers Index, leading indicators for the economy, were much weaker than expected.

This slowdown in capital spending doesn't surprise me given last year's boom. In fact, it's consistent with our view that 2019 could well be a year of payback due to 2018's outsized capital spending and inventory building. I bring this up because many investors seem to think the recent slowdown is all due to the escalation of US-China trade tensions—but all of the data points above were for the month of April, which reflects economic activity before the trade talks broke down.

I've been vocal about the likelihood of US earnings and the economic cycle disappointing this year, with the second half recovery many companies have promised and investors are expecting potentially failing to materialize. On that score, leading companies in the semiconductor and industrial sectors are starting to acknowledge this reality.

The good news is that markets aren't completely naive about slowing growth. All year, defensive and high-quality stocks have been leading the performance of the broader indexes. It also explains why the S&P 500 is outperforming the riskier international markets this year. Finally, 10-year US Treasuries and other government bonds are making new highs in price—and consequently, new lows in yield—as investors seem to be hunkering down for slower growth. If you listen to what the markets have really been saying this year, they seem to be reinforcing our view for growth to disappoint.

We recommend investors remain defensively positioned within their equity portfolios in areas like utilities and consumer staples. High-quality growth stocks should also continue to do well but selectivity is key, because if growth slows further many of these stocks could disappoint on earnings. We suspect certain technology stocks could be particularly vulnerable given the recent evidence of a slowdown in capital spending and high valuations that do not reflect this risk. Once these expectations adjust to more realistic outcomes or the stocks correct appropriately, it may be time to become more constructive on equity markets, including technology stocks—but not before then. ■

Mind the Gaps

ANDREW SHEETS

Chief Cross-Asset Strategist
Morgan Stanley & Co.

Imagine if several years ago, someone had told you the following: The S&P 500 would be trading at about 17 times forward earnings with single-digit earnings growth. The yield curve would be flat, global purchasing managers indexes (PMIs) would be weak, small-cap and cyclical stocks would be underperforming, yields would be falling, central banks would have already gone out of their way to sound accommodative and global markets would be up strongly. We'd wager that the average investor would have voiced more than a bit of concern.

Yet, here we are with those conditions, and the predominant concern until a month ago appeared to revolve around whether markets could go up a lot more. Increased trade tensions have helped take this optimism off the boil, but the question remains: Is the performance pattern for the year to date a template for the rest of the year, or an aberration?

We think it's aberrant behavior, as moves during the past few months put heavy pressure on three gaps. Dovish central bank pricing already implies little concern about the output gap. Unsustainable first quarter US growth should reverse, narrowing the gap between growth in the US and the rest of world (RoW) and—with prices generally recovering much faster than fundamentals this year—a price versus fundamentals gap looms unevenly across assets.

These themes dominate how we think about markets for the next 12 months. They leave us with a modestly defensive posture, a strong preference for RoW over US assets and conviction that the market is overpricing the Goldilocks scenario.

The Output Gap

Many factors are behind the strong year-to-date performance across nearly all assets, but the most powerful, in our view, has been the apparent relief of the "output gap." In 2018, it looked like this gap was finally closing, with further growth bringing higher inflation and tighter policy. This trade-off was at the core of our "tricky handoff" narrative in 2018, and made almost all assets decidedly unhappy.

Then, 2019 brought relief. In the first quarter, US GDP growth accelerated to a 3.2% annualized rate while inflation as measured by the core Personal Consumption Expenditure Index fell—a sign that maybe there was spare capacity in the economy after all. That was unquestionably good news, and if one is looking for a single explanation for the remarkable difference between 2018 and 2019, we think it's fading concerns over the output gap, which has meant that monetary policy could ease even as growth fears subsided (see chart).

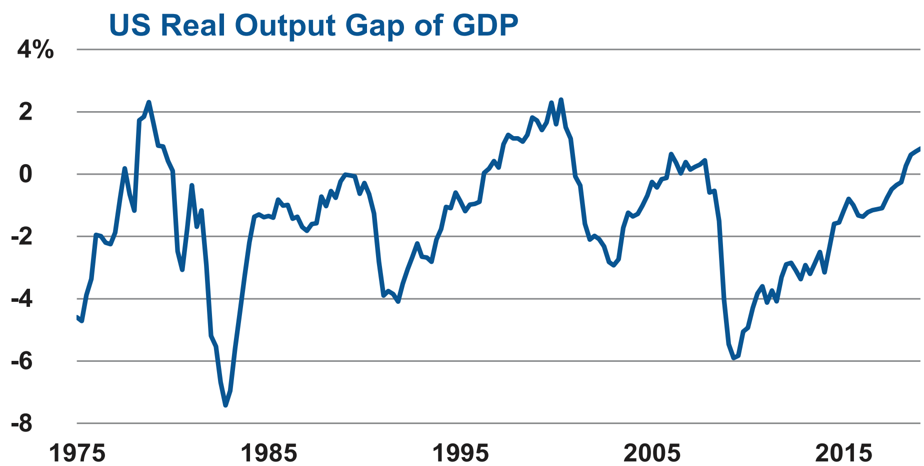
Still, closing of the output gap is also the problem, suggesting that easy central bank policy on a lack of inflationary pressure is already the market's assumption. That's the case even as estimates of the output gap continue to narrow and measures of inflation outside of core PCE don't show the same moderation.

If spare capacity still exists, and a lack of inflation allows policy to remain easy, couldn't this drive a "melt-up" in markets similar to the late 1990s? We are skeptical. The late 1990s had much better GDP growth, earnings growth and demographic tailwinds that supported heavy participation by individual investors. With the risks to our economic forecasts skewed to the downside (see page 7), this scenario seems unlikely.

US vs. RoW Growth Gap

Moving away from our overall growth and inflation forecasts, an important part of our macro story is the reversal we forecast between US and RoW growth. We expected this to occur last November

Narrower Output Gap Implies Less Policy Flexibility

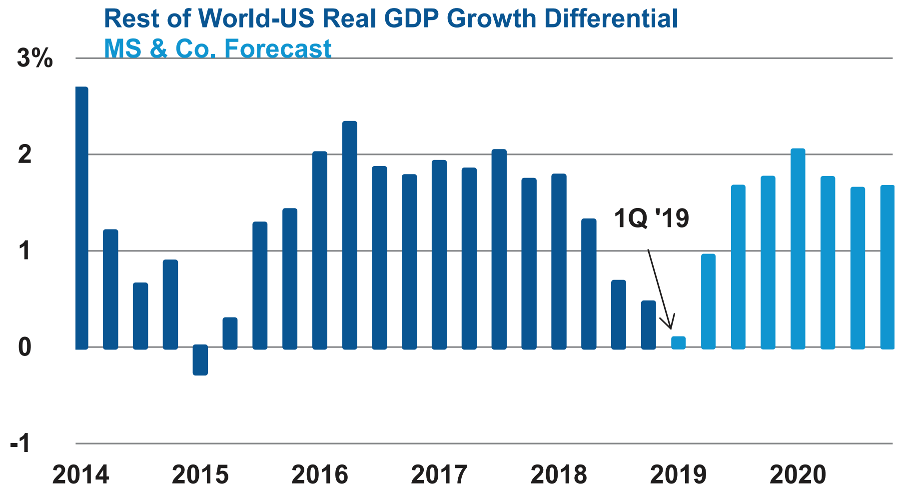


Source: Morgan Stanley & Co. Research as of May 12, 2019

when we published our 2019 outlook, and appeared vindicated as growth fears gripped the US market. Then, US growth bounced back in this year's first quarter while growth in Europe, China and Japan disappointed. We think that these developments mean the growth reversal story has been delayed, not derailed.

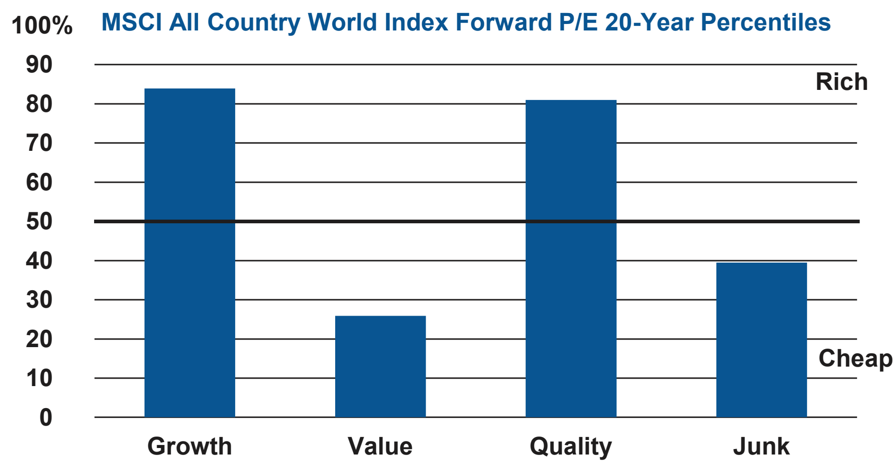
Going forward, we see this story playing out on both fronts (see chart). US growth should slow as fiscal policy tightens and temporary boosts to first quarter GDP fade. Meanwhile, in Europe and China, fiscal policy is easing and PMIs should rebound off cycle lows, even if trade tensions make the timing and magnitude of this more uncertain than a few weeks ago. December 2018 offers important clues about what this might mean for relative performance. That month, when expectations of US versus RoW growth appeared to be reversing, the US dollar fell, RoW equities outperformed, duration in the US outperformed Europe and both value and cyclicals did much better than their betas had suggested. In the next 12 months, we expect all those performance trends to apply, understanding that they would represent major reversals in trends that have been in place for a decade.

We Expect RoW Growth to Outperform the US



Note: Rest of world includes all economies covered by Morgan Stanley & Co. except the US.
Source: Morgan Stanley & Co. Research as of May 12, 2019

Valuations for Growth and Quality Are Elevated



Note: Based on data from 1999 onward
Source: Morgan Stanley & Co. Research as of May 12, 2019

The Price vs. Fundamentals Gap

The final gap is between the large rally in risk premiums for the year to date and the more uneven trends in fundamentals. Some of the rally was clearly justified, as prices began the year well below our end-2019 base case for equity and credit. The issue now, rather, is how far these prices have come—especially as, in the time since, some fundamentals have worsened. In equities, markets have made substantial gains even as earnings estimates have fallen, meaning that multiple expansion has accounted for more than 100% of the rally. In credit, spreads are back to the lower end of their 10-year range. In interest rates, a global rally has meant that yield has diminished dramatically, with the return from holding bonds near the lows of the last 20 years. Finally, in currencies, the relatively higher yield on US dollar assets has driven the greenback's valuations to extreme levels, implying a high degree of confidence in our view that US growth outperformance continues.

Of course, not all prices have swelled. The equity market had bid up both growth and quality stocks, leaving value and junk by the wayside (see chart). This is an odd response for a market that's supposedly confident that economic growth is fine. We don't think that it is sustainable. ■

Trade Tensions Cloud the Global Economic Outlook

CHETAN AHYA

Chief Economist and Global Head of Economics
Morgan Stanley & Co.

The global economy has swung back to a regime of policy dominance. Unlike 2017 and 2018's first half when the private sector was on an autonomous recovery path and policy accommodation could be withdrawn, now the global economy is again highly dependent on policy support. In the current minicycle, the interplay of trade tensions and policy easing will continue to determine the cycle's swings.

SIGNIFICANT RISK. Trade tensions have become a key risk. The main mitigating factors compared with the second half of 2018 are that China has already put a significant amount of fiscal stimulus in place ($250 billion, about 1.75% of GDP) alongside the requisite monetary accommodation, while the Federal Reserve has moved away from its tightening bias. Since December, US financial conditions have eased by the equivalent of nearly 90 basis points in the fed funds rate, and they remain supportive of growth. In our base case, policy support from China combined with easier financial conditions should translate into a modest recovery. Using a temporary escalation scenario, our base case for 2019 global economic growth is 3.4% (see table).

Trade tensions can be assessed by the initial impact of tariffs and their spillover effects on supply chains, as well as the impact on corporate confidence and capital investment. The integration of supply chains both domestically and globally has meant that any trade measures implemented on a single country or sector will likely extend beyond the direct impact and produce significant spillover.

CORPORATE CONFIDENCE. The damage from trade tensions is more pronounced via corporate confidence and capital spending channels than in direct trade. Indeed, global investment fell to 3.4% as compared with 4.7% in 2018's first quarter. In March, global capital goods imports were down 3% on a three-month moving average basis versus a 21% gain a year ago. At the same time, global growth slowed by 0.8 percentage points. Given that easing has only recently led to a tentative recovery in corporate confidence, the cycle is at risk if the damage to confidence becomes entrenched, spending fails to improve and a negative feedback loop of weaker growth/tighter financial conditions unfolds.

Given the situation, we posit three scenarios for trade tensions:

Temporary escalation. The 25% tariffs remain in place for about four weeks, talks continue and there is progress toward a deal. China's easing measures remain intact, the Fed stays on hold and policy support helps the global economy to recover toward trend growth.

Extended escalation. Tariffs stay in place for around three to four months. Talks continue, but corporate confidence takes a major hit for the second time in six months. Downward pressure on growth builds: Chinese policymakers ease both monetary and fiscal policy while the Fed cuts rates by an initial 50 basis points. China and US growth weaken by 20 basis points and 30 basis points, respectively, relative to the baseline, even after the policy response. Net-net, global growth decelerates to an annualized 2.7% to 2.9% by the third quarter from the first quarter's 3.2%, but the global economy avoids recession—just barely.

No deal. With no agreement, the US imposes tariffs on all China imports and China imposes 25% tariffs on all US imports while restricting state-owned enterprises' purchases from the US. With this shock to the global economy, even though the Fed cuts rates all the way to zero by spring 2020 and China embarks on aggressive monetary and fiscal stimulus, a global recession cannot be prevented. ■

Morgan Stanley & Co. Real GDP Forecasts

	2018	2019E			2020E			2021-23E
	Base	Bear	Base	Bull	Bear	Base	Bull	Base
Global	**3.7%**	**2.5%**	**3.4%**	**3.8%**	**2.0%**	**3.5%**	**4.4%**	**3.5%**
G10	**2.1**	**1.0**	**1.6**	**1.9**	**-0.3**	**1.6**	**2.4**	**1.2**
US	2.9	1.9	2.4	2.6	-0.2	2.1	2.8	1.1
Euro Zone	1.8	0.6	1.2	1.5	-0.3	1.4	2.4	1.0
Japan	0.8	-0.7	0.3	0.5	-1.0	0.3	0.8	1.3
UK	1.4	0.9	1.2	1.3	0.1	1.5	2.1	1.3
Emrg. Mkts.	**4.8**	**3.6**	**4.5**	**5.1**	**3.5**	**4.8**	**5.7**	**4.8**
China	6.6	6.0	6.5	6.8	5.5	6.3	6.7	5.5
India	7.4	6.3	7.0	7.5	6.4	7.4	8.2	7.3
Brazil	1.1	0.6	1.4	2.2	1.2	2.5	3.3	2.4
Russia	2.3	0.3	1.5	2.7	0.2	1.8	3.4	1.8

Note: The above aggregates are weighted by purchasing power parity.
Source: Bloomberg, IMF, Morgan Stanley & Co. Research as of May 12, 2019

US: Waiting Patiently

ELLEN ZENTNER

Chief US Economist
Morgan Stanley & Co.

Earlier this year, headwinds cut growth in final private domestic demand by half, but those transitory factors—government shutdown, weather and a bout of market volatility—have faded. Financial conditions have eased, the labor market continues to strengthen, wages are rising, consumer spending and confidence have rebounded and capital spending plans have stabilized. We have taken up full-year 2019 growth to 2.4% versus 2.0% previously. We have also adjusted 2020 growth, shaving it to 2.1% versus 2.2%.

DOWNSIDE RISKS. Still, risks to the outlook skew to the downside and are driven externally by trade negotiations. Further or prolonged escalation of trade tensions would weigh on the economy via less demand for US exports, dampened corporate sentiment that weighs on investment and hiring plans and spillover into the broader US supply chain. Financial market reactions could lead to a tightening of conditions that amplify negative reactions through the broader economy. In an extended escalation scenario, GDP growth loses about a half a percentage point, some of which we expect would be offset by the Federal Reserve, as policymakers cut the fed funds rate by 50 basis points (see page 6).

We also believe that core inflation remains subdued through the first half of 2020. We have brought down our 2019 core inflation forecasts across the board, with 1.7% for the core Personal Consumption Expenditure Index and 2.1% for the Consumer Price Index. In our estimation, the upwardly revised unemployment rate path of 3.5% shaves off 0.2 percentage points from our 2020 core inflation projections.

POLICY PIVOT. Bowing to the Federal Reserve's policy pivot, we have removed an additional hike in 2020. We now expect the Fed to remain on hold until the second half of 2020, delivering hikes in September and December. Following seven consecutive months of inflation above the 2% annualized goal, the two hikes we envision will be a gentle push on the part of the Fed to keep inflation above that hurdle while at the same time not losing control over its growth.

We believe that the Fed's focus on its inflation target will result in a change to its longer-run policy goal in January 2020 that instructs what happens when the nominal policy rate nears or hits zero. We expect that, when faced with the lower bound, the Fed will adopt a soft average inflation target going forward but with safeguards to address inflation over-shooting and financial stability concerns.

BEAR CASE. In our bear case, trade tensions, market volatility and tighter financial conditions weigh on the US economy. This begins a negative feedback loop in which the US consumer retreats and margin pressures lead to a large-scale cutback on labor and corporate investment. Upward pressure on the dollar leads to sustained downside on inflation. With incoming data pointing to negative GDP growth in the second half of 2019 and inflation slipping lower, the Fed begins to cut rates aggressively in 50-basis-point increments. Rate cuts accelerate in 2020, falling back to zero by the spring.

In addition to trade tensions, we expect headline risk around the debt ceiling and budget debates that will play out early in the fall. Our baseline incorporates our US public policy strategists' expectations that we will be able to get past these issues, but that the debate will be contentious. Ultimately both parties will want to avoid a cliff in an election cycle and the budget caps will be raised to match the amount in fiscal year 2018, such that the effect on government spending is neutral. ■

MS & Co. US Economic Midyear Outlook

	2017	2018	2019E	2020E
Real GDP Growth	**2.2%**	**2.9%**	**2.4%**	**2.1%**
Private Consumption	2.5	2.6	2.3	2.4
Government Consumption	-0.1	1.5	2.8	2.1
Gross Fixed Investment	4.0	4.8	3.6	3.9
Contribution to GDP (percentage points)	-0.1	5.5	3.7	2.8
Final Domestic Demand	2.5	3.0	2.6	2.7
Net Exports	-0.3	-0.2	-0.1	-0.4
Inventories	0.0	0.1	0.0	-0.3
Government	0.2	0.3	0.5	0.9
CPI	**2.1**	**2.4**	**2.1**	**2.6**
Core PCEPI*	**1.6**	**1.9**	**1.7**	**2.2**
Unemployment Rate**	**4.1**	**3.8**	**3.5**	**3.2**

*Personal Consumption Expenditure Price Index
**Projections are for the average in the fourth quarter of the year indicated.
Source: Morgan Stanley & Co. Research as of May 12, 2019

Where Do Tariffs Land? Everywhere

ELLEN ZENTNER

Chief US Economist
Morgan Stanley & Co.

The US has placed $74 billion in tariffs on Chinese products so far, and some major retailers have warned of higher prices ahead (see table). However, this is not a dollar-for-dollar pass-through. Here are other ways tariffs can be absorbed.

Reduced profit margins for Chinese producers. Chinese producers may lower prices to offset part of the tariffs paid by US importers. While not widespread, some anecdotal evidence suggests it is happening to a limited degree.

US dollar appreciation against the renminbi. This occurred last year and is happening again now, and should have the same effect as Chinese producers lowering prices to offset tariffs. Import prices from China, excluding the effect of tariffs, were down an annualized 1.1% in April, likely from dollar appreciation against the renminbi. When tariffs were raised by about $30 billion on May 10, the renminbi depreciated sharply in response.

Substitution away from Chinese-produced goods. Demand for these goods should decline as prices inclusive of tariffs rise and consumers and businesses purchase goods made elsewhere or reduce demand altogether. There is probably some scope for demand reductions, particularly for durable goods for which purchases can be delayed; the first two waves of $50 billion of Chinese imports subject to a 25% tariff were mainly entirely capital equipment. Perhaps as a response, the value of Chinese imports declined an annualized 18.5% in March. Overall, these first three channels likely absorbed about half of the value of tariffs in place before May 10.

Reduced US profit margins. For capital goods and intermediate inputs, we think US producers will absorb a substantial portion of higher tariff costs through lower profit margins. For finished consumer goods, profit margins on many are so large that there is room to absorb tariffs. Costs also could be absorbed by local distributors and retailers. Anecdotal evidence, as well as companies' earnings reports, suggests some tariffs costs have been absorbed through profit margins. Given the evidence on the other tariff absorption channels, a nontrivial portion (say, one-fifth) of tariff costs appears to have been absorbed in margins.

For reference, US aftertax profits were about $2 trillion in the US in 2018, so a reduction of $15 billion to $40 billion could lower aggregate profit growth by 0.75% to 2.0%. Similarly, our equity analysts estimate that the direct effect of the 25% tariff on $200 billion of Chinese imports shaves 1.0% to 1.5% from the net income of S&P 500 companies.

Higher consumer prices. Tariffs on capital goods should ultimately raise the cost of production for consumer goods, but the higher cost is likely to be spread out over a number of years since capital equipment is durable and often financed with debt. We expect about 10% of the cost of tariffs on capital goods will be absorbed by higher consumer prices per year. We expect higher intermediate input costs to pass through gradually to consumer prices as well, with about 20% of the tariff costs being absorbed by higher consumer prices per year.

For consumer goods, a simple calculation based on rough translations of import categories into CPI components yields a higher upper bound on consumer price pass-through, and we do assume higher pass through into the core Personal Consumption Expenditure Index: 54% in the 12 months after tariffs are implemented, with half of that occurring within the first three months. The higher pass-through is mainly due to the knock-on effect of tariffs raising prices for other goods, mainly substitute goods produced domestically or in countries competing with China. ■

How Trade Could Incrementally Impact Inflation

	Policy Action	Inflation Impact (percentage points)* 2019	2020
Temporary Escalation	• 25% tariffs for a relatively short time • Talks continue	0.05	0.04
Extended Escalation**	• Tariffs remain for a longer period • Talks continue	0.10	0.07
No Deal	• US imposes tariffs on all Chinese imports; talks stall • China places 25% tariffs on all US imports; restricts purchases by state-owned enterprises	0.26	0.13

*Incremental impact on core Personal Consumer Expenditure
**This scenario varies slightly from the global assumption of three to four months. Instead, we assume extended escalation to be more lasting, such that inflation impact becomes more visible.
Source: Morgan Stanley & Co. Research as of May 23, 2019

Tougher Times Ahead for Global Equities

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Forecasts from our global economists remain generally supportive for equity markets as they project a moderate recovery in global growth against a backdrop of low inflation and dovish central banks. However, the main issue is the extent to which this benign backdrop is already reflected in current valuations, given that global equities have enjoyed an 18% jump in the price/earnings (P/E) ratio since the start of the year, despite material declines in 2019 earnings estimates. Are we facing a "travel and arrive" situation, or is there is scope for further upside?

In support of travel and arrive, the more cautious view is that the best news about dovish pivots by central banks—especially the Federal Reserve—is behind us, while uncertainty around US-China trade tensions is rising again after a dip through the first quarter. Given that, in our opinion, these two factors together were the biggest driver of equities in the first part of this year, we strongly believe the best period of market returns is now behind us. In our base case we assume that the renewed upturn in US-China trade tensions proves temporary, albeit with the likelihood that weaker markets may be required to act as a circuit breaker to encourage de-escalation. However, it is also plausible that this latest bout of uncertainty proves more persistent and increases downside risks for growth and risk assets.

MUTED SENTIMENT. In our base case forecasts we still have upside to our 12-month price targets for non-US equity markets (see table). Still, we are reluctant to reduce our global equity exposure aggressively for two reasons. First, we believe that investor sentiment toward the global economy remains muted, particularly in relation to skepticism about the strength and breadth of China's recovery and its ability to boost the wider growth outlook across Europe, Asia and the emerging markets. Consequently, evidence that global growth is indeed beginning to recover (in line with our economists' view) should be supportive for stocks.

Second, while a nearly 20% year-to-date P/E expansion sounds excessive, it is not obvious that equity valuations have overshot absent a sustained rise in trade tensions. The rebound in the MSCI World Index's next 12 months' (NTM) P/E ratio from the December low has now paused and is below its median since 1987 (see chart, page 8). At the regional level, equity valuations still look quite low for Europe and especially Japan, while the emerging markets appear extended versus the last five and 10 years (see chart, page 8).

US FULLY PRICED. The US is where we think equities are most fully priced. After years of outperforming, relative valuations are close to all-time highs, and the region is a heavy consensus overweight among investors. For much of the last decade, US outperformance has been driven by both a relative valuation rerating and superior earnings trends, but we believe that the earnings per share is coming under increasing pressure due to rising margin pressures. By the end of 2020, our top-down forecasts for S&P earnings are 10% below consensus.

MS & Co. Top-Down Earnings Forecasts and Next 12 Months' P/E Assumptions

Index	Jun '20 Base Case Index Target (% upside)	MS Top-Down Base Case EPS Forecast (year-over-year growth) 2019	2020	2021	Consensus EPS Forecast (year-over-year growth) 2019	2020	2021	MS Base Case Next 12 Mos. P/E June '20	Consensus Next 12 Mos. P/E	Consensus Five-Yr. Avg.	Next12 Mos. P/E 10-Yr. Avg.
S&P 500	2,750 *-4%*	162.0 *0%*	170.0 *5%*	180.0 *6%*	168.0 *4%*	187.0 *11%*	207.0 *11%*	15.8	16.7	16.6	15.0
MSCI Europe	1,640 *9%*	112.0 *4%*	116.0 *4%*	123.0 *6%*	113.0 *5%*	123.0 *9%*	132.0 *7%*	13.7	13.3	14.4	12.9
TOPIX	1,700 *12%*	122.0 *3%*	128.0 *5%*	134.0 *5%*	125.3 *6%*	133.3 *6%*	142.6 *3%*	13.5	12.0	13.7	14.3
MSCI EM	1,030 *3%*	85.1 *6%*	91.9 *8%*	98.7 *7%*	85.4 *6%*	96.9 *13%*	107.8 *11%*	11.5	11.6	11.6	11.2

Source: IBES, RIMES, Morgan Stanley Research forecasts as of May 27, 2019

In a number of respects Japan is the opposite image of the US. It is tactically oversold and unloved while average relative valuations are at all-time lows. The MSCI Japan Index's dividend yield is now within 2% of that of the MSCI World Index for the first time since 1972. We also think that the return on equity for Japanese companies is on a structurally rising trend. More tactically, earnings revisions should be sensitive to an improvement in China's growth, while any potential deferment to the consumption tax hike would likely lift economic and earnings growth expectations. We give such a 50-50 chance of that happening.

UNLOVED AND UNDERVALUED. Although Europe and Japan can be classified as both unloved and undervalued, we prefer Japan as it seems to offer a better potential earnings and profitability story and more compelling undervaluation. Our top-down European EPS forecasts are 6% below consensus by December 2020 versus 4% below for Japan—and, unlike Japan, we see little scope for P/E expansion in Europe.

One pushback to our cautious view on the US is investor perception that the region is relatively defensive in any risk-off event while still offering good upside in a more positive environment. Such is the crowded positioning in US stocks that we think this argument no longer holds true. Indeed, the one-year beta of the MSCI USA Index versus the MSCI World Index is at a 20-year high—a stark contrast to Europe, where the beta is at a 20-year low (see chart, page 9). Furthermore, the data shows the US beta is now higher in up and down markets than any of the other major regions.

Here are our key regional forecasts and views:

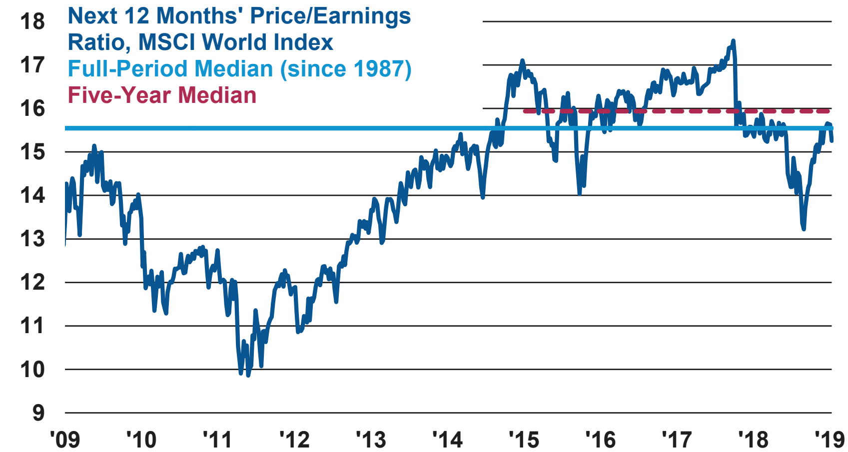
US

●Our 2,400 to 3,000 bear-bull range for the S&P 500 has played out well so far, but the speed and timing of the moves—both to the downside in December and to the upside this year—have surprised us. Tightening financial conditions and peaking growth last year led to material multiple compression, while this year's Fed pivot and expected bottoming in global growth spurred a massive rally.

●Rapid Fed shifts moved the market multiple quickly, but not the earnings growth outlook. Equity troubles last year began with earnings estimates weakening at twice their normal seasonal rate. Then, new Fed Chair Jerome Powell's perceived lack of sensitivity to market concerns accelerated the declines—and P/E multiples fell 20%. The Fed's pivot on Jan. 4, the dovish rhetoric that followed and expectations for a second half growth rebound led to a 25% rise in multiples. We're skeptical that the Fed can fix the growth problem on its own, because looser financial conditions won't relieve pressures from tight labor markets, excess inventory, slowing capital spending, difficult year-over-year comparisons and still-high expectations for the second half, as well as 2020.

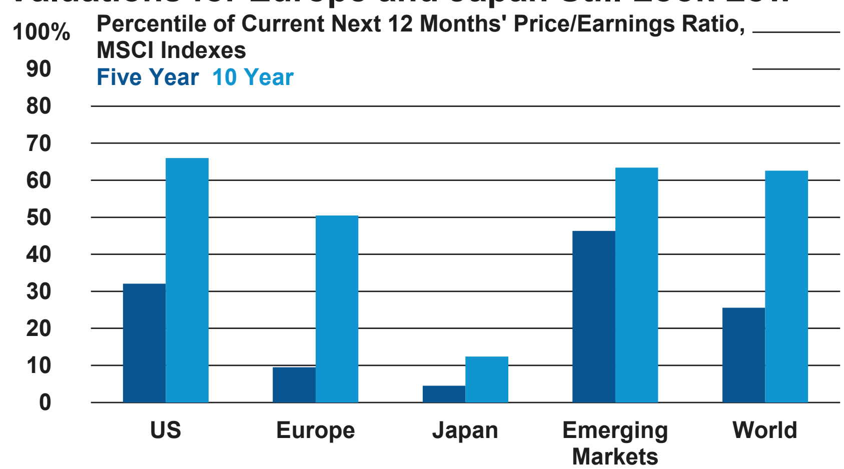
●The fully priced Fed and earnings slowdown skew risk/reward negatively. The global economy is bottoming now and the Fed's pivot should help to keep the US economy growing at about 2%, but we expect payback from last year's boom in the near term and margin pressures to force NTM earnings forecasts lower. As expectations fall, likely in the second half of 2019, we expect pressure on the multiple, leaving us with an S&P base case target of 2,750. We think that the market is

Forward MSCI World P/E Below Long-Term Median



Source: MSCI, IBES, Morgan Stanley & Co. Research as of May 21, 2019

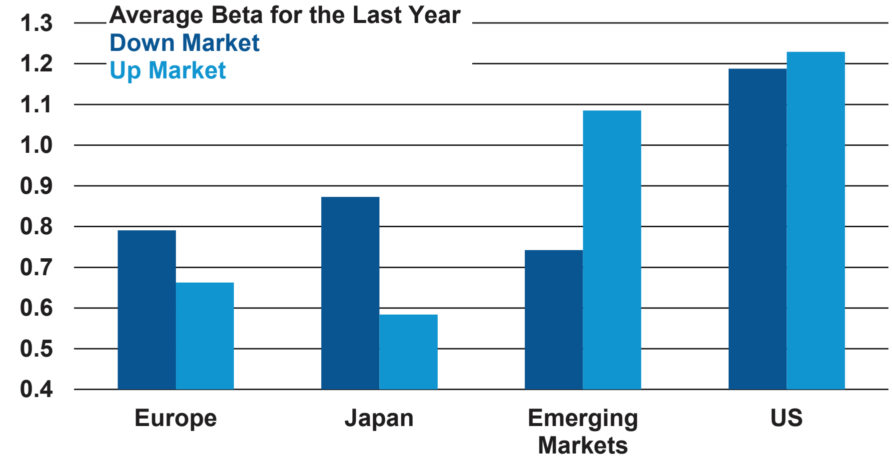
Valuations for Europe and Japan Still Look Low



Source: MSCI, IBES, Morgan Stanley & Co. Research as of May 21, 2019 fully priced at our bull case of 3,000, which assumes a multiple of 16.8, the high end of our fair-value range on what we think are best-case earnings per share for 2020 through 2021. Our bear case of 2,400 remains unchanged and embeds a mid-single-digit earnings contraction in 2020 alongside a lower P/E.

●We retain our preference for large caps over small caps and remain cautious on richly valued, late-cycle, high-quality stocks. We continue to skew defensively in our sector recommendations with our overweights on consumer staples and utilities and some value cyclical exposure in financials. We remain underweight consumer discretionary and technology.

US Equities No Longer Low Beta in Down Markets



Source: MSCI, Morgan Stanley & Co. Research as of May 21, 2019

Europe

●Although European equities have rallied sharply since we had a buy signal on our market-timing indicators last December, we still see some modest 6% upside to our new price target in the next 12 months, which incorporates modest upgrades to our earnings per share and P/E assumptions.

●We raised our 2019 EPS growth forecast to 4% from 1% to reflect our currency team's new forecast for the euro relative to the dollar, which is considerably weaker than previously, as well as a higher oil price forecast from our commodity strategists.

●We raised our P/E assumption modestly to 13.7, the long-run median, from 13.1. This upgrade primarily reflects reduced uncertainty around central bank policy and our base case view that the latest bout of US-China trade uncertainty proves to be temporary.

As reflected in the persistent outflows from the region, we think that investor sentiment toward Europe remains low, with concerns about a lack of growth and the potential for EU auto tariffs. Any sign that the domestic economy is recovering should prove a positive catalyst for stocks.

●The level of valuation dispersion is particularly extreme in Europe, and we recommend that investors selectively rotate from quality to value. Our overweights are cheap cyclicals—such as autos, mining and transportation—and Euro Zone domestic cyclicals, plus insurance, telecom, real estate and the FTSE 100 Index. Our underweights are expensive cyclicals such as capital goods, chemicals and retailing. Pharmaceuticals are an underweight, too.

Asia and the Emerging Markets

●Having lagged substantially year to date, we think that Japan outperforms the emerging markets going forward. The rationale for the Japan catch-up trade is based on relative valuations to both the emerging markets and the US; relative outperformance in the second half at a similar stage of the Chinese and global business cycles (on our base case outlook); a delay in the consumption-tax hike; and that Japan is more defensive than emerging markets oil prices or US-China and US-EU trade tensions worsen.

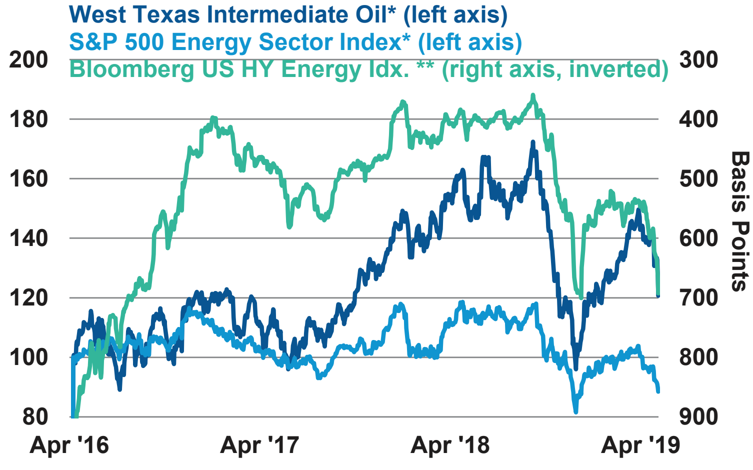
●China A-shares should cease outperformance over offshore China stocks, as the major upside surprise in China stimulus lies behind us. Also, valuations for A-shares recently moved above both emerging markets and the MSCI China Index after having been at a 15% discount late last year.

