Board of Trustees

Quarterly Meeting

MAY 23-24, 2018

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APFC ALASKA PERMANENT FUND CORPORATION
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QUARTERLY MEETING OF THE BOARD OF TRUSTEES
May 23-24, 2018

Atwood Building – Room 104
550 West 7th Avenue, Anchorage, AK 99501

Webinar Access (Click link to join webinar) - Password: APFC
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Call-in toll-free number: 1-844-740-1264 / Access Code (Meeting Number): 801 847 101

AGENDA

WEDNESDAY, MAY 23, 2018

8:30 a.m. **CALL TO ORDER**

ROLL CALL (Action)

APPROVAL OF AGENDA (Action)

APPROVAL OF MINUTES (Action)
- February 21-22, 2018
- March 15, 2018

SCHEDULED APPEARANCES AND PUBLIC PARTICIPATION

8:45 a.m. **CHIEF EXECUTIVE OFFICER'S REPORTS (Information/Standard Reports)**
- Pending Board Matters, Trustee Education Report, Disclosures, Travel, Due Diligence Log, Staff Education & Training
- Communications
- Financials
- Cash Flow
- Monthly Performance Report
- Strategic and Tactical Moves
- Investment Management Fee Report
- FY18 Budget Update

9:00 a.m. **CHIEF INVESTMENT OFFICER REPORT (Information)**
Russell Read, Chief Investment Officer

9:15 a.m.	**INVESTING WITH ENVIRONMENTAL, SOCIAL & GOVERNANCE FACTORS (Information)** **Moderator: Russell Read, Chief Investment Officer** **Brian Deese, Blackrock,** Managing Director, Global Head of Sustainable Investments **John Goldstein, Goldman Sachs,** Managing Director, ESG and Impact Investment Client Strategy **Hilary Irby, Morgan Stanley,** Managing Director, Co-Head of Global Sustainable Finance
11:15 a.m.	***BREAK***
11:30 a.m.	**PERFORMANCE REVIEW (Information)** **Greg Allen, Callan, Chief Executive Officer and Chief Research Officer** **Steve Center, Callan, Senior Vice President**
12:30 p.m.	***BREAK/LUNCH***
1:00 p.m.	**FUND PERFORMANCE OVERVIEW AND UPDATE (Information)** **Valeria Martinez, Director of Asset Allocation**
1:20 p.m.	**RISK OVERVIEW (Information)** **Russell Read, Chief Investment Officer**
	ASSET CLASS UPDATES (Information)
1:50 p.m.	**Real Assets (Infrastructure, Special Income, Real Estate, Absolute Return)** **Marcus Frampton, Director of Real Assets**
2:30 p.m.	**Asset Allocation Strategies** **Valeria Martinez, Director of Asset Allocation**
3:00 p.m.	**Fixed Income** **Jim Parise, Director of Fixed Income**
3:30 p.m.	***BREAK***
3:45 p.m.	**Public Equities** **Fawad Razzaque, Director of Pubic Equities**
4:15 p.m.	**Private Equity & Special Opportunities** **Steve Moseley, Director of Private Equity & Special Opportunities**
4:45 p.m.	***EXECUTIVE SESSION (Information)*** **Alaska Mental Health Trust Authority** **Mike Abbott, Executive Director**
5:15 p.m.	**BOARD RECESS FOR THE DAY**

THURSDAY, MAY 24, 2018

8:00 a.m.	**BOARD OF TRUSTEES' PHOTO SHOOT - Cancelled** **Gather in Atwood Meeting Room– short walk to location**
8:30 a.m.	***MEETING RECONVENES*** **INVESTMENT POLICY REVIEW AND UPDATE (Action)** **Russell Read, Chief Investment Officer**
10:45 a.m.	***BREAK***
11:00 a.m.	**ANNUAL INVESTMENT PACING FOR PRIVATE EQUITY, INFRASTRUCTURE, AND REAL ESTATE (Information)** **Marcus Frampton, Director of Real Assets** **Steve Moseley, Director of Private Equity and Special Opportunities**
12:00 p.m.	***BREAK / LUNCH***
12:30 p.m.	**REVIEW OF ANNUAL ASSET ALLOCATION CAPITAL MARKETS ASSUMPTIONS (Information)** **Greg Allen, Callan, Chief Executive Officer and Chief Research Officer** **Steve Center, Callan, Senior Vice President**
2:00 p.m.	**APFC BUDGET REVIEW** • **FY18 BUDGET PROJECTIONS (Action)** • **FY19 BUDGET APPROVAL (Action)** **Valerie Mertz, Chief Financial Officer**
2:30 p.m.	***BREAK***
2:45 p.m.	**LEGISLATIVE UDPATE (Information)** **Paulyn Swanson, Communications Manager**
3:00 p.m.	**INCENTIVE COMPENSATION STRUCTURE (Action)** **Angela Rodell, Chief Executive Officer** **McLagan Partners** **Michael Oak, Associate Partner**
4:00 p.m.	**OTHER MATTERS** **Angela Rodell, Chief Executive Officer**

4:05 p.m. **INVESTMENT ADVISOR COMMENTS (Information)**
Jerrold Mitchell

4:20 p.m. **TRUSTEE COMMENTS**
FUTURE AGENDA ITEMS

4:30 p.m. **ADJOURNMENT**

NOTE: TIMES MAY VARY AND THE CHAIR MAY REORDER AGENDA ITEMS   ***(Please telephone Danielle Graham at 907.796.1519 with agenda questions.)***

Approval of Minutes Memo

SUBJECT: Approval of Minutes

ACTION: X

DATE: May 23, 2018

INFORMATION:

BACKGROUND:

Staff reviewed the following Board of Trustees meeting summary minutes, draft copies are attached for your approval.

- February 21-22, 2018 Quarterly Board of Trustees Meeting
- March 15, 2018 Special Board of Trustees Meeting

RECOMMENDATION:

Approval of the summary minutes of the Board of Trustees meetings listed above.

February 21-22, 2018

ALASKA PERMANENT FUND CORPORATION
QUARTERLY MEETING OF THE BOARD OF TRUSTEES

February 21-22, 2018

Location of Meeting:
Alaska Permanent Fund Corporation
Hugh Malone Boardroom
Juneau, Alaska

SUMMARY MINUTES

Trustees Present: William G. Moran, Chair
Sheldon Fisher
Craig Richards
Marty Rutherford
Andrew Mack

Investment Advisor: Tim Walsh

Staff Present:

Angela Rodell, CEO	Russell Read, CIO	Valerie Mertz, CFO
Chris Poag	Paulyn Swanson	Valeria Martinez
Marcus Frampton	Ben Chang	Jared Brimberry
Steve Moseley	Fawad Razzaque	Youlian Ninkov
Moctar Diouf	Jim Parise	Masha Skuratovskaya
Christopher Cummins	Tom O'Day	Matthew Olmsted
Jacob Vandervest	Tim Andreyka	Robin Mason
Rose Duran	Laura Achee	Charlie Vice
Andrew Clower	Samantha LaPierre	Chad Brown

Invited Participants and Others Present:

Vince Lishay
Tom Gammel
Elaine Schroeder, Public Comment
Gretchen Kaiser, Public Comment
Doug Woodby, Public Comment
Bob Schroeder, Public Comment
Perry Miller, Public Comment
Kate Troll, Public Comment
Rick Steiner, Public Comment (Via telephone)
Neal Olson, Public Comment (Via telephone)
Ceal Smith, Public Comment
Scott Gruhn, Public Comment
Gregory Allen, Callan Associates
Steven Center, Callan Associates
Michael Mendelson, AQR
Jilly Lee, AQR
Seth Birmbaum, Bridgewater Associates
Roy Appelman, Goldman Sachs Asset Management

PROCEEDINGS

CALL TO ORDER

CHAIR MORAN called the meeting to order.

ROLL CALL

CHAIR MORAN, TRUSTEES RICHARDS, RUTHERFORD, MACK and FISHER were present to form a quorum.

APPROVAL OF AGENDA

CHAIR MORAN stated that if there are no suggestions or changes from the board, the agenda is considered approved.

APPROVAL OF MINUTES (December 12-13, 2017)

MOTION: TRUSTEE RUTHERFORD made a motion to approve the minutes of the December 12-13, 2017, board meeting. TRUSTEE FISHER seconded.

Following the roll call vote, the MOTION WAS APPROVED by the Trustees (RUTHERFORD, FISHER, MORAN, MACK; RICHARDS abstained).

SCHEDULED APPEARANCES AND PUBLIC PARTICIPATION

CHAIR MORAN stated that there are some people that have some concerns that they would like to express to the board. He continued that the testimony will be held to two minutes, and recognized Elaine Schroeder.

MS. SCHROEDER thanked the board of trustees for the work done to realize the highest investment gains for the benefit of all Alaskan residents. She continued that she is representing 350 Juneau – Climate Action for Alaska, a grassroots climate action group, which has over 500 individuals that have attended or are interested in the group's events. She and hundreds of Alaskans around the state request that the public be provided an accounting of how the fossil fuel investments have performed, as well as future projections and risks to these holdings. They urge divesting from all fossil fuels. She submitted the divestment petition that has been signed by over 400 Alaskans, and the names of the petitioners are on the Alaska Climate Action Network, a statewide organization. She gave a brief background and history of fossil fuel divestment.

CHAIR MORAN recognized Gretchen Kaiser.

MS. KAISER stated that she is a Juneau resident and a shareholder of the Alaska Permanent Fund. She urged the trustees to undertake an assessment of the financial performance of the energy sector investments of the fund, report the results in a transparent manner, and then take appropriate action. It is time that the energy sector performance across all assets of the Permanent Fund be examined. She recommended that the trustees direct staff to conduct a thorough performance assessment of the fund's energy investments, and to report to the public in a timely manner. She stated that this is the appropriate, prudent, and transparent action, and thanked the board.

CHAIR MORAN recognized Doug Woodby.

MR. WOODBY stated that he is a resident of Juneau and a shareholder with questions about the fund's investments. He continued that in his attempts to understand how the Permanent Fund Corporation works, he came across the prudent investor rule in Title 37, Chapter 13, Section 120, which instructs the fund managers to preserve the purchasing power of the fund while maximizing expected return. He added that he also has seen the highlighted slogan on the home page of the Corporation's website, "Investing for Alaska, Investing for the Long Run." He asked several questions, which he also submitted in writing. He thanked the board, and stated that he is looking forward to a response.

CHAIR MORAN recognized Bob Schroeder.

MR. SCHROEDER thanked all for the opportunity to provide testimony. He stated that he is a long-term Juneau resident, and his career is a research and applied anthropologist. He added that he works on national resource issues for the State of Alaska and for the Federal Government. He believes that the Corporation has generally served Alaskans very well and has done its best to stay clear of politically motivated investments. He stated that his testimony highlights what he considers to be excessive concentration of investments in the fossil fuel portion of the market energy sector. He continued that this concentration has been harmful to the Permanent Fund returns since fossil fuel investments have performed very poorly over the past 10 years. He requested that the Corporation provide to its shareholders a sector of investment analysis that shows how the Permanent Fund compares with other similar funds in its sector allocation. He further requested that the Corporation provide a comprehensive analysis of past and expected future performance of its energy sector holdings to the public.

CHAIR MORAN recognized Kate Troll.

MS. TROLL stated that she is a long-term Alaskan and testified in support of Ms. Rodell's claim made in her recent op-ed, which was that it is time for Alaskans to establish a new contract to support the evolution and continued health of the fund. She read the first two paragraphs of a letter delivered last year signed by Jim Ayers, Bruce Botelho, Beth Kerttula, and herself. Since writing that letter, she explained that she learned that with all the 196 countries that have signed on to the Paris Climate Accord, many financial institutions have been concerned about doing the two-degree stress test. She stated that it would be very appropriate for the Permanent Fund Board to also conduct a similar stress test. She explained the importance of this type of analysis. She also emphasized the opportunities to invest in renewable energy and energy efficiencies and electrification of the transport industry. She thanked all, leaving a copy of the letter.

CHAIR MORAN recognized Rick Steiner.

MR. STEINER stated that he is from Anchorage and endorsed the previous exceptional in-person testimony that has been heard from the people in Juneau. He then congratulated the

Permanent Fund on their December agreement to hold an environmental, social, and government work session at an upcoming board meeting.

CHAIR MORAN stated that a good part of Mr. Steiner's testimony was broken up because of technical difficulties. He requested that Mr. Steiner submit some written testimony to the board for a closer look at his comments. He then recognized Neal Olson, who also had technical difficulties, and stated that he would also submit written testimony. He asked that anyone else on the phone that would like to testify, to please submit the testimony in writing. On behalf of the board, he thanked people for their testimony. He added that there is a session scheduled for the next meeting to bring the full board up to speed on the various issues associated with fossil fuel investments. He then moved to the Chief Executive Officer's reports.

CHIEF EXECUTIVE OFFICER'S REPORT

CEO RODELL began with the organizational changes that were made: Robin Mason is the Chief Operating Officer for the Corporation; Scott Balovich has been promoted to Director of IT Info Tech; Charlie Vice and Andrew Clower are two new employees. She stated that she had the opportunity to do an investor tour through India and spoke at a conference in Abu Dhabi. It was four cities in five days, and we met with 28 CEOs and chairmen of conglomerations, and seven government ministers. She continued that one of the key takeaways is that these are companies that for years have been expanding their reach outside of India, and are now turning inward and are really invigorated in investing in India. She added that part of the world is going to provide some interesting opportunities down the road. There is a huge demographic growth in this part of the world. She moved on and highlighted the tactical changes that were implemented during the fourth quarter of 2017. She stated that there was a lot of movement to rebalance some of the public equity positions, and she went through some of the management fees. She asked for any questions.

TRUSTEE RICHARDS stated that he noticed that the investment fees with fixed income was $12 million and asked what that constituted.

CEO RODELL replied that a year and a half ago the fixed-income-plus asset allocation was created. This includes REITs and listed infrastructure. Those external managers are now located in the fixed income asset allocation, which is driving that fee change.

TRUSTEE RUTHERFORD asked how things were progressing on APFC's budget over in the Legislature for the coming year.

CEO RODELL replied that the House Finance Subcommittee has heard the budget and will be having a committee meeting this evening to close out the Department of Revenue budget. She continued that five amendments were made to move the budget out of the language section back into the numbers section of the operating budget, and to break it into one appropriation and two allocations. She added that the reasoning for that was to give the subcommittee oversight of our budget. She stated that she was very discouraged by that rationale when the subcommittee is taking the actions and does have oversight.

TRUSTEE RUTHERFORD asked if the amendment was passed.

CEO RODELL replied that it was passed, and her understanding is that when the House Finance rolls out a committee substitute for the operating budget that it will have those amendments incorporated.

CHAIR MORAN moved to the Chief Investment Officer report.

CHIEF INVESTMENT OFFICER'S REPORT

CIO READ stated that during the calendar year of 2017 the world's capital markets and the Alaska Permanent Fund enjoyed broad-based gains. He continued that publicly traded stocks advanced more than 25 percent; private equity investments more than 20 percent; infrastructure more than 15 percent; and private credit more than 10 percent. The remaining asset classes, including fixed-income-plus, real estate, absolute return funds, and ECIOs all delivered in excess of 5 percent returns. He continued that the overall one-year return of 16.1 percent would represent the third best year for the Fund over the past two decades. In order to provide a context for the Fund's investment performance for the board, staff, and the public, at the end of the past fiscal year the concept of a performance scorecard, specifically, long-term, medium-term, and short-term objectives, in which to gauge whether the Fund is being successful was introduced. He stated that the long-term, five-year performance measure focuses on delivering actuarial progress, defined as a return of CPI plus 5 percent or better. He explained in greater detail and stated that the Fund's principal sources of diversification in order are: Income orientation, international scope, and private initiatives. He continued that the asset class which have been particularly value-added for the Permanent Fund have included publicly traded stocks, fixed-income-plus, private equity, and infrastructure. He explained how the Permanent Fund is positioned today, and the investment return prospects for the remainder of the fiscal year and beyond. He added that each APFC investment team will discuss its investment strategy for achieving best-in-class performance in the future, as well as the investment risks that are being undertaken within and across asset classes.

RISK AND ASSET ALLOCATION OVERVIEW

CIO READ introduced Valeria Martinez and Samantha LaPierre.

MS. MARTINEZ began with a brief presentation of the December quarter and covering asset allocation, risk management, liquidity and performance. She stated that the portfolio is divided into two groups: those investments that provide income for the Fund, and those that are for appreciation and growth. The investments that are held for income purposes represent 37 percent of the Fund which include fixed income, real estate, infrastructure, credit and cash. She continued to value-at-risk, which is a statistical technique used to quantify the level of financial risk of portfolios and the probability of loss in them. It is a very popular measure of risk management because it is simple and compares the risk of different portfolios used. She asked Ms. LaPierre to explain the analysis in a stress test, showing what could happen when the market started to be stressed as opposed to normal conditions.

MS. LAPIERRE moved to the scenario analyses which are all listed and stress the portfolio and the strategic benchmark to give an idea of what would happen to these portfolios in certain specific circumstances. She went through the stress analysis that is done which shows that the portfolio is particularly sensitive to moves and risky assets, such as equities, credit spreads, and volatility spikes, all of which are common for a portfolio, and which equities contribute the majority of their risk. She then showed the same factors stressed in the opposite direction.

MS. MARTINEZ reminded all that this is a stress test, and is not correlated in the portfolio. It just shows how the factors affect the portfolios.

CHAIR MORAN asked how the graphs change with the currency overlay program.

MS. LAPIERRE replied that it primarily affects the non-U.S. developed markets because they are only hedging those currencies. It will not affect the emerging market currency exposure but will take from the non-dollar developed market. She moved to geographic exposure and stated that most of the exposure is to the United States, followed by non-U.S. developed markets and emerging market countries. There is also a slight overweight to the U.S. and to emerging markets when compared to the benchmark and underweight to non-U.S. developed. She compared the exposures to the currency exposures and finds that not all geographic exposure translates to currency exposure. She moved to the emerging market countries and showed the detailed geographic exposure to China, South Korea, India, Taiwan, Brazil, South Africa, and Mexico. She stated that these seven countries represent $3.6 million or 5.85 percent of the total fund. Including the other emerging market countries shows the total E.M. exposure is 7.44 percent of the total portfolio.

MS. MARTINEZ broke down the portfolio into two separate groups. The public investments or securities that are registered and then exchanged are very liquid. That group represents 70 percent of the Fund, which is slightly more than the 67 percent benchmark. She stated that the other group is private investments, which represents 30 percent of the Fund. These are investments that do not trade on the exchange and are considered less liquid or illiquid. This category includes private equity, private infrastructure, hedge funds, private credit, et cetera. She continued that the board established ranges on how much private investment can be held. She then gave a brief update about the asset allocation portfolio, which includes the asset allocation strategies, like external CIOs. She stated that these are managers that manage multiple asset portfolios with CPI-plus-5 return objectives, and are all liquid. They are not allowed to have any private investments. There is also a liquidity portfolio that includes cash and bonds. In general, funds that are on hand for everything that is needed: operations, management fees, funding strategies, et cetera. She summarized that the cash used to fund new strategies and operations was redeployed last year, so there was a lot less liquidity at the end of that year. The concerns of a long run-up and of a correction started the rebalancing, which continued through the year. That will be seen in the next quarter, as well. She continued that, in addition, the board approved a liquidity overlay that started in February, which will also be seen next quarter. There will be a full review on the multi-asset space with the eCIOs continuing to perform as expected.

CHAIR MORAN called a ten-minute break.

(Break.)

CHAIR MORAN called the meeting back to order and moved to Performance Review with Callan Associates Inc.

PERFORMANCE REVIEW

MR. ALLEN stated that this is the first time in the history of the S&P 500, since 1926, where there was not a single down month for equities in a calendar year. It is truly a historic period. He added that there was not a single down month for the MSCI ACWI index either. The emerging markets had only one down month in September, which was down .4 percent.

MR. CENTER began the presentation by talking about the capital markets as a whole, trends that were observed in the U.S. and non-U.S. equity markets, along with fixed income and alternatives, and a brief update about the U.S. market. He stated that the capital market performance, year-end December 2017, was driven by strong performance in the equity markets.

TRUSTEE RICHARDS stated that there was an expectation that some of the energy stocks were going to underperform going forward. He asked if there were any specifics that could be shared.

MR. CENTER replied that it is difficult to make a blanket statement about energy stocks as a whole. He stated that oil-dependent stocks could have a structural headwind given the trends towards clean energy and other areas within the energy space. The energy sector as a whole is not strictly fossil-fuel-related and does include other areas, clean energy and such. He continued that over the last 10 years there has been a definite downward trend in the sector that could be cyclical. There could be a period of positive performance attributable to energy as a whole. He stated that, overall, all sectors had positive performance for the quarter ending December 31st. He continued that emerging markets had its fourth consecutive positive quarter, fueled primarily by a soft U.S. dollar and rebound in oil and commodity prices. He then moved on to the currency perspective and stated that the U.S. dollar fell and was relatively flat to begin with. He continued that these shifts benefited U.S. investors, and were a tailwind given that investments in U.S. dollars were increasing in value during the quarter. He looked at some of the fixed-income market where volatility remained at historic lows during the quarter. The U.S. aggregate came in at a 0.4 percent positive return; most spread sectors outperformed Treasuries. The one exception was asset-backed securities that were basically flat. He stated that the tax reform is expected to have some impact on the fixed-income market. Most issues did quite well in the global fixed income market within emerging market debt with positive returns across the board, with the one exception of Venezuela. He added that higher commodity prices helped within the emerging market debt space. Local currency emerging market debt rose 0.8 percent during the quarter. He moved to real estate, and the domestic growth has continued to stoke demand for commercial real estate; tighter lending standards have been able to balance some of that supply, as well. It has been in an equilibrium state. He stated that there was a continued softening in retail and hotel; however, all returns by sectors were positive for the quarter. Commercial real estate remains a positive contributor to performance; REITs were also positive. He continued that hedge funds performed well for the quarter and the year. Overall, Callan's long/short equity database was up about 1.8 percent, while diversified hedge funds were up 1.5 percent. Equity exposure did contribute to performance during the quarter. He continued through his presentation, and stated that the U.S. market continues to be a strong engine driving the global economy, and he does not see any huge areas of concern other than that specter of inflation that was mentioned before.

MR. ALLEN added that it was also a good year for active managers generally in equity, which has not happened for a while.

MR. CENTER touched on the current asset allocation of the Fund. Using the Fund's stated asset allocation buckets, it currently has allocated 44 percent to public equity; 21 percent to fixed income; and 34 percent to alternative; a moderate increase in fixed income; and a slight decrease on the public equity side. He reminded all that the private equity and growth opportunities, real estate and infrastructure, private credit income opportunities are all reported at a one-quarter lag. He then moved to discussing asset class structure and performance, beginning with the equity portfolio and an overview of the Permanent Fund's public market equity structure. Then he focused on U.S. equities performance, stating that this is a domestic equity performance of other total plan sponsors. The Permanent Fund ranks favorably against this peer group over all time periods. He added that the portfolio is not out of line with other peers, and he does not see any areas of concern. The U.S. equity structure within the Permanent Fund is approximately 70 percent active and 30 percent passive, a slight overweight to small cap. About 20 percent of the small-cap allocation is actively managed. He stated that, overall, a very strong performance for the large-cap portfolio. It did benefit from that growth bias that it has relative to most peers. He continued that the small-cap portfolio's performance ranks near the median over all time periods. The fourth quarter performance was strong and outperformed the index by approximately 65 basis points. He added that the Permanent Fund's small-cap portfolio is pretty mature and tends to have a mid-cap bias because the funds are established, which is not uncommon. He continued going through the different portfolios and shared positive comments about each. He then moved on to fixed-income-plus, detailing the structure of the fixed-income-plus portfolio and reminded all that this portfolio is a combination of internally and externally managed assets. He stated that the Permanent Fund's fixed-income-plus portfolio performed better than its benchmarks over all the time periods shown except for the last five years. When compared to its peers, this portfolio maintains a solid lead.

