## MEETING MATERIALS

# UNITARIAN UNIVERSALIST ASSOCIATION OF CONGREGATIONS

February 22, 2019


Scott Perry, CAIA, Partner

Krissy Pelletier, Partner

Asher Watson, Consultant

Lily Fayerweather, Consultant Support Analyst

# ADMINISTRATIVE

NEPC, LLC

**SRIC/IC Meeting—Draft Agenda**
**February 22, 2019**
**9:00am-2:00pm**

**9:00am – 12:00pm Joint IC/SRIC**

9:00am Essential Partners Debriefing
- Leverage our new tools from training to discuss implementing the 2017 Statement of Conscience into the SRI Guidelines.

10:30am Break

10:45am Screening Criteria
- Report from screening subcommittee
  - Sustainalytics risk based rating system and accompanying thresholds

11:30am Fossil Fuel Company Divestment
- Examine current Fossil Fuel holdings
  - Decision around maintaining or selling positions

12:00pm Working Lunch
- Shareholder Advocacy Update
- Plans for GA 2019
- UUCEF Portfolio and Performance Update

**12:45pm – 2:00pm IC**

12:45pm NEPC 2019 Investment Outlook
- Key Market Themes and Current Opportunities

1:10pm UUCEF Asset Allocation Review and Recommendations

2:00pm Adjourn meeting

# UUA Investment Committee – Minutes - DRAFT

24 Farnsworth Street, Room 210
Boston, MA 02210
November 20, 2018

Members present: Kathleen Gaffney, Chair, Tim Brennan, John LaPann, Brian Lasher, Ken Redd and Lucia Santini

Members absent: None

Staff: Susan Helbert

NEPC: Lily Fayerweather, Kristine Pelletier, Asher Watson

HCAP Partners: Tim Bubnack, Hope Mago (via zoom), Frank Mora

SRI Committee: Vonda Brunsting, Kathy Mulvey, Julie Skye, Pat Tomaino

1. **Minutes from August 20, 2018 - Gaffney**

**Motion 1:** To approve minutes from the August 20, 2018 meeting. Moved: LaPann, seconded: Lasher, all approved.

2. **Working items – Brennan, Santini**
    - Planning for GA 2019: resolutions, workshops, expressway representation
        - One of the biannual meetings with the social justice organizations to be held at General Assembly. A member of the Investment Committee will be invited to attend.
        - Potential for two business resolutions to be brought forward, one regarding divestment in the Middle East and another regarding divestment from fossil fuel. Searching for alternative paths to address these items.
        - Discussed need to more broadly disperse information pertaining to the work of the committees.
    - Begin preparation for Treasurer/CFO transition
        - Search will begin in early 2019.
        - Will remain on staff for a limited time to work with new Treasurer/CFO.
        - Will continue working with the UUA as a consultant for the advocacy work.

**Action item 1:** Brennan to distribute audited financial statements to the committee.

- Preparation for anti-racism training in February
    - Have a proposal from Parisa Parsa and will schedule a call to discuss expectations.

**Action item 2:** Brennan to distribute proposal to sub-committee.

3. **Joint IC/SRIC report to the UUA Board in October – Gaffney, Mulvey**
    - Update on report, discussion, and Board affirmation of proposed statement of purpose.
        - Met with the Board in October and discussed work done over the last few years to integrate the two committees.
        - Board was engaged, and presentation well received.
        - Board supported the integration of the committees.
        - Board unanimously supported the proposed change in language in the Socially Responsible Investing Guidelines.

4. **Advancing Human Rights through UU Investments: SRIC/IC discussion with UU Social Justice organizations - Mulvey**
    - Summary and next steps
        - Continued a conversation with the social justice organizations which began at General Assembly earlier in the year.
        - Had strong representation from the committees and the other organizations.
        - Proposed continuing the calls/meetings on a biannual basis to keep everyone apprised of our work.
        - Need to be more visible about what we're doing on issues related to social justice, human rights and others.
        - Need to share what we do in community and partnership with other organizations.
        - Discussed inviting members of other organizations we collaborate with to join one of the meetings/calls with the social justice organizations.

**Action item 3:** Brennan to circulate the As you Sow report to both committees.

5. **Updated Socially Responsible Investing Policy – Brennan, Gaffney, Mulvey**
    - Discuss and refine draft
        - Robust discussion on suggested changes and how best to implement them.
        - Once draft is finalized; need to submit to the Board for approval.

**Action item 4:** Gaffney and Mulvey to compile latest suggested changes and circulate to committee for final review.

6. **NEPC pipeline –**
    - **Generation Fund III**
        - Private Equity strategy with a focus on private growth stage opportunities with broad sustainable solution themes.

    - Invest across sectors including transportation, agriculture, energy, industrials and consumer.
    - Unlike Fund II which was a private and public equity strategy, this will be a private equity strategy only.
    - Co-heads of strategy are women.
    - Targeting a $750 million fund size and the firm's commitment is $40 million dollars, or 5%.
    - Fees are a little below market for the type of strategy.
    - Recommend investment of $1 to $2 million.
    - Received a NEPC overall rating of 2 due to change in strategy and adjustments to team.
    - Committee is interested in a phone meeting with them.

**Action item 5:** NEPC to reach out to Generation to find possible dates for a call.

- **HCAP Fund IV**
    - Based in California and provide capital to underserved, high growth, small to medium sized companies in the western US.
    - Big focus on jobs, not just the number but also the quality of those jobs being created at the companies they invest in.
    - They provide some parameters for how companies will improve for their employees.
    - Recommend investment of $1 to $2 million.
    - Received a NEPC overall rating of 2 due to higher than usual fees associated with this type of investment.
- **HITE Carbon Offset**
    - Long/short strategy where short is carbon intensive businesses where manager believes will face challenges in the future and long side is debt exposure.
    - Recently launched a near natural strategy focused on a decarbonization theme.
    - No investment fess for first 5 years as they're looking for founding investors.
    - Has not gone through full NEPC due diligence but will if interested.

**Action item 6:** Committee showed mild interest in fund; NECP will complete due diligence and circle back.

- **Thematic equity list**
    - In 2019, NEPC will bring a list of thematic public equity investments to the committee to explore.
    - Presently list is comprised of 4 global equity products; 3 are environmentally focused while the 4th is multi-thematic.

- **Reinventure Capital: intersection with revised SRI guidelines; next steps**
  - Discussed additional documents received from Reinventure.
  - Discussed the reservations/conditions raised by Lasher.
  - Concerned that they've been fund raising for 18 months and still don't have any investors. The UUA would be the first faith-based investor.
  - Insufficient comfort currently to invest.

**7. HCAP Presentation – Tim Bubnack, Hope Mago (via zoom), Frank Mora**

- Founded in 2000 and provides mezzanine debt and private equity for underserved, lower-middle market companies throughout California and the Western US.
- Spend a lot of time on their Gainful Jobs Program which creates measurable impact on the employment base of companies.
- Hired an impact associate to assist companies in implementing the Gainful Jobs Program.
- Agreeing to the jobs program is a requirement to receive an investment.
- Work with companies to build a 5-year plan for implementing the jobs program; management reports to HCAP on a quarterly basis to discuss progress.
- Has steps in place should a company be unable to meet target returns or has difficulty implementing the jobs program.
- Target industries are business and professional services, healthcare, manufacturing and, IT services and software.
- Expects making 15 to 18 investments.
- Maximum fund size of $150 million; have closed on $65.5 million to date.
- Typical deal in between $2 and $10 million with a cap of $10 million.
- Fees are 2% annually during investment period including assumed leverage, reduction schedule based on end of investment period or new fund operations.

**8. Debrief and decision of HCAP**

- Have a 50% re-up from the last fund.
- Unique fit with the jobs program.
- First with our overall mandate.
- Have agreements in their warrants or put options; doubtful they would exercise put option if the company can't buy back the stock.

**Motion 2**: To invest $2 million of the UUCEF funds into HCAP Fund IV. Moved, LaPann, seconded, Lasher. All approved with the exception of Santini-Field who had to leave early.

VOTED: That the Unitarian Universalist Common Endowment Fund, LLC, invest $2 million of the assets of the UUCEF, LLC into the HCAP Fund IV, (the "Investment Fund"), on the terms set forth in the subscription agreements and offering documentation therefore submitted by the Investment Fund to Timothy Brennan, Treasurer of the Unitarian Universalist Association, subject to such changes and amendments therein as he may determine to be appropriate; and

VOTED: To authorize the Treasurer, Timothy Brennan, and the Chief Operating Officer, Carey McDonald, each individually, acting singly or together, to execute and deliver documents to effect the foregoing, all with such terms and conditions as are approved by the signatory, with such officer's signature being conclusive evidence of approval; and

VOTED: To ratify and approve all that the Treasurer, Timothy Brennan, has done or may do in connection with said investments.

**9. Performance review – NEPC**

- In the third quarter, the endowment returned 2.8% gross of fees, ranking 43rd in the peer universe. It outperformed both the allocation and policy indices.
- Over the trailing one-year period, it returned 8.6% gross of fees, ranking 12th in the peer unaversive and outperformed both the allocation and policy indices.
- Over the ten-year period, performance ranked 36th placing it in the second quartile of the peer universe.
- In October the fund performed much as expected considering the way its positioned and the market conditions. Saw a lot of risk aversion despite seeing the lowest unemployment rate in a while. Rising interest rates also caused some concern.

**10. ESG (Environmental, Social and Governance) Scorecards**

- NEPC developed the ESG Scorecard, goal is to have ESG ratings on all of their products.
- Each assessment involves a firm level and strategy level component.
- Quantitative process assigns each strategy a score of 1 through 5 based on the sophistication of ESG integration, ranging from best tin class to no integration.
- Produce a qualitative assessment, outlining the reasons for the scare and any unique aspects to ESG integration within the strategy.
- Working through our portfolio utilizing the system and provided ratings on our Fixed Income holdings.
- Anticipate updates to occur annually however, encourage firms to notify them if there's a big change and they may be evaluated sooner.

**Next Meeting Date**
**February 21-22, 2019**

# UUA Manager Summary

**Manager:** Rhumbline Custom Screened Russell 1000 Value
**Benchmark:** Russell 1000 Value
**Asset Class:** Large cap domestic equity - value
**Role in Portfolio:** Growth Assets
**Description:** The manager optimizes a portfolio of large cap value equities based on their Environmental, Social and Governance ("ESG") ratings. The fund should have relatively low tracking error or variance from the benchmark as it is a largely passive investment.

**Manager:** Sands Select Growth Equity
**Benchmark:** Russell 1000 Growth
**Asset Class:** Large cap domestic equity - growth
**Role in Portfolio:** Growth Assets
**Description:** The manager uses a fundamental, bottom up research approach to stock investing. Their investment process produces a concentrated portfolio, aggressively seeking equities with high growth opportunities. The manager is currently restricted from investing in certain sectors and industries, including defense, fire arms, tobacco, and nuclear weapons. Also the manager cannot invest in companies that engage in predatory lending practices, have poor environmental practices, and companies that have questionable employment practices and possible human rights offenses.

**Manager:** Wellington SMID Cap Value
**Benchmark:** Russell 2500 Value
**Asset Class:** SMID cap domestic equity - value
**Role in Portfolio:** Growth Assets
**Description:** Wellington has a bottom-up investment philosophy, believing that individual stock selection is the most predictable way to generate strong returns. The team has a contrarian value investment philosophy, seeking to buy high-quality companies at a discount. The portfolio holds 60-90 names and positions, which typically are initiated at 80 bps and range from 50 bps to 3.5%, depending on the team's conviction.

**Manager:** WCM Small Cap Growth
**Benchmark:** Russell 2000 Growth
**Asset Class:** Small cap domestic equity - growth
**Role in Portfolio:** Growth Assets
**Description:** WCM utilizes a fundamental, bottom-up research process that relies on internal sources to generate potential buy candidates. They do this through the ongoing review of news and results across the investable universe on an industry-by-industry, analyst-by-analyst basis and the continual monitoring of trends and factors that would impact company fundamentals. WCM's emphasis is on understanding the drivers of returns on invested capital, the opportunities available to companies to deploy additional capital at attractive rates of return, and the ability of management teams to capitalize on those opportunities.

**Manager:** MFS International Concentrated Equity
**Benchmark:** MSCI EAFE
**Asset Class:** Developed international equity - core
**Role in Portfolio:** Growth Assets
**Description:** The manager focuses on identifying companies with sustainable above-average growth and purchasing those companies at attractive valuations. The manager is a United Nations Principles for Responsible Investment (UNPRI) signatory and integrates their evaluation of a company's key ESG risks and opportunities into their overall security analysis to the extent they believe that such factors are material to and have an economic impact on shareholder value. The manager will invest between 5-10% in emerging markets.

**Manager:** Boston Common International Equity
**Benchmark:** MSCI EAFE
**Asset Class:** Developed international equity - core
**Role in Portfolio:** Growth Assets
**Description:** The fund seeks to outperform broad international equity markets while employing ESG screens. The fund employs positive ESG screens rather than negative screens and looks to identify progressive companies rather than defensive companies.

**Manager:** SEG Baxter Street Fund
**Benchmark:** MSCI ACWI ex USA
**Asset Class:** Developed international equity (mid/small cap focus)
**Role in Portfolio:** Growth Assets
**Description:** The Baxter Street Strategy is an international long only strategy that invests in companies across the market cap spectrum. The portfolio is benchmark agnostic and highly concentrated, with roughly 45 names in the portfolio, 15 of which will comprise almost 50% of the portfolio. SEG seeks to identify businesses with steady predictable growth, high returns on capital and well established barriers to competition. SEG does have the ability to opportunistically hedge currency exposure.

**Manager:** RBC Emerging Market Equity
**Benchmark:** MSCI Emerging Markets index
**Asset Class:** Emerging market equity
**Role in Portfolio:** Growth Assets
**Description:** RBC utilizes top down thematic thinking to influence the stock selection process into more attractive areas of the market. The strategy seeks to identify growth themes within country, industry, or region and will invest in those companies with high cash flow and industry dominance. The process of utilizes both bottom up and top down research to lead to a competitive advantage. The strategy is focused on identifying strong company managements especially those that have delivered in the past. Attractive companies are those that have strong franchises and a real sustainable competitive edge.

**Manager:** Breckinridge Capital Advisors Sustainable Fixed Income & Treasury
**Benchmark:** Barclays Gov't/Credit Intermediate
**Asset Class:** Domestic Fixed Income
**Role in Portfolio:** Deflation hedging assets
**Description:** Sustainable fixed income is a high quality, intermediate term fixed income strategy that incorporates both fundamental credit analysis as well as ESG analysis into the decision making process. The strategy will invest across the corporate, taxable municipal, US gov't/agency and supranational sectors. Breckinridge will analyze ESG data in an effort to identify investments they feel are well suited to meet future obstacles. Additionally, the strategy will adhere to specific sector and security restrictions set forth by UUA in an effort to align the portfolios strategy with the mission and values of the organization.

**Manager:** Loomis Sayles Strategic Alpha Trust
**Benchmark:** Barclays Aggregate
**Asset Class:** Unconstrained Bonds
**Role in Portfolio:** Absolute Return
**Description:** Strategic Alpha is an opportunistic global fixed income strategy with flexible guidelines that invests across multiple fixed income sectors. The strategy seeks to take advantage of short-term tactical opportunities and longer-term structural opportunities within the broad fixed income market. The Loomis Sayles Strategic Alpha Trust strategy takes on active long/short exposures to global yield curves, credit, and currencies with extensive tail-risk hedges. The strategy also has the ability to shift duration, ranging from -2 years to +5 years.

**Manager:** Franklin Templeton Global Multi Sector
**Benchmark:** Barclays US Govt/Credit
**Asset Class:** Opportunistic Fixed Income
**Role in Portfolio:** Absolute Return
**Description:** The global bond team employs a bottom-up, research-driven investment process characterized by fundamental research of investment opportunities. The strategy is formulated by combining qualitative macroeconomic analysis with quantitative tools to determine the most attractive opportunities across duration, currency, and credit. The team applies an active, benchmark-agnostic style, pursuing absolute returns over a one- to three-year time horizon. While securitized bonds are included in the opportunity set, they have not been a large component of the strategy historically.

**Manager:** Brandywine Global Opportunistic Fixed Income
**Benchmark:** CITI WGBI
**Asset Class:** Global Multi Sector
**Role in Portfolio:** Growth Assets
**Description:** Brandywine undertakes a macro-economic analysis on a country-by-country basis in order to rank opportunities according to real interest rate levels. Inflation trends, political risks, monetary trends, business cycle, and liquidity measures are all considered. Further analysis is centered on those countries that exhibit the highest real interest rates with sustainable economic conditions. Currency valuations are then examined relative to historical averages and differentials in an effort to determine if that valuation supports an investment. The majority of investments are allocated to sovereign government debt. When credit spreads are perceived to be a compelling value, however, Brandywine may allocate to spread sectors such as mortgage-backed securities and corporate bonds. Duration is determined at the country level, although adjustments may be made at the portfolio level according to the overall outlook.

**Manager:** Loomis Sayles Multi Sector Full Discretion
**Benchmark:** Barclays US Govt/Credit
**Asset Class:** Global Multi Sector
**Role in Portfolio:** Growth Assets
**Description:** The Multisector Full Discretion strategy seeks to exploit the complete range of global fixed income insights generated by the Loomis Sayles Fixed Income organization with return maximization as the primary objective. Benchmarks do not play a significant role in constructing the portfolios. Guidelines are very flexible providing the opportunity to pursue investment ideas in a wide range of global fixed income sectors. Investment flexibility authorizes significant non-dollar, emerging markets and convertible debt investments. Opportunistic investments in these non-benchmark sectors are incorporated to manage portfolio credit quality and for total return contribution.

**Manager:** GMO Benchmark Free Allocation Fund
**Benchmark:** 65% MSCI World and 35% BC Aggregate
**Asset Class:** Global asset allocation
**Role in Portfolio:** Growth assets (with some inflation & deflation hedging assets)
**Description:** The manager has the ability to invest in both equities and fixed income, and tactically shift allocations as opportunities present themselves. The fund is managed by a team, where quantitative forecasts identify opportunities for high real returns across capital markets. Overweight's to attractive asset classes and underweights to less attractive asset classes are driven entirely by the judgment of the asset allocation team with positions generally scaled to reflect the magnitude of mispricing.

**Manager:** Entrust Capital Diversified Fund
**Benchmark:** HFRI Fund of Funds Composite index
**Asset Class:** Hedge funds
**Role in Portfolio:** Growth assets
**Description:** The manager invests primarily in event-driven, directional-credit, activist, and equity long/short strategies in blue chip, brand name hedge managers while providing investors with a high amount of transparency into the underlying investments.

**Manager:** Cevian Capital II
**Benchmark:** HFRX Event Driven Index
**Asset Class:** Hedge funds
**Role in Portfolio:** Growth assets
**Description:** Cevian Capital II is a concentrated activist hedge fund that hedges currency exposure and will invests in mid to large cap companies listed in the Nordic region [Sweden, Finland, Denmark, and Norway], UK, and other western parts of Europe. Their strategy is to target undervalued companies, where the perceived undervaluation stems from mis-managed operations, inefficient capital structure, and/or poor corporate governance structure. Cevian quantifies 'value' in terms of the company's enterprise value, operating margins, corporate governance, or equity value. The fund tries to improve this value by targeting those specific areas of weaknesses.

**Manager:** Orchard Landmark
**Benchmark:** JP Morgan Corporate EMBI
**Asset Class:** Private Markets/Opportunistic
**Role in Portfolio:** Growth assets
**Description:** Orchard Landmark structures private credit transactions for family-owned businesses in Asia Pacific, leveraging long-standing local teams with investment and legal talent, established deal structuring track-records; and established borrower relationships. They play off the demand-supply imbalance in Asia Pacific capital markets for short-term credit to both small-to-medium enterprises and corporations looking for growth capital. As such, Asian private credit affords a potential return premium for illiquidity, higher inflation, and emerging market risk.

**Manager:** FEG Private Opportunities Fund
**Benchmark:** Private Equity Benchmark
**Asset Class:** Private Markets/Opportunistic
**Role in Portfolio:** Growth assets
**Description:** FEG Private Opportunities Fund is a fund of funds with the flexibility to invest globally across private equity, special situations, and private real assets.

**Manager:** Brockton Capital Fund III
**Benchmark:** NCREIF Property Index
**Asset Class:** Private Markets/Opportunistic
**Role in Portfolio:** Growth assets
**Description:** Brockton Capital Fund III will follow a value-add/opportunistic strategy of buying distressed or neglected assets, repositioning them and, once stabilized, selling them in the institutional market. They will invest across various asset types, including office, residential, industrial, retail, mixed use, and other specialty real estate (for example, senior housing). Brockton invests across the United Kingdom although, due to the dominant market size of the South East, has a focus on Greater London and the surrounding areas.

**Manager:** SJF Ventures
**Benchmark:** US Private Equity
**Asset Class:** Private Markets/Opportunistic
**Role in Portfolio:** Growth assets
**Description:** SJF will pursue a fundamental investment strategy that will look to invest in companies in the expansion stage business in the clean energy and efficiency, asset recovery and recycling, food and sustainable agriculture, education, health and wellness, and workforce development/software industries. SJF primarily focuses on companies with innovative social and environmental solutions embedded within their business models. The firm seeks values-driven entrepreneurial teams and looks for positive impact business models that can simultaneously scale impact and financial results, most often seen in impactful product and service delivery.

**Manager:** Canvas Distressed Fund
**Benchmark:** HFRI Event Driven: Distressed/Restructuring Index
**Asset Class:** Private Markets/Opportunistic
**Role in Portfolio:** Growth assets
**Description:** Canvas Distressed Fund will invest in Brazil-focused single name distressed corporate debt and judicial claims (federal claims and quasi-government claims). The Fund intends to buy single name corporate debt at steep discounts. Canvas does not attempt to restructure distressed companies; it will instead sell or auction the debt's collateral assets to recover value. The Fund will also invest in federal claims, which are referred to as Precatorio, and quasi-government and private claims against entities such as the state-owned utility companies. This strategy benefits from several key macro factors in Brazil: High interest rates, shrinking credit facilities, lack of large investment management competitors post 2008-09, a drastic increase in corporate bankruptcies, and reduced foreign direct investment following the 2015 Brazilian debt downgrade.

**Manager:** Generation IM Sustainable Solutions Fund III
**Benchmark:** Private Equity Benchmark
**Asset Class:** Private Markets/Opportunistic
**Role in Portfolio:** Growth assets
Generation believes that we are in the early stages of a systemic, secular, multidecade transition to a sustainable economy, and will use their unique deep-dive sector roadmaps to identify investment opportunities to assist with the transition. They will focus on private growth stage opportunities with broad sustainable solution themes, which they define as providing goods and services for a low-carbon, prosperous, equitable, healthy and safe society. The Fund will invest across sectors including transportation, agriculture, energy, industrials and consumer, and will invest primarily in North America and Europe. Their typical role will be an active minority investor, providing growth capital and market insight to help accelerate market adoption. In their underwriting, Generation looks to target high-quality businesses and high quality management, focusing on businesses run by trusted, talented, mission-driven management teams.