●We remain overweight Brazil and India but downgrade Taiwan to underweight from equal weight on increased caution over tech hardware after stock-price gains and given our bottom-up team's concerns about a second half recovery and supply chain interruptions arising from trade tensions. For Brazil, the cyclical story is compelling and should unfold after fiscal reform is enacted in some form in the second half. Unemployment is 12.2%, industrial capacity utilization is running well below the historical average and the benchmark overnight interest rate is at a historical 6.5% low, while 2019 through 2021 inflation expectations are well anchored below 4.0%. Meanwhile, India is likely to enter a postelection environment in which monetary policy is able to ease, given much improved fiscal and external deficits. Growth could also rebound, which should help equities.

●On the sector side, we remain overweight materials, energy and real estate but upgrade utilities to overweight as a defensive pivot, except in Japan. We retain an overweight on financials in Japan but downgrade elsewhere in Asia and the emerging markets. In Japan, we continue to focus on firms that are productivity and innovation leaders and exhibit trend corporate governance and improvement in return on equity. From a style perspective, we continue to favor quality and prefer value to growth. ■

Why Oil Stocks Don't Have Much Energy Anymore

Though they have slid a bit in the past few weeks, oil prices are up nearly 18% this year. In contrast, the S&P 500 Energy Sector Index is up only 2% (see chart). While historically there has been a strong correlation between oil, energy stocks and corporate spreads for energy companies, those relationships started to change in mid-2016 when energy stocks began to underperform. Energy debt, however, has generally traded closely with oil prices. The spread narrowed to 625 basis points on May 24 from 690 basis points at the start of the year—and ricocheted to 693 in the month-end sell-off. While temporary divergences are not unusual, three years have passed, suggesting that secular factors may be at work. Although energy equities remain correlated with oil prices, they have trailed the commodity's performance, weighed down by concerns relating to long-term earnings growth, increased opportunities in renewable energy and a gradual shift in consumer preferences away from fossil fuels.—*Nicholas Lentini*



*May 2, 2016=100 **Option-adjusted credit spread
Source: Bloomberg as of May 31, 2019

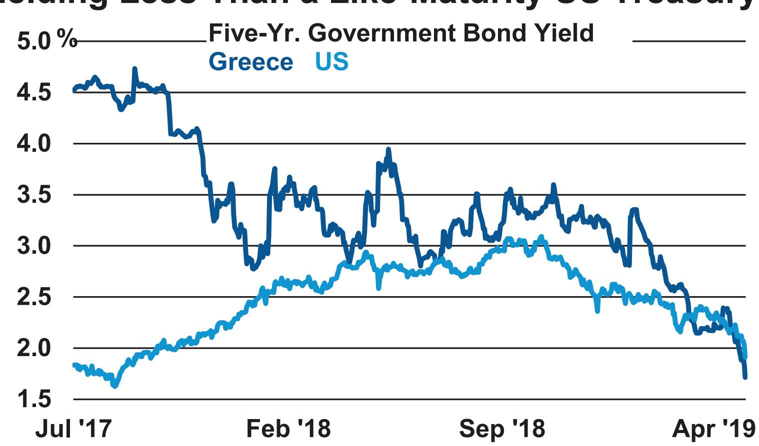
Global Trade Continues to Decline

Source: Bloomberg as of Feb. 28, 2019

Growth in global exports has continued to decline, having dipped to negative year-over-year readings in December (see chart). This downward momentum has emerged amid rising protectionism and uncertain trade negotiations, particularly between the US and China. The standoff between the two countries has dragged meaningfully on world exports this year, exacerbated by a strong US dollar. Any further escalation in the trade dispute would likely create further distortions in global supply chain, crimping business investments and softening global demand. Historically, global growth has tightly tracked global trade. The sharp downturn of global exports provides further evidence that demand from major markets is waning, underscoring the significant risks of decelerating global growth from ongoing trade tensions.— *Lisha Ge*

The Curious Case of a Greek Bond Yielding Less Than a Like-Maturity US Treasury

Not that many years ago, the IMF, the European Central Bank and the European Commission granted Greece a $375 billion bailout that also led to massive government cutbacks, a deep recession and widespread unemployment. Greece exited the bailout plan last summer, and it still has a mountain of debt. Yet, five-year Greek government bonds, given a junk bond rating of B+ by Standard & Poor's, now trade at a 1.71% yield (see chart). In contrast, the five-year US Treasury note, with an investment grade AA+ credit rating, yields 1.91%. Typically, yields follow credit quality, so why is the five-year Greek government bond yield lower than that of the five-year US Treasury? For international bond buyers, the Greek issues may be attractive because comparable-maturity German, French and Japanese bonds have negative yields. In fact, it costs money to own a bond with a negative yield.—*Chris Baxter*



Source: Bloomberg as of May 31, 2019

Global Government Bond Yields Apt to Remain Low

MATTHEW HORNBACH

Global Head of Interest Rate Strategy
Morgan Stanley & Co.

With central banks mostly on hold, inflation subdued and downside risks abound, we expect developed market sovereign yields to remain low from a historical perspective. In general, we expect lower yields in the US and higher yields in Germany and the UK (see table). Yield curves in the US and Japan should see the least movement, while curves are likely to steepen in Germany and flatten in the UK. Thematically, we think the yield spread between the US and Europe will continue to shrink.

US. We expect the 10-year Treasury yield, now at 2.14%, should be about 2.25% by the end the year as the Federal Reserve remains on hold and global risks weigh on investors' minds. Poor performance in equity and corporate credit markets, as forecast by our respective strategists, should aid in the decline of Treasury yields. Given the higher yields on Treasuries and higher level of monetary policy rates relative to other liquid government bond markets, Treasuries should be the investor choice for hedging the downside in risky assets. Given these factors, we expect the market to continue pricing in rate cuts, even though our economists do not project them.

In terms of the Treasury curve, we expect it to remain flat relative to history. We no longer see a pronounced or long-lasting curve inversion, given that the Fed does not anticipate a rate hike until 2020. At the same time, we don't see a steepening yield curve, given that our economists don't have rate cuts in the base case.

Euro Zone. We forecast a modest rise in intermediate- and longer-maturity German Bund yields in the second half of 2019 and first half of 2020, as both growth and inflation rebound in Europe following a prolonged period of disappointment on both fronts. However, our economists anticipate that growth will begin to fall below trend in 2020, consistent with a European Central Bank (ECB) that will be somewhat reluctant to embrace the near-term rebound, resulting in an unchanged ECB deposit rate.

In our view, the likelihood of only moderate engagement by the ECB with any second half growth and inflation rebound will limit a rise in Bund yields. That said, the balance of risks for Bund yields remains to the upside should growth accelerate faster than expected and year-on-year inflation bottom sooner than expected. A perception by the market that the next ECB president is more hawkish could also act as an upside risk for Bund yields.

UK. Our economists expect a "softer" Brexit deal to be ratified in November 2019, allowing the UK to enter the transition period. Given the Monetary Policy Committee's (MPC) underlying hawkish bias, we think upon ratification it will swiftly guide the markets toward a rate hike in January 2020. As we approach the fourth quarter, we expect gilt yields to rise gradually in anticipation of a softer outcome. Gilt yields will continue to be volatile around Brexit-related news flow, but are likely to be largely range-bound until the uncertainty is lifted definitively. We expect to see a more pronounced sell-off toward the end of the year and into early 2020 on the back of both ratification and the MPC returning to focus.

Japan. Given a subdued inflation outlook, our economists expect the Bank of Japan to push back the timing of forward guidance on the long- and short-term policy rates from "at least through around spring 2020" to at least fall 2020. Clear forward guidance and subdued actual core Consumer Price Index numbers will keep the rate expectations well anchored below 0% over our forecast horizon, in our view.

From a supply/demand perspective, we believe that Japanese life insurance companies will continue to demand super-long Japanese government bonds (JGBs)—the only assets on the JGB yield curve able to provide attractive yields. We expect the 30-year JGB to end at 0.45% in the second quarter of next year. As for short-to-medium-term yields, we expect them to remain anchored below the level of short-term policy rates, thanks to sustainable demand from overseas investors. ■

MS & Co. Government Bond Yield Forecasts

Maturity	Two Years		Five Years		10 Years		30-Years	
Country	4Q '19	2Q '20	4Q '19	2Q '20	4Q '19	2Q '20	4Q '19	2Q '20
US	2.15%	2.05%	2.10%	2.00%	2.25%	2.20%	2.65%	2.60%
Germany	-0.50	-0.45	-0.25	-0.20	-0.08	-0.08	0.90	1.05
Japan	-0.18	-0.18	-0.18	-0.18	-0.08	-0.08	0.45	0.45
UK	0.90	1.15	1.00	1.35	1.30	1.40	1.75	1.85

Source: Morgan Stanley & Co. Research as of May 12, 2019

Short-Term Fixed Income Funds Gain Appeal

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With short-term interest rates well above the near-zero levels where they sat for years after the financial crisis and, thanks to the flat yield curve, yielding a little less than long-term bonds, investors are increasingly turning to shorter-term fixed income investments. These funds can provide some income while serving as a hedge against market volatility (see table).

Short-duration fixed income fund assets have grown to $480 billion from $100 billion in the past 10 years. With stocks turning more volatile in May while the yield on the benchmark 10-year Treasury note is once again below 2.5%, Global Investment Manager Analysis (GIMA) expects to see interest in these funds grow.

Short-duration fixed income funds are diverse and differ in risk/return profile and expected yields. GIMA's due diligence process makes sure many quality managers are available on our platform, but Financial Advisors need to choose the right vehicle for their client's needs.

Below are some short-duration fixed income categories and guidelines for when to consider different options:

Money Market Funds. These funds can act as a proxy for cash and are a good option for emergency funds or assets ready to be deployed for a purchase, large expense or new investment. Securities in money market funds must have an average maturity of 60 days or less. They are not insured by the FDIC.

Ultrashort Bond Funds. One step up in duration from money market funds, ultrashort funds invest in slightly longer-term fixed income instruments and typically have an average duration of six to 18 months. They may take limited credit and interest rate risk and are a good option for investors who want safety, but also some yield. The 10-year average annual return for ultrashort bond funds through 2018 was 1.7%, according to Morningstar.

Short-Term Bond. These funds are another step out on the maturity horizon and typically have durations of 18 months to three years. Risks and yields vary depending on the fund's strategy. Credit, interest rate and liquidity risks are all possible. The 10-year average annual return for these funds through 2018 was 2.4%, according to Morningstar.

Short-Term High Yield. These funds invest in securities rated below investment grade with maturities of 18 months to three years. Clearly, they take much more credit risk than investment grade short-term funds. Yields can be quite a bit higher, but potential for losses is, too. These funds are appropriate as part of a high yield allocation in a portfolio.

Short-Term Municipal Bond. For taxable accounts, there are tax-exempt versions of all the short-term fixed income fund categories. The 10-year average annual return for short-term municipal bond funds through 2018 was 2.4%, according to Morningstar. There are additional considerations when choosing a short duration fund. For example, some funds may represent a single asset class (corporate bonds, bank loans or government bonds), or diversify across security types. It may include securities that may have elevated risks, like emerging market debt, high yield bonds or bank loans; such funds may include "plus" or "multisector" in their names. Funds can also vary by how sensitive they are to interest rate fluctuations.

Market shocks, shifting economic conditions, geopolitical events, and esoteric environments can also influence how these funds perform. Evidence suggests that under most market conditions, lower-risk strategies with shorter durations have provided a positive hedge and low correlation to riskier fixed income and equities. Similarly, higher-risk strategies with a longer duration have provided less of a hedge during market shocks and rising interest rate environments. ■

Short-Duration Index Returns During Market Shocks

Event	Main Year	S&P 500	US Treasury Returns: Three-Mo. Bills*	US Treasury Returns: Two-Year Notes**	US Treasury Returns: Five-Year Notes**
Iraq Invaded Kuwait	1990	-13.5%	0.7%	1.1%	-0.1%
Russian and Long-Term Capital Management (LTCM)	1998	-15.4	0.9	2.2	3.2
Bursting of Tech Bubble and 9/11	2001	-29.3	8.7	15.4	19.6
Financial Crisis	2008	-50.9	2.8	8.6	16.7
2016 Elections	2016	12	0.1	-0.5	-2.2

**ICE BofAML 3-Month Treasury Bill Index
**Ryan Labs 2-Year and 5-Year Treasury Indexes
Source: Morgan Stanley Wealth Management Portfolio Analytics

Preparing for the US Dollar Sell-Off

HANS REDEKER

Head of FX Strategy Team
Morgan Stanley & Co. International PLC+

For the past 20 years, the US dollar has benefited from improving global liquidity conditions, which were in turn driven by the rest of the world increasing its net savings and the accommodative monetary policy from inflation-targeting central banks. US capital imports flourished in this environment, keeping funding conditions supportive. It also incentivized companies to leverage up and therefor eroded US balance sheet quality.

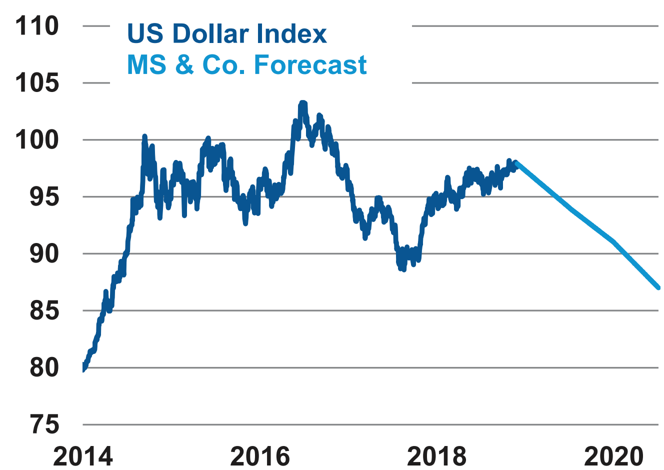
Now, the tide may be turning for the dollar. External savings have started to decline, and while inflation may stay low for now, global capacity reserves should ease once non-US growth regains some of the momentum lost last year due to trade tensions and China's previous financial deleveraging policy. Hence, the bulk of central bank accommodation may be behind us.

LESS LIQUIDITY. Looking ahead, tighter global liquidity conditions seem more likely, which will not bode well for the currencies of areas dependent on capital imports, such as the dollar. What's more, eroding US real yields reduce the attractiveness of dollar-based assets, and that should translate into dollar weakness as the US capital inflows reverse. Broadly speaking, we see the US Dollar Index, now at 97, declining about 10% by the end of 2020 (see chart).

Initially, we expect low-yielding currencies, such as the Japanese yen, currently at 108 to the dollar, and the euro, at 1.12, should lead the rally against the weakening dollar (see table). Our forecast for the yen is 108 in the fourth quarter, 104 a year from now and 98 by year-end 2020. The euro has a similar trajectory: 1.16 in the fourth quarter, 1.20 by mid 2020 and 1.26 by the end of 2020. In our view, emerging market (EM) currencies as a bloc may follow suit, also making gains against the greenback.

EM ASSETS. Later this year, EM assets may benefit from US dollar weakness and low real yields. Deteriorating global liquidity conditions won't necessarily be positive for the emerging markets, but a weaker dollar should offset some of the pressure. EM countries and companies that issued dollar-based bonds should find it easier to service their debt as their payments will be in a depreciating currency. ■

MS & Co. Expects a Decline In the US Dollar Index



Source: Morgan Stanley & Co. Research as of May 31, 2019

MS & Co. Global Currency Forecasts

Currency vs. US Dollar	Current	4Q '19	2Q '20	4Q '20
Euro	1.12	1.16	1.20	1.26
Japan	108	108	104	98
UK	1.26	1.38	1.45	1.51
China	6.90	6.60	6.50	6.45
Canada	1.35	1.30	1.32	1.34
Australia	0.70	0.71	0.73	0.75
Brazil	3.91	3.75	3.65	3.65
Mexico	18.92	19.00	19.30	19.60
US Dollar Index	98	94	91	87
Fed's Broad US Dollar Idx.	129	111	109	107

Source: Bloomberg, MS & Co. Research as of May 28, 2019

The Bullish Case for European Equities

The case for investing in Europe is an easy one, says Katrina Dudley, portfolio manager of the Franklin Mutual European Fund—but not on account of promising growth potential or outstanding earnings prospects. "Investor perception is so low," she explains, "that the bar Europe has to reach is not that high for you to have a better-than-expected outcome." At its best so far in 2019, the MSCI Europe Index was still 5% below its high from before the financial crisis. Meanwhile, the S&P 500 has come close to nearly doubling the 1,565 peak it hit amid the housing bubble. Dudley recently shared her thoughts on Europe, including challenges and attractive investment opportunities, with Vijay Chandar, a market strategist at Morgan Stanley Wealth Management. The following is an edited version of their conversation.

VIJAY CHANDAR (VC): What are your thoughts on Europe's growth prospects?

KATRINA DUDLEY (KD): We are quite bullish on Europe. We aren't saying this time is different, or that Europe is suddenly going to have a 4% to 5% growth rate. The market perception of Europe's growth potential is so extraordinarily low given all the negative news in 2018 and into early 2019, that it represents an investment opportunity. We've had Brexit headlines, Italy headlines, etc., that have caused investors to become pessimistic on the region, but we don't think the low expectations match the underlying macro trends that we're seeing.

There are a lot of reasons that we think there's an opportunity in the European equity market. Back in April 2018, you had the sanctions from the US against Russia that actually pulled back the growth in the Russian economy—and Europe does a lot of business with Russia, so that was a headwind. Also last year, Turkey, a big export partner, was fairly disruptive. Looking ahead, as these headwinds annualize, we expect good export growth in the region.

Not many US investors are aware that the Rhine was close to dry last summer, which disrupted chemical supply chains and had a negative impact on GDP growth in that region. Now the Rhine levels are back up, and we don't expect that to continue.

Oil prices started to strengthen in the first half of 2018, and that was another headwind that we think is settling now. Finally, the French protests last year were destructive to the markets, and had repercussions throughout the region. The last year saw an unusually high number of one-time events that occurred both within and outside the European region and the low likelihood of this repeating in 2019 makes us more optimistic in general.

We also have supportive monetary policy. The European Central Bank (ECB) has been very clear that rates will remain low in order to support economic growth in the region, and generally speaking, fiscal policy is easing. For example, Italy is putting more stimulus into the Italian economy. Recall that, coming out of the financial crisis, Europe had more restrictive fiscal policies than we had in the US. Now, most European countries have fiscal policies that are supportive of economic growth.

European consumers are a little different from US consumers—they have been a lot more conservative in terms of consumer spending, and I would say there's probably a little more pent-up demand for buying goods and services.

Finally, whereas in the US we are concerned about corporate debt levels, companies that operate in the real core economy of Europe have significantly lower levels of leverage than a similar subset of companies in the US. This has implications in terms of their ability to do mergers and acquisitions (M&A) and where they can create value through synergies and taking costs out, or it gives them flexibility to buy back shares.

VC: How would you classify where Europe is in the economic cycle today?

KD: We're not seeing any of the classic recession indicators here in the US or over in Europe. I think that is one of the disconnects we're seeing between what happens in the stock market, particularly toward the end of December when you had that sell-off, and what is happening in the underlying economy. In Europe, we have low levels of leverage in the corporate sector, so we don't see any risk on the balance sheet side. We see a consumer who is confident and has the potential to increase spending as a result.

What differentiates the European market and some of its performance versus what you've seen in the US market is that the US has a high percentage of its market cap in companies you would probably call "disruptive." In Europe, on the other hand, you have a fairly large amount of market cap invested in sectors that are being disrupted, and I think a number of investors are completely ignoring those disrupted sectors saying that all companies involved in those sectors are uninvestable.

That's where value investors and stock-pickers come in. We think there are opportunities to invest in some of these disrupted sectors—but you need to do your homework on them.

VC: How does this frame your view of where you're finding opportunities?

KD: You need to dig into the companies, do your homework and understand exactly what is driving them, and what is driving the free cash flows.

One big theme is the rise of electric vehicles and autonomous vehicles. I think a lot of investors look at this and say, "I don't want to own any company that's connected in any way to the traditional automotive supply chain," and so they won't invest in any automotive suppliers.

We look at the car of the future and say it still needs to have four tires—so we own a tire company. There are also growth areas within these sectors. For example, autonomous cars need more sensors, and sensing is a light-based technology, so we own one of the leaders there.

When analyzing these companies you need to ask if they have businesses exposed to some of these legacy technologies. What are the implications of that exposure? We are not going to suddenly change out the entire population of worldwide cars to electric and autonomous vehicles overnight. Many of the suppliers have long tails of these businesses with aftermarket opportunities, and we need to make sure people understand that tail. We also need to make sure the company understands the tail and its decline curve so they can adjust their production footprint accordingly.

VC: How do you view the three big political issues—the ongoing budget discussions between Italy and the EU, the protests in France and Brexit—in the context of European equities?

KD: For Italy, we think the solution will be a flexible definition of what it means to breach the budget targets—the same way lenders and borrowers here use adjusted EBITDA (earnings before interest, tax, depreciation and amortization) in the debt agreements. In our opinion, Italy will get to adjust what they need to put in their budget and what they don't—so technically they will not breach the rules. They will not be able to go too far out of bounds, but I think they'll be given some flexibility through definition changes.

On Brexit, I was surprised they kicked the can down the road. There is some hope of a second referendum, but we don't believe there will be one.

I was in France when the first round of protests happened, and it was actually fairly benign. It made great media headlines versus what was happening on the ground. It's resulted in a slight tempering of demand, but it is not an Armageddon event.

We have seen the rise of populist parties across the region with many running on an anti-centralization platform. As a result the new European Parliament will need to be more considerate of national interests when making decisions going forward.

VC: How do you feel about trade dynamics in terms of the impact of US-China relations on Chinese growth in general, on European businesses, as well as how any US-European trade agreements might affect things?

KD: To the extent that the China-US trade war pressures Chinese companies, you will start to see a slowing in demand that could result in job losses. Trump wants his photo op. He wants to have a trade deal with China, so something ultimately will be done. But when they come to an agreement, I have a feeling if you read the terms of the deal written up in the US press and compare that to what is written about that same deal in the Chinese press, they won't necessarily match up.

Could Trump then turn to Europe? One big debate is about US cars, which, in general, do not fit on European roads. The president has said that EU policies make it impossible for US car companies to sell there. We think he is ignoring the suitability of the product for the European road system.

I think there will be some continuation of tariffs on European cars, but it won't escalate to the same level as the US-China trade tensions. Additionally, you have to consider the UK and what happens with Brexit when looking at European trade negotiations.

VC: What is the outlook for financials?

KD: Many European banks are trading at below book value, anticipating that they will never earn a return above their cost of equity for the foreseeable future. That's what the market is pricing in. We see the banking sector from a stock-picking point of view, looking for banks that meet our valuation criteria with catalysts. You have a number of banks in the Nordic region that tend to trade at richer valuations. Some of those, however, have sold off because they've been heavily focused on lending to the household sector, and for example, you had a downturn in the Swedish housing market and this negatively impacted the banks. In this situation, the stocks sold off but they didn't get "cheap."

VC: What would make you a bit more cautious about performance?

KD: The European equity market has the medal for the longest consecutive period of outflows in over a decade.

When we consider our bullish view on the region, you should put that in the context that we are bullish because we believe the investor base is too pessimistic. Europe doesn't need to do much for its equities to outperform.

Equity market valuations are reasonable, and with corporates under-levered compared with US peers, we see opportunity for these companies to create value through M&A or share buybacks.

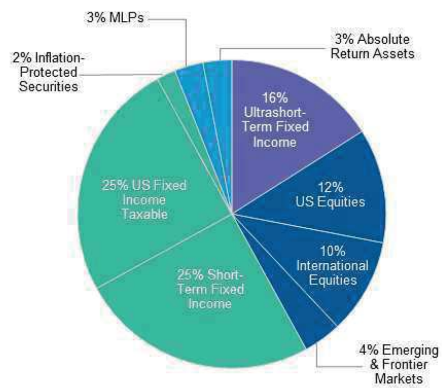
The political risks are difficult to predict. Brexit is coming in October, but there could be a deal before that date. I would be remiss if I didn't remind everyone that the European Central Bank presidency is due to change in October. Mario Draghi, president since 2011, has been fairly hawkish. It's something we need to watch, and while I don't think it is a significant risk, it is something to be aware of. ■

Katrina Dudley is not an employee of Morgan Stanley Wealth Management. Opinions express by her are solely her own and may not necessarily reflect those of Morgan Stanley Wealth Management or its affiliates.

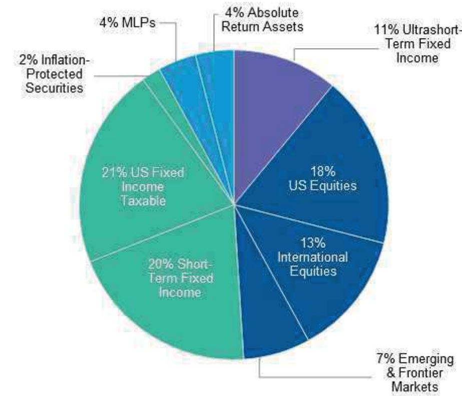
Global Investment Committee Tactical Asset Allocation

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

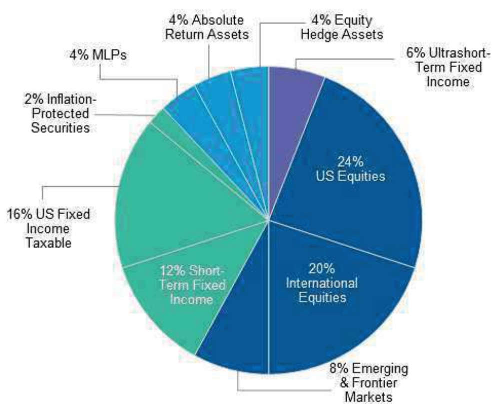
Wealth Conservation



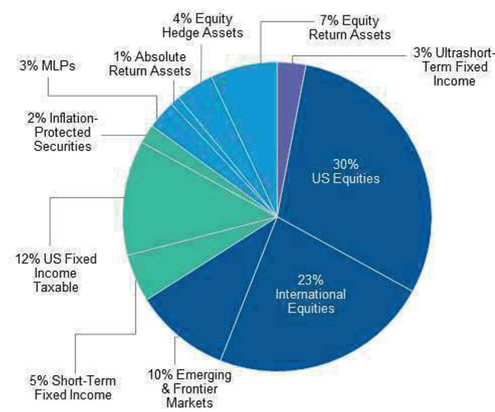
Income



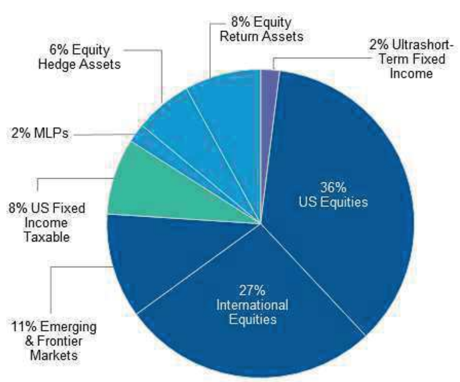
Balanced Growth



Market Growth



Opportunistic Growth



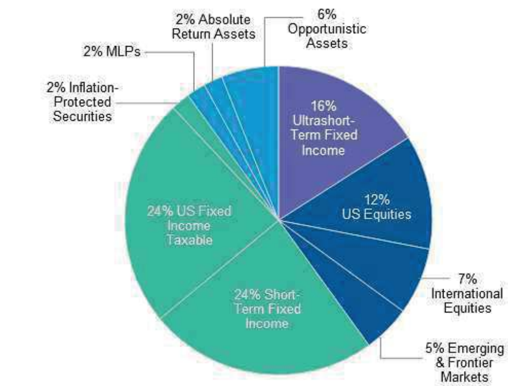
Key

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

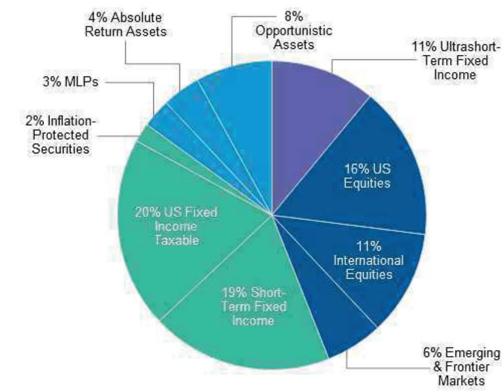
Source: Morgan Stanley Wealth Management GIC as of May 31, 2019

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

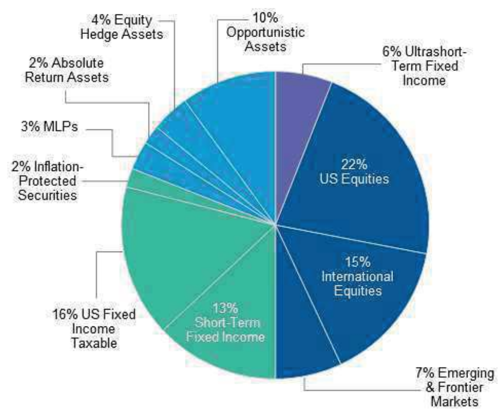
Wealth Conservation



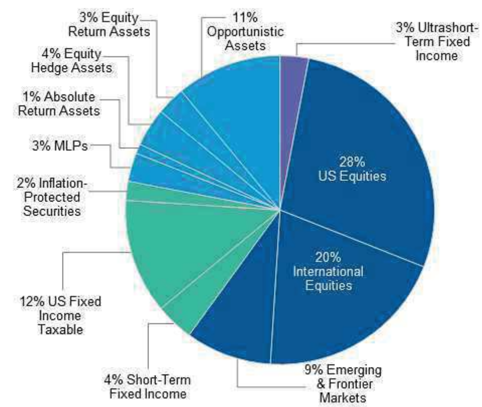
Income



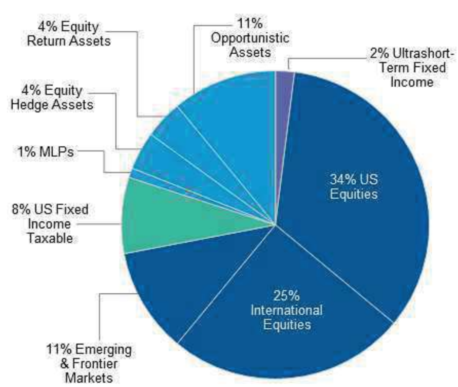
Balanced Growth



Market Growth



Opportunistic Growth



Key

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

Source: Morgan Stanley Wealth Management GIC as of May 31, 2019

Tactical Asset Allocation Reasoning

Global Equities	Relative Weight Within Equities	
US	Underweight	After the worst fourth quarter since 2008, the S&P 500 had its best first quarter since 1998. This kind of volatility is unusual and was precipitated by a Federal Reserve that appeared too hawkish in December, only to reverse course on its policy perhaps faster than we've ever witnessed. Meanwhile, economic and earnings fundamentals continue to deteriorate, leaving us with an unexciting target of just 2,750 for the S&P 500 this year. As a result, we remain underweight the US.
International Equities (Developed Markets)	Overweight	We maintain a positive bias for Japanese and European equity markets. The populist movements around the world are likely to drive more fiscal policy action in both regions, especially in Europe, which will allow the central banks to exit their extraordinary monetary policies and help valuations to rise.
Emerging Markets	Overweight	After a difficult first 10 months of 2018, emerging market (EM) equities have performed relatively well, a positive sign for future leadership. With our view for the US dollar to make a secular top this year, global nominal GDP growth should accelerate faster than the US GDP, particularly as China's fiscal stimulus takes hold. This should disproportionately benefit international equities, led by EM equities.
Global Fixed Income	**Relative Weight Within Fixed Income**	
US Investment Grade	Underweight	We have recommended shorter-duration* (maturities) since March 2013 given the extremely low yields and potential capital losses associated with rising interest rates from such low levels. We are also increasingly concerned that credit spreads do not reflect the current earnings recession in the US nor the significant leverage now present on corporate balance sheet. Therefore, we are underweight US investment grade.
International Investment Grade	Underweight	Yields are even lower outside the US, leaving very little value in international fixed income, particularly as the global economy begins to recover more broadly. While interest rates are likely to stay low, the offsetting diversification benefits do not warrant much, if any, position, in our view.
Inflation-Protected Securities	Overweight	With the recent collapse in real yields from the Fed's pivot, these securities offer little relative value in the context of our expectations for global growth to eventually accelerate, oil prices to trough and the US dollar to top. In short, inflation risk is underpriced.
High Yield	Underweight	High yield bonds have rebounded with equity markets this year as the Fed pivoted to a more dovish policy. Since February, high yield has underperformed investment grade as it starts to reflect earnings recession risk in the US. With a zero weighting in high yield since January 2018, we will revisit our allocation to high yield bonds during 2019 if spreads widen appropriately.
Alternative Investments	**Relative Weight Within Alternative Investments**	
REITs	Underweight	Real estate investment trusts (REITs) have performed very well as global growth slowed and interest rates fell. However, REITs remain expensive and are vulnerable to credit risks. We will revisit our position as nominal GDP troughs and/or valuations become more attractive.
Master Limited Partnerships/Energy Infrastructure*	Overweight	Master limited partnerships (MLPs) rebounded this year. With oil prices recovering and a more favorable regulatory environment, MLPs should provide a reliable and attractive yield relative to high yield. Global supply shortages from Iranian sanctions should also be supportive for fracking activity and pipeline construction, both of which should lead to an acceleration in dividend growth.
Hedged Strategies (Hedge Funds and Managed Futures)	Equal Weight	This asset category can provide uncorrelated exposure to traditional risk-asset markets. It tends to outperform when traditional asset categories are challenged by growth scares and/or interest rate volatility spikes. With the recent surge in volatility, these strategies could perform better on a relative basis.

Source: Morgan Stanley Wealth Management GIC as of May 31, 2019

For more about the risks to Master Limited Partnerships (MLPs) and Duration, please see the Risk Considerations section beginning on page 18 of this report.

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

Chetan Ahya, Chris Baxter, Vijay Chandar, Jonathan Garner, Lisha Ge, Matthew Hornbach, Nicholas Lentini, Susan McDowell, Olga Pujara, Hans Redeker, Graham Secker and Ellen Zentner are not members of the Global Investment Committee and any implementation strategies suggested have not been reviewed or approved by the Global Investment Committee.

Index Definitions

For index, indicator and survey definitions referenced in this report please visit the following:

https://www.morganstanley.com/wealth-investmentsolutions/wmir-definitions

Risk Considerations

Alternative Investments

The sole purpose of this material is to inform, and it in no way is intended to be an offer or solicitation to purchase or sell any security, other investment or service, or to attract any funds or deposits. Investments mentioned may not be suitable for all clients. Any product discussed herein may be purchased only after a client has carefully reviewed the offering memorandum and executed the subscription documents. Morgan Stanley Wealth Management has not considered the actual or desired investment objectives, goals, strategies, guidelines, or factual circumstances of any investor in any fund(s). Before making any investment, each investor should carefully consider the risks associated with the investment, as discussed in the applicable offering memorandum, and make a determination based upon their own particular circumstances, that the investment is consistent with their investment objectives and risk tolerance.

Alternative investments often are speculative and include a high degree of risk. Investors could lose all or a substantial amount of their investment. Alternative investments are 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 information contained herein may constitute forward-looking statements. Due to various risks and uncertainties, actual events, results or the performance of a fund may differ materially from those reflected or contemplated in such forward-looking statements. Clients should carefully consider the investment objectives, risks, charges, and expenses of a fund before investing.

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

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

Hypothetical Performance

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

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

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

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

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

The assumed return rates in this analysis are not reflective of any specific investment and do not include any fees or expenses that may be incurred by investing in specific products. The actual returns of a specific investment may be more or less than the returns used in this analysis. The return assumptions are based on hypothetical rates of return of securities indices, which serve as proxies for the asset classes. Moreover, different forecasts may choose different indices as a proxy for the same asset class, thus influencing the return of the asset class.

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

ETF Investing

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

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

MLPs

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

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

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

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

Duration

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

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

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

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

Investing in commodities entails significant risks. Commodity prices may be affected by a variety of factors at any time, including but not limited to, (i) changes in supply and demand relationships, (ii) governmental programs and policies, (iii) national and international political and economic events, war and terrorist events, (iv) changes in interest and exchange rates, (v) trading activities in commodities and related contracts, (vi) pestilence, technological change and weather, and (vii) the price volatility of a commodity. In addition, the commodities markets are subject to temporary distortions or other disruptions due to various factors, including lack of liquidity, participation of speculators and government intervention.