MR. ALLAN stated that there is a lot of equity exposure in the rest of the portfolio that may not present itself as equity. He added that the way that the internal bond portfolio is positioned is a good thing.

MR. CENTER moved to the comparison of the performance of the global high-yield portfolio versus peers and the benchmark. The Permanent Fund's global high-yield portfolio currently consists of portfolios managed by Oaktree, Capital Guardian, and an exchange-traded fund that Jim Parise and team purchased. Performance for the quarter performed very close to the benchmark.

CIO READ asked what is seen as the key difference between what the external managers are doing versus what others are doing.

MR. CENTER answered that Oaktree has been a higher quality, high-yield manager and are historically going to be underweight to anything rated triple C or lower. There is a systematic market where lower quality high-yield has rallied well and is one of the reasons why there are performance lagging peers. It is that higher quality bias. He continued that one of the reasons for that lagging performance is having two high-yield managers that were risk averse relative to the market during this most recent credit crunch. In looking at all time periods, the REIT portfolio outperformed the index and is above median versus the peer group. The REIT portfolio includes allocations to AEW, State Street, and the American Homes 4 Rent investment, as well. Overall, the REITs and listed infrastructure have performed quite well since being added to the portfolio. He moved to the private equity portfolio positioning, stating that the goal is to take a look at the private equity portfolio on a geographic basis, on an industry diversification basis, and overall portfolio diversification to see if there are any areas of overweight or concern. He continued that there are no areas of geographic overweight and no areas of overall concern.

CHAIR MORAN called for a lunch break.

(Lunch break.)

CHAIR MORAN called the meeting back to order.

ASSET CLASS UPDATES

REAL ASSETS (INFRASTRUCTURE, SPECIAL INCOME, REAL ESTATE, ABSOLUTE RETURN)

CIO READ stated that real estate in the context of an overall real asset strategy is increasingly being looked at. He moved to a joint presentation on real estate from Marcus Frampton, head of real assets, and Rose Duran on real estate.

MR. FRAMPTON stated that real estate and infrastructure are being looked at together as a real asset strategy. He reminded everyone, in the investment policy, what they are trying to achieve out of real estate. He continued that a risk/return profile that sits between equities and fixed income is being targeted. That manifests itself in Class A real estate, typically purchased on an unlevered basis. There are some properties that have some leverage, but the majority do not. That is important when comparing it to the return being seen in other parts of the private market portfolio, that might be more leverage or be earlier stage companies in biotech or other venture capital areas. He added that on a three- to five-year basis, the real estate portfolio has returned about 10 percent.

MS. DURAN stated that there are several reasons why leverage is a plus on real estate assets. When looking at the international market overseas, it is like a natural hedge against the currency when there is a 50-percent leverage on the property because the income stream is paying for that debt.

MR. FRAMPTON highlighted that the leverage that the fund is running at is not influenced dramatically by the leverage. It is much more what is happening to NOI growth and cap rates.

TRUSTEE FISHER asked what would happen to cap rates if interest rates start to increase.

MR. FRAMPTON replied that the spread of cap rates to Treasuries is one of the most followed metrics in the industry. He does not think that rising interest rates would help too many asset classes.

MS. DURAN added that when looking at rising rate environments it goes back to the NCREIF data when it was originally collected in 1983; and in four of those six periods of rising rates, the cap rates went down or moved up very little. She stated that there is not a direct relationship, and it is probably because there is a lot of supply-and-demand characteristics that are at play. As risk is repriced in the market for the interest rate adjustments across asset classes, real estate looks to be a preferred asset class because of the inflation-proofing dynamics of real estate itself. She moved on to the portfolio overview. She stated that the end of December, which is actually the end of September, the portfolio invested $5.6 billion, which is 9 percent of the total portfolio. She showed an underweight on total allocation by $2.3 billion, currently net of the Simpson sale at about 6.5 percent, and about $3 billion below target. She continued that the real estate performance by manager had very strong results. The benchmark was outperformed by 180 basis points for the quarter. She pointed out that there is a good, strong overweight to retail. She moved to the current real estate cycle that shows 33 quarters of transaction volume, which is actually December 31, 2017 information. She pointed out a pullback in transaction volume, which is consistent with the broader market indices.

MR. FRAMPTON transitioned to Ben Chang and Jared Brimberry who will go through the rest of the portfolio he manages. He added that Mr. Chang will focus on hedge funds on his team, and Mr. Brimberry will focus on private credit.

MR. CHANG stated that about 18 months ago the fund-of-funds model was shifted to a direct investments model. He continued that this shift resulted in about $15 million in fee savings for the Fund. The mandate for hedge funds is basically noncorrelation to everything, looking to generate a high single-digit return regardless of broader market environment. In terms of updates, a new investment of about $50 million was made to a market-neutral, sector-specific financials manager.

MR. BRIMBERRY moved to the private credit fund and talked about the cumulative capital distributed, the cumulative capital called, and the current value. He stated that the net IRR has improved by about 30 basis points since the last quarter. Since the start of the staff-direct program, the net IRR is 10.9 percent, which is actually the return over the last year. The uncalled commitments or the committed capital that has not been called yet stands at about $950 million for this portfolio. On the special opportunities front, the distributed renewable energy commitment with Generate Capital has been made.

CIO READ moved to the fixed-income-plus team, and recognized Jim Parise.

FIXED INCOME

MR. PARISE introduced Masha Skuratovskaya who does global rates, rates, and TIPS; Chris Cummins, who does all of the structured product, which is MBS, CMBS, ABS, and works on the $3.6 billion aggregate portfolio; and Matt Olmsted, who works on the corporate portfolio, the corporate portion of the ag portfolio and is also in charge of the high-yield effort. He began with the internal portfolios where all of the one-year numbers are positive versus their benchmarks. He stated that on the fixed-income desk they are singularly focused on the benchmark and beating their benchmark. He then explained the chart of the internal aggregate portfolio, which is the one that all work on, and is essentially a best-ideas portfolio. He stated that it is where the duration versus the index can be changed, and we do try to outperform based on duration, which is not done very often. He continued that most of the performance for the quarter came from asset allocation and security selection. He added that security selection is just picking the cheapest bond in whatever sector is being traded in and across the curve.

MS. SKURATOVSKAYA stated that the TIPS portfolio is the Treasury index portfolio and is the only Treasury portfolio. The main strategy followed is very similar to the mean reversion trade. Cheap bonds are looked for, mostly off the runs or particular issues that people have decided to offload from their portfolios. They are bought, and sooner or later those returns are realized. In the past quarter, the inflation expectations went up by about 15 basis points. Those were not done in even fashion, so the expectations moved the most. She then stated that the next portfolio is the global government's portfolio. One of the things to address is the imminent rise in interest rates that has been brought up a number of times. She continued that one of the degrees of freedom in this portfolio is that markets that are in different points of their interest rate cycles can be invested in. The main theme in this portfolio is placing money outside of the markets that are for increasing rates. The largest exposures in that portfolio is Eurozone and Japan. Markets are looked at different points in their economic cycle, so those rate increases can be avoided or at least we can sit them out. During this quarter, the rates rallied toward the end of the term, and there will be some negative performance in the last quarter. We diversified from Eurozone and Japan, and exposures to several small markets were added. Access to the South Korean bond market has been gained, which is a fairly large exposure in the portfolio, and we are now able to directly invest in it instead of buying property from that country. She added that access to the Indian bond market was not gained because it is an investment-grade sovereign. It has a very tight way of controlling foreign investors and requires an extensive application process. This process was gone through, and we have received a Category 1 status, and are now able to purchase Indian government bonds in the portfolio. The final thing that took place at the very end of the year was taking over the management of foreign exchange internally. We can now respond to and forward trades internally.

MR. PARISE moved to the fixed-income-plus allocation. He explained that before this became a benchmark, each of these portfolios was on their own. He explained that there is now an increased focus on the managers within this fixed-income-plus. He asked Matt Olmsted to touch on some of the things that were done and the future plans.

MR. OLMSTED stated that one of the managers has underperformed clearly and it has a defensive bias. We talked to the analyst team on multiple occasions, and it is very consistent within the firm that is their bias, and they have underperformed generally in a bull market. Given where the spreads and the markets are in general, that would not be an allocation to reduce right now. He added that they may consider increasing with a manager, just given their quality bias.

MS. SKURATOVSKAYA stated that Capital Group is the only manager in emerging markets. The current benchmark for emerging markets is hard currency debt only. She explained that hard currency debt is basically dollar denominated external debt of emerging markets that has a high correlation to the U.S. yield curve. The benchmarks and mandates that the EM portfolio is structured against is 50 percent local debt and 50 percent external debt. Local debt has a different profile, duration, and interest rate profile, and it has a very strong currency component.

CHAIR MORAN asked about what fees are embedded in those emerging market ETFs.

MS. SKURATOVSKAYA replied around 40 basis points.

MR. PARISE explained that they are not low and that is one of the issues with an ETF. He added that an ETF is not a free lunch because a 40-basis-point loss is locked to the index.

MR. OLMSTED stated that with the U.S. HY, a significant percentage of that ETF is owned by the Fund. It is brand new, and when the bond is bought the shares are created, submitted to BlackRock, who then creates shares and issues them to the fund. He added that they are significant, but essentially priced based upon what it costs to source the bonds in the market.

MR. ALLEN asked if they are looked at regularly to see how well it is tracking once fully vested, and if it tracks the indexes.

MR. OLMSTED replied that, in terms of high yield, the U.S. HY, which is a large liquid high-yield fund, has its own index. With certain liquidity limitations, there are basically about 400 issuers in it. It tracks that well, but does not track our benchmark very well.

PUBLIC EQUITIES

MR. RAZZAQUE introduced Youlian Ninkov, part of the public equities team for the last five years. He stated that Moctar Diouf joined last year to exclusively assist him as his external manager, and for research selection and due diligence. He continued that equity markets, again, delivered strong returns: Global economic expansion, synchronized global growth, strong corporate earnings growth, and a benign environment, which is very friendly for equities because of low interest rate, low inflation, and the dollar. He added that everything is good, and nothing is bad, which is why volatility was not seen in 2017. Now, volatility is back, earlier this month. That has been the environment for 2017 and the same environment for Q4. Within that, public equities and emerging markets led the gains, followed by U.S. equities. He noted that non-U.S. developed markets underperformed quite significantly at 4.23, which is largely because of Europe. Japan did okay, but Europe really underperformed, especially in the fourth quarter. Another significant difference throughout 2017, and also in the fourth quarter, is how much information technology is in the portfolio versus the benchmark. He explained that as long as China is stable, and we are still in that global economic expansion, emerging markets should continue to do well. He added that the fund managers have been a consistent source of the value-add, and it is the asset allocation that is warehoused in different parts of the allocation where it hurts. Domestic equities, positive relative performance from active managers is about 13 basis points. He continued that during the last quarter, the managers in aggregate outperformed their respective benchmarks. He separated tactical tilt from external managers, explaining that the external managers added value, and tactical tilt subtracted 10 basis points.

CIO READ introduced Steve Moseley, head of the private equity and special growth opportunities portfolio.

PRIVATE EQUITY AND SPECIAL GROWTH OPPORTUNITIES

MR. MOSELEY stated that he manages private equities and special opportunities which represents about $13 billion in commitments and about $8 billion in current market value. He continued that they are investing through funds, venture capital, buyouts, distressed situations, and others. He added that they are also co-investing along with managers and are investing directly in operating companies. He noted that the official results are based on September 30th data, which now seems stale because there has been a lot of interesting activity since that time. He continued that the headline number is a combined portfolio one-year net IRR of 20.6 percent at 9/30. The public benchmark was outperformed by 130 basis points, which is 1,207 basis points of performance over three years. He moved on, explaining about the activity that happened since September 30th, beginning with four of the five most significant changes in the portfolio. He stated that this represented from cost to total value. Denali was one of the significant investments because it was written up, went public, and the stock has performed moderately well. He continued that Juno was one of the largest public company positions and essentially liquidated size and position. Celgene announced a definitive plan to purchase Juno, which may close in early March. They just received antitrust clearance last night, and if that happens, that would move the portfolio. There was also a meaningful up-round in Indigo Agriculture, which is one of the larger direct investments. He continued that HealthSun was acquired by Anthem. That was owned for less than a year, and made three times the money. He added that a new investment was made in a company called Foundation Health; returns so far have been zero because that investment was just made last quarter. He stated that the net of the portfolio value since 9/30 increased by $586 million. The cash-on-cash multiple increased 2.5 times to 2.9 times. The IRR, which was 67 percent, is now 77 percent. He added that he expects there will be movement before reporting these numbers finally, but they are definitive events that he knows about. He stated that there is other good news in the portfolio, but those are the big events. Part of the reason for live reports is that all the numbers are rolled up from the bottom. There are over 3,000 underlying portfolio companies. Those are rolled up to different mangers, and then are rolled up to Bank of New York and Pathway and others to report on it.

CHAIR MORAN called a five-minute break.

(Break.)

LEGISLATIVE UPDATE

MS. SWANSON stated that she has the opportunity of bringing forward the legislative update today, which happens to be the 32nd day of the second session of the 30th Alaska State Legislature. She continued that a lot of the debate centers around the use of the Earnings Reserve Account to fund the current fiscal debt the State has. Thus far this session, CEO Rodell has presented to both the Senate and House Finance Committees, offering an overview of the Fund and the stress analysis that was presented to the board during the December meeting. Chair Moran joined her and was available for questions during the first Senate Finance Committee hearing of the session. Since then, there have been some additional inquiries for follow-up presentations for both the House and the Senate, and we are still looking at getting those scheduled. She stated that a Permanent Fund 101 was held for legislators and staff at the Capitol Building, which was jointly sponsored by the House and Senate, and was also streamed. She continued that there is a summary of legislation in the packets, and we've highlighted a few of those items starting with the Governor's FY19 proposed operating budget. She added that this budget is House Bill 286 and Senate Bill 144, and are both before their respective finance committees at this time. She continued that the House Finance Budget Subcommittee has amended the proposed language, and they have relocated it from the language section to the numbers section of the budget. They also separated it into two allocations: one for APFC operations, and the other for APFC investment management fees. She noted that there is still a long budget process ahead.

TRUSTEE RICHARDS stated that there has been a big change in the State of Alaska in terms of how we are operating around the governance structure for the rules of the Permanent Fund. He continued that what is being seen is a dangerous trend in the form of inflows and outflows, and the flows between the earnings reserve and the corpus of the fund have rules that are not necessarily being followed. He asked whether the board should consider taking a more proactive stance in encouraging sound leadership and custodianship in terms of governance rules, and for it to take a position encouraging the government follow the rules that are on the books. He encouraged the board to think about that because eventually this may be heading towards a system of not just taking money out of the Permanent Fund to pay dividends, but ultimately funding the State Government.

TRUSTEE RUTHERFORD asked Trustee Richards if he has any proposed language surrounding something like this.

TRUSTEE RICHARDS replied that he has tried to draft something, and will certainly double his efforts to see if it is something that the board will get behind.

TRUSTEE RUTHERFORD asked when the next meeting is.

CEO RODELL replied that the next meeting follows the week after the adjournment of a 120-day session. May 23-24 is the board meeting and is in Anchorage.

TRUSTEE RICHARDS committed to getting a draft done in the next week and informing the board through general counsel.

MS. SWANSON let the board know that the Governor has brought forth the FY18 supplemental bill, and an appropriation for $5 million for investment management fees is included in that supplemental bill. That bill is currently in process. She highlighted that CEO Rodell continues to keep looking out for legislation that is going on to pursue a procurement exemption as the board has discussed over the past few years.

CHAIR MORAN moved to real estate.

MR FRAMPTON followed up on the earlier discussion of real estate and stated that there are a couple of action items. He added that he wanted to go through what will be done over the next few months in advance of the May board meeting. He stated that there are two action items: The first is that we are in the red zone on real estate following the disposition of Simpson Housing. His understanding is that status requires board action to approve remaining in the red zone status. In May there will be a revision to the investment policy statement which includes the bands, and likely resolution in the near term. That status will be combined bands between infrastructure, private credit, and real estate. He stated that relief is being looked at on that item in the interim. Then, the strategic plan for real estate creates a manager exposure limitation of 35 percent. It is close to 50 percent with L&B after the exit of Simpson Housing. That would also require the board's acceptance of that until it is addressed in May.

TRUSTEE RUTHERFORD stated that she understood what the real estate fund category will be, but did not understand what the co-investment is and how that differs from some of the investments that are already being done.

MR. FRAMPTON explained that, to date, no real estate funds are really invested, and the properties are held directly. He proposed to make a commitment to a private-equity-style fund that just purchased property; and as is the case in credit, they may have transactions that are larger than can be accommodated and can co-invest with them and reduce the fees.

CHAIR MORAN asked CEO Rodell to review the green, yellow, and red zones, and what the board involvement is at each stage.

CEO RODELL replied that in the green zone there is full discretion and board authority is given. There are other things controlling specific investments. When moved into the yellow zone, Valerie, the Chief Financial Officer, lets the board know. Staff is required to notify the board that we are operating in a yellow zone. It is a heads-up to the Board of Trustees. No action is specified or required at the time. In a red zone area, staff is required to go before the board and are not allowed to stay in that for more than 30 days without board action specifically directing us to stay in that. It has to be cured on a very quick time frame. What is being asked for is the recognition that we are well underweight of the board's target asset allocation for real estate and to continue to operate in this red zone knowing that these steps will be taken. Part of the cure is going to be getting an international real estate manager onboard so some of the money can be deployed through the Fund commitment and gain some real estate exposure through that mechanism.

> **MOTION:** TRUSTEE RICHARDS made a motion to approve operating in the red zone for the real estate allocation until the May 2018 board meeting, and to approve exceeding 35 percent manager exposure guideline with L&B until the May 2018 board meeting. TRUSTEE RUTHERFORD seconded.
>
> Following the roll call vote, the MOTION WAS APPROVED by the Trustees (RUTHERFORD, MORAN, MACK, RICHARDS).

CEO RODELL stated that the investment policy will be taken up and reviewed in total in May. It made sense to wait and do it all at once rather than doing it as a separate real estate investment policy at this meeting.

CHAIR MORAN recessed the meeting until tomorrow, 8:30.

(Alaska Permanent Fund Corporation Board of Trustees meeting adjourned at 3:51 p.m.)

FEBRUARY 22, 2018

CHAIR MORAN reconvened the meeting and recognized CIO Read.

POSITIONING A PORTFOLIO IN SUSTAINED BULL MARKETS

CIO READ stated that the morning will begin with a timely panel represented by our eCIO managers. The discussion topic is looking at how to position portfolios, the overall Permanent Fund, considering the run-up in stocks over the past 18 months. He continued that, from a staff perspective, this is a particularly relevant topic. He added that it will be moderated by Valeria Martinez, head of asset allocation and risk management.

MS. MARTINEZ stated that 2018 started with the wind in the back and as a process we have the expectations of the global growth to continue for this year. She continued that the objective today is to share some thinking on how to construct portfolios to achieve the investment goals in this environment. She invited three of the Fund's partner firms that deal with the same kinds of challenges; Bridgewater, AQR, and Goldman Sachs. Seth Birmbaum has been with Bridgewater for 15 years. He is a senior portfolio strategist, and is a member of the research team, as well, with expertise in Bridgewater's investment process, portfolio structuring in different markets, like currency rates, commodities, and equities. He works closely with clients to develop custom portfolios and modeling capabilities and training and development experiences. She also introduced Michael Mendelson, who is a principal at AQR. He is a portfolio manager for AQR's risk parity strategies and a member of both the firm's strategic planning and risk committees. She continued that prior to AQR, he was a managing director of Goldman Sachs, and founded the quality training group there. He has been a member of the Managed Funds Association board of directors, and chairman of the trading and Markets Committee, and is currently the chairman of the Government Affairs Committee. She also introduced Roy Appleman, who is a senior strategist and head of a strategic asset allocation team within the global portfolio solutions group at Goldman Sachs Asset Management. Previously, he led the corporate strategies team in the investment banking division where he advised institutional clients in capital structure, risk management, and hedging considerations. He joined Goldman Sachs in 2005. She asked the panelists to give a brief introduction to the topic and a background to begin the discussion.

MR. BIRMBAUM thanked all for the opportunity to be here and to partner with Alaska for going on eight years. He stated that, as part of the program, there is a combined mandate that holds a diversified mix of assets and combines that with the tactical trading across the major markets: currencies, equities, bonds. It is a combined mandate of a diversified mix that is intended to be beneficial relative to the overall mix of Alaska. He continued that he was asked to give some context on the macroeconomic backdrop, how conditions are seen right now, and the implications for equities, but more the implications for managing portfolios through that. He added that the most interesting part of the market action in February is not that it was that volatile, but it was much more normal. It is more about how lowly volatile and complacent market action has been over the last number of years amidst the tremendous amount of liquidity in the system. He thinks that it is in a transition in terms of where it is cyclically which will mean more volatility, more risk, and difficulty navigating. He moved on and talked about the most important portfolio implications of that. The secular backdrop is a picture in the U.S. that goes back to the post-World War I period; and remains about the same. He went through different charts explaining how pushing money into the system supported the best backward-looking period for a 60/40 portfolio in modern history. It allowed that backdrop of continued easiness with monetary-policy-supported growth that has been sustained for nine years. It gradually ate up the capacity in the economy that was created in the financial crisis. He summarized a measure of performance by taking a ratio of return to risk. The early cycle tends to be the best period for financial assets, the mid cycle is an okay period, and the late cycle tends to favor inflationary assets, like real assets and commodities, until the turn when the economy weakens and assets like bonds will be more favorable. He explained that, in modern history, this magnitude of a fiscal push has never been seen when unemployment is this low, and we are this far into expansion. That means that the near term will look good, but it is also speeding up the time frame of Central Bank's tightening and bringing in the inflection point to the next downturn. He added, that will be a challenge for investors because Central Bank's rates are already at zero. They are coming up a little bit, but to reverse a downturn has taken between 5 percent and 8 percent interest rate cuts. He stated that the view would be strategically having an exposure to assets structurally that can do well when equities do not do well, that are diversifying, is critical. He continued that finding managers that have skill in navigating and timing markets and adding value would be particularly valuable because the yields on most assets are quite low. Passively holding assets as the next inflection point is approached is a question on whether that makes sufficient returns. He thanked all for their time.

MR. MENDELSON stated appreciation for the long-standing relationship with the Alaska Permanent Fund. He continued that he is a portfolio manager and not an economist. The difference for a portfolio manager is the need to be very practical people. He added that he did not disagree with anything that Mr. Birmbaum stated, and talked about the need to turn that into something that generates returns. He stated that a lot of times it is because the time scale that is operated on as portfolio managers tends to be very different than the economic cycle. Things must be turned over and positions changed to get the right economics, to get the math working, and making a lot of small bets instead of one big one. He continued that economic outlooks matter, but they do not tell how to generate returns or manage risks. He pointed out that forecasts are not prophecies, and there are a lot of other things that can happen. The only way to make a lot of bets is to do it fairly often, which does not quite correspond with the timescale of which the economic forecast is made. He talked about the equity returns that returned 11.5 percent in the last five years, which is pretty good. He also talked about the longer term. He added the need to know where they are in the business cycle and to have some idea of it. He stated that having lots of different drivers of risk, drivers of return in the portfolio may be consistent with anyone's view of markets going forward. Along with that, it might be interesting to consider that the world is often driven by benchmarking which has huge impacts of how you are positioned. Peer benchmarking drives toward an asset allocation that cements in a large amount of equity risk.