# NEPC UPDATES

# HIGHLIGHTS OF FOURTH QUARTER HAPPENINGS AT NEPC


## NEPC INSIGHTS

- Defined Contribution Financial Wellness Results: Is All Well(ness) and Good?
- Low-Basis Assets: Developing a Plan to Avoid Investor Inertia
- Defined Contribution: Active Management and Marriage, Part 1
- Defined Contribution: In-Laws & Income Solutions, Part 2
- Taking Stock: NEPC Drops Fed Gradualism Theme
- It's November: Year-End Tax-Planning Starts Now
- 2018 Third Quarter Market Thoughts
- Partial Annuitizations: The Go-To Strategy for Pension Risk Transfers
- NEPC 2018 Corporate DB Outlook Results: Plans to De-Risk Portfolio and Invest in Alternative Assets
- Taking Stock: Hedge Funds: A New World Post-Crisis
- Don't Let the Tail Wag the Dog: For Insurers, It's Investment Discipline First, Capital Efficiency Second
- Taking Stock: Decision Time for Pension Plans and Q3 Liability Performance
- NEPC's 2018 Hedge Fund Operational Due Diligence Survey Results
- Make an Impact in the Season of Giving
- NEPC's Year-End 2018 Endowments & Foundations Survey Results: Storms Ahead, But Staying the Course
- Taking Stock: Making Sense of Recent Market Movements

## WEBINAR REPLAYS

- NEPC's Third Quarter 2018 Quarterly Markets Call
- Total Enterprise Management for Endowments and Foundations

**To download NEPC's recent insights and webinar replays, visit: [www.NEPC.com/insights](www.NEPC.com/insights)**

# SAVE THE DATE


MAY 7-8, 2019 | BOSTON PARK PLAZA | #NEPC_CONFERENCE

## NEPC's 24th Annual Investment Conference

- Gradual or dramatic, the economic and political worlds around us are going through major transition. Whether it be global resources, climate, political power, technology, demographics or personal habits, adapting and advancing through these shifts has become a regularity. Most importantly, as we transition our daily processes, so do we transition our investment approaches. Please join us for **NEPC's 24th Annual Investment Conference on May 7-8, 2019** at the Boston Park Plaza Hotel, as we address the 'Transitions' we are experiencing and what lies ahead.

- Please reach out to Sarah Winrow at swinrow@nepc.com if you have any questions.

# MARKET ENVIRONMENT & OUTLOOK

NEPC, LLC

# PERFORMANCE OVERVIEW

## Q4 Market Summary

| Macro | | | Equity | | | Credit | | | Real Assets | | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| US Dollar | VIX | US 10-Yr | S&P 500 | MSCI EAFE | MSCI EM | US Agg. | High Yield | Dollar EMD | Oil | Gold | REITS |
| 1.1% | 13.3 | -38 bps | -13.5% | -12.5% | -7.5% | 1.6% | -4.5% | -1.2% | -38.0% | 7.7% | -6.0% |

- **Global equities sold-off during the quarter due to concerns related to fed funds rate increases , fears of a global slowdown, and trade uncertainties**
- **The sharp decline in crude oil prices weighed on commodities overall and US high-yield bonds, which have meaningful portion to the energy sector**
- **The Federal Reserve hiked rates for the fourth time in 2018 with one to two additional rate increases expected for 2019**

Market segment (index representation) as follows: US Dollar (DXY Index), VIX (CBOE Volatility Index), US 10-Year (US 10-Year Treasury Yield), S&P 500 (US Equity), MSCI EAFE Index (International Developed Equity), MSCI Emerging Markets (Emerging Markets Equity), US Agg (Barclays US Aggregate Bond Index), High Yield (Barclays US High Yield Index), Dollar EMD (JPM Emerging Market Bond Index), Crude Oil (WTI Crude Oil Spot), Gold (Gold Price Spot), and REITs (NAREIT Composite Index).

# MACRO PERFORMANCE OVERVIEW

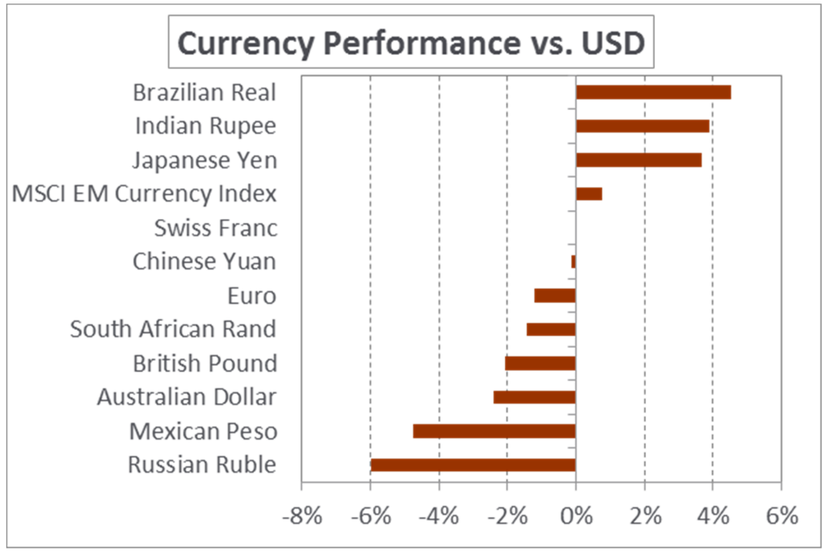
## Q4 Macro Market Summary

- **Global growth has been revised lower and the outlook is likely to moderate in 2019**
- **Developed government bond yields decreased as demand for safe haven assets increased**
- **Global liquidity tightened as the Fed raised rates and the ECB ended the expansion of its QE program**

| Central Banks | Current Rate | CPI YOY | Notes from the Quarter |
|---|---|---|---|
| Federal Reserve | 2.25% - 2.50% | 2.2% | The Fed increased its benchmark interest rate 0.25% to 2.25% - 2.50% in December |
| European Central Bank | 0.0% | 1.9% | The ECB maintained its current benchmark interest rate, but ended the expansion of its QE bond-buying program |
| Bank of Japan | -0.1% | 0.8% | The BoJ will continue its ultra-easy QE program with inflation remaining well below target |

| | Yield 09/30/18 | Yield 12/31/18 | \|Δ\| |
|---|---|---|---|
| US 10-Yr | 3.06% | 2.68% | -0.38% |
| US 30-Yr | 3.21% | 3.01% | -0.19% |
| US Real 10-Yr | 0.92% | 0.97% | 0.05% |
| German 10-Yr | 0.47% | 0.24% | -0.23% |
| Japan 10-Yr | 0.13% | 0.00% | -0.13% |
| China 10-Yr | 3.63% | 3.31% | -0.32% |
| EM Local Debt | 6.62% | 6.46% | -0.17% |

Source: Bloomberg

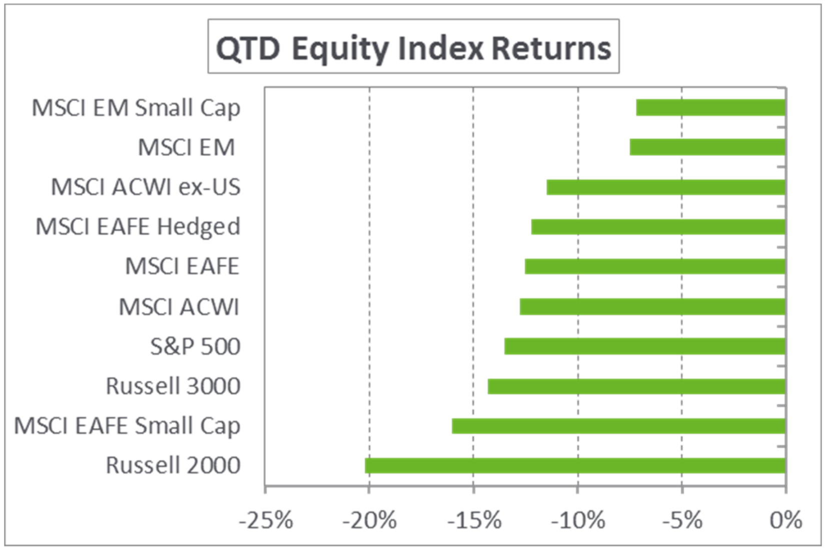



Source: Bloomberg

# EQUITY PERFORMANCE OVERVIEW

## Q4 Equity Market Summary

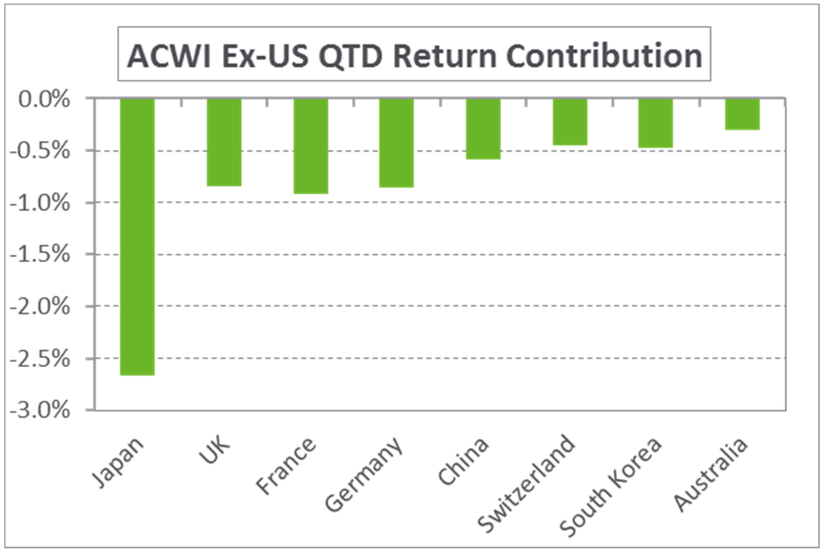
- **US equities led the global equity sell-off and developed market indices moved into a bear market**
- **Equities markets were volatile as ongoing trade concerns and fears of global growth slowdown weighed on investor sentiment**




Source: MSCI, Russell, S&P, Bloomberg

| Russell 3000 QTD Sector Return Contribution | |
|---|---|
| **Information Technology** | -3.35% |
| **Consumer Discretionary** | -1.80% |
| **Financials** | -1.80% |
| **Industrials** | -1.82% |
| **Consumer Staples** | -0.35% |
| **Energy** | -1.42% |
| **Materials** | -0.43% |
| **Health Care** | -1.52% |
| **Real Estate** | -0.22% |
| **Communication Services** | -1.64% |
| **Utilities** | 0.02% |

Source: Russell, Bloomberg

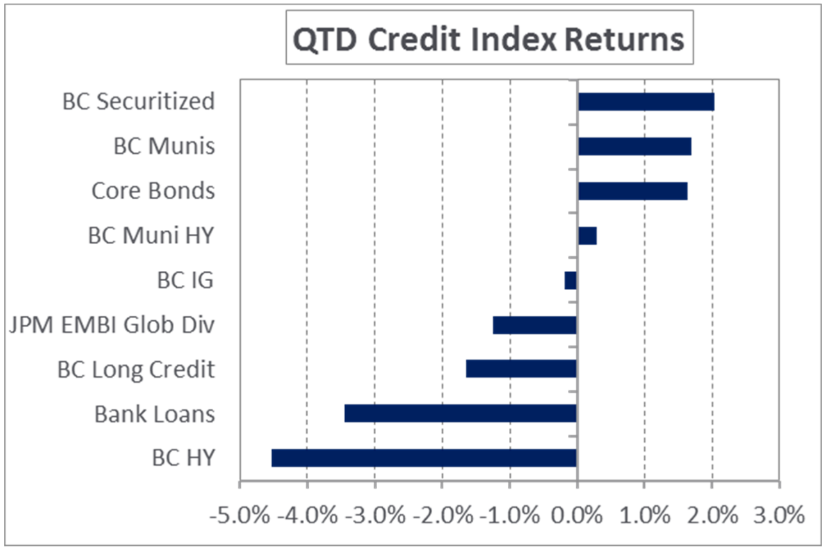



Source: MSCI, Bloomberg. QTD top country contributors to index return

# CREDIT PERFORMANCE OVERVIEW

## Q4 Credit Market Summary

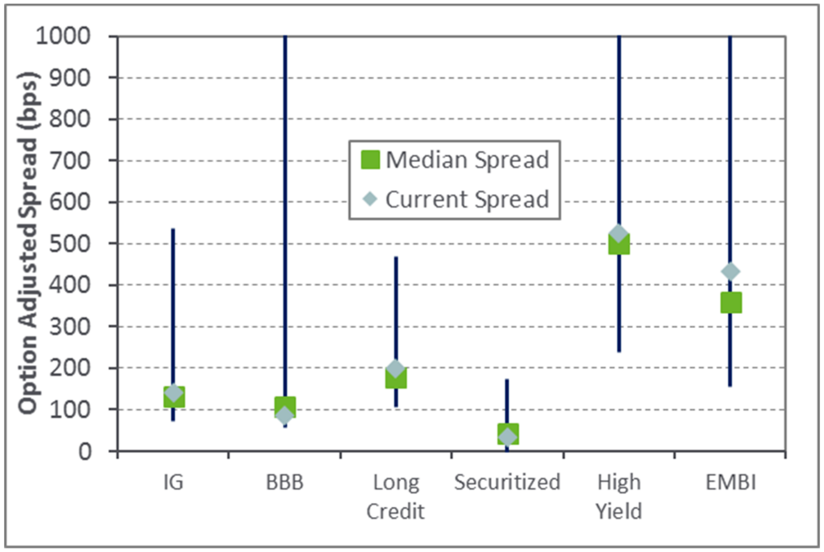
- **Credit spreads broadly increased across most areas of the market**
- **Riskier assets underperformed as demand for high quality and safe-haven assets increased**
- **Bank loans declined by 3.4% as market outflows weighed on asset prices**




Source: Barclays, JPM, S&P, Bloomberg

| Credit Spread (Basis Points) | 09/30/18 | 12/31/18 | \|Δ\| |
|---|---|---|---|
| BC IG Credit | 100 | 143 | 43 |
| BC Long Credit | 153 | 200 | 47 |
| BC Securitized | 28 | 35 | 7 |
| BC High Yield | 316 | 526 | 210 |
| Muni HY | 184 | 236 | 52 |
| JPM EMBI | 362 | 435 | 73 |
| Bank Loans - Libor | 281 | 414 | 133 |

Source: Barclays, Merrill Lynch, JPM, Bloomberg, NEPC

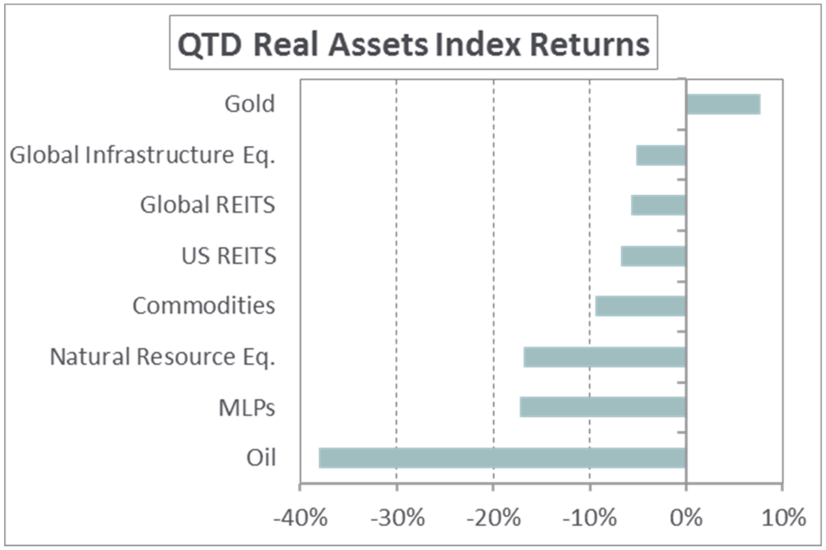



Source: Barclays, JPM, S&P, Bloomberg; as of 01/31/2000

# REAL ASSETS PERFORMANCE OVERVIEW

## Q4 Real Assets Market Summary

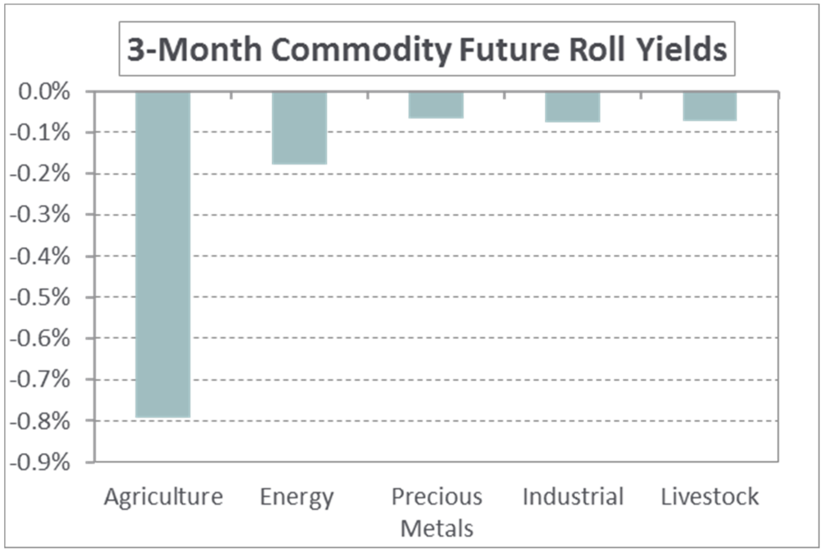
- **Oil declined 38% for the quarter due to an increase in supply led by US shale production**
- **MLPs decreased 17.3% under pressure from falling energy prices and investor outflows**
- **Commodities declined overall due to the substantial decline in oil markets**




Source: S&P, NAREIT, Alerian, Bloomberg

| Real Asset Yields | 09/30/18 | 12/31/18 |
|---|---|---|
| MLPs | 8.0% | 9.0% |
| Core Real Estate | 4.4% | 4.5% |
| US REITs | 4.2% | 4.6% |
| Global REITs | 3.7% | 3.9% |
| Global Infrastructure Equities | 4.5% | 4.6% |
| Natural Resource Equities | 3.5% | 4.5% |
| US 10-Yr Breakeven Inflation | 2.1% | 1.7% |
| Commodity Index Roll Yield | -1.2% | -6.1% |

Source: NCREIF, Alerian, NAREIT, S&P, Bloomberg




Source: Bloomberg, NEPC Calculated as of 09/28/2018

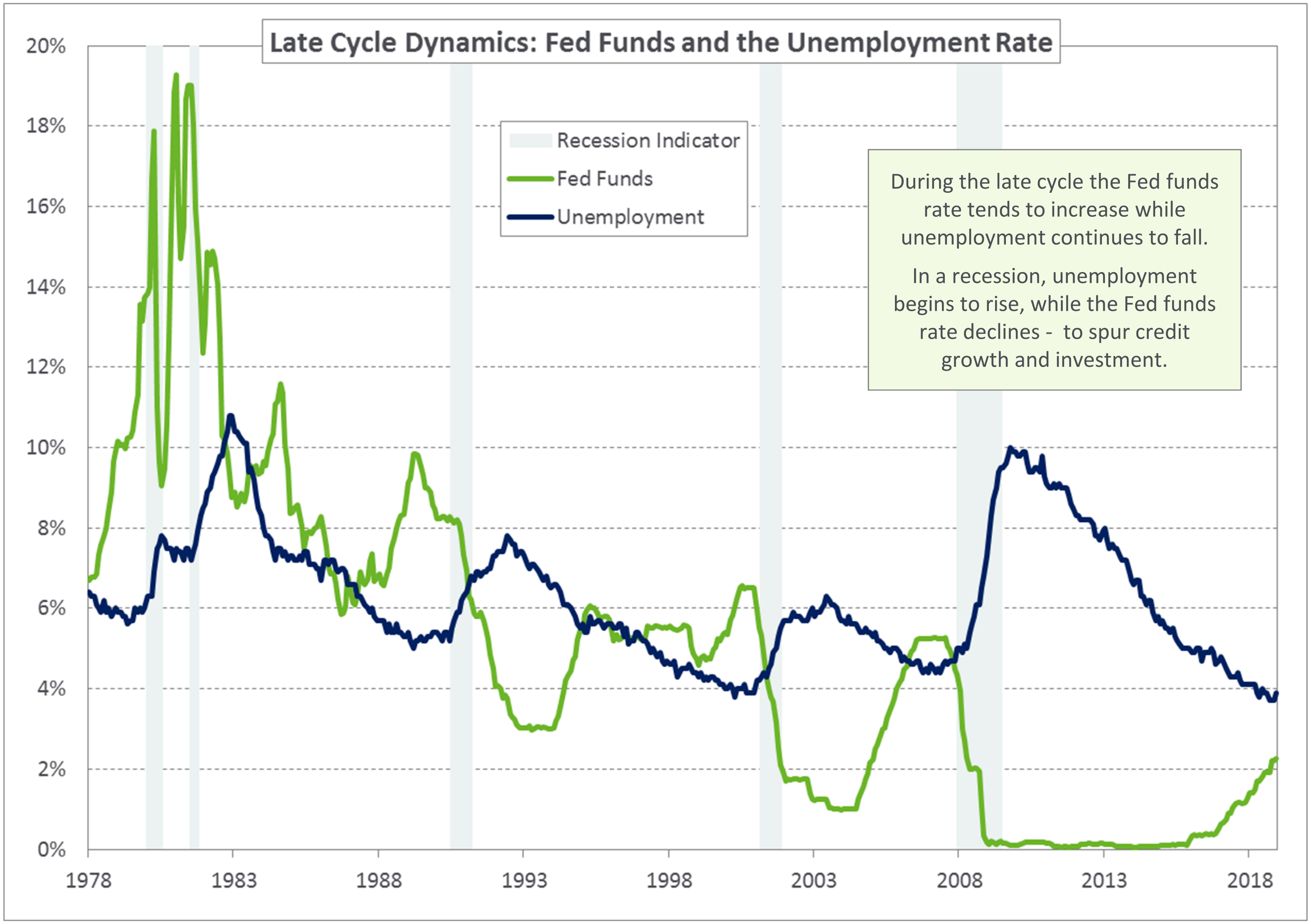
# 2019 NEPC OUTLOOK AND OPPORTUNITIES

NEPC, LLC

# 2019 SUMMARY OUTLOOK

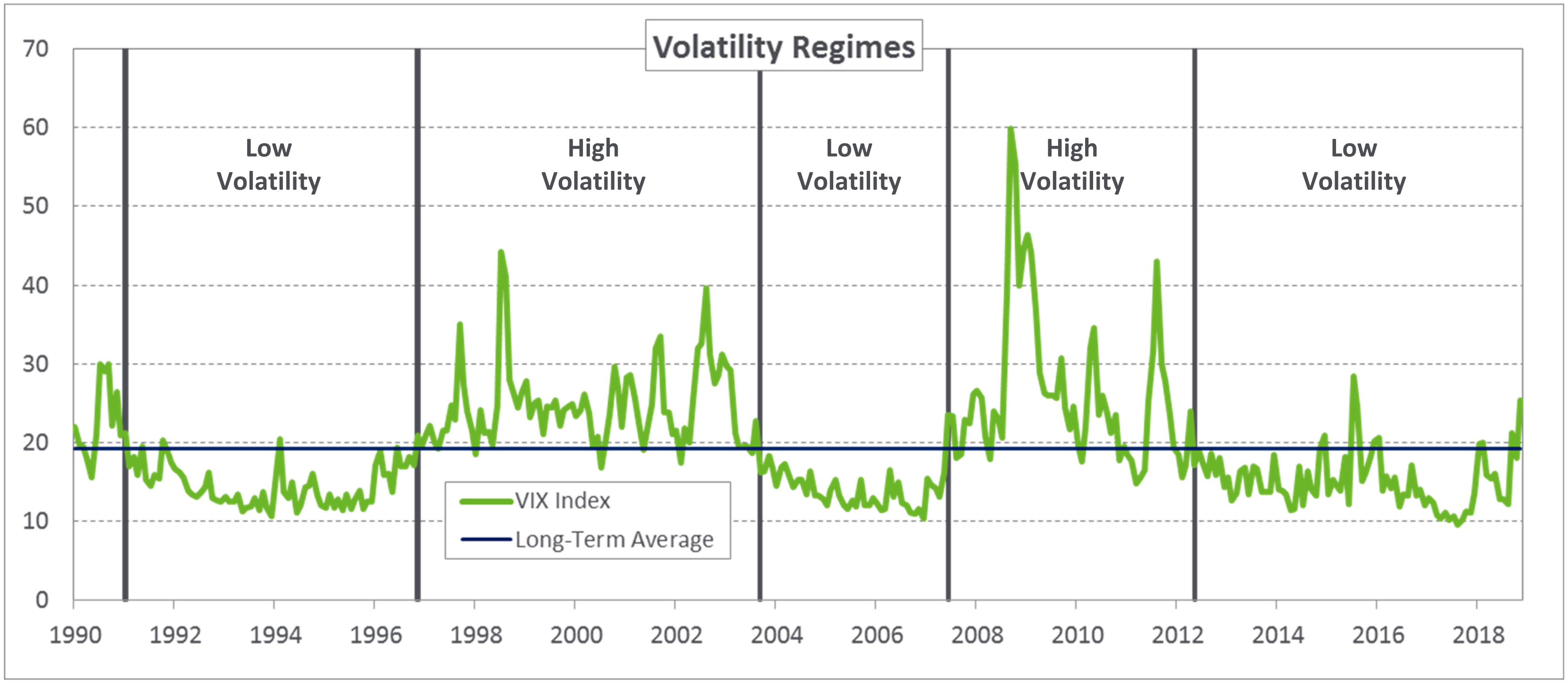
- **Market dynamics shifted significantly in 2018, with Fed policy and US-China trade tensions disrupting many of our key market themes**
  - As a result we have removed Federal Reserve Gradualism, Extended US Economic Cycle, and Global Synchronized Growth as key themes
- **We believe we have entered a late-cycle market environment and the dynamics of such an environment will be a focal point for investors**
  - However, late-cycle does not mean end of cycle and equities can still offer lucrative returns, though are likely to be accompanied by additional volatility
- **We encourage investors to rebalance developed market equity exposure**
  - We have downgraded our outlook for non-US developed equities and removed the overweight recommendation from our current opportunities list
  - The main driver of the change is negative sentiment surrounding economic and political conditions of Europe, concerns related to the earnings growth outlook, and central banks paring back their support of easy financial conditions
- **The transition to a late-cycle is accompanied with a more risk-averse investment outlook as economic risks become more pronounced**
  - After years of low volatility and outsized equity returns, the market is likely to transition to a higher volatility regime, which offers more risk but also tactical opportunities
  - We recommend reducing lower quality credit exposure as higher default rates are a common aspect of late-cycle market dynamics