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

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

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

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

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

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

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

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

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

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

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

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

Principal is returned on a monthly basis over the life of a **mortgage-backed security.** Principal prepayment can significantly affect the monthly income stream and the maturity of any type of MBS, including standard MBS, CMOs and Lottery Bonds. Yields and average lives are estimated based on prepayment assumptions and are subject to change based on actual prepayment of the mortgages in the underlying pools. The level of predictability of an MBS/CMO's average life, and its market price, depends on the type of MBS/CMO class purchased and interest rate movements. In general, as interest rates fall, prepayment speeds are likely to increase, thus shortening the MBS/CMO's average life and likely causing its market price to rise. Conversely, as interest rates rise, prepayment speeds are likely to decrease, thus lengthening average life and likely causing the MBS/CMO's market price to fall. Some MBS/CMOs may have "original issue discount" (OID). OID occurs if the MBS/CMO's original issue price is below its stated redemption price at maturity, and results in "imputed interest" that must be reported annually for tax purposes, resulting in a tax liability even though interest was not received. Investors are urged to consult their tax advisors for more information.

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

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

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

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

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

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

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

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

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

Credit ratings are subject to change.

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

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

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Special Report

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Adverse Active Alpha[SM] 2.0: Scoring Active Managers According to Potential Alpha

Alongside asset allocation and active-passive decisions, manager selection materially impacts investors' returns. Given the dispersion in manager performance, investors seeking to hire an active manager must wade through multiple options and wrestle with mountains of data. How may investors increase their probability of selecting high-quality active managers across multiple asset classes and changing market environments?

Our Adverse Active Alpha methodology, introduced in 2013, addressed this question through the use of quantitative markers—active management and performance in adverse periods. We used this to help identify managers for our Focus List, and its recommendations have supported manager selection and portfolio construction.

Now, we are introducing an enhanced Adverse Active Alpha methodology (AAA 2.0), which complements the firm's holistic qualitative and quantitative manager due diligence. AAA 2.0 evaluates managers according to quantitative markers of alpha generation, allowing us to rank managers within each asset class by their anticipated risk-adjusted performance. It yields quick takeaways on active managers' prospective value-added potential for the coming three years, with limited year-over-year turnover in the recommendations.

This update extends our patented AAA process, strengthening its consistency and scalability. Its performance-based methodology sharpens the focus on managers' decision-making and mitigates survivorship-bias issues inherent to historical manager data. We expand the inputs to incorporate several measures of performance consistency and use beta-adjusted benchmark returns to provide fair comparisons between managers at varying risk levels. This approach allows us to broaden our scope, covering 12,000-plus managers across the full gamut of equity and fixed income asset classes.

Taken together, we believe that these improvements contribute to maximizing the odds for successful manager selection and portfolio construction, potentially boosting our clients' long-term results.

Seeking High-Quality Active Managers

Building a successful long-term investment strategy involves taking advantage of opportunities across its underlying elements. Beyond setting and updating an appropriate asset allocation, investors may also benefit from the three components of portfolio implementation: active-passive decisions, manager selection and portfolio construction and risk management. Exhibit 1 highlights the potential value-added from these drivers of portfolio returns.

In its March 2018 *Special Report* "Inputs for GIC Asset Allocation," the Global Investment Committee (GIC) highlighted that expected seven-year returns for major asset classes appear modest, significantly trailing realized historical returns.[1] This shift to a lower-return environment underscores the value of enhancing returns through solid manager selection and portfolio construction, which motivates us to develop and enhance tools and processes that strive to deliver risk-adjusted value.

We have designed AAA 2.0 to focus on manager selection, seeking to identify high-quality active managers likely to generate strong relative risk-adjusted returns within their respective asset classes.[2] Many empirical studies have pointed out the insufficiency of picking one period's top-performing managers and expecting similar results into the future. AAA 2.0 therefore concentrates on quantitative markers that have historically translated into attractive risk-adjusted performance in ex ante periods.

At its core, our quantitative approach follows fundamental intuition so that we may benefit from managers with consistent, disciplined, results-driven investment processes. Building on substantial analysis, we have distinguished several quantitative markers that have tended to correspond to managers' prospective returns.

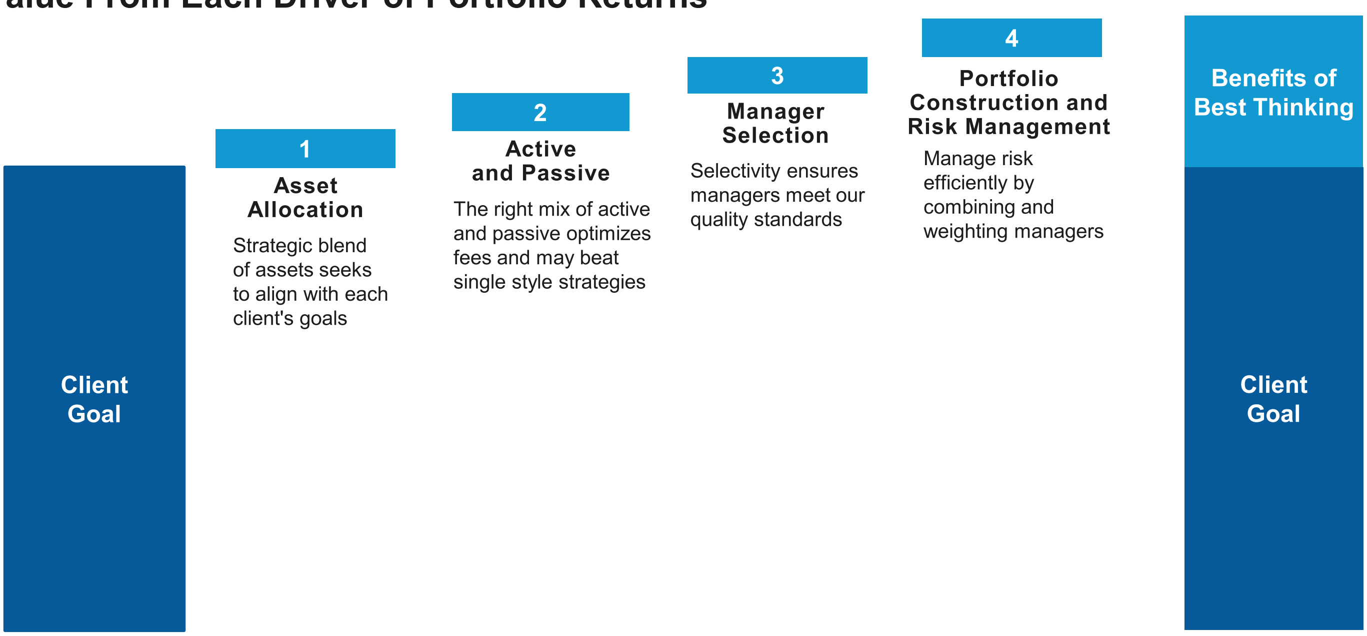
- **Active Management** Meaningful differentiation from the relevant benchmark with low to moderate tracking error[3]
- **Alpha** Measurable value-added, driven by security selection and persisting in "adverse" environments
- **Consistency** "Quality" risk-adjusted returns, suggesting a repeatable, skillful investment process

Our analysis indicates that ranking managers according to these markers has effectively ranked managers by their subsequent performance. AAA 2.0's apparent value across multiple asset classes and for multiple market cycles suggests that it has potential to assist with manager selection.

Mitigating Environment-Driven Biases

We have observed that, over time, shifting market environments tend to reward or hinder manager substyles. For example, in a strong equity bull market, active managers with higher benchmark-relative risk levels tend to outperform relevant benchmarks, while more conservatively positioned managers typically lag. Should the environment become more bearish, however, tailwinds for aggressive managers become headwinds. As a result, selecting managers simply according to

Exhibit 1: A Holistic Investment Process Seeks Value From Each Driver of Portfolio Returns



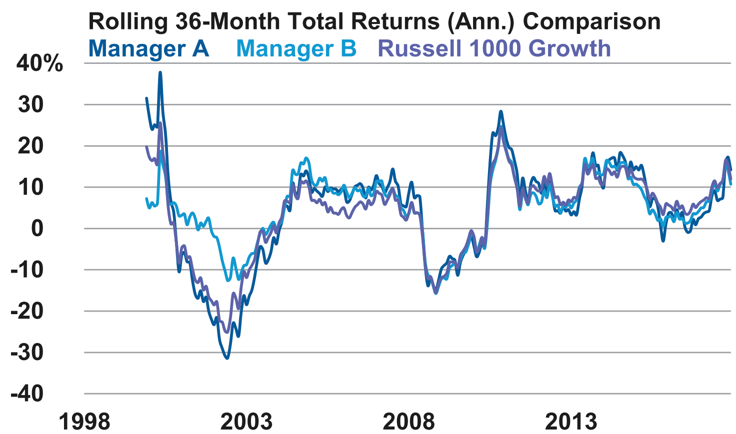
Source: Morgan Stanley Wealth Management GIC

recent performance may lead to disappointment.

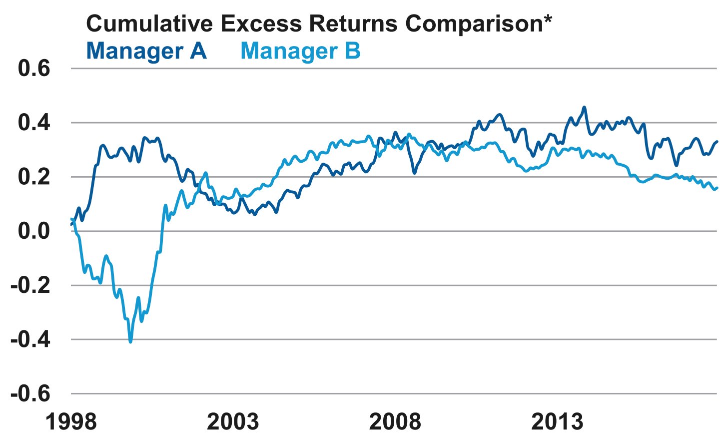
We have explicitly designed AAA 2.0 to mitigate any spurious impacts of market environment on its recommendations. First, we consider managers' alphas and risk-adjusted returns against a "beta-adjusted" benchmark index—that is, one that incorporates managers' benchmark-relative risk levels. We believe that this technique better enables us to assess managers' alpha generation capabilities, without regard to the prevailing market conditions. Furthermore, we have included several measures to evaluate managers' consistency of performance. Our analysis suggests that those managers with more attractive beta-adjusted, risk-adjusted returns have historically tended to persist in their leadership from one period to the next.

Exhibit 2: Benefits of Beta-Adjusted Benchmark Indexes

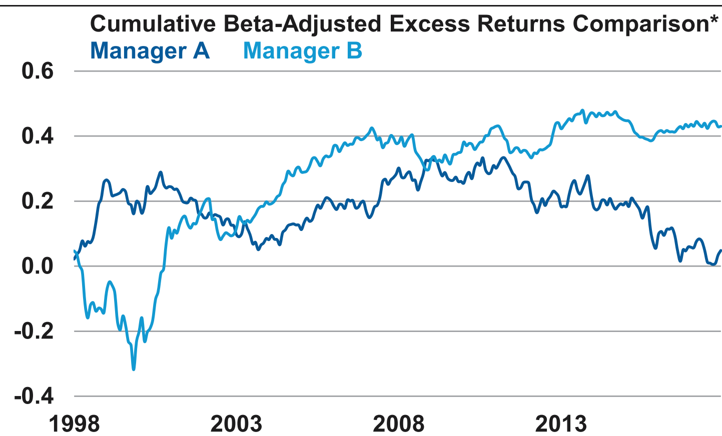
This first chart presents the annualized total returns over rolling 36-month periods for the Russell 1000 Growth Index and Managers A and B. This initial view highlights the challenge of making forward-looking assessments from recent realized performance. From this visualization, we may gather that Manager B has typically demonstrated a lower beta than the benchmark. Looking at the 2000-2002 bear market, Manager B substantially outperformed, while Manager A lagged. Both managers performed in line with the Russell 1000 Growth Index in the 2007-2009 bear market. As with other active managers, these two have struggled to generate alpha in this post-crisis period.



This chart points out the pattern of the managers' excess returns versus the Russell 1000 Growth Index, without considering the two managers' beta exposures. Manager A has generated positive excess returns, with its strongest relative performance between 2003 and 2013. After notching strong outperformance from 2000 to 2008, Manager B's excess returns trended negatively. From this analysis, we may conclude that Manager A is the superior manager, but the analysis fails to consider whether that performance simply came from higher beta exposures. This omission may bias our assessment on the relative quality of the two managers.



This chart considers the managers' performance versus an individually tailored, beta-adjusted Russell 1000 Growth Index. We believe that this beta-adjusted benchmark offers a more relevant comparison for the two managers. While Manager A did generate modest value from 2003 to 2009, its beta-adjusted excess returns have declined since then. Meanwhile, Manager B's beta-adjusted excess returns have tracked higher since 2000 and have held steady, even in the post-crisis period. In order to avoid faulty conclusions and to highlight true skill in active management, AAA 2.0 assesses managers' value-added versus beta-adjusted benchmark indexes.



*Presented in natural-log (ln) terms, which provides for similar scaling for values across time. For illustrative purposes only.
Source: Morgan Stanley Wealth Management Portfolio Analytics as of March 31, 2018

In Exhibit 2 on page 3, we present an example of the beta-adjustment process in practice and its contribution to identifying higher-quality active managers. In this example, we present two large-cap growth equity managers, both of which have achieved positive excess returns over time and quite similar total returns. Manager A features a higher long-term beta of 1.20, while Manager B's beta stands at 0.83. On a pure excess returns basis, Manager A looks more attractive, as Manager B appears to lose ground in recent years on this metric. After beta-adjusting the Russell 1000 Growth Index for the two managers' respective betas, however, Manager B becomes markedly more attractive, while Manager A declines in apparent value.

Markers of Prospective Alpha

AAA 2.0 summarizes a manager's relative attractiveness within its asset class according to quantitative markers that we believe tie closely to managers' prospective alpha, presented in Exhibit 3 and described below. These markers follow Richard Grinold and Roland Kahn's insight that risk-adjusted alpha emerges from the combination of investment skill and freedom to exercise that skill.[4]

AAA 2.0 extends our existing patented Adverse Active Alpha process by transitioning to a fully performance-based methodology, considering benchmark indexes in beta-adjusted terms and including several markers of alpha and consistency.[5] These modifications have allowed us to broaden its scope and to strengthen its effectiveness.

To develop AAA 2.0, we studied more than 20,000 managers' returns across more than 40 asset classes. We settled on three-year look-back and look-forward periods for the quantitative markers in order to maximize the number of observations for our study and to match a reasonable holding period for active managers.

Active Management

This score evaluates the degree to which active managers exercise their decision-making freedom against how much tracking error risk they have exhibited. It quantifies the application of manager skill, balanced with their risk management. Put simply, high-quality managers tend to have returns that have deviated meaningfully from their beta-adjusted benchmarks—captured by $(1–R^2)$ and showing sufficient attempts to exercise their skill—but with well-contained tracking errors. The R^2 measure shows how closely a manager's returns track those of its benchmark index; higher values indicate a tighter fit between the two.[6]

Active share gauges how significantly a portfolio differs from its benchmark based on its security weightings.[7] In its first incarnation, the Adverse Active Alpha process leveraged insights from academic research that indicated that managers with higher active share outperform managers with lower active share. In this update, we have swapped active share for $(1–R^2)$. This measure avoids the previous requirement of obtaining manager holdings, permitting a more exhaustive historical study and limiting survivorship bias. It also characterizes a manager's active decision-making over a rolling period versus the potentially misleading single snapshot of active share.

Exhibit 3: Quantitative Markers of Prospective Alpha

Category	Marker	Calculation	What It Measures
Active Management	Active Management	$(1–R^2)$, divided by tracking error	Discipline and consistency in active management
Alpha	Alphas (Ann.)	Beta-adjusted alphas, both overall and from security selection	Risk-adjusted performance, with a tilt toward rewarding security selection-driven alpha
	Performance in Adverse Periods	Ranked performance in challenging periods	Demonstrated ability to handle tough setups for the underlying strategy
Consistency	Information Ratios	Beta-adjusted information ratios, both overall and from security selection	Consistency of excess returns, with a tilt toward rewarding security selection-driven alpha
	Monthly Hit Ratio	Percentage of months in which the manager exceeds the beta-adjusted benchmark return	Consistency of excess returns
	Sharpe Ratio	Excess returns over cash, divided by volatility in total returns	Consistency of total returns, relative to total risk (as measured by volatility)
	Up-Down Capture	Percentage spread between the manager's beta-adjusted up and down capture figures	Consistency of excess returns

Source: Morgan Stanley Wealth Management Portfolio Analytics, based on data provided by Morningstar.

Higher levels of ($1–R^2$) help to capture the extent of an active manager's conviction. From a structural standpoint, the average relative performance of active managers has suffered as a result of managers—sometimes known as "closet indexers"—taking less active risk. Because these managers build portfolios that look similar to the index but charge management fees, as a group they tend to underperform by a margin similar to their fees, and, by definition, most have a difficult time outperforming. Studies have demonstrated that closet indexing has increased significantly over time, with perhaps one-third of equity mutual funds bearing that label.[9]

As we noted previously, we believe that we must weigh more than the degree of managers' active decision-making. We believe that high-quality active managers carry out their active decision-making in a risk-managed context, highlighted by low to moderate (beta-adjusted) tracking error. Combining these two factors diminishes the scores for those managers who seek to outperform through large overweight or underweight positions in particular factors, sectors or securities. While such trades may prove profitable at times, their outcomes tend to promote lower predictability. Moreover, the investment processes behind these sizable bets often lack in repeatability and discipline.

Those rare managers who have combined high active decision-making with low active risk have historically achieved the greatest success. Our analysis emphasized the importance of this active management score across time and multiple asset classes, causing us to assign it the highest weight in AAA 2.0.

Alpha

While the active management score searches for managers with a certain pattern, we have found that managers' demonstrated skill tends to persist to some degree—and particularly those with more pronounced active decision-making. Often, active managers foster this skill by nurturing a talented team and maintaining a consistent, repeatable investment process.

As such, the two components of the alpha score measure managers' realized success over rolling three-year periods.[8] The first element, alphas, includes two calculations of annualized alpha: the regression-based result and the excess return estimated to have flowed from the manager's security selection decisions.[10] Using three-year periods smoothes our results, as active managers' relative performance tends to vary widely over any given 12-month period, for example.

The second subcomponent, performance in adverse periods, recognizes those managers that have outperformed their beta-adjusted benchmarks in months in which their peers have struggled. The underlying calculation takes a month-by-month look at a single asset class. It rewards points to those managers with superior performance in a given month, multiplying the point assignment by the degree of difficulty.[11] Importantly, this degree of difficulty does not depend primarily on the market environment, but rather on the challenge of generating alpha. Empirically, active managers may experience challenging periods in bullish, bearish or range-bound markets.

Consistency

We have included several measures of performance consistency to complement the active management and alpha scores, focusing on the quality of managers' risk-adjusted returns. We believe that positive readings for these quantitative markers—information ratios, monthly hit ratios, Sharpe ratios and up-down capture—typically correspond to more consistent investment processes. As with the alpha scores, it appears that employing beta-adjusted benchmark indexes for each manager improves the forward-looking efficacy of the consistency scores.

Sorting Managers by Prospective Alpha

In Exhibit 4, we present an example of the AAA 2.0 process in action, looking at sample data for a US large-cap growth manager on March 31, 2018. This manager typically runs a concentrated portfolio of approximately 20 stocks. The active management score suggests its active decision-making, balanced against its risk controls, has placed it close to the top quartile of managers within the asset class. More impressively, the sample manager scores in the top decile in both of the alpha subcomponents and in three of the four consistency metrics. As indicated in Exhibit 4, we tally the weighted average of each subcomponent (e.g., 60% x 0.72 for the active management score, etc.) and then rerank managers on those weighed averages (i.e., by computing a percentile rank based on the relative weighted average within each asset class). We assign a "green" rating to the top 40% of managers in each asset class. Given that

Exhibit 4: AAA 2.0 Process for a Sample Large-Cap Growth Manager

Category	Marker	Weight	Percentile in Asset Class
Active Management	Active Management	60%	0.72
Alpha	Alphas	20	0.93
	Performance in Adverse Periods		0.95
Consistency	Information Ratios	20	0.93
	Monthly Hit Ratio		0.71
	Sharpe Ratio		0.94
	Up-Down Capture		0.93
	Weighted Average		0.80
	Reranked		0.92

Source: Morgan Stanley Wealth Management Portfolio Analytics as of March 31, 2018, based on data provided by Morningstar.

the sample manager lands in the top decile for its re-ranked percentile, it receives a green rating.

This example highlights how top-ranking managers will likely exhibit strength across each of the active management, alpha and consistency scores—and even within their subcomponents. Broadly speaking, "green" managers' returns differ meaningfully from their beta-adjusted benchmark index, show low-to-moderate tracking error and have generated attractive risk-adjusted performance. Among equity managers, we have found that investment processes tailored to fundamental, bottom-up stock selection, as opposed to top-down strategies, have tended to result in better rankings.

In Exhibit 5, we present some evidence of how the AAA 2.0 process has historically distinguished between higher- and lower-quality active managers. Encouragingly, we find that these results show consistency over the 20-year study period, which included two significant equity bear markets and multiple market cycles. We note that higher-quality managers have historically exhibited lower betas than lower-quality managers, suggesting relatively defensive positioning versus benchmarks, but have demonstrated strong risk-adjusted returns (alpha, information ratio, and Sharpe ratio).

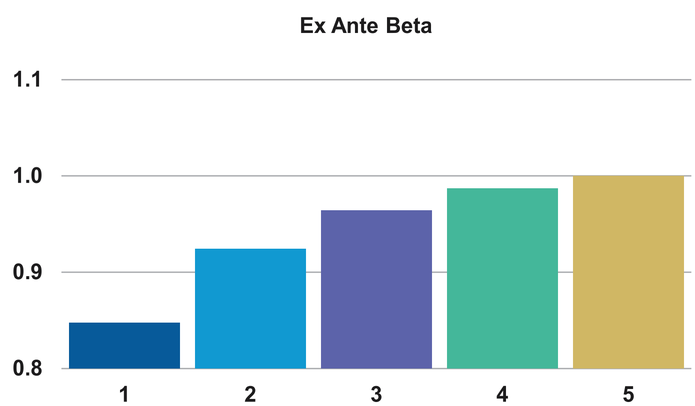
Using AAA 2.0 in Portfolio Construction

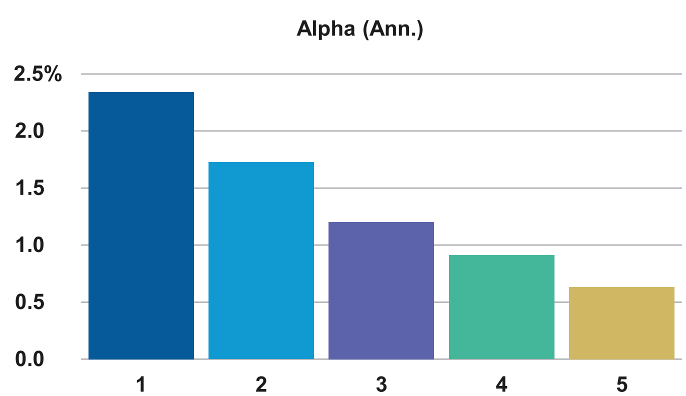
AAA 2.0 may assist Financial Advisors, Wealth Management's Global Investment Manager Analysis team and the Manager Solutions team with manager selection, a potential source of value-added for diversified portfolios. We believe that these AAA 2.0 scores extend Morgan Stanley's holistic manager

Exhibit 5: Average of Major Equity-Like and Fixed Income Asset Classes

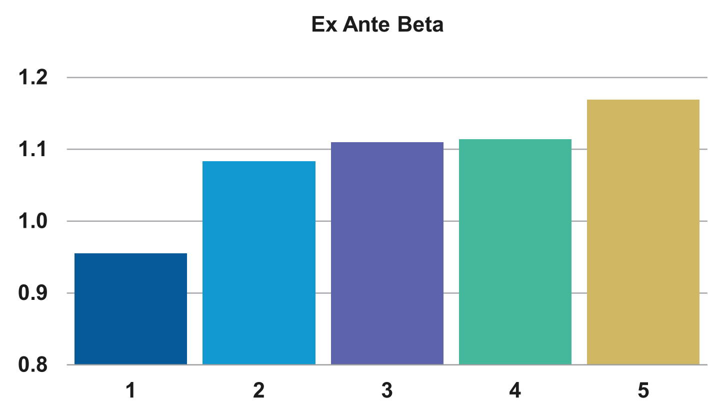
These charts show the subsequent average values for the metrics presented below in 19 overlapping rolling three-year periods, sorted into quintiles according to the AAA 2.0 readings before each period's start date. From 1997 through 2014, we ranked the managers in the Morningstar database by quintiles at the end of the year. We then computed the subsequent three-year values for each quintile by several measures of absolute and risk-adjusted performance. The US equity grouping includes the nine major style boxes, while the US intermediate core fixed income cohort covers both taxable and tax-exempt managers. Please note that higher-quintile managers have tended to exhibit lower ex ante betas, which appears to have strongly influenced some outcomes for excess returns.

US Equity





US Intermediate Core Fixed Income



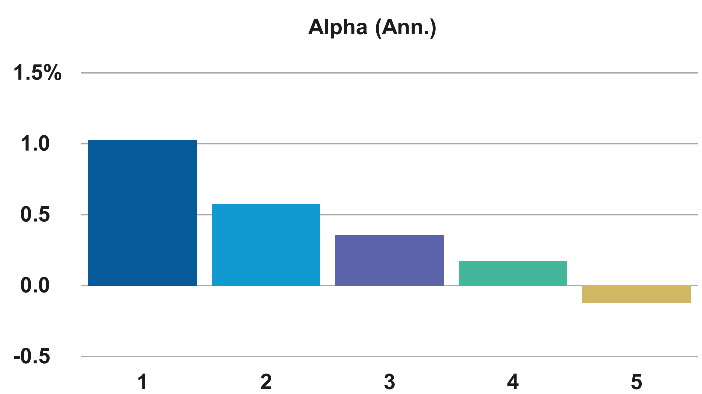
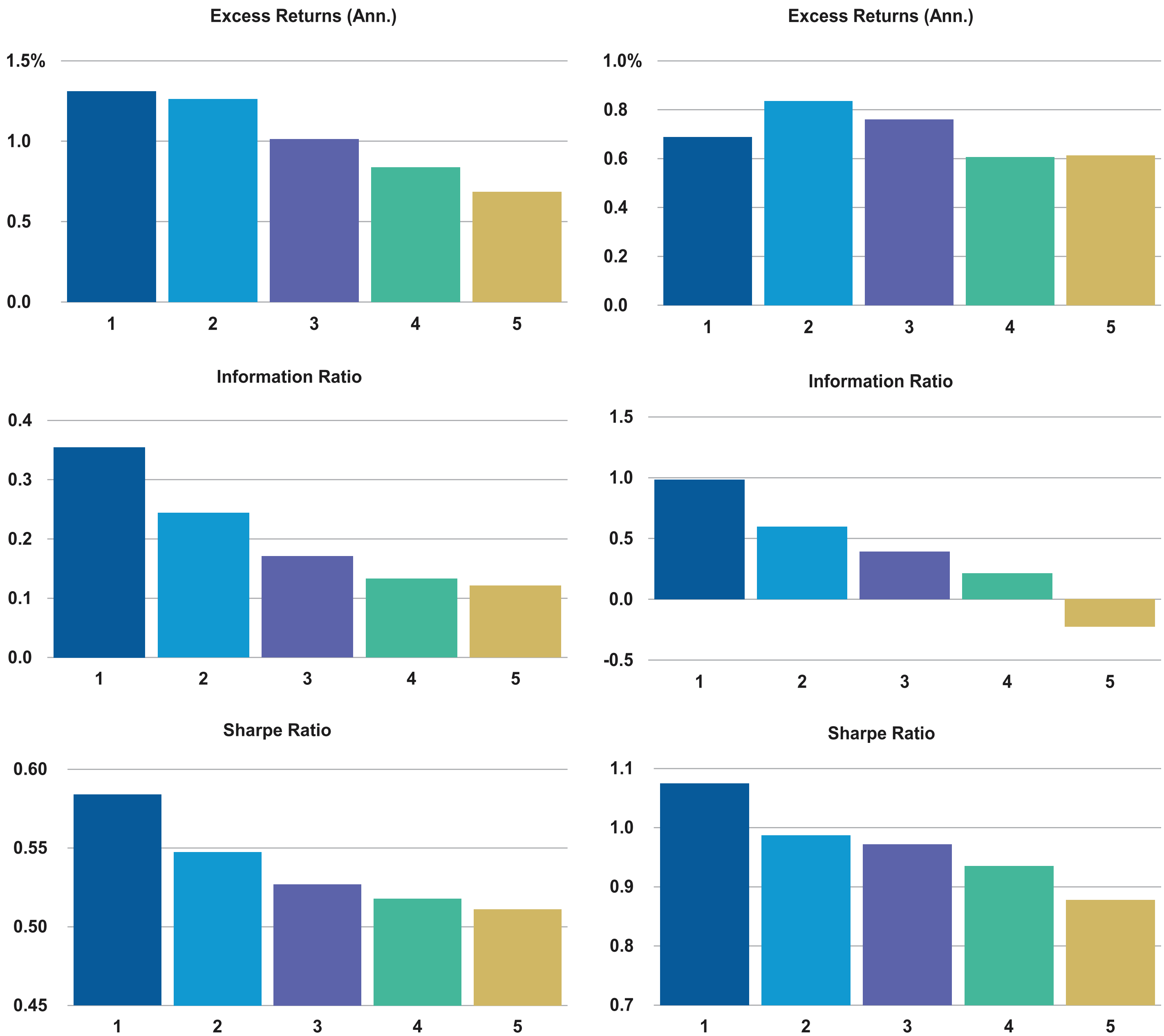


Exhibit 5: (continued)

US Equity | US Intermediate Core Fixed Income



Source: Morgan Stanley Wealth Management Portfolio Analytics as of March 31, 2018

due-diligence efforts, which assesses qualitative and quantitative inputs. We envision the scores as aiding broad manager searches, contributing to periodic portfolio reviews or refining choices between similar managers. The relatively low year-over-year turnover in AAA 2.0's recommendations suggests that its application will not trigger significant turnover among active managers.[12]

As the GIC has discussed, investors may blend both active and passive strategies in portfolio construction. The GIC publishes comprehensive forecasts of active manager outperformance by asset class, on both a one- and seven-year time horizon. That analysis shows that allocating to active and passive in dynamic proportions suggested by market conditions, as defined by the nine-factor framework, beat all-or-nothing active-passive investing, with incremental annual performance premiums over passive-only strategies of 0.75% to 1.50% (net of fees). Taking advantage of manager selection tools, such as AAA 2.0, may help to boost the performance premium.

Once investors have determined to hire an active manager in a given asset class, they face the portfolio construction-related question of the manager's benchmark-relative risk level. For example, in US large-cap growth, an investor may consider managers across aggressive, traditional and conservative growth subcategories. Owing to its underlying calculations, AAA 2.0 intends to provide recommendations on higher-quality managers along the spectrum of benchmark-relative risk levels. ■

Appendix

This table displays the incremental value of the top 40% of managers versus the bottom 20% of managers across major asset classes. For each asset class and each year from 1996 to 2014, we computed the subsequent three-year values for each of several measures of absolute and risk-adjusted performance. We computed that data from applying the AAA 2.0 process to Morningstar's complete historical manager returns database, including those strategies that are no longer operative. The figures represent the average of the first two quintiles' results (top 40%) *less* those for the bottom quintile (bottom 20%), equally weighting each year's observations. The values below reflect the beta-adjusted benchmarking process described above.

Exhibit 6: Efficacy for Major Asset Classes

	Quintiles Nos. 1 and 2 (Top 40%) vs. No. 5 (Bottom 20%)						
Asset Class | Ex Ante	**Alpha (Ann.)**	**Info. Ratio**	**Monthly Hit Ratio**	**Up-Down Capture**	**Excess Returns (Ann.)**	**Sharpe Ratio**	**Sortino Ratio**
Alternatives | Real Assets | Real Estate/REITs	1.7%	0.19	3%	0.10	0.8%	0.07	0.18
Equities | Emerging Markets | Core	2.2	0.27	2	0.09	1.4	0.10	0.16
Equities | Global | Core	1.7	0.17	2	0.12	1.2	0.11	0.20
Equities | International | Core	1.8	0.29	3	0.09	1.6	0.11	0.13
Equities | International | Europe	2.1	0.22	2	0.10	1.9	0.12	0.12
Equities | International | Growth	1.8	0.21	3	0.08	1.7	0.10	0.15
Equities | International | Value	1.0	0.13	2	0.06	0.8	0.05	0.03
Equities | US Large-Cap | Core	1.3	0.24	3	0.08	0.6	0.03	0.05
Equities | US Large-Cap | Growth	1.2	0.20	2	0.08	0.7	0.04	0.09
Equities | US Large-Cap | Value	1.3	0.24	3	0.08	0.5	0.05	0.07
Equities | US Mid-Cap | Core	0.6	0.10	1	0.06	-0.5	0.01	0.02
Equities | US Mid-Cap | Growth	1.5	0.25	4	0.06	0.5	0.06	0.13
Equities | US Mid-Cap | Value	1.0	0.12	2	0.08	0.1	0.04	0.07
Equities | US Small-Cap | Core	2.5	0.05	1	0.13	1.4	0.12	0.21
Equities | US Small-Cap | Growth	1.3	0.10	1	0.08	0.5	0.08	0.16
Equities | US Small-Cap | Value	1.5	0.09	1	0.09	0.4	0.08	0.13
Multi-Asset | US | Core	3.0	0.98	11	0.24	0.1	0.14	0.25
Average: Equity-Like	**1.6**	**0.23**	**3**	**0.09**	**0.8**	**0.08**	**0.13**
Fixed-Income | Emerging Markets | Core	1.8	0.28	3	0.19	0.3	0.06	0.17
Fixed-Income | Global	4.0	1.66	18	1.04	1.0	0.58	0.93
Fixed-Income | High-Yield | Convertibles	1.4	0.47	6	0.25	-0.7	0.11	0.23
Fixed-Income | High-Yield | US	1.4	0.61	7	0.23	0.2	0.17	0.26
Fixed-Income | US Taxable | Multi-Sector	0.2	0.70	10	0.29	-0.9	0.22	0.32
Fixed-Income | US Taxable | Credit	2.4	1.30	19	0.44	-1.8	0.22	0.27
Fixed-Income | US Taxable | Intm. Govt.-Credit	0.9	0.90	11	0.27	0.1	0.15	0.16
Fixed-Income | US Taxable | Long Govt.-Credit	1.4	1.01	15	0.44	-2.1	0.25	0.32
Fixed-Income | US Taxable | Short Govt.-Credit	1.3	2.44	24	0.76	-1.2	0.29	0.55
Fixed-Income | US Tax-Exempt | Intermediate	0.9	1.53	19	0.25	0.3	0.16	0.14
Fixed-Income | US Tax-Exempt | Long	0.2	0.23	3	0.05	-0.4	0.04	0.10
Fixed-Income | US Tax-Exempt | Short	1.9	3.52	36	1.02	-0.7	0.37	0.43
Average: Fixed-Income	**1.5**	**1.24**	**15**	**0.44**	**-0.5**	**0.22**	**0.32**
Average: TOTAL	**1.6**	**0.64**	**7**	**0.24**	**0.3**	**0.14**	**0.21**

Note: Like the Sharpe ratio, the Sortino ratio measures risk-adjusted returns. While the Sharpe ratio considers both upside and downside volatility equally, the Sortino ratio solely focuses on downside returns. As a result, it replaces the annualized standard deviation of all total returns with annualized standard deviation of only negative total returns, called "downside deviation."

Source: Morgan Stanley Wealth Management Portfolio Analytics as of March 31, 2018

Endnotes

[1]"Inputs for GIC Asset Allocation," March 2018.

[2]We suggest other firm resources, including active-passive recommendations and *Topics in Portfolio Construction*, to assist with the other elements of portfolio implementation.

[3]Tracking error measures the divergence in returns between a manager and its benchmark.

[4]"Information Ratio = Skill • $\sqrt{Breadth}$." Grinold, Richard, and Roland Kahn. *Active Portfolio Management: A Quantitative Approach for Producing Superior Returns and Controlling Risk*. Second Edition. New York: McGraw-Hill, 1999.