MR. APPELMAN talked about their perspectives on how to position and forward the late cycle. He stated that he agrees with his colleagues on many things, both on the importance of understanding where the economic cycle is and also the importance of making sure that the appropriate level of confidence is taken. He continued that positioning for the late cycle starts with portfolio construction in the strategic sense. Here, the focus is on diversification across both traditional and alternative datas, as well as skill-based strategies. This means trying to balance ways that systematically make money over time because of rewards with risk-taking with the active management that is needed in order to adjust for the dynamic changes in both the macroeconomic environment as well as markets. He added that, in the traditional beta space, his firm believes in diversifying away from equities. He stated that one of the things that is considered at the portfolio level is what to do when interest rates have been at zero or close to zero for an extended period of time, and are starting to expand. He talked about what is done on the strategic side, which is incredibly important. As the cycle progresses, it is helpful to adjust the overall position. Currently, we are late in the expansion phase, and we do believe there is more room to grow. He continued that one way to see that is to compare some relevant macroeconomic indicators to where they were in historical cycles. He added that valuations are more attractive given the upside potential for surprises on growth in those markets and do have a modest overweight to emerging markets versus developed markets.

MS. MARTINEZ asked Mr. Appelman to expand a bit more on emerging markets in the U.S. and in other asset classes, as well.

MR. APPELMAN replied that they have a certain set of beliefs about emerging markets. First, that relative to a cap-weighted index, on a strategic basis, a modest overweight is wanted, but one that is rather small. He stated the belief that the historical evidence suggests that, over time, compensation is a bit more than what is purely implied by data for taking that risk in emerging markets. He continued that there can be years of underperformance, which is definitely a risk; and having that modest overweight is likely to be helpful in the long run. He added that the emerging markets have come off a long downturn from 2012 to late 2016. That downturn was largely related to imbalances created in the commodity markets due to a China slowdown. Imbalances accumulated on the effects side. He stated that it is important that it is not a direct overweight. It is offset by reducing some of the exposures in the developed markets where the prospects for forward-looking returns is a bit more modest.

MR. BIRMBAUM added, similar to the points raised, the part of trading globally diversified liquid markets where no one thing can bite too much. He noted, from a strategic standpoint, China is the second or largest economy in the world at this point. He stated that, by most measures, they are the biggest driver of swings in global growth of fixed investment, of commodity demand. It is a very large economy, and their markets have developed over the last few years. In the last 18 months, 58 percent of their market cap has opened up in government bonds and in equities. Most investors in the U.S. have almost no or very little exposure to emerging, developing markets. From an historical standpoint, it would be the equivalent of most investors have U.S., and are diversified to Europe, Canada and few other countries. He added that, tactically, it is a good time to be overweight emerging markets and across the 40 or so emerging market currencies, equities, and bonds traded.

MR. MENDELSON stated that he had a small point of disagreement with emerging markets. The trend is that people are going to own emerging markets, which has been going on a long time. They are diversifying in that they are not perfectly correlated to developed market stocks.

They are pretty correlated, and it is still an equity bet. He added that emerging stocks and developed stocks are first and foremost stocks and then there is some diversification.

CIO READ stated that the general question is: If you were running the Alaska Permanent Fund, what advice would you be giving?

MR. BIRMBAUM replied that the world is changing and is very different than 15 years ago. The role of China, India, Brazil, the size of a number of the markets has increased in a material way. He stated that secular shift is massive where income in the world has been generated, and the development and opening up of the capital markets that connect to that income has been slower. He added that amid all the liquidity in the world and the desire for those countries to try to have capital come in and also be able to leave is happening extremely rapidly in a way that has not happened in modern history. He continued, that is the first big point: It is a much bigger world. The second is, in the West and in general, when there is a secular decline in interest rates, a debt boom, and the benefits of women joining the work force and a variety of factors that supported, secularly, equities, and, to a lesser extent, disinflation that supported government bonds, the western world has become concentrated in equities. He added that very few players in the world actually have much in the way of real assets because financial assets have outperformed real assets for the last 30 years. He stated that the Fund has a significant amount of wealth that is being managed for the State. Concentration in those commodities, those resources, helped to create that; but, also, holding the assets in a concentrated way can destroy that.

MR. MENDELSON replied that a large part is being freed from the considerations around peer benchmarking. In looking at all three portfolios, it is the focus on diversification away from equities. All three have independently arrived in that direction.

MR. ALLEN asked if Mr. Mendelson will talk about how leverage is used in the portfolio.

MR. MENDELSON replied that the first premise is that when diversifying from equities, return is lost. This is really a statement that says as risk is reduced so is return. He stated that equities are the riskiest asset and most everything else is less risky. He continued that a risk parity strategy is a good example of this. The belief here is that other forms of risk are diversifying and valuable and just as good on a basis of that risk/reward tradeoff. He then moved to the role of leverage in any of those portfolios. Generally, that is going to make things risky enough. He continued that leverage is a tool for taking low-risk things and making them risky enough. It can be used or abused to take risky things and make them too risky.

TRUSTEE FISHER asked, in describing risk in those two parameters, if it is thought of and measured in the same way between equities and other alternatives.

MR. MENDELSON replied that there is a difference between the real dividing line used between liquid stuff and illiquid stuff. He added that illiquid stuff is harder to get a grip on risk. He continued that it is known that stocks tend to be three or four times as volatile as bonds and are riskier than bonds. The volatility is persistent.

MR. ALLEN asked if the amount of leverage varies from month to month, quarter to quarter, while adjusting to the relative volatility of things.

MR. MENDELSON replied that it did for them.

MR. APPELMEN replied that a lot of it depends on what horizon is being adjusted that the volatility is based on.

MR. BIRMBAUM replied that in some a very long-term perspective is used and the volatility metric is not risk. It is how much the thing goes up and down, and it is mostly down. He stated that leverage is one of the most basic fundamental tools of the financial system, where it is a house where people are levered 5 to 1, or equity companies, typically, levered 2 to 1. Generally, the leverage is embedded in equities that people buy because they are not doing the leverage themselves.

CHAIR MORAN asked how the regression is looked at to the mean concept that is seen where there is a big run-up of stocks, and it is above the line or going back to the line.

MR. APPELMAN replied, to be fair, they do not subscribe fully to the concept of pure regression to the mean. There is an element that when valuation becomes expensive, returns later on are lower. Essentially, in making an investment, a future set of cash flows are being bought at a given price. If those cash flows end up being higher than what was expected, even if the valuation is expensive, money is still being made. He continued that one of the reasons they are comfortable with continuing to have diversified portfolios that are diversified away from equity risk is the fact that equities, over the long term right now, have essentially a lower return prospect if reasonable assumptions on growth are factored in.

MR. MENDELSON replied that they make sure that they distinguish between recent returns and valuations.

MR. BIRMBAUM replied that in thinking about valuation of stocks, there are the earnings, and then there is an interest rate to discount those to a price.

MR. MENDELSON stated that each firm looks at the investing world and there are a number of different types of risks out there. He continued that there is risk in the bond market, commodity risk premium, credit risk premium, illiquidity premiums, premium that has to be demanded to get paid for tying up the money for a long time, like in private equity.

CIO READ thanked the panel for the excellent insights. This was very timely given that the annual asset allocation work is coming up in May, and this is a good perspective as we get into the planning session.

CHAIR MORAN called a break.

(Break.)

CHAIR MORAN called the meeting back to order and recognized Valeria Martinez.

eCIO MULTIASSET STRATEGY REVIEW

CIO READ stated that this is a review of the eCIO program which has been around since 2010. Ms. Martinez will give a summary of how the program came about and its objectives. He continued that this is an action item, and we are going to be looking to recalibrate the program. There is enough experience, knowledge and belief about how to position these managers, and what the benchmarks should be. He added that the recommendations will be gone over, and we will be looking for a motion.

CEO RODELL clarified that the motion is about the program and whether or not it should continue in this phase. If it is decided that this program will continue, then it will need some adjustment at the May meeting.

MS. MARTINEZ began with some historical perspectives to help understand why this program was started. The initial premise was that there were not many multi-asset or asset allocation strategies in the portfolio. There were the different asset classes that were equities and bonds, and managers that just managed money for each of the asset classes. The only type of multi-asset portfolios was the fund of funds, and that one ended up in the repair shop, after market crash in 2008, 2009. It did not perform as expected because the decision was made to start a program, not only in the eCIO space, but in other parts of the portfolio. There would be managers choosing and making asset allocation decisions between multiple asset classes. The design of the program was to hire firms that were best in class in the world with a good track record, that they produced CPI plus 5, and have the objective to think in risk terms, and look at the guidelines of the Permanent Fund in terms of volatility and concentration, and to be able to learn from them. Because of the objectives and parameters, the expectation was that superior risk-adjusted returns will be produced, and additionally we were looking for a partnership that would allow seeing them as an extension of staff. She continued that there were 14 finalists, and the second phase was visiting all of these firms to identify those that would most likely meet the objectives. There were five finalists: AQR, Bridgewater, GMO, Goldman Sachs, and PIMCO. Those were funded at the beginning of 2010 with $500 million for each firm. In 2014, the board reviewed the program. The table presented was the market value of this program in 2013 was $3 billion. By 2014 it was less, but there were two less managers. The market values for each of the firms grew, were returning money and were very profitable firms. The ones that were terminated were GMO and PIMCO because they were not meeting the objective of CPI plus 5 for the 12-month, three-year, and five-year return. They were much lower. She then introduced a portfolio evolution table because during these years the fund also evolved; the needs of the fund evolved; and sometimes the partnership has been used to adjust some of the things that were being done. She added that the objective always stayed the same, the CPI plus 5. In 2017, the Sharpe ratios requirement and a report card were added to the portfolio. The Sharpe ratio is around .5.

CHAIR MORAN stated that, by the end of the day, the Fund’s objective is to meet or beat 5 percent, which is the way it was set up.

MR. WALSH asked what the management fees were and if any types of incentives are taken.

MS. MARTINEZ replied that they have a base fee and an incentive fee, which is on the returns. She explained that this is to maximize return for the risk that they are allowed to have. This risk has to be maintained or they will be out of compliance in the contract. It is their mandate. She added that the incentive kicks in when the benchmark is passed. She added that page 15 has a summary of the profits of these managers. She stated that with the eCIO program there is full transparency. They are completely liquid, are more flexible, and can be customized to our needs and goals. She continued that they also give strategic advice, investment insights, not only to the board and in terms of asset allocation and risk, but have met with several other portfolio managers that are managing other asset classes here at the Fund -- fixed income, currency, etc. They share knowledge, participate in forums and have information on what is going on in the market. She added that this is a strategic partnership with these three managers. She stated that the presence of this program to the Fund has increased returns and has lowered volatility. Overall, there is an improvement in diversification and efficiency. She continued that this program definitely provides diversification and liquidity to the Fund. There is no lockup, so they can be called, and the money returned. She added that they use innovation in their portfolio construction that is sometimes hard to implement at the Fund level. She summarized that the eCIO has played an important part in the portfolio. These managers have demonstrated a good track record and strong performance through different market cycles. They have been in a historically good run that should not be extrapolated. Today, the current eCIOs have met their objectives, met their benchmarks, and also the other objectives that were set up in their contracts. It has grown to be a sizeable allocation from $500,000 to over $100 million, each of them.

CIO READ stated that the recommendation is that the evaluation will be based on their objective. Their objective is CPI plus 5, and we are recommending that is the evaluative standard. The benchmark should equal the objective. He also stated that we are interested in them as a multi-strategy program. As a multi-strategy program, there is a different logic, different benchmark, and a different role in the portfolio. He continued that it seems like a subtlety, but what is being recommended is to recast the program from an eCIO program to a multi-strategy program, and the direction is to incorporate, to revise the benchmarks accordingly. He added that in May part of the discussion will be giving direction for that, and it can be a subtle one, which is any allocation discussions should be revisited accordingly.

CHAIR MORAN explained that this will be tabled until May.

CIO READ added that is a fine result and an appropriate recommendation.

CHAIR MORAN moved on to Other Matters.

OTHER MATTERS

CEO RODELL stated that the May meeting will be packed because there will be environmental, social, governance, an education panel, a review of the investment policy, asset allocation. She added that Callan's 2018 capital market forecast will be incorporated in that. It will also be a week after day 121 of the 30th Legislative Session, and will set up, at that point, a final adoption of a budget for FY19 based on the actions taken by the Legislature and what we expect them to do. She stated that they will also be taking up pacing and incentive compensation as a discussion item. The other piece is that the capital project is moving forward and we will be signing off on bids in March. The hope is that construction will begin in May. That means that the September meeting will need to be in Anchorage. She stated the need to have an Audit Committee in May to launch the audit parameters for the audit that will begin in July. She continued that a date for a special board meeting here in March will be worked on. She stated that this board room was dedicated and named after Hugh Malone, and one of the questions will be whether the board would want to rename or rededicate it. That will, most likely, be done at the December meeting.

TRUSTEE MACK stated that the board has agreed to commit to a special meeting in March, which he supports strongly. He continued that the board should be prepared to meet on a consistent basis in special meetings, not just May and September. There may be multiple situations requiring a need to meet.

INVESTMENT ADVISOR COMMENTS

CHAIR MORAN recognized Timothy Walsh, the investment advisor.

MR. WALSH introduced and gave a little background about himself. He stated that he has been in the investment world for about 14 years and was a former trustee of another plan for a few years. He continued and congratulated the board, the staff, the consultant for staying firm on emerging equities. His second comment was on Fawad Razzaque's presentation yesterday. The focus from public funds and endowments and foundations have all been alternatives, and the public fund and public equity guys get pushed to the back. When he talked about his active manager report and, over the last year, 68 percent of his managers beat their benchmarks. What really jumped out was his five-year number. It was 65 percent of his active managers, and he took into account the managers that he terminated. He added, that was very impressive. His third comment was Mr. Moseley's presentation yesterday on co-investment reports. It was a 67.5 percent IRR, which is venture capital-type numbers; and more impressive was his multiple at 2.5 multiple of money. That was an extra $1.3 billion that went into the coffers of the Alaska Permanent Fund. He added that those numbers are about as good as any seen in any fund anywhere in the world. He then commented on the question of having an office outside of Alaska. Alaska Permanent Fund isn't GIC, but there are two public funds a bit bigger than the Alaska Permanent Fund that have opened offices outside of where they domiciled. There is a lot of concern about public backlash moving out of state.

CHAIR MORAN thanked Mr. Walsh and moved to trustee comments.

TRUSTEE COMMENTS

TRUSTEE MACK stated that he found the presentation very helpful, and it was a good conversation. It triggered a lot of questions, which is very good. He continued that he completely supports what Trustee Richards was talking about with respect to having a special meeting. He also stated that the board should be prepared to think, talk, and respond to things that are happening in realtime. He added that he is really focused on making sure that we are doing everything to build capacity in the State of Alaska, build this organization, and make sure to stay true to the objectives. He proposed putting on the agenda the start of a private equity/emerging managers program that can be vetted in the policies.

CHAIR MORAN stated that may need a special meeting.

TRUSTEE RICHARDS stated that he is glad to be back on the board, working with amazing staff, and getting to participate in some of the coolest stuff in the State of Alaska. He added that he was very grateful for the opportunity.

CHAIR MORAN commented that for the next meeting there is a need to give some thought about the public comment period and how we intend to deal with this over the long term. It is probably an issue that will not go away. The Juneau paper had a long article about a Permanent Fund meeting regarding comments that were made in the first ten minutes.

CEO RODELL replied that staff will come up with some ideas.

CHAIR MORAN also thanked staff and stated that it was a good meeting.

MOTION: TRUSTEE RUTHERFORD made a motion to adjourn.

CHAIR MORAN adjourned the meeting.

(Alaska Permanent Fund Corporation Board of Trustees meeting adjourned at 11:47 a.m.)

March 15, 2018

ALASKA PERMANENT FUND CORPORATION

SPECIAL MEETING OF THE BOARD OF TRUSTEES

March 15, 2018
9:00 a.m.
Teleconference

SUMMARY MINUTES

Trustees Present: William G. Moran, Chair
Carl Brady, Vice Chair
Andrew Mack
Sheldon Fisher
Craig Richards
Marty Rutherford

Staff Present: Angela Rodell, CEO
Valerie Mertz, CFO
Chris Poag
Paulyn Swanson
Jacob Vandervest

PROCEEDINGS

CALL TO ORDER

CHAIR MORAN called the meeting to order and asked for a roll call.

ROLL CALL

MR. VANDERVEST called the roll and reported that there is a quorum.

APPROVAL OF AGENDA

CHAIR MORAN moved to the limited agenda. He asked for any discussion or amendments. There being none, the agenda is approved.

PUBLIC PARTICIPATION

CHAIR MORAN asked if there was anyone on-line that would like to address the board. There being no response, he continued that there is only one item on the agenda and it is consideration of a proposed resolution supporting adherence to a rules-based framework for fund transfers.

CONSIDERATION OF A PROPOSED RESOLUTION SUPPORTING ADHERENCE TO A RULES-BASED FRAMEWORK FOR FUND TRANSFERS.

CHAIR MORAN stated that the resolution has been distributed to all and opened the discussion, asking if anyone cared to make a motion.

TRUSTEE FISHER stated that it is appropriately the role of the board, which is consistent with this resolution, to frame and help the State understand that the real value of the Fund is that it is maintained, and the Fund is there for future generations. He encouraged all not to weigh into the debate around the proper size of the dividends, but rather to focus on how money is withdrawn from the Fund and the rules around that. He stated that his second principle is preferring to express a view that helps decision-makers frame what should happen looking forward without weighing in about whether a particular action in the past was or was not appropriate or justified.

> **MOTION:** TRUSTEE RUTHERFORD moved the resolution that was provided, for the purpose of discussion. VICE CHAIR BRADY seconded.

TRUSTEE RUTHERFORD stated that she is speaking in support of Resolution 18-01, as it reads. She reiterated what Trustee Fisher stated and believes it is the Board of Trustees' responsibility to share opinions and insights, that are provided by serving on the corporation board, with the decision-makers. This is so that they can make the best and most informed decisions possible. She continued that the Fund has been recognized internationally as a high-quality sovereign fund, and she believes that recognition has provided investment opportunities that would not have been available if it was not considered one of the best in the world with best practices. She added that her third point is that a rule-based approach to fund transfers allows the Fund to optimize investments and strategies, as well as providing greater public transparency. That is important to the Fund's operation and is important to Alaskans as a whole to have the best insight into how the Fund will be operated on both an annual basis and into the future. She stated that a dependable and identifiable system gives the Fund the greatest chance to be sustainable and insures that our grandchildren and their children in the years to come can use it to improve the lives of Alaskans. She continued that this sustainability is our touchstone. She strongly encouraged this resolution as it exists because it identifies some things that have been passed in the last several years that had a negative impact.

CHAIR MORAN asked for any other comments.

TRUSTEE RICHARDS concurred wholeheartedly with Trustee Rutherford and most of what Trustee Fisher said. Trustee Fisher said that the purpose of this resolution is not to be critical. He continued that he likes the way it is drafted and that it calls out that the process for changing the rules-based system from the one that is governed for something like 30 years to something that is different that will likely govern in the future is a time-consuming process. It is also a difficult one that involves a lot of stakeholders. He added that it is not the board's job to weigh in strongly on the governance structure. That governance structure is what this resolution aims toward. He asked the trustees to recommit themselves to the rules-based system, and moving forward, to commit to a strong governance structure.

TRUSTEE MACK stated that he supported the concept of this resolution, but thought that it goes too far in looking back to what has happened historically. He continued that it is his opinion to try to encourage the decision-makers in this broad process to recognize that a structured and rules-based process works best. He continued that he would like to see a streamlined resolution which simply focuses on the future. He explained that recently a resolution on inflation-proofing was passed that was a very short and succinct resolution, and that ought to be happening here as well. He added that he would be happy to try to amend the resolution to make it more streamlined, making it forward-looking only.

VICE CHAIR BRADY concurred with Trustee Mack. He stated that the problem he has with the resolution, although it has been modified, was its lookback. He also concurred with a resolution that simply says what we want as opposed to any dialogue of what happened in that past. He stated that he will oppose this unless it is amended.

TRUSTEE FISHER stated that there is a lot of value to this resolution. He would like to see some changes, but it is unclear how to process the changes. He continued that, from his perspective, the changes are relatively modest. He added that he does not know how to move forward, but would like to support adopting something.

TRUSTEE MACK stated that there are clear ideas of what we would like to see and none of us equivocated when commenting. He clarified that he supports the concept here, but is very sensitive about the lookback part. He continued that this meeting did not take a lot of time and suggested taking another week to work on this to come up with something that would be acceptable. He added that he would like to see a much shorter, consolidated resolution.

TRUSTEE RUTHERFORD shared a couple comments about some of the opposition to the existing resolution. She stated that forward-looking will not capture the fact that for a couple years there has not been any inflation-proofing made to the Fund by the Legislature. That is one of the most problematic issues. She continued that sustainability of the Fund over time is one of our largest responsibilities. If inflation-proofing is not done, then over time the process will be eroded. She added that she is nervous about the whole concept of removing any discussion about inflation-proofing. Just making it a rules-based approach does not accomplish protecting the Fund.

VICE CHAIR BRADY agreed on the inflation-proofing and is not opposed to the resolution. He explained that he likes the resolution in its entirety, with the exception of the slant that it may appear to be too critical. He would like something to happen as a result of this resolution. He added that he agreed with Trustee Mack about further working on this resolution.

CEO RODELL stated that this is a public meeting with the notice requirements, and suggested taking a recess for about 30 minutes to allow Chris Poag, general counsel, to rework this resolution. She reminded the trustees that meetings have to be noticed seven days in advance.

CHAIR MORAN replied that procedurally, there is a motion and a second. He asked if a vote was needed and then a motion to reconsider.

> **MOTION:** TRUSTEE RUTHERFORD made a friendly amendment recognizing there has been some concern about the way the resolution is drafted, to allow staff and Mr. Poag to get it back to the trustees and to reconvene in 20 minutes. VICE CHAIR BRADY seconded.

TRUSTEE MACK noted the need to recognize that Trustee Brady at a recent meeting actually introduced, and the board voted on, a resolution that was specific to inflation-proofing. He added that he would like to go back and refresh his recollection with respect to the language in there. He would also like to see a much shorter, very consolidated resolution.

TRUSTEE RICHARDS stated that Mr. Poag is familiar with the resolution and has the ability to quickly make it into a form that is acceptable to all.

VICE CHAIR BRADY stated that he thinks this can be done in an expeditious manner. Tabling and dragging it out is not a good idea.

TRUSTEE RUTHERFORD explained that if it is dragged out, an opportunity to have an impact on the Legislature and their actions may be missed. She added that if the amendment resolves 90 percent of the problem, that she would like to see this progress today.

TRUSTEE MACK stated that he will support that.

CEO RODELL stated that there is a friendly motion to take a 20-minute recess to rework a resolution. She continued that it may be helpful, so that everyone has a revised resolution to look at and then to discuss further revisions.

TRUSTEE RICHARDS agreed.

CHAIR MORAN stated that there is a friendly motion that needs to be voted on. The purpose of the friendly motion is to table the current resolution for a few minutes, rework it, and then come back in 20 minutes and revisit the issue again. He asked the roll to be called.

> Following the roll call vote, the MOTION WAS APPROVED by the Trustees (FISHER, RICHARDS, RUTHERFORD, MACK, CHAIR MORAN, VICE CHAIR BRADY).