# THE ECONOMIC CYCLE IS IN TRANSITION




*Source: St. Louis Federal Reserve, NBER*

# BRACE FOR HIGHER VOLATILITY IN 2019




*Source: S&P, CBOE, Bloomberg, NEPC*

- **Equity volatility regimes tend to persist over prolonged periods and 2018 was witness to a material shift higher in equity volatility**
  – We encourage investors to raise "safe haven" fixed income exposure as trends associated with each of our key market themes suggest higher volatility is on the horizon

- **2019 may prove to be a difficult year for markets but higher volatility can also offer a greater number of opportunities for dynamic investors**
  – Investors should be prepared to act in a higher volatility regime, as dynamic opportunities may arise to deploy safe-haven assets back into US equity and other risk assets

# 2019 THEMES AND OPPORTUNITIES

## Key Market Themes

Late Cycle Dynamics

Tightening Global Liquidity

China Transitions

Globalization Backlash

## Current Opportunities

Rebalance Developed Market Equities

Raise Safe-Haven Fixed Income Exposure

Reduce Lower Quality Credit Exposure

Maintain Overweight to Emerging Market Equities

Add Long Volatility Exposure

Fund Emerging Local Debt

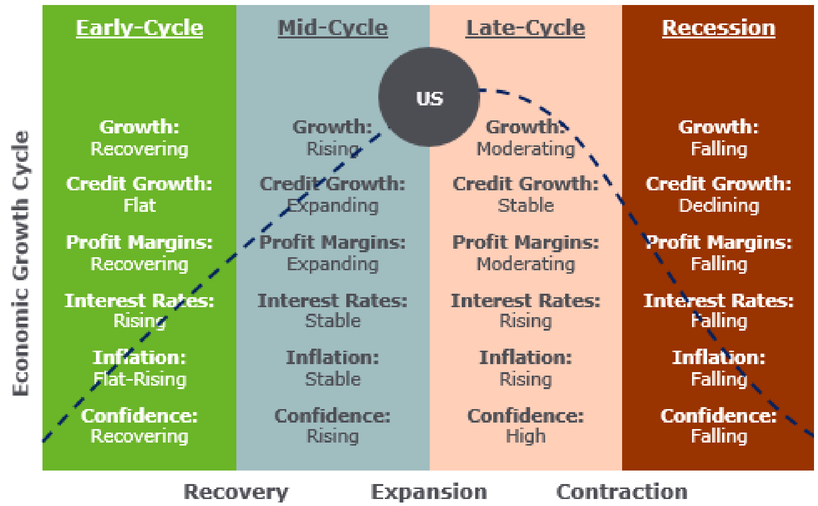
# KEY MARKET THEMES

# KEY MARKET THEMES

## Late Cycle Dynamics

- **The US economy has transitioned from a mid- to late-cycle environment**
  - Late cycle does not mean end of cycle; equity markets can offer strong returns and abandoning risk assets early may detract from long-term results
  - Positive economic data can support continued US economic expansion and further equity gains
  - However, moving into a late cycle negatively skews the range of outcomes and our investment outlook reflects a more risk-averse posture with a bias toward selling low quality credit and increasing safe-haven fixed income exposure

- **Trends among key indicators suggest a transition to late-cycle has occurred**
  - These indicators provide a useful guide to recognize changes in the economic cycle
  - Despite the recent trend, there is minimal evidence in economic/financial indicators to suggest that a US recession is imminent




| US Indicators | Late-Cycle Trend | Current Trend |
|---|---|---|
| Equities | Peaking | Uncertain |
| Interest Rates | Rising | Yes |
| Yield Curve | Flattening | Yes |
| Inflation | Rising | Yes |
| GDP Growth | Moderating | Uncertain |
| Credit Spreads | Stable/Rising | Yes |
| Output Gap | Near/Above Potential | Yes |
| Unemployment | Falling/Bottoming | Uncertain |

*Source: (Top) NEPC*
*Source: (Bottom) NEPC*

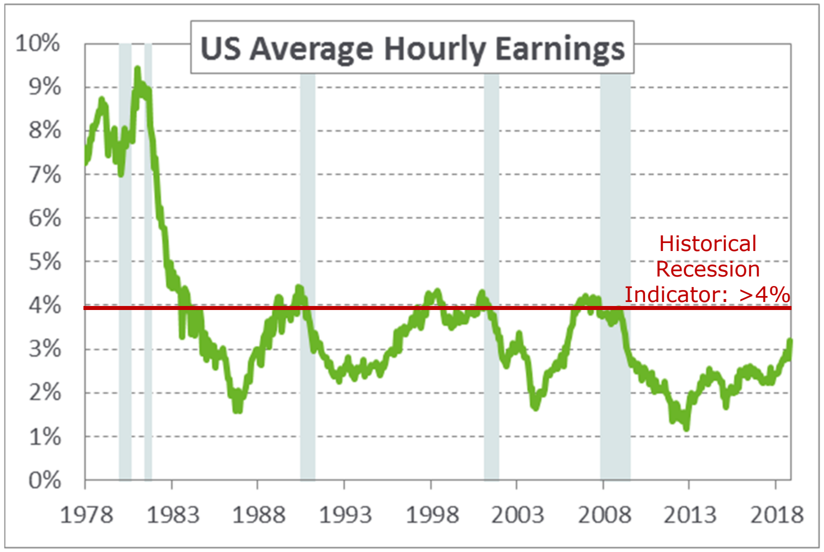
# KEY MARKET THEMES

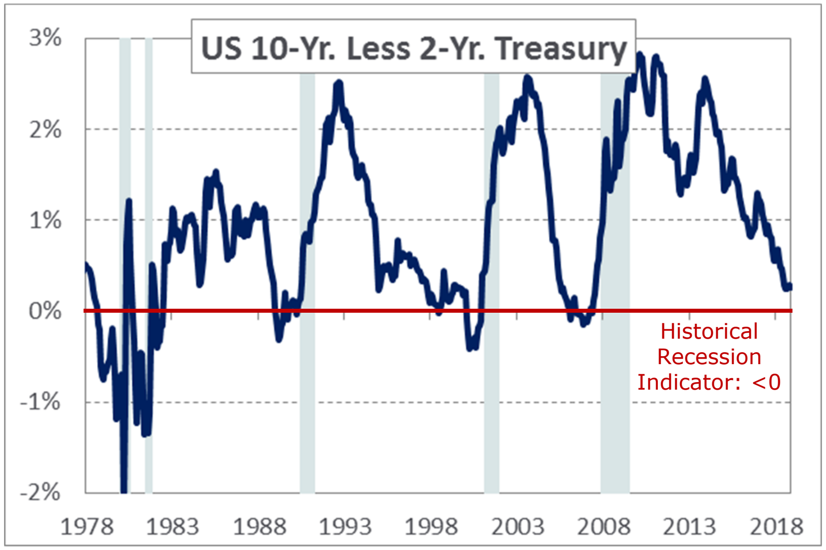
## Late Cycle Dynamics

- **Key indicators are helpful guides, but all business cycles are different**

| Late-Cycle Dynamics | | |
|---|---|---|
| | ⬆ | Growth: This expansion has been the longest ever, but cumulative GDP growth remains well below average. Sustainability of current growth from fiscal stimulus remains unclear. |
| | ⬆ | Interest Rates: The Fed has methodically increased rates off post-crisis lows. They appear to be on a tightening path to push rates above the long-term neutral rate through 2019 and beyond. |
| | ⬆ | Inflation: Despite record low unemployment rates, inflation pressures have been slow to materialize relative to history. Yet US inflation is up nearly 2% over the last three years, but remains below historic levels. |

- **We are evaluating market indicators such as the yield curve that would lead us to adopt a defensive outlook**
  - Should the yield curve invert and economic metrics weaken, our recommendation will be to materially increase safe-haven fixed income and reduce equity exposure
  - There is a greater need to seek portfolio balance in a late cycle, while the increased volatility may offer tactical opportunities



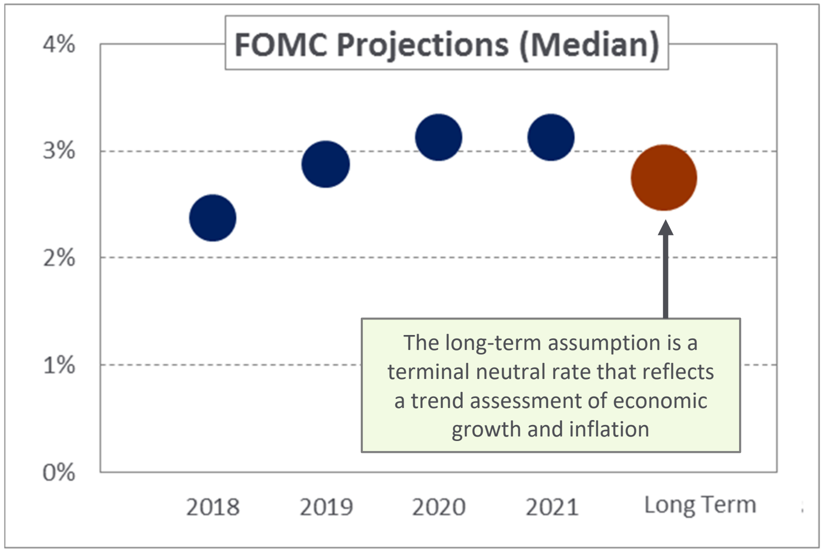



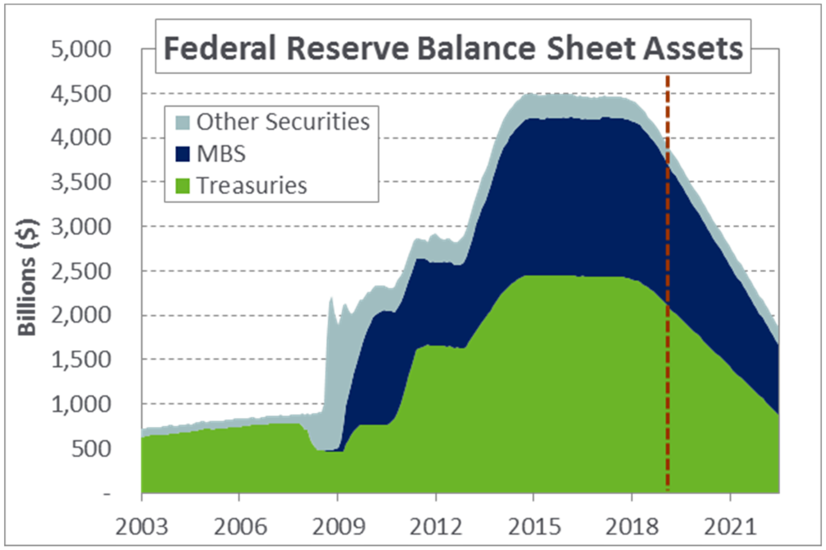

*Source: (Top) Bloomberg, NEPC*
*Source: (Bottom) Federal Reserve Bank of St. Louis, NEPC; Light blue shading indicates recession*

# KEY MARKET THEMES

## Tightening Global Liquidity

- **The Fed has shifted from a "lower for longer" policy to a more balanced posture of raising rates in line with higher inflation**
  - Based on the FOMC projections, the Fed is communicating a tightening path as their forecast for interest rate hikes moves beyond the long-term neutral rate
  - Markets are discounting a muted pace of hikes relative to Fed projections, creating potential for capital market disruption. However, the Fed's bias appears to be to raise rates in the absence of market turmoil
- **The Fed's balance sheet has shrunk by $400B and will continue to decline by a monthly maximum target of $50B**
  - Normalization of the balance sheet is a form of monetary policy tightening as liquidity is methodically extracted from the system
  - The impact of the balance sheet reduction is untested – potentially mirroring how the Fed's balance sheet expansion (QE) had easing effects



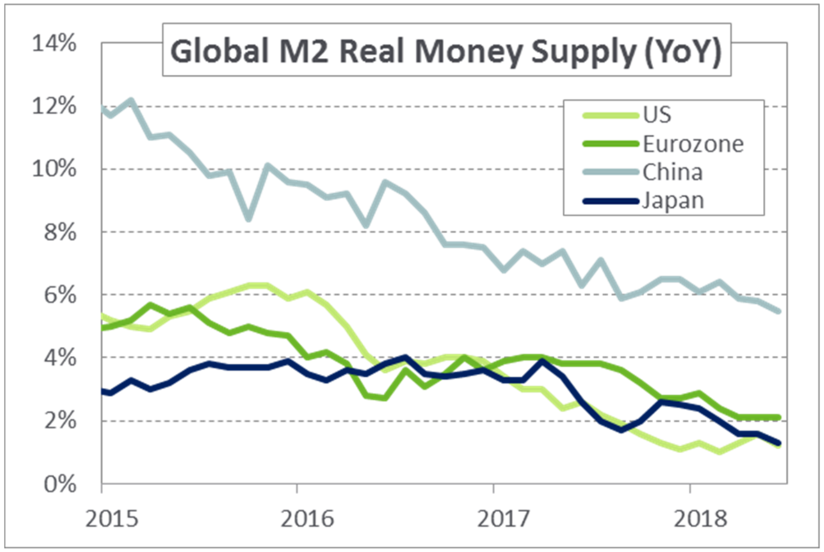



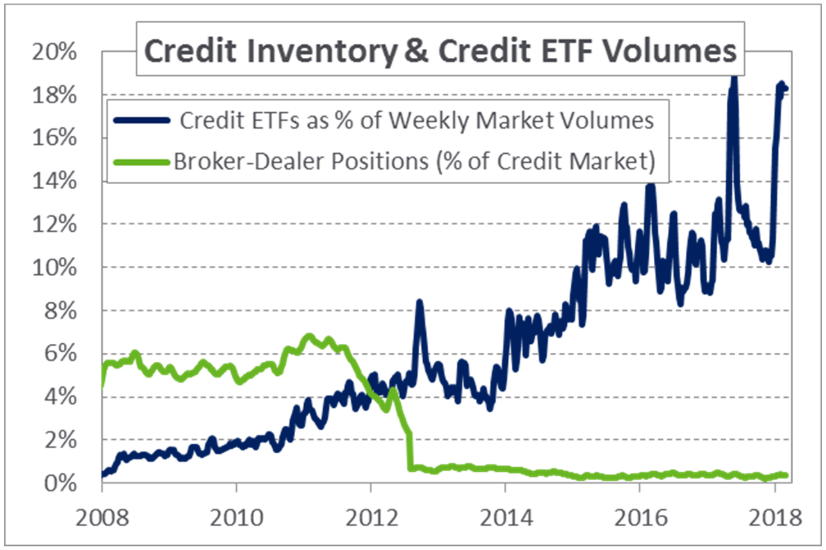

*Source: (Top) Bloomberg, NEPC*
*Source: (Bottom) Bloomberg, NEPC*

# KEY MARKET THEMES

## Tightening Global Liquidity

- **Transmission of tighter liquidity is already underway and is felt globally**
  - Slowing money supply growth rates tighten financial conditions and are a headwind for credit and equity markets across the world
  - Ability to ease financial conditions is limited outside the US as central banks do not have dry powder with interest rates near historic lows and the ECB restricted in their ability to expand QE purchasing capacity
  - A pause in Fed tightening or a large stimulus program from China are the limited global levers available to ease tighter conditions
- **The diminishing support from central banks warrants caution regarding liquidity in credit markets**
  - Underlying trading conditions for ETF and credit markets remain fragile and are likely to be severely tested to absorb an exodus from crowded credit positions
  - The "Fed put" or a reversal of balance sheet normalization may be necessary to avoid a liquidity crisis in a severe market disruption



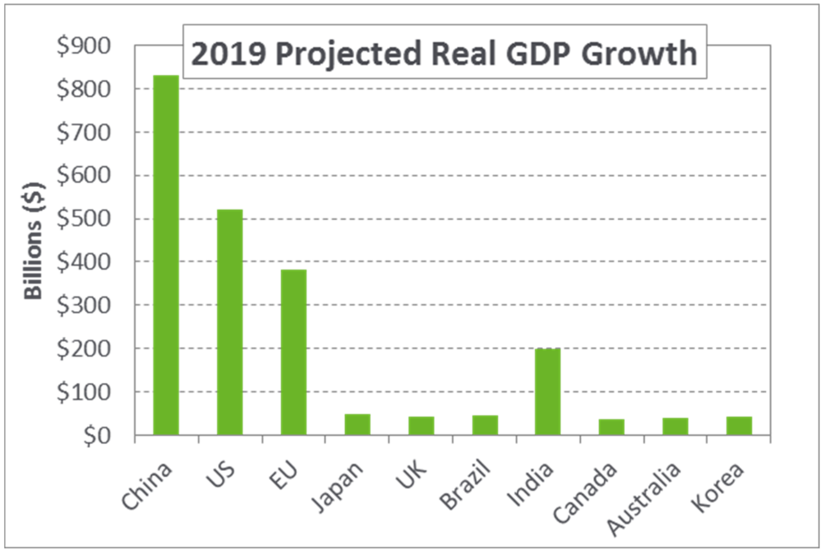

*Source: (Top) Bloomberg, NEPC*
*Source: (Bottom) Bloomberg, NEPC*

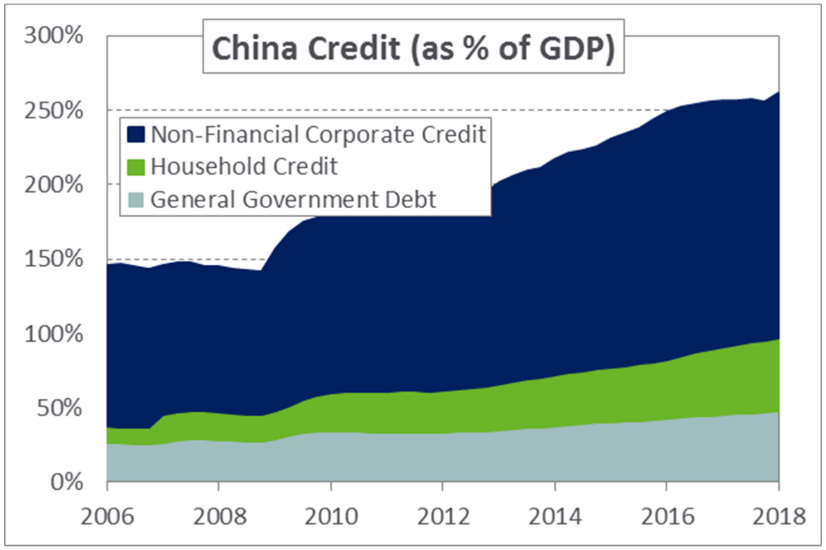
# KEY MARKET THEMES

## China Transitions

- **China is the global growth engine but faces fundamental transitions**
  - China's economy is transitioning from a focus on production and investment to a service and consumption based economy
  - Fixed investment and credit expansion is needed to sustain the "old" production-based economy and support employment as the population shifts to urban centers
  - Any disruption to these transitions will be transmitted globally due to China's outsized role in the world economy

- **Policy makers must continue to balance goals of moderating credit expansion against sustaining healthy economic growth rates**
  - Recent shifts in policy suggest a tilt away from credit moderation to offset the harmful effects of the US-China trade dispute
  - However, an uncontrolled expansion of credit growth and real estate development pose a future systemic risk to the economy



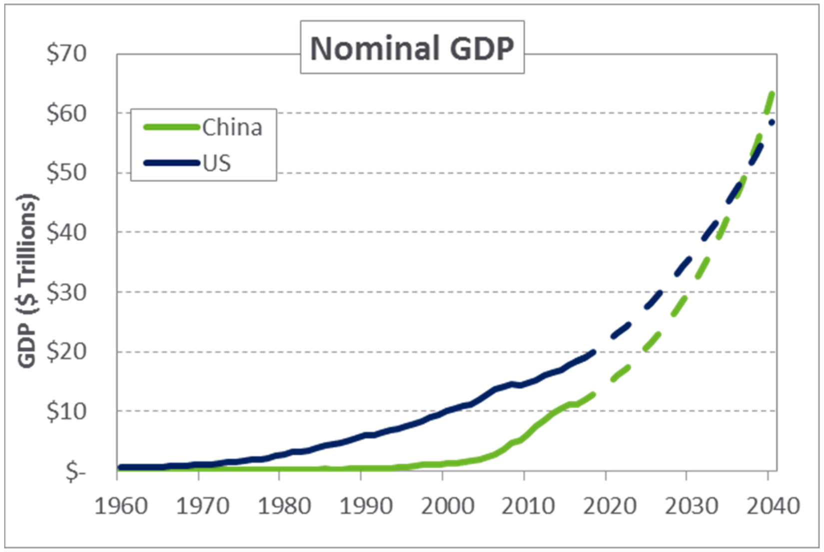



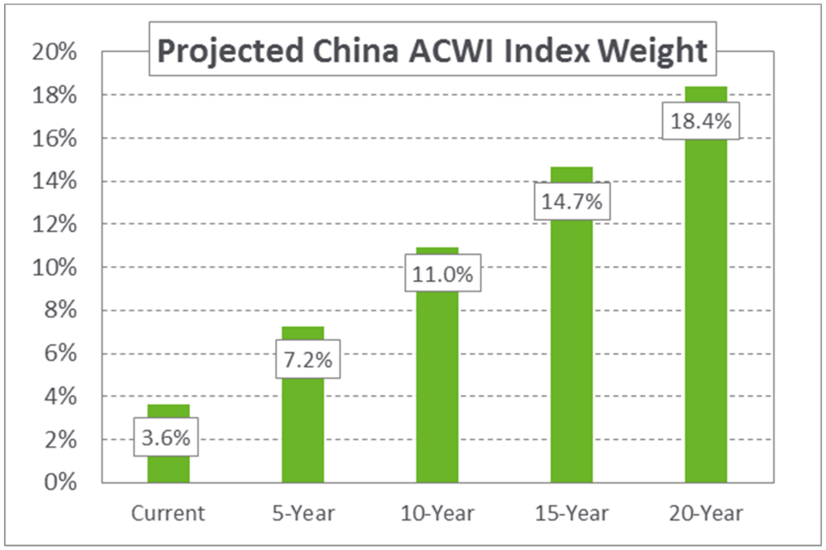

*Source: (Top) Bloomberg, NEPC*
*Source: (Bottom) BIS, NEPC*

# KEY MARKET THEMES

## China Transitions

- **China's economy is expected to equal the size of the US within 25 years**
  - China's increased economic and geopolitical prominence on the world stage can be viewed as a threat to US leadership
  - Tariffs and trade conflict are a form of "Thucydides Trap", where a rising power causes fear in an established power
  - China is in a race against time: *Can they get rich before they get old?* This race may conflict with some US geopolitical interests and risks a zero-sum dynamic of economic competition between the US and China
- **Access to local financial markets is accelerating and expected to expand**
  - Expansion of Hong Kong-mainland stock connect program broadens access to A-shares and strengthens the case for increasing size of Chinese equities in indices
  - With limited access for foreign investors, China is looking to slowly open access to the world's third largest fixed income market