[5]Please see the following *Special Reports* for further details, including: "Adverse Active Alpha℠: Adding Value Through Manager Selection," July 25, 2017, "Adverse Active Alpha: Adding Value to Fixed Income Manager Selection," Jan. 26, 2016; and "Active and Passive Strategies: An Opportunistic Approach," March 2015

[6]In statistics, R^2 assesses the proportion of the variance in the dependent variable (the manager's returns) that is predictable from the independent variable (the beta-adjusted benchmark's returns). It also represents the square of the correlation coefficient between the manager's and beta-adjusted benchmark's returns.

[7]The metric sums the absolute values of each portfolio holding's weight *less* the benchmark index's weight, divided by two.

[8]The concepts underlying both subcomponents carry over from the first incarnation of Adverse Active Alpha.

[9]Petajisto, Antti, "Active Share and Mutual Fund Performance," *Financial Analysts Journal*, Volume 69, Number 4, July/August 2013.

[10]We compute security selection alpha as the residual of a manager's return after considering their market exposure (measured by full-period beta) and market timing decisions (calculated from the differential between the manager's rolling betas and full-period beta).

[11]We assess the degree of difficulty by the percentage of managers that outperform their beta-adjusted benchmarks.

[12]Across multiple asset classes, the turnover in recommendations—to and from the top 40% of managers—averages approximately 10% to 15%.

Index Definitions

For index, indicator and survey definitions referenced in this report please visit the following:
http://www.morganstanleyfa.com/public/projectfiles/id.pdf

Risk Considerations

Daniel C. Hunt, Steve Edwards and Matthew Rizzo are not members of the Global Investment Committee and any implementation strategies suggested have not been reviewed or approved by the Global Investment Committee.

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Special Report

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Risk Score: Ranking Managers on Upside Opportunity, Downside Mitigation and Consistency

When investors consider active managers, they typically seek those who have demonstrated an ability to deliver excess returns above their benchmark indexes. Conventional wisdom and the financial media suggest that these excess returns emerge from prowess in security selection—the ability to identify "top trades." According to this thinking, if only managers could discover several winning picks, they would be poised for strong outperformance.

Our analysis suggests that the most successful active managers have tailored their investment processes around portfolio construction: blending security selection decisions into a disciplined risk management framework. To generate attractive risk-adjusted returns, active managers must balance capturing upside opportunities with mitigating downside risks—and do it consistently. As a result, we have developed a proprietary Risk Score methodology to gauge managers' effectiveness in risk management. Based on extensive historical analysis, we evaluate over 18,000 strategies across 54 categories by ranking them according to several quantitative markers. We take a weighted average of these individual rankings to compute each manager's Risk Score, having found that managers with higher Risk Scores have historically produced more attractive subsequent risk-adjusted returns, particularly under adverse conditions.

The Risk Score complements our Adverse Active Alpha℠ 2.0 and Value Score methodologies, released in 2018. Considering each of three scores simultaneously may provide helpful signals on managers' prospective value-added. We believe that combining these quantitative rankings with the holistic due diligence of Global Investment Manager Analysis (GIMA) may improve the potential for identifying high-quality active managers.

Searching for High-Quality Active Managers

We believe that a successful long-term investment strategy includes capitalizing on multiple opportunities. Beyond selecting and refreshing an appropriate asset allocation, investors may also benefit from the three elements of portfolio implementation: active-passive decisions, manager selection and portfolio construction. Exhibit 1 highlights the potential value-added from these drivers of portfolio returns.

In its April 2019 *Inputs for GIC Asset Allocation,* the Global Investment Committee (GIC) highlighted that expected seven-year returns for major asset classes appear modest, well below realized historical returns over the previous 10 years. This lower-return environment highlights the value of improving overall portfolio returns through solid manager selection and portfolio construction. This reality has motivated us to develop and enhance those tools and processes targeted to deliver risk-adjusted value in constructing client portfolios.

As indicated in the exhibit, we recommend separating active-passive allocation decisions from manager selection. Our work suggests that neither active nor passive managers are categorically better; rather, their relative attractiveness depends, in large part, on the investment environment. As a result, we recommend allocating opportunistically to active and passive strategies, taking full advantage of Morgan Stanley Wealth Management's portfolio construction tools and analysis, such as active-passive recommendations and our monthly *Topics in Portfolio Construction*.

We have developed the Risk Score to support manager selection decisions, focusing on identifying high-quality active managers distinguished by their effective risk management. Many empirical studies have highlighted the shortcomings of selecting one period's highest-returning managers and anticipating a similar outcome into the future. In response, we have designed the Risk Score to track quantitative measures of quality risk management, which have historically translated into attractive risk-adjusted returns for forward-looking periods.

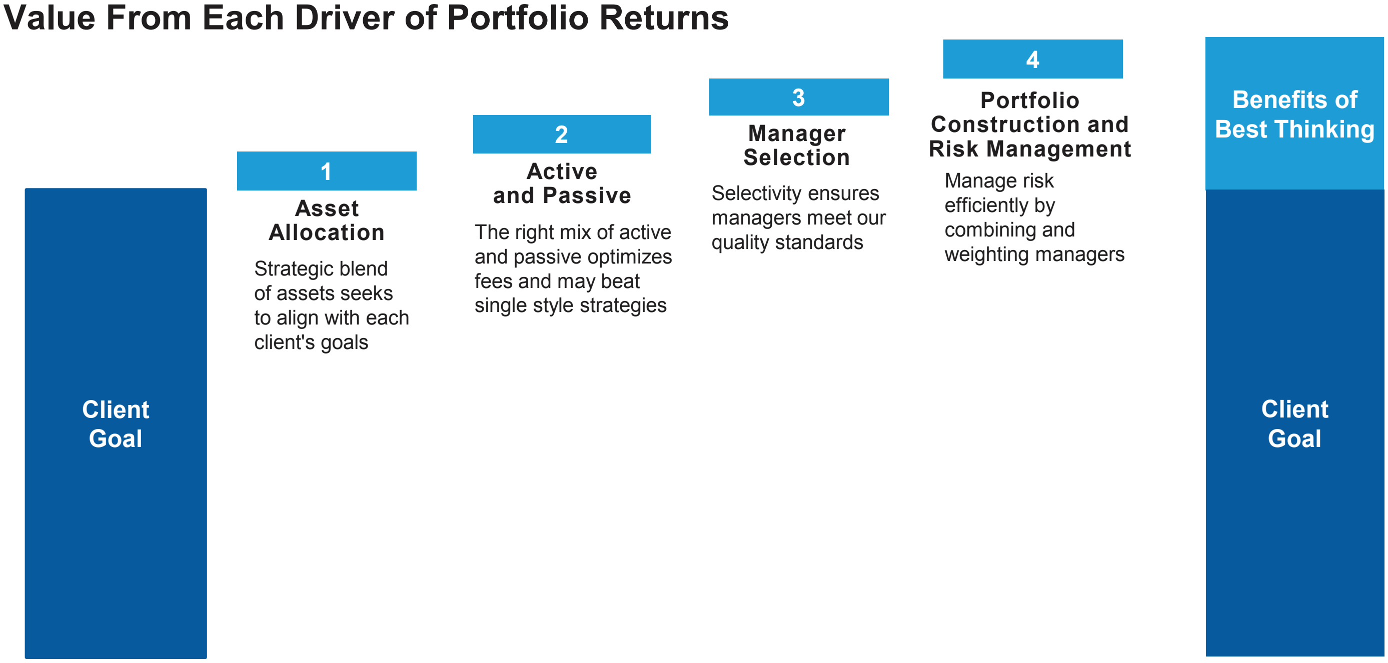
The Risk Score focuses on a critical consideration for manager selection—effective risk management—by evaluating managers according to several quantitative measures. At its core, this approach stands upon the fundamental intuition that disciplined, results-driven investment processes may allow higher-quality managers to separate from their peers over time.

As such, we have identified several quantitative markers to assess the quality of active managers' risk management:

- **Upside Opportunity**. Capturing solid upside potential through disciplined active management
- **Downside Mitigation**. Minimizing potential disappointments in absolute and excess returns
- **Consistency**. "Quality" risk-adjusted returns, suggesting a repeatable, skillful investment process

Our analysis indicates that ranking managers according to these markers has effectively sorted managers by their

Exhibit 1: A Holistic Investment Process Seeks Value From Each Driver of Portfolio Returns



Source: Morgan Stanley Wealth Management GIC

subsequent risk-adjusted performance and, hence, their effective risk management. The Risk Score methodology's apparent value across multiple asset classes and for multiple market cycles suggests that it has potential to assist with manager selection.

Identifying Markers of Prospective Risk Management

The Risk Score methodology uses markers that have been historically instrumental in identifying active managers with effective risk management. Based on qualitative and quantitative evidence, we believe that active managers with effective risk management should deliver consistent excess returns, maximizing potential opportunities while reducing potential risks. As a result, the Risk Score methodology considers three groups of features to identify such managers: upside opportunity, downside mitigation and consistency in delivering risk-adjusted returns. We summarize those markers in Exhibit 2.

We first measure how strongly a manager exhibits these features by computing its percentile ranking according to that marker, relative to other managers in its category. Combining each feature's weighted contribution yields an aggregate weighted-average percentile rank for that manager. We then calculate the Risk score by reranking the managers by their respective weighted-average percentile ranks.

Upside Opportunity

The upside opportunity factor intends to identify the managers with the capacity to capture potential returns through disciplined active managers. We therefore look for managers that have meaningfully deviated from their benchmark indexes, yet have mitigated their benchmark-relative risk and feature relatively low expense ratios. We quantify this upside opportunity factor with two markers: active management and the fees-to-tracking error ratio. Tracking error measures the divergence in returns between a manager and its benchmark.

The active management marker intends to capture the degree to which managers have deviated from their benchmark indexes while limiting their benchmark-relative risk. Our analysis has determined that truly active managers—those who deviate meaningfully from their beta-adjusted benchmarks—have historically generated more attractive risk-adjusted returns. As with the AAA 2.0 and Value Score metrics, these beta-adjusted benchmarks allow us to compare managers of varying risk levels within the same asset class. We capture managers' deviations from their benchmark by ($1–R^2$), by which we may assess the extent to which managers have attempted to exercise their skill.

The R^2 measure shows how closely a manager's returns track those of its benchmark index; higher values indicate a tighter fit between the two. In statistics, R^2 assesses the proportion of the variance in the dependent variable (the manager's returns) that

Exhibit 2: Quantitative Markers of Risk Management

Category	Marker	Calculation	What It Measures
Upside Opportunity	Active Management	($1–R^2$), divided by tracking error	Discipline and consistency in active management
	Fees-to-Tracking Error	Rolling expense ratios, divided by tracking error	Prospective hurdle to overcome, defining the minimum gross information ratio for positive net alpha
Downside Mitigation	Performance in Adverse Periods	Ranked performance in challenging periods for the underlying strategy, on a total-return basis	Demonstrated ability to handle tough setups for the underlying strategy
	Return-to-Average Drawdown	Ratio of the total returns to absolute value of the average drawdown in total returns	Strength in delivering absolute returns without painful drawdowns in total returns
	Volatility of Volatility	Volatility of the rolling 12-month volatility in total returns	Consistency of risk exposures, based on the principle that drastic changes may not be investor-friendly
Consistency	Sharpe Ratio	Excess returns over cash, divided by volatility in total returns	Consistency of total returns, relative to total risk (as measured by volatility)
	Sortino Ratio	Excess returns over cash, divided by downside volatility in total returns	Consistency of total returns, relative to downside risk (as measured by downside volatility)
	Up-Down Capture	Percentage spread between the manager's beta-adjusted up and down capture figures	Consistency of excess returns

Source: Morningstar, Morgan Stanley Wealth Management Portfolio Analytics may be predicted from the independent variable (the beta-adjusted benchmark's returns). It also represents the square of the correlation coefficient between the manager's and the beta-adjusted benchmark's returns.

Those managers with lower tracking errors, which indicate the divergence between the managers' total returns and their beta-adjusted benchmarks, have—according to our internal quantitative analysis—historically demonstrated tighter risk management in pursuit of their active investment strategies.

We believe that managers with higher levels of $(1–R^2)$ demonstrate higher levels of confidence in their investment ideas. While investors may benefit from that confidence, we believe that high-quality active managers carry out their active decision-making in a risk-managed context, demonstrated by low to moderate (beta-adjusted) tracking error. Including both components dampens the scores for those managers who seek to outperform through large overweight or underweight positions in particular factors, sectors or securities. While such trades may have proven profitable at times, these exposures tend to produce less predictable outcomes over the longer term. Further, managers with such sizable bets may lack discipline in their investment processes, making it more difficult to achieve consistency of outperformance over multiple periods.

We couple the active management factor with the fees-to-tracking error ratio. In order to produce positive risk-adjusted returns, active managers must first exceed their actual expense ratios. Managers with low tracking errors relative to their actual expenses ratios must produce exceptional risk-adjusted gross returns, making them less likely to add value after fees. This ratio therefore measures the fee hurdle that active managers face. From our analysis, we have observed that the intuitive pattern holds: Our internal analysis indicates that managers with lower values for this ratio have historically outperformed their peers in generating risk-adjusted net returns in subsequent periods.

Downside Mitigation

While high-quality managers pursue upside potential, investors also demand that active managers effectively manage downside risks, both in relative and absolute return terms. This factor includes three markers: performance in adverse total return periods, the returns-to-average drawdown ratio and volatility of volatility.

The first subcomponent, performance in adverse periods, considers how well managers have handled difficult environments compared with others in the strategy category. This marker considers each manager's performance on a month-by-month basis. For each month, it rewards points to those managers who achieved superior total returns (on a percentile basis), multiplying those points by the perceived degree of difficulty. That is, in months in which the strategy category struggled in terms of absolute returns, we assign a higher degree of difficulty. The results single out those managers that have avoided major losses during trying months.

The returns-to-average drawdown marker expands the lens to consider the manager's ability to minimize drawdowns. By taking the average drawdown, we assess whether each manager has reduced both the length and depth of drawdowns, which represent visceral challenges for risk-averse investors. The returns-to-average drawdown ratio balances managers' return generation and risk mitigation into one metric that corresponds directly with investor preferences.

Meanwhile, the volatility-of-volatility marker indicates the degree to which active managers maintain stability in their risk exposures. We believe that investors prefer lower values for this marker, reasoning that associated managers may be more likely to avoid investor-unfriendly activity, such as excessive turnover, style drift or undisciplined risk-taking.

Consistency

If successful, managers who capture upside opportunities and mitigate downside risk should deliver consistent risk-adjusted returns. Our third factor, consistency, therefore evaluates the quality of managers' performance. Managers with consistent processes not only manage their benchmark-relative risk, but also their total risk. In turn, we have included two markers that gauge total risk management—Sharpe ratios and Sortino ratios—and up-down capture, which looks at how managers' returns have fared versus their beta-adjusted benchmarks. Our historical analysis suggests that these consistency metrics carry over from one period to the next, making them helpful markers for sorting among active managers. The Sharpe ratio measures the ratio of a manager's excess returns above the risk-free rate versus the manager's total volatility. The Sortino ratio captures the ratio of a manager's excess returns above the risk-free rate versus the volatility of the manager's negative returns, termed "downside deviation" or "downside semivariance."

While high-quality active managers must demonstrate strength in security selection, these decisions alone do not translate into long-term outperformance. Active managers face the ongoing challenges of entering, exiting and sizing positions. Without a disciplined approach, any security selection advantage may quickly dissipate. Moreover, an undisciplined approach provides behavioral evidence that the management team may lack confidence in its strategy—a warning sign to prospective investors.

The three factors in the Risk Score quantify multiple dimensions of portfolio construction and risk management. The composite picture from the underlying markers provides quantitative evidence of managers' recent excellence in risk management. The Risk Score has historically sorted managers into higher- and lower-quality cohorts, with higher-quality managers demonstrating materially better risk-adjusted returns (see Exhibits 6 and 7 in the Appendix, page 8).

Sorting Managers by Their Effectiveness in Risk Management

As described above, for each manager category, we measure the percentile rankings of managers' achievement according to several important markers. In Exhibit 3, we present an example of the risk score framework in action, looking at sample data for a US intermediate tax-exempt fixed income manager as of March 31, 2019. In this example, the manager scored well in capturing upside opportunity through both active management and fees-to-tracking error markers. The active management score suggests its active decision-making, balanced against its risk controls, has placed it in the top quintile of managers within the asset class, while its fees appear low relative to its tracking error, as compared to other managers in the category. As indicated in Exhibit 3, we tally the weighted average of each subcomponent (e.g., 20% x 0.87 for the active management marker and so forth) and then rerank managers by computing a percentile rank based on the relative weighted average within each asset class. We selected the weights for each marker based on both its perceived importance as a measure of portfolio management skill and the historical evidence of its efficacy in ranking managers by subsequent risk-adjusted returns.

We assign a "green" rating to the top 40% of managers in each asset class. Given that the sample manager lands in the top decile for its reranked percentile, even with a relatively poor signal for the volatility of volatility marker, it receives a green rating.

Exhibit 3: Risk Score Methodology for a Sample US Intermediate Tax-Exempt Fixed Income Manager

Category	Marker	Weight	Percentile in Asset Class
Upside Potential	Active Management	40%	0.87
	Fees-to-Tracking Error		0.95
Downside Mitigation	Performance in Adverse Periods	40	0.94
	Returns-to-Average Drawdown		0.97
	Volatility of Volatility		0.05
Consistency	Sharpe Ratio	20	0.97
	Sortino Ratio		0.92
	Up-Down Capture		0.96
Weighted Average			0.87
Reranked			0.98

Source: Morningstar, Morgan Stanley Wealth Management Portfolio Analytics as of March 31, 2019

Using the Risk Score in Portfolio Construction

We believe that the Risk Score methodology extends Morgan Stanley Wealth Management's qualitative and quantitative due diligence. Using manager selection tools such as the Risk Score may help to support overall portfolio returns by assisting in identifying high-quality active managers.

Once investors have determined to hire an active manager in a given asset class, they face the portfolio-related question of the manager's benchmark-relative risk level. For example, in US large-cap value, an investor may consider managers across deep, traditional and relative value subcategories. Owing to its underlying calculations, the Risk Score methodology intends to identify higher-quality managers along the spectrum of benchmark-relative risk levels.

Expanding Our Toolkit For Scoring Managers

To support our integrated portfolio construction approach, we have developed a suite of manager-scoring tools, which seek to rank managers by perceived quality across traditional equity and fixed income asset classes. The Risk Score, described here, completes this suite and complements our two existing tools, Adverse Active Alpha 2.0 and the Value Score, both introduced in 2018.

These tools seek an objective reading on managers' relative attractiveness within their respective asset classes. Coupled with other qualitative and quantitative due diligence, they contribute to the manager selection process, to portfolio construction and, in turn, our pursuit of high-quality risk-adjusted returns for our clients. Exhibit 4 (see page 6) provides an overview of these three tools, including their inputs, their outputs and how they measure manager quality.

The tools evaluate historical quantitative markers to assess managers' attractiveness across three criteria: alpha generation, risk management and perceived after-fee value. Based on their differentiated methodologies and objectives, the three tools highlight managers' strengths and weaknesses, allowing us to assess their level of well-roundedness. By analogy, basketball executives might deliberate on a player's scoring ability, defense and contract terms when deciding whether to execute a trade with another team. Likewise, investors may wish to evaluate multiple angles when considering their manager selection decisions. These manager scoring tools facilitate such a multi-faceted approach.

Our Adverse Active Alpha methodology seeks to identify high-quality active managers with the potential to generate strong relative risk-adjusted returns within their respective asset classes. In 2018, we rolled out Adverse Active Alpha 2.0 to broaden its scope and to strengthen its consistency and scalability. At its core, our quantitative approach follows

Exhibit 4: Comparing Our Three Manager Scoring Tools

Tool	Adverse Active Alpha 2.0	Risk Score	Value Score
What underlying logic supports the approach?	Investors may benefit from those managers with meaningful differentiation from their benchmarks and that show consistent skill in their active decision-making	Effective risk management defines managers' long-term outcomes, helping them to benefit on the upside while limiting the downside	As with other purchasing decisions, rational investors assess managers' value proposition relative to their actual costs
What forward-looking measure of quality does it seek to measure?	Capacity for alpha generation, focusing on risk-adjusted excess returns	Skill in managing total return risk, considering both upside opportunity and downside risk	"Excess value," defined as the manager's "fair value" expense ratio *less* its actual expense ratio
How does it evaluate manager quality?	Active managemet, alphas and consistency	Upside capture, downside mitigation and consistency	Active management, risk-adjusted performance and risk management
What type of returns does it consider in its calculations?	Gross	Net	Gross returns in its calibration to determine net returns from the "excess value"

Source: Morgan Stanley Wealth Management Portfolio Analytics

fundamental intuition so that we may benefit from managers with consistent, disciplined, results-driven investment processes. Building on substantial analysis, we have distinguished several quantitative markers that have historically tended to correspond to managers' prospective returns.

The Value Score weighs a manager's perceived forward-looking benefit against its expense ratio. This cost-benefit analysis ultimately sorts managers within each asset class according their potential excess value; positive excess value potential emerges from the combination of value-added features and relatively low expense ratios. This complements AAA 2.0's focus on factors indicative of strong investment acumen that may lead to strong future performance.

The Risk Score complements both AAA 2.0 and the Value Score by searching out those active managers with more effective portfolio construction and risk management processes. We consider three dimensions of risk management—capturing potential, mitigating downside risks and delivering consistent performance—in the Risk Score. Importantly, we believe that the Risk Score helps to flag those managers more likely to experience drawdowns, which may lead to significant disappointment for investors.

These scoring tools therefore address three critical dimensions of what may indicate a high-quality active manager: performance, risk management and value. While the tools' methodologies share common inputs, their differentiated objectives point to their independence, and we have found empirically that their conclusions do show meaningful differentiation in outputs.

Moreover, our analysis has found that their complementary approaches may provide compounded value-added over time. We recommend that investors focus their allocations to those managers that have achieved at least one "green" score and no "red" scores (bottom 20% on any of the three).

Exhibit 5 (see page 7) shows the historical consistency with which this approach has sorted higher-quality managers, indicated by forward-looking alpha generation, for both US equity and fixed income managers. The charts display the annualized alpha for the average manager in each group for 24 overlapping rolling three-year periods, starting as of Jan. 1, 1993, and ending Dec. 31, 2018, for three separate groups of managers, based on the manager scoring tools' rankings calculated as of Dec. 31 of the year immediately preceding the period's start date. The US equity grouping includes the nine Morningstar-defined major style boxes, while the US fixed income cohort covers both taxable and tax-exempt managers across credit quality and duration.

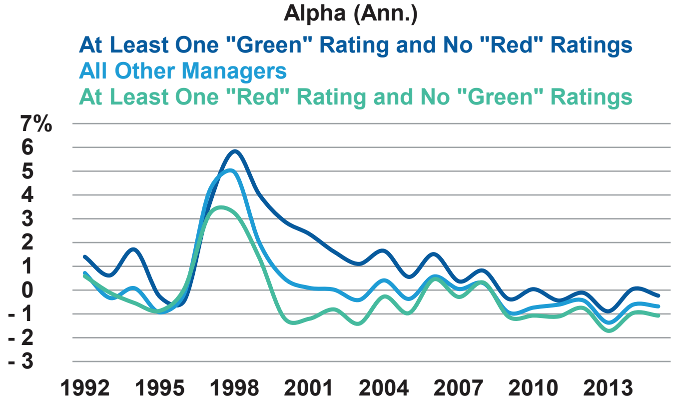
Our historical analysis indicates that being more selective—requiring managers to show "green" (top 40%) designations for multiple scores—may lead to marginally better alpha generation.

Conclusion

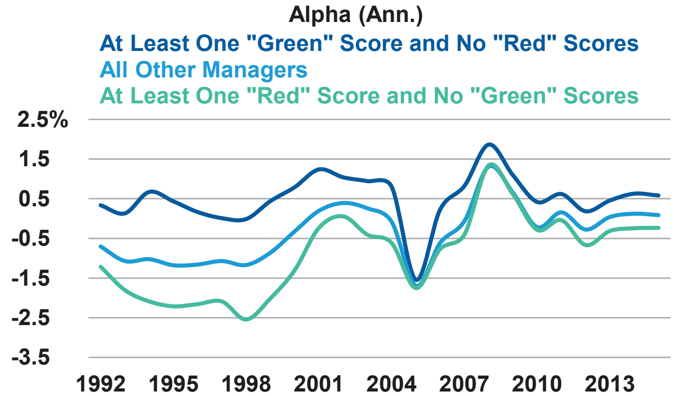
While security selection may dominate popular impressions of active managers, they will struggle to deliver consistent, long-term success without effective risk management. The Risk Score gauges the effectiveness of managers' risk management against other strategies in each asset category by looking at upside potential, downside mitigation and consistency. On a stand-alone basis, the Risk Score has historically differentiated

Exhibit 5: Using the Three Scores Together for Major Equity-Like and Fixed Income Asset Classes

US Equity



US Fixed Income



*We computed these forward-looking annualized alphas by processing survivorship bias-free manager returns and assets data from the Morningstar and proprietary databases, including both mutual fund and separately managed account. The data allows us to study the period from Jan. 1, 1993 to Dec. 31, 2018. Our analysis reviews rolling three-year realized windows to make projections on subsequent three-year windows, aligning with investors' anticipated holding periods.

Source: Morningstar, Morgan Stanley Wealth Management Portfolio Analytics as of March 31, 2019

among manager quality, with highly rated managers having delivered superior risk-adjusted performance and greater success in adverse periods.

The Risk Score completes our manager scoring toolkit, complementing AAA 2.0 and the Value Score that we introduced in 2018. Along with other qualitative and quantitative due diligence, these manager scoring tools' ratings should facilitate manager selection, potentially boosting portfolio-level risk-adjusted returns. Weighing the signals from multiple scores may assist with sorting among potential options by identifying managers' particular strengths and weaknesses through the tools' quantitative lenses. ■

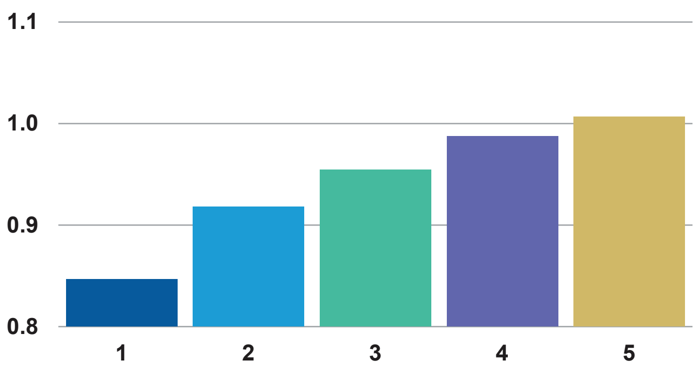
Appendix

Exhibit 6: Average of Major Equity-Like and Fixed Income Asset Classes

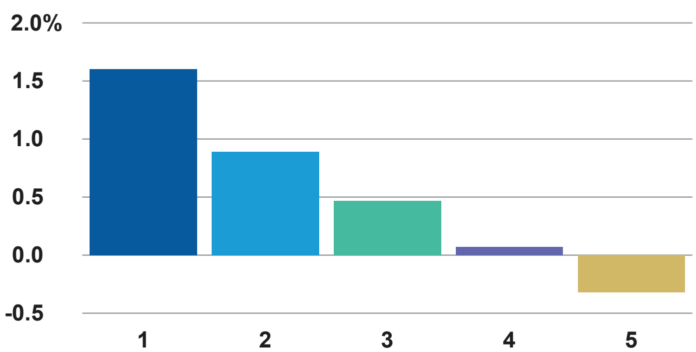
These charts show the historical efficacy of the Risk Score process by studying 24 overlapping rolling three-year periods, starting Jan. 1, 1993, and ending Dec. 31, 2018. To do that, they present several performance metrics for quintiles of managers, constructed based on the Risk Score rankings calculated as of Dec. 31 of the year immediately preceding the period's start date.* We then computed the subsequent three-year performance data for each quintile for several measures of absolute and risk-adjusted performance. The US equity grouping includes the nine Morningstar-defined major style boxes, while the US fixed income cohort covers both taxable and tax-exempt managers across credit quality and duration. Please note that higher-quintile managers have tended to feature lower subsequent betas, which appears to have strongly influenced some outcomes for excess returns. Additionally, particularly within some fixed income categories, the time series included a limited number of funds during part or all of the period studied, which may have affected those specific results.

US Equity

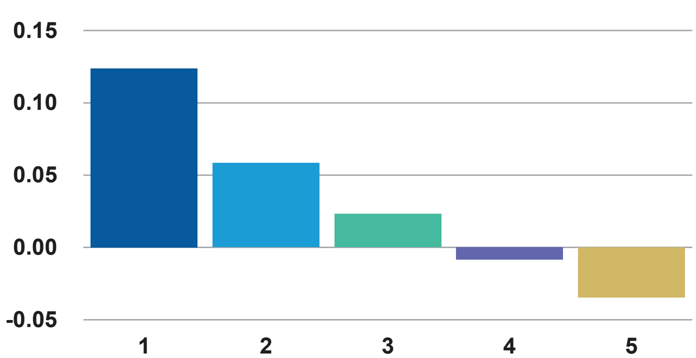
Ex Ante Beta



Alpha (Ann.)

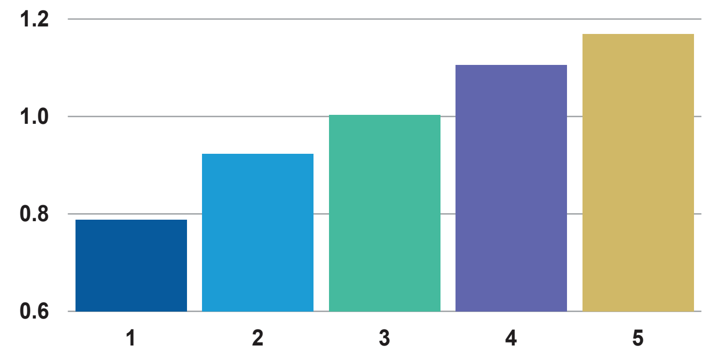


Information Ratio

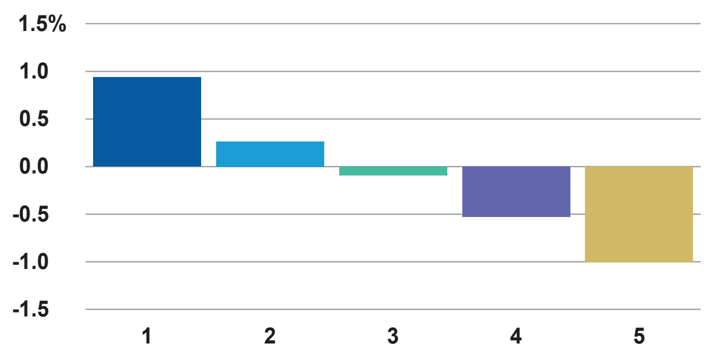


US Fixed Income

Ex Ante Beta



Alpha (Ann.)



Information Ratio

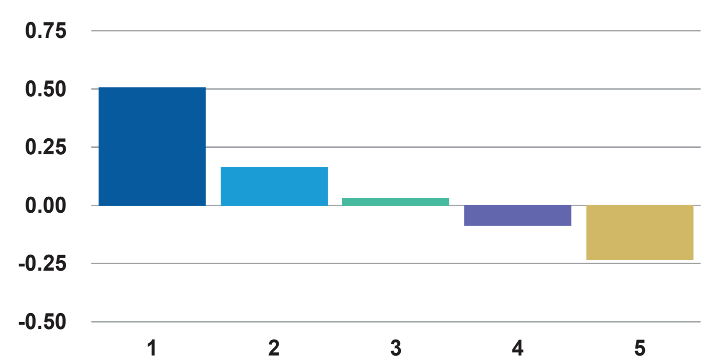
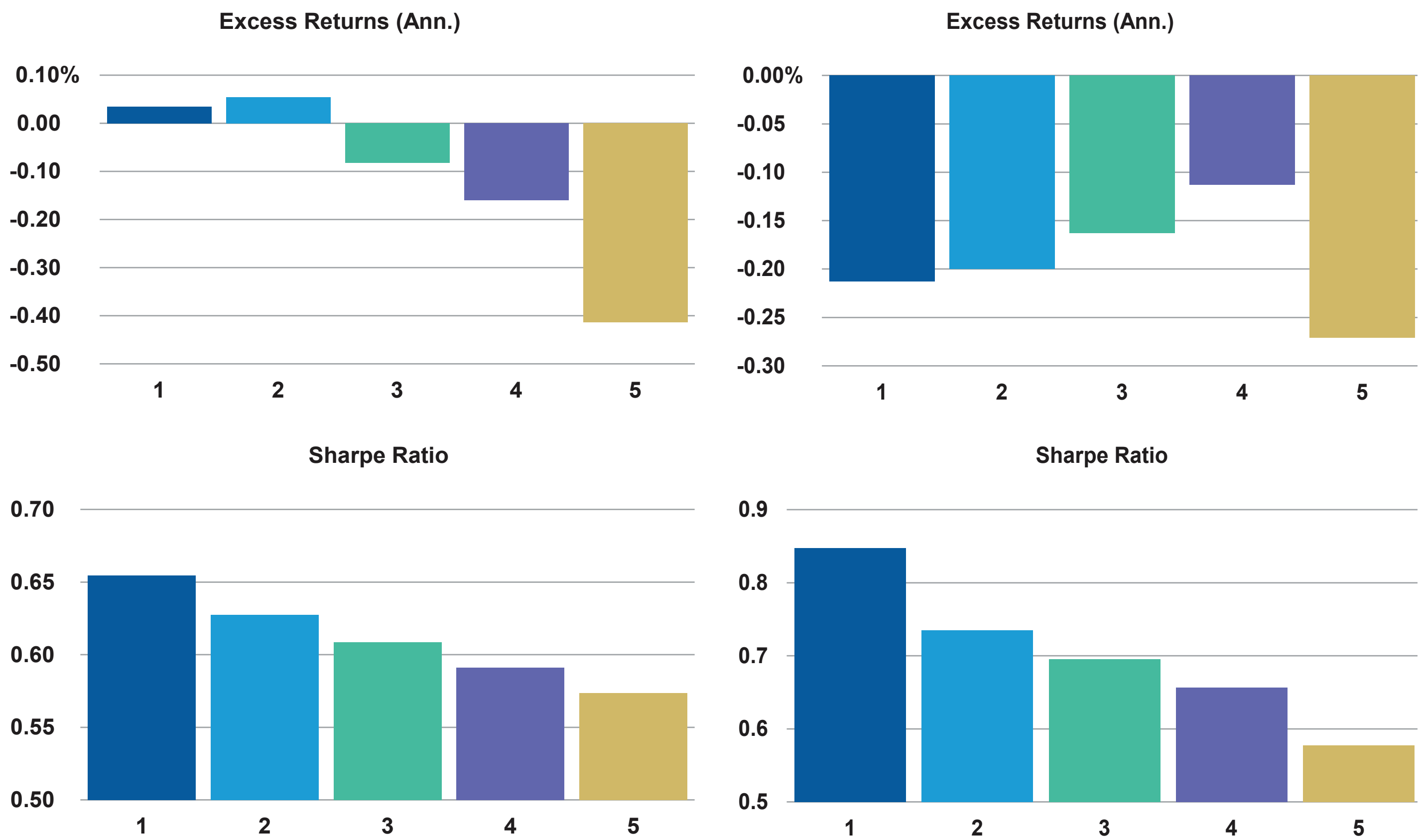


Exhibit 6: (continued)

US Equity

US Fixed Income



Source: Morgan Stanley Wealth Management Portfolio Analytics as of March 31, 2019

*We computed these underlying features by processing survivorship bias-free manager returns and assets data from the Morningstar and proprietary databases, including both mutual fund and separately managed account vehicles. The data allows us to study the period from Jan. 1, 1993 to Dec. 31, 2018. Our analysis reviews rolling three-year realized windows to make projections on subsequent three-year windows, aligning with investors' anticipated holding periods.

Source: Morningstar, Morgan Stanley Wealth Management Portfolio Analytics as of March 31, 2019

Exhibit 7: Efficacy for Major Asset Classes

This table displays the incremental value of the top 40% of managers versus the bottom 20% of managers across major asset classes. For each asset class and each year from 1993 to 2018, we computed the subsequent three-year values for each of several measures of absolute and risk-adjusted performance. We computed that data by-applying the Risk Score process to Morningstar's complete historical manager returns database, including those strategies that are no longer operative. The figures represent the average of the first two quintiles' results (top 40%) less those for the bottom quintile (bottom 20%), equally weighting each year's observations. The values below reflect the beta-adjusted benchmarking process described above.