CHAIR MORAN called a 20-minute break.

(Break.)

CHAIR MORAN called the meeting back to order.

CEO RODELL suggested, just for clarification, that Trustee Rutherford remove the first motion, and that someone move the revised, amended resolution for discussion.

CHAIR MORAN asked Trustee Rutherford if she wanted to do an amendment or to just withdraw her motion.

TRUSTEE RUTHERFORD withdrew her previous friendly amendment and looked to hear a new proposal.

> **MOTION:** TRUSTEE MACK made a motion to adopt the amended resolution that has been proposed. TRUSTEE RICHARDS seconded.

CHAIR MORAN moved to call the roll to vote on the resolution.

> Following the roll call vote, the MOTION WAS APPROVED by the Trustees (FISHER, RICHARDS, RUTHERFORD, MACK, CHAIR MORAN, VICE CHAIR BRADY).

CHAIR MORAN stated that one of the members of the Audit Committee has retired from the board, and there is a need to reappoint one more person to the Audit Committee. The two remaining members are Trustees Fisher and Rutherford. He continued that Larry Cash was the third member, and he rotated out. He asked Trustee Richards if he would be willing to serve.

TRUSTEE RICHARDS replied that he is willing to serve.

CHAIR MORAN appointed Trustee Richards to the Audit Committee. He asked for any further business to come before the meeting. There being none, he adjourned the meeting.

(Special Meeting of the Board of Trustees adjourned at 10:16 a.m.)

Pending Board Matters

SUBJECT: Pending Board Maters

ACTION:

DATE: 5/23/2018

INFORMATION: X

BY	TASK	CAPTURED	TARGET	COMPLETED
Chair Moran	ECIO Program Recommendation – Tabled	2/18	5/18	
Rodell/Read	Updates to Asset Allocation: Investment Policy	9/17	5/18	
Read	ESG Education Session	12/17	5/18	

b) Trustee Education

APFC ALASKA PERMANENT FUND CORPORATION
801 W 10TH SUITE 302 | JUNEAU, AK 99801
907.796.1500 | apfc.org

SUBJECT: CEO's Reports
Trustee Education

ACTION:

DATE: May 23, 2018

INFORMATION: X

BACKGROUND:

APFC Board of Trustees Charters and Governance Policies
The Board of Trustees of the APFC has established a Trustee Education Policy with the following objectives:

- To ensure that the members of the Board have access to the knowledge and information necessary for them to fulfill their fiduciary duties as trustees of the Alaska Permanent Fund; and

- To assist them in becoming well informed in all matters pertaining generally to the management of a large institutional fund, both public and private, and more specifically to the management and investments of the APFC.

In accordance with the Trustee Education Policy, the following is a list of conferences and seminars that Trustees may wish to attend.

TRUSTEE TRAINING OPPORTUNITY	TOPIC	LOCATION	DATES
Pacific Pension & Investments	Winter Roundtables	Los Angeles, CA	Feb 27 – March 1, 2019
	Summer Roundtables	La Jolla, CA Chicago, IL	July 11 – 13, 2018 July 10 – 12, 2019
ARMB Education Conference	TBD	New York, NY	October 2018
IFSWF Annual Meeting	TBD	Juneau, AK	September 2019

c) Disclosure Reports

APFC ALASKA PERMANENT FUND CORPORATION
801 W 10TH SUITE 302 | JUNEAU, AK 99801
907.796.1500 | apfc.org

Memo

To: Carl Brady, Chair
Governance Committee

Through: Angela Rodell
Executive Director

From: Chad Brown
HR Manager

Date: May 23, 2017

Re: APFC Financial Disclosures

As required by AS 37.13.110(b) and Alaska Permanent Fund Corporation policy relating to personal investments conduct and reporting, trustees and staff must disclose certain financial interests. Below is a list of disclosures for transactions made by trustees and staff, covering a period of January 1 – March 31, 2018

January 2018			
Name	**Position Title**	**Disclosure Type**	**Received**
Matt Olmstead	Senior Portfolio Manager	Individual Transaction	2/12/2018
Jared Brimberry	Portfolio Manager	Individual Transaction	2/9/2018
Jim Parise	Director of Investments	Individual Transaction	1/4/2018
William Moran	Trustee	Individual Transaction	2/9/2018
Chris LaVallee	Accountant	Individual Transaction	2/15/2018
Jim Parise	Director of Investments	Individual Transaction	1/10/2018

February 2018			
Name	**Position Title**	**Disclosure Type**	**Received**
Jared Brimberry	Portfolio Manager	Individual Transaction	3/2/2018
Chris LaVallee	Accountant	Individual Transaction	3/9/2018
William Moran	Trustee	Individual Transaction	3/2/2018
Marcus Frampton	Director of Investments	Individual Transaction	3/5/2018
Steve Moseley	Director of Investments	Individual Transaction	3/19/2018

March 2018			
Name	**Position Title**	**Disclosure Type**	**Received**
Robin Mason	COO	Individual Transaction	4/6/2018
Jared Brimberry	Portfolio Manager	Individual Transaction	4/6/2018
Chris LaVallee	Accountant	Individual Transaction	4/19/2018
Marcus Frampton	Director of Investments	Individual Transaction	4/7/2018
Steve Moseley	Director of Investments	Individual Transaction	3/19/2018
William Moran	Trustee	Individual Transaction	4/9/2018

All disclosures have been reviewed by the Executive Director or me, in our capacity as compliance officers. All disclosures were in compliance with policy requirements. Disclosures will be filed in the appropriate personnel file and copies will be placed behind the corporate minutes of the next meeting.

If you have any questions, please call me at 796-1541.

d) Travel

ALASKA PERMANENT FUND CORPORATION

Subject: Travel Report
Date: 23-May-18

Background: This report includes APFC Board/staff completed travel for the period February 1, 2018 through May 1, 2018.
The travel report is presented to the Board of Trustees for review at each board meeting as required by APFC Resolution 04-10.

APFC Trustees and Staff	Travel Purpose	Dates of Travel		Location
Andreyka	Macerich Quarterly Meeting	02/23/18	03/11/18	Washington D.C.
Andreyka	Meeting with Macerich, L&B Realty Advisors	03/19/18	03/21/18	Los Angeles
Brimberry	Atalaya Annual Meeting, TPG Annual Meeting	04/30/18	05/09/18	New York, San Francisco
Brown C.	BambooHR Conference	04/25/18	05/02/18	Salt Lake City
Chang	Manager meetings and Context Miami 2018	01/23/18	02/04/18	Dallas, Miami
Cummins	ABS Vegas - SFUG Vegas	02/24/18	03/01/18	Las Vegas
Duran	Macerich Quarterly Meeting	03/06/18	03/09/18	Washington D.C.
Duran	Manager meetings	03/19/18	03/21/18	Los Angeles
Fisher	Board of Trustees meeting	02/20/18	02/22/18	Juneau
Frampton	Generate board meeting	02/07/18	02/08/18	San Francisco
Frampton	Attend PPI Conference	03/12/18	03/18/18	Washington D.C.
Frampton	Manager Meetings	04/23/18	04/26/18	New York
Kim	Upfront Ventures Summit 2018, due diligence, manager meetings	01/26/18	02/04/18	Los Angeles
Kim	Due Diligence	02/16/18	03/08/18	San Francisco, Berlin, Boston, New York
Kim	Manger Meetings	04/12/18	04/22/18	New York
Kim	Manager Meetings	04/13/18	05/06/18	Seattle, New York, Chicago, LA
Kim	Manager Meetings	04/28/18	05/06/18	Los Angeles
Mack	Board of Trustee meeting	02/20/18	02/23/18	Juneau
Martinez	BNY Mellon Risk Advisory Board Meeting	04/10/18	04/13/18	New York
Martinez	Pacific Northwest Institutional Forum	04/23/18	04/25/18	Seattle
Mertz	BNYM Client Advisory Board meeting	04/17/18	04/23/18	Pittsburgh
Moran	Board of Trustees meeting	02/20/18	02/22/18	Juneau
Moseley	board meetings, manager and advisor meetings, due diligence	02/27/18	03/09/18	Boston, New York
Moseley	manager meetings and due diligence	03/10/18	03/15/18	San Francisco
Moseley	Due Diligence, ILPA Board meeting, Catterton Board meeting	03/23/18	04/05/18	New York NY, Austin TX
Moseley	Premia Board Meeting, Capital Constellation Board Meeting	04/19/18	04/29/18	New York
Ninkov	Sociate Generale's Quant conference, manager meetings	04/03/18	04/10/18	New York
O'Day	SFIG Vegas	02/24/18	03/01/18	Las Vegas
O'Day	Meeting with AQR, GSAM, Rogge, and BNY	04/11/18	04/18/18	New York
Parise	Visit dealer syndicate and trade desks	01/28/18	02/03/18	New York
Parise	Milken Conference and Manager Visits	04/29/18	05/06/18	Los Angeles
Poag	Institutional Governance and Legal Symposium	04/30/18	05/07/18	London UK
Razzaque	Fund Manager Site Visit	02/06/18	03/04/18	San Francisco, Los Angeles
Razzaque	Fund Manager Visit	03/16/18	03/24/18	Washington DC, New York
Read	Manager meetings, FCLT Summit	02/27/18	03/11/18	New York, San Francisco
Read	Pension Bridge, SF Managers and NYC Managers	04/07/18	04/22/18	San Francisco, New York, Chicago
Read	Milken Global Conference	04/26/18	05/02/18	Los Angeles
Richards	Board of Trustees meeting	02/20/18	02/22/18	Juneau
Rodell	2018 GSAM India Investor tour, review investment opportunities	02/01/18	02/09/18	India
Rodell	Kelso Annual Meeting	04/16/18	04/18/18	Orange County, CA
Rodell	GWG Funds Roundtable, Manager Meetings, IFSWF Meeting	05/01/18	05/05/18	London UK
Rutherford	Board of Trustees meeting	02/20/18	02/22/18	Juneau
Skuratovskaya	Goldman's Global Macro conference, meet with counterparts	03/04/18	03/09/18	New York
Swanson	Present to the European Marshall Memorial Fellows	03/09/18	03/09/18	Anchorage

e) Due Diligence Log

APFC Investment Due Dilligence: January 2018 - March 2018

Manager Due Diligence Log - Asset Allocation Strategies

The due diligence activities undertaken by APFC on-site and off-site are listed below. Conference calls were included if a product was substantially reviewed or previewed during the course of the call.

Date of Visit	APFC Staff	Broker, Manager, Consultant	Individuals Visiting/Visited	Topic	Location
1/17/2018	Samantha LaPierre and Valeria Martinez	BNY Mellon	Anna Pencoglu	Securities Lending	New York, New York
1/17/2018	Samantha LaPierre and Valeria Martinez	GSAM	Tom Davie and Rob Patch	ECIO Portfolio	New York, New York
1/18/2018	Samantha LaPierre and Valeria Martinez	AQR	Iwan Djanali	ECIO Portfolio	Greenwich, CT
1/18/2018	Samantha LaPierre and Valeria Martinez	Bridgewater	Brian Lawlor	ECIO Portfolio	Westport, CT
1/24/2018	Valeria Martinez	Aberdeen Standard Investments	Peter Schmole	Multi-Asset Portfolios	Juneau
1/25/2018	Samantha LaPierre and Valeria Martinez	Adrian Lee	Philip Lawson	FX Overlay	Juneau
1/26/2018	Valeria Martinez	NISA	Anne-Marie Lanza	Liquidity Overlay	Juneau
2/14/2018	Valeria Martinez	AQR	Iwan Djanali	ECIO Portfolio	Juneau
2/28/2018	Valeria Martinez	Axioma	Ken Fujii	Multi-Asset Portfolios	Juneau
3/5/2018	Valeria Martinez	BNY Mellon	Dan Wilcox	Asset Allocation Portfolio	Juneau
3/6/2018	Valeria Martinez	NISA	Anne-Marie Lanza	Liquidity Overlay	Juneau
3/14/2018	Samantha LaPierre and Valeria Martinez	GSAM	John Goldstein	ESG Analysis	Juneau
3/19/2018	Samantha LaPierre and Valeria Martinez	GSAM	Tom Davie and Rob Patch	ECIO Portfolio	Juneau
3/21/2018	Valeria Martinez	Wellington	Akin Greville	Multi-Asset Portfolios	Juneau

Manager Due Diligence Log - Fixed Income Plus

The due diligence activities undertaken by APFC on-site and off-site are listed below. Conference calls were included if a product was substantially reviewed or previewed during the course of the call.

Date of Visit	APFC Staff	Broker, Manager, Consultant	Individuals Visiting/Visited	Topic	Location
1/17/2018	Tom O'Day/Masha Skuratovskaya	Bank of New York	Chrs Foti	Currency Hedging	Phone
1/25/2018	Tom O'Day/Masha Skuratovskaya	Allianz	John Makowske, Sam Hogg, Julian Le Beron	Global Rates	Phone
3/22/2018	Tom O'Day/Masha Skuratovskaya	DB	Christopher Engl	European Rates	Phone
1/17/2018	Matthew Olmsted	OakTree	David Rosenberg	High Yield	Phone
2/6/2018	Matthew Olmsted/Jim Parise	iShares/BlackRock	Andrew Hartman	HY ETF	Phone
2/5/2018	Masha Skuratovskaya	Capital Group	Michael Bowman	EM External Mandate performance	Phone
3/6/2018	Masha Skuratovskaya	CSFB	Oscar Lopes	Global Rates, EM	New York
3/7/2018	Masha Skuratovskaya	Deutsche Bank	Christopher Engl	US Rates, US Economy	New York
3/7/2018	Masha Skuratovskaya	BAML	Kate Brethauer	US Rates, TIPS, Economy	New York
3/7/2018	Masha Skuratovskaya	Standard Chartered	Mike Burrowes	EM Trading, Hedging, FX	New York
3/7/2018	Masha Skuratovskaya	JPM	Richard Singh	US Rates, FX trading, ETFs, ISDAs	New York
3/8/2018	Masha Skuratovskaya	Barclays	Mike Pond, James Carpi	US TIPS, G4 Economies	New York
3/8/2018	Masha Skuratovskaya	Allianz/Rogge	John Makowske	EM	New York
3/8/2018	Masha Skuratovskaya	BBVA	Tim Goodell	Latin America Economics/Trading	New York
3/22/2018	Masha Skuratovskaya	Deutsche Bank	Christopher Engl	European Rates Strategy	Phone
2/12/2018	Chris Cummins	JPM/Security Capital REIT	Todd Evans	REITs	APFC
1/29/2018	Jim Parise	JP Morgan	Syndicate/Trading Desk	Allocation/Execution	New York
1/29/2018	Jim Parise	Citigroup	Syndicate/Trading Desk	Allocation/Execution	New York
1/30/2018	Jim Parise	Goldman Sachs	Syndicate/Trading Desk	Allocation/Execution	New York
1/30/2018	Jim Parise	Morgan Stanley	Syndicate/Trading Desk	Allocation/Execution	New York
1/31/2018	Jim Parise	Barclays	Syndicate/Trading Desk	Allocation/Execution	New York
1/31/2018	Jim Parise	Bank of America	Syndicate/Trading Desk	Allocation/Execution	New York

Manager Due Diligence Log - Public Equities

The due diligence activities undertaken by APFC on-site and off-site are listed below. Conference calls were included if a product was substantially reviewed or previewed during the course of the call.

Date of Visit	APFC Staff	Broker, Manager, Consultant	Individuals Visiting/Visited	Topic	Location
1/9/2018	Diouf, Ninkov	Alliance Bernstein	Liz Smith	Strategy Review	Juneau, AK
1/9/2018	Ninkov	Pavilion Corp	Michael Avedesian	Strategy Review	conference call
1/10/2018	Ninkov	SSGA	Sonya Park, Paul Colona	Strategy Review	Juneau, AK
1/11/2018	Diouf, Ninkov	Wells Capital	Daniel E. Anderson	Strategy Review	Juneau, AK
1/17/2018	Ninkov	DFA	Joe Young	Strategy Review	conference call
1/17/2018	Razzaque	Schroders	Alan Duckett	Quarterly review	conference call
1/17/2018	Razzaque	Pzena	Investment team	Quarterly review	conference call
1/17/2018	Razzaque	Schroders	Investment team	Quarterly review	conference call
1/18/2018	Razzaque	Acadian	Investment team	Quarterly review	conference call
1/18/2018	Razzaque	Trustbridge	Investment team	Quarterly review	conference call
1/22/2018	Razzaque	Arrowstreet	Investment team	Quarterly review	conference call
1/23/2018	Razzaque	Jennison	Investment team	Quarterly review	conference call
1/24/2018	Razzaque	Lee Munder	Investment team	Quarterly review	conference call
1/24/2018	Razzaque	Lyrical	Investment team	Quarterly review	conference call
1/25/2018	Razzaque	McKinley Capital	Investment team	Quarterly review	conference call
1/25/2018	Razzaque	CDAM	Investment team	Quarterly review	conference call
1/26/2018	Razzaque	AGI	Investment team	Quarterly review	conference call
1/29/2018	Razzaque	T.Rowe	Investment team	Quarterly review	conference call
1/30/2018	Razzaque	DSM	Investment team	Quarterly review	conference call
1/31/2018	Razzaque	SKBA	Investment team	Quarterly review	conference call
1/31/2018	Razzaque	Wells China	Investment team	Quarterly review	conference call
2/1/2018	Razzaque	JP Morgan International	Investment team	Quarterly review	conference call
2/2/2018	Razzaque	RBA	Investment team	Quarterly review	conference call
2/5/2018	Razzaque	AQR	Investment team	Quarterly review	conference call
2/5/2018	Ninkov	SSGA	Michael Putica	Strategy Review	Juneau, AK
2/6/2018	Razzaque	Johnston	Investment team	Quarterly review	conference call
2/7/2018	Razzaque	William Blair	Investment team	Quarterly review	conference call
2/8/2018	Razzaque	JP Morgan EM	Investment team	Quarterly review	conference call
2/9/2018	Ninkov	Intech	Bret Young	Strategy Review	conference call
2/12/2018	Razzaque	CastleArk	Investment team	Quarterly review	conference call

2/12/2018	Ninkov	JP Morgan	Todd Evans	REITS discussion	Juneau, AK
2/13/2018	Razzaque	Eagle	Investment team	Quarterly review	conference call
2/14/2018	Razzaque	LSV	Investment team	Quarterly review	conference call
2/14/2018	Razzaque	SSgA (ex GE) US Growth	Investment team	Quarterly review	conference call
2/15/2018	Razzaque	Lazard	Investment team	Quarterly review	conference call
2/18/2018	Razzaque	Mondrian	Investment team	Quarterly review	Juneau, AK
2/19/2018	Ninkov	Pavilion Corp	Michael Avedesian	Strategy Review	conference call
2/20/2018	Razzaque	Macquarie (ex Delaware)	Investment team	Quarterly review	conference call
2/21/2018	Ninkov	Tradeweb	Adam Gould	ETF Discussion	conference call
2/23/2018	Ninkov	IEX Trading	John Schwall	Strategy Review	conference call
3/5/2018	Razzaque	DFA	Investment team	Quarterly review	conference call
3/5/2018	Razzaque	RBC	Investment team	Quarterly review	conference call
3/6/2018	Razzaque	Nipun	Pooja Malik & Janice Tang	Introductory Call	conference call
3/13/2018	Ninkov	BCA	Stephanie Lee	BCA ETF Platform WebEx Demonstration	conference call
3/21/2018	Diouf, Ninkov	JP Morgan	Jeff Shields	Strategy Review	Juneau, AK
3/21/2018	Ninkov	BNYM	Michael Ludwig	ETF Trading with APFC and BNYMCM	conference call
3/27/2018	Ninkov	JP Morgan	Jeff Shields	Sanctions Compliance Discussion	conference call
3/28/2018	Diouf, Ninkov	MSCI	Christopher Breckon, Paul Schutzman	Strategy Review	Juneau, AK
3/29/2018	Ninkov	Parametric	Junlianne Williams, Tim Atwill	Strategy Review	Juneau, AK

Due Diligence Log - Real Estate

The due diligence activities undertaken by APFC on-site and off-site are listed below. Conference calls were included if a product was substantially reviewed or previewed during the course of the call.

Date of Visit	APFC Staff	Broker, Manager, Consultant	Individuals Visiting/Visited	Topic	Location
1/25/2018	Duran, Andreyka, Grussendorf, Emberton	CBRE Europe	Senior Mgmt.	Annual Portfolio Update, Budget Review, Market Knowledge	Juneau, AK
1/30/2018	Duran, Andreyka, Grussendorf, Emberton	LaSalle U.K.	Senior Mgmt.	Annual Portfolio Update, Budget Review, Market Knowledge	Juneau, AK
2/1/2018	Duran, Andreyka, Grussendorf, Emberton	Sentinel RE Corp.	Senior Mgmt.	Annual Portfolio Update, Budget Review, Market Knowledge	Juneau, AK
2/6-7/2018	Duran, Andreyka, Grussendorf, Emberton	L&B Realty	Senior Mgmt.	Annual Portfolio Update, Budget Review, Market Knowledge	Juneau, AK
2/8/2018	Duran, Andreyka, Grussendorf, Emberton	CS Capital Mgmt.	Senior Mgmt.	Annual Portfolio Update, Budget Review, Market Knowledge	Juneau, AK
3/6-9/2018	Duran, Andreyka	L&B Realty, Macerich	Senior/Executive Mgmt.	Quarterly Partnership Meeting, Property Visit	McLean, VA
3/19 - 21/2018	Duran, Andreyka	L&B Realty, Macerich, Greystar, and Lincoln Property Co.	Senior/Executive Mgmt.	Manager Meetings	Los Angeles, CA
3/19/2018	Grussendorf, Emberton	L&B Realty	Portfolio Management Team	Portfolio Update	Conference Call

Manager Due Diligence Log - Private Income and Absolute Return

The due diligence activities undertaken by APFC on-site and off-site are listed below. Conference calls were included if a product was substantially reviewed or previewed during the course of the call.