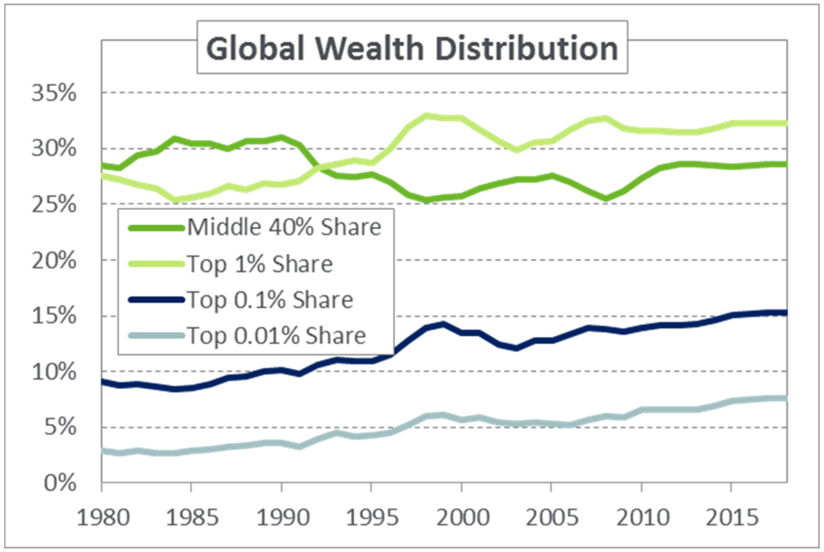



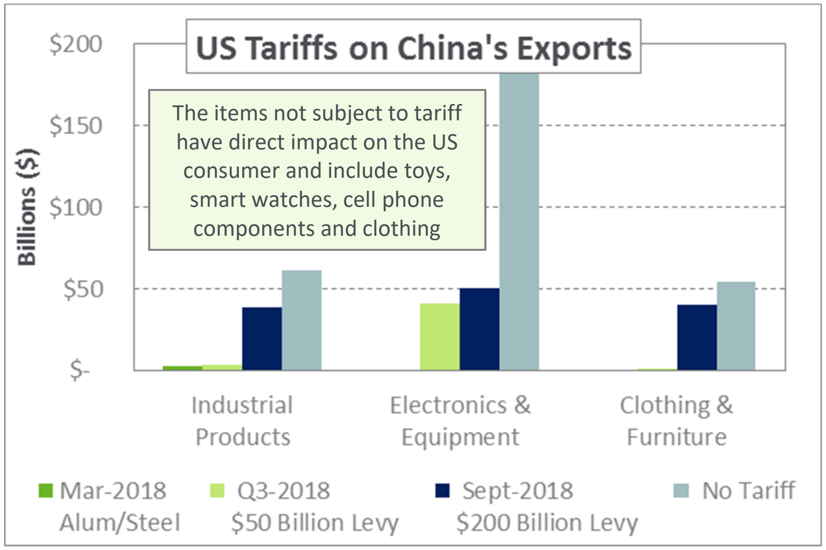

*Source: (Top) St. Louis Fed, NEPC; China is projected to grow at 7.5% and the US is projected to grow at 5.0%*
*Source: (Bottom) MSCI, Bloomberg, NEPC*

# KEY MARKET THEMES

## Globalization Backlash

- **Uneven economic growth and wage gains have fueled political discontent in the developed and emerging world**
  - Fatigue over globalization has led to a turn inward and greater political interest in nationalism, while multilateral relationships are viewed with suspicion
  - Globalization Backlash is a long-term trend as populist movements lead to shifts away from political/economic orthodoxy, which heightens tail risks
- **US-China trade tensions are a full expression of our backlash theme**
  - Levying tariffs is a dangerous game as both the US and China look to negotiate an end to the tensions but must demonstrate strength for their domestic audience
  - In the past, markets have taken the US administration's rhetoric with a grain of salt but the tit-for-tat tariff escalation with China is a concern for market sentiment
  - We have likely settled into a prolonged "cold war" in the ongoing US-China trade battle



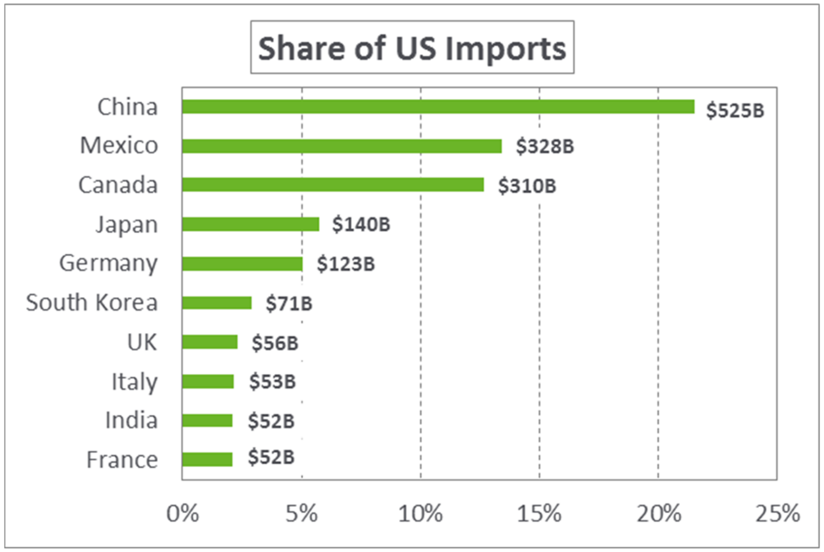




*Source: (Top) WID.World, World Inequality Lab*
*Source: (Bottom) USTR, Bloomberg, NEPC*

# KEY MARKET THEMES

## Globalization Backlash

- **Expanding protectionism from US trade policy is a material risk to global markets and the economy**
  - US adopted a more restrictive trade policy in 2018 and investor sentiment outside the US deteriorated along with US-China relations
  - US-China tariffs are the "new normal" and we expect this dynamic to continue for the foreseeable future. We do not anticipate the trade dispute to escalate beyond tariff levies and prohibit the flow of goods and services
- **The UK serves as a live case study for the effects of globalization backlash**
  - Economic metrics across the country have turned lower in the time since the UK voted to leave the European Union
  - Deterioration in business and consumer confidence along with potential disruption to the financial sector are a cautionary tale
  - The economic unease of voters remain and the political instability likely leads to higher levels of currency volatility over time




| | Brexit Vote | Current |
|---|---|---|
| Real GDP (YoY%) | 1.7% | 1.5% |
| Household Consumption | 3.3% | 1.8% |
| Exports (YoY%) | 1.1% | -1.3% |
| Imports (YoY%) | 3.2% | 0.2% |
| CPI (YoY%) | 0.4% | 2.5% |
| Unemployment (%) | 4.9% | 4.0% |
| Central Bank Rate | 0.50% | 0.75% |
| GBP/USD Exchange Rate | 1.49* | 1.28 |
| Economic Sentiment | 106.9 | 105.6 |

*Source: (Top) Bloomberg, NEPC*

*Source: (Bottom) Bloomberg, NEPC, *Data as of 6/23/16*

# CURRENT OPPORTUNITIES

NEPC, LLC

# CURRENT OPPORTUNITIES

Review Today

## Rebalance Developed Market Equities

**Funding Sources: EAFE equity, lower quality credit, multi-asset strategies**

Review Today

## Raise Safe-Haven Fixed Income Exposure

**Funding Sources: Lower quality credit, equity, multi-asset strategies**

✓

## Reduce Lower Quality Credit Exposure

**Funding Sources: High yield, bank loans, US direct lending**

Review Today

## Maintain Overweight to Emerging Market Equities

**Funding Sources: US equity and EAFE equity**

✖

## Add Long Volatility Exposure

**Funding Sources: Multi-asset strategies**

✓

## Fund Emerging Local Debt

**Funding Sources: High yield and equity**

✓ = Currently Implemented

✖ = Not Currently Implemented

# CURRENT OPPORTUNITIES

NEPC recommends shifting the equity allocation so it is in line with the below target weights.

## Rebalance Developed Market Equities

### Adjust US and EAFE regional exposure to developed market index weights

Continue to recommend an overweight to emerging equity and adopt an index weight for US/EAFE relative to MSCI World

We encourage a global equity target weight of 52% to the US, 33% EAFE, and 15% to the EM. Larger overweight to EM can be funded pro rate from developed equity

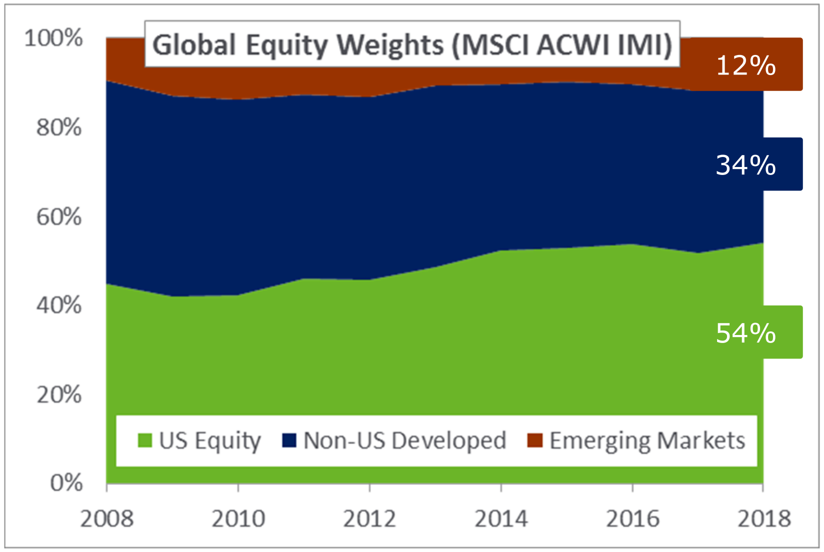
Should US equity declines continue, look to exploit the market volatility and overweight US exposure relative to EAFE index weights

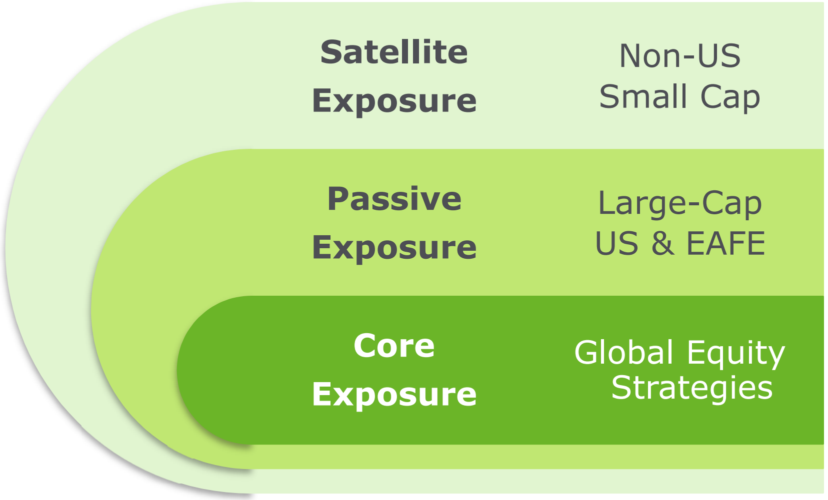
### Global equity strategies can serve as the core implementation approach for developed market equity exposure

We remain supportive of pairing active global equity strategies with passive large-cap US and EAFE equity exposure

Within non-US developed markets, we have a strong bias to active small-cap equities

EAFE and US small-cap are a viable funding source for private market commitments




*Source: (Top) MSCI, Bloomberg, NEPC; represents free float market cap weights as of 12/31 each year*

*Source: (Bottom) NEPC*

# CURRENT OPPORTUNITIES

UUA currently has exposure to intermediate credit and long treasuries. NEPC is recommending to add a dedicated exposure to short duration government/credit.

## Raise Safe-Haven Fixed Income Exposure

### The potential for an adverse economic outcome appears to have expanded

Safe-haven exposure is an essential asset class exposure to mitigate portfolio risks

We are evaluating market metrics such as the yield curve that would cause us to shift to a more defensive recommendation

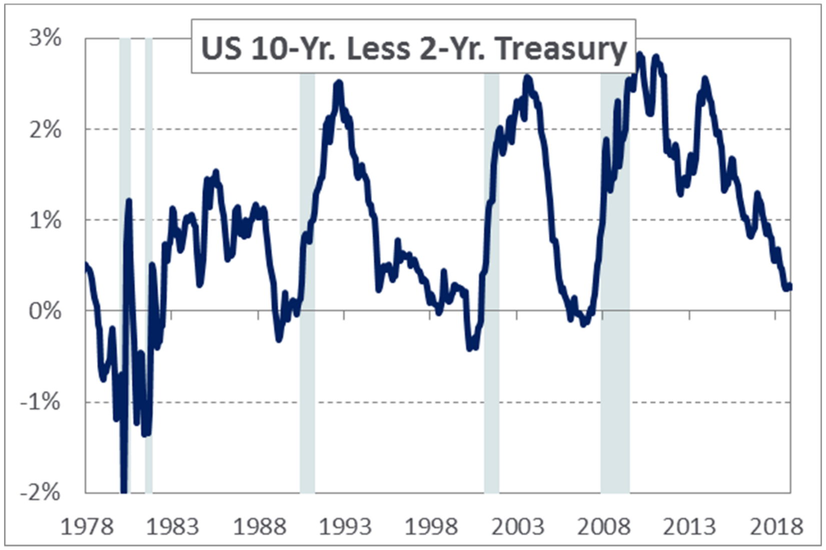
Should the yield curve invert and economic metrics show weakness, we are likely to recommend a material increase to safe-haven fixed income exposure

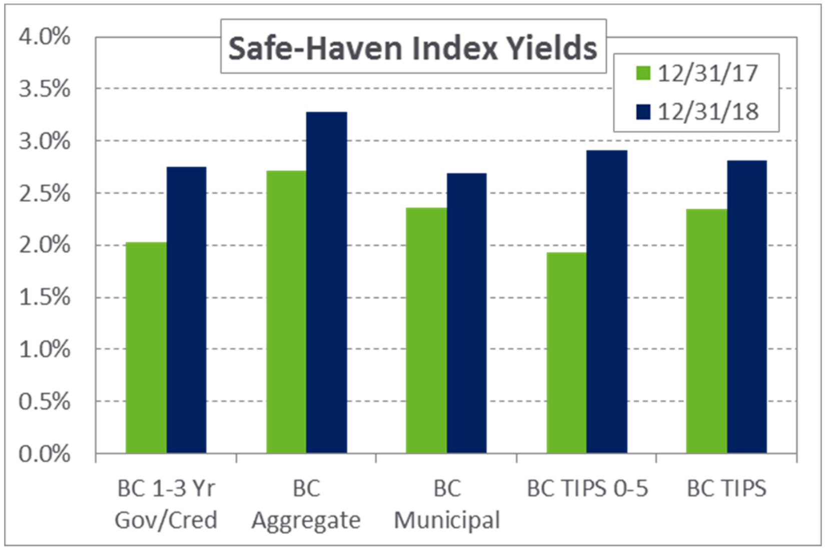
### Short duration safe-haven exposure is attractive on a relative value basis

We encourage investors to increase safe-haven fixed income and use lower quality credit exposure as a funding source

Market volatility has depressed long rates and inflation expectations making short duration segments an important part of a safe haven allocation

TIPS continue to have a place in safe-haven fixed income as a strategic allocation




*Source: (Top) Federal Reserve Bank of St. Louis, NEPC; Light blue shading indicates recession*

*Source: (Bottom) Bloomberg, TIPS yield includes CPI accrual*

# CURRENT OPPORTUNITIES

UUA has limited exposure to high yield bonds through the flexible fixed income mandates and GMO.

## Reduce Lower Quality Credit Exposure

### Lower-rated credit exposure does not adequately compensate investors for the risk relative to safer alternatives

Late-cycle markets generally exhibit higher than average credit default rates, acutely impacting debt rated BBB and below

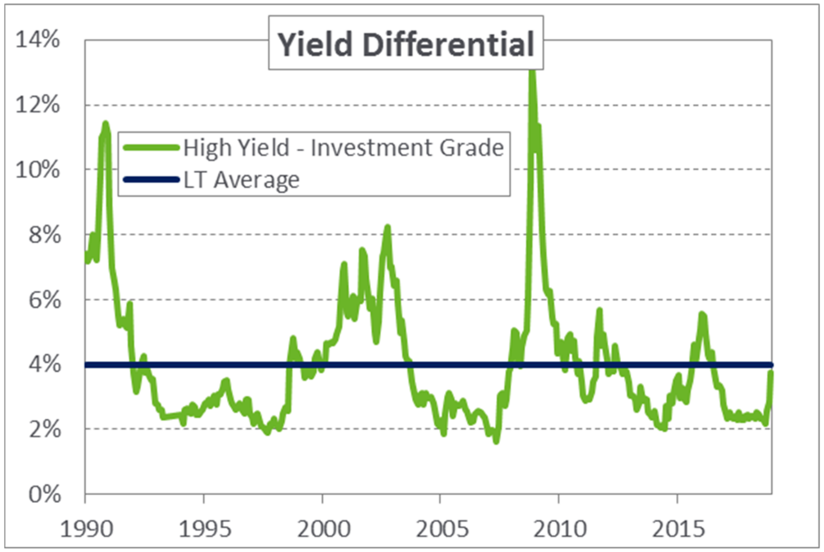
Despite credit spreads trading near median levels, we encourage moving away from lower quality credit and look to alternatives such as safe-haven fixed income, IG CLO's, and higher quality IG corporate bonds

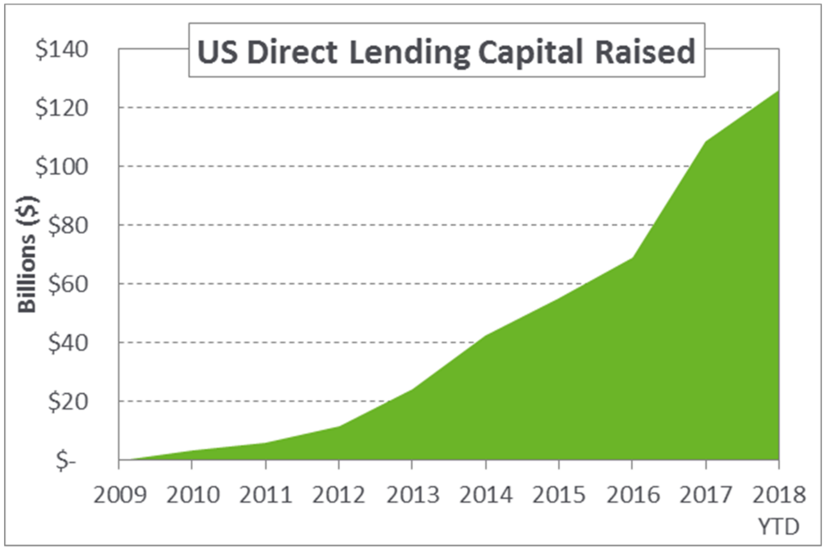
### A misaligned risk-return tradeoff also applies to private credit markets

US direct lending is one example as the space has absorbed a large influx of capital over a multi-year horizon

Distressed and niche segments of private markets offer opportunities but require a hyper-focus on underwriting standards

We encourage reducing exposure to credit segments that have performed well over a prolonged period such as high yield, bank loans, and many private debt approaches




*Source: (Top) MSCI, Bloomberg*

*Source: (Bottom) Preqin; represents cumulative capital raised*

# CURRENT OPPORTUNITIES

NEPC is recommending an overweight allocation to emerging market equities for the UUA.

## Maintain Overweight to Emerging Market Equities

### Emerging equities offer the highest total return potential for investors

Valuation levels and fundamentals suggest an overweight relative to global equity market cap weights (e.g. 15% to 20%)

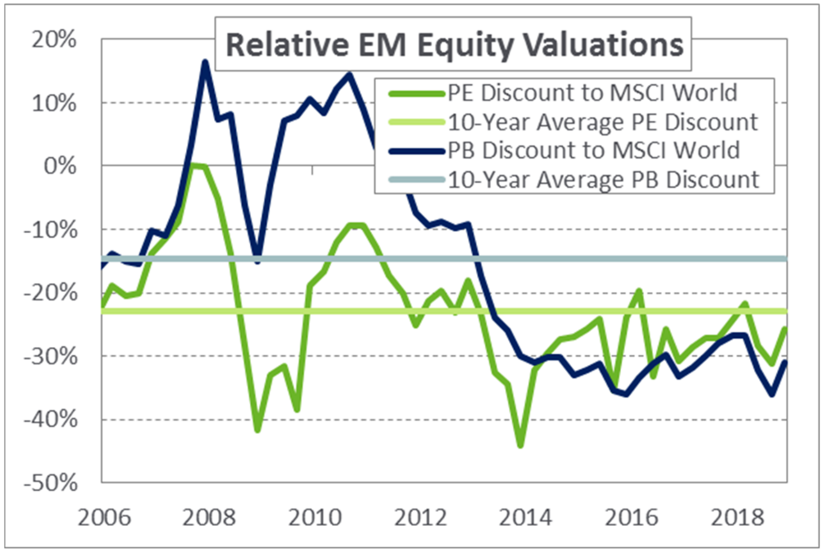
Growth premium relative to the developed world persists as economic conditions in EM remain supportive despite the negative sentiment associated with US trade policies

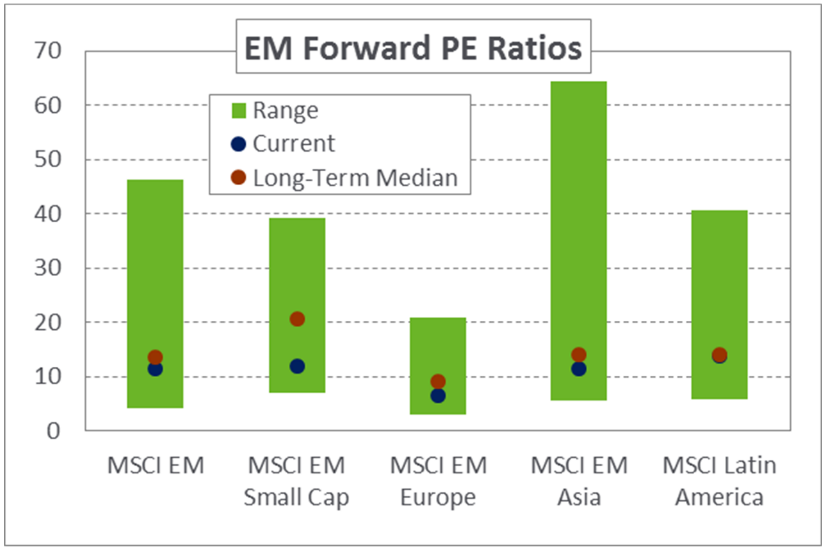
### High tracking error strategies offer greater flexibility to invest across emerging countries and are preferred to benchmark focused mandates

Opportunity set for active management and excess return appear more abundant in EM versus developed markets

Strategies that invest down the market cap spectrum offer investors more focused exposure to local country growth rates

We encourage the use of multiple emerging market strategies to mitigate the risk of an unintended value-growth style or size bias




*Source: (Top) MSCI, Bloomberg*
*Source: (Bottom) MSCI, Bloomberg*

# CURRENT OPPORTUNITIES

UUA does not currently have any long volatility exposure.