	Quintiles Nos. 1 and 2 (top 40%) vs. No. 5 (bottom 20%)						
Asset Class | Subsequent Three-Year	**Alpha (Ann.)**	**Info. Ratio**	**Monthly Hit Ratio**	**Up-Down Capture**	**Excess Returns (Ann.)**	**Sharpe Ratio**	**Sortino Ratio**
Alternatives | Real Assets | Real Estate/REITs	1.6%	0.30	8%	0.20	-0.2%	0.11	0.16
Equities | Emerging Markets | Core	2.4	0.13	5	0.10	1.6	0.09	0.14
Equities | Global | Core	2.5	0.23	5	0.18	1.7	0.18	0.31
Equities | International | Core	2.6	0.19	6	0.15	2.1	0.16	0.24
Equities | International | Europe	2.6	0.19	6	0.15	2.2	0.16	0.24
Equities | International | Growth	2.0	0.13	4	0.11	1.7	0.12	0.19
Equities | International | Value	2.6	0.21	6	0.17	1.8	0.16	0.24
Equities | US Large-Cap | Core	1.4	0.11	6	0.08	0.3	0.03	0.07
Equities | US Large-Cap | Growth	1.6	0.13	4	0.10	0.6	0.09	0.16
Equities | US Large-Cap | Value	1.3	0.11	5	0.08	0.1	0.03	0.06
Equities | US Mid-Cap | Core	0.3	0.04	3	0.02	-0.7	0.01	0.04
Equities | US Mid-Cap | Growth	2.1	0.14	5	0.10	1.0	0.11	0.22
Equities | US Mid-Cap | Value	2.1	0.20	6	0.14	1.0	0.13	0.25
Equities | US Small-Cap | Core	2.4	0.18	6	0.14	1.0	0.12	0.20
Equities | US Small-Cap | Growth	1.6	0.13	4	0.10	0.8	0.11	0.21
Equities | US Small-Cap | Value	1.8	0.15	3	0.11	0.3	0.09	0.17
Multi-Asset | US | Core	2.9	0.30	11	0.24	-0.1	0.11	0.20
Average: Equity-Like	2.0	0.17	6	0.13	0.9	0.11	0.18
Fixed Income | Emerging Markets | Core	2.7	0.31	3	0.25	0.6	0.25	0.40
Fixed Income | Global	3.2	0.79	15	0.88	1.1	0.56	0.91
Fixed Income | High Yield | Convertibles	1.0	0.11	6	0.09	0.7	0.04	0.11
Fixed Income | High Yield | US	1.7	0.29	15	0.21	0.5	0.24	0.43
Fixed Income | US Taxable | Multi-Sector	0.1	0.29	6	0.34	0.2	0.18	0.28
Fixed Income | US Taxable | Credit	1.6	0.35	15	0.29	0.8	0.14	0.12
Fixed Income | US Taxable | Intm. Govt.-Credit	0.6	0.30	11	0.24	0.1	0.19	0.19
Fixed Income | US Taxable | Long Govt.-Credit	1.4	0.45	11	0.39	1.0	0.20	0.22
Fixed Income | US Taxable | Short Govt.-Credit	0.9	0.80	18	0.71	0.2	0.37	0.64
Fixed Income | US Tax-Exempt | Intermediate	0.6	0.25	14	0.18	0.1	0.15	0.25
Fixed Income | US Tax-Exempt | Long	0.6	0.15	8	0.11	0.2	0.11	0.19
Fixed Income | US Tax-Exempt | Short	1.3	1.04	27	0.73	0.4	0.29	0.40
Average: Fixed-Income	1.9	0.55	17	0.45	0.5	0.19	0.31
Average: Total	1.9	0.32	10	0.26	0.7	0.14	0.24

Note: Like the Sharpe ratio, the Sortino ratio measures risk-adjusted returns. While the Sharpe ratio considers both upside and downside volatility equally, the Sortino ratio solely focuses on downside returns. As a result, it replaces the annualized standard deviation of all total returns with annualized standard deviation of only negative total returns, called "downside deviation."

Source: Morgan Stanley Wealth Management Portfolio Analytics as of March 31, 2019

Index Definitions

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

Risk Considerations

Daniel C. Hunt, Steve Edwards and Vibhor Dave are not members of the Global Investment Committee and any implementation strategies suggested have not been reviewed or approved by the Global Investment Committee.

Investing in the markets entails the risk of market volatility. The value of all types of investments may increase or decrease over varying time periods. **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 involves the risk that the market may not recognize that securities are undervalued and they may not appreciate as anticipated.

Equity securities may fluctuate in response to news on companies, industries, market conditions and general economic environment.**International investing** entails greater risk, as well as greater potential rewards compared to U.S. investing. These risks include political and economic uncertainties of foreign countries as well as the risk of currency fluctuations. These risks are magnified in countries with emerging markets, since these countries may have relatively unstable governments and less established markets and economies.
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.

Alternative Investments are speculative and include a high degree of risk. An investor could lose all or a substantial amount of his/her investment. Alternative investments are suitable only for qualified, long-term investors who are willing to forgo liquidity and put capital at risk for an indefinite period of time.

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. **Foreign fixed income bonds** may involve greater risks than those issued by U.S. companies or the U.S. government. Economic, political and other events unique to a country or region will affect those markets and their issues, but may not affect the U.S. market or similar U.S. issuers.

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

Because of their narrow focus, **sector investments** tend to be more volatile than investments that diversify across many sectors and companies.

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

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

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 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 Alpha Ranking Model and Selecting Managers with Adverse Active Alpha whitepapers. The whitepaper are available from your Financial Advisor or Private Wealth Advisor. ADVERSE ACTIVE ALPHA is a registered service mark of Morgan Stanley and/or its affiliates. U.S. Pat. No. 8,756,098 applies to the Adverse Active Alpha system and/or methodology.

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Special Report

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Value Score: Scoring Fee Efficiency by Comparing Managers' "Fair Value" and Actual Expense Ratios

Every day we make purchasing decisions that seek to maximize the value we receive from products and services. We carefully assess whether a product's quality and durability ratings justify its cost or whether a restaurant's food, service and ambiance appropriately match its menu prices. Through time, we may become more effective decision-makers by continually surveying the marketplace and adjusting to our changing preferences.

We believe that applying a similar cost-benefit analysis may help us to improve our manager selection decisions. In response, we have developed a proprietary Value Score methodology, which considers active investment strategies' value proposition relative to their costs. From a historical quantitative study of several quantitative markers, we measure perceived forward-looking benefit and compute (1) "fair value" expense ratios for over 10,000 managers across 40 categories and (2) managers' perceived "excess value" by comparing the fair value expense ratios to actual expense ratios. We then rank managers within each category by their excess value to assign a Value Score, having found that greater levels of excess value have historically corresponded to attractive subsequent performance.

The Value Score complements our Adverse Active Alpha 2.0 methodology, updated this year, and Global Investment Manager Analysis (GIMA) holistic due diligence. Taken together, these efforts seek to boost the probability of success in identifying high-quality active managers.

Introducing Cost-Benefit Analysis for Manager Selection

Due to variability of investment returns, investors may struggle in leveraging cost-benefit analysis when hiring investment managers. Expense ratios and management fees, which are costs for investors, may not tie closely to the forward-looking value that investors may receive. When costs exceed benefits, investors become disappointed and hunt for better alternatives. These switches may even compound frustration, as assets flow to managers and substyles that have recently outperformed, only to disappoint investors when the strategy undergoes a reversal.

In response, we have developed a proprietary methodology that considers an active investment strategies' value proposition relative to its costs. Within each asset class, we compute an individual managers' relative attractiveness based on several historical quantitative value-added features and translate those rankings into their estimated forward-looking potential. We then rank each strategy within each asset class according to the spread between actual and fair value expense ratios, summarizing the conclusions into a "Value Score." Those managers with a more positive spread, signaling more perceived benefit relative to costs, represent more potentially attractive choices. We intend to provide our Financial Advisors with the identity of those Focus List managers that rank highly according to the Value Score and to use the manager-level rankings as an input for GIMA's holistic due diligence.

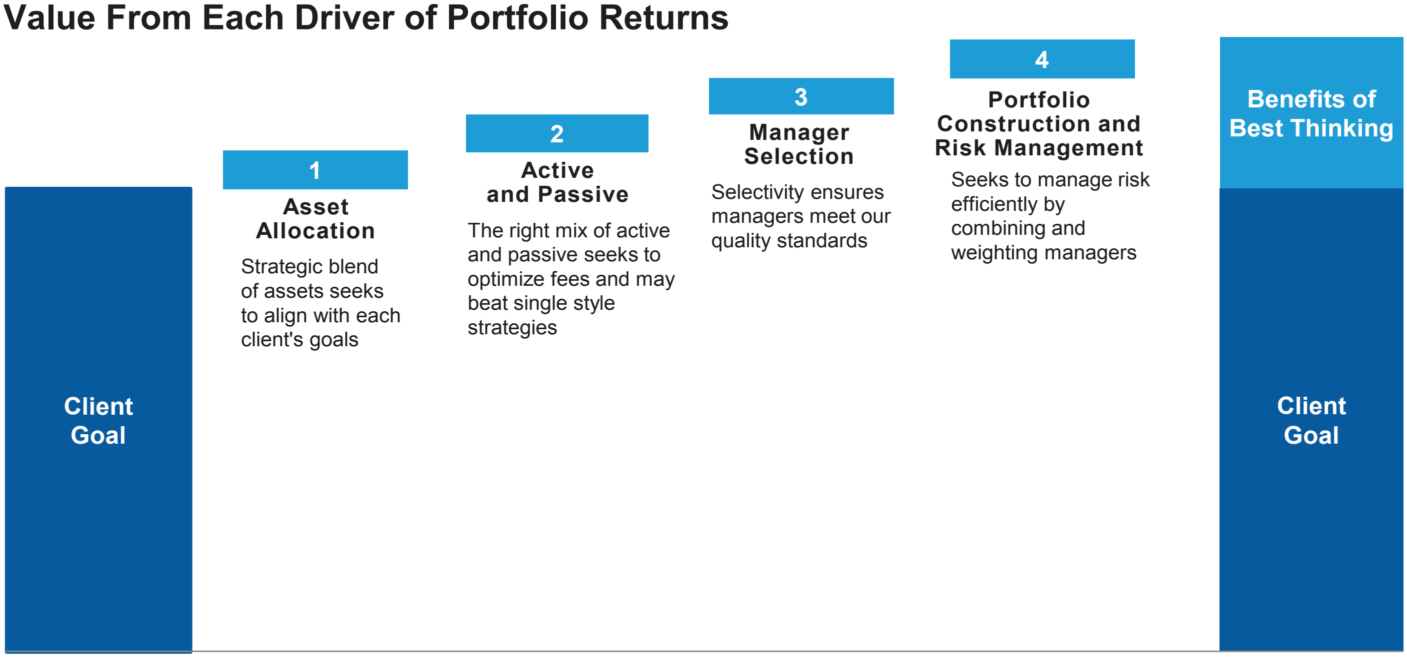
In concert with other quantitative and qualitative due diligence, this Value Score may help to maximize value for a given level of fees and to improve the odds for successful manager selection and portfolio construction, potentially boosting our clients' long-term results. Furthermore, by studying managers within their respective categories, the Value Score may allow us to gauge where active management makes sense, sharpening our active-passive recommendations. In addition, it appears that jointly considering outputs from our updated Adverse Active Alpha (AAA 2.0) methodology and the Value Score may provide compounded value-added over time.[1]

Seeking High-Quality Active Managers

Building a successful long-term investment strategy involves taking advantage of opportunities across its underlying components. Beyond setting and updating an appropriate asset allocation, investors may also benefit from the three elements of portfolio implementation: active-passive decisions, manager selection and portfolio construction. Exhibit 1 highlights the potential value-added from these drivers of portfolio returns.

In its March 2018 *Special Report* "Inputs for GIC Asset Allocation," the Global Investment Committee (GIC) highlighted that expected seven-year returns for major asset classes appear modest, significantly trailing realized historical returns.[2] This shift to a lower-return environment underscores the value of solid manager selection and portfolio construction, which motivates us to develop and enhance tools and processes that strive to deliver risk-adjusted value.

Exhibit 1: A Holistic Investment Process Seeks Value From Each Driver of Portfolio Returns



Source: Morgan Stanley Wealth Management GIC

Expanding Our Manager Scoring Toolkit

The Value Score expands our manager scoring tools, which already included AAA 2.0, our assessment of active managers' alpha generation capabilities. These tools seek an objective reading on managers' relative attractiveness within their respective asset classes. Coupled with other qualitative and quantitative due diligence, they may contribute to the manager selection process and to portfolio construction and, in turn, deliver high-quality risk-adjusted returns for our clients.

Our patented Adverse Active Alpha methodology seeks to identify high-quality active managers with the potential to generate strong relative risk-adjusted returns within their respective asset classes. Earlier in 2018, we updated AAA to broaden its scope and to strengthen its consistency and scalability. At its core, our quantitative approach follows fundamental intuition so that we may benefit from managers with consistent, disciplined, results-driven investment processes. Building on substantial analysis, we have distinguished several quantitative markers that have historically tended to correspond to managers' prospective returns.

With the Value Score, we weigh a manager's perceived forward-looking benefit against its expense ratio. The Value Score's cost-benefit analysis ultimately sorts managers within each asset class according their potential excess value; positive excess value potential emerges from the combination of value-added features and relatively low expense ratios. This complements AAA 2.0's focus on factors indicative of strong investment acumen that may lead to strong future performance.

These scoring tools therefore address two critical dimensions of what may indicate a high-quality active manager: performance and value. While the two tools' methodologies share common inputs, their differentiated objectives point to their independence, and we have found empirically that their conclusions do show meaningful differentiation in outputs. Initial analysis suggests that their complementary approaches may provide compounded value-added over time. That is, those managers with "Yes" designations (approximately ranking in the top 40%) under both AAA 2.0 and the Value Score may be worthy of particular consideration when selecting active managers.

Studying Fee Efficiency

We have designed the Value Score to focus on a key consideration for manager selection fee efficiency. Several empirical studies have suggested that simply selecting managers with lower fees has resulted in superior ex ante performance.[3] Yet, this approach only considers costs without weighing benefits. In contrast, the Value Score methodology strives to estimate the potential value of critical features for investment managers. It builds upon the intuition that we may be able to assess the overall benefit of an active manager's service, as with any product or service, from the aggregate contributions of its underlying features. Based on extensive analysis, here are several features that, we believe, may define a manager's value proposition:

- **Active Management.** Meaningful differentiation from the relevant benchmark with low to moderate tracking error[4]
- **Risk-Adjusted Returns.** Measurable and consistent value-added, preferably driven by security, suggesting a repeatable, skillful investment process
- **Risk Mitigation.** Attractive skew of positive versus negative outcomes, including in extreme events, and solid business health, as measured by performance-adjusted flows

Our analysis indicates that ranking managers according to these markers has effectively sorted managers by their subsequent risk-adjusted performance. The Value Score methodology's apparent value across multiple asset classes and for multiple market cycles suggests that it has potential to assist with manager selection.

Asset Flows and the Repricing of Active Management

Dissatisfied with the underperformance of actively managed strategies and their higher expenses relative to passively managed options, investors have pulled approximately $709 billion from actively managed equity funds during the five years ending Dec. 31, 2017. During this period, the average active equity fund trailed its benchmark by approximately 1.6% annually. While investment decisions do contribute to managers' underperformance, more than 70% of this shortfall is attributable to the cost differential between active managers and passive strategies, given funds' average expense ratio of 1.19%.[5]

While average equity mutual fund expense ratios meaningfully declined to 1.19% in 2017 from 1.60% in 2000, their expense ratios remain high relative to passively managed strategies, where expense ratios often sit below 0.25%.[6] With such significant expense disparity between active and passive strategies, we believe that fee compression will continue into the future, benefiting larger, more established investment management firms with ready economies of scale. In response to this secular trend, some active managers have taken investor-friendly steps, both by reducing overall fees and introducing flexible fee arrangements that more closely align managers and investors' incentives.

Even with this backdrop, we believe that investors may indeed profit from high-quality active management if priced correctly, and effective manager selection that seeks to increase the odds of selecting top-quartile managers. This belief caused us to wonder: How may we determine the fair value of active management? Rather than addressing this nuanced question directly, given the uncertainty of future outcomes, investment managers often establish expense ratios based on "what the market will bear." This answer has become more difficult to justify, as active managers have struggled to keep up with market benchmarks, particularly in the 10 years since the financial crisis. As a result, investors have collectively voted with their feet: 83% of mutual fund assets are now concentrated in those funds with expense ratios in the bottom two quintiles, largely due to extensive flows to passive index strategies.[7]

Management fees have become central in the debate over how best to gain exposure to traditional asset classes, especially within equities. Some advisors argue for the superiority of either actively or passively managed strategies and therefore recommend a full allocation to one or the other. Proponents of active management suggest that, based on their sophistication and experience, professional active managers have real advantages in the ever-changing landscape. Other strategists point to the long-term outperformance by passive approaches, in part due to lower management fees. As a result, investors often take one side or the other and allocate exclusively to either active or passive funds.

Our work suggests that neither approach is categorically better; instead, the optimal allocation depends, in large part, on the investment backdrop. Thus, we recommend selecting among active and passive strategies opportunistically, taking full advantage of Morgan Stanley Wealth Management's portfolio construction tools and analysis.[8] The Value Score methodology aims to add value in manager selection, an important element in portfolio construction.

Considering Fair Value Expense Ratios

After setting their broad asset allocation, rational investors seek to maximize their expected risk-adjusted net returns within each asset class. If all investment strategies in a given asset class yielded similar gross returns at similar levels of risk, investors would naturally gravitate solely to lower-fee managers. Yet, experience has shown that even within a given asset class, investment strategies have produced diverse risk-adjusted returns over rolling windows.

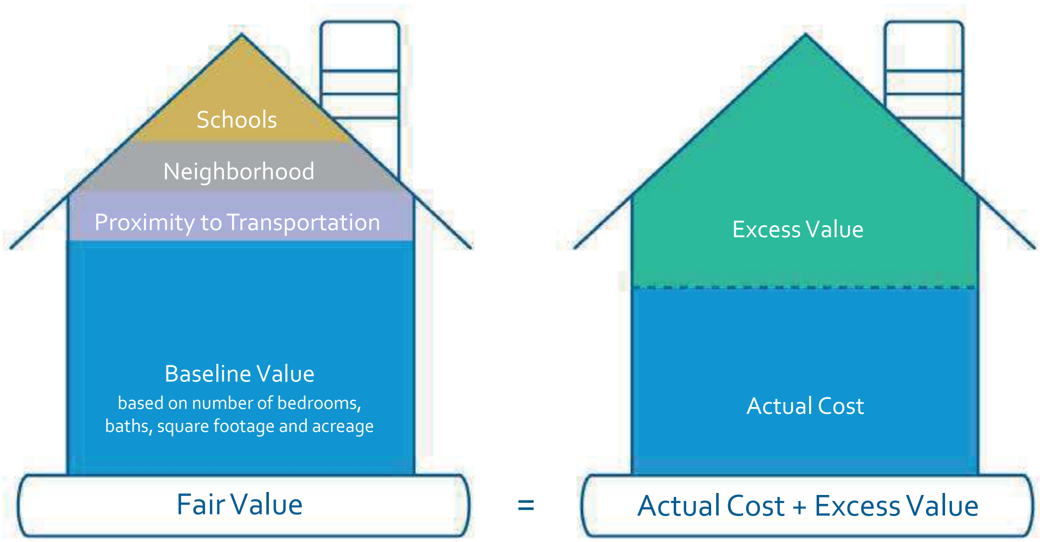
As we approach cost-benefit analysis for an active manager, we define the cost as the manager's total expense ratio. However, we face a far greater challenge in determining the potential benefit or fair value of a manager. While we may evaluate the manager's realized performance with quantitative analysis and thoroughly study its investment process and operations, we must ultimately estimate the manager's projected forward-looking value since past performance is not necessary indicative of future results.

To tackle this puzzle, we started with the recognition that other purchasing decisions contain similar considerations. Under one rubric, consumers determine a product or service's benefit by beginning with a baseline price and then assigning value to its underlying features. For example, a home buyer might estimate a specific home's base value from its number of bedrooms, number of bathrooms, square footage and acreage. From that point, the buyer could consider its "value-added features" such as the character of its neighborhood, the quality of the schools, proximity to transit and personal appeal, in determining its fair value (see Exhibit 2).

Our proprietary Value Score methodology follows this intuitive pattern in calculating managers' fair value expense ratios for each category. We begin with each category's average expense ratio, computed from each manager in the data sample, as our baseline price and modify it by aggregating the projected potential benefit of its underlying features. These features may contribute to forward-looking value and capture the

Exhibit 2: Intuitive Basis for Calculating and Applying Fair Value Expense Ratios

We may estimate "excess value" by computing a "fair value" and then comparing it against actual costs



Source: Morgan Stanley Wealth Management Portfolio Analytics

incrementally positive or negative difference in potential returns between any given manager and the average manager for the category. In theory, higher-quality active managers may consistently demonstrate these features, owing to their solid investment processes. Our analysis has led to the conclusion that these features—and the value-added associated with them—have historically persisted over time, helping us to sort managers by potential attractiveness on a forward-looking basis.

Identifying Value-Added Features of Active Managers

The Value Score methodology builds on extensive analysis into the benefits of each feature, which we found to vary over time and by asset class. Based on qualitative and quantitative evidence, we believe that attractive active managers should deliver excess returns with effective risk management. As a result, the Value Score methodology considers three groups of features—active management, risk-adjusted returns and risk management—for which investors should be willing to pay.

We first measure how strongly a manager exhibits these features by computing its percentile ranking according to that marker, relative to other managers in its category. Combining each feature's weighted contribution yields a fair value expense ratio for each manager, described below (see Exhibit 3).

Active management. The active management score intends to measure how managers deviate from their benchmarks while controlling their benchmark-relative risk. Our analysis suggests that high-quality managers have typically generated returns that deviated meaningfully from their beta-adjusted benchmarks. Beta-adjusted benchmarks allow us to compare managers of varying risk levels within the same asset class. We capture managers' deviations from their benchmark by $(1–R^2)$, by which we may assess whether managers have indeed attempted to exercise their skill. The R^2 measure shows how closely a manager's returns track those of its benchmark index; higher values indicate a tighter fit between the two.[9] Those managers with well-contained tracking errors, which indicate the divergence between the managers' total returns and their beta-adjusted benchmarks, have historically demonstrated their careful risk management in pursuit of their active investment strategies.

Empirical evidence indicates that, from a structural standpoint, the average relative performance of active managers has suffered as a result of managers—sometimes known as "closet indexers"—taking less active risk. Because these managers build portfolios that look similar to the index but charge management fees, as a group they have tended to underperform by a margin similar to their fees and structurally may have a difficult time outperforming. Studies have demonstrated that closet indexing has increased significantly over time, with perhaps one-third of equity mutual funds bearing that label.[10]

Higher levels of $(1–R^2)$ appear to correspond with higher

Exhibit 3: Quantitative Markers of Prospective Alpha

Category	Marker	Calculation	What It Measures
Active Management	Active Management	$(1–R^2)$, divided by tracking error	Discipline and consistency in active management
Risk-Adjusted Returns	Alphas (Ann.)	Beta-adjusted alphas, both overall and from security selection	Risk-adjusted performance, with a tilt toward rewarding security selection-driven alpha
	Information Ratios	Beta-adjusted information ratios, both overall and from security selection	Consistency of excess returns, with a tilt toward rewarding security selection-driven alpha
	Monthly Hit Ratio	Percentage of months in which the manager exceeds the beta-adjusted benchmark return	Consistency of excess returns
Risk Management	Net Flows (Ann.)	Asset flows into the manager, after accounting for performance-related changes	Health of managers' business operations and potential for fee reduction, due to greater economies of scale
	Right-Left Tail Capture	Ratio of the imputed weight in the right tail (top 10%) divided by the left tail (bottom 10%) of total and excess returns	Positive skew and risk management in extreme environments
	Up-Down Capture	Percentage spread between the manager's beta-adjusted up and down capture figures	Consistency of excess returns

Source: Morgan Stanley Wealth Management Portfolio Analytics

levels of confidence in a manager's own investment ideas. While investors may benefit from that confidence, we believe that high-quality active managers carry out their active decision-making in a risk-managed context, demonstrated by low to moderate (beta-adjusted) tracking error. Including both components diminishes the scores for those managers who seek to outperform through large overweight or underweight positions in particular factors, sectors or securities. While such trades may have proven profitable at times, the longer-term outcomes tend to become less predictable. Moreover, the investment processes behind these sizable bets often lack in repeatability and discipline.

We have observed that those rare managers who have combined high active decision-making with low active risk achieved their value-add through security selection and have historically achieved the greatest success, making them worthy of their management fees. Our analysis highlighted the significance of this active management score across time and multiple asset classes, leading us to assign it the highest relative weight in the Value Score methodology.

Risk-adjusted returns. While the active management score searches for managers with a certain performance pattern, we have found that managers' demonstrated skill tended to persist to some degree—and particularly those with more pronounced active decision-making. Often, active managers fostered this skill by nurturing a talented team and maintaining a consistent, repeatable investment process.

As such, the three components of the risk-adjusted returns score measure managers' realized success for rolling three-year periods. The first element, alphas, includes two calculations of annualized alpha: the regression-based result and the excess return estimated to have flowed from the manager's security selection decisions.[11] The second and third subcomponents, information ratios and monthly hit ratio, typically correspond to more consistent investment processes. We employ beta-adjusted benchmark indexes for each manager, which appears to improve the forward-looking efficacy of the underlying components in the risk-adjusted returns score. Using three-year periods smoothes our results as active managers' relative performance has varied widely over any given 12-month period.

Risk management. While investors expect positive alpha from active managers, managers may also bolster their investment case by effectively managing downside risk while maintaining decent upside potential. For our first underlying measure, we consider the flows into or out of the manager that are unrelated to performance. Those managers with increasing assets under management likely enjoy greater business health tend to pass along their economies of scale to their clients through reduced expense ratios. The second and third features, right-left tail capture and up-down capture, weigh managers' skew for both extreme and overall returns. We believe that investors appreciate managers' ability to navigate challenging market environments, particularly given their inherent aversion to significant losses. Higher-quality managers have been successful in capturing upside opportunities but dampening downside participation.

Translating Feature Strength Into Fair Value Expense Ratios

As described above, for each manager category, we measure the percentile rankings of managers' ex post strengths according to several important features. Using "linear calibration," we translate each resulting percentile ranking into a perceived return benefit. This rolling, time-varying calibration technique considers each feature independently and determines a raw value-added for that feature on a manager-by-manager basis. The methodology studies the empirical evidence of a given feature's strength and its realized impact on projected net alpha. Our analysis recommended including at least eight rolling three-year periods, which allow us to assess the methodology's applicability across changing market environments. This requirement does, however, limit the application of the Value Score methodology to those asset classes with longer-term histories.

Please refer to the top portion of Exhibit 4, page 7, for a sample calculation. In this example, the manager has demonstrated strength in the active management score, highlighting the likelihood of favorably exercising its decision-making freedom, with a percentile value of 0.97. For this US mid-cap value category, the calibration technique indicates that this percentile value has historically translated into 0.30% of improvement in net alpha over average managers. We then multiply this 0.30% pickup by the active management's 60% weight to calculate a value-added of 0.18% on that measure alone. We perform similar calculations for the risk-adjusted returns and risk management scores, aggregating the total benefit of these value-added features comes to 0.28% in potential net alpha.

By combining the total benefit of these value-added features with the category-average expense ratio, we determine each manager's fair-value expense ratio. In this case, we estimate the manager's fair-value expense ratio as 0.95%.

Sorting Managers by Potential Excess Value

As indicated in Exhibit 4, we may subtract a manager's actual expense ratio from our computed fair value expense ratio to compute an excess value. This excess value essentially captures the manager's projected value creation or destruction.

We may then select higher-quality managers by ranking an entire category by this metric. We assign the top 40% of managers with a "Yes" rating according to the Value Score methodology. In this example, this manager's excess value placed it in the 98th percentile, leading to the "Yes" rating, as indicated by the green dot. Historically, across multiple asset

Exhibit 4: Value Score Methodology for a Sample Mid-Cap Value Manager

Category	Marker	Percentile in Asset Class	Weight	Prospective Value-Added
Active Management	Active Management	0.97	60%	0.18%
Risk-Adjusted Performance	Alphas (Ann.)	0.99	20	0.07
	Information Ratios			
	Monthly Hit Ratio	0.95		
Risk Management	Net Flows (Ann.)	0.93	20	0.03
	Right-Left Tail Capture	0.71		
	Up-Down Capture	0.93		
	Value-Added Features			0.28
	Average Expense Ratio			0.67
	Fair-Value Expense Ratio			0.95
	Actual Expense Ratio			0.30
	Excess Value			0.65
	Percentile in Asset Class			0.98

Source: Morgan Stanley Wealth Management Portfolio Analytics as of June 30, 2018, based on data provided by Morningstar

classes, the turnover in Yes recommendations—to and from the top 40% of managers—ranged from 10% to 15% annually.

This select group appears to offer the greatest potential projected benefit to investors relative to their known costs. As of June 30, 2018, 63% of those managers included on the Global Investment Manager Analysis Focus List received a Yes rating from the Value Score methodology, highlighting these managers' strong prospective value-added against their competitive expense ratios. Encouragingly, our historical survey suggests that those managers tagged with the Yes designation did achieve attractive forward-looking performance in subsequent three-year periods, summarized in Exhibits 5 and 6. These benefits seemed evident across multiple asset classes, for both equities and fixed income, along several dimensions of historical risk-adjusted returns.

Using the Value Score in Portfolio Construction

We believe that the Value Score methodology may extend Morgan Stanley Wealth Management's qualitative and quantitative due diligence. Using manager selection tools such as the Value Score may help to support overall portfolio returns by assisting in identifying high-quality active managers.

Once investors have determined to hire an active manager in a given asset class, they face the question of the manager's benchmark-relative risk level. For example, in US large-cap growth, an investor may consider managers across aggressive, traditional and conservative growth subcategories. Owing to its underlying calculations, the Value Score methodology intends to provide recommendations on higher-quality managers along the spectrum of benchmark-relative risk levels.

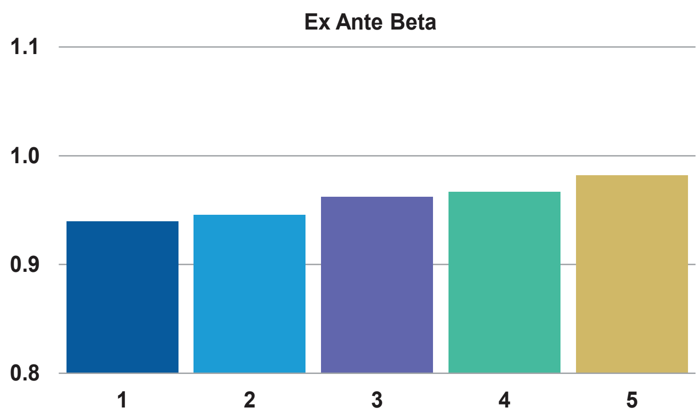
Conclusion

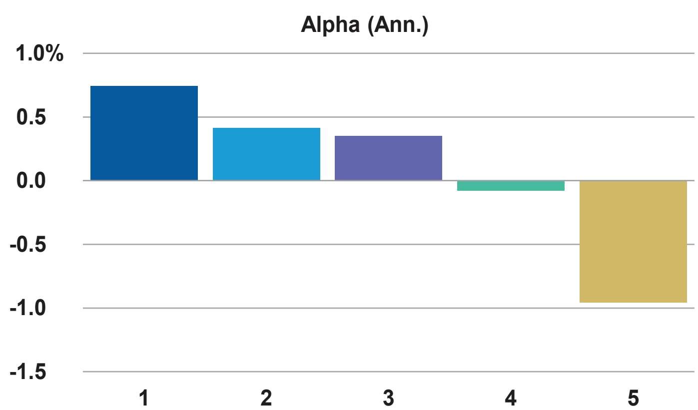
While active managers' fees have come under pressure, we believe that high-quality active managers may nonetheless deliver attractive risk-adjusted return benefits. Still, as with other purchasing decisions, a detailed cost-benefit analysis may lead to a greater probability of a positive outcome. To that end, we have developed the Value Score methodology to compute ex ante fair-value expense ratios for active managers and, by comparing them to actual expense ratios, their excess value. Our analysis suggests that managers with the highest excess value in each category have historically realized improved risk-adjusted returns versus those with lower excess value. Studying these Value Score ratings, along with other qualitative and quantitative due diligence, may further refine manager selection, supporting potential overall portfolio returns. ■

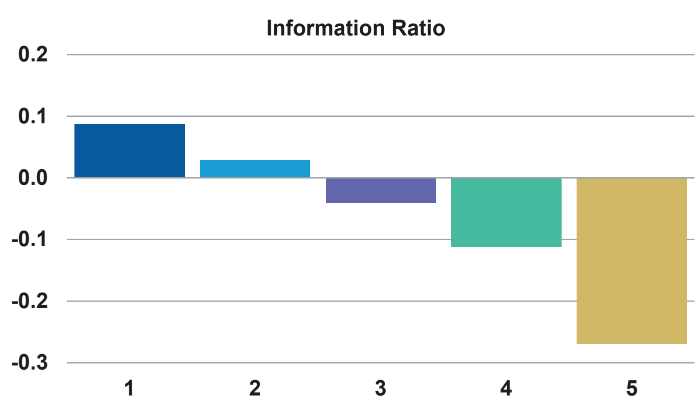
Exhibit 5: Average of Major Equity-Like and Fixed Income Asset Classes

These charts show the historical efficacy of the Value Score process by studying 16 overlapping rolling three-year periods, starting as of Jan. 1, 2001, and ending Dec. 31, 2017. To do that, they present several performance metrics for quintiles of managers, constructed based on the Value Score rankings calculated as of December 31st of the year immediately preceding the period's start date.* We then computed the subsequent three-year performance data for each quintile for several measures of absolute and risk-adjusted performance. The US equity grouping includes the nine Morningstar-defined major style boxes, while the US fixed income cohort covers both taxable and tax-exempt managers across credit quality and duration. Please note that higher-quintile managers have tended to exhibit lower ex ante betas, which appears to have strongly influenced some outcomes for excess returns. Additionally, particularly within some fixed income categories, the time series included a limited number of funds during part or all of the period studied, which may have affected those specific results.