Date of Visit	APFC Staff	Broker, Manager, Consultant	Individuals Visiting/Visited	Topic	Location
4-Jan-18	BC, JB, MF	Howard Hughes Medical Institute	Shelley West	Reference Call on Hedge Fund Manager	Conference Call
5-Jan-18	BC, JB, MF	SEAF/SET	Thomas Hermsdorfer, Bert van der Vaart	Discussion of Smart Cities Strategy	Conference Call
8-Jan-18	JB, MF	ShoreVest	Ben Fanger	Discussion of China NPL Strategy	Juneau
8-Jan-18	BC, JB, MF	Kodak Corporate Pension	Tom Mucha	Reference Call on Hedge Fund Manager	Juneau
9-Jan-18	JB, MF	Mubadala	Oscar Fahlgren	Discussion of Infrastructure Opportunity	Conference Call
10-Jan-18	MF	Generate Capital	Jason Fish, Scott Jacobs	Board Meeting (Comp Committee)	Conference Call
11-Jan-18	RR	Sierra Energy	Mike Hart	Waste-to_Energy Company Investment	Davis, CA
11-Jan-18	JB, MF	Cordiant Capital	James Sosnicky, Jamie Kiernan	Discussion of Credit Market	Conference Call
11-Jan-18	BC, JB, MF	Albourne	James Hayward, Lincoln Smith	Discussion of Hedge Fund Market	Conference Call
12-Jan-18	MF	BlackRock	Doug McNeeley	Discussion of International Real Estate	Conference Call
12-Jan-18	MF	Evercore	Chris Brand	Discussion of Infra/Private Credit Markets	Conference Call
12-Jan-18	MF	Albourne	Kelly McKale	Albourne Update	Conference Call
16-Jan-18	MF	HIG Capital	Ricardo Dallolio, Asmat Doza	Discussion of European Real Estate	New York
16-Jan-18	MF	Echo Street Capital Manager	Matthew Carpenter, Greg Poole	Introduction to Hedge Fund Strategy	New York
16-Jan-18	MF	Piney Lake	Michael Lazar	Discussion of Private Credit Market	New York
17-Jan-18	RR	Mubadala	Tim Breen	Aluminum Company Investment	Conference Call
17-Jan-18	MF	HIG Capital	Stuart Aronson, Pankaj Gupta, Asmat Doza	Discussion of Private Credit Market	New York
18-Jan-18	MF	Audax	Kevin Magid	Discussion of Private Credit Market	New York
18-Jan-18	MF	Empyrean	Amos Meron	Introduction to Hedge Fund Strategy	New York
18-Jan-18	MF, JB, BC	Albourne	James Hayward, Andrea Stefekova	ODD Review on New Hedge Fund Investment	Conference Call
19-Jan-18	MF	Holcene	Julia Dailey	Introduction to Hedge Fund Strategy	New York
19-Jan-18	MF, JB, BC	Albourne	James Hayward, Martina Steinberg	IDD Review on New Hedge Fund Investment	Conference Call
19-Jan-18	MF	Albourne	Heather Christopher	Discussion of Real Estate Market	New York
22-Jan-18	MF	InfraRed	Sandra Lowe	Discussion of Real Estate and Infrastructure	Conference Call
23-Jan-18	MF	Piney Lake	Michael Lazar	Discussion of Private Credit Market	Conference Call
23-Jan-18	MF	Generate Capital	Jason Fish, Scott Jacobs	Board Meeting	Conference Call
24-Jan-18	RR	Aberdeen Standard Investments	Peter Schmole	Multi-asset Strategies	Juneau
24-Jan-18	MF, JB	Pathway Capital	Jason Jenkins, Mike Buress	Infrastructure Pipeline Discussion	Conference Call
24-Jan-18	MF	MPERS	Bobby Hagedorn	Reference Call on Infrastructure Manager	Conference Call
24-Jan-18	MF	Blackstone	Greg Geiling, Eric Perlyn	Discussion of Hedge Fund Market	Conference Call
25-Jan-18	MF, RD, CG, KE, TA	CBRE	Myles Sanger	Update on European Real Estate Properties	Juneau
26-Jan-18	MF	GCM	Akhil Unni	Infrastructure Market Discussion	Conference Call
30-Jan-18	MF	LaSalle UK	Senior Portfolio Managers	Update on UK Real Estate Properties	Juneau
31-Jan-18	MF, JB	Pathway Capital	Alex Casbolt, Vince Deee, Mikael Sand, John Ruggieri	Discussion of European Private Credit	Conference Call
1-Feb-18	MF, RD, CG, KE, TA	Sentinel	Senior Portfolio Managers	Update on Real Estate Portfolio Assets	Juneau
2-Feb-18	MF, RD	Callan	Steven Center, Avery Robinson	Discussion of International Real Estate	Conference Call
5-Feb-18	MF	Generate Capital	Scott Jacobs, Matan Freidman	Update call with Management	Conference Call
6-Feb-18	MF, JB, BC	Elliott Management	Shishir Udani	Portfolio update call	Conference Call
6-Feb-18	MF, JB	Pharo Management	David Crosby	Portfolio update call	Conference Call
7-Feb-18	MF, RD, CG, KE, TA	L&B Realty	Senior Portfolio Managers	Update on Real Estate Portfolio Assets	Juneau
7-Feb-18	MF, CB, JB	Sheppard Mullin	Tom Devaney	Legal Call on Hedge Fund Investment	Conference Call

7-Feb-18	JB	TPG Credit	Brian D'Arcy	Market and portfolio update	Conference Call
8-Feb-18	RD, CG, KE, TA	CS Capital	Mike McHargue, Joe Spicer	Update on Real Estate Portfolio Assets	Juneau
8-Feb-18	MF	Generate Capital	Jason Fish, Scott Jacobs	Quarterly Board Meeting	San Francisco
9-Feb-18	RR	Crestline	Zach Smith	Aluminum Company Investment	Conference Call
12-Feb-18	JB	HIG Capital	Duncan Priston, Asmat Doza, John Bolduc	Discussion of Distressed Debt Opportunity	Juneau
13-Feb-18	MF	KKR	Dan McLaughin	Discussion of KKR Infrastructure Fund	Conference Call
13-Feb-18	MF	Corsair Capital	Kelly Ramirez	LPAC Call on Infrastructure Fund	Conference Call
13-Feb-18	MF	BNP	Joe Salvatore	Discussion of Power Direct Investment Opportunity	Conference Call
14-Feb-18	MF	CBRE	Myles Sanger	Discussion of European Real Estate Opportunities	Conference Call
14-Feb-18	MF	CS Capital	Joe Spicer	Discussion of Real Assets opportunity	Conference Call
14-Feb-18	MF, JB, CP	Sheppard Mullin	Tom Devaney	Legal Call on Private Credit Investment	Conference Call
20-Feb-18	MF	Asana Partners	Brian Purcell	Discussion of Real Estate Fund	Conference Call
20-Feb-18	MF	Lansdowne Partners	Julian Colville	Update on portfolio and market	Conference Call
20-Feb-18	MF	CBRE	Myles Sanger	Discussion of International Real Estate	Conference Call
20-Feb-18	MF	Pathway Capital	Vince Dee, John Ruggieri	Private Credit Pipeline Discussion	Conference Call
20-Feb-18	MF, TA	Brookfield	Brian Kingston, Chris Harris	Discussion of Global Real Estate	Conference Call
21-Feb-18	RR	McKinley, Al-Maskari	Rob Gillam, Nabyl Al-Maskari, Peter Lejre	MEASA Stock Fund Initiative	Conference Call
21-Feb-18	MF	Stepstone	Todd Lapenna	Infrastructure discussion	Conference Call
22-Feb-18	MF	Generate Capital	Judy Bornstein, Jeff Colin, Matan Friedman	Board Audit Committee Call	Conference Call
23-Feb-18	MF	Generate Capital	Jason Fish, Scott Jacobs and Others	Board Finance Committee Call	Conference Call
23-Feb-18	MF, JB	Goldman Sachs	Jessica Yueh, Garrett White	Review Model on Infrastructure Project	Conference Call
23-Feb-18	MF, JB	Crestline	Keith Williams, James Delaune	Private Credit Discussion	Conference Call
23-Feb-18	MF, JB, BC	Albourne	James Hayward, Julie Lauer Wurster	IDD Review on New Hedge Fund Investment	Conference Call
26-Feb-18	MF	KSL Capital	Kenn Lee	Review Real Assets Strategy	Conference Call
26-Feb-18	MF	Blackstone	Alexandra Hill	Discussion of International Real Estate	Conference Call
26-Feb-18	MF, JB, BC	Albourne	Andrew Mcaloney	ODD Review on New Hedge Fund Investment	Conference Call
26-Feb-18	MF	Goldman Sachs	Rob Patch, Thomas Davie	Market update call	Conference Call
26-Feb-18	MF	Generate Capital	Scott Jacobs, Matan Freidman	Update call with Management	Conference Call
27-Feb-18	MF	CFM	Gaurang Shah	Review of Hedge Fund Strategy	Conference Call
27-Feb-18	MF	Green Tech Capital	Steve Megyery	Review Direct Investment Opportunity	Conference Call
27-Feb-18	MF, JB	Empyrean	Kate Baumann	Review of Hedge Fund Strategy	Conference Call
27-Feb-18	MF	Ares	Julie Solomon	Discussion of International Real Estate	Conference Call
27-Feb-18	MF	Crestline	Caroline Cooley	Update on Summit hedge fund strategy	Conference Call
27-Feb-18	MF	Red Reef Farmland	Suzanne Petrela	Discussion of Agricultural Land strategy	Conference Call
27-Feb-18	MF	CLSA	Chi Wing Leung	Discussion of International Real Estate	Conference Call
28-Feb-18	RR	Blackrock	FCLT (Focusing on the Long-Term Conference)	Long-Term Investing	New York
28-Feb-18	MF	CBRE Caledon	Igor Nirenshtein	Discussion of Infrastructure Opportunity	Conference Call
28-Feb-18	MF, JB	American Homes 4 Rent	David Goldberg	Portfolio update call	Conference Call
28-Feb-18	MF	Morgan Stanley	Markus Hottenrott	Discuss Infrastructure Investment Opportunity	Conference Call
28-Feb-18	MF, JB	Albourne	James Hayward, Jonathan Choslovsky	Discuss Hedge Fund Manager	Conference Call
28-Feb-18	MF	Activate Capital	Raj Atlaru	Introductory call on infrastructure strategy	Conference Call
1-Mar-18	RR	Morgan Stanley	Global Asset Allocation Conference	Asset Allocation Strategies	New York
1-Mar-18	MF	Warburg Pincus	Jim Wilson	Discussion of Private Equity Market	Conference Call
1-Mar-18	MF	Cityview	George Ochs	Discussion of Real Estate Opportunity	Conference Call
1-Mar-18	MF, CP, JB	Sheppard Mullin	Tom Devaney	Discussion of two in process investments	Conference Call
1-Mar-18	MF	Ardian	Erin Odisio	Discussion of International Real Estate	Conference Call
2-Mar-18	MF	Tishman Speyer	Jackie Fuld	Discussion of International Real Estate	Conference Call
2-Mar-18	MF	Heitman	John Mancuso	Discussion of International Real Estate	Conference Call
5-Mar-18	RR	Access Alts Association	Access Alts Industry Association	Asian Hedge Fund Managers	New York
5-Mar-18	MF	Macquarie	Sean Fitzgerald	Discussion of Private Markets Investment Opportunity	Conference Call
5-Mar-18	MF	JLC Infra	Rob Keough	Discussion of Infrastructure Opportunity	Conference Call
5-Mar-18	MF, RD	HIG Capital	Asmat Doza, Riccardo Dallolio	Discussion of European Real Estate Market	Juneau
5-Mar-18	JB	TPG Credit	Jaime Gates, Brian D'arcy	Discussion credit investment opportunity	Conference Call
5-Mar-18	MF, JB	Pathway Capital	Jason Jenkins, Mike Buress	Discussion of in-process infrastructure investment	Conference Call
5-Mar-18	MF, CP	Cox Castle	Amy Wells	Discussion of Market Real Estate Fund Terms	Conference Call
5-Mar-18	MF	SC Capital	Ho Liwen	Discussion of International Real Estate	Conference Call
6-Mar-18	MF	JPMorgan	Jeffrey Shields; Peter Reilly; Janet Field; Todd Evans	Discussion of European Real Estate	Conference Call
6-Mar-18	MF, JB	GIP	Michael McGhee	Portfolio Company Update - Terminal Investments Ltd.	Conference Call
6-Mar-18	MF, RD	Henderson Park	Nick Weber	Discussion of European Real Estate	Conference Call
6-Mar-18	MF, RD	Meyer Bergman	Markus Meijer, Sanjiv Raykundalia, Tami Chuang	Discussion of European Real Estate	Conference Call
6-Mar-18	MF, RD	Harbert	Scott O'Donnell, Rich Brereton	Discussion of European Real Estate	Conference Call
6-Mar-18	MF	CBRE Caledon	Aaron Vale	Discussion of Confidential Infrastructure Transaction	Conference Call
6-Mar-18	MF, JB, CP	Sheppard Mullin	Tom Devaney	Discussion of In-process private credit investment	Conference Call
6-Mar-18	MF	Activate Capital	Raj Atlaru, Anup Jacob	Discussion of Infrastructure Opportunity	Conference Call
6-Mar-18	MF, JB	Morgan Stanley	Raja Parthasarathy, Greg Best	Disussion of India Infrastructure	Conference Call
7-Mar-18	MF	Oaktree	Talbot Carlton	Private Markets Discussion	Conference Call
7-Mar-18	MF	Varde Partners	Tim Mooney, Eric Perry	Discussion of European Real Estate	Conference Call
7-Mar-18	MF	Bain Capital	Steve Radokovich	Discussion of Real Estate market	Conference Call
7-Mar-18	MF	Generate Capital	Judy Bornstein, Scott Jacobs, Matan Friedman	Review Budget and Projections	Conference Call
7-Mar-18	MF	TPG Real Estate	Kelvin Davis	Review TPG's Real Estate activities	Conference Call
7-Mar-18	MF	Alpha Investment Partners	Marie Yan, Lok Kuan Young	Discussion of Asia Real Estate	Conference Call
8-Mar-18	MF	Benson Elliot	Laura Coleman, Trish Barrigan, Rupal Shah	Discussion of European Real Estate	Conference Call
8-Mar-18	MF	Moorfield Group	Marc Gilbard, Charlie Ferguson-Davie, Robbert Zoet	Discussion of European Real Estate	Conference Call
8-Mar-18	MF	Guggenheim Partners	Jim Pass	Infrastructure discussion	Juneau
8-Mar-18	MF, BC, JB	HHMI	Shelley West	Reference Call on in-process hedge fund investment	Conference Call
8-Mar-18	MF	Heitman	John Mancuso	Discussion of Asia Real Estate	Conference Call
9-Mar-18	MF	Field Street	Aaron Gillespie	Absolute Return portfolio review	Conference Call
9-Mar-18	MF, JB, BC	Winton	Ramyata Joshi, Nick Smith	Absolute Return portfolio review	Conference Call
13-Mar-18	MF	Sloan Foundation	Will Maslovsky	Reference Call on in-process hedge fund investment	Conference Call

14-Mar-18	MF	Brookfield	Barry Blattman	Discussion of International Real Estate	Washington DC
15-Mar-18	MF	Callan	Steven Center, Avery Robinson	Discussion of International Real Estate	Conference Call
19-Mar-18	MF	AXA Real Estate	Matt Holberton	Discussion of European Real Estate	Conference Call
19-Mar-18	MF	Angelo Gordon	Aliana Spungen	Discussion of Asia Real Estate	Conference Call
19-Mar-18	MF	Phoenix	Katie Chau	Discussion of Asia Real Estate	Conference Call
20-Mar-18	JB	GoldenTree Asset Management	Laurie Katz	Update on Structured Products market	Conference Call
20-Mar-18	MF	AEW	Laura Banks, Alex Griffiths, Rob Wilkinson	Discussion of European Real Estate	Conference Call
20-Mar-18	MF	Gaw Capital	Mike Hu	Discussion of Asia Real Estate	Conference Call
20-Mar-18	MF	Barings Asia	Tom Addison, Dora Chan	Discussion of Asia Real Estate	Conference Call
21-Mar-18	MF	Hancock Natural Resources	Glenn Smith	Discussion of Investment Opportunity	Conference Call
21-Mar-18	MF	Aermont Capital	Nathan Shike, Camilla Mathews	Discussion of European Real Estate	Conference Call
21-Mar-18	MF	California Endowment	David Greenberg	Reference Call on in-process hedge fund investment	Conference Call
21-Mar-18	MF	Albourne	Lincoln Smith, Tom Cawkwell, Kelly McKale	Private Markets and Hedge Fund Discussion	Juneau
21-Mar-18	MF	Generate Capital	Scott Jacobs	Update call with Management	Conference Call
22-Mar-18	MF	Morgan Stanley	Markus Hottenrott	Portfolio and Market Update	Conference Call
22-Mar-18	MF	JPMorgan	Jeffrey Shields	Real Estate and Hedge Fund Discussion	Juneau
26-Mar-18	MF	Callan	Steven Center, Avery Robinson	Discussion of International Real Estate	Conference Call
27-Mar-18	MF	Global Infrastructure Partners	Matt Harris	Portfolio and Market Update	Conference Call
27-Mar-18	MF	CBRE	Myles Sanger, Charles Baigler, Jeremy Plummer	Discussion of European Real Estate	Conference Call
27-Mar-18	MF	Morgan Stanley	Greg Best, Markus Hottenrott	Infrastructure discussion	Juneau
27-Mar-18	MF	Park Hill Group	Zachary Stassi	Discussion of International Real Estate	Juneau
27-Mar-18	MF	Pathway Capital	Jason Jenkins, Mike Buress	Infrastructure Pipeline Discussion	Conference Call
29-Mar-18	MF, RD, TA	Callan	Steven Center, Avery Robinson	Due Diligence on International Real Estate Funds	Conference Call

Manager Due Diligence Log - Private Equity and Special Opportunities

The due diligence activities undertaken by APFC on-site and off-site are listed below. Conference calls were included if a product was substantially reviewed or previewed during the course of the call.

Date of Visit	APFC Staff	Broker, Manager, Consultant	Individuals Visiting/Visited	Topic	Location
2-Jan-18	SM, YK	Pathway	Senior management	Fund due diligence	Call
2-Jan-18	YK	Arch Ventures	Senior management	Direct deal diligence	Call
3-Jan-18	SM, YK	Crestline	Deal team	Direct deal diligence	Call
3-Jan-18	YK	NGP	Senior management	Fund due diligence	Call
3-Jan-18	YK	Pavilion	Deal team	Direct deal diligence	Call
5-Jan-18	YK	NIO	Management team	Direct deal diligence	SF
5-Jan-18	YK	DCVC	Senior management	Fund due diligence	SF
8-Jan-18	YK	West Arrow	Senior management	Direct deal diligence	Call
8-Jan-18	YK	Allurion	Management team	Direct deal diligence	SF
8-Jan-18	YK	Guidepoint	Reference	Direct deal diligence	SF
9-Jan-18	YK	Evelo	Management team	Direct deal diligence	SF
9-Jan-18	YK	Altos Ventures	Senior management	Fund due diligence	SF
9-Jan-18	YK	Pavilion	Deal team	Fund due diligence	SF
9-Jan-18	YK	Apax	Senior management	Fund due diligence	Call
9-Jan-18	YK	Baring Asia	Senior management	Fund due diligence	Call
10-Jan-18	YK	H3 Biomedicine	Management team	Direct deal diligence	SF
10-Jan-18	SM, YK	Crestline	Deal team	Direct deal diligence	SF
10-Jan-18	YK	Grail	Management team	Direct deal diligence	SF
10-Jan-18	YK	Capricorn	Senior management	Fund due diligence	SF
11-Jan-18	YK	UBS	Deal team	Fund due diligence	SF
11-Jan-18	YK	Arch Ventures	Deal team	Direct deal diligence	SF
11-Jan-18	YK	General Atlantic	Senior management	Fund due diligence	SF
12-Jan-18	YK	Crescent Point	Senior management	Fund due diligence	SF
12-Jan-18	YK	SVB Capital	Senior management	Fund due diligence	SF
12-Jan-18	YK	Saildrone	Senior management	Direct deal diligence	SF
12-Jan-18	YK	Joby	Senior management	Direct deal diligence	SF
15-Jan-18	YK	Builders / Ascus	Senior management	Direct deal diligence	SD
15-Jan-18	YK	Braidy	Senior management	Direct deal diligence	Call
17-Jan-18	YK	Braidy	Senior management	Direct deal diligence	Call
17-Jan-18	YK	Borealis	Senior management	Fund due diligence	Call
17-Jan-18	YK	NGP	Deal team	Direct deal diligence	Call
17-Jan-18	SM, YK	Pathway	Deal team	Fund due diligence	Call
17-Jan-18	YK	Lightspeed	Senior management	Fund due diligence	Call
17-Jan-18	YK	General Catalyst	Senior management	Fund due diligence	Call
18-Jan-18	YK	Insight	Senior management	Fund due diligence	Call
18-Jan-18	YK	Joby	Senior management	Direct deal diligence	Call
18-Jan-18	YK	NGP	Deal team	Direct deal diligence	Call
18-Jan-18	YK	Fountainvest	Senior management	Fund due diligence	Call
18-Jan-18	YK	EvHive	Senior management	Direct deal diligence	Call
19-Jan-18	YK	Carbonsul	Senior management	Direct deal diligence	Call
19-Jan-18	YK	GS Coop Fund	Senior management	Fund due diligence	Call
19-Jan-18	YK	IP Group	Senior management	Direct deal diligence	Call
22-Jan-18	YK	SpaceX	Deal team	Direct deal diligence	Call
24-Jan-18	YK	Camino	Senior management	Direct deal diligence	Call
24-Jan-18	YK	Sky9	Senior management	Fund due diligence	Call
25-Feb-18	YK	Nordic	Senior management	Fund due diligence	Call
25-Feb-18	YK	TIF	Senior management	Fund due diligence	Call
29-Jan-18	YK	Lightspeed	Senior management	Fund due diligence	Call
6-Feb-18	SM, YK	Crestline	Senior management	Fund due diligence	Call
6-Feb-18	YK	Sprout	Senior management	Fund due diligence	SF
6-Feb-18	YK	NGP	Senior management	Direct deal diligence	Call
7-Feb-18	SM, YK	Pathway	Deal team	Fund due diligence	Call