## Add Long Volatility Exposure

### Volatility levels for markets outside equities remain near historic lows

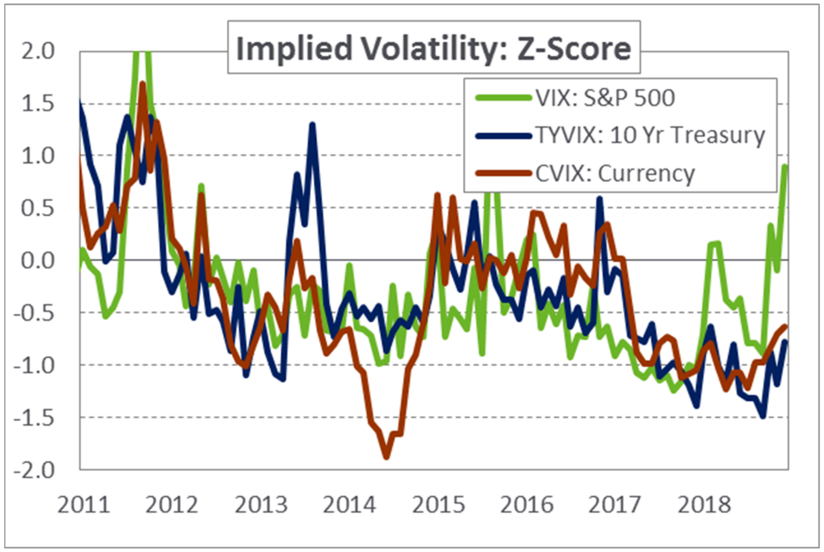
Long volatility exposure positively benefits from rising asset class volatility and an allocation of 1% to 2% can provide a significant return contribution should volatility normalize across global markets

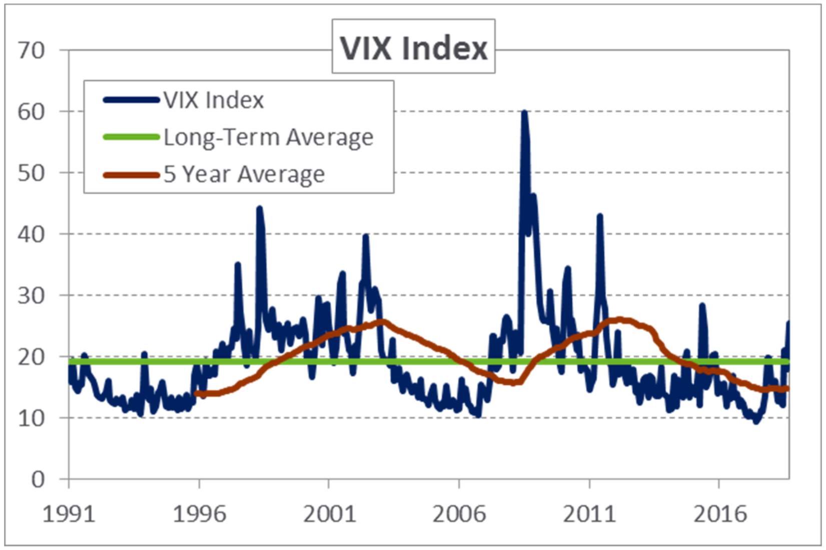
Exposure is not without risk. Losses would be expected if market volatility declines. Discipline of a multi-year time horizon is required should volatility levels move slowly back to normal levels

### Long volatility strategies with positive carry are the only implementation option we recommend

Purchasing S&P VIX is a costly method to implement long volatility exposure due to the negative roll yield of the VIX curve

More suited for opportunistic investors willing to fund from multi-asset or other unconstrained strategies




*Source: (Top) Bloomberg*
*Source: (Bottom) Bloomberg*

# CURRENT OPPORTUNITIES

UUA has exposure to emerging local debt through flexible fixed income mandates and GMO.

## Fund Emerging Local Debt

### EM local debt offers an attractive total return opportunity

The combination of high real rates, lower inflation levels, and low currency valuations represents an attractive investment profile

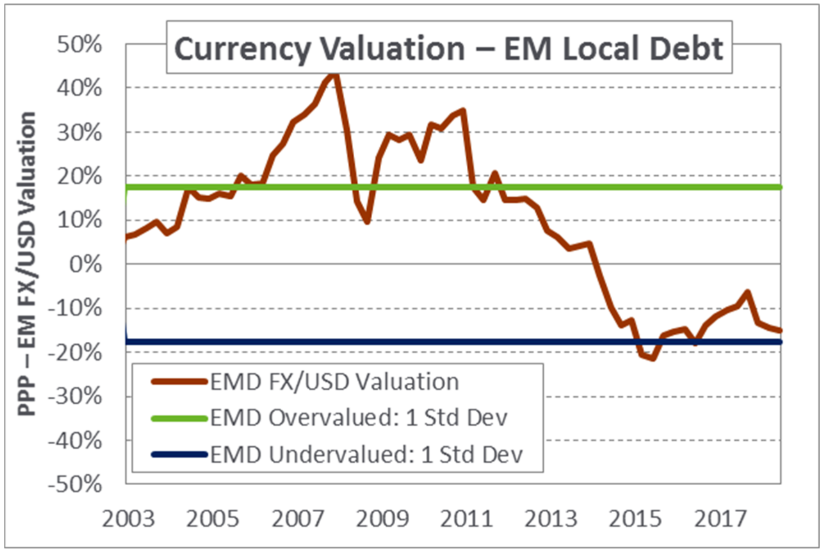
Above average index yields relative to the developed world provide a cushion to offset currency volatility and declines

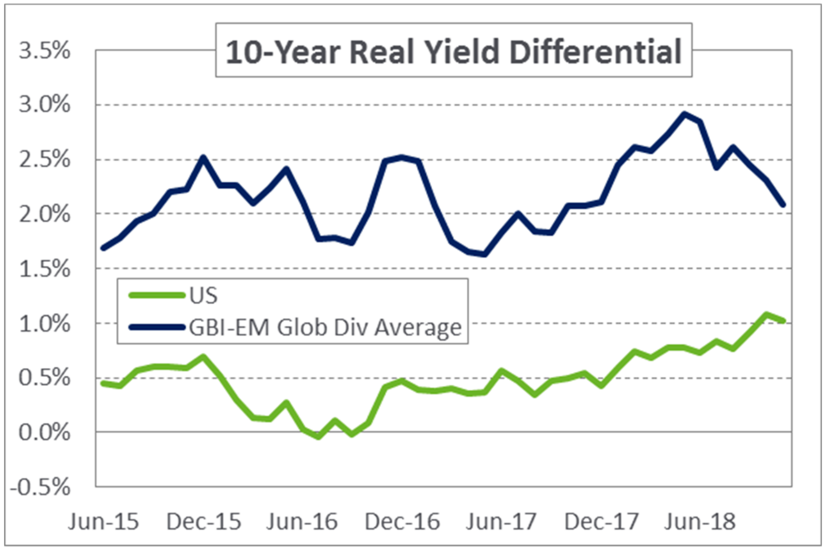
Additional Fed rate hikes not fully priced into market expectations are a risk and was a key source of the negative sentiment that hit the asset class in 2018

### For tactical oriented investors, look to fund emerging local debt from high yield and equity exposure

A balanced EMD approach of local currency and dollar denominated debt remains our long-term bias as a strategic allocation

Currently, our preferred implementation is with a stand alone local debt strategy but unique macro or credit hedge funds may offer a unique return opportunity




*Source: (Top) JPM, Bloomberg, NEPC*
*Source: (Bottom) JP Morgan, Bloomberg, NEPC*

# ASSET ALLOCATION UPDATE

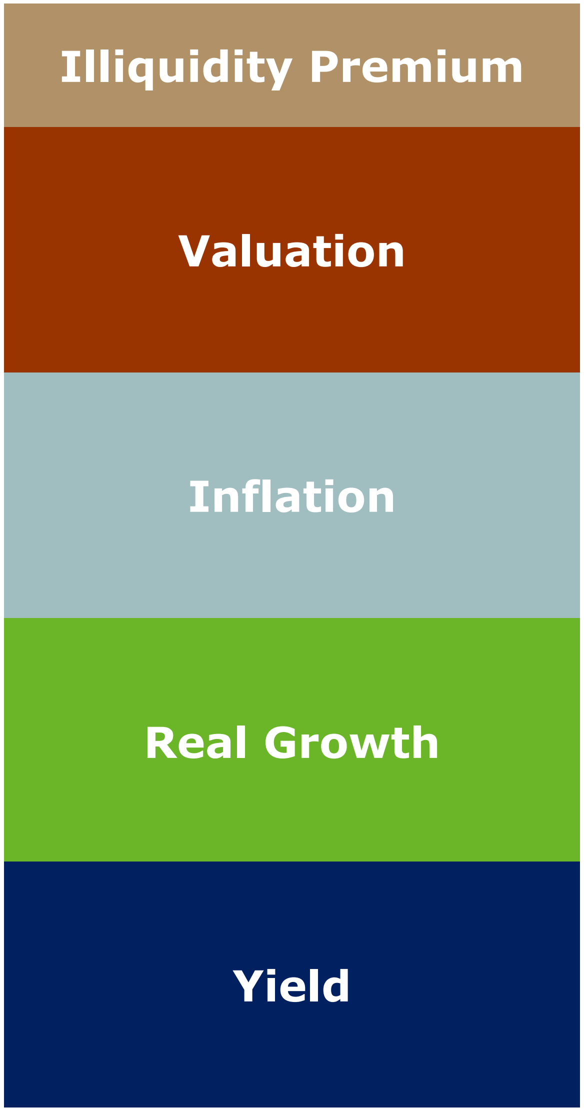
NEPC, LLC

# 2019 ASSET CLASS OVERVIEW

- **NEPC asset class assumptions offer both an intermediate (5-7 years) and long term (30 years) forecast horizon**
  - November 30th replaced by December 31st market data for inputs to asset class models
- **Return expectations for credit asset classes are broadly higher relative to last year due to interest rate increases and wider credit spreads**
  - Despite the increase in return expectations, we encourage caution when investing in lower-quality credit exposure as we expect default rates to trend higher in the current late-cycle market environment
- **US equity return expectations increased relative to last year following a sizable correction in the fourth quarter of 2018**
- **Our outlook for international developed equities is less optimistic than prior years, resulting in a significantly lower 5-7 year return expectation**
- **We continue to refine and enhance our process where appropriate**
  - New asset class assumptions were added this year to provide greater differentiation in credit, including investment and speculative grade corporate ratings (AAA-CCC)
  - Private equity and private debt sub-strategies were added to offer a distinction among private market implementation options with different volatility and return profiles
  - Asset class correlation and volatility assumptions were adjusted to integrate private markets and new asset classes, to improve risk modeling and scenario analysis

# BUILDING BLOCKS METHODOLOGY

- Forward-looking asset class models incorporate current and forecasted market and economic data to inform expected returns
- Quantitative inputs combined with qualitative factors and investor sentiment (capital flows, etc.) drive the 5-7 year return outlook
- Components are combined to capture core drivers of return across asset classes – forming the foundation of our building blocks framework
- Building blocks will vary across equity, credit, and real assets



# CORE RETURN ASSUMPTIONS

| | Asset Class | 5-7 Year Return | Change 2019-2018 | Volatility |
|---|---|---|---|---|
| | Cash | 2.50% | **+.50%** | 1.00% |
| | US Inflation | 2.25% | **-0.25%** | - |
| **Equity** | Large Cap Equities | 6.00% | **+0.75%** | 16.50% |
| | International Equities (Unhedged) | 6.75% | **-0.75%** | 20.50% |
| | Emerging International Equities | 9.25% | **+0.25%** | 28.00% |
| | *Private Equity** | *10.01%* | ***+2.01%*** | *24.16%* |
| **Rates/Credit** | Treasuries | 2.50% | **+0.25%** | 5.50% |
| | *Core Bonds** | *3.04%* | ***+0.29%*** | *6.10%* |
| | Municipal Bonds (1-10 Year) | 3.00% | **+0.50%** | 5.50% |
| | High Yield Bonds | 5.25% | **+1.50%** | 12.50% |
| | *Private Debt** | *7.60%* | ***+1.10%*** | *11.97%* |
| **Real Assets** | Commodities | 4.25% | **-0.50%** | 19.00% |
| | Midstream Energy | 8.25% | **+1.00%** | 18.50% |
| | REITs | 6.75% | **+0.25%** | 20.00% |
| | Core Real Estate | 6.00% | **+0.25%** | 13.00% |
| **Multi-Asset** | *US 60/40** | *5.07%* | ***+0.53%*** | *10.45%* |
| | *Global 60/40** | *5.08%* | ***+0.17%*** | *10.95%* |
| | *Hedge Funds** | *5.74%* | ***-0.09%*** | *8.15%* |

*Calculated as a blend of other asset classes – see page 38 for additional details

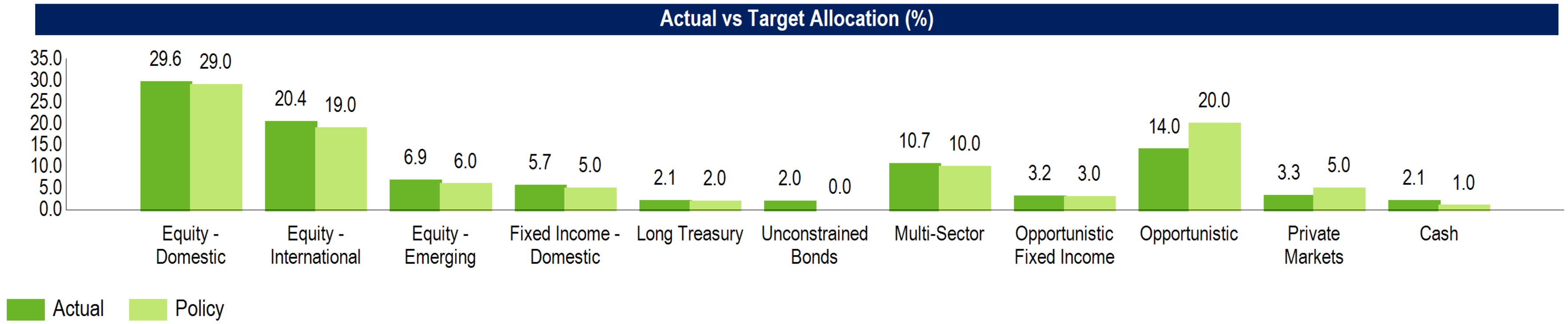
NEPC

# INVESTMENT PROGRAM REVIEW

NEPC, LLC

# TOTAL FUND PERFORMANCE SUMMARY - GROSS

| | Market Value | 3 Mo | Rank | Fiscal YTD | Rank | 1 Yr | Rank | 3 Yrs | Rank | 5 Yrs | Rank | 7 Yrs | Rank | 10 Yrs | Rank |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **Composite** | **$175,148,355** | **-8.6%** | **68** | **-6.0%** | **68** | **-4.0%** | **27** | **6.1%** | **39** | **3.9%** | **59** | **6.5%** | **66** | **8.5%** | **38** |
| *Allocation Index* | | *-8.8%* | *74* | *-6.6%* | *83* | *-7.0%* | *97* | *5.1%* | *80* | *3.6%* | *74* | *5.9%* | *87* | *7.6%* | *73* |
| *Policy Index* | | *-8.3%* | *64* | *-6.0%* | *70* | *-5.6%* | *66* | *5.6%* | *59* | *4.0%* | *56* | *6.3%* | *72* | *7.6%* | *75* |
| *InvestorForce All Endowment $50mm-$250mm Gross Median* | | *-7.7%* | | *-5.5%* | | *-4.9%* | | *5.8%* | | *4.1%* | | *6.9%* | | *8.2%* | |




**Total Fund Performance**

- The Endowment returned -8.6% (gross of fees) during Q4 of 2018, ranking 68th in the universe, outperforming the allocation index but underperforming the policy index
- Over the trailing one-year period, the Endowment returned -4.0% (gross of fees), ranking 27th in the universe and outperforming both the allocation and policy index
- Over the ten-year time period, performance ranked in the second quartile of the peer universe
  - Active management has been the primary driver of overall performance

**Recent Decisions & Action Items**

- $2 million committed to both HCAP and Generation
- Transitioned from Kennedy Capital to WCM in response to a change in the portfolio management team at Kennedy

Fiscal Year End: 6/30

# GOALS & OBJECTIVES

## Investment Return Objective

- **"The overall investment objective of the UUA, as manager of the UUCEF, is to increase the UUCEF's asset value in order to maintain real purchasing power while allowing for regular endowment distributions. With the guiding lens of Unitarian Universalist values and principles, the Fund seeks to achieve consistent returns within a moderate risk tolerance over the long term, sufficient to allow UU Congregations to take regular distributions and maintain the value of principal after adjustment for inflation and after all expenses."**

| | |
|---|---|
| **Endowment Draw** | 5.00% |
| **US Inflation** | 2.25% |
| **Total Return Goal** | **7.25%** |

## Risk Tolerance

- **Time Horizon: The time horizon of the portfolio is perpetuity and therefore we seek to balance continued growth with a moderate risk tolerance.**
- **Liquidity Needs: The cash flow needs of the portfolio are often known in advance and are managed throughout the year. The portfolio can withstand some illiquidity risk.**
- **Capital Preservation: While the portfolio can withstand drawdowns, a primary objective is to maintain real purchasing power while allowing for regular distributions.**
- **Other Considerations: The UUCEF shall be managed in a manner consistent with UU values as well as the achievement of return and risk objectives. The UUA is committed to an investment program which utilizes tools of socially responsible investment (SRI) to optimize the alignment of its financial assets with its values.**

NEPC

# 2018 REVIEW

| Date | Description of Events | Complete |
|---|---|---|
| **February 2018** | • Performance update<br>• Heard from Rhumbline and Sustainalytics regarding partnership on screened index fund<br>• Decided to maintain GMO exposure after meeting with firm<br>• Reviewed Canvas Distressed Debt Fund briefly; decided to commit after follow up call | ✓ |
| **May 2018** | • Performance update<br>• Reviewed key market themes and opportunities<br>• Reviewed NEPC's ESG Ratings<br>• Discussed Carbon Underground 200 exposure within the portfolio<br>• Discussed private markets pacing and pipeline; elected to hold off on commitments until impact oriented investments are underwritten<br>• Reviewed role of opportunistic investments; discussed incorporating investments that fit the current economic environment | ✓ |
| **August 2018** | • Performance update<br>• Reviewed HCAP, VWH, and Reinventure as private markets opportunities<br>• Continued discussion of opportunistic bucket; discussed inclusion of non-correlated strategies | ✓ |
| **November 2018** | • Performance update<br>• Review ESG ratings for fixed income investments<br>• Review impact opportunities<br>• Meet with HCAP; Approved $2 million commitment<br>• Discuss Generation investment opportunity | ✓ |
| **December 2018** | • Approved $2 million commitment to Generation<br>• Approved transition of assets from Kennedy to WCM | ✓ |
| **February 2019** | • Performance update<br>• Review of NEPC's 2019 Market Outlook and Themes and Opportunities<br>• Asset allocation discussion | |

# DUE DILIGENCE MONITOR

Below is a summary of manager changes, announcements and due diligence events since the issuance of our last quarterly report.

| Investment Options | Manager Changes/ Announcements (Recent Quarter) | NEPC Due Diligence Committee Recommendations |
|---|---|---|
| **Kennedy Capital Management, Inc.**<br>*Small Cap Growth* | Loss of Personnel: CCO Resigning 10/2018 | Terminate |
| **Kennedy Capital Management, Inc.**<br>*Small Cap Growth* | Loss of Personnel: Kennedy Capital - Small Cap Growth lead PM departure 12/2018 | Terminate |
| **RBC Emerging Markets Equity**<br>*Emerging Market Equity* | Loss of Personnel: Analyst Departure 1/2018 | No Action |

UUA moved assets from Kennedy to WCM in response to these update

# DUE DILIGENCE MONITOR

Below is a summary of manager changes, announcements and due diligence events since the issuance of our last quarterly report.

| Investment Option | Commentary | NEPC Rating |
|---|---|---|
| **Kennedy Capital Management, Inc.**<br>*Small Cap Growth* | Kennedy Capital Management, Inc. (Kennedy) announced that their Chief Compliance Officer, Craig Brannam, has resigned from the firm. Marilyn Lammert, who was the CCO of Kennedy prior to retiring in March 2018, will be rejoining the team as the Firm searches for a replacement. Mr. Brannam had been with the Firm since 2017 and was responsible for the oversight and administration of compliance policies and procedures for Kennedy. When reached for comment, Kennedy explained that Mr. Brannam had come from the brokerage side and had wanted to go back, rather than work for an institutional investment management firm. There is no outstanding compliance issue at Kennedy as they have recently been through a routine SEC examination and had a clean audit. NEPC Research recommends **NO ACTION**. | 5 |
| **Kennedy Capital Management, Inc.**<br>*Small Cap Growth* | NEPC Research has been informed that lead Portfolio Manager, John Rackers and Assistant Portfolio Manager, Chad Hoffman left Kennedy Capital Management, Inc. (Kennedy) to join WCM Investment Management (WCM) on November 29, 2018. Mr. Rackers managed the Small Cap Growth, SMid Cap Growth, and Mid Cap Growth strategies for Kennedy Capital. Mr. Rackers has been managing small cap growth equity assets since 2008, while Mr. Rackers was at Missouri Valley Partners. He joined Kennedy Capital in 2012 and was able to bring his track record with him. He served as the lead portfolio manager and held final decision-making authority on the portfolios. Mr. Rackers was the architect of the growth investment philosophy and process which emphasizes understanding the drivers of returns on invested capital, the opportunities available to companies to deploy additional capital at attractive rates of return, and the ability of management teams to capitalize on those opportunities. NEPC believes that the loss of management is significant and recommends immediate **TERMINATION** of the Kennedy Small Cap Growth strategy formerly run by Mr. Rackers and his team. | 5 |
| **RBC Emerging Markets Equity**<br>*Emerging Market Equity* | NEPC Research was informed that Victor Ting has left the team as of January 25th 2019. Mr. Ting is a Mandarin speaker hired last August as a junior analyst to help out with the team's China research. However he turned out to not be a good fit for the team. They will be looking for a replacement with a better long term fit. NEPC Research is comfortable with the departure and has no concerns at this point. **NO ACTION** is recommended. | 1 |