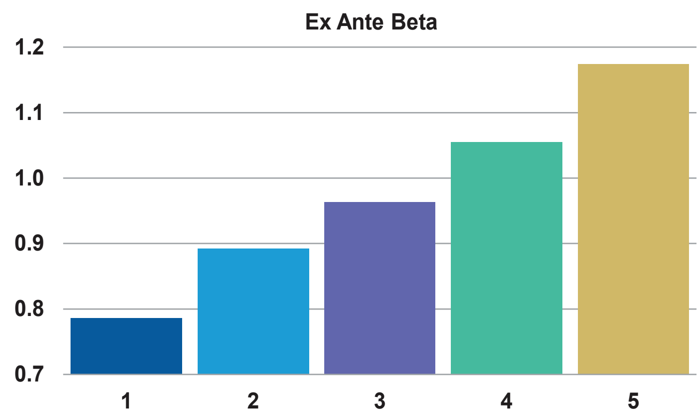
US Equity

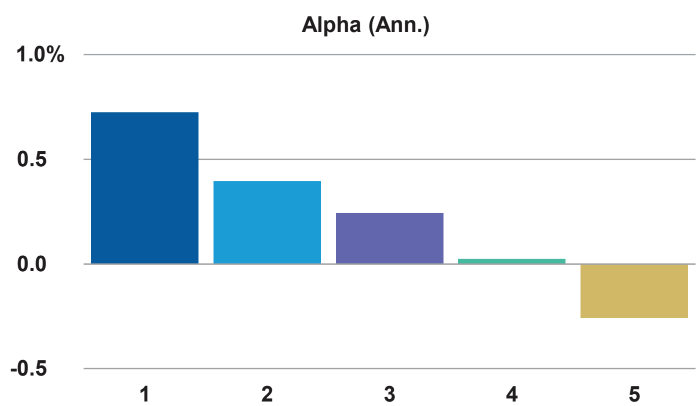






US Intermediate Core Fixed Income





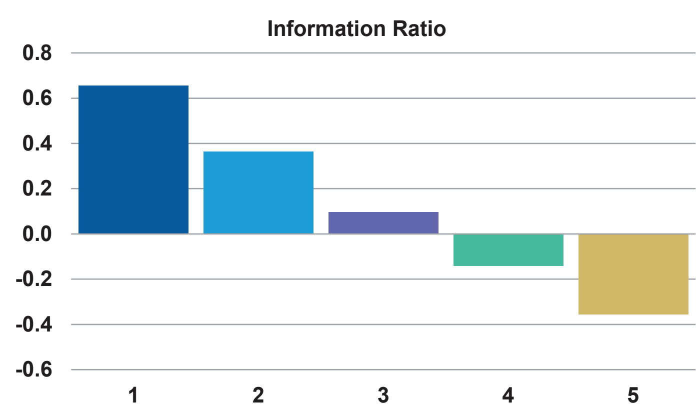
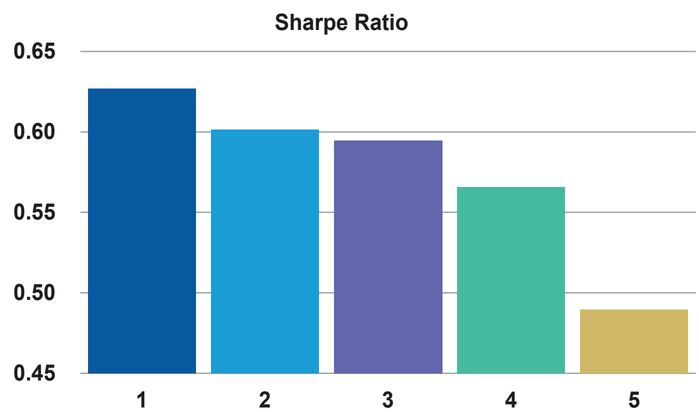
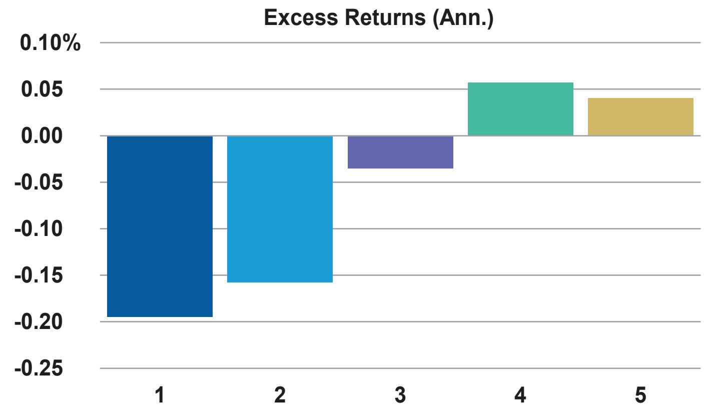


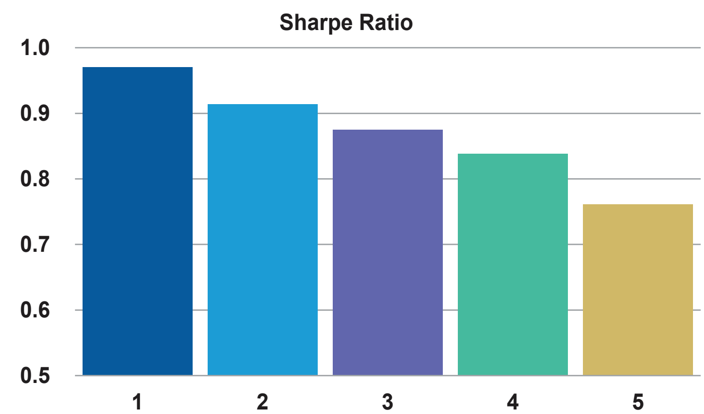
Exhibit 5: (continued)

US Equity



US Intermediate Core Fixed Income





*We computed the calibrated value of underlying feature by processing survivorship bias-free manager returns and assets data from Morningstar and proprietary databases, including both mutual fund and separately managed account vehicles. Given the eight-year calibration training, the data allows us to study the period from Jan. 1, 2001 to Dec. 31, 2017. Our analysis reviews rolling three-year ex post windows to make projections on three-year ex ante windows, aligning with investors' anticipated holding periods.
Source: Morningstar, Morgan Stanley Wealth Management Portfolio Analytics as of Dec. 31, 2017

Appendix

This table displays the incremental value of the top 40% of managers versus the bottom 20% of managers across major asset classes. For each asset class and each year from 2000 to 2014, we computed the subsequent three-year values for each of several measures of absolute and risk-adjusted performance. We computed that data by applying the Value Score process to Morningstar's complete historical manager returns database, including those strategies that are no longer operative. The figures represent the average of the first two quintiles' results (top 40%) less those for the bottom quintile (bottom 20%), equally weighting each year's observations. The values below reflect the beta-adjusted benchmarking process described above.

Exhibit 6: Efficacy for Major Asset Classes

	Quintiles Nos. 1 and 2 (Top 40%) vs. No. 5 (Bottom 20%)						
Asset Class | Ex Ante	**Alpha (Ann.)**	**Info. Ratio**	**Monthly Hit Ratio**	**Up-Down Capture**	**Excess Returns (Ann.)**	**Sharpe Ratio**	**Sortino Ratio**
Alternatives | Real Assets | Real Estate/REITs	2.1%	0.30	4%	0.11	2.5%	0.12	0.24
Equities | Emerging Markets | Core	1.9	0.43	5	0.07	1.9	0.10	0.17
Equities | Global | Core	1.1	0.32	3	0.07	1.1	0.12	0.25
Equities | International | Core	1.9	0.55	6	0.10	1.7	0.14	0.22
Equities | International | Europe	1.2	0.34	4	0.06	1.3	0.09	0.22
Equities | International | Growth	1.4	0.31	3	0.07	1.5	0.09	0.17
Equities | International | Value	1.2	0.29	4	0.08	1.2	0.09	0.15
Equities | US Large-Cap | Core	1.4	0.34	4	0.10	1.3	0.14	0.27
Equities | US Large-Cap | Growth	1.4	0.30	4	0.09	1.3	0.11	0.20
Equities | US Large-Cap | Value	1.5	0.41	5	0.10	1.3	0.13	0.24
Equities | US Mid-Cap | Core	2.4	0.26	3	0.11	2.6	0.17	0.31
Equities | US Mid-Cap | Growth	1.8	0.30	3	0.08	1.7	0.12	0.25
Equities | US Mid-Cap | Value	1.7	0.37	5	0.12	1.2	0.14	0.29
Equities | US Small-Cap | Core	1.3	0.36	4	0.07	1.4	0.10	0.20
Equities | US Small-Cap | Growth	1.7	0.23	3	0.07	1.8	0.10	0.18
Equities | US Small-Cap | Value	1.3	0.24	3	0.08	1.0	0.10	0.20
Multi-Asset | US | Core	1.7	0.52	6	0.14	0.1	0.15	0.24
Average: Equity-Like	**1.6**	**0.35**	**4**	**0.09**	**1.5**	**0.12**	**0.22**
Fixed-Income | Emerging Markets | Core	2.9	0.60	8	0.27	1.6	0.28	0.47
Fixed-Income | Global	1.1	0.47	4	0.26	0.1	0.17	0.31
Fixed-Income | High-Yield | Convertibles	1.4	0.46	5	0.18	0.3	0.14	0.27
Fixed-Income | High-Yield | US	1.6	0.69	9	0.20	0.2	0.21	0.33
Fixed-Income | US Taxable | Multi-Sector	-1.0	-0.27	-5	-0.17	0.0	0.12	0.16
Fixed-Income | US Taxable | Credit	1.5	0.88	12	0.25	-1.3	0.28	0.38
Fixed-Income | US Taxable | Intermediate Govt.-Credit	0.2	0.48	6	0.07	-0.2	0.09	0.11
Fixed-Income | US Taxable | Long Govt.-Credit	1.1	0.57	5	0.07	-0.5	0.18	0.21
Fixed-Income | US Taxable | Short Govt.-Credit	1.2	1.76	21	0.62	-0.7	0.26	0.46
Fixed-Income | US Tax-Exempt | Intermediate	0.2	-0.10	-1	0.02	-0.2	0.07	0.19
Fixed-Income | US Tax-Exempt | Long	0.4	0.54	6	0.06	0.5	0.15	0.18
Fixed-Income | US Tax-Exempt | Short	1.6	2.46	27	0.78	-0.9	0.18	0.24
Average: Fixed-Income	**0.9**	**0.74**	**8**	**0.23**	**-0.1**	**0.16**	**0.26**
Average: TOTAL	**1.3**	**0.49**	**6**	**0.14**	**0.9**	**0.14**	**0.24**

Note: Like the Sharpe ratio, the Sortino ratio measures risk-adjusted returns. While the Sharpe ratio considers both upside and downside volatility equally, the Sortino ratio solely focuses on downside returns. As a result, it replaces the annualized standard deviation of all total returns with annualized standard deviation of only negative total returns, called "downside deviation."

Source: Morningstar, Morgan Stanley Wealth Management Portfolio Analytics as of Dec. 31, 2017

Endnotes

[1]"Adverse Active Alpha[SM] 2.0: Scoring Active Managers According to Potential Alpha," June 2018.

[2]"Inputs for GIC Asset Allocation," March 2018.

[3]Kinnel, Russell, "Predictive Power of Fees: Why Mutual Fund Fees Are So Important." Morningstar Manager Research. https://corporate1.morningstar.com/ResearchArticle.aspx?documentId=752589. May 2016.

[4]Tracking error measures the divergence in returns between a manager and its benchmark.

[5]Morningstar Direct and Morgan Stanley Wealth Management calculations.

[6]Morningstar Direct; Investment Company Institute. *2017 Investment Company Fact Book*, 57th ed., 2017 (91).

[7]Morningstar. "Fund Fee Study: Investors Saved More Than $4 Billion in 2017." https://www.morningstar.com/lp/annual-us-fund-fee-study. May 2018.

[8]We suggest other firm resources, including active-passive recommendations and *Topics in Portfolio Construction*, to assist with the other elements of portfolio implementation.

[9]In statistics, R^2 assesses the proportion of the variance in the dependent variable (the manager's returns) that is predictable from the independent variable (the beta-adjusted benchmark's returns). It also represents the square of the correlation coefficient between the manager's and beta-adjusted benchmark's returns.

[10]Cremers, K. J. Martijn, and Antti Petajisto. "How Active Is Your Fund Manager? A New Measure That Predicts Performance." *The Review of Financial Studies*, Vol. 22, Issue 9 (Sept. 2009), 3329-3365;
European Fund and Asset Management Association. "EFAMA's Report on ESMA's Supervisory Work on Potential Closet Index Tracking." https://www.efama.org/Publications/Statistics/Other%20Reports/EFAMAReportClosetIndexFunds.pdf. July 2016. The authors consider managers with active shares below 60% as potential closet-index funds.

[11]We compute security selection alpha as the residual of a manager's return after considering their market exposure (measured by full-period beta) and market timing decisions (calculated from the differential between the manager's rolling betas and full-period beta).

Index Definitions

For index, indicator and survey definitions referenced in this report please visit the following:
http://www.morganstanleyfa.com/public/projectfiles/id.pdf

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Third-party data providers make no warranties or representations of any kind relating to the accuracy, completeness, or timeliness of the data they provide and shall not have liability for any damages of any kind relating to such data.

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

Graystone
Consulting

Tab 8: Exhibit 6
Sample Insurance Certificates
(Proof of Insurance Coverage)

CERTIFICATE OF LIABILITY INSURANCE

DATE: July 1, 2019

THIS CERTIFICATE IS ISSUED AS A MATTER OF INFORMATION ONLY AND CONFERS NO RIGHTS UPON THE CERTIFICATE HOLDER. THIS CERTIFICATE DOES NOT AFFIRMATIVELY OR NEGATIVELY AMEND, EXTEND OR ALTER THE COVERAGE AFFORDED BY THE POLICIES BELOW. THIS CERTIFICATE OF INSURANCE DOES NOT CONSTITUTE OF A CONTRACT BETWEEN THE ISSUING INSURER(S), AUTHORIZED REPRESENTATIVE OR PRODUCER, AND THE CERTIFICATE HOLDER.

IMPORTANT: If the certificate holder is an ADDITIONAL INSURED, the policy(ies) must be endorsed. If SUBROGATION IS WAIVED, subject to the terms and conditions of the policy, certain policies may require an endorsement. A statement on this certificate does not confer rights to the certificate holder in lieu of such endorsement(s).

PRODUCER

Aon Risk Services Northeast, Inc.
One Liberty Plaza, 165 Broadway, Suite 3201
New York, NY 10006

CONTACT NAME:
PHONE (A/C, No. Ext): | PHONE (A/C, No.):
E-MAIL ADDRESS:
PRODUCER CUSTOMER ID#:

INSURED

Morgan Stanley and all its Subsidiaries and Affiliates
1585 Broadway
New York, NY 10036

INSURERS AFFORDING COVERAGE	NAIC #
INSURER A: TRAVELERS CASUALTY AND SURETY COMPANY OF AMERICA	19046
INSURER B:	
INSURER C:	
INSURER D:	
INSURER E:	
INSURER F:	

COVERAGES **CERTIFICATE NUMBER:** **REVISION NUMBER:**

THIS IS TO CERTIFY THAT POLICIES OF INSURANCE LISTED BELOW HAVE BEEN ISSUED TO THE INSURED NAMED ABOVE FOR THE POLICY PERIOD INDICATED. NOTWITHSTANDING ANY REQUIREMENT, TERM OR CONDITION OF ANY CONTRACT OR OTHER DOCUMENT WITH RESPECT TO WHICH THIS CERTIFICATE MAY BE ISSUED OR MAY PERTAIN. THE INSURANCE AFFORDED BY THE POLICIES DESCRIBED HEREIN IS SUBJECT TO ALL THE TERMS, EXCLUSIONS AND CONDITIONS OF SUCH POLICIES. LIMITS SHOWN MAY HAVE BEEN REDUCED BY PAID CLAIMS. **Limits shown are as requested**

INS LTR	TYPE OF INSURANCE	POLICY NUMBER	POLICY EFF DATE	POLICY EXP DATE	LIMITS	RETENTIONS
	GENERAL LIABILITY ☐ COMMERCIAL GENERAL LIABILITY ☐ CLAIMS MADE ☐ OCCUR ☐ ____ ☐ ____ GEN'L AGGREGATE LIMIT APPLIES PER: ☐ POLICY ☐ PRO-JECT ☐ LOC				EACH OCCURRENCE DAMAGE TO RENTED PREMISES (Ea occurrence) MED EXP (Any one person) PERSONAL & ADV INJURY GENERAL AGGREGATE PRODUCTS - COMP/OP AGG	
	AUTOMOBILE LIABILITY ☐ ANY AUTO ☐ ALL OWNED AUTOS ☐ SCHEDULED AUTOS ☐ HIRED AUTOS ☐ NON-OWNED AUTO ☐ ____ ☐ ____				COMBINED SINGLE LIMIT (Ea accident) BODILY INJURY (Per person) BODILY INJURY (Per accident) PROPERTY DAMAGE (Per accident)	
	☐ **UMBRELLA LIAB** ☐ OCCUR ☐ **EXCESS LIAB** ☐ CLAIMS MADE ☐ CLAIMS MADE ☐ DEDUCTIBLE ☐ RETENTION				EACH OCCURRENCE AGGREGATE	
	WORKERS COMPENSATION AND EMPLOYERS' LIABILITY Y / N ☐ ANY PROPRIETOR/PARTNER/EXECUTIVE OFFICER/MEMBER EXCLUDED? **(Mandatory in NH)** If yes, describe under DESCRIPTION OF OPERATIONS below				☐ WC STATU-TORY LIMITS ☐ OTH- ER E.L. EACH ACCIDENT E.L. DISEASE-EA EMPLOYEE E.L. DISEASE-POLICY LIMIT	
A	**Indemnified Errors & Omissions Liability**	**105218422**	**Jan. 31, 2019**	**Jan. 31, 2020**	**$20,000,000**	**$100,000**

DESCRIPTION OF OPERATIONS / LOCATIONS / VEHICLES / (Attach ACORD 101, Additional Remarks Schedule, if more space is required)

CERTIFICATE HOLDER

City of Gainesville
200 E. University Avenue – 3rd Floor
Gainesville, Florida 32601

CANCELLATION

SHOULD ANY OF THE ABOVE DESCRIBED POLICIES BE CANCELLED BEFORE THE EXPIRATION DATE THEREOF, NOTICE WILL BE DELIVERED IN ACCORDANCE WITH THE POLICY PROVISIONS.

AUTHORIZED REPRESENTATIVE

Aon Risk Services Northeast, Inc.

ACORD

CERTIFICATE OF LIABILITY INSURANCE

DATE: July 1, 2019

THIS CERTIFICATE IS ISSUED AS A MATTER OF INFORMATION ONLY AND CONFERS NO RIGHTS UPON THE CERTIFICATE HOLDER. THIS CERTIFICATE DOES NOT AFFIRMATIVELY OR NEGATIVELY AMEND, EXTEND OR ALTER THE COVERAGE AFFORDED BY THE POLICIES BELOW. THIS CERTIFICATE OF INSURANCE DOES NOT CONSTITUTE OF A CONTRACT BETWEEN THE ISSUING INSURER(S), AUTHORIZED REPRESENTATIVE OR PRODUCER, AND THE CERTIFICATE HOLDER.

IMPORTANT: If the certificate holder is an ADDITIONAL INSURED, the policy(ies) must be endorsed. If SUBROGATION IS WAIVED, subject to the terms and conditions of the policy, certain policies may require an endorsement. A statement on this certificate does not confer rights to the certificate holder in lieu of such endorsement(s).

PRODUCER

Aon Risk Services Northeast, Inc.
One Liberty Plaza, 165 Broadway, Suite 3201
New York, NY 10006

CONTACT NAME:
PHONE (A/C, No. Ext):
PHONE (A/C, No.):
E-MAIL ADDRESS:
PRODUCER CUSTOMER ID#:

INSURED

Morgan Stanley and all its Subsidiaries and Affiliates
1585 Broadway
New York, NY 10036

INSURERS AFFORDING COVERAGE	NAIC #
INSURER A: ILLINOIS NATIONAL INSURANCE COMPANY [AIG] (LEAD)	23817
INSURER B:	
INSURER C:	
INSURER D:	
INSURER E:	
INSURER F:	

COVERAGES **CERTIFICATE NUMBER:** **REVISION NUMBER:**

THIS IS TO CERTIFY THAT POLICIES OF INSURANCE LISTED BELOW HAVE BEEN ISSUED TO THE INSURED NAMED ABOVE FOR THE POLICY PERIOD INDICATED. NOTWITHSTANDING ANY REQUIREMENT, TERM OR CONDITION OF ANY CONTRACT OR OTHER DOCUMENT WITH RESPECT TO WHICH THIS CERTIFICATE MAY BE ISSUED OR MAY PERTAIN. THE INSURANCE AFFORDED BY THE POLICIES DESCRIBED HEREIN IS SUBJECT TO ALL THE TERMS, EXCLUSIONS AND CONDITIONS OF SUCH POLICIES. LIMITS SHOWN MAY HAVE BEEN REDUCED BY PAID CLAIMS. **Limits shown are as requested**

INS LTR	TYPE OF INSURANCE	POLICY NUMBER	POLICY EFF DATE	POLICY EXP DATE	LIMITS	RETENTIONS
	GENERAL LIABILITY ☐ COMMERCIAL GENERAL LIABILITY ☐ CLAIMS MADE ☐ OCCUR ☐ ____ ☐ ____ GEN'L AGGREGATE LIMIT APPLIES PER: ☐ POLICY ☐ PRO-JECT ☐ LOC				EACH OCCURRENCE DAMAGE TO RENTED PREMISES (Ea occurrence) MED EXP (Any one person) PERSONAL & ADV INJURY GENERAL AGGREGATE PRODUCTS - COMP/OP AGG	
	AUTOMOBILE LIABILITY ☐ ANY AUTO ☐ ALL OWNED AUTOS ☐ SCHEDULED AUTOS ☐ HIRED AUTOS ☐ NON-OWNED AUTO ☐ ____ ☐ ____				COMBINED SINGLE LIMIT (Ea accident) BODILY INJURY (Per person) BODILY INJURY (Per accident) PROPERTY DAMAGE (Per accident)	
	☐ **UMBRELLA LIAB** ☐ OCCUR ☐ **EXCESS LIAB** ☐ CLAIMS MADE ☐ CLAIMS MADE ☐ DEDUCTIBLE ☐ RETENTION				EACH OCCURRENCE AGGREGATE	
	WORKERS COMPENSATION AND EMPLOYERS' LIABILITY Y / N ANY PROPRIETOR/PARTNER/EXECUTIVE OFFICER/MEMBER EXCLUDED? ☐ **(Mandatory in NH)** If yes, describe under DESCRIPTION OF OPERATIONS below				☐ WC STATU-TORY LIMITS ☐ OTH- ER E.L. EACH ACCIDENT E.L. DISEASE-EA EMPLOYEE E.L. DISEASE-POLICY LIMIT	
A	**Directors & Officers Liability**	**01-474-37-51**	**Jun. 19, 2019**	**Jun. 19, 2020**	**$600,000,000**	**Nil**

DESCRIPTION OF OPERATIONS / LOCATIONS / VEHICLES / (Attach ACORD 101, Additional Remarks Schedule, if more space is required)

CERTIFICATE HOLDER

City of Gainesville
200 E. University Avenue – 3rd Floor
Gainesville, Florida 32601

CANCELLATION

SHOULD ANY OF THE ABOVE DESCRIBED POLICIES BE CANCELLED BEFORE THE EXPIRATION DATE THEREOF, NOTICE WILL BE DELIVERED IN ACCORDANCE WITH THE POLICY PROVISIONS.

AUTHORIZED REPRESENTATIVE

Aon Risk Services Northeast, Inc.

Graystone Consulting

Tab 9: Exhibit 7
Form ADV, Part II & Florida Registration Certificates

Form ADV Program Brochure
Morgan Stanley Smith Barney LLC

Graystone Consulting

September 24, 2018

2000 Westchester Avenue
Purchase, NY 10577
Tel: (914) 225-1000
Fax: (614) 283-5057
www.morganstanley.com

This Wrap Fee Program Brochure provides information about the qualifications and business practices of Graystone Consulting, a division of Morgan Stanley Smith Barney LLC ("MSWM"). If you have any questions about the contents of this Brochure, please contact us at (914) 225-1000. The information in this Brochure has not been approved or verified by the United States Securities and Exchange Commission ("SEC") or by any state securities authority.

Additional information about MSWM also is available on the SEC's website at www.adviserinfo.sec.gov. Registration with the SEC does not imply a certain level of skill or training.

Morgan Stanley

Item 2: Material Changes

This section identifies and discusses material changes to the ADV brochure since the version of this brochure dated March 31, 2017. For more details on any particular matter, please see the item in this ADV brochure referred to in the summary below.

Disciplinary Information. On June 29, 2018, the SEC entered into a settlement with MSWM regarding an administrative action. In this matter, MSWM, without admitting or denying the findings, consented to the entry of the order that finds that MSWM willfully violated certain sections of the Investment Advisers Act of 1940, specifically Section 206(4) and Rule 206(4)-7 thereunder, as well as Section 203(e)(6). (Item 9)

Item 3: Table of Contents

Item 4: Services, Fees and Compensation

Graystone Consulting

Graystone Consulting ("Graystone") is a separate business unit of Morgan Stanley Smith Barney LLC ("Morgan Stanley Wealth Management", "MSWM", "we" or "us"), that focuses on providing a wide range of investment consulting services to institutional and high net worth individual clients, including assistance in (i) developing investment policy statements, (ii) asset allocation, (iii) investment manager, mutual fund, commingled fund, collective investment trust, exchange traded fund ("ETF" and together with mutual funds, commingled funds and collective investment trusts, "Funds") and alternative investment analysis, (iv) performance reporting and (v) custody services. These services are delivered through a select group of institutional consulting teams located across the country that have significant experience serving the investment advisory needs of institutions, as well as high net worth individual clients, and are supported by a management team dedicated to institutional consulting. Graystone clients include corporations, Taft-Hartley plans, foundations and endowments, public and private defined benefit plans, 401(k) plan sponsors, family offices and high net worth individuals.

MSWM Financial Advisors must meet specific eligibility criteria to become "Graystone Consultants" and be part of a Graystone team, which typically adheres to the following team structure:

- **Institutional Consulting Director**. Directors oversee an integrated local consulting team, generally average over 20 years of industry experience, and are responsible for the team's investment consulting process throughout the life of the client relationship.

- **Consulting Analysts.** A key focus of Graystone Consulting analysts is the evaluation of investment management firms and Funds. In addition, analysts support asset allocation and performance monitoring processes. Analysts are trained in the use of investment analytics tools and are involved in the preparation of client presentations and performance reviews.

- **Operational Support.** Team members focus on processing client agreements and provide general operational and administrative support on behalf of Graystone clients.

MSWM

Graystone is backed by the resources of MSWM. MSWM is a registered investment adviser and a registered broker-dealer. MSWM is one of the largest financial services firms in the U.S. with branch offices in all 50 states and the District of Columbia.

MSWM offers clients ("you", "your" or "Client") many different advisory programs. Many of MSWM's advisory services are provided by its Consulting Group business unit ("CG"). You may obtain Brochures for other MSWM investment advisory programs at www.morganstanley.com/ADV or by asking your Financial Advisor or (for Morgan Stanley Private Wealth Management clients) your Private Wealth Advisor. (Throughout the rest of this Brochure, "Financial Advisor" means either your Financial Advisor or your Private Wealth Advisor, as applicable.)

In addition, we reasonably expect to provide services as a "fiduciary" (as that term is defined in Section 3(21)(A) of the Employee Retirement Income Security Act of 1974 as amended ("ERISA") and/or Section 4975 of the Internal Revenue Code of 1986, as amended (the "Code")), with respect to "Retirement Accounts" (as that term is described herein). For purposes of this brochure (including the Exhibit), the term "Retirement Account" will be used to cover (i) "employee benefit plans" (as defined under Section 3(3) of ERISA, which include pension, defined contribution, profit-sharing and welfare plans sponsored by private employers, as well as similar arrangements sponsored by governmental or other public employers, which arrangements are generally not subject to ERISA; (ii) individual retirement accounts "IRAs" (as described in Section 4975 of the Code); and (iii)"Coverdell Educational Savings Accounts ("CESAs").

A. General Description of Programs

Traditional Institutional Consulting Services

Graystone offers the following traditional Institutional Consulting Services to its clients.

Assistance in Preparation of Investment Objectives and Policies. Graystone shall assist the Client in Client's review, evaluation and preparation of investment policies and objectives for the account. As set forth in "Performance Reporting" below, Graystone shall assist the Client in developing benchmarks for the performance of the account. Graystone also will provide the performance of the total account so as to assist the Client with the ability to determine progress toward investment objectives. Where Graystone has been retained as a non-discretionary investment consultant, the Client shall be responsible for monitoring compliance with their investment policies and guidelines.

Asset Allocation. Graystone reviews the client's asset allocation and will make asset allocation recommendations in accordance with the goals of the client.

Investment Searches. Graystone assists the client in identifying and recommending investment managers and Funds ("Investment Products"). These recommendations are based either on (i) MSWM's Global Investment Manager Analysis Group ("GIMA") (using different methods to evaluate investment managers and Funds -- analysis on investment managers is provided through MSWM's Consulting and Evaluation Services ("CES") program) or (ii) Graystone analysis conducted on managers and Funds. Graystone analysis on managers is conducted through its Manager Assessment Program, a proprietary investment management scoring system that assesses investment manager products in that database.

Graystone teams conduct further analysis in an effort to identify managers for clients. See Item 6 below for more details.

Non-Researched Funds and Managers. Clients also may select Funds and investment managers outside of those covered by GIMA or Graystone analysis. The investment managers, if qualified, will be offered through MSWM's Investment Management Services Program ("IMS"). MSWM does not evaluate or make any representations concerning such investment managers and shall not assume any liability for any loss, claim, damage or expense attributable to the client's selection of managers not covered by GIMA or Graystone analysis.

For more information about CES, and IMS or any other investment advisory services offered by MSWM, as well as assistance in determining which service may be best suited to your needs and objectives, please contact your Graystone Consultant or refer to www.morganstanley.com/ADV.

Performance Reporting. Graystone Consulting provides clients with customized performance reports that assess portfolio performance relative to benchmarks. The reports may include comparisons to recognized benchmarks and market segments.

Custody and Statements. If selected by you, MSWM may serve as the custodian of all cash, securities and other assets held in the portfolio and credit the portfolio with dividends and interest paid on securities held and principal paid on called or matured securities in the portfolio. You will be provided with written confirmation of securities transactions, and account statements at least quarterly.

Graystone Discretionary Services

Graystone also offers through qualified Graystone Consulting teams and for eligible clients, discretionary institutional consulting services whereby Graystone is responsible for the discretionary selection and rebalancing of Investment Options in accordance with the client's investment policy statement. Such discretion is exercised utilizing the resources of MSWM's Custom Solutions program ("CS"). CS is designed to manage the overall investment process, including investment policy decisions, asset and investment style allocation decisions, manager selection, review and termination, and comprehensive monitoring of the client's portfolio. In addition to discretionary investment management, clients receive custodial services (unless the client elects to use an outside custodian), trade execution and related services for a single asset based fee. For more details on CS, please refer to the CS ADV available at www.morganstanley.com/ADV.

Graystone Discretionary Services is designed for clients who wish to have Graystone assume full discretion over asset allocation rebalancing decisions as well as decisions to terminate any Investment Product. Graystone also provides the client with on-going financial management services such as investment performance reporting, administration, trade execution and custody. Based on a client's long-term strategic policy allocation parameters and other investment constraints, Graystone will look for opportunities in asset classes or investment styles with above average expected rates of return while managing overall portfolio risk in accordance with the client's investment policies.

For Defined Contribution Participant-Directed Plans

Graystone also offers both non-discretionary investment-consulting services and discretionary services for participant directed defined contribution and non-qualified deferred compensation plans ("Participant-Directed Plans").

Non-Discretionary Investment Consulting Services

Through this non-discretionary program, Graystone Consulting offers initial and ongoing investment consulting services to Plan Sponsors, including investment policy statement review, asset style analysis, mutual fund, collective investment trust, group annuity separate account and ETF search and selection and performance reporting.

Investment Consulting Fund Screening Program. MSWM's fund screening process takes into account both quantitative and qualitative factors. The process is explained further in Item 6A below.

Risk-Based Models. In addition to providing fund screening services, Graystone may provide risk-based asset allocation advice to retirement plans. If requested, Graystone will provide plan sponsor clients with certain strategic asset allocation models that based on guidance from MSWM's Global Investment Committee (the "GIC").

It will be the Client's responsibility to ensure model recommendations by Graystone can be implemented within their recordkeeping platform. Graystone may assist in determining the capabilities of the Client's recordkeeping platform, however it will be the ultimate responsibility of the client to ensure any recommendations are implemented and offered to participants in a manner that is consistent with the Client's overall goals and objectives.

Graystone will provide the Client with performance reporting for such models which will include model performance comprised of the fund performance within the model. Graystone will also provide the Client with any changes/updates made to the asset allocation percentages within such models.

The client will be responsible for making any updates or changes to such models with its retirement plan provider. If requested, Graystone may provide education to plan participants in regard to risk tolerance through various approved educational pieces, however any such education does not represent any attempt by Graystone to use discretion or extend its fiduciary liability under the program client agreement.

Administrative Services. Graystone may also assist the retirement plan and other institutional clients with certain administrative functions as described below. Certain services are not available to all types of clients. These are not investment advisory services and MSWM does not assume status as a fiduciary under ERISA, the Investment Advisers Act of 1940 or any other applicable law or regulation in performing these services. Graystone Consulting provides the following administrative services:

- *Asset Classification* – Graystone shall advise as to which asset classes the Client may want to consider offering within the plan. MSWM can also provide the Client with general financial and investment information relating to such concepts as diversification and asset classification with respect to various asset classes and historic rates of return.

- *Plan Sponsor Education* – MSWM makes educational materials available to plan fiduciaries. The available materials may cover topics such as retirement plan administration, fiduciary responsibilities, plan design features and investments.

- *Employee Education* – Graystone shall collaborate with the Client to develop strategies relating to participant enrollment and ongoing employee education, and MSWM can work with the plan to deliver general financial and investment information relating to such concepts as diversification, asset allocation, retirement planning and plan participation.

- *Plan Provider Search Support***.** MSWM shall assist Client with the preparation and distribution of requests for proposals ("RFP") with respect to Client's search for a party to provide recordkeeping or related services for the plan, and shall provide assistance with the evaluation of RFP responses and corresponding finalist interviews and conversion support. Not available for Non-Qualified Deferred Compensation Plans.

- *Plan Services and Expense Review.* MSWM shall provide Client with a report for the purpose of assisting Client with the review of various fees and plan expenses as they relate to the services provided by the plan. This report will generally consist of an overall assessment of current services and expenses, as well as a comparison of such services and expenses to those incurred by other plans of similar size and composition. Not available for Non-Qualified Deferred Compensation Plans.

Discretionary Services

Graystone also offers discretionary institutional consulting services for eligible clients whereby Graystone is responsible for the discretionary selection of investment options utilizing the the fund screening process described above and in Item 6.A. The Graystone Consultant will manage the overall investment process including decisions for fund selection, review and termination and comprehensive monitoring of the Plan's investments. Graystone may also provide discretionary asset allocation model services. In addition to discretionary investment management, clients may receive non-discretionary administrative services which include assistance with the development of an investment policy, board education, asset classification, provider search assistance, fee and service benchmarking and employee education.

If the Client chooses to provide Plan participants with asset allocation model assistance, MSWM, in addition to fund selection and monitoring, will provide either strategic risk-based models or target date model portfolios, collectively, the "Models". In both cases, the Models are developed by MSWM's Wealth Management Investment Resources group with g uidance from the GIC, and are not subject to customization by the client. Only MSWM Approved Funds will be permitted to populate these models.

Risk-Based Models. Graystone will present the Client with various separate risk-based models, as described in the previous section, of which the client must select at least three models to be made available to the Plan's participants, ranging from conservative to aggressive. Graystone will assist the Client with the selection of the models but the Client will be solely responsible for selecting at least three models and with each of the following risk levels represented: conservative, moderate and aggressive.

Target Date Models. Graystone will present various separate target-date glidepath models to the client. These glidepaths offer the option of i) greater hedge against longevity risk and shortfall risk, ii) greater hedge against inflation risk and market risk, or iii) a balance between inflation risk and longevity risk. Graystone will assist the Client with the selection of the glidepath model but the Client will be solely responsible for selecting one of the models to offer the Plan's participants. Once the Client has selected a target date model, Graystone will construct the model by populating each asset class comprising the model with the MSWM Approved Funds in a manner consistent with the components of the model.

It will be the responsibility of Graystone to ensure that the models can be implemented within their recordkeeping platform. Graystone will be responsible in determining the capabilities of the clients recordkeeping platform and it would be the ultimate responsibility of Graystone to ensure any recommendations are implemented and offered to participants in a manner that is consistent with the clients overall goals and objectives.

Risk-Based and Target Date Models are tools used to assist the plan participants in achieving asset allocation goals. These models are not investment products sponsored by Graystone. Client may not make use of any branding associated with MSWM, the GIC or any other affiliate when describing the model portfolio. Termination of contract or model services will require the discontinuance of use of the models.

Small Market Fiduciary Program

MSWM also offers a Small Market Fiduciary Program for defined contribution participant-directed plans with under $10 million in assets whereby MSWM is responsible for the discretionary selection of investment options from a set lineup offered by a third-party recordkeeper and investment management of asset allocation models in accordance with the program's investment policy. MSWM also provides manager selection and evaluation services to the trustee for certain of the investment options offered by the third-party recordkeeper, and receives compensation for these services.

Other Services

Alternative Investments Performance Reporting Service. Graystone offers alternative investments performance reporting capabilities. This is a non-discretionary service, and clients are responsible for executing participation agreements directly with each alternative investment. Graystone offers clients the ability to receive periodic reports that provide historical performance reporting of their alternative investments that were not purchased through Graystone and are not researched by Graystone or MSWM. The alternative investments historical performance information provided by this service is based upon information provided, directly or indirectly, to Graystone by the issuer of the alternative investment, or by its sponsor, investment manager or administrator ("Performance Reporting AI"). MSWM's ability to provide historical or other performance reporting on alternative investments is dependent upon its ability to obtain such information from each Performance Reporting AI.

The performance reporting enables the client to receive from Graystone periodic reports containing the client's historical performance information as reported by the applicable performance reporting AI. Client may also receive composite reports that show historical performance of alternative investments as reported by the Performance Reporting AI, along with historical or other performance information or other investments that were/are acquired by Graystone or are held in custody by MSWM.