7-Feb-18	SM, YK	Pathway	Deal team	Direct deal diligence	Call
8-Feb-18	SM, YK	Blackrock	Senior management	Fund due diligence	Call
9-Feb-18	SM, YK	Stepstone	Senior management	Fund due diligence	Juneau
9-Feb-18	YK	Hillhouse	Senior management	Fund due diligence	Call
9-Feb-18	YK	Canaan	Senior management	Direct deal diligence	Call
12-Feb-18	YK	Exponent	Senior management	Fund due diligence	Call
12-Feb-18	YK	Silver Point	Senior management	Fund due diligence	Call
12-Feb-18	YK	JP Morgan	Deal team	Direct deal diligence	Call
12-Feb-18	YK	HIG	Senior management	Fund due diligence	Juneau
13-Feb-18	SM, YK	EGA	Senior management	Direct deal diligence	Call
13-Feb-18	YK	Gemstone	Senior management	Direct deal diligence	Call
14-Feb-18	YK	Northgate	Senior management	Fund due diligence	Call
14-Feb-18	YK	Camino	Senior management	Direct deal diligence	Call
14-Feb-18	YK	Builders	Senior management	Fund due diligence	Call
15-Feb-18	SM, YK	L Catterton	Senior management	Direct deal diligence	Call
15-Feb-18	SM, YK	Pathway	Deal team	Direct deal diligence	Call
16-Feb-18	YK	Canaan	Senior management	Direct deal diligence	Call
20-Feb-18	SM, YK	Pathway	Deal team	Fund due diligence	Call
20-Feb-18	SM, YK	Kelso	Senior management	Direct deal diligence	Call
20-Feb-18	YK	Sprout	Senior management	Fund due diligence	SF
20-Feb-18	YK	SVB Capital	Senior management	Fund due diligence	SF
23-Feb-18	SM, YK	Kelso	Deal team	Direct deal diligence	SF
23-Feb-18	YK	Holtzbrink	Senior management	Fund due diligence	Meeting
23-Feb-18	YK	NorthCapital	Senior management	Direct deal diligence	Meeting
25-Feb-18	YK	W Capital	Senior management	Fund due diligence	Meeting
26-Feb-18	YK	Vickers Ventures	Senior management	Fund due diligence	Meeting
26-Feb-18	YK	Rocket Internet	Senior management	Fund due diligence	Meeting
26-Feb-18	YK	Monomoy Capital	Senior management	Fund due diligence	Meeting
26-Feb-18	YK	Vista	Senior management	Fund due diligence	Meeting
26-Feb-18	YK	Top Tier	Senior management	Fund due diligence	Meeting
26-Feb-18	YK	Ridgemont	Senior management	Fund due diligence	Meeting
26-Feb-18	YK	Evercore	Senior management	Fund due diligence	Meeting
26-Feb-18	YK	Sun Capital	Senior management	Fund due diligence	Meeting
26-Feb-18	YK	Disruptive	Senior management	Fund due diligence	Meeting
27-Feb-18	YK	TDR	Senior management	Fund due diligence	Meeting
27-Feb-18	YK	Vista	Senior management	Fund due diligence	Meeting
27-Feb-18	YK	CIEP	Senior management	Fund due diligence	Meeting
27-Feb-18	YK	Nordic	Senior management	Fund due diligence	Meeting
27-Feb-18	YK	Apax	Senior management	Fund due diligence	Meeting
27-Feb-18	YK	Actera	Senior management	Fund due diligence	Meeting
27-Feb-18	YK	Gridiron	Senior management	Fund due diligence	Meeting
27-Feb-18	YK	Rocket Internet	Senior management	Fund due diligence	Meeting
27-Feb-18	YK	Bain Capital	Senior management	Fund due diligence	Meeting
27-Feb-18	YK	Vista	Senior management	Fund due diligence	Meeting
2-Mar-18	YK	Holtzbrink	Senior management	Direct deal diligence	Call
2-Mar-18	SM, YK	Crestline	Senior management	Direct deal diligence	Call
2-Mar-18	YK	Performance Equity	Senior management	Direct deal diligence	Call
5-Mar-18	YK	Providence	Senior management	Direct deal diligence	NYC
5-Mar-18	YK	Two Sigma	Senior management	Fund due diligence	NYC
6-Mar-18	YK	One Equity	Senior management	Fund due diligence	NYC
6-Mar-18	YK	Warburg Pincus	Senior management	Fund due diligence	NYC
6-Mar-18	YK	GS Coop Fund	Senior management	Fund due diligence	NYC
6-Mar-18	YK	Sunfarm	Senior management	Direct deal diligence	NYC
7-Mar-18	YK	Towerbrook	Senior management	Fund due diligence	NYC
7-Mar-18	YK	Menda	Senior management	Fund due diligence	NYC
7-Mar-18	YK	Charlesbank	Senior management	Fund due diligence	NYC
9-Mar-18	YK	Primavera	Senior management	Fund due diligence	Call
12-Mar-18	YK	Lightspeed	Deal team	Direct deal diligence	Call
12-Mar-18	YK	Braidy	Senior management	Direct deal diligence	Call
12-Mar-18	SM, YK	Pathway	Deal team	Fund due diligence	Call
13-Mar-18	YK	Mubadala	Deal team	Direct deal diligence	Call
13-Mar-18	YK	Quad C	Senior management	Fund due diligence	Call
13-Mar-18	YK	Rittenhouse	Senior management	Fund due diligence	Call
13-Mar-18	YK	New Horizon	Senior management	Fund due diligence	Call
13-Mar-18	YK	Braidy	Senior management	Direct deal diligence	Call
15-Mar-18	SM, YK	Summit	Deal team	Direct deal diligence	Call
16-Mar-18	YK	Providence	Senior management	Direct deal diligence	Call
16-Mar-18	SM, YK	Summit	Deal team	Direct deal diligence	Call
18-Mar-18	YK	Sprout	Senior management	Fund due diligence	Call
19-Mar-18	YK	Braidy	Senior management	Direct deal diligence	Call
19-Mar-18	YK	Sound Mgmt	Management team	Direct deal diligence	Call
19-Mar-18	YK	Hillhouse	Senior management	Fund due diligence	Call
19-Mar-18	SM, YK	Crestline	Deal team	Direct deal diligence	Call
20-Mar-18	SM, YK	Crestline	Deal team	Direct deal diligence	Call
20-Mar-18	SM, YK	Pathway	Deal team	Direct deal diligence	Call
20-Mar-18	YK	Metacrine	Management team	Direct deal diligence	Call
20-Mar-18	YK	Lightspeed	Senior management	Fund due diligence	Call
21-Mar-18	SM, YK	Summit	Senior management	Direct deal diligence	Call
22-Mar-18	SM, YK	Indigo	Senior management	Direct deal update	Call

22-Mar-18	YK	Sprout	Senior management	Fund due diligence	Call
22-Mar-18	YK	Goodwater	Senior management	Fund due diligence	Call
22-Mar-18	SM, YK	Blackrock	Senior management	Fund due diligence	Call
23-Mar-18	YK	Zymergen	Senior management	Direct deal diligence	Call
23-Mar-18	YK	UBS	Deal team	Fund due diligence	Call

f) Staff Education & Training

ALASKA PERMANENT FUND CORPORATION

EMPLOYEE	DEPT	TRAINING TYPE*	VENDOR	COURSE TITLE	CLASS HOURS	CITY	ST
Chad Brown	Human Resources	OL	Lynda.com	The Future of Performance Management	1.5	Juneau	AK
Chad Brown	Human Resources	OL	Lynda.com	Creating a Postive & Healthy Work Environment	1.5	Juneau	AK
Youlian Ninkov	Public Equities	CS	Societe Generale	Quantitative Finance Seminar	12.0	NYC	NY
Masha Skuratovskaya	Fixed Income	CS	Goldman Sachs	Goldman Sachs Global Macro Conference	6.0	NYC	NY
Tom O'Day	Fixed Income	CS	SFIG	SFIG Vegas 2018	22.5	Las Vegas	NV
Chris Cummins	Fixed Income	CS	SFIG	SFIG Vegas 2018	22.5	Las Vegas	NV
Scott Balovich	Information Technology	OL	Lynda.com	Advanced PM	5.0	Juneau	AK
Scott Balovich	Information Technology	OL	Lynda.com	Putting ITIL into Practice	2.5	Juneau	AK
Scott Balovich	Information Technology	OL	Lynda.com	PM & ITM	5.0	Juneau	AK
Janice Hotch	Administration	LT	State of Alaska	Specifications and Contract Development	3.0	Juneau	AK
Janice Hotch	Administration	LT	State of Alaska	Advanced Competitive Sealed Proposals (RFP's)	3.0	Juneau	AK
Janice Hotch	Administration	LT	State of Alaska	Advanced Competitive Sealed Bids (ITB's)	3.0	Juneau	AK
Robin Mason	Operations	OL	Lynda.com	Coaching for Results	1.0	Juneau	AK
Charlie Vice	Information Technology	OL	Lynda.com	VMware vSphere Certified Professional on vSphere 6 Cert Prep (2V0-621): The Basics	1.0	Juneau	AK
Charlie Vice	Information Technology	OL	Lynda.com	VMware vSphere: Network Troubleshooting	1.0	Juneau	AK
Charlie Vice	Information Technology	OL	Lynda.com	Learning VMware vSphere 6.5	1.0	Juneau	AK
Anthony Shaw	Information Technology	OL	Lynda.com	Microsoft Exchange Server 2016: Administration	1.0	Juneau	AK
Anthony Shaw	Information Technology	OL	Lynda.com	Deploying Exchange Server 2016	1.0	Juneau	AK
Anthony Shaw	Information Technology	OL	Lynda.com	Effective Listening	1.5	Juneau	AK
Paulyn Swanson	Communications	OL	Lynda.com	Effective Press Releases	1.0	Juneau	AK
Paulyn Swanson	Communications	OL	Lynda.com	Social Media for Government	1.0	Juneau	AK
Janice Hotch	Administration	OL	Lynda.com	Excel 2013 Essential Training	1.5	Juneau	AK
Valerie Mertz	Finance	OL	Lynda.com	Learning PowerPoint 2010	1.0	Juneau	AK
Valerie Mertz	Finance	OL	Lynda.com	SharePoint: Creating No-Code Business Solutions with Composites	1.0	Juneau	AK

CS	- Conferences & Seminars
LT	- Local Training
OTT	- Out of Town Training
OL	- Online

Communications

APFC ALASKA PERMANENT FUND CORPORATION

801 W 10TH SUITE 302 | JUNEAU, AK 99801
907.796.1500 | apfc.org

SUBJECT: Communications

ACTION:

DATE: 5/23/2018

INFORMATION: X

Communications

The primary objectives of the Communication's program this past quarter have been to message "How the Fund Works", impart a foundational understanding of the various components of the Fund, and in accordance with the Trustees' resolutions 17-01 and 18-01 promote the importance of inflation proofing the Principal to maintain its value over time and of a rules based structure for withdrawals from the Fund. Time has been spent talking with Alaska lawmakers, Alaskan citizens and members of the media to facilitate a better understanding of the Alaska Permanent Fund and the work that the Alaska Permanent Fund Corporation is doing to ensure prudent management of the assets that are under our stewardship.

Presentations – Discussions - Interviews

Angela Rodell, Chief Executive Officer, talked about the history, governance, investment structure, and performance of the Alaska Permanent Fund Corporation and the Alaska Permanent Fund during the following:

March 2018

- KTOO, Solutions Desk, On-Air Interview with Anne Hillman
- Alaska State Legislature, House Finance Committee – HJR 23 Questions
- Meetings with Legislative Leadership to Discuss Resolutions 18-01 and 17-01
- Alaska State Legislature, House State Affairs Committee – Fund Governance Presentation
- Alaska State Legislature, Senate Finance Budget SubCommittee – FY19 Operating Budget

April 2018

- Juneau Empire, Interview with James Brooks
- Alaska State Legislature, Senate Finance Committee – HB 287 Questions
- Alaska State Legislature, House State Affairs Committee – HJR 41 Questions

May 2018

- KTVA, On-Camera Interview with Steve Quinn – "How the Fund Works" and SB 26

Financial Report

APFC ALASKA PERMANENT FUND CORPORATION

Financial Report
March 31, 2018

Fiscal Year 2018 Net Assets

Balances through March 31, 2018 *(in millions)*

Total assets	$65,437.5
Less liabilities	($826.6)
Net assets	$64,610.9
Fund Balances:	
Nonspendable	
Permanent Fund corpus—contributions and appropriations	$40,115.2
Not in spendable form—unrealized appreciation on invested assets	$6,847.8
Total nonspendable fund balance	$46,963.0
Committed	
Current FY dividend	$ -
Current FY inflation proofing	$ -
Current FY AK Capital Income Fund	$33.7
Committed fund balance	$33.7
Assigned for future appropriations	
Realized earnings	$15,040.9
Unrealized appreciation on invested assets	$2,573.3
Total assigned fund balance	$17,614.2
Total fund balances	$64,610.9

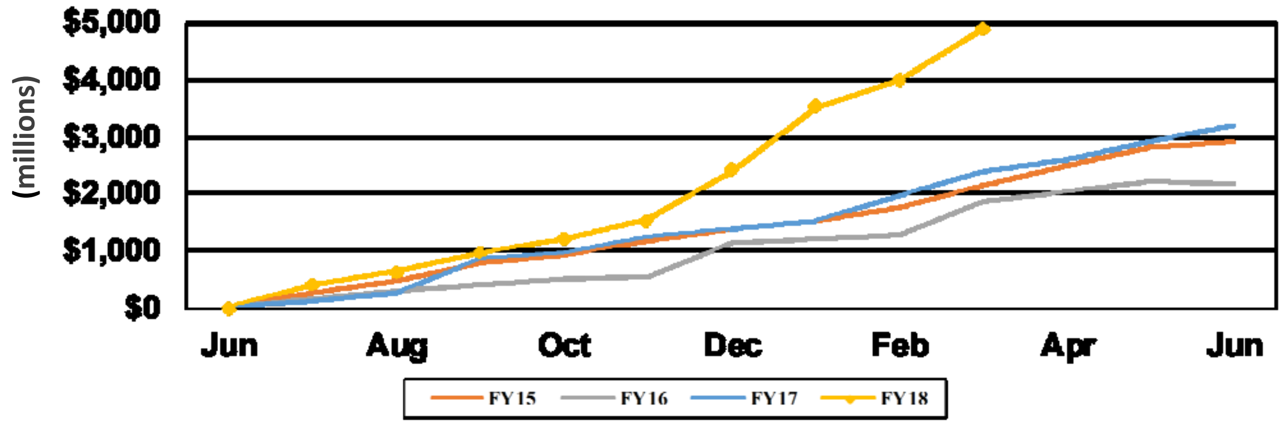
Fiscal Year 2018 Income

For the nine months ending March 31, 2018 *(in millions)*

Statutory (Realized) Net Income	
Interest, dividends, real estate, and other income	$1,124.1
Realized gains on the sale of invested assets	$3,926.5
Less operating expenses/legislative appropriations	($113.2)
Alaska Capital Income Fund committed realized earnings	($33.7)
Statutory net income	$4,903.7

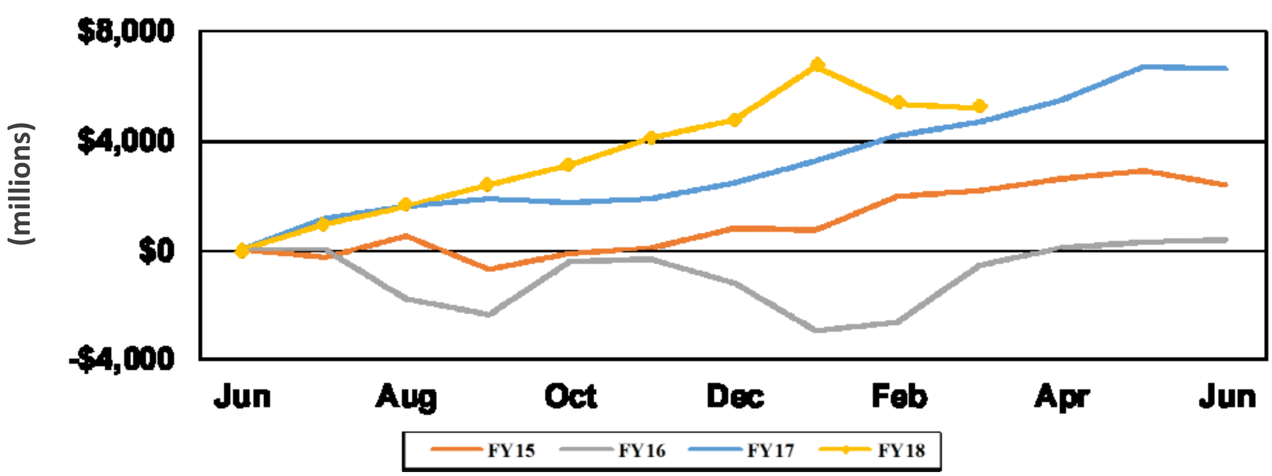
GAAP (Accounting) Net Income	
Statutory net income	$4,903.7
Unrealized gains on invested assets	$313.4
Alaska Capital Income Fund committed realized earnings	$33.7
Accounting net income	$5,250.8

Statutory Net Income, Fiscal Years 2015 - 2018



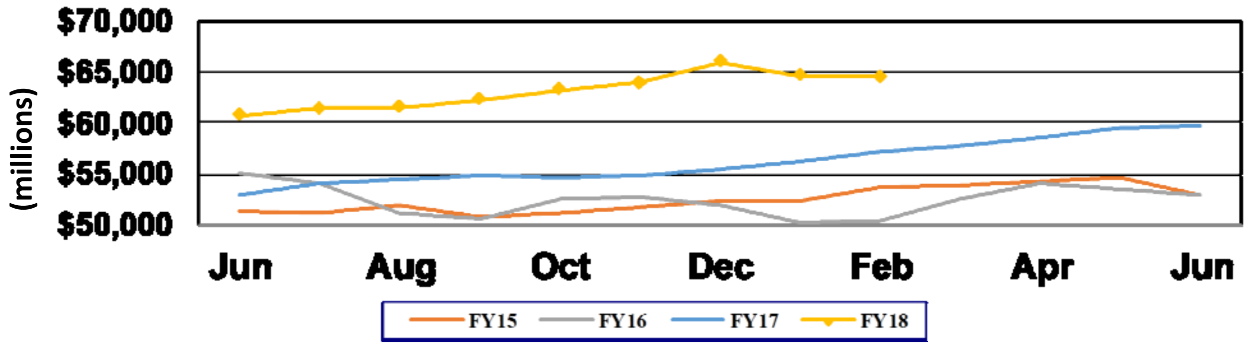
- Comprised of receipts from interest on fixed income, real estate rentals, stock dividends, and all realized gains and losses on the sales of invested assets, less AK Capital Income Fund committed amounts and operating expenses.
- FY15 statutory net income was $2,907.3 million.
- FY16 statutory net income was $2,198.2 million.
- FY17 statutory net income was $3,214.27 million.
- FY18 statutory net income through March 31st was $4,903.7 million.

GAAP Accounting Net Income (Loss), Fiscal Years 2015 - 2018



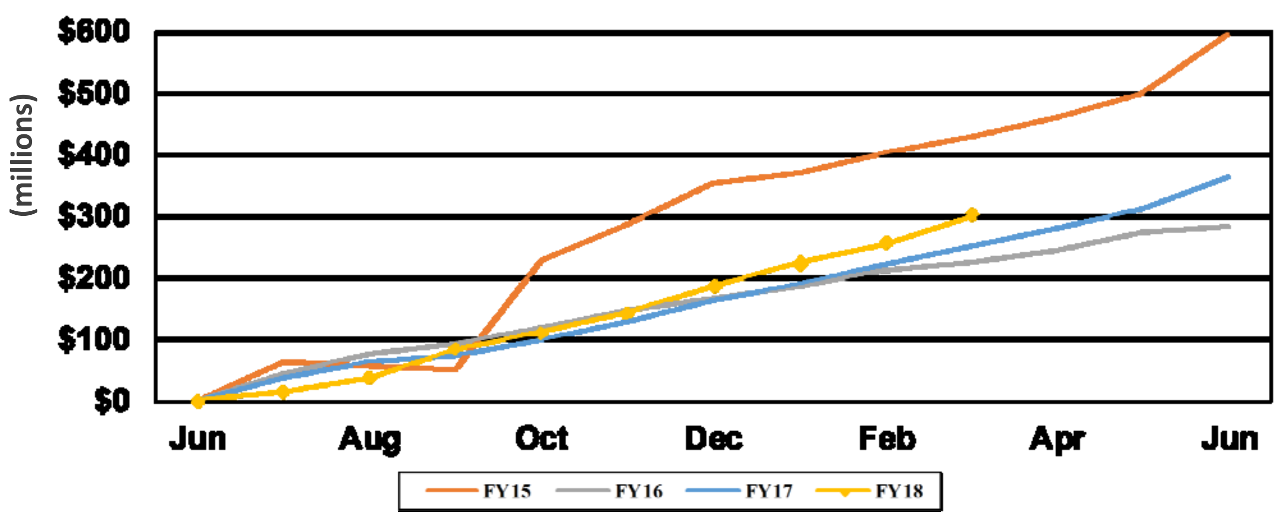
- Accounting net income is the same as statutory net income, except it includes unrealized gains and losses.
- Accounting net income for FY15 was $2.4 billion.
- Accounting net income for FY16 was $398.5 million.
- Accounting net income for FY17 was $6.7 billion.
- Accounting net income for FY18 through March 31st was $5,250.8 million.

Market Value of Fund Net Assets, Fiscal Years 2015 - 2018



- FY15 Fund net assets as of June 2015 were $52.8 billion, an increase of $1.6 billion over the FY14 ending balance.
- FY16 Fund net assets as of June 2016 were $52.8 billion, basically unchanged from the FY15 ending balance.
- FY17 net assets as of June 2017 were $59.8 billion, an increase of $7.0 billion over the FY16 ending balance.
- FY18 nets assets as of March 31st were $64.6 billion, an increase of $4.8 billion over the FY17 ending balance.

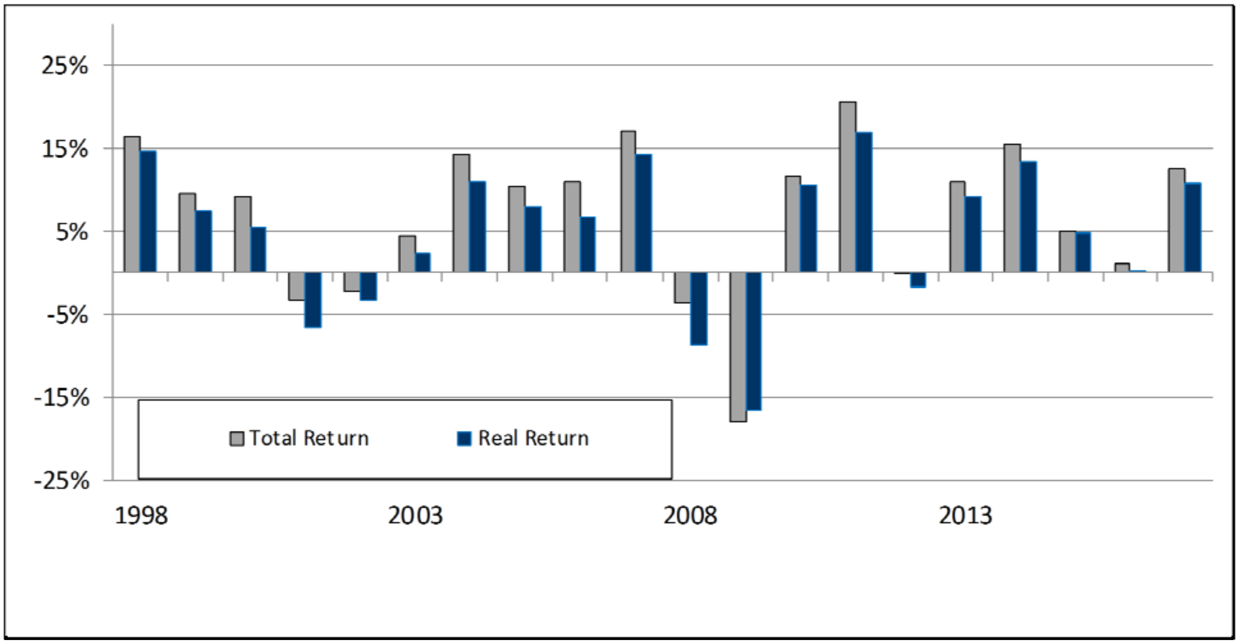
Dedicated Mineral Revenues, Fiscal Years 2015 - 2018



- FY15 mineral revenue was $600 million.
- FY16 mineral revenue was $284.5 million.
- FY17 mineral revenue was $364.9 million.
- FY18 mineral revenue as of March 31st was $301.0 million.