UUA moved assets from Kennedy to WCM in response to these updates

# DUE DILIGENCE MONITOR

| NEPC Due Diligence Status Key | |
|---|---|
| **No Action** | Informational items have surfaced; no action is recommended. |
| **Watch** | Issues have surfaced to be concerned over; manager can participate in future searches, but current and prospective clients must be made aware of the issues. |
| **Hold** | Serious issues have surfaced to be concerned over; manager cannot be in future searches unless a client specifically requests, but current and prospective clients must be made aware of the issues. |
| **Client Review** | Very serious issues have surfaced with a manager; manager cannot be in future searches unless a client specifically requests. Current clients must be advised to review the manager. |
| **Terminate** | We have lost all confidence in the product; manager would not be recommended for searches and clients would be discouraged from using. The manager cannot be in future searches unless a client specifically requests. Current clients must be advised to replace the manager. |

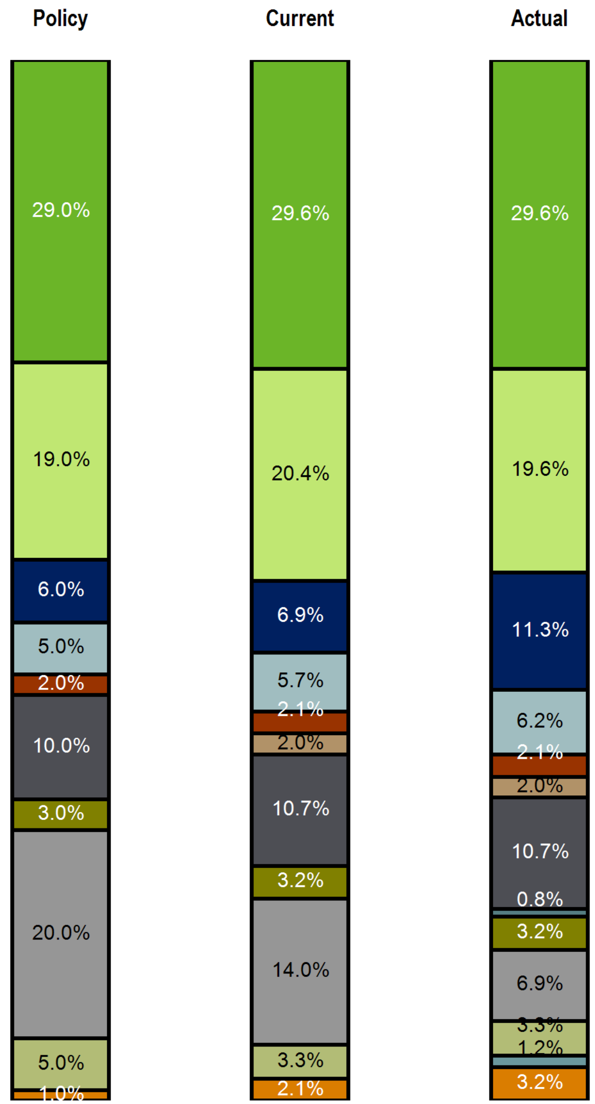
| NEPC Due Diligence Rating Key | |
|---|---|
| 1 | A high conviction investment product. Product has a clear and economically-grounded investment thesis, and is managed by an investment team that is sufficiently resourced and incented to execute on the thesis. |
| 2 | NEPC has a positive view of the strategy. Strategy has a compelling and sound investment thesis. The manager is sufficiently resourced and incented to execute on the thesis. Strengths outweigh the weaknesses, but the strategy does not meet all requirements for a 1 rating. |
| 3 | A satisfactory investment product. The strategy lacks a compelling investment thesis, however there are no significant concerns around the manager’s viability. |
| 4 | The strategy may have an unclear or ambiguous investment thesis or the manager may lack the ability to execute on the stated thesis. The strategy likely has strengths and weaknesses and the weaknesses may outweigh the strengths. |
| 5 | A strategy that lacks an investment thesis or NEPC has no confidence in the manager’s ability to execute on the thesis, and/or the investment firm may not be viable. Serious issues have been identified with an investment manager or product. This rating aligns with a Terminate Due Diligence status for client-owned products. |
| NR | Due diligence has not been sufficiently completed on the product or manager. |

# TOTAL FUND SUMMARY

# TOTAL FUND ASSET GROWTH SUMMARY

| | Quarter Ending December 31, 2018 | | | | | |
|---|---|---|---|---|---|---|
| | Beginning Market Value | Contributions | Withdrawals | Net Cash Flow | Net Investment Change | Ending Market Value |
| Baxter Street | $10,577,481 | $0 | $0 | $0 | -$1,038,405 | $9,539,077 |
| Boston Common | $15,284,486 | $0 | -$5,333 | -$5,333 | -$1,998,941 | $13,280,212 |
| Brandywine Global Opportunistic | $9,392,805 | $0 | $0 | $0 | -$105,949 | $9,286,855 |
| Breckinridge - Corporate | $9,780,686 | $0 | -$579 | -$579 | $149,254 | $9,929,361 |
| Breckinridge-Treasury | $3,591,851 | $0 | -$209 | -$209 | $150,062 | $3,741,704 |
| Brockton Capital Fund III | $971,488 | $0 | -$222,978 | -$222,978 | -$11,469 | $737,042 |
| Canvas Distressed Credit Fund | $457,697 | $97,028 | $6,917 | $103,945 | -$16,453 | $545,189 |
| Cash Account | $1,275,456 | $4,178,399 | -$3,498,386 | $680,012 | -$95,650 | $1,859,819 |
| Cevian Capital II | $6,527,015 | $0 | $0 | $0 | -$1,065,900 | $5,461,115 |
| Community Development | $1,788,149 | $0 | -$3,159 | -$3,159 | $5,145 | $1,790,135 |
| Entrust Class X | $573,681 | $0 | $0 | $0 | -$4,995 | $568,686 |
| FEG Private Opportunties Fund | $1,582,596 | $0 | -$30,000 | -$30,000 | $70,768 | $1,623,364 |
| Franklin Templeton GMS | $5,449,085 | $0 | $0 | $0 | $116,934 | $5,566,019 |
| GMO Benchmark Free Allocation Fund | $19,370,762 | $0 | $0 | $0 | -$833,742 | $18,537,020 |
| Kennedy Capital | $10,547,717 | $0 | -$750,582 | -$750,582 | -$2,128,487 | $7,668,648 |
| Loomis Multi Sector | $9,497,579 | $0 | $0 | $0 | -$55,058 | $9,442,521 |
| Loomis Sayles Strategic Alpha | $3,566,741 | $0 | -$5,384 | -$5,384 | -$34,363 | $3,526,994 |
| MFS International Concentrated | $16,755,002 | $0 | -$1,900,000 | -$1,900,000 | -$1,924,320 | $12,930,682 |
| OCP Orchard Landmark | $2,218,855 | $0 | $0 | $0 | $21,648 | $2,240,503 |
| RBC Global Emerging Equity | $12,478,272 | $0 | $0 | $0 | -$449,016 | $12,029,256 |
| Rhumbline | $21,094,233 | $0 | -$1,221 | -$1,221 | -$2,283,117 | $18,809,896 |
| Sands | $21,813,516 | $0 | -$1,195 | -$1,195 | -$3,773,474 | $18,038,846 |
| SJF Ventures | $396,985 | $250,000 | -$1,863 | $248,137 | $5,225 | $650,347 |
| Wellington SMID | $8,887,022 | $0 | $0 | $0 | -$1,541,956 | $7,345,065 |
| **Total** | **$193,879,160** | **$4,525,427** | **-$6,413,973** | **-$1,888,546** | **-$16,842,260** | **$175,148,355** |

# TOTAL FUND ASSET ALLOCATION VS. POLICY




**Asset Allocation vs. Target**

| | Current | Policy | Current | Policy Range | Within Range | Actual |
|---|---|---|---|---|---|---|
| Equity - Domestic | $51,862,455 | 29.0% | 29.6% | 22.0% - 36.0% | **Yes** | 29.6% |
| Equity - International | $35,749,971 | 19.0% | 20.4% | 14.0% - 24.0% | **Yes** | 19.6% |
| Equity - Emerging | $12,029,256 | 6.0% | 6.9% | 3.0% - 9.0% | **Yes** | 11.3% |
| Fixed Income - Domestic | $9,929,361 | 5.0% | 5.7% | 0.0% - 15.0% | **Yes** | 6.2% |
| Long Treasury | $3,741,704 | 2.0% | 2.1% | 0.0% - 10.0% | **Yes** | 2.1% |
| Unconstrained Bonds | $3,526,994 | -- | 2.0% | | | 2.0% |
| Multi-Sector | $18,729,376 | 10.0% | 10.7% | 0.0% - 15.0% | **Yes** | 10.7% |
| Emerging Market Debt | -- | -- | -- | | | 0.8% |
| Opportunistic Fixed Income | $5,566,019 | 3.0% | 3.2% | 0.0% - 10.0% | **Yes** | 3.2% |
| Opportunistic | $24,566,821 | 20.0% | 14.0% | 10.0% - 30.0% | **Yes** | 6.9% |
| Private Markets | $5,796,444 | 5.0% | 3.3% | 0.0% - 10.0% | **Yes** | 3.3% |
| Real Assets | -- | -- | -- | | | 1.2% |
| Cash | $3,649,954 | 1.0% | 2.1% | 0.0% - 10.0% | **Yes** | 3.2% |
| **Total** | **$175,148,355** | **100.0%** | **100.0%** | | | **100.0%** |

* Cash allocation includes Community Development

- On a look through basis, Domestic Equity is 29.6% of the fund, International Equity is 19.6% of the fund, and Emerging Market Equity is 11.3% of the fund.

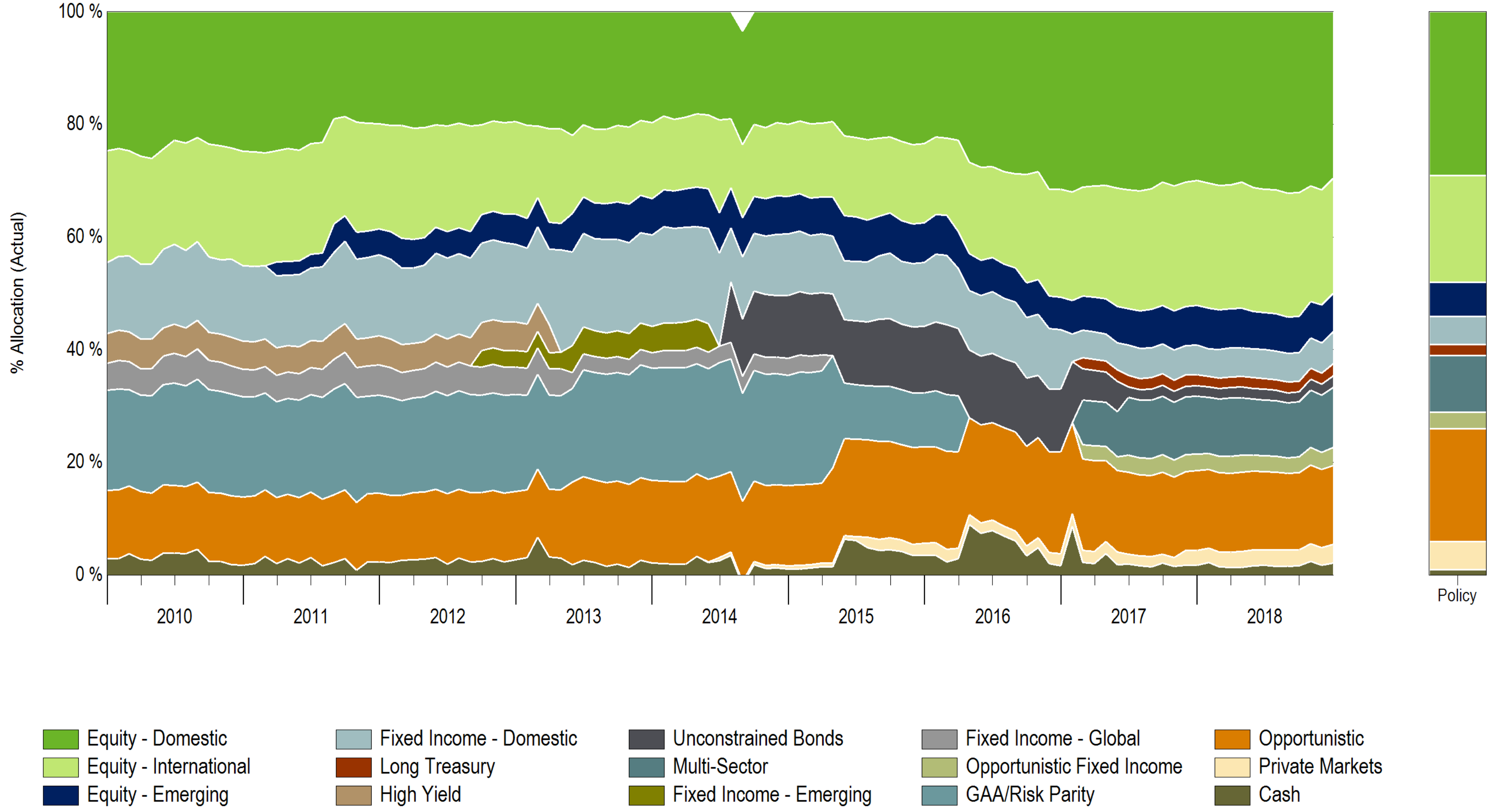
- Within the Opportunistic allocation, dedicated Hedge Fund exposure is 3.4%, GMO has an Absolute Return allocation in their fund, increasing hedge fund exposure to 6.9%.

- Overall Fixed Income exposure is 25.0%

Actual allocation breaks out the exposure in MFS, Boston Common, Baxter Street, and GMO

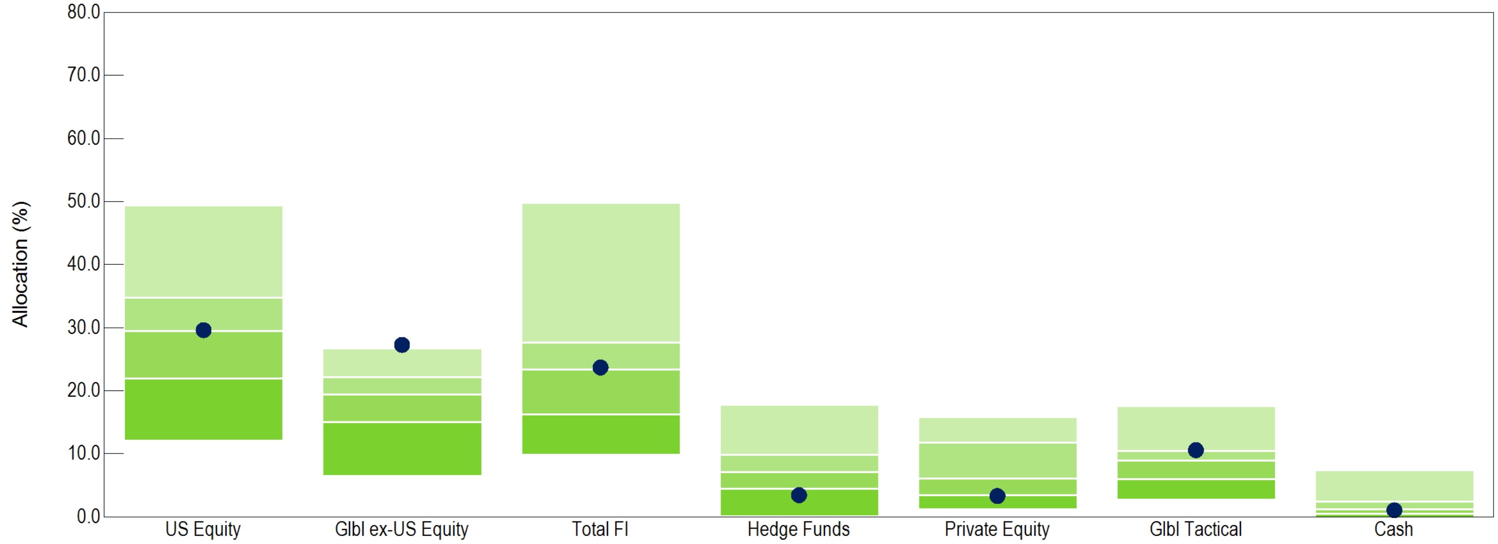
# TOTAL FUND ASSET ALLOCATION HISTORY

Asset Allocation History



# TOTAL FUND ALLOCATIONS VS. PEER UNIVERSE

**Total Plan Allocation vs. InvestorForce All Endowment $50mm-$250mm Gross**




| | Allocation (Rank) | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **5th Percentile** | 49.4 | | 26.7 | | 49.8 | | 17.8 | | 15.9 | | 17.6 | | 7.4 | |
| **25th Percentile** | 34.9 | | 22.3 | | 27.8 | | 10.0 | | 11.9 | | 10.6 | | 2.6 | |
| **Median** | 29.6 | | 19.5 | | 23.5 | | 7.3 | | 6.2 | | 9.0 | | 1.3 | |
| **75th Percentile** | 22.1 | | 15.1 | | 16.3 | | 4.5 | | 3.6 | | 6.1 | | 0.6 | |
| **95th Percentile** | 12.2 | | 6.6 | | 10.0 | | 0.2 | | 1.3 | | 2.8 | | 0.0 | |
| **# of Portfolios** | 53 | | 60 | | 66 | | 38 | | 34 | | 21 | | 58 | |
| ● **Composite** | 29.6 | (50) | 27.3 | (4) | 23.7 | (50) | 3.4 | (80) | 3.3 | (78) | 10.6 | (25) | 1.1 | (60) |

| | | | | | | | |
|---|---|---|---|---|---|---|---|
| **UUA Net Asset Allocation** | 29.6 | 30.9 | 25.0 | 6.9 | 3.3 | 1.2 | 3.2 |

Above analytic does not include Community Develpment, whereas UUA Net Asset Allocation does. Real Assets are not shown in the above analytic, as UUA does not have any dedicated exposure.

# TOTAL FUND PERFORMANCE DETAIL - NET

| | Market Value ($) | % of Portfolio | Policy % | 3 Mo (%) | Fiscal YTD (%) | 1 Yr (%) | 3 Yrs (%) | 5 Yrs (%) | 7 Yrs (%) | 10 Yrs (%) | Inception (%) | Inception Date |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **Composite** | **175,148,355** | **100.0** | **100.0** | **-8.8** | **-6.5** | **-5.1** | **5.0** | **2.8** | **5.3** | **7.4** | **5.5** | **Jul-02** |
| *Allocation Index* | | | | *-8.8* | *-6.6* | *-7.0* | *5.1* | *3.6* | *5.9* | *7.6* | *6.2* | *Jul-02* |
| *Policy Index* | | | | *-8.3* | *-6.0* | *-5.6* | *5.6* | *4.0* | *6.3* | *7.6* | *--* | *Jul-02* |
| **Domestic Equity Composite** | **51,862,455** | **29.6** | **29.0** | **-15.8** | **-10.3** | **-1.9** | **8.7** | **7.1** | **12.7** | **16.2** | **9.6** | **Jul-02** |
| *Russell 3000* | | | | *-14.3* | *-8.2* | *-5.2* | *9.0* | *7.9* | *12.5* | *13.2* | *8.2* | *Jul-02* |
| Rhumbline | 18,809,896 | 10.7 | 10.5 | -10.9 | -5.5 | -5.4 | 8.9 | 7.1 | 11.5 | 12.1 | 6.6 | Aug-05 |
| *Russell 1000 Value* | | | | *-11.7* | *-6.7* | *-8.3* | *7.0* | *5.9* | *11.0* | *11.2* | *6.3* | *Aug-05* |
| Sands | 18,038,846 | 10.3 | 10.5 | -17.5 | -12.0 | 6.5 | 10.0 | 8.6 | 15.2 | 20.0 | 11.2 | Dec-03 |
| *Russell 1000 Growth* | | | | *-15.9* | *-8.2* | *-1.5* | *11.1* | *10.4* | *14.1* | *15.3* | *8.9* | *Dec-03* |
| Wellington SMID | 7,345,065 | 4.2 | 4.0 | -17.5 | -13.6 | -9.2 | -- | -- | -- | -- | 3.5 | Apr-16 |
| *Russell 2500 Value* | | | | *-17.1* | *-14.9* | *-12.4* | *6.6* | *4.2* | *10.0* | *11.6* | *5.9* | *Apr-16* |
| Kennedy Capital | 7,668,648 | 4.4 | 4.0 | -20.9 | -13.9 | -6.5 | -- | -- | -- | -- | -6.5 | Jan-18 |
| *Russell 2000 Growth* | | | | *-21.7* | *-17.3* | *-9.3* | *7.2* | *5.1* | *11.3* | *13.5* | *-9.3* | *Jan-18* |
| **International Equity Composite** | **47,779,227** | **27.3** | **25.0** | **-10.0** | **-8.5** | **-10.3** | **5.5** | **1.0** | **4.6** | **4.8** | **5.2** | **Jul-02** |
| *MSCI ACWI ex USA* | | | | *-11.5* | *-10.8* | *-14.2* | *4.5* | *0.7* | *4.8* | *6.6* | *6.0* | *Jul-02* |
| MFS International Concentrated | 12,930,682 | 7.4 | 7.0 | -12.2 | -9.3 | -8.9 | 5.9 | 2.2 | -- | -- | 4.4 | Apr-13 |
| *MSCI EAFE* | | | | *-12.5* | *-11.4* | *-13.8* | *2.9* | *0.5* | *5.8* | *6.3* | *3.2* | *Apr-13* |
| Boston Common | 13,280,212 | 7.6 | 7.0 | -13.1 | -12.1 | -13.6 | 3.2 | 0.5 | 5.4 | -- | 4.0 | May-10 |
| *MSCI EAFE* | | | | *-12.5* | *-11.4* | *-13.8* | *2.9* | *0.5* | *5.8* | *6.3* | *4.1* | *May-10* |
| Baxter Street | 9,539,077 | 5.4 | 5.0 | -9.8 | -8.8 | -8.1 | -- | -- | -- | -- | 6.4 | Apr-16 |
| *MSCI ACWI ex USA* | | | | *-11.5* | *-10.8* | *-14.2* | *4.5* | *0.7* | *4.8* | *6.6* | *5.0* | *Apr-16* |
| RBC Global Emerging Equity | 12,029,256 | 6.9 | 6.0 | -3.6 | -3.1 | -10.1 | -- | -- | -- | -- | 6.5 | Jul-16 |
| *MSCI Emerging Markets* | | | | *-7.5* | *-8.5* | *-14.6* | *9.2* | *1.6* | *3.2* | *8.0* | *8.5* | *Jul-16* |