The performance information provided in a periodic performance report is based on information provided to Graystone by the Performance Reporting AI and is not independently verified by Graystone. Graystone and MSWM shall not be liable for any misstatement or omission made by a Performance Reporting AI nor for any loss, liability, claim, damage or expense arising out of such misstatement or omission. The reporting service is not intended to constitute investment advice or a recommendation by Graystone of any alternative investment and Graystone is not evaluating the appropriateness of the initial investment or the continued investment in the alternative investments reported on as a part of this service. In addition, the service does not constitute, create or impose a fee-based brokerage relationship, a fiduciary relationship or an investment advisory relationship under the Investment Advisers Act of 1940, as amended, with regard to the provision of the investments covered under this service. If the Client is an employee benefit plan or is otherwise subject to ERISA, Graystone and MSWM are NOT acting as a fiduciary (as defined in ERISA) with the respect to the provision of these reporting services as described herein). Graystone is not responsible for and will not provide tax reporting with respect to any alternative investment reported on under this service.

The MSWM fee charged to the client does not include any fee or charge for other services in connection with the client's participation in any alternative investment or as may be charged by a Performance Reporting AI. The client is solely responsible for such arrangements.

Asset/Liability Analysis Services Graystone works with third party vendors, whose proprietary asset/liability modeling software is used to generate customized asset liability studies for defined benefit plan clients. The asset/liability analysis service provides certain cash flow modeling, liability funding analysis and funding strategies including custom contribution policies.

Account Opening

To enroll in any program described in this Brochure, you must enter into the program client agreement ("Client Agreement").

Investment Restrictions

The client may impose reasonable restrictions on account investments. For example, you may restrict Graystone or the managers from buying specific securities, a category of securities (e.g., tobacco companies) or Fund shares. If you restrict a category of securities, we or the manager will determine which specific securities fall within the restricted category. In doing so, we or the manager may rely on research provided by independent service providers. Any restrictions you impose on individual securities will not be applied to Fund holdings since Funds operate in accordance with the investment objectives and strategies described in their prospectuses.

Trade Confirmations, Account Statements and Performance Reviews

Unless you have appointed another custodian, MSWM is the custodian and provides you with written confirmation of securities transactions, and account statements at least quarterly. You may waive the receipt of trade confirmations after the completion of each trade in favor of alternative methods of communication where available. You may also receive mutual fund prospectuses, where appropriate.

We provide performance monitoring to clients with a frequency as requested by the client.

Risks

All trading in an account is at your risk. The value of the assets held in an account is subject to a variety of factors, such as the liquidity and volatility of the securities markets. Investment performance of any kind is not guaranteed, and Graystone's, MSWM's, or its employees' past performance with respect to other accounts does not predict future performance with respect to any particular account. In addition, certain investment strategies that Graystone Consulting may use in the programs have specific risks, including those associated with investments in common stock, fixed income securities, American Depositary Receipts, Funds and the investments described below. You should consult with your Graystone Consultant regarding the specific risks associated with the investments in your account.

Risks Relating to ETFs. There may be a lack of liquidity in certain ETFs which can lead to a large difference between the bid-ask prices (increasing the cost to you when you buy or sell the ETF). A lack of liquidity also may cause an ETF to trade at a large premium or discount to its net asset value. Additionally, an ETF may suspend issuing new shares and this may result in an adverse difference between the ETF's publicly available share price and the actual value of its underlying investment holdings. At times when underlying holdings are traded less frequently, or not at all, an ETF's returns also may diverge from the benchmark it is designed to track.

Risks Relating to Money Market Funds. You could lose money in money market funds. Although money market funds classified as government funds (i.e., money market funds that invest 99.5% of total assets in cash and/or securities backed by the U.S government) and retail funds (i.e., money market funds open to natural person investors only) seek to preserve value at $1.00 per share, they cannot guarantee they will do so. The price of other money market funds will fluctuate and when you sell shares they may be worth more or less than originally paid. Money market funds may impose a fee upon sale or temporarily suspend sales if liquidity falls below required minimums. During suspensions, shares would not be available for purchases, withdrawals, check writing or ATM debits.

Risks Relating to Master Limited Partnerships. Master Limited Partnerships ("MLPs") are limited partnerships or limited liability companies whose interests (limited partnerships or limited liability companies units) are generally traded on securities exchanges like shares of common stock. Investments in MLPs entail different risks, including tax risks, than is the case for other types of investments.

Currently, most MLPs operate in the energy, natural resources or real estate sectors. Investments in such MLP interests are subject to the risks generally applicable to companies in these sectors (including commodity pricing risk, supply and demand risk, depletion risk and exploration risk). Depending on the ownership vehicle, MLP interests are subject to varying tax treatment. Please see "Tax and Legal Considerations" below and any Fund prospectus by asking your Financial Advisor.

Risks Relating to Funds that Primarily Invest in Master Limited Partnerships. In addition to the risks outlined above relating to Master Limited Partnerships, Funds that primarily invest in MLPs generally accrue deferred tax liability. The fund's deferred tax liability (if any) is reflected each day in the fund's net asset value. As a result, the fund's total annual operating expenses may be significantly higher than those of funds that do not primarily invest in MLPs. Please see the Fund prospectus for additional information.

Risks Relating to Funds that Pursue Complex or Alternative Investment Strategies or Returns. These Funds 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 investment strategies are not suitable for all investors.

While mutual funds and ETFs may at times utilize non-traditional investment options and strategies, they have different investment characteristics from unregistered privately offered alternative investments. Because of regulatory limitations, mutual funds and ETFs may not invest in as broad a spectrum of investments as privately offered alternative investments. As a result, investment returns and portfolio characteristics of alternative mutual funds may vary from traditional hedge funds pursuing similar investment objectives. They are also more likely to have relatively higher correlation with traditional market returns than privately offered alternative investments. 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. 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 fund pursuing an alternative investing strategy compared with a traditional hedge fund pursuing the same strategy.

Non-traditional 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".

Risks Relating to Alternative Investments. Alternative investments have different features and risks than other types of investment products. As further described in the offering documents of any particular alternative investment, alternative investments can be highly illiquid, are speculative and are not suitable for all investors. For example, alternative investments may place substantial limits on liquidity and the redemption rights of investors, including only permitting withdrawals on a limited periodic basis and with a significant period of notice and may impose early withdrawal fees. Alternative investments are intended for experienced and sophisticated investors who are willing to bear the high economic risks of the investment. Investors should carefully review and consider potential risks before investing. Certain of these risks may include: 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 the fund and none expected to develop; volatility of returns; restrictions on transferring interests in the fund; potential lack of diversification and resulting higher risk due to concentration of trading authority when a single advisor is utilized; absence of information regarding valuations and pricing; complex tax structures and delays in tax reporting; less regulation and higher fees than mutual funds; and advisor risk. Alternative investment products may also have higher fees (including multiple layers of fees) compared to other types of investments.

Individual funds will have specific risks related to their investment programs that vary from fund to fund. For more details on these and other features and risks, please carefully read the documentation (including risk disclosures) relating to any selected Investment Option, as well as your Client Agreement.

Risks Relating to Differing Classes of Securities. Different classes of securities have different rights as creditor if the issuer files for bankruptcy or reorganization. For example, bondholders' rights generally are more favorable than shareholders' rights in a bankruptcy or reorganization.

Tax and Legal Considerations

Neither MSWM, neither Graystone nor any of our affiliates provides tax or legal advice and, therefore, are not responsible for developing, implementing or evaluating any tax strategies that may be employed by the client. The client should develop any such strategies or address any legal or tax-related issues with a qualified legal or tax adviser.

Investment in MLPs entails different risks, including tax risks, than is the case for other types of investments. Investors in MLPs hold "units" of the MLP (as opposed to a share of corporate stock) and are technically partners in the MLP. Holders of MLP units are also exposed to the risk that they will be required to repay amounts to the MLP that are wrongfully distributed to them. Almost all MLPs have chosen to qualify for partnership tax treatment. Partnerships do not pay U.S. federal income tax at the partnership level. Rather, each partner of a partnership, in computing its U.S. federal income tax liability, must include its allocable share of the partnership's income, gains, losses, deductions, expenses and credits. A change in current tax law, or a change in the business of a given MLP, could result in an MLP being treated as a corporation for U.S. federal income tax purposes, which would result in such MLP being required to pay U.S. federal income tax on its taxable income. The classification of an MLP as a corporation for U.S. federal income tax purposes would have the effect of reducing the amount of cash available for distribution by the MLP and could cause any such distributions received by the an investor to be taxed as dividend income. If you have any questions about the tax aspects of investing into an MLP, please discuss with your tax advisor.

Investors in MLP portfolios will receive a Schedule K-1 for each MLP in the portfolio, so they will likely receive numerous Schedule K-1s. Investors will need to file each Schedule K-1 with their federal tax return. Also, investors in MLP portfolios may be required to file state income tax returns in states where the MLPs in the portfolio operate. Since some Schedule K-1s may not be provided until after the due date for the federal or state tax return, investors in MLP portfolios may need to obtain an extension for filing their federal or state tax returns. Please discuss with your tax advisor how an investment in MLPs will affect your tax return.

Tax laws impacting MLPs may change, and this could impact any tax benefits that may be available through investment in an MLP portfolio.

Fees

Traditional Institutional Consulting Services

The fees for traditional Institutional Consulting Services are negotiable and are typically subject to a $10 million portfolio minimum.

Asset Based Fee. The standard asset based fee schedule is as follows:

Account Asset Value	Annual Fee
On the first $5,000,000	1.35%
On the next $5,000,000	0.80%
On the next $15,000,000	0.40%
On the next $25,000,000	0.30%
On the next $50,000,000	0.20%
On the next $100,000,000	0.10%
Over $200,000,000	Negotiable

Hard Dollar Fee. In addition, clients may select any of the services listed below. The fees are negotiable subject to approval from Graystone management and an overall minimum engagement fee of $15,000.

- Historical analysis
- Investment policy statements
- Strategic asset allocation studies
- Active asset allocation only
- Asset liability analyses - Clients may contract directly with third party vendors for an asset liability analyses in which case MSWM and Graystone will not commit to this service contractually or charge an additional fee.
- Manager searches
- Performance reporting services

Graystone Discretionary Services

The fees for Graystone Discretionary Services are negotiable and are typically subject to a $25 million portfolio minimum. The standard asset based fee schedule is as follows:

Account Asset Value	Annual Fee
On the first $25,000,000	0.85%
On the next $25,000,000	0.40%
On the next $50,000,000	0.25%
On the next $100,000,000	0.15%
Over $200,000,000	Negotiable

Defined Contribution Participant-Directed Plans

Asset Based Fee. The fees for traditional Institutional Consulting Services are negotiable and subject to a minimum fee per relationship. The standard asset based fee schedule for participant directed retirement DC Plans with a minimum of $10 million in assets is as follows:

Account Asset Value	Annual Fee
On the first $5,000,000	0.60%
On the next $5,000, 000	0.40%
On the next $15,000,000	0.25%
On the next $25,000,000	0.15%
On the next $50,000,000	0.08%
On the next $100,000,000	0.05%
Over $200,000,000	negotiable

For accounts under $10 million in assets, fees are negotiable and subject to a maximum fee of 1.00%.

Hard Dollar Fee. In addition, for plans with a minimum of $10 million in assets, the client may select to pay the fees for services as a hard dollar fee based on equivalent asset based fee parameters described above.

Discretionary Services For Defined Contribution Participant-Directed Plans

The fees are negotiable and are typically subject to a $5 million asset minimum.

Full Discretion Services

When Graystone Consulting takes full discretion which includes discretion over manager selection, review and termination, model portfolios and comprehensive monitoring of the client's portfolio the standard asset based fee schedule for accounts with a minimum of $10 million in assets is as follows:

Account Asset Value	Annual Fee
On the first $5,000,000	0.75%
On the next $5,000, 000	0.50%
On the next $15,000,000	0.31%
On the next $25,000,000	0.19%
On the next $50,000,000	0.10%
On the next $100,000,000	0.06%
Over $200,000,000	negotiable

For accounts under $10 million in assets, fees are negotiable and subject to a maximum fee of 1.25%.

Partial Discretion Services

When Graystone Consulting takes partial discretion which includes discretion over manager selection, review and termination, and comprehensive monitoring of the client's funds.

The standard asset based fee schedule for accounts with a minimum of $10 million in assets is as follows:

Account Asset Value	Annual Fee
On the first $5,000,000	0.70%
On the next $5,000, 000	0.46%
On the next $15,000,000	0.29%
On the next $25,000,000	0.17%
On the next $50,000,000	0.09%
On the next $100,000,000	0.05%
Over $200,000,000	negotiable

For accounts under $10 million in assets, fees are negotiable and subject to a maximum fee of 1.15%.

Small Market Fiduciary Program

When MSWM takes full discretion which includes discretion over manager selection, review and termination, asset allocation models and comprehensive monitoring of the client's portfolio for accounts with less than $10 million in assets, the standard asset based fee schedule is as follows:

Account Asset Value	Annual Fee
On the first $5,000,000	0.75%
Over $5,000,000	0.50%

General Fee Information

Generally, fees for the programs described in this Brochure are based on the size of the account (assets under management) and are negotiable based on factors including the type and size of the account and the range of services provided by Graystone Consulting. In special circumstances, and with the client's agreement, the fee charged to a client for an account may be more than the annual fees stated in the above section.

The fee is payable as described in the Client Agreement. Generally, unless specified to the contrary, for asset-based fees, the initial fee is due in full on the date you open your account at Graystone Consulting and is based on the market value of the account on that date. The initial fee payment covers the period from the opening date through (at your election) the last business day of the current quarter or the next full calendar quarter and is prorated accordingly. Thereafter, the fee is paid quarterly in advance based on the account's market value on the last business day of the previous calendar quarter and is due the following business day. Unless the client elects to hold assets in custody at a third-party custodian, the Client Agreement authorizes MSWM to deduct fees when due from the assets in the account. If client elects a third party custodian, the client has the option of paying us directly or we can bill the custodian. Unless stated otherwise, generally for hard dollar fees, fees will be payable in advance.

You may terminate participation in the programs described in this Brochure at any time by giving written notice to Graystone Consulting. Graystone may (but is not obligated to) accept an oral notice of termination from you in lieu of the written notice. If participation in any of the programs described in this Brochure is terminated, any advisory fees paid in advance will be refunded on a pro-rata basis.

Accounts Related for Billing Purposes. When two or more investment advisory accounts are related together for billing purposes, you can benefit even more from existing breakpoints. If you have two accounts, the "related" fees on Account #1 are calculated by applying your total assets (i.e. assets in Account #1 + assets in Account #2) to the Account #1 breakpoints. Because this amount is greater than the amount of assets solely in Account #1, you may have a greater proportion of assets subject to lower fee rates, which in turn lowers the average fee rate for Account #1. This average fee rate is then multiplied by the actual amount of assets in Account #1 to determine the dollar fee for Account #1. Likewise, the total assets are applied to the Account #2 breakpoints to determine the average fee rate for Account #2, which is then multiplied by the actual amount of assets in Account #2 to determine the dollar fee for Account #2.

Only certain accounts may be related for billing purposes, based on the law and MSWM's policies and procedures. Even where accounts are eligible to be related under these policies and procedures, they will only be related if this is specifically agreed between you and Graystone Consulting.

ERISA Fee Disclosure for Retirement Accounts. In accordance with Department of Labor regulations under Section 408(b)(2) of ERISA, MSWM is required to provide certain information regarding our services and compensation to assist fiduciaries and plan sponsors of those retirement plans that are subject to the requirements of ERISA in assessing the reasonableness of their plan's contracts or arrangements with us, including the reasonableness of our compensation. This information (the services we provide as well as the fees) is provided to you at the outset of your relationship with us and is set forth in your advisory contract with us (including the Fee table, other exhibits and, as applicable, this document), and then at least annually to the extent that there are changes to any investment-related disclosures for services provided as a fiduciary under ERISA.

Other. A portion of the MSWM Fee will be paid to your Financial Advisor. See Item 4.D below (Compensation to Financial Advisors), for more information.

B. Comparing Costs

Cost comparisons are difficult because a particular service may not be offered in other MSWM programs. Depending on the level of trading and types of securities purchased or sold in your account, if purchased separately, you may be able to obtain transaction execution at a higher or lower cost at MSWM or elsewhere than the fee in these programs. However, such transactions cannot be executed on a discretionary basis in a brokerage account. In addition, MSWM offers other programs where discretionary portfolio management is provided by third party investment managers (and not your Graystone Consultant) and the fees in those programs may be higher or lower than the fees in these programs.

You should consider these and other differences when deciding whether to invest in an investment advisory or a brokerage account and, if applicable, which advisory programs best suit your needs.

C. Additional Fees

If you open an account in one of the programs described in this Brochure, you may pay us an asset-based fee for investment advisory services, custody of securities and trade execution with or through MSWM. The program fees do not cover:

- the costs of investment management fees and other expenses charged by Funds (see below for more details)
- "mark-ups," "mark-downs," and dealer spreads (A) that MSWM or its affiliates may receive when acting as principal in certain transactions where permitted by law or (B) that other broker-dealers may receive when acting as principal in certain transactions effected through MSWM and/or its affiliates acting as agent, which is typically the case for dealer market transactions (e.g., fixed income and over-the-counter equity)
- fees or other charges that you may incur in instances where a transaction is effected through a third party and not through us or our affiliates (such fees or other charges will be included in the price of the security and not reflected as a separate charge on your trade confirmations or account statements)
- MSWM account establishment or maintenance fees for its Individual Retirement Accounts ("IRA") and Versatile Investment Plans ("VIP"), which are described in the respective IRA and VIP account and fee documentation (which may change from time to time)
- account closing/transfer costs
- processing fees or
- certain other costs or charges that may be imposed by third parties (including, among other things, odd-lot differentials, transfer taxes, foreign custody fees, exchange fees, supplemental transaction fees, regulatory fees and other fees or taxes that may be imposed pursuant to law).

Funds in Advisory Programs

Investing in mutual funds and ETFs (collectively, "Funds") may be more expensive than other investment options offered in your advisory account. In addition to our fee, you pay the fees and expenses of the Funds in which your account is invested. Fund fees and expenses are charged directly to the pool of assets the Fund invests in and are reflected in each Fund's share price. These fees and expenses are an additional cost to you and are not included in the fee amount in your account statements. Each mutual fund and ETF expense ratio (the total amount of fees and expenses charged by the Fund) is stated in its prospectus. The expense ratio generally reflects the costs incurred by shareholders during the mutual fund's or ETF's most recent fiscal reporting period. Current and future expenses may differ from those stated in the prospectus.

You do not pay any sales charges for purchases of Funds in programs described in this Brochure. However, some Funds may charge, and not waive, a redemption fee on certain transaction activity in accordance with their prospectuses.

Expense Payments and Data Analytic Fees. MSWM provides fund families with opportunities to sponsor meetings and conferences and grants them access to our branch offices and Financial Advisors for educational, marketing and other promotional efforts. Fund representatives may also work closely with our branch offices and Financial Advisors to develop business strategies and plan promotional events for clients and prospective clients and educational activities. Fund families or their affiliates make payments to MSWM in connection with these promotional efforts to reimburse MSWM for expenses incurred for sales events and training programs as well as client seminars, conferences and meetings. Although fund families independently decide if and what they will spend on these activities, some fund families agree to make annual dollar amount expense reimbursement commitments of up to $550,000. Fund families may also invite our Financial Advisors to attend fund family-sponsored events. Expense payments may include meeting or conference facility rental fees and hotel, meal and travel charges.

MSWM also provides fund families with the opportunity to purchase supplemental sales data analytics. The amount of the fees depends on the level of data and the number of products covered. The current range is $150,000 per year for the most basic mutual fund data package up to $750,000 per year for the most comprehensive mutual fund sales data package. For an additional fee, fund families that sponsor products in addition to mutual funds (e.g., ETFs, UITs and SMAs) may purchase data analytics on other financial product sales at Morgan Stanley.

These facts present a conflict of interest for MSWM and our Financial Advisors to the extent they lead us to focus on funds from those fund families that commit significant financial and staffing resources to promotional and educational activities instead of on funds from fund families that do not purchase sales data analytics or do not commit similar resources to these activities. In order to mitigate this conflict, Financial Advisors and their Branch Office Managers do not receive additional compensation for recommending funds sponsored by fund families that purchase data analytics and/or provide significant sales and training support.

Fund family representatives are allowed to occasionally give nominal gifts to Financial Advisors, and to occasionally entertain Financial Advisors (subject to an aggregate entertainment limit of $1,000 per employee per fund family per year). MSWM's non-cash compensation policies set conditions for each of these types of payments, and do not permit any gifts or entertainment conditioned on achieving any sales target.

ETF Data Analytics Licensing Fees. MSWM offers sponsors of ETFs the opportunity to purchase data analytics for MSWM's transactional activity in the sponsor's ETFs on our platforms. ETF sponsors that purchase ETF data analytics pay a flat amount (the "ETF Analytics Fee") based on the number of the ETFs that the sponsor has available for sale at MSWM. The ETF Analytics Fee ranges from $50,000 for sponsors with five or fewer ETFs to a maximum of $550,000 for sponsors with more than one hundred ETFs.

The ETF Analytics Fee is generally paid by the ETF's investment adviser, distributor or other affiliate from its own revenues, profits or retained earnings and not directly from, or as a charge applied against the ETF's assets. However, these revenues, profits or retained earnings may be derived, in part, from fees earned for services provided to the ETF and paid from the ETF's assets. Because ETF Sponsors pay MSWM the ETF Analytics Fee for each of the Sponsor's ETFs offered on our platform, the aggregate ETF Analytics Fee is higher for ETF sponsors that have more ETFs approved for sale. These facts present a conflict of interest for MSWM and our Financial Advisors to the extent it leads us to focus on ETFs offered by sponsors who pay higher aggregate fees.

In order to mitigate these conflicts, Financial Advisors and their branch managers do not receive additional compensation as a result of the ETF Analytics Fee payable to MSWM.

Client selection of MSWM affiliated funds. Where clients select to invest in mutual funds where the investment adviser is a MSWM affiliate, in addition to the program fee paid by clients, MSWM and its affiliates may also receive investment management fees and related administrative fees. Since the affiliated sponsor or manager receives additional investment management fees and other fees, MSWM has a conflict to recommend MSWM affiliated mutual funds.

For more information on expense payments, data analytics, administrative fees and share class selection, please refer to the document "Mutual Fund Features, Share Classes and Compensation" at http://www.morganstanley.com/assets/pdfs/wealth-management-disclosures/mf_share_classes.pdf and also available from your Financial Advisor on request. However, please note that client accounts in the advisory programs described in this brochure are not subject to the revenue sharing payments or the administrative service fees described in this document.

Share classes. Mutual fund companies typically offer different ways to buy mutual fund shares. In addition to the more broadly known retail share classes (A, B and C shares), fund companies have developed additional types of specialized share classes designed for specific advisory programs. If available, clients' shares are converted into the share class required by the mutual fund for that type of account. Depending on the circumstances, clients' shares are converted into a share class that has a lower or a higher expense ratio. Advisory share classes usually have a lower expense ratio than the share classes that MSWM previously offered in the program. However, we may continue to offer non-advisory share classes if, for example, there is no equivalent advisory share class available or we believe that the non-advisory share class is likely to be the most cost effective share class. Once we make an advisory share class available for a particular mutual fund, clients can only buy the advisory class shares (not the non-advisory class shares) of that mutual fund in the program.

If available, we (without notice to you) will convert any mutual fund in your account to a share class of the same mutual fund which is a load-waived or no-load share class such as an Institutional share or Financial Intermediary Share, or to a share class that is available only to investment advisory clients (collectively, an "Investment Advisory Share"), to the extent available. On termination of your account, or the transfer of mutual fund shares out of your account into another account, including a MSWM brokerage account, if at the time of transfer or termination, your account includes Investment Advisory Share mutual funds, we may convert any Investment Advisory Shares to the corresponding non-advisory share class (even though the expense ratio for that share class may be higher than the expense ratio for the share class of the fund previously held in your account) or we may redeem these mutual fund shares. The non-advisory mutual fund share class generally has higher operating expenses than the corresponding Investment Advisory Share classes, which may negatively impact investment performance.

Custody

MSWM does not act as custodian. If you retain a custodian other than MSWM, your outside custodian will advise you of your cash sweep options and as described in the Client Agreement, you will have the option of instructing us on whether you want the Graystone Consulting fee billed to you directly or to the outside custodian selected by you, and the following sections on cash sweeps will not apply to you.

MSWM acts as custodian. Unless you instruct us otherwise, MSWM will maintain custody of all cash, securities and other assets in the account and the following sections on cash sweeps will apply to you.

Cash Sweeps When MSWM Acts As Custodian

Generally, some portion of your account will be held in cash. If MSWM acts as custodian for your account, it will effect "sweep" transactions of free credit balances in your account into interest-bearing deposit accounts ("Deposit Accounts") established under the Bank Deposit Program ("BDP"). For most clients BDP will be the only available sweep investment. Generally, the rate on BDP will be lower than the rate on other cash alternatives. In limited circumstances, such as clients ineligible for BDP or where MSWM otherwise elects, MSWM may sweep some or all of your cash into money market mutual funds (each, a Money Market Fund"). These Money Market Funds are managed by Morgan Stanley Investment Management Inc. or another MSWM affiliate.

It is important to note that free credit balances and allocations to cash including assets invested in sweep investments are included in your account's fee calculation hereunder.

You acknowledge that MSWM may with 30 days written notice (i) make changes to these sweep terms; (ii) makes changes to the terms and conditions of any available sweep investment; (iii) change, add or delete the products available as a sweep option; (iv) transfer your sweep investment from one sweep product to another.

Clients that are considered Retirement Accounts or Coverdell Education Savings Accounts should read the Exhibit to this Brochure ("Affiliated Money Market Funds Fee Disclosure Statement and Float Disclosure Statement").

The custodian will effect sweep transactions only to the extent permitted by law and if you meet the sweep investment's eligibility criteria.

For eligibility criteria and more information on cash sweeps in general, please refer to the Bank Deposit Program Disclosure Statement which is available at: http://www.morganstanley.com/wealth-investmentstrategies/pdf/BDP_disclosure.pdf

Conflicts of Interest Regarding Sweep Investments. If BDP is your sweep investment, you should be aware that the Sweep Banks, which are affiliates of MSWM, will pay MSWM an annual account-based flat fee for the services performed by MSWM with respect to BDP. MSWM and the Sweep Banks will review such fee annually and, if applicable, mutually agree upon any changes to the fee to reflect any changes in costs incurred by MSWM. Your Financial Advisor will not receive a portion of these fees or credits. In addition, MSWM will not receive cash compensation or credits in connection with the BDP for assets in the Deposit Accounts for Retirement Accounts. Also, the affiliated Sweep Banks have the opportunity to earn income on the BDP assets through lending activity, and that income is usually significantly greater than the fees MSWM earns on affiliated Money Market Funds. Thus, MSWM has a conflict of interest in selecting or recommending BDP as the Sweep Investment, rather than an eligible Money Market Fund. Further, MSWM's affiliate, Morgan Stanley Investment Management, serves as the investment advisor to the available Sweep Money Market Funds.

In addition, MSWM, the Sweep Banks and their affiliates receive other financial benefits in connection with the Bank Deposit Program. Through the Bank Deposit Program, each Sweep Bank will receive a stable, cost-effective source of funding. Each Sweep Bank intends to use deposits in the Deposit Accounts at the Sweep Bank to fund current and new businesses, including lending activities and investments. The profitability on such loans and investments is generally measured by the difference, or "spread," between the interest rate paid on the Deposit Accounts at the Sweep Banks and other costs of maintaining the Deposit Accounts, and the interest rate and other income earned by the Sweep Banks on those loans and investments made with the funds in the Deposit Accounts. The income that a Sweep Bank will have the opportunity to earn through its lending and investing activities is expected to be greater than the fees earned by us and our affiliates from managing and distributing the money market funds available to you as a sweep investment.

If your sweep investment is a Money Market Fund, as available, then the account, as well as other shareholders of the Money Market Fund, will bear a proportionate share of the other expenses of the Money Market Fund in which the account's assets are invested.

If your sweep investment is a Money Market Fund, you understand that Morgan Stanley Investment Management Inc. (or another MSWM affiliate) will receive an investment management fee for managing the Money Market Fund and that Morgan Stanley Distributors Inc., or another one of our affiliates, may receive compensation in connection with the operation and/or sale of shares of the Money Market Fund, which may include a distribution fee pursuant to Rule 12b-1 under the Investment Company Act of 1940, to the extent permitted by applicable law.

You understand that unless you are a Retirement Account, the fee will not be reduced by the amount of the Money Market Fund management fee or any shareholder servicing and/or distribution or other fees we or our affiliates may receive in connection with the assets invested in the Money Market Fund. For additional information about the Money Market Fund and applicable fees, you should refer to each Money Market Fund's prospectus.

D. Compensation to Graystone Consulting

If you invest in one of the programs described in this Brochure, a portion of the fees payable to us in connection with your account is allocated on an ongoing basis to Graystone Consultants. The amount allocated to your Graystone Consultants in connection with accounts opened in programs described in this Brochure may be more than if you participated in other MSWM investment advisory programs, or if you paid separately for investment advice, brokerage and other services. Your Graystone Consultant may therefore have a financial incentive to recommend one of the programs in this Brochure instead of other MSWM programs or services.

If you invest in one of the programs described in this Brochure, Graystone Consulting may charge a fee less than the maximum fee stated above. The amount of the fee you pay is a factor we use in calculating the compensation we pay your Graystone Consultant. Therefore, Graystone Consultants have a financial incentive not to reduce fees

Item 5: Account Requirements and Types of Clients

Graystone Consulting offers its services under this Brochure to corporations, Taft Hartley funds, endowments and foundations, public and private retirement plans, including 401(k) plan sponsors, family offices and high net worth individuals.

Item 6: Portfolio Manager Selection and Evaluation

A. Selection and Review of Portfolio Managers and Funds for the Programs

This Item 6.A describes more generally how we select and terminate Investment Options from these programs described in this Brochure. If managers have more than one strategy, we may include only some of those strategies in the programs described in this Brochure, may carry different strategies in different programs, and assign different statuses to different strategies. Please refer to the discussion in Section 4 A. for a complete description of the programs.

MSWM's Global Investment Manager Analysis Group

GIMA evaluates Investment Products. GIMA may delegate some or all of its functions to an affiliate or third party. Investment Products may only participate in the FS or CES programs if they are on GIMA's Focus List or Approved List discussed below. You may obtain these lists from your Graystone Consultant. In each program, only some of the Investment Products may be available.

As well as requiring Investment Products to be on the Focus List or Approved List, we look at other factors in determining which Investment Products we offer in these programs, including:

- program needs (such as whether we have a sufficient number of Investment Products available in an asset class)
- client demand and
- the manager's or Fund's minimum account size.

We automatically terminate Investment Products in the CES and FS programs if GIMA downgrades them to "Not Approved." We may terminate Investment Products from these programs for other reasons (i.e.., the Investment Product has a low level of assets under management in the program, the Investment Product has limited capacity for further investment, or the Investment Product is not complying with our policies and procedures).

Focus List. To be considered for the Focus List, Investment Products provide GIMA with relevant documentation on the strategy being evaluated, which may include a Request for Information ("RFI"), asset allocation histories, its Form ADV (the form that investment managers use to register with the SEC), past performance information and marketing literature. Additional factors for consideration may include personnel depth, turnover and experience, investment process, business and organization characteristics and investment performance. GIMA personnel may also interview the manager or Fund and its key personnel, and examine its operations. Following this review process, Investment Products are placed on the Focus List if they meet the required standards for Focus List status.

GIMA periodically reviews Investment Products on the Focus List. GIMA considers a broad range of factors (which may include investment performance, staffing, operational issues and financial condition). Among other things, GIMA personnel may interview each manager or Fund periodically to discuss these matters. If GIMA is familiar with a manager or Fund following repeated reviews, GIMA is likely to focus on quantitative analysis and interviews and not require in-person meetings. GIMA may also review the collective performance of a composite of the MSWM accounts managed by a manager/Fund and compare this performance to overall performance data provided by the manager/Fund, and then investigate any material deviations.

Approved List. The process for including Investment Products on the Approved List is less comprehensive. Investment Products provide GIMA with relevant documentation on the strategy being evaluated, which may include an RFI, sample portfolios, asset allocation histories, its Form ADV, past performance information and marketing literature. Additional factors for consideration may include personnel depth, turnover and experience; investment process; business and organizational characteristics; and investment performance. GIMA personnel may also interview the Sub-Manager or Fund and its key personnel, typically via conference call.

GIMA also has access to a proprietary algorithm – a rules-based scoring mechanism – that reviews various qualitative and quantitative factors and ranks each Investment Product in a third party database. This can be used for informational purposes. GIMA then determines whether the Investment Product meets the standards for Approved List status. Furthermore, GIMA may evaluate an Investment Product under the evaluation process for the Focus List but then decide to instead put it on the Approved List.

GIMA periodically evaluates Investment Products on the Approved List and Focus List to determine whether they continue to meet the appropriate standards.

Changes in Status from Focus List to Approved List. GIMA may determine that an Investment Product no longer meets the criteria for the Focus List, but meets the criteria for the Approved List. If so, MSWM generally notifies program clients regarding such status changes on a quarterly basis.

Changes in Status to Not Approved. GIMA may determine that an Investment Product no longer meets the criteria for either evaluation process and therefore the Investment Product will no longer be recommended in MSWM investment advisory programs. We notify affected clients of these downgrades. You cannot retain a downgraded manager or Fund in your accounts and must select a replacement from the Approved List or Focus List that is available in the program, if you wish to retain the program's benefits in respect of the affected assets.

In some circumstances, you may be able to retain terminated Investment Products in another advisory program or in a brokerage account subject to the regular terms and conditions applying to that program or account. Ask your Graystone Consultant about these options.

MSWM generally specifies a replacement Investment Product for a terminated Investment Product in FS (as discussed in Item 4.A above). In selecting the replacement Investment Product, GIMA generally looks for an Investment Product in the same asset class, and with similar attributes and holdings to the terminated Investment Product.

If GIMA leans of a material change to an Investment Product (e.g., the departure of an investment manager or investment team), MSWM, an affiliate or a third-party retained by GIMA or an affiliate, will evaluate the Investment Product in light of the change. This evaluation may take some time to complete. While this evaluation is being performed, the Investment Product will remain eligible for the Graystone Consulting program. The GIMA designation (Focus List or Approved List) for the Investment Product will not be altered solely because this evaluation is in progress. MSWM will not necessarily notify clients of any such evaluation.

Watch Policy. GIMA has a "Watch" policy for Investment Products on the Focus List and Approved List. Watch status indicates that, in reviewing an Investment Product, GIMA has identified specific areas of the manager's or Fund's business that (a) merit further evaluation by GIMA and (b) may, but are not certain to, result in the Investment Product becoming "Not Approved." Putting an Investment Product on Watch does not signify an actual change in GIMA opinion nor is it a guarantee that GIMA will downgrade the Investment Product. The duration of a Watch status depends on how long GIMA needs to evaluate the Investment Product and for the Investment Product to address any areas of concern. For additional information, ask your Graystone Consultant for a copy of GIMA's Watch Policy.

Tactical Opportunities List. GIMA also has a Tactical Opportunities List. This consists of certain Investment Products on the Focus List or Approved List recommended for investment at a given time based in part on then-existing tactical opportunities in the market.

Other Relationships with Managers and Funds. Some managers and Funds on the Approved List or Focus List may have business relationships with us or our affiliates. For example, a manager or Fund may use MS&Co. or an affiliate as its broker or may be an investment banking client of MS&Co. or an affiliate. GIMA does not consider the existence or lack of a business relationship in determining whether to include or maintain a manager or Fund on the Approved List or Focus List.

Graystone Fund Due Diligence

In addition to the Funds reviewed by GIMA, Graystone Consultants may offer clients access to additional mutual funds, ETFs and commingled funds reviewed by Graystone.

Select Graystone teams conduct due diligence on Funds using information provided by Funds' investment managers or outside independent databases, all unaffiliated with MSWM.

We conduct both quantitative screening and a qualitative assessment. We generally start by sending the Fund an RFI substantially similar to the one used by the MSWM mutual fund area in determining which Funds to bring on the MSWM platform. After reviewing the information we receive in response to the RFI, we review the Fund's performance. We typically then speak with Fund managers and gather information through an additional RFI and manager material.

The Graystone Director of Institutional Investments reviews the due diligence for completeness. Funds are then either approved or not approved for use in the Institutional Consulting Services programs.

We generally conduct periodic follow-up due diligence on approved Funds.

MAP Due Diligence

Select Graystone teams and the Morgan Stanley Wealth Strategies Group may approve a manager or Investment Products managed by approved managers through the Graystone Manager Assessment Program or the PWM Manager Assessment Program. (PWM is a division of MSWM.)