Alaska Permanent Fund Historical Returns, Fiscal Year 1998-2017

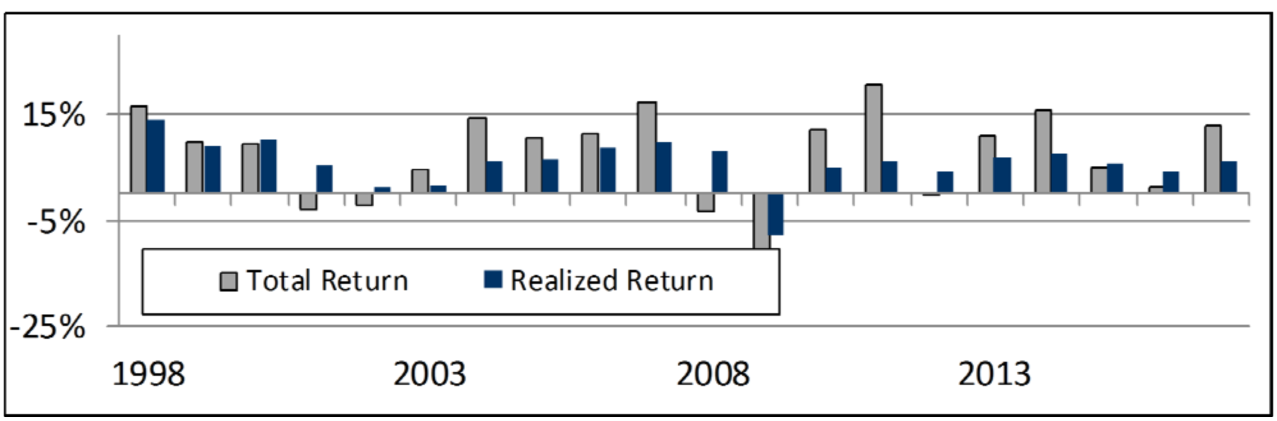
Total return minus inflation equals real return



Total return annualized over 33 years is 8.90%
Real return annualized over 33 years is 6.25%

Alaska Permanent Fund Historical Returns, Fiscal Year 1998-2017

Total return minus unrealized gains/losses equals realized return



Total return annualized over 33 years is 8.90%
Realized return annualized over 32 years is 7.49%

ALASKA PERMANENT FUND

Balance Sheets

Unaudited (millions of dollars)		March 31, 2018	June 30, 2017
Assets			
Cash and temporary investments	$	**4,935.0**	2,653.5
Receivables, prepaid expenses and other assets		**681.2**	544.8
Investments:			
Marketable debt securities		**11,624.6**	10,114.6
Preferred and common stock		**26,027.9**	25,354.4
Real estate		**5,486.8**	6,886.8
Absolute return		**5,093.2**	4,567.0
Public-private credit		**1,279.4**	1,111.8
Private equity		**7,437.6**	6,818.1
Infrastructure		**2,871.8**	2,458.3
Total investments		**59,821.3**	57,311.0
TOTAL ASSETS	$	**65,437.5**	60,509.3
Liabilities			
Accounts payable	$	**826.6**	699.1
Income distributable to the State of Alaska		**0.0**	25.1
TOTAL LIABILITIES		**826.6**	724.2
Fund Balances			
Nonspendable:			
Permanent Fund corpus - contributions and appropriations		**40,115.2**	39,814.3
Not in spendable form - unrealized appreciation on invested assets		**6,847.8**	7,155.3
Total nonspendable		**46,963.0**	46,969.6
Committed:			
Current FY dividend		**0.0**	0.0
Current FY inflation proofing		**0.0**	0.0
Current FY AK Capital Income Fund		**33.7**	0.0
Total committed		**33.7**	0.0
Assigned for future appropriations:			
Realized earnings		**15,040.9**	10,863.2
Unrealized appreciation on invested assets		**2,573.3**	1,952.3
Total assigned		**17,614.2**	12,815.5
TOTAL FUND BALANCES		**64,610.9**	**59,785.1**
TOTAL LIABILITIES AND FUND BALANCES	$	**65,437.5**	**60,509.3**

ALASKA PERMANENT FUND

Statements of Revenues, Expenditures and Changes in Fund Balances

Unaudited (millions of dollars)		Month ended March 31, **2018**	Nine months ended March 31, **2018**	Fiscal year-end audited June 30, 2017
Revenues				
Interest	$	**39.9**	**332.1**	310.8
Dividends		**79.7**	**439.1**	563.0
Real estate and other income		**62.9**	**352.9**	380.3
Total interest, dividends, real estate and other income		**182.5**	**1,124.1**	1,254.1
Net increase (decrease) in the fair value of investments:				
Marketable debt securities		**15.6**	**(166.6)**	(62.5)
Preferred and common stock		**(546.5)**	**2,461.2**	4,125.6
Real estate		**17.2**	**122.6**	102.6
Absolute return		**(17.9)**	**228.7**	351.8
Public-private credit		**8.8**	**39.1**	85.3
Private equity		**149.0**	**1,314.8**	1,056.6
Infrastructure		**86.9**	**277.3**	259.2
Derivative Instruments		**(31.2)**	**(80.7)**	69.1
Currency		**23.1**	**43.5**	(436.4)
Total net increase (decrease) in investments		**(295.0)**	**4,239.9**	5,551.3
TOTAL REVENUES		**(112.5)**	**5,364.0**	6,805.4
Expenditures				
Operating expenditures		**(14.1)**	**(104.6)**	(121.2)
Other legislative appropriations		**0.0**	**(8.6)**	(8.6)
TOTAL EXPENDITURES		**(14.1)**	**(113.2)**	(129.8)
Excess (deficiency) of revenue over expenditures	$	**(126.6)**	**5,250.8**	6,675.6
Other Financing Sources (Uses)				
Transfers in		**45.7**	**301.0**	364.9
Transfers out		**0.0**	**(726.0)**	(25.1)
NET CHANGE IN FUND BALANCES		**(80.9)**	**4,825.8**	7,015.4
Fund Balances				
Beginning of period		**64,691.8**	**59,785.1**	52,769.7
End of period	**$**	**64,610.9**	**64,610.9**	59,785.1

Statutory Income Calculation				
Excess (deficiency) of revenues over (under) expenditures		**(126.6)**	**5,250.8**	6,675.6
Adjustments to bring net income to statutory net income:				
Unrealized (gains) losses		**1,042.5**	**(313.4)**	(3,436.3)
Alaska Capital Income Fund realized income		**(6.3)**	**(33.7)**	(25.1)
STATUTORY NET INCOME	$	**909.6**	**4,903.7**	3,214.2

Receivables and Payables

Unaudited (millions of dollars)		March 31, 2018
Accounts Receivable		
Interest Receivable	$	99.3
Dividends Receivable		68.4
Foreign Exchange Contracts Receivable		(0.6)
Pending Sales Fixed Income		274.7
Pending Sales Equities		65.1
Pending Sales Alternative Investments		120.0
State Dedicated Revenues Receivable		52.8
Pending Sales Real Estate/REITs		1.5
Prepaid and Other Receivables		0.0
TOTAL RECEIVABLES	$	681.2
Accounts Payable		
Accrued Operating Payables	$	28.8
Pending Purchase Fixed Income		703.1
Pending Purchase Equities		78.3
Pending Purch. Alt. Investmnt		15.0
Pending Purchase Real Estate/REITs		1.4
TOTAL PAYABLES	$	826.6

APFC ALASKA PERMANENT FUND CORPORATION

ALASKA PERMANENT FUND
FUND FINANCIAL HISTORY & PROJECTIONS
as of March 31, 2018

Projections extend ten years, and are based on best available information ($ in millions)

Nonspendable Fund Balance - Principal

	FY	FY-Begin Contrib. Balance	Appro-priations [1]	Dedicated [2] State Revenues	Inflation Proofing	FY-End Balance Contributions	Unrealized Gain (Loss) Net Change	Unrealized Gain (Loss) FY-End Balance	FY-End Non-spendable Balance
	77-08	0	7,039	10,537	11,573	29,149	2,312	2,064	31,213
	09	29,149	0	651	1,144	30,945	(3,513)	(1,449)	29,496
	10	30,944	0	679	0 [9]	31,624	1,869	421	32,045
	11	31,624	0	887	533	33,044	4,367	4,788	37,832
	12	33,044	0	915	1,073	35,033	(1,568)	3,220	38,253
	13	35,033	0	840	743	36,615	964	4,184	40,800
	14	36,615	0	779	546	37,941	2,878	7,062	45,002
	15	37,941	0	600	624	39,165	(589)	6,473	45,638
	16	39,165	0	284	0	39,449	(1,723)	4,750	44,199
	17	39,449	0	365	0	39,814	2,405	7,155	46,969
Lo	18	39,814	0	310	1,403	41,527	(3,734)	3,421	44,948
Mid	18	39,814	0	310	1,403	41,527	(1,078)	6,078	47,605
Hi	18	39,814	0	310	1,403	41,527	1,323	8,478	50,005
	19	41,527	0	416	944	42,887	(107)	5,971	48,858
	20	42,887	0	402	974	44,263	(107)	5,863	50,127
	21	44,263	0	405	1,005	45,673	(100)	5,763	51,437
	22	45,673	0	400	1,037	47,109	(86)	5,678	52,787
	23	47,109	0	403	1,069	48,581	(80)	5,598	54,179
	24	48,581	0	413	1,102	50,097	(83)	5,515	55,612
	25	50,097	0	433	1,137	51,667	(81)	5,435	57,101
	26	51,667	0	454	1,173	53,293	(79)	5,356	58,649
	27	53,293	0	463	1,210	54,965	(77)	5,279	60,244
	28	54,965	0	479	1,247	56,691	(76)	5,203	61,895
Cumulative Totals Proj. for 2018-2027			0	4,578	12,300		(1,952)		

Assigned Fund Balance / **TOTAL FUND**

	FY	Acct. Net Income [3]	Statutory Net Income [3]	Distributions of Statutory Net Income: Dividends	Distributions of Statutory Net Income: Inf-Proofing / Other [10]	Distributions of Statutory Net Income: Gen. Fund / Other [4]	FY-End Balance Realized	Unrealized Gain (Loss) Net Change	Unrealized Gain (Loss) FY-End Balance [5]	Net Assigned Change	FY-End Assigned Balance	FY	TOTAL FUND FY-End Balance
	77-08	37,724	37,556	16,652	15,314	421	4,969	352	352	5,942	5,321	77-08	36,534
	09	(6,394)	(2,509) [8]	875	1,144	0 [8]	441	(373)	(21)	(4,901)	420	09	29,917
	10	3,517	1,590 [8]	858	0 [9]	0 [8]	1,194	37	16	790	1,210	10	33,255
	11	6,812	2,143 [8]	801	533	13 [8]	2,016	276	292	1,098	2,308	11	40,140
	12	(100)	1,568	605	1,073	17	1,905	(117)	175	(227)	2,081	12	40,333
	13	4,314	2,928	604	743	30	3,487	392	567	1,973	4,054	13	44,853
	14	6,848	3,531	1,235	546	32	5,237	408	975	2,158	6,211	14	51,214
	15	2,384	2,907	1,373	624	24	6,147	41	1,016	951	7,162	15	52,800
	16	398 [6]	2,198	696 [11]	0 [12]	18	7,649	(95)	921	1,408	8,570	16	52,769
	17	6,676	3,214	0	0 [12]	25	10,864	1,031	1,952	4,246	12,816	17	59,785
Lo	18	(947)	3,689	726	1,403 [13]	27	12,424	(929)	1,023	631	13,447	18	58,395
Mid	18	3,315	4,391	726	1,403 [13]	32	13,126	(31)	1,921	2,231	15,047	18	62,652
Hi	18	7,504	5,242	726	1,403 [13]	38	13,977	901	2,854	4,015	16,831	18	66,836
	19	3,963	3,954	1,705	944	28	14,431	88	2,009	1,393	16,441	19	65,298
	20	4,131	4,123	1,750	974	28	15,830	88	2,097	1,486	17,927	20	68,054
	21	4,306	4,299	1,877	1,005	28	17,247	79	2,176	1,497	19,423	21	70,860
	22	4,485	4,479	2,098	1,037	28	18,591	64	2,241	1,408	20,832	22	73,619
	23	4,661	4,655	2,231	1,069	28	19,946	58	2,298	1,413	22,244	23	76,424
	24	4,839	4,835	2,258	1,102	28	21,420	60	2,358	1,534	23,779	24	79,390
	25	5,029	5,025	2,351	1,137	28	22,957	57	2,415	1,594	25,372	25	82,474
	26	5,226	5,223	2,446	1,173	28	24,562	54	2,469	1,658	27,030	26	85,679
	27	5,430	5,428	2,543	1,210	28	26,237	51	2,520	1,727	28,758	27	89,002
	28	5,642	5,641	2,642	1,247	28	27,989	49	2,569	1,801	30,558	28	92,453
Cumulative Totals Proj. for 2018-2027		51,027	52,053	22,627	12,300	309		617		17,742			

Assumptions:		Total Return	Inflation	Total Real Return		Statutory Return
Lo	FY 2018	-1.38%	2.13%	-3.51%	Lo	6.40%
Mid	FY 2018 [6]	5.73%	2.13%	3.60%	Mid	7.58%
Hi	FY 2018	12.72%	2.13%	10.59%	Hi	9.01%
	FY 2019-2027 [7]	6.50%	2.25%	4.25%		6.53%

Income year-to-date as of March 31, 2018

FY18 Statutory net income	
Interest, dividends, real estate & other income	$ 1,124.1
Realized gains (losses) on the sale of invested assets	3,926.5
Less operating exp / Legis. Appropriations	(113.2)
Less AK Capital Inc. Fund committed realized earnings	(33.7)
Statutory net income (loss)	$ 4,903.7

FY18 Accounting (GAAP) net income	
Statutory net income (loss)	$ 4,903.7
Unrealized gains (losses) on invested assets	313.4
AK Capital Income Fund committed realized earnings	33.7
Accounting (GAAP) net income (loss)	$ 5,250.8

Notes related to financial history and projections FY1977 - FY2028:

(1) Appropriations include special general fund, realized earnings, and other miscellaneous appropriation transfers into principal.

(2) Dedicated State Revenues in current and future fiscal years are based on the Spring 2018 Department of Revenue forecast.

(3) Accounting net income is based on United States Generally Accepted Accounting Principles (GAAP). Statutory net income is accounting net income, excluding any unrealized gains and losses on investments, and excluding earnings of the Alaska Capital Income Fund (AM Hess, et al principal).

(4) FY05 and forward, Amerada Hess, et al. annual net positive settlement earnings are transferred to Alaska Capital Income Fund (ACIF) per AS 37.13.145(d).

(5) Beginning in FY08, based on legal opinion, unrealized gains and losses were allocated between the nonspendable fund balance (principal) and the assigned fund balance (earnings reserve). Prior to FY08, all unrealized gains and losses were included with principal.

(6) Current year returns and inflation are based on 2017 Callan capital market assumptions.

(7) Future returns are based on 2017 Callan capital market assumptions and median expected returns (the mid case). Actual results will vary.

(8) During FY 2009, the ACIF realized losses of $33.3 million, which are excluded from statutory net income, and are included in the ending unreserved balance as a deficit account. During FY 2010 and FY 2011, the ACIF had realized income of $20.8 and $25.3 million, which is excluded from statutory net income, and served to reduce the FY 2009 deficit.

(9) The statutory inflation calculation for FY 2010 was -.36%; therefore, there was no inflation proofing transfer during FY 2010.

(10) FY77-08 includes special appropriations to principal of $3.7 billion.

(11) The dividend transfer reported for FY16 was paid out in dividends during FY17.

(12) There was no appropriation for inflation proofing for FY16 and FY17.

(13) Current year inflation proofing includes unfunded amounts from prior years.

Cash Flow

Board of Trustees - APFC Cash Transfers - January 1 to March 31, 2018

Type of Transfer	January	February	March	Total
ADMINISTRATIVE TOTAL	28,459,716	(1,431,896)	21,827,747	48,855,567
PUBLIC EQUITIES TOTAL	1,001,391,502	300,377,142	2,626,979	1,304,395,622
FIXED INCOME PLUS TOTAL	(550,561,405)	997,214	2,040,380	(547,523,810)
PRIVATE EQUITY & GROWTH OPPORTUNITIES TOTAL	26,096,814	83,891,736	445,685,269	555,673,819
REAL ESTATE TOTAL	1,425,310,987	166,935,019	82,706,271	1,674,952,277
INFRA. & INCOME OPPORTUNITIES TOTAL	(169,685,753)	12,894,902	105,995,376	(50,795,474)
ABSOLUTE RETURN TOTAL	11,676,600	(30,548,828)	(118,024,000)	(136,896,228)
ASSET ALLOCATION TOTAL	-	(1,000,000,000)	(381,858,020)	(1,381,858,020)
Total value of cash/stock transfers	**1,772,688,462**	**(466,884,712)**	**161,000,002**	**1,466,803,752**

Footnote: Total denotes the net value of the cash/stock transfers from and to APFC.

APFC Cash Transfers - January 2018

Date	Type of Transfer	Amount	Source	Destination
	ADMINISTRATIVE SUBTOTAL	**28,459,716**		
Various	Transfer in - Mineral revenue	**28,900,060**	Department of Natural Resources	APF Internal Cash Account
1/3/2018	Transfer in - AIM STIF Interest	**475,740**	Bank of NY Mellon	APF Internal Cash Account
1/24/2018	Transfer in - Commission Recapture proceeds	**45,674**	Bank of NY Mellon	APF Internal Cash Account
1/12/2018	Transfer in - Securities Lending Income	**136,986**	Bank of NY Mellon	APF Internal Cash Account
Various	Transfer in - Class Actions	**188**	Class action proceeds	APF Internal Cash Account
1/8/2018	Transfer in - Alaska Mental Health Trust Increase	**5,000,000**	Wells Fargo Bank	APF Internal Cash Account
Various	Transfer out - Corporate Expenses	**(6,098,931)**	APF Internal Cash Account	FNBA, Department of Revenue
	PUBLIC EQUITIES SUBTOTAL	**1,001,391,502**		
	INTERNATIONAL EQUITIES			
1/23/2018	**William Blair Emerging Markets account decrease**	**100,000,000**	William Blair Emerging Markets Account	APF Internal Cash Account
1/23/2018	**Acadian Asset Mgmt account decrease**	**200,000,000**	Acadian Asset Mgmt Account	APF Internal Cash Account
1/23/2018	**Hardman Johnston Int'l Large Cap account decrease**	**30,000,000**	Hardman Johnston Int'l Large Cap Account	APF Internal Cash Account
1/23/2018	**JP Morgan Int'l Large Cap account decrease**	**70,000,000**	JP Morgan Int'l Large Cap Account	APF Internal Cash Account
Various	**SSgA International account liquidation**	**9,554**	SSgA International Account	APF Internal Cash Account
	GLOBAL EQUITIES			
Various	**APF Tactical Tilts account decrease**	**300,000,000**	APF Tactical Tilts Account	APF Internal Cash Account
	DOMESTIC EQUITIES			
1/19/2018	**SSgA Large Cap account decrease**	**100,000,000**	SSgA Large Cap Account	APF Internal Cash Account
1/2/2018	**APF SPDR Yield account increase**	**(4,020)**	APF Internal Cash Account	APF SPDR Yield Account
1/22/2018	**Jennison Associates LLC account decrease**	**40,000,000**	Jennison Associates LLC Account	APF Internal Cash Account
1/19/2018	**RBC Asset Mgmt account decrease**	**40,000,000**	RBC Asset Mgmt Account	APF Internal Cash Account
1/22/2018	**Eagle Asset Mgmt account decrease**	**40,000,000**	Eagle Asset Mgmt Account	APF Internal Cash Account
1/19/2018	**T Rowe Price account decrease**	**40,000,000**	T Rowe Price Account	APF Internal Cash Account
1/22/2018	**Pzena Investment Mgmt account decrease**	**40,000,000**	Pzena Investment Mgmt Account	APF Internal Cash Account
	APF PUBLIC EQUITY CASH			
1/12/2018	**Public Equity Sec Lending account decrease**	**1,395,512**	Public Equity Sec Lending Account	APF Internal Cash Account
	FIXED INCOME PLUS SUBTOTAL	**(550,561,405)**		
	US FIXED INCOME AGGREGATE			
Various	**APF Fixed Income - Aggregate account increase**	**(155,118,943)**	APF Internal Cash Account	APF Fixed Income - Aggregate Account
	US INVESTMENT GRADE CORPORATE			
1/29/2018	**US Investment Grade Corporate account increase**	**(77,000,000)**	APF Internal Cash Account	US Investment Grade Corporate Account
	NON US FIXED INCOME			
1/29/2018	**APF Global Government Bonds account increase**	**(52,000,005)**	APF Internal Cash Account	APF Global Government Bonds Account
	GLOBAL HIGH YIELD			
1/29/2018	**APF High Yield account increase**	**(77,000,000)**	APF Internal Cash Account	APF High Yield Account
	EMERGING MARKET DEBT			
1/29/2018	**APF Emerging Market Debt account increase**	**(26,000,000)**	APF Internal Cash Account	APF Emerging Market Debt Account
	TIPS			
1/29/2018	**Alaska Permanent Capital Mgmt account increase**	**(26,000,000)**	APF Internal Cash Account	Alaska Permanent Capital Mgmt Account
	REITS			
1/9/2018	**American Homes 4 Rent account decrease**	**83,595**	American Homes 4 Rent Account	APF Internal Cash Account
	LISTED INFRASTRUCTURE			
Various	**Wellington Listed Infrastructure account liquidation**	**213,524**	Wellington Listed Infrastructure Account	APF Internal Cash Account
	FIXED INCOME PLUS CASH			
1/12/2018	**Fixed Income Sec Lending account decrease**	**473,941**	Fixed Income Sec Lending Account	APF Internal Cash Account
Various	**APF Fixed Income Plus Cash account increase**	**(138,213,519)**	APF Internal Cash Account	APF Fixed Income Plus Cash Account
	PRIVATE EQUITY & GROWTH OPPORTUNITIES SUBTOTAL	**26,096,814**		
	PRIVATE EQUITY			
Various	**Private Equity distributions**	**34,136,447**	Private Equity	APF Internal Cash Account
Various	**Private Equity capital calls**	**(23,140,710)**	APF Internal Cash Account	Private Equity
	GROWTH OPPORTUNITIES			
Various	**Growth Opportunities distributions**	**56,356,884**	Growth Opportunities	APF Internal Cash Account
Various	**Growth Opportunities capital calls**	**(41,255,808)**	APF Internal Cash Account	Growth Opportunities
	REAL ESTATE SUBTOTAL	**1,425,310,987**		
Various	**Real Estate distributions**	**1,427,765,518**	Real Estate	APF Internal Cash Account
Various	**Real Estate capital calls**	**(2,454,531)**	APF Internal Cash Account	Real Estate
	INFRA. & INCOME OPPORTUNITIES SUBTOTAL	**(169,685,753)**		
	INFRASTRUCTURE			
Various	**Infrastructure capital calls**	**(171,090,933)**	APF Internal Cash Account	Infrastructure
	PUBLIC/PRIVATE CREDIT			
Various	**Public/Private Credit distributions**	**19,683,040**	Public/Private Credit	APF Internal Cash Account
Various	**Public/Private Credit capital calls**	**(17,688,956)**	APF Internal Cash Account	Public/Private Credit
	INCOME OPPORTUNITIES			
Various	**Income Opportunities capital calls**	**(588,903)**	APF Internal Cash Account	Income Opportunities
	ABSOLUTE RETURN SUBTOTAL	**11,676,600**		
Various	**Absolute Return distributions**	**11,676,600**	Absolute Return	APF Internal Cash Account
Various	**Absolute Return**	**-**		
	Total value of cash/stock transfers	**1,772,688,462**		

Footnote: Total denotes the net value of the cash/stock transfers from and to APFC.