# TOTAL FUND PERFORMANCE DETAIL - NET

| | Market Value ($) | % of Portfolio | Policy % | 3 Mo (%) | Fiscal YTD (%) | 1 Yr (%) | 3 Yrs (%) | 5 Yrs (%) | 7 Yrs (%) | 10 Yrs (%) | Inception (%) | Inception Date |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **Fixed Income Composite** | **41,493,454** | **23.7** | **20.0** | **0.4** | **0.3** | **-1.6** | **2.4** | **2.3** | **3.1** | **5.4** | **4.2** | **Jul-02** |
| *BBgBarc US Aggregate TR* | | | | *1.6* | *1.7* | *0.0* | *2.1* | *2.5* | *2.1* | *3.5* | *4.1* | *Jul-02* |
| Brandywine Global Opportunistic | 9,286,855 | 5.3 | 5.0 | -1.2 | -2.1 | -5.2 | -- | -- | -- | -- | 1.7 | Mar-17 |
| *FTSE WGBI TR* | | | | *1.8* | *0.1* | *-0.8* | *2.7* | *0.8* | *0.2* | *1.5* | *2.8* | *Mar-17* |
| Loomis Multi Sector | 9,442,521 | 5.4 | 5.0 | -0.7 | 0.2 | -1.4 | -- | -- | -- | -- | 2.0 | Mar-17 |
| *BBgBarc US Govt/Credit TR* | | | | *1.5* | *1.5* | *-0.4* | *2.2* | *2.5* | *2.1* | *3.5* | *1.4* | *Mar-17* |
| Franklin Templeton GMS | 5,566,019 | 3.2 | 3.0 | 2.0 | 2.2 | -0.6 | -- | -- | -- | -- | 0.2 | Mar-17 |
| *BBgBarc Multiverse* | | | | *1.0* | *0.2* | *-1.4* | *3.0* | *1.2* | *1.2* | *2.8* | *2.4* | *Mar-17* |
| Breckinridge - Corporate | 9,929,361 | 5.7 | 5.0 | 1.5 | 1.8 | 0.9 | 1.7 | -- | -- | -- | 1.7 | Nov-14 |
| *BBgBarc US Govt/Credit Int TR* | | | | *1.7* | *1.9* | *0.9* | *1.7* | *1.9* | *1.7* | *2.9* | *1.5* | *Nov-14* |
| Breckinridge-Treasury | 3,741,704 | 2.1 | 2.0 | 4.2 | 1.1 | -2.4 | -- | -- | -- | -- | 1.7 | Mar-17 |
| *BBgBarc US Treasury Long TR* | | | | *4.2* | *1.2* | *-1.8* | *2.6* | *5.9* | *2.7* | *4.1* | *2.4* | *Mar-17* |
| Loomis Sayles Strategic Alpha | 3,526,994 | 2.0 | 0.0 | -1.1 | -0.5 | 0.4 | 2.8 | -- | -- | -- | 1.7 | Aug-14 |
| *BBgBarc US Aggregate TR* | | | | *1.6* | *1.7* | *0.0* | *2.1* | *2.5* | *2.1* | *3.5* | *2.0* | *Aug-14* |
| *3-Month LIBOR + 3%* | | | | *1.4* | *2.8* | *5.4* | *4.5* | *4.0* | *3.8* | *3.7* | *4.1* | *Aug-14* |
| **Opportunistic Investments** | **24,566,821** | **14.0** | **20.0** | **-7.2** | **-6.1** | **-7.4** | **3.2** | **1.2** | **3.4** | **--** | **--** | **Jan-08** |
| *CPI + 5% (Unadjusted)* | | | | *0.7* | *2.2* | *7.0* | *7.1* | *6.6* | *6.6* | *6.9* | *6.7* | *Jan-08* |
| GMO Benchmark Free Allocation Fund | 18,537,020 | 10.6 | 10.0 | -4.3 | -3.8 | -5.4 | 3.4 | 1.4 | 3.8 | 5.7 | 3.5 | Jan-08 |
| *65% MSCI ACWI (Net) / 35% BBgBarc Aggregate* | | | | *-7.8* | *-5.3* | *-6.0* | *5.1* | *3.8* | *6.3* | *7.6* | *3.7* | *Jan-08* |
| *CPI + 5% (Unadjusted)* | | | | *0.7* | *2.2* | *7.0* | *7.1* | *6.6* | *6.6* | *6.9* | *6.7* | *Jan-08* |
| Cevian Capital II | 5,461,115 | 3.1 | 3.0 | -16.3 | -13.4 | -14.2 | 5.9 | -- | -- | -- | -0.2 | Apr-15 |
| *HFRX Event Driven Index* | | | | *-6.5* | *-7.5* | *-11.7* | *1.5* | *-1.4* | *1.7* | *2.4* | *-1.1* | *Apr-15* |
| *MSCI EAFE* | | | | *-12.5* | *-11.4* | *-13.8* | *2.9* | *0.5* | *5.8* | *6.3* | *0.8* | *Apr-15* |
| Entrust Class X | 568,686 | 0.3 | 2.0 | -0.9 | -1.6 | -2.8 | -- | -- | -- | -- | -3.6 | Jan-17 |

# TOTAL FUND PERFORMANCE DETAIL - NET

| | Market Value ($) | % of Portfolio | Policy % | 3 Mo (%) | Fiscal YTD (%) | 1 Yr (%) | 3 Yrs (%) | 5 Yrs (%) | 7 Yrs (%) | 10 Yrs (%) | Inception (%) | Inception Date |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **Private Markets** | **5,796,444** | **3.3** | **5.0** | **1.2** | **2.1** | **7.5** | **7.8** | **--** | **--** | **--** | **8.3** | **May-14** |
| *Private Markets Custom Benchmark* | | | | *-0.8* | *2.2* | *12.7* | *14.0* | *--* | *--* | *--* | *12.7* | *May-14* |
| OCP Orchard Landmark | 2,240,503 | 1.3 | | 1.0 | 3.5 | 10.4 | -- | -- | -- | -- | 10.2 | Nov-17 |
| *JP Morgan Corporate EMBI Broad TR USD* | | | | *0.4* | *1.7* | *-1.2* | *5.7* | *4.4* | *5.0* | *8.4* | *-0.8* | *Nov-17* |
| FEG Private Opportunties Fund | 1,623,364 | 0.9 | | | | | | | | | | |
| Brockton Capital Fund III | 737,042 | 0.4 | | | | | | | | | | |
| SJF Ventures | 650,347 | 0.4 | | | | | | | | | | |
| Canvas Distressed Credit Fund | 545,189 | 0.3 | | | | | | | | | | |
| **Community Development** | **1,790,135** | **1.0** | **1.0** | **0.3** | **0.5** | **1.4** | **1.1** | **1.1** | **1.3** | **1.5** | **1.6** | **Jul-07** |
| *91 Day T-Bills* | | | | *0.5* | *1.0* | *1.9* | *1.0* | *0.6* | *0.5* | *0.4* | *0.6* | *Jul-07* |
| **Cash** | **1,859,819** | **1.1** | **0.0** | | | | | | | | | |

Fiscal Year End: 6/30

GMO Benchmark Free Allocation Fund returns are from the GMO Global Balanced Fund since May 2013.

Private Markets Custom Benchmark consists of 75% Private Equity Benchmark/25% Leveraged Loans as of 9/1/2018. Prior to this, benchmark consisted of Cambridge Associates US Private Equity Index prior to 4/1/2015 and Cambridge Associates Global All Private Equity Vintage Year 2013+ 1 Qtr Lag benchmark post 4/1/2015.

SJF Ventures is benchmarked to its own return within the allocation index from 11/1/2016 to 10/31/2018.

Cash market Value includes $506,473.25 adjustment for pending capital additions into the UUA Endowment Fund.

Net returns for the UUCEF Composite incorporates both investment management fees and UUA administrative fees/expenses.

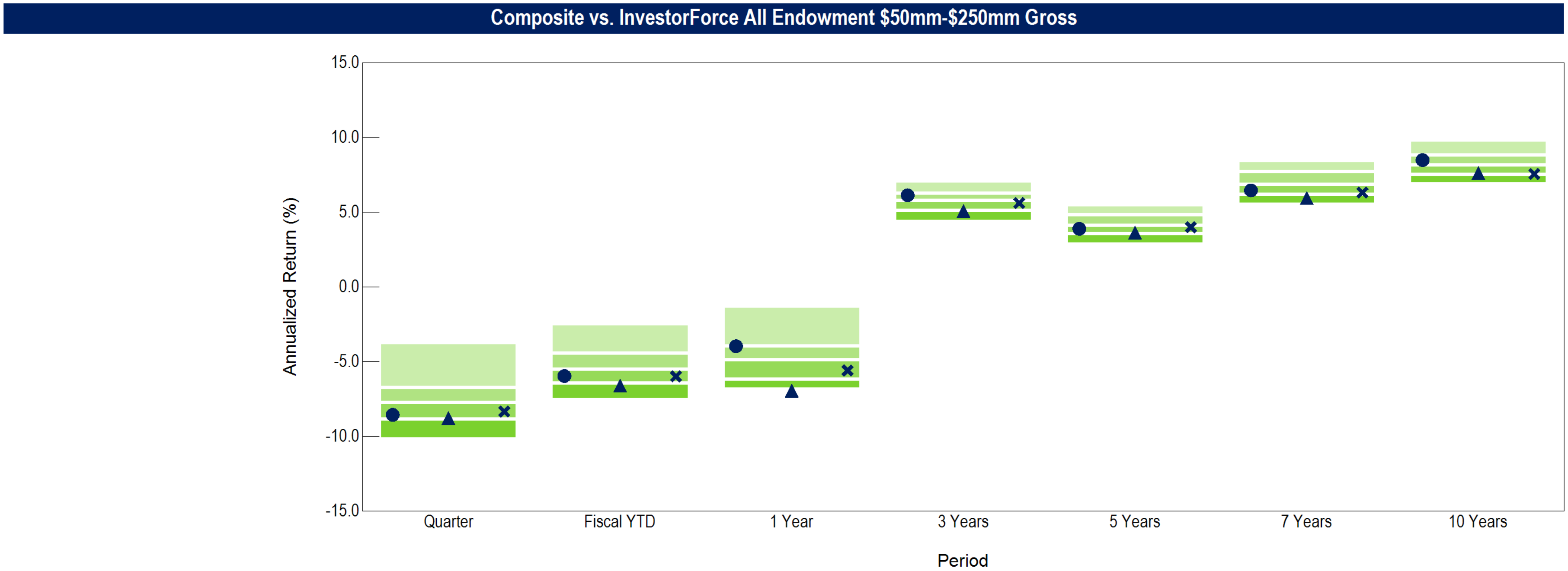
# ANALYSIS BY FUND

| Investments | | Commitments | | Contributions & Distributions | | | Valuations | | | Performance | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Investment Name | Vintage Year | Commitment | Unfunded Commitment | Paid In Capital | Additional Fees | Cumulative Distributions | Valuation | Total Value | Net Benefit | DPI | TVPI | IRR |
| Brockton Capital Fund III, L.P. | 2015 | $4,465,439 | $1,534,790 | $2,930,648 | $16,095 | $2,542,949 | $741,544 | $3,284,493 | $337,750 | 0.87 | 1.12 | 6.79% |
| Canvas Distressed Credit Fund, L.P. | 2018 | $2,000,000 | $1,544,163 | $455,837 | $14,590 | $0 | $430,787 | $430,787 | -$39,640 | 0.00 | 0.95 | -8.43% |
| FEG Private Opportunities Fund, L.P. | 2012 | $2,000,000 | $103,000 | $1,897,000 | $2,707 | $942,647 | $1,653,364 | $2,596,011 | $696,304 | 0.50 | 1.37 | 9.29% |
| SJF Ventures IV, L.P. | 2016 | $2,500,000 | $2,000,000 | $500,000 | $0 | $0 | $400,347 | $400,347 | -$99,653 | 0.00 | 0.80 | -17.17% |
| Total | | $10,965,439 | $5,181,953 | $5,783,485 | $33,392 | $3,485,596 | $3,226,042 | $6,711,638 | $894,761 | 0.60 | 1.16 | 6.96% |

UUA recently approved $2M commitments to HCAP Partners IV and Generation Sustainable Solutions III

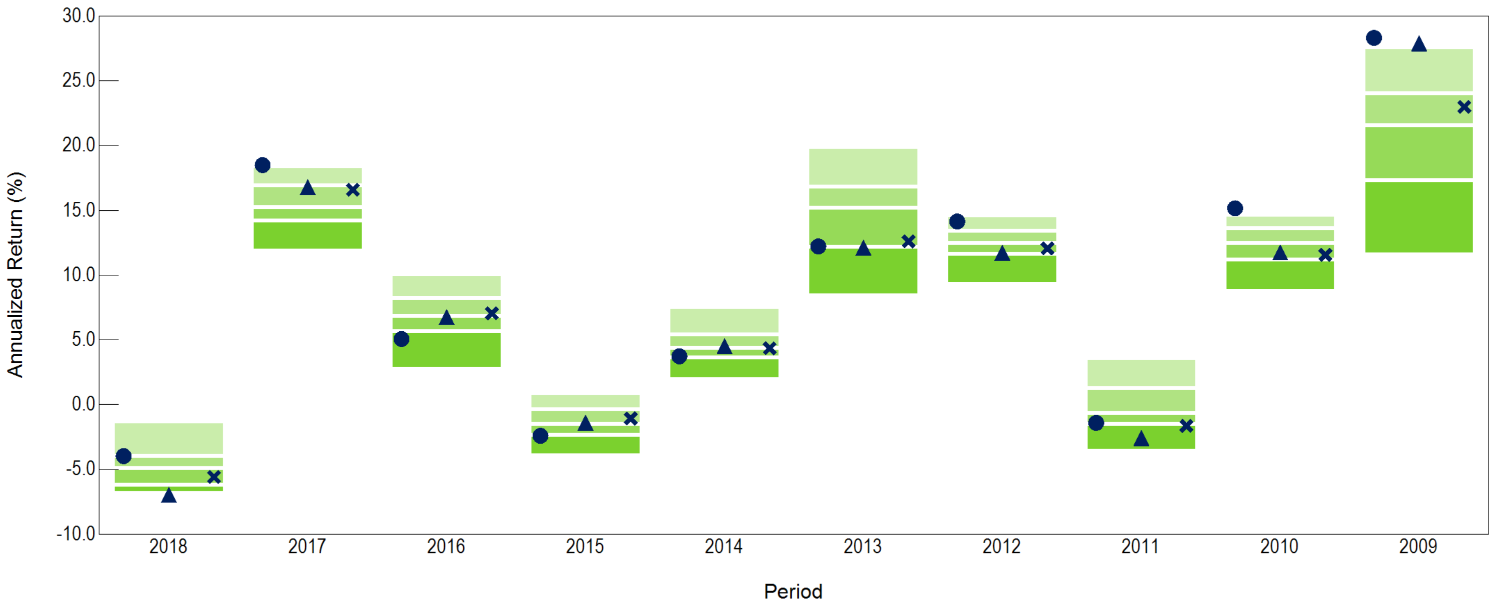
- Commitment Amount – The amount an investor has committed to invest with the General Partner
- Unfunded Commitment – The remaining amount an investor contractually has left to fund its commitments
- Paid In Capital – The amount an investor has contributed for investments and management fees
- Additional Fees – Fees that are outside the capital commitment, also includes interest paid/received due from subsequent closings of the fund
- Cumulative Distributions – The amount an investor has received from realized and partially realized investments
- Valuation – Sum of the fair market value of all investments plus cash
- Total Value – Calculated by adding Amount Distributed and Reported Value. Represents the total amount an investor should expect to receive from their investments
- Net Benefit – Calculated by subtracting Total Value by Capital to be Funded plus Additional Fees
- DPI Ratio - Calculated by dividing Amount Distributed by Amount Funded
- Total Value to Paid In Capital Ratio – Calculated by dividing Total Value by Amount Funded. Represents the multiple of the overall cash invested that an investor is expected to receive
- IRR - The calculation of the IRR (Internal Rate of Return) takes into consideration the timing of cash contributions and distributions to and from the partnerships, the length of time the investments have been held and the sum of the Reported Value

# TOTAL FUND RETURN VS PEER UNIVERSE - GROSS




| | Return (Rank) | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 5th Percentile | -3.8 | | -2.5 | | -1.3 | | 7.1 | | 5.5 | | 8.4 | | 9.8 | |
| 25th Percentile | -6.7 | | -4.4 | | -3.9 | | 6.3 | | 4.9 | | 7.7 | | 8.9 | |
| Median | -7.7 | | -5.5 | | -4.9 | | 5.8 | | 4.1 | | 6.9 | | 8.2 | |
| 75th Percentile | -8.8 | | -6.4 | | -6.2 | | 5.2 | | 3.6 | | 6.2 | | 7.6 | |
| 95th Percentile | -10.1 | | -7.5 | | -6.8 | | 4.4 | | 2.9 | | 5.6 | | 6.9 | |
| # of Portfolios | 88 | | 87 | | 85 | | 82 | | 75 | | 65 | | 60 | |
| ● Composite | -8.6 | (68) | -6.0 | (68) | -4.0 | (27) | 6.1 | (39) | 3.9 | (59) | 6.5 | (66) | 8.5 | (38) |
| ▲ Allocation Index | -8.8 | (74) | -6.6 | (83) | -7.0 | (97) | 5.1 | (80) | 3.6 | (74) | 5.9 | (87) | 7.6 | (73) |
| × Policy Index | -8.3 | (64) | -6.0 | (70) | -5.6 | (66) | 5.6 | (59) | 4.0 | (56) | 6.3 | (72) | 7.6 | (75) |

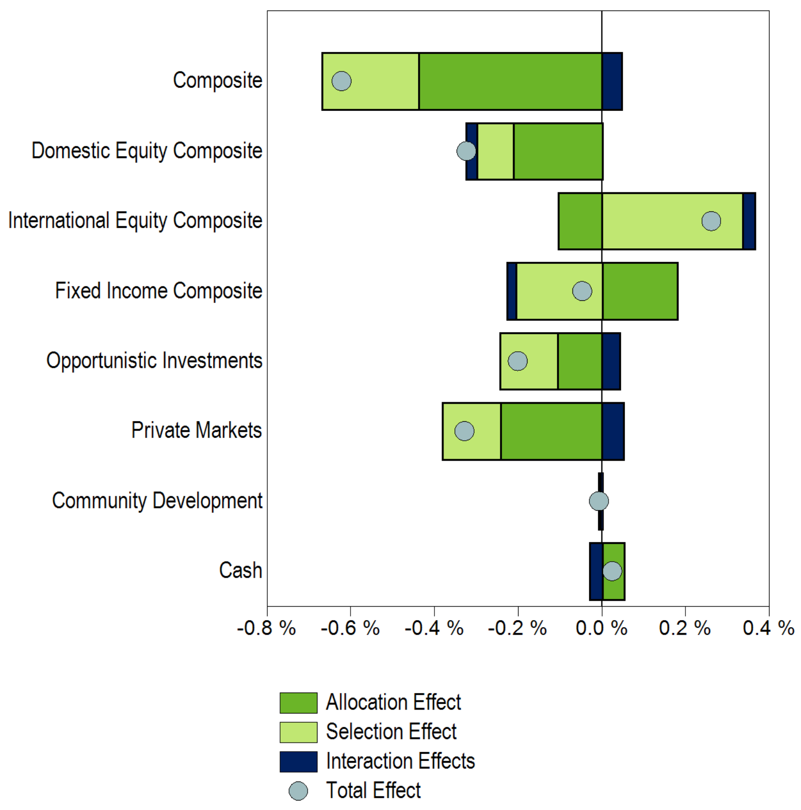
# TOTAL FUND RETURN VS PEER UNIVERSE - GROSS




| | Return (Rank) | | | | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 5th Percentile | -1.3 | | 18.4 | | 10.1 | | 0.9 | | 7.5 | | 19.9 | | 14.6 | | 3.6 | | 14.6 | | 27.6 | |
| 25th Percentile | -3.9 | | 17.0 | | 8.3 | | -0.3 | | 5.5 | | 16.9 | | 13.4 | | 1.3 | | 13.7 | | 24.1 | |
| Median | -4.9 | | 15.3 | | 6.9 | | -1.5 | | 4.4 | | 15.2 | | 12.5 | | -0.6 | | 12.5 | | 21.6 | |
| 75th Percentile | -6.2 | | 14.2 | | 5.7 | | -2.3 | | 3.6 | | 12.2 | | 11.7 | | -1.5 | | 11.2 | | 17.3 | |
| 95th Percentile | -6.8 | | 11.9 | | 2.8 | | -3.9 | | 2.0 | | 8.4 | | 9.4 | | -3.6 | | 8.8 | | 11.6 | |
| # of Portfolios | 85 | | 76 | | 79 | | 80 | | 90 | | 81 | | 83 | | 82 | | 77 | | 75 | |
| ● Composite | -4.0 | (27) | 18.5 | (5) | 5.1 | (85) | -2.4 | (80) | 3.7 | (74) | 12.2 | (75) | 14.1 | (12) | -1.4 | (73) | 15.2 | (3) | 28.3 | (5) |
| ▲ Allocation Index | -7.0 | (97) | 16.8 | (27) | 6.8 | (54) | -1.4 | (49) | 4.5 | (46) | 12.1 | (76) | 11.7 | (74) | -2.6 | (88) | 11.8 | (65) | 27.9 | (5) |
| × Policy Index | -5.6 | (66) | 16.6 | (32) | 7.0 | (48) | -1.1 | (41) | 4.4 | (52) | 12.6 | (70) | 12.1 | (66) | -1.6 | (79) | 11.6 | (67) | 23.0 | (36) |

# TOTAL FUND ATTRIBUTION ANALYSIS - GROSS

**Attribution Effects**
**3 Months Ending December 31, 2018**

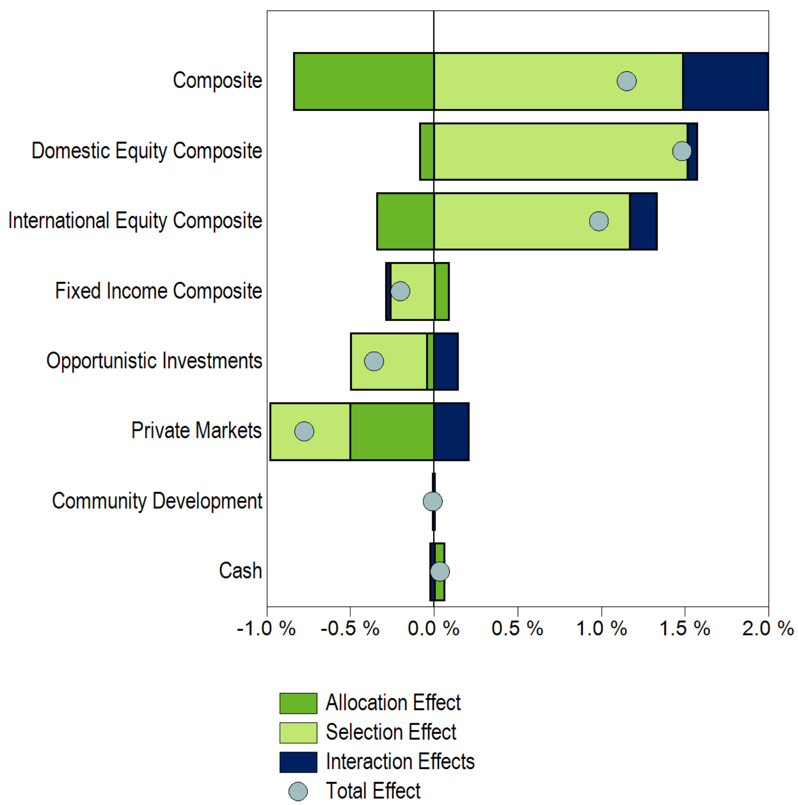



**Attribution Summary**
**3 Months Ending December 31, 2018**

| | Policy Weight | Wtd. Actual Return | Wtd. Index Return | Excess Return | Selection Effect | Allocation Effect | Interaction Effects | Total Effects |
|---|---|---|---|---|---|---|---|---|
| Domestic Equity Composite | 29.0% | -15.7% | -15.4% | -0.3% | -0.1% | -0.2% | 0.0% | -0.3% |
| International Equity Composite | 25.0% | -9.8% | -11.1% | 1.3% | 0.3% | -0.1% | 0.0% | 0.3% |
| Fixed Income Composite | 20.0% | 0.6% | 1.6% | -1.1% | -0.2% | 0.2% | 0.0% | -0.1% |
| Opportunistic Investments | 20.0% | -7.0% | -6.3% | -0.7% | -0.1% | -0.1% | 0.0% | -0.2% |
| Private Markets | 5.0% | 1.8% | 4.7% | -2.9% | -0.1% | -0.3% | 0.1% | -0.3% |
| Community Development | 1.0% | 0.3% | 0.5% | -0.3% | 0.0% | 0.0% | 0.0% | 0.0% |
| Cash | 0.0% | -3.2% | 0.5% | -3.7% | 0.0% | 0.1% | -0.1% | 0.1% |
| **Total** | **100.0%** | **-8.6%** | **-8.3%** | **-0.5%** | **-0.2%** | **-0.3%** | **0.0%** | **-0.5%** |