The reviewing team uses quantitative analysis that assesses all separate account managers in a third party database to narrow the list of potential investment managers for consideration. It then generally conducts further analysis on managers, focusing on qualitative factors (e.g., quality of investment professionals and the manager's investment process).

If the manager is being reviewed by a Graystone team, the Graystone Director of Institutional Investments reviews the due diligence for completeness. If the manager is being reviewed by the Wealth Strategies Group, the Research Management Committee also reviews and, if appropriate, approves the manager. (The Research Management Committee reviews certain products made available in Consulting Group programs.) Once a manager has been approved by either reviewing team, it is available for Graystone Consulting, PWM MAP and certain other clients.

The reviewing team generally conducts periodic follow-up due diligence on approved managers (including follow-up interviews with the manager).

DC Investment Consulting Fund Screening
(For Participant-Directed Plans only)

In addition to the mutual funds and ETFs that appear on the Focus List and Approved List of GIMA described above, for clients in the Institutional Consulting Services program for Participant-Directed Plans, funds may be "approved" for the program in an alternate manner, as well. MSWM applies a proprietary screening process to funds in the Morningstar mutual fund database, which it applies in part using third party software. The screening algorithm, applied quarterly, is based on factors such as performance, ranking, stewardship grade, fees and manager tenure. Funds subject to this process are either approved or not approved for use in the Institutional Consulting Services program for Participant-Directed Plans. Graystone and MSWM do not maintain a Watch List for these funds equivalent to GIMA's Watch List.

Selection of Alternative Investments

Alternative investment managers may only be recommended in the traditional Institutional Consulting Services and Graystone programs described in this Brochure if they are on MSWM's Alternatives Approved List (described below). Managers often offer more than one alternative investment and we may include only some of those alternative investments (or only certain share classes of such alternative investment) in our programs, may carry different alternative investments (or share classes) in different programs, and assign different statuses to different alternative investments.

As well as requiring alternative investments to be on the Alternatives Approved List, we look at other factors in determining which alternative investments we offer in these programs, including program needs (such as whether we have a sufficient number of managers available in an asset class), and client demand.

In the programs, investment and business risk due diligence on alternative investments is provided by MSWM through (i) GIMA, (ii) an affiliate of MSWM that may provide due diligence and monitoring services, or (iii) an independent, third-party consulting firm or other organization retained by MSWM and approved by the AIPRC ("Due Diligence Provider") that is also in the business of evaluating the capabilities of alternative investments. Any firm providing due diligence is expected to follow a methodology similar to that used by GIMA (described below) or a methodology approved by the AIPRC in reviewing such alternative investments.

On an ongoing basis, the Due Diligence Provider conducts both quantitative and qualitative research on potential candidates. Their research includes, among other things, a review of relevant documents, calls and meetings with the investment team, and an analysis of investment performance. Generally, although the process may be modified for a particular manager or alternative investment as the Due Diligence Provider may deem appropriate, the Due Diligence Provider will typically also conduct on-site visits, review a separate business risk due diligence questionnaire and examine areas such as portfolio pricing, contingency planning, background checks on key principals and other items. Their due diligence covers the alternative investment in question, not the investments in which that alternative investment may in turn invest. For example, for a fund of funds, GIMA's research process is applied to the fund of funds, and not to each individual fund in which the fund of funds invests. Also, when evaluating portfolio managers that may be recommended to clients to provide portfolio services, the due diligence typically covers the portfolio manager, not the investments which that portfolio manager may recommend.

If a new alternative investment is viewed as an appropriate candidate by the Due Diligence Provider, the vehicle is presented to an MSWM alternative investment product review committee ("AIPRC"). The AIPRC consists of senior MSWM representatives who are mandated to approve proposed candidates and reconfirm existing vehicles on a periodic basis. Once a new alternative investment is approved by the AIPRC, and all required due diligence materials are verified, it receives an "Approved" status, is placed on the Alternatives Approved

List, a list of alternative investment vehicles in which qualified clients may invest, and is available for allocations to qualified clients on a placement and/or advisory basis. Certain Alternatives Investments on the Alternatives Approved List are available to qualified clients in the programs.

Ongoing monitoring of managers and investment vehicles on the Alternatives Approved List is provided by the Due Diligence Provider. In addition to manager-specific monitoring, the reviewer monitors overall market conditions in their specific strategies of expertise.

MSWM may remove alternative investments from the programs if GIMA or the Due Diligence Provider of the alternative investment downgrades the alternative investment to "Terminate". We may also terminate managers from these programs for other reasons (e.g., the manager has a low level of assets under management in the program, the manager has limited capacity for further investment, or the manager is not complying with our policies and procedures). Also, GIMA's head of research can remove an alternative investment vehicle from the Alternatives Approved List without consulting the AIPRC, but all actions must be assessed by the AIPRC at the next meeting.

Watch Policy. MSWM has a "Watch" policy for alternative investments on the Approved List. Watch status indicates that, in reviewing an alternative investment, GIMA or the Due Diligence Provider has identified specific areas related to the alternative investment, the manager of the alternative investment, or the markets in general that (i) merit further evaluation by GIMA or the Due Diligence Provider and (ii) may, but are not certain to, result in the removal of the alternative investment from the "Approved List". Putting an alternative investment on Watch does not signify an actual change in GIMA opinion nor is it a guarantee that GIMA will remove the alternative investment. The duration of a Watch status depends on how long AIR needs to evaluate the reason for the status change, which may include, among things, an evaluation of the markets, the alternative investment, and the manager of the alternative investment.

Calculating Portfolio Managers' Performance

In the programs described in this Brochure, we calculate performance using a proprietary system.

MSWM's Performance Reporting Group reviews performance information for client accounts, which includes daily reconciliation of positions reported in the firm's proprietary performance calculation system against the firm's books and records, and reviewing client accounts & positions where the calculated returns deviate from established thresholds. For alternative investments, GIMA does not calculate composite manager performance in the programs. Neither MSWM nor a third party reviews performance information to determine or verify its accuracy or its compliance with presentation standards and therefore performance information may not be calculated on a uniform or consistent basis. Generally, the manager of the alternative investment determines the standards used to calculate performance data.

For alternative investments, valuations used for account statement purposes and billing purposes, and for any performance reports, are obtained from the manager of each selected Investment Option. These valuations (and any corresponding benchmark index values) may be estimates, may be several weeks old as of the dates MS&Co. produces your account statements/reports and calculates your fees and, in the case of index values, may be based on information from multiple sources. The final performance figures for the applicable period may be higher or lower, and MSWM is under no obligation to provide notice of, or compensation to, clients for any difference in performance.

If you invest in a fund of funds, your account documents may use the HFRI Fund of Funds as a benchmark. The FoF Composite consists of over 800 domestic and offshore funds of hedge funds that have at least $50 million under management or have been actively trading for at least 12 months. It is equally weighted on a fund by fund basis and fund assets are reported in USD on a net of fees basis. It is updated three times a month and the current month's and the prior three months' values are subject to change. MSWM is not obligated to notify you of any such changes. The FoF Composite values are likely to be more up-to-date than the data for the selected Investment Options for which it is the benchmark. You cannot invest in the FoF Composite. For more information see https://www.hedgefundresearch.com.

B. Conflicts of Interest

Advisory vs. Brokerage Accounts. MSWM and your Graystone Consultant are likely to earn more compensation if you invest in a program described in this Brochure than if you open a brokerage account to buy individual securities (although, in a brokerage account, you may not receive all the benefits of the programs described in the Brochure). Graystone Consultants and MSWM therefore have a financial incentive to recommend one of these programs described in this Brochure. We address this conflict of interest by disclosing it to you and by requiring Graystone Consultants' supervisors to review your account at account-opening to ensure that it is suitable for you in light of matters such as your investment objectives and financial circumstances.

Payments from Managers. Managers may also sponsor their own educational conferences and pay expenses of Financial Advisors attending these events. MSWM's policies require that the training or educational portion of these conferences comprises substantially the entire event. Managers may sponsor educational meetings or seminars in which clients as well as Financial Advisors are invited to participate.

Managers are allowed to occasionally give nominal gifts to Financial Advisors, and to occasionally entertain Financial Advisors, subject to a limit of $1,000 per employee per year. MSWM's non-cash compensation policies set conditions for each of these types of payments, and do not permit any gifts or entertainment conditioned on achieving a sales target.

We address conflicts of interest by ensuring that any payments described in this "Payments to Managers" section do not relate to any particular transactions or investment made by MSWM clients with managers. Managers participating in programs described in this Brochure are not required to make any of these types of payments. The payments described in this section comply with FINRA rules relating to such activities. Please see the discussion under "Funds in Advisory Programs" in Item 4.C for more information.

Payments from Mutual Funds. Please see the discussion of payments from fund companies under "Funds in Advisory Programs" in Item 4.C.

Payments from Managers of Alternative Investments. Managers of alternative investments offered in the programs described in this Brochure may agree to pay MSWM additional fees. We have a conflict of interest in offering alternative investments because we or our affiliates earn more money in your account from your investments in alternative investments than from other investment options. However, in cases where we receive a portion of the management fee paid by you to a manager of an alternative investment and we charge a program fee under the programs in this Brochure, we credit such fee to your account. Also, we do not share this money with your Graystone Consultant (i.e. the compensation we pay to your Graystone Consultant is not affected by the payments we receive from the alternative investments). Therefore, your Graystone Consultant does not have a resulting incentive to buy alternative investments in your account, or to buy certain alternative investments rather than other alternative investments in any of the programs in this Brochure.

Affiliate Acting as Portfolio Manager. Where permitted by law, and except for plan accounts, an affiliate of MSWM may have been selected to act as the manager for one or more your investments. Where this occurs, we or our affiliates earn more money than from other investment options. MSWM and the Graystone Consultant are also likely to earn more compensation if you invest in a program described in this Brochure than if you open a brokerage account to buy individual securities.

These relationships create a conflict of interest for us or our affiliates, as there is a financial incentive to recommend the investments. We address this conflict of interest by disclosing it to you and by requiring Graystone Consultants' supervisors to review your account at account-opening to ensure that it is suitable for you in light of matters such as your investment objectives and financial circumstances.

MSWM as Placement Agent. MSWM also acts as placement agent for certain alternative investments whereby such investments are available through MSWM on a non-advisory basis. When an alternative investment is purchased on a placement basis, different terms and conditions, including different fee arrangements, may apply. For example, when a client invests on a placement basis, they do not pay an ongoing advisory fee, however, they pay an upfront placement fee and the program manager receives a higher program participation fee which is shared with MSWM and its Graystone Consultants. A Client investing on an advisory basis may pay higher fees, in the aggregate, than if such investment had been made on a placement basis.

Different Advice. MSWM and its affiliates may give different advice, take different action, receive more or less compensation, or hold or deal in different securities for any other party, client or account (including their own accounts or those of their affiliates) from the advice given, actions taken, compensation received or securities held or dealt for your account.

Trading or Issuing Securities in, or Linked to Securities in, Client Accounts. MSWM and its affiliates may provide bids and offers, and may act as a principal market maker, in respect of the same securities held in client accounts. MSWM, the investment managers in its programs, and its affiliates and employees may hold a position (long or short) in the same securities held in client accounts. MSWM and/or its affiliates are regular issuers of traded financial instruments linked to securities that may be purchased in client accounts. From time to time, the trading of MSWM, a manager or their affiliates – both for their proprietary accounts and for client accounts – may be detrimental to securities held by a client and thus create a conflict of interest. We address this conflict by disclosing it to you.

Trade Allocations. In certain cases trades may be aggregated so that the securities will be sold or purchased for more than one client in order to obtain favorable execution to the extent permitted by law. The investment manager will then allocate the trade in a manner that is equitable and consistent with its fiduciary duty to its clients (including pro rata allocation, random allocation or rotation allocation). Allocation methods vary depending on various factors (including the type of investment, the number of shares purchased or sold, the size of the accounts, and the amount of available cash or the size of an existing position in an account). The price to each client is the average price for the aggregate order.

Services Provided to Other Clients. MSWM, investment managers and their affiliates provide a variety of services (including research, brokerage, asset management, trading, lending and investment banking services) for each other and for various clients, including issuers of securities that MSWM may recommend for purchase or sale by clients or are otherwise held in client accounts, and investment management firms in the programs described in this Brochure. MSWM, investment managers and their affiliates receive compensation and fees in connection with these services. MSWM believes that the nature and range of clients to which such services are rendered is such that it would be inadvisable to exclude categorically all of these companies from an account. Accordingly, it is likely that securities in an account will include some of the securities of companies for which MSWM, investment managers and their affiliates perform investment banking or other services.

Restrictions on Securities Transactions. There may be periods during which MSWM or investment managers are not permitted to initiate or recommend certain types of transactions in the securities of issuers for which MSWM or one of its affiliates is performing broker-dealer or investment banking services or has confidential or material non-public information. Furthermore, in certain investment advisory programs, MSWM may be compelled to forgo trading in, or providing advice regarding, Morgan Stanley securities, and in certain related securities. These restrictions may adversely impact your account performance.

MSWM, the managers and their affiliates may also develop analyses and/or evaluations of securities sold in a program described in this Brochure, as well as buy and sell interests in securities on behalf of its proprietary or client accounts. These analyses, evaluations and purchase and sale activities are proprietary and confidential, and MSWM will not disclose them to clients. MSWM may not be able to act, in respect of clients' account, on any such information, analyses or evaluations.

MSWM, investment managers and their affiliates are not obligated to effect any transaction that MSWM or a manager or any of their affiliates believe would violate federal or state law, or the regulations of any regulatory or self-regulatory body.

Research Reports. MS & Co. LLC ("MS & Co.") does business with companies covered by their respective research groups. Furthermore, MS & Co. and its affiliates and client accounts may hold a trading position (long or short) in the securities of companies subject to such research. Therefore, MS & Co. has a conflict of interest that could affect the objectivity of its research reports.

Certain Trading Systems. MSWM may effect trades on behalf of client accounts through exchanges, electronic communication networks or other alternative trading systems ("Trading Systems"), including Trading Systems with respect to which MSWM or its affiliates may have a non-controlling direct or indirect ownership interest or the right to appoint a board member or observer. If MSWM directly or indirectly effects client trades or transactions through Trading Systems in which MSWM or its affiliates have an ownership interest, MSWM or its affiliates may receive an indirect economic benefit based on their ownership interest. In addition, subject at all times to its obligations to obtain best execution for its customers' orders, it is contemplated that MSWM will route certain customer order flow to its affiliates. Currently, MSWM and/or its affiliates own equity interests (or interests convertible into equity) in certain Trading Systems or their parent companies, including BIDS Holdings LP and BIDS Holdings GP LLC (commonly known as "BIDS"); CHX Holdings Inc.; CHI-X Global Holdings LLC; National Stock Exchange of India; Miami International Holdings Inc.; Equilend; Euroclear PLC; LCH.Clearnet Group Ltd.; Turquoise Global Holdings Ltd.; CJSC The Moscow Interbank Currency Exchange Settlement House; CME; ICE US Holding Company, LP; MuniCenter – The Debt Center, LLC; OTCDeriv Limited; TradeWeb Markets LLC; TIFFE – Tokyo Financial Futures Exchange; ERIS Exchange Holdings LLC; iSWAP Limited; EOS Precious Metals Limited; CreditDeiv Limited; FXGLOBALCLEAR; CME/CBOT/NYMEX; Dubai Mercantile Exchange; Intercontinental Exchange; Tokyo Commodities Exchange; Bombay Stock Exchange; Japan Securities Depository Center Inc.; and Japan Securities Clearing Corporation.

Certain Trading Systems offer cash credits for orders that provide liquidity to their books and charge explicit fees for orders that extract liquidity from their books. From time to time, the amount of credits that MSWM and/or MS&Co. receive from one or more Trading System may exceed the amount that is charged. Under these limited circumstances, such payments would constitute payment for order flow.

Certain Trading Systems through which MSWM and/or MS&Co. may directly or indirectly effect client trades execute transactions on a "blind" basis, so that a party to a transaction does not know the identity of the counterparty to the transaction. It is possible that an order for a client account that is executed through such a Trading System could be automatically matched with a counterparty that is (i) another investment advisory or brokerage client of MSWM or one of its affiliates or (ii) MSWM or one of its affiliates acting for its own proprietary accounts.

Affiliated Sweep Investments. MSWM has a conflict of interest in selecting or recommending BDP or Money Market Funds as the Sweep Investment. See Item 4.C above for more information.

MSWM Affiliate in Underwriting Syndicate; Other Relationships with Security Issuers. If an affiliate of MSWM is a member of the underwriting syndicate from which a security is purchased, we or our affiliates may directly or indirectly benefit from such purchase.

MSWM and/or its affiliates have a variety of relationships with, and provide a variety of services to, issuers of securities recommended for client accounts, including investment banking, corporate advisory, underwriting, consulting, and brokerage relationships. As a result of these relationships with an issuer, MSWM or its affiliates may directly or indirectly benefit from a client's purchase or sale of a security of the issuer. For example, MSWM or its affiliates may provide hedging services for compensation to issuers of structured investments (such as structured notes) recommended for client accounts. In such a case, MSWM or its affiliates could benefit if a client account purchased such an instrument, or sold such an instrument to another purchaser in lieu of selling or redeeming the instrument back to the issuer, as such transactions could result in the issuer of the instrument continuing to pay MSWM or its affiliates fees or other compensation for the hedging services related to such instrument. Similarly, if the hedging service with respect to such an instrument is not profitable for MSWM or its affiliates, MSWM or its affiliates may benefit if MSWM's client accounts holding such instruments sold or redeemed them back to the issuer. We address these conflicts by disclosing them to you.

C. Graystone Consultants Acting as Portfolio Managers

Description of Advisory Services

Graystone Consultants only act as portfolio managers under the Graystone Discretionary Services program and not any other program described in this Brochure. See Item 4.A above for a description of the services offered in the programs described in this Brochure.

Performance-Based Fees

The programs described in this Brochure do not charge performance-based fees.

Methods of Analysis and Investment Strategies

Graystone Consultants in the programs described in this Brochure may use any investment strategy when providing investment advice to you. Graystone Consultants may use asset allocation recommendations of the Morgan Stanley Wealth Management Global Investment Committee as a resource but, if so, there is no guarantee that any strategy will in fact mirror or track these recommendations. Investing in securities involves risk of loss that you should be prepared to bear.

Proxy Voting

Graystone Consulting does not offer proxy voting services to its clients for its traditional institutional consulting services. In Graystone Discretionary Services, clients may elect to:

- Retain authority and responsibility to vote proxies for your account or

- Delegate discretion to vote proxies to a third party (other than Graystone or MSWM).

Unless you delegate discretion to a third party to vote proxies, we will forward to you, or your designee, any proxy materials that we receive for securities in your account. We cannot advise you on any particular proxy solicitation.

We will not provide advice or take action with respect to legal proceedings (including bankruptcies) relating to the securities in your account, except to the extent required by law. For more details

Item 7: Client Information Provided to Portfolio Managers

Graystone Consulting and investment managers have access to the information you provide at account opening.

Item 8: Client Contact with Portfolio Managers

In the programs described in this Brochure, you may contact your Graystone Consultant at any time during normal business hours.

Item 9: Additional Information

Disciplinary Information

This section contains information on certain legal and disciplinary events.

In this section, "MSDW" means Morgan Stanley DW Inc., a predecessor broker-dealer of MS & Co. and registered investment adviser that was merged into MS & Co. in April 2007. MS & Co. and Smith Barney and/or Citigroup Global Markets Inc. ("CGM") are predecessor investment adviser and broker-dealer firms of Morgan Stanley Wealth Management ("MSWM"). "Citi" means Citigroup, Inc., a former, indirect partial owner of MWSM.

- On March 25, 2009, MS & Co. entered into a LAWC with FINRA. FINRA found that, from 1998 through 2003, MSDW failed to reasonably supervise the activities of two Financial Advisors in one of its branches. FINRA found that these Financial Advisors solicited brokerage and investment advisory business from retirees and potential retirees of certain large companies by promoting unrealistic investment returns and failing to disclose material information. FINRA also held that MS & Co. failed to ensure that the securities and accounts recommended for the retirees were properly reviewed for appropriate risk disclosure, suitability and other concerns. MS & Co. consented, without admitting or denying the findings, to a censure, a fine of $3 million, and restitution of approximately $2.4 million plus interest to 90 former clients of the Financial Advisors.

- On June 8, 2016, the SEC entered into a settlement order with MSWM ("June 2016 Order") settling an administrative action. In this matter, the SEC found that MSWM willfully violated Rule 30(a) of Regulation S-P (17 C. F. R. § 248.30(a)) (the "Safeguards Rule"). In particular, the SEC found that, prior to December 2014, although MSWM had adopted written policies and procedures relating to the protection of customer records and information, those policies and procedures were not reasonably designed to safeguard its customers' personally identifiable information as required by the Safeguards Rule and therefore failed to prevent a MSWM employee, who was subsequently terminated, from misappropriating customer account information. In determining to accept the offer resulting in the June 2016 Order, the SEC considered the remedial efforts promptly undertaken by MSWM and MSWM's cooperation afforded to the SEC Staff. MSWM consented, without admitting or denying the findings, to a censure, to cease and desist from committing or causing future violations, and to pay a civil penalty of $1,000,000.

- On January 13, 2017, the SEC entered into a settlement order with MSWM ("January 2017 Order") settling an administrative action. The SEC found that from 2009 through 2015, MSWM inadvertently charged advisory fees in excess of what had been disclosed to, and agreed to by, its legacy CGM clients, and, from 2002 to 2009 and from 2009 to 2016, MS&Co. and MSWM, respectively, inadvertently charged fees in excess of what was disclosed to and agreed to by their clients. The SEC also found that MSWM failed to comply with requirements regarding annual surprise custody examinations for the years 2011 and 2012, did not maintain certain client contracts, and failed to adopt and implement written compliance policies and procedures reasonably designed to prevent violations of the Investment Advisers Act of 1940 (the "Advisers Act"). The SEC found that, in relation to the foregoing, MSWM willfully violated certain sections of the Advisers Act. In determining to accept the offer resulting in the January 2017 Order, the SEC considered the remedial efforts promptly undertaken by MSWM. MSWM consented, without admitting or denying the findings, to a censure, to cease and desist from committing or causing future violations, to certain undertakings related to fee billing, books and records and client notices and to pay a civil penalty of $13,000,000.

- On February 14, 2017, the SEC entered into a settlement order with MSWM settling an administrative action. The SEC found that from March 2010 through July 2015, MSWM solicited approximately 600 non-discretionary advisory accounts to purchase one or more of eight single inverse exchange traded funds ("SIETFs"), without fully complying with its internal written compliance policies and procedures related to these SIETFs, which among other things required that clients execute a disclosure notice, describing the SIETF's features and risks, prior to purchasing them, for MSWM to maintain the notice, and for subsequent related reviews to be performed. The SEC found that, despite being aware of deficiencies with its compliance and documentation of the policy requirements, MSWM did not conduct a comprehensive analysis to identify and correct past failures where the disclosure notices may not have been obtained and to prevent future violations from occurring. The SEC found that, in relation to the foregoing, MSWM willfully violated section 206(4) of the Investment Advisers Act of 1940 and Rule 206(4)-7 thereunder. MSWM admitted to certain facts and consented to a censure, to cease and desist from committing or causing future violations, and to pay a civil penalty of $8,000,000.

- On June 29, 2018, the SEC entered into a settlement order with MSWM settling an administrative action which relates to misappropriation of client funds in four related accounts by a single former MSWM financial advisor ("FA"). The SEC found that MSWM failed to adopt and implement policies and procedures or systems reasonably designed to prevent personnel from misappropriating assets in client accounts. The SEC specifically found that, over the course of eleven months, the FA initiated unauthorized transactions in the four related client accounts in order to misappropriate client funds. The SEC found that while MSWM policies provided for certain reviews prior to issuing disbursements, such reviews were not reasonably designed to prevent FAs from misappropriating client funds. Upon being informed of the issue by representatives of the FA's affected clients, MSWM promptly conducted an internal investigation, terminated the FA, and reported the fraud to law enforcement agencies. MSWM also fully repaid the affected clients, made significant enhancements to its policies, procedures and systems ("Enhanced MSWM Policies") and hired additional fraud operations personnel. The SEC found that MSWM willfully violated section 206(4) of the Advisers Act and Rule 206(4)-7 thereunder. The SEC also found that MSWM failed to supervise the FA pursuant to its obligations under Section 203(e)(6) of the Advisers Act. MSWM consented, without admitting or denying the findings, to a censure; to cease and desist from committing or causing future violations; to certain undertakings, including certifications related to the implementation and adequacy of the Enhanced MSWM Policies and to pay a civil penalty of $3,600,000.

MSWM's Form ADV Part 1 contains further information about its disciplinary history, and is available on request from your Graystone Consultant.

Other Financial Industry Activities and Affiliations

Morgan Stanley ("Morgan Stanley Parent") is a financial holding company under the Bank Holding Company Act of 1956. Morgan Stanley Parent is a corporation whose shares are publicly held and traded on the New York Stock Exchange. Prior to June 28, 2013, MSWM was owned by a joint venture company which was indirectly owned 65% by Morgan Stanley Parent and 35% by Citi. On June 28, 2013, Morgan Stanley Parent purchased Citi's 35% interest in MSWM. Accordingly, MSWM is now the wholly owned indirect subsidiary of Morgan Stanley Parent.

Activities of Morgan Stanley Parent. Morgan Stanley Parent is a global firm engaging, through its various subsidiaries, in a wide range of financial services including:

- securities underwriting, distribution, trading, merger, acquisition, restructuring, real estate, project finance and other corporate finance advisory activities
- merchant banking and other principal investment activities
- brokerage and research services
- asset management
- trading of foreign exchange, commodities and structured financial products and
- global custody, securities clearance services, and securities lending.

Broker-Dealer Registration. As well as being a registered investment advisor, MSWM is registered as a broker-dealer.

Restrictions on Executing Trades. As MSWM is affiliated with MS & Co. and its affiliates, the following restrictions apply when executing client trades:

- MSWM and MS & Co. generally do not act as principal in executing trades for MSWM investment advisory clients (except to the extent permitted by a program and the law).
- Regulatory restrictions may limit your ability to purchase, hold or sell equity and debt issued by Morgan Stanley Parent and its affiliates.
- Certain regulatory requirements may limit MSWM's ability to execute transactions through alternative execution services (e.g., electronic communication networks and crossing networks) owned by MSWM, MS & Co. or their affiliates.

These restrictions may adversely impact client account performance.

See Item 6.B above for conflicts that arise as a result of MSWM's affiliation with MS & Co. and its affiliates.

Related Investment Advisors and Other Service Providers. MSWM has related persons that are registered investment advisers in various investment advisory programs (including Morgan Stanley Investment Management Inc., Morgan Stanley Investment Management Limited and Consulting Group Advisory Services LLC). If you invest your assets and use an affiliated firm to manage your account, MSWM and its affiliates earn more money than if you use an unaffiliated firm. Generally, for Retirement Accounts, MSWM rebates or offsets fees so that MSWM complies with IRS and Department of Labor rules and regulations.

Morgan Stanley Investment Management Inc. serves in various advisory, management, and administrative capacities to open-end and closed-end investment companies and other portfolios (some of which are listed on the NYSE). Morgan Stanley Services Company Inc., its wholly owned subsidiary, provides limited transfer agency services to certain open-end investment companies.

Morgan Stanley Distribution Inc. serves as distributor for these open-end investment companies, and has entered into selected dealer agreements with MSWM and affiliates. Morgan Stanley Distribution Inc. also may enter into selected dealer agreements with other dealers. Under many of these agreements, MSWM and affiliates, and other selected dealers, are compensated for sale of fund shares to clients on a brokerage basis, and for shareholder servicing (including pursuant to plans of distribution adopted by the investment companies pursuant to Rule 12b-l under the Investment Company Act of 1940).

Related persons of MSWM act as a general partner, administrative agent or special limited partner of a limited partnership or managing member or special member of a limited liability company to which such related persons serve as adviser or sub-adviser and in which clients have been solicited in a brokerage or advisory capacity to invest. In some cases, the general partner of a limited partnership is entitled to receive an incentive allocation from a partnership.

See Item 4.C above for a description of cash sweep investments managed or held by related persons of MSWM.

See Item 6.B above for a description of various conflicts of interest.

Code of Ethics

MSWM's Investment Adviser Code of Ethics ("Code") applies to its employees, supervisors, officers and directors engaged in offering or providing investment advisory products and/or services (collectively, the "Employees"). In essence, the Code prohibits Employees from engaging in securities transactions or activities that involve a material conflict of interest, possible diversion of a corporate opportunity, or the appearance of impropriety. Employees must always place the interests of MSWM's clients above their own and must never use knowledge of client transactions acquired in the course of their work to their own advantage. Supervisors are required to use reasonable supervision to detect and prevent any violations of the Code by the individuals, branches and departments that they supervise.

The Code generally operates to protect against conflicts of interest either by subjecting Employee activities to specified limitations (including pre-approval requirements) or by prohibiting certain activities. Key provisions of the Code include:

- The requirement for certain Employees, because of their potential access to non-public information, to obtain their supervisors' prior written approval or provide pre-trade notification before executing certain securities transactions for their personal securities accounts;
- Additional restrictions on personal securities transaction activities applicable to certain Employees (including Financial Advisors and other MSWM employees who act as portfolio managers in MSWM investment advisory programs);
- Requirements for certain Employees to provide initial and annual reports of holdings in their Employee securities accounts, along with quarterly transaction information in those accounts; and
- Additional requirements for pre-clearance of other activities including, but not limited to, Outside Business Activities, Gifts and Entertainment, and Marketing and Promotional Activities.

You may obtain a copy of the Code of Ethics from your Graystone Consultant. See Item 6.B above.

Reviewing Accounts

At account opening, your Graystone Consultant must ensure that, and the Branch Manager (or the Branch Manager's designee) confirms that, the account and the investment style are suitable investments for you.

For traditional institutional consulting service accounts, your Graystone Consultant is then responsible for reviewing your account on an ongoing basis and will recommend different asset allocations at any time according to market conditions. Your Graystone Consultant will ask you at least annually if your investment objectives have changed. If your objectives change, your Graystone Consultant will modify your asset allocation to be suitable for your needs.

For Graystone discretionary service accounts, your Graystone Consultant is then responsible for reviewing your account on an ongoing basis and may adjust your portfolio and will recommend different asset allocations at any time according to market conditions. Your Graystone Consultant will ask you at least annually if your investment objectives have changed. If your objectives change, Graystone Consultant will modify your portfolio to be suitable for your needs.

See Item 4.A above for a discussion of account statements and performance reporting.

Client Referrals and Other Compensation

See "Payments from Mutual Funds" and "Payments from Managers" in Item 6.B above.

MSWM may compensate affiliated and unrelated third parties for client referrals in accordance with Rule 206(4)-3 of the Advisers Act. If the client invests in an investment advisory program, the compensation paid to any such entity will typically consist of an ongoing cash payment stated as a percentage of MSWM's advisory fee or a one-time flat fee, but may include cash payments determined in other ways.

Financial Information

MSWM is not required to include a balance sheet in this Brochure because MSWM does not require or solicit prepayment of more than $1,200 in fees per client, six months or more in advance.

MSWM does not have any financial conditions that are reasonably likely to impair its ability to meet its contractual commitments to clients.

MSWM and its predecessors have not been the subject of a bankruptcy petition during the past ten years.

Exhibit: Affiliated Money Market Funds Fee Disclosure Statement and Float Disclosure Statement

Sweep Vehicles in Retirement Accounts

Retirement Accounts generally effect temporary sweep transactions of new free credit balances into Deposit Accounts established under the Bank Deposit Program.

The table below describes the fees and expenses charged to assets invested in shares of the money market funds in which the account invests (expressed as a percentage of each fund's average daily net assets for the stated fiscal year). Note that:

- The rate of Advisory Fee and Distribution and Service Fees (including 12b-1 fees) (whether in basis points or dollars) may not be increased without first obtaining shareholder approval.
- Expenses designated as "Other Expenses" include all expenses not otherwise disclosed in the table that were deducted from each fund's assets or charged to all shareholder accounts in the stated fiscal year (and may change from year to year).

These fees and expenses may be paid to MSWM and its affiliates for services performed. The aggregate amount of these fees is stated in the tables below. The amounts of expenses deducted from a fund's assets are shown in each fund's statement of operations in its annual report.

Morgan Stanley Investment Management (and/or its affiliates) may, from time to time, waive part or all of its advisory fee or assume or reimburse some of a fund's operating expenses. (This may be for a limited duration.) Such actions are noted in the fund's prospectus and/or statement of additional information. The table below shows the Total Annual Fund Operating Expenses (before management fee waivers and/or expense reimbursements) and the Total Annual Fund Operating Expenses After Fee Waivers and/or Expense Reimbursements.

MSWM expects to provide services as a fiduciary (as that term is defined under ERISA or the Code) with respect to Retirement Accounts. MSWM believes that investing in shares of the funds for sweep purposes may be appropriate for Retirement Plans because using professionally managed money market funds allows you to access cash on an immediate basis, while providing a rate of return on your cash positions pending investment. As is typical of such arrangements, we use only affiliated money funds for this purpose.

MSWM also believes that investing a Retirement Account's assets in the Deposit Accounts may also be appropriate. Terms of the Bank Deposit Program are further described in the Bank Deposit Program Disclosure Statement, which has been provided to you with your account opening materials.

The fund expense information below reflects the most recent information available to us as of January 31, 2018, and is subject to change. Please refer to the funds' current prospectuses, statements of additional information and annual reports for more information.

Fund	**Advisory Fee**	**Distribution and Service Fees**	**Other Expenses**	**Total Annual Fund Operating Expenses**	**Total Annual Fund Operating Expenses After Fee Waivers and/or Expense Reimbursements**
Government Securities- Participant Share Class	0.15%	0.50%	0.06%	0.71%	0.45%
Active Assets Government Trust	0.10%	None	0.06%	0.17%	0.16%
U.S. Government Money Market Trust	0.38%	0.10%	0.11%	0.59%	0.36%

Interest Earned on Float

If MSWM is the custodian of your account, MSWM may retain as compensation, for providing services, the account's proportionate share of any interest earned on cash balances held by MSWM (or an affiliate) with respect to assets awaiting investment including:

- new deposits to the account (including interest and dividends) and
- uninvested assets held by the account caused by an instruction to the custodian to buy and sell securities (which may, after the period described below, be automatically swept into a sweep vehicle).

This interest is generally at the prevailing Federal Funds interest rate.

Generally, with respect to such assets awaiting investment:

- o when the custodian receives the assets on a day on which the NYSE is open ("Business Day") and before the NYSE closes, the custodian earns interest through the end of the following Business Day and
- o when the custodian receives the assets on a Business Day but after the NYSE closes, or on a day which is not a Business Day, the custodian earns interest through the end of the second following Business Day.

2019 FOREIGN LIMITED LIABILITY COMPANY ANNUAL REPORT

DOCUMENT# M09000001230

FILED
Apr 08, 2019
Secretary of State
6362234389CC

Entity Name: MORGAN STANLEY SMITH BARNEY LLC

Current Principal Place of Business:

1585 BROADWAY
NEW YORK, NY 10036

Current Mailing Address:

1585 BROADWAY
NEW YORK, NY 10036 US

FEI Number: 26-4310844

Certificate of Status Desired: No

Name and Address of Current Registered Agent:

C T CORPORATION SYSTEM
1200 SOUTH PINE ISLAND ROAD
PLANTATION, FL 33324 US

The above named entity submits this statement for the purpose of changing its registered office or registered agent, or both, in the State of Florida.

SIGNATURE:

Electronic Signature of Registered Agent — Date

Authorized Person(s) Detail :

Title	MANAGER	Title	MANAGER
Name	JANOVER, JAMES	Name	FINN, JED
Address	1585 BROADWAY	Address	1585 BROADWAY
City-State-Zip:	NEW YORK NY 10036	City-State-Zip:	NEW YORK NY 10036
Title	MANAGER	Title	MANAGER
Name	O'CONNOR, SHELLEY S.	Name	HUNEKE, BENJAMIN
Address	1585 BROADWAY	Address	1585 BROADWAY
City-State-Zip:	NEW YORK NY 10036	City-State-Zip:	NEW YORK NY 10036
Title	MANAGER		
Name	SAPERSTEIN, ANDREW		
Address	1585 BROADWAY		
City-State-Zip:	NEW YORK NY 10036		

I hereby certify that the information indicated on this report or supplemental report is true and accurate and that my electronic signature shall have the same legal effect as if made under oath; that I am a managing member or manager of the limited liability company or the receiver or trustee empowered to execute this report as required by Chapter 605, Florida Statutes; and that my name appears above, or on an attachment with all other like empowered.

SIGNATURE: JAMES JANOVER — MANAGER — 04/08/2019

Electronic Signature of Signing Authorized Person(s) Detail — Date