# TOTAL FUND ATTRIBUTION ANALYSIS - GROSS

Attribution Effects
1 Year Ending December 31, 2018




Attribution Summary
1 Year Ending December 31, 2018

| | Policy Weight | Wtd. Actual Return | Wtd. Index Return | Excess Return | Selection Effect | Allocation Effect | Interaction Effects | Total Effects |
|---|---|---|---|---|---|---|---|---|
| Domestic Equity Composite | 29.0% | -1.3% | -6.5% | 5.2% | 1.5% | -0.1% | 0.0% | 1.5% |
| International Equity Composite | 25.0% | -9.6% | -14.0% | 4.4% | 1.2% | -0.3% | 0.2% | 1.0% |
| Fixed Income Composite | 20.0% | -1.1% | 0.2% | -1.3% | -0.3% | 0.1% | 0.0% | -0.2% |
| Opportunistic Investments | 20.0% | -6.7% | -4.5% | -2.2% | -0.5% | 0.0% | 0.1% | -0.4% |
| Private Markets | 5.0% | 10.3% | 21.2% | -10.8% | -0.5% | -0.5% | 0.2% | -0.8% |
| Community Development | 1.0% | 1.4% | 1.9% | -0.5% | 0.0% | 0.0% | 0.0% | 0.0% |
| Cash | 0.0% | -0.6% | 1.9% | -2.5% | 0.0% | 0.1% | -0.1% | 0.1% |
| **Total** | **100.0%** | **-4.0%** | **-5.6%** | **1.2%** | **1.5%** | **-0.8%** | **0.5%** | **1.2%** |

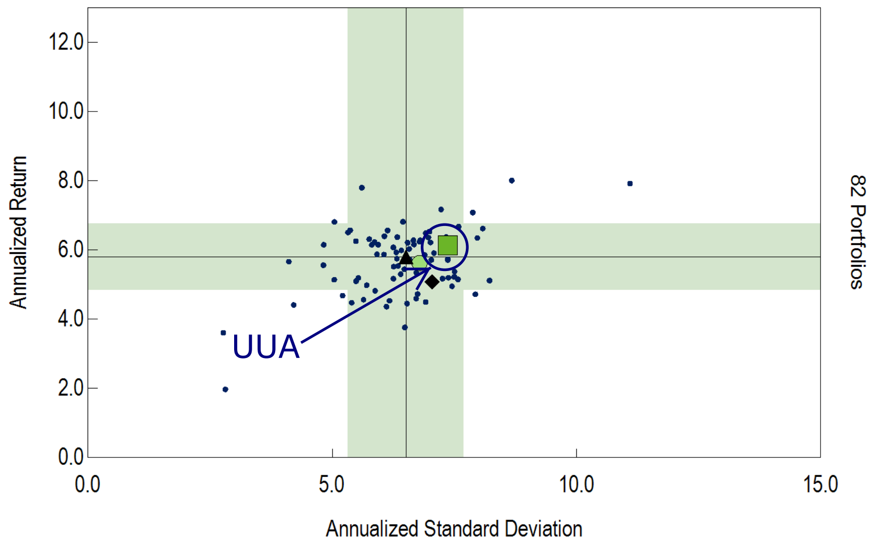
# TOTAL FUND RISK STATISTICS

| | 3 Years Ending December 31, 2018 | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| | % of Tot | Anlzd Ret | Rank | Anlzd Std Dev | Rank | Sharpe Ratio | Rank | Info Ratio | Rank |
| Composite | 100.00% | 6.13% | 39 | 7.36% | 82 | 0.69 | 60 | 0.71 | 18 |
| Allocation Index | -- | 5.08% | 80 | 7.04% | 74 | 0.57 | 81 | -- | -- |
| Domestic Equity Composite | 29.61% | 9.34% | 31 | 13.07% | 55 | 0.64 | 39 | 0.09 | 31 |
| Russell 3000 | -- | 8.97% | 38 | 11.34% | 26 | 0.70 | 30 | -- | -- |
| International Equity Composite | 27.28% | 6.31% | 21 | 11.17% | 18 | 0.47 | 17 | 0.74 | 9 |
| MSCI ACWI ex USA | -- | 4.48% | 50 | 11.54% | 31 | 0.30 | 48 | -- | -- |
| Fixed Income Composite | 23.69% | 2.85% | 68 | 2.38% | 15 | 0.76 | 43 | 0.29 | 57 |
| BBgBarc US Aggregate TR | -- | 2.06% | 86 | 2.88% | 25 | 0.35 | 71 | -- | -- |
| Opportunistic Investments | 14.03% | 4.02% | -- | 5.97% | -- | 0.50 | -- | -0.53 | -- |

| | 5 Years Ending December 31, 2018 | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| | % of Tot | Anlzd Ret | Rank | Anlzd Std Dev | Rank | Sharpe Ratio | Rank | Info Ratio | Rank |
| Composite | 100.00% | 3.89% | 59 | 7.20% | 78 | 0.45 | 73 | 0.18 | 49 |
| Allocation Index | -- | 3.64% | 74 | 6.81% | 61 | 0.44 | 74 | -- | -- |
| Domestic Equity Composite | 29.61% | 7.66% | 39 | 12.54% | 51 | 0.56 | 42 | -0.07 | 40 |
| Russell 3000 | -- | 7.91% | 34 | 11.17% | 25 | 0.65 | 28 | -- | -- |
| International Equity Composite | 27.28% | 1.71% | 51 | 11.71% | 31 | 0.09 | 49 | 0.45 | 33 |
| MSCI ACWI ex USA | -- | 0.68% | 78 | 11.91% | 43 | 0.00 | 78 | -- | -- |
| Fixed Income Composite | 23.69% | 2.78% | 42 | 2.32% | 12 | 0.92 | 28 | 0.11 | 41 |
| BBgBarc US Aggregate TR | -- | 2.52% | 47 | 2.79% | 21 | 0.68 | 38 | -- | -- |
| Opportunistic Investments | 14.03% | 1.97% | -- | 6.35% | -- | 0.21 | -- | -0.74 | -- |

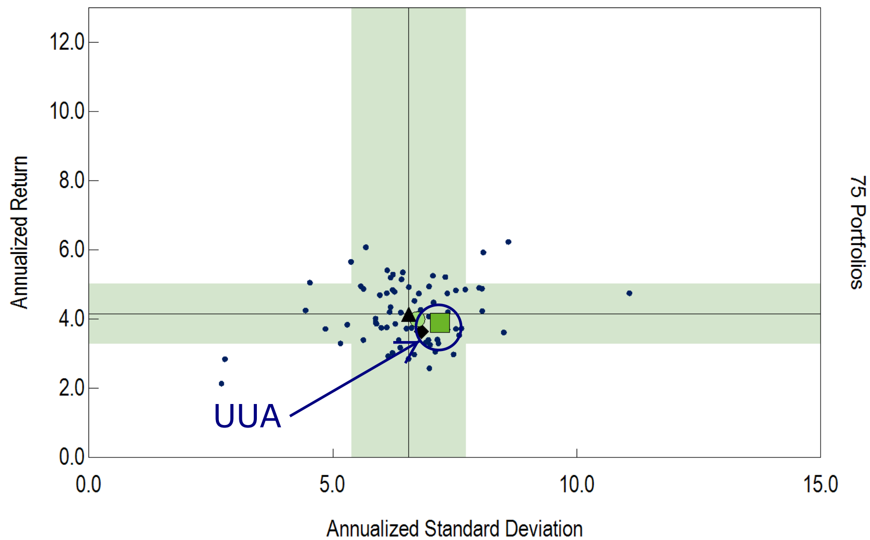
# TOTAL FUND RISK/RETURN - GROSS

3 Years Ending December 31, 2018




- Composite
- Allocation Index
- Policy Index
- Universe Median
- 68% Confidence Interval
- InvestorForce All Endowment $50mm-$250mm Gross

5 Years Ending December 31, 2018



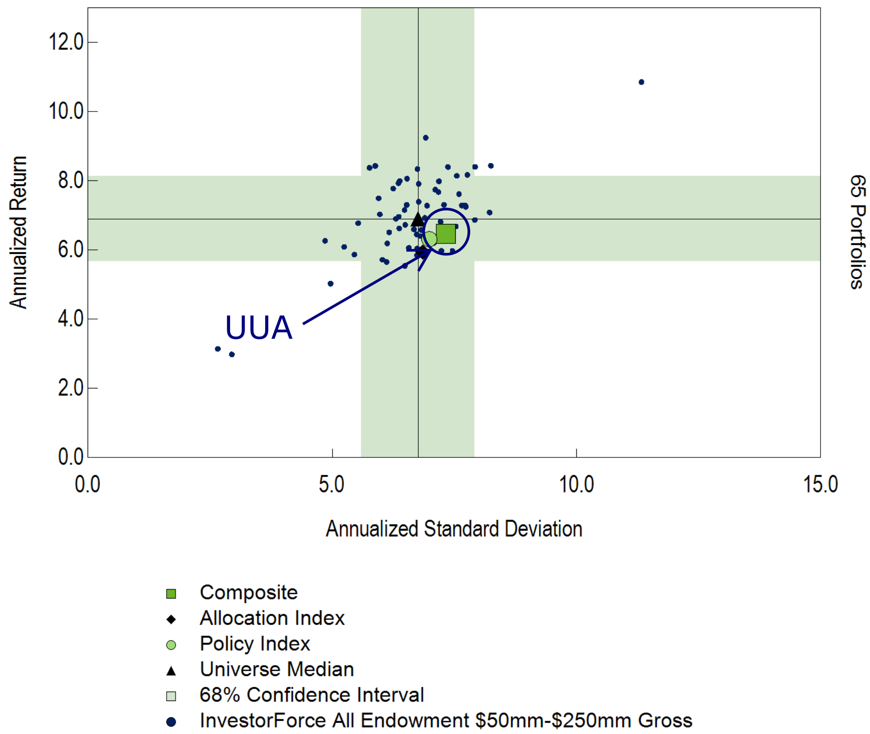

- Composite
- Allocation Index
- Policy Index
- Universe Median
- 68% Confidence Interval
- InvestorForce All Endowment $50mm-$250mm Gross

| 3 Years Ending December 31, 2018 | Anlzd Ret | Rank | Anlzd Std Dev | Rank | Sharpe Ratio | Rank | Info Ratio | Rank |
|---|---|---|---|---|---|---|---|---|
| Composite | 6.13% | 39 | 7.36% | 82 | 0.69 | 60 | 0.71 | 18 |
| Allocation Index | 5.08% | 80 | 7.04% | 74 | 0.57 | 81 | -- | -- |
| Policy Index | 5.62% | 59 | 6.79% | 63 | 0.68 | 66 | 0.90 | 14 |
| InvestorForce All Endowment $50mm-$250mm Gross Median | 5.80% | -- | 6.51% | -- | 0.73 | -- | 0.36 | -- |

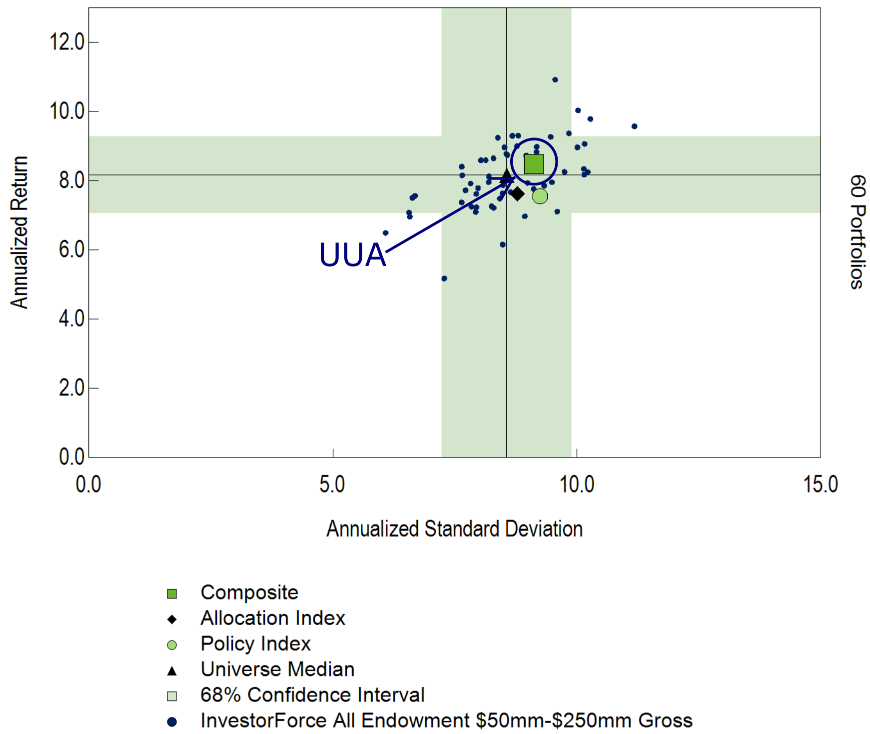
| 5 Years Ending December 31, 2018 | Anlzd Ret | Rank | Anlzd Std Dev | Rank | Sharpe Ratio | Rank | Info Ratio | Rank |
|---|---|---|---|---|---|---|---|---|
| Composite | 3.89% | 59 | 7.20% | 78 | 0.45 | 73 | 0.18 | 49 |
| Allocation Index | 3.64% | 74 | 6.81% | 61 | 0.44 | 74 | -- | -- |
| Policy Index | 4.00% | 56 | 6.73% | 57 | 0.50 | 64 | 0.67 | 15 |
| InvestorForce All Endowment $50mm-$250mm Gross Median | 4.15% | -- | 6.56% | -- | 0.54 | -- | 0.17 | -- |

# TOTAL FUND RISK/RETURN - GROSS

## 7 Years Ending December 31, 2018




## 10 Years Ending December 31, 2018




| 7 Years Ending December 31, 2018 | Anlzd Ret | Rank | Anlzd Std Dev | Rank | Sharpe Ratio | Rank | Info Ratio | Rank |
|---|---|---|---|---|---|---|---|---|
| Composite | 6.46% | 66 | 7.33% | 78 | 0.82 | 84 | 0.41 | 44 |
| Allocation Index | 5.94% | 87 | 6.85% | 57 | 0.80 | 91 | -- | -- |
| Policy Index | 6.31% | 72 | 6.99% | 62 | 0.84 | 80 | 0.63 | 21 |
| InvestorForce All Endowment $50mm-$250mm Gross Median | 6.90% | -- | 6.76% | -- | 0.96 | -- | 0.29 | -- |

| 10 Years Ending December 31, 2018 | Anlzd Ret | Rank | Anlzd Std Dev | Rank | Sharpe Ratio | Rank | Info Ratio | Rank |
|---|---|---|---|---|---|---|---|---|
| Composite | 8.49% | 38 | 9.13% | 70 | 0.89 | 57 | 0.58 | 18 |
| Allocation Index | 7.63% | 73 | 8.79% | 57 | 0.83 | 78 | -- | -- |
| Policy Index | 7.56% | 75 | 9.25% | 74 | 0.78 | 91 | -0.05 | 67 |
| InvestorForce All Endowment $50mm-$250mm Gross Median | 8.17% | -- | 8.57% | -- | 0.92 | -- | 0.08 | -- |

# APPENDIX

# GLOSSARY OF TERMS

The calculation methodology for each measure of performance is outlined below.

| Measurement | Description | Equation |
|---|---|---|
| **Policy Target** | Measures policy allocation decisions. | = Target Asset Weights x Index Returns |
| **Allocation Index** | Measures actual allocation decisions. Deviations from the policy target can be derived. (Allocation Index – Policy Index) | = Actual Asset Weights x Index Returns |
| **Composite (Total Return)** | Measures actual performance and can derive active management decisions. (Composite – Allocation Index) | = Actual Asset Weights x Actual Returns |

The calculation methodology for each measure of attribution is outlined below.

| Measurement | Description | Equation |
|---|---|---|
| **Allocation Effect** | Measure the effects of overweighting or underweighting managers and asset classes. | = (Actual Manager Weight – Policy Target Weight) X Policy Index Return |
| **Selection Effect** | Measures the managers' ability to add excess return relative to the policy index. | = (Actual Manager Return –Index Return) x Policy Target Weight |
| **Interaction Effect** | Measures the cross correlation of both selection and allocation affects and is often referred to as an "error term". | = (Actual Manager Return x (Actual Manager Weight – Policy Target Weight)) – ((Manager Weight – Policy Target Weight) X Index Return) |

# GLOSSARY OF TERMS

**Alpha** - Measures the relationship between the fund performance and the performance of another fund or benchmark index and equals the excess return while the other fund or benchmark index is zero.

**Alpha Jensen** - The average return on a portfolio over and above that predicted by the capital asset pricing model (CAPM), given the portfolio's beta and the average market return. Also known as the abnormal return or the risk adjusted excess return.

**Annualized Excess Return over Benchmark** - Annualized fund return minus the annualized benchmark return for the calculated return.

**Annualized Return** - A statistical technique whereby returns covering periods greater than one year are converted to cover a 12 month time span.

**Beta** - Measures the volatility or systematic risk and is equal to the change in the fund's performance in relation to the change in the assigned index's performance.

**Information Ratio** - A measure of the risk adjusted return of a financial security, asset, or portfolio.

*Formula:*
*(Annualized Return of Portfolio - Annualized Return of Benchmark)/Annualized Standard Deviation(Period Portfolio Return – Period Benchmark Return). To annualize standard deviation, multiply the deviation by the square root of the number of periods per year where monthly returns per year equals 12 and quarterly returns is four periods per year.*

**R-Squared** – Represents the percentage of a fund's movements that can be explained by movements in an index. R-Squared values range from 0 to 100. An R-Squared of 100 denotes that all movements of a fund are completely explained by movements in the index.

**Sharpe Ratio** - A measure of the excess return or risk premium per unit of risk in an investment asset or trading strategy.

**Sortino Ratio** - A method to differentiate between good and bad volatility in the Sharpe Ratio. The differentiation of up and down volatility allows the calculation to provide a risk adjusted measure of a security or fund's performance without upward price change penalties.

*Formula:*
*Calculation Average (X-Y)/Downside Deviation (X-Y) * 2*
*Where X=Return Series X Y = Return Series Y which is the risk free return (91 day T-bills)*

**Standard Deviation** - The standard deviation is a statistical term that describes the distribution of results. It is a commonly used measure of volatility of returns of a portfolio, asset class, or security. The higher the standard deviation the more volatile the returns are.

*Formula:*
*(Annualized Return of Portfolio – Annualized Return of Risk Free) / Annualized Standard Deviation (Portfolio Returns)*

**Tracking Error** - Tracking error, also known as residual risk, is a measure of the degree to which a portfolio tracks its benchmark. It is also a measure of consistency of excess returns. Tracking error is computed as the annualized standard deviation of the difference between a portfolio's return and that of its benchmark.

*Formula:*
*Tracking Error = Standard Deviation (X-Y) * √( # of periods per year)*
*Where X = periods portfolio return and Y = the period's benchmark return*
*For monthly returns, the periods per year = 12*
*For quarterly returns, the periods per year = 4*

**Treynor Ratio** - A risk-adjusted measure of return based on systematic risk. Similar to the Sharpe ratio with the difference being the Treynor ratio uses beta as the measurement of volatility.

*Formula:*
*(Portfolio Average Return - Average Return of Risk-Free Rate)/Portfolio Beta*

**Up/Down Capture Ratio** - A measure of what percentage of a market's returns is "captured" by a portfolio. For example, if the market declines 10% over some period, and the manager declines only 9%, then his or her capture ratio is 90%. In down markets, it is advantageous for a manager to have as low a capture ratio as possible. For up markets, the higher the capture ratio the better. Looking at capture ratios can provide insight into how a manager achieves excess returns. A value manager might typically have a lower capture ratio in both up and down markets, achieving excess returns by protecting on the downside, whereas a growth manager might fall more than the overall market in down markets, but achieve above-market returns in a rising market.

*UpsideCapture = TotalReturn(FundReturns)/TotalReturns(BMReturn) when Period Benchmark Return is > = 0*

*DownsideCapture = TotalReturn(FundReturns)/TotalReturns(BMReturn) when Benchmark <0*

*Data Source: InvestorForce*

# ALTERNATIVE INVESTMENT DISCLAIMER

**It is important to note the following characteristics of many non-traditional investment strategies including hedge funds and private equity:**

1. Performance can be volatile and investors could lose all or a substantial portion of their investment.
2. Leverage and other speculative practices may increase the risk of loss.
3. Past performance may be revised due to the revaluation of investments .
4. These investments can be illiquid, and investors may be subject to lock-ups or lengthy redemption terms.
5. A secondary market may not be available for all funds, and any sales that occur may take place at a discount to value.
6. These funds are not subject to the same regulatory requirements as registered investment vehicles.
7. Managers are not required to provide periodic pricing or valuation information to investors.
8. These funds may have complex tax structures and delays in distributing important tax information.
9. These funds often charge high fees.
10. Limited partnership agreements often give the manager authority to trade in securities, markets or currencies that are not within the manager’s realm of expertise or contemplated investment strategy.

# INFORMATION DISCLAIMER

**Past performance is no guarantee of future results.**

**The goal of this report is to provide a basis for substantiating asset allocation recommendations. The opinions presented herein represent the good faith views of NEPC as of the date of this report and are subject to change at any time.**

**Information on market indices was provided by sources external to NEPC. While NEPC has exercised reasonable professional care in preparing this report, we cannot guarantee the accuracy of all source information contained within.**

**All investments carry some level of risk. Diversification and other asset allocation techniques do not ensure profit or protect against losses.**

**This report is provided as a management aid for the client's internal use only. This report may contain confidential or proprietary information and may not be copied or redistributed to any party not legally entitled to receive it.**

## Information Disclaimer

- Past performance is no guarantee of future results.
- All investments carry some level of risk. Diversification and other asset allocation techniques are not guaranteed to ensure profit or protect against losses.
- NEPC’s source for portfolio pricing, calculation of accruals, and transaction information is the plan’s custodian bank. Information on market indices and security characteristics is received from other sources external to NEPC. While NEPC has exercised reasonable professional care in preparing this report, we cannot guarantee the accuracy of all source information contained within.
- Some index returns displayed in this report or used in calculation of a policy, allocation or custom benchmark may be preliminary and subject to change.
- This report is provided as a management aid for the client’s internal use only. Information contained in this report does not constitute a recommendation by NEPC.
- This report may contain confidential or proprietary information and may not be copied or redistributed to any party not legally entitled to receive it.

## Reporting Methodology

- The client’s custodian bank is NEPC’s preferred data source unless otherwise directed. NEPC generally reconciles custodian data to manager data. If the custodian cannot provide accurate data, manager data may be used.
- Trailing time period returns are determined by geometrically linking the holding period returns, from the first full month after inception to the report date. Rates of return are annualized when the time period is longer than a year. Performance is presented gross and/or net of manager fees as indicated on each page.
- For managers funded in the middle of a month, the “since inception” return will start with the first full month, although actual inception dates and cash flows are taken into account in all Composite calculations.
- This report may contain forward-looking statements that are based on NEPC’s estimates, opinions and beliefs, but NEPC cannot guarantee that any plan will achieve its targeted return or meet other goals.