APFC Cash Transfers - February 2018

Date	Type of Transfer	Amount	Source	Destination
	ADMINISTRATIVE SUBTOTAL	**(1,431,896)**		
Various	Transfer in - Mineral revenue	**50,389,778**	Department of Natural Resources	APF Internal Cash Account
Various	Transfer in - AIM STIF Interest	**1,348,536**	Bank of NY Mellon	APF Internal Cash Account
2/20/2018	Transfer in - Commission Recapture proceeds	**63,649**	Bank of NY Mellon	APF Internal Cash Account
2/14/2018	Transfer in - Securities Lending Income	**103,950**	Bank of NY Mellon	APF Internal Cash Account
Various	Transfer in - Class Actions	**3,327**	Class action proceeds	APF Internal Cash Account
2/12/2018	Transfer out - Alaska Mental Health Trust Withdrawal	**(21,111,000)**	APF Internal Cash Account	Wells Fargo Bank
Various	Transfer out - Corporate Expenses	**(32,230,135)**	APF Internal Cash Account	FNBA, Department of Revenue
	PUBLIC EQUITIES SUBTOTAL	**300,377,142**		
	INTERNATIONAL EQUITIES			
Various	**SSgA International account liquidation**	**92,781**	SSgA International Account	APF Internal Cash Account
	GLOBAL EQUITIES			
2/5/2018	**APF Tactical Tilts account decrease**	**299,000,000**	APF Tactical Tilts Account	APF Internal Cash Account
	APF PUBLIC EQUITY CASH			
2/14/2018	**Public Equity Sec Lending account decrease**	**1,377,142**	Public Equity Sec Lending Account	APF Internal Cash Account
	FIXED INCOME PLUS SUBTOTAL	**997,214**		
	US FIXED INCOME AGGREGATE			
Various	**APF Fixed Income - Aggregate account decrease**	**486,798**	APF Fixed Income - Aggregate Account	APF Internal Cash Account
	FIXED INCOME PLUS CASH			
2/14/2018	**Fixed Income Sec Lending account decrease**	**510,399**	Fixed Income Sec Lending Account	APF Internal Cash Account
	PRIVATE EQUITY & GROWTH OPPORTUNITIES SUBTOTAL	**83,891,736**		
	PRIVATE EQUITY			
Various	**Private Equity distributions**	**25,286,427**	Private Equity	APF Internal Cash Account
Various	**Private Equity capital calls**	**(42,150,661)**	APF Internal Cash Account	Private Equity
	GROWTH OPPORTUNITIES			
Various	**Growth Opportunities distributions**	**103,555,331**	Growth Opportunities	APF Internal Cash Account
Various	**Growth Opportunities capital calls**	**(2,799,361)**	APF Internal Cash Account	Growth Opportunities
	REAL ESTATE SUBTOTAL	**166,935,019**		
Various	**Real Estate distributions**	**174,887,807**	Real Estate	APF Internal Cash Account
Various	**Real Estate capital calls**	**(7,952,788)**	APF Internal Cash Account	Real Estate
	INFRA. & INCOME OPPORTUNITIES SUBTOTAL	**12,894,902**		
	INFRASTRUCTURE			
Various	**Infrastructure distributions**	**301,547**	Infrastructure	APF Internal Cash Account
Various	**Infrastructure capital calls**	**(22,137,816)**	APF Internal Cash Account	Infrastructure
	PUBLIC/PRIVATE CREDIT			
Various	**Public/Private Credit distributions**	**49,824,723**	Public/Private Credit	APF Internal Cash Account
Various	**Public/Private Credit capital calls**	**(11,278,021)**	APF Internal Cash Account	Public/Private Credit
	INCOME OPPORTUNITIES			
Various	**Income Opportunities distributions**	**720,000**	Income Opportunities	APF Internal Cash Account
Various	**Income Opportunities capital calls**	**(4,535,531)**	APF Internal Cash Account	Income Opportunities
	ABSOLUTE RETURN SUBTOTAL	**(30,548,828)**		
Various	**Absolute Return distributions**	**5,600,000**	Absolute Return	APF Internal Cash Account
Various	**Absolute Return capital calls**	**(36,148,828)**	APF Internal Cash Account	Absolute Return
	ASSET ALLOCATION SUBTOTAL	**(1,000,000,000)**		
	NISA CASH OVERLAY COMPOSITE			
Various	**NISA Cash Overlay Composite increase**	**(1,000,000,000)**	APF Internal Cash Account	NISA Cash Overlay Composite
	Total value of cash/stock transfers	**(466,884,712)**		

Footnote: Total denotes the net value of the cash/stock transfers from and to APFC.

APFC Cash Transfers - March 2018

Date	Type of Transfer	Amount	Source	Destination
	ADMINISTRATIVE SUBTOTAL	**21,827,747**		
Various	Transfer in - Mineral revenue	**29,665,571**	Department of Natural Resources	APF Internal Cash Account
3/2/2018	Transfer in - AIM STIF Interest	**1,357,893**	Bank of NY Mellon	APF Internal Cash Account
3/21/2018	Transfer in - Commission Recapture proceeds	**19,283**	Bank of NY Mellon	APF Internal Cash Account
3/14/2018	Transfer in - Securities Lending Income	**90,157**	Bank of NY Mellon	APF Internal Cash Account
Various	Transfer in - Class Actions	**7,638**	Class action proceeds	APF Internal Cash Account
Various	Transfer out - Corporate Expenses	**(9,312,795)**	APF Internal Cash Account	FNBA, Department of Revenue
	PUBLIC EQUITIES SUBTOTAL	**2,626,979**		
	INTERNATIONAL EQUITIES			
Various	**SSgA International account liquidation**	**(10,000)**	APF Internal Cash Account	SSgA International Account
	GLOBAL EQUITIES			
3/16/2018	**Lazard Asset Management account decrease**	**597,837,170**	Lazard Asset Management Account	APF Internal Cash Account
Various	**Longview Global Equity account increase**	**(384,799,097)**	APF Internal Cash Account	Longview Global Equity Account
3/28/2018	**Arrowstreet Global Equity account increase**	**(190,499,474)**	APF Internal Cash Account	Arrowstreet Global Equity Account
	APF PUBLIC EQUITY CASH			
3/14/2018	**Public Equity Sec Lending account decrease**	**1,241,711**	Public Equity Sec Lending Account	APF Internal Cash Account
	FIXED INCOME PLUS SUBTOTAL	**2,040,380**		
	US FIXED INCOME AGGREGATE			
Various	**APF Fixed Income - Aggregate account decrease**	**1,279,571**	APF Fixed Income - Aggregate Account	APF Internal Cash Account
	US INVESTMENT GRADE CORPORATE			
Various	**APF Corporate Bonds account decrease**	**36,440**	APF Corporate Bonds Account	APF Internal Cash Account
	FIXED INCOME PLUS CASH			
3/14/2018	**Fixed Income Sec Lending account decrease**	**724,369**	Fixed Income Sec Lending Account	APF Internal Cash Account
	PRIVATE EQUITY & GROWTH OPPORTUNITIES SUBTOTAL	**445,685,269**		
	PRIVATE EQUITY			
Various	**Private Equity distributions**	**35,923,712**	Private Equity	APF Internal Cash Account
Various	**Private Equity capital calls**	**(28,055,104)**	APF Internal Cash Account	Private Equity
	GROWTH OPPORTUNITIES			
Various	**Growth Opportunities distributions**	**475,573,218**	Growth Opportunities	APF Internal Cash Account
Various	**Growth Opportunities capital calls**	**(37,756,557)**	APF Internal Cash Account	Growth Opportunities
	REAL ESTATE SUBTOTAL	**82,706,271**		
Various	**Real Estate distributions**	**85,561,508**	Real Estate	APF Internal Cash Account
Various	**Real Estate capital calls**	**(2,855,237)**	APF Internal Cash Account	Real Estate
	INFRA. & INCOME OPPORTUNITIES SUBTOTAL	**105,995,376**		
	INFRASTRUCTURE			
Various	**Infrastructure distributions**	**176,978,641**	Infrastructure	APF Internal Cash Account
Various	**Infrastructure capital calls**	**(23,078,113)**	APF Internal Cash Account	Infrastructure
	PUBLIC/PRIVATE CREDIT			
Various	**Public/Private Credit distributions**	**4,246,138**	Public/Private Credit	APF Internal Cash Account
Various	**Public/Private Credit capital calls**	**(38,023,282)**	APF Internal Cash Account	Public/Private Credit
	INCOME OPPORTUNITIES			
Various	**Income Opportunities distributions**	**2,410,087**	Income Opportunities	APF Internal Cash Account
Various	**Income Opportunities capital calls**	**(16,538,094)**	APF Internal Cash Account	Income Opportunities
	ABSOLUTE RETURN SUBTOTAL	**(118,024,000)**		
Various	**Absolute Return distributions**	**11,976,000**	Absolute Return	APF Internal Cash Account
Various	**Absolute Return capital calls**	**(130,000,000)**	APF Internal Cash Account	Absolute Return
	ASSET ALLOCATION SUBTOTAL	**(381,858,020)**		
	APF FI LIQUIDITY			
3/17/2018	**APF FI Liquidity account decrease**	**4,999,995**	APF FI Liquidity	APF Internal Cash Account
	NISA CASH OVERLAY COMPOSITE			
Various	**NISA Cash Overlay Composite increase**	**(386,858,015)**	APF Internal Cash Account	NISA Cash Overlay Composite
	Total value of cash/stock transfers	**161,000,002**		

Footnote: Total denotes the net value of the cash/stock transfers from and to APFC.

Monthly Performance Report

APFC ALASKA PERMANENT FUND CORPORATION

Board of Trustees - Monthly Performance Report - March 31, 2018

All returns are annualized (for periods greater than one year), gross of fees (before fees) unless otherwise noted, and provided by Callan Associates, Inc.

		Market Values as of 3/31/2018*	(A) 1 Month	(B) 3 Months	(C) CYTD (3 Months)	(D) FYTD (9 Months)	(E) 1 Year (12 Months)	(F) 3 Years (36 Months)	(G) 5 Years (60 months)
			Returns as of 3/31/2018						
1	**TOTAL FUND ●**	**65,094,875,296**	**-0.40%**	**0.41%**	**0.41%**	**8.86%**	**12.14%**	**7.65%**	**8.35%**
2	**TOTAL FUND without FX Overlay ●**		**-0.40%**	**0.43%**	**0.43%**				
3	Passive Index Benchmark[1] ●		-0.48%	-0.80%	-0.80%	7.21%	**10.72%**	6.09%	6.45%
4	Performance Benchmark[2] ●		-0.44%	0.15%	0.15%	7.34%	10.70%	**6.34%**	7.22%
5	Total Fund Return Objective[3]		0.62%	2.41%	2.41%	5.58%	7.36%	6.86%	**6.40%**
6	**PUBLIC EQUITIES**	**26,836,727,333**	**-1.67%**	**-0.42%**	**-0.42%**	**11.42%**	**16.31%**	**8.65%**	**9.27%**
7	MSCI ACWI IMI		-1.87%	-0.89%	-0.89%	10.35%	15.03%	8.27%	9.34%
8	**INTERNATIONAL EQUITIES**	**9,884,224,047**	**-1.67%**	**-0.22%**	**-0.22%**	**12.85%**	**19.79%**	**8.23%**	**6.46%**
9	MSCI ACWI IMI EX-US		-1.67%	-1.06%	-1.06%	10.63%	17.10%	6.75%	6.24%
10	**GLOBAL EQUITIES**	**9,995,181,571**	**-1.93%**	**-0.66%**	**-0.66%**	**10.09%**	**14.18%**	**7.89%**	**9.83%**
11	MSCI ACWI IMI		-1.87%	-0.89%	-0.89%	10.35%	15.03%	8.27%	9.34%
12	**DOMESTIC EQUITIES**	**6,957,047,639**	**-1.33%**	**-0.40%**	**-0.40%**	**11.23%**	**14.40%**	**10.28%**	**13.31%**
13	RUSSELL 3000 INDEX		-2.01%	-0.64%	-0.64%	10.48%	13.81%	10.22%	13.03%
14	**FIXED INCOME PLUS** ◦ † ‡	**13,959,911,035**	**0.64%**	**-1.74%**	**-1.74%**	**0.87%**	**2.84%**	**2.63%**	**2.50%**
15	PUBLIC INCOME BENCHMARK[4]		0.61%	-1.83%	-1.83%	0.45%	2.28%	2.36%	3.08%
16	**US FIXED INCOME AGGREGATE**	**3,761,906,047**	**0.55%**	**-1.56%**	**-1.56%**	**-0.16%**	**1.29%**	**1.44%**	
17	BC AGGREGATE		0.64%	-1.46%	-1.46%	-0.24%	1.20%	1.20%	
18	**US INVESTMENT GRADE CORPORATE**	**3,665,558,429**	**0.21%**	**-2.44%**	**-2.44%**	**0.41%**	**3.14%**	**2.75%**	**3.62%**
19	BC CORPORATE		0.25%	-2.32%	-2.32%	0.15%	2.70%	2.30%	3.02%
20	**NON US FIXED INCOME**	**920,728,430**	**1.25%**	**1.11%**	**1.11%**	**2.57%**	**3.10%**	**2.22%**	**3.40%**
21	BC GLOBAL TREASURY EX-US		1.19%	1.23%	1.23%	2.96%	3.51%	2.60%	3.76%
22	**GLOBAL HIGH YIELD**	**1,436,726,874**	**-0.53%**	**-0.85%**	**-0.85%**	**1.55%**	**3.33%**	**4.44%**	**4.49%**
23	BC US HIGH YIELD 2% ISSUER CAP		-0.60%	-0.86%	-0.86%	1.58%	3.78%	5.18%	5.00%
24	**EMERGING MARKET DEBT**	**886,547,125**	**0.78%**	**1.95%**	**1.95%**	**6.65%**	**9.28%**	**5.60%**	**2.11%**
25	BC EMD HARD CURRENCY AGG		0.19%	-1.04%	-1.04%	2.50%	5.07%	5.36%	3.79%
26	**TIPS**	**755,531,232**	**0.99%**	**-0.74%**	**-0.74%**	**1.26%**	**0.94%**	**1.30%**	**0.05%**
27	BC US TIPS		1.05%	-0.79%	-0.79%	1.33%	0.92%	1.30%	0.05%
28	**REITS** † ‡	**1,301,601,822**	**2.91%**	**-5.34%**	**-5.34%**	**-0.67%**	**1.41%**	**6.40%**	**5.31%**
29	S&P GLOBAL REIT		2.59%	-5.79%	-5.79%	-1.89%	-0.25%	0.94%	4.12%
30	**LISTED INFRASTRUCTURE** ◦	**630,231,413**	**0.78%**	**-5.10%**	**-5.10%**	**0.05%**	**5.44%**	**6.69%**	
31	S&P GLOBAL LISTED INFRASTRUCTURE		0.02%	-5.70%	-5.70%	-1.35%	4.20%	3.52%	
32	**FIXED INCOME PLUS CASH**	**601,079,661**	**0.13%**	**0.36%**	**0.36%**	**0.79%**	**1.07%**		
33	90 DAY T-BILLS		0.14%	0.35%	0.35%	0.91%	1.11%		
34	**PRIVATE EQUITY & GROWTH OPPORTUNITIES ●**	**7,607,143,418**	**N/A**	**4.71%**	**4.71%**	**18.94%**	**24.38%**	**13.08%**	**22.04%**
35	**PRIVATE EQUITY ●**	**4,778,716,726**	**N/A**	**4.84%**	**4.84%**	**17.97%**	**23.46%**	**18.17%**	**19.36%**
36	PRIVATE EQUITY CUSTOM BENCHMARK[6] ●		N/A	5.11%	5.11%	14.84%	19.38%	8.37%	11.61%
37	**GROWTH OPPORTUNITIES ●**	**2,828,426,692**	**N/A**	**4.49%**	**4.49%**	**20.46%**	**25.82%**	**6.40%**	
38	CAMBRIDGE PRIVATE EQUITY ●		N/A	5.11%	5.11%	14.84%	19.38%	12.32%	
39	**REAL ESTATE ●** † ‡	**4,083,094,865**	**N/A**	**1.89%**	**1.89%**	**5.00%**	**6.82%**	**9.44%**	**10.07%**
40	NCREIF TOTAL INDEX ●		N/A	1.80%	1.80%	5.33%	6.96%	9.38%	10.19%
41	**INFRA. & INCOME OPPORTUNITIES ●** ◦ ‡	**3,700,361,844**	**N/A**	**4.07%**	**4.07%**	**13.96%**	**16.93%**	**13.41%**	**11.99%**
42	INFRA. & INCOME OPPORTUNITIES[4] ●		N/A	1.39%	1.39%	7.36%	12.67%	5.91%	8.85%
43	**INFRASTRUCTURE ●** ◦	**2,285,348,600**	**N/A**	**6.11%**	**6.11%**	**18.93%**	**22.94%**	**20.40%**	**15.93%**
44	**PUBLIC/PRIVATE CREDIT ●**	**1,157,678,495**	**N/A**	**2.09%**	**2.09%**	**7.72%**	**9.34%**	**6.74%**	**7.59%**
45	**INCOME OPPORTUNITIES ●** ‡	**257,334,748**	**N/A**	**-4.58%**	**-4.58%**	**1.70%**	**3.40%**	**7.75%**	
46	**ABSOLUTE RETURN**	**2,636,910,530**	**N/A**	**0.80%**	**0.80%**	**5.26%**	**6.07%**	**3.15%**	**3.54%**
47	ABSOLUTE RETURN BENCHMARK[7]		N/A	0.14%	0.14%	4.99%	6.08%	6.03%	5.99%
48	**ASSET ALLOCATION**	**6,272,362,709**	**-0.28%**	**-0.81%**	**-0.81%**	**3.01%**	**3.16%**	**2.02%**	**2.18%**
49	**APF FI LIQUIDITY**	**637,453,492**	**1.01%**	**-1.30%**	**-1.30%**	**-1.00%**			
50	**APF ASSET ALLOCATION CASH**	**962,851,313**	**0.11%**	**0.30%**	**0.30%**	**0.86%**	**1.17%**	**0.48%**	**0.29%**
51	90 DAY T-BILLS		0.14%	0.35%	0.35%	0.91%	1.11%	0.53%	0.34%
52	**NISA CASH OVERLAY COMPOSITE**	**2,137,265,457**	**-0.98%**						
53	**MULTI-STRATEGY**	**2,534,792,447**	**-0.43%**	**-0.42%**	**-0.42%**	**5.65%**	**5.65%**	**4.12%**	**4.81%**
54	Performance Benchmark ●		-0.44%	0.15%	0.15%	7.34%	10.70%	6.34%	7.22%

[1] Passive Benchmark is a blended benchmark (60% MSCI All-Country World Index IMI; 20% BC Global Aggregate Index; 10% FTSE EPRA/NAREIT Rental Index; 10% US TIPs) from 9/30/2016 to date. Prior periods are described in Investment Policy.

[2] Performance Benchmark is a blended benchmark (41% MSCI ACWI IMI; 11% NCREIF Total Index (1Q Lagged); 11% Cambridge Private Equity (1Q Lagged); 6% BC US Corporate; 6% BC Aggregate; 5% HFRI Total HFOF Universe; 4% BC US High Yield 2% Issuer Cap (1Q Lagged); 3% 90 Day T-Bills; 4% FTSE Developed Core Infrastructure TRI (1Q Lagged); 2% S&P Global REIT; 2% BC Global Agg ex-US; 1% S&P Global Listed Infrastructure; 1% BC EMD Hard Currency Agg; 1% BC US TIPS) from 6/30/2017 to date. Prior periods are described in Investment Policy.

[3] Total Fund Return Objective is the Consumer Price Index (All Urban Consumers, U.S. City Average, All Items, Unadjusted Index) plus 5%.

[4] Public Income Plus Benchmark is a blended benchmark (25% BC Aggregate; 25% BC US Corporate; 10% S&P Global REIT; 10% BC US High Yield 2% Issuer Cap; 10% BC Global Agg ex-US; 5% S&P Global Listed Infrastructure; 5% BC EMD Hard Currency Agg; 5% BC US TIPS; 5% 90 Day T-Bills) from 9/30/2016 to date.

[5] Infrastructure, Private Credit and Income Opportunities Benchmark is a blended benchmark (60% FTSE Developed Core Infrastructure TRI (1Q Lagged); 40% BC US High Yield 2% Issuer Cap (1Q Lagged)) from 9/30/2016 to date.

[6] Private Equity Custom Benchmark is 60% Russell 3000 (1Q Lagged) and 40% MSCI EAFE (1Q Lagged) through 9/30/2016 then Cambridge Private Equity (1Q Lagged) thereafter.

[7] Absolute Return Benchmark is LIBOR + 4% through 6/30/2013, LIBOR + 6% from 7/1/2013 through 6/30/2015, LIBOR + 5% from 7/1/2015 through 9/30/2016, and HFRI Total HFOF Universe thereafter.

* Reported market values represent total fund holdings, which consists of 99.16% APF and 0.84% AMH, and are consistent with the timing of the APF and AMH Financial

● For investments within Private Equity and Growth Opportunities, Real Estate, and Infrastructure, Private Credit, and Income Opportunities asset classes, returns are lagged one (1) quarter. Composites that incorporate these investments as well as associated benchmarks are also lagged one (1) quarter.

◦ Public infrastructure investments are included with Infrastructure prior to 9/30/2016 and Fixed Income Plus thereafter.

† REITs are included with Real Estate prior to 9/30/2016 and Fixed Income Plus thereafter.

‡ American Homes 4 Rent became a public investment on 7/31/2013. It is included in Income Opportunities from inception to 7/31/2013, Real Estate from 8/1/2013 to 9/30/2016, and Fixed Income Plus from 10/1/2016 to date.

			(A)	(B)	(C)	(D)	(E)	(F)	(G)
		Market Values as of 3/31/2018*	Returns as of 3/31/2018						
			1 Month	3 Months	CYTD	FYTD	1 Year	3 Years	5 Years
55	**PUBLIC EQUITIES**	**26,836,727,333**	**-1.67%**	**-0.42%**	**-0.42%**	**11.42%**	**16.31%**	**8.65%**	**9.27%**
56	MSCI ACWI IMI		-1.87%	-0.89%	-0.89%	10.35%	15.03%	8.27%	9.34%
57	**INTERNATIONAL EQUITIES**	**9,884,224,047**	**-1.67%**	**-0.22%**	**-0.22%**	**12.85%**	**19.79%**	**8.23%**	**6.46%**
58	MSCI ACWI IMI EX-US		-1.67%	-1.06%	-1.06%	10.63%	17.10%	6.75%	6.24%
59	**Macquarie Emerging Markets**	**252,330,683**	**-2.10%**	**1.69%**	**1.69%**	**18.46%**	**27.21%**	**12.41%**	
60	**JP Morgan Emerging Markets**	**566,673,380**	**-2.69%**	**0.91%**	**0.91%**	**17.85%**	**25.72%**	**11.40%**	
61	**Lee Munder Emerging Markets**	**102,323,172**	**-1.33%**	**2.23%**	**2.23%**	**16.62%**	**25.66%**	**7.75%**	
62	**Mondrian Investment Partners**	**624,475,506**	**-1.50%**	**0.14%**	**0.14%**	**10.30%**	**14.92%**	**6.16%**	**1.66%**
63	**SSgA MSCI Emerging Markets**	**277,902,378**	**-1.79%**	**1.51%**	**1.51%**	**16.87%**	**24.14%**	**8.76%**	**5.05%**
64	**William Blair Emerging Markets**	**579,123,970**	**-1.41%**	**0.96%**	**0.96%**	**19.84%**	**29.58%**	**8.44%**	
65	MSCI Emerging Markets Index		-1.86%	1.42%	1.42%	17.56%	24.93%	8.81%	4.99%
66	**DFA Emerging Markets Value**	**607,345,542**	**-2.34%**	**2.06%**	**2.06%**	**16.64%**	**19.73%**		
67	MSCI Emerging Markets Value Index		-1.96%	1.62%	1.62%	14.51%	18.14%		
68	**DFA Emerging Markets Small Cap**	**214,031,657**	**-1.51%**	**0.57%**	**0.57%**	**16.68%**	**19.30%**		
69	MSCI Emerging Markets Small Cap Index		-1.27%	0.17%	0.17%	15.58%	18.62%		
70	**Trustbridge Emerging Markets**	**179,024,644**	**-0.49%**	**5.47%**	**5.47%**	**39.63%**	**54.78%**		
71	MSCI All China Net Total Return Index		-2.61%	-0.18%	-0.18%	15.39%	23.66%		
72	**Wells Capital**	**75,832,270**	**-2.16%**	**3.33%**	**3.33%**	**26.46%**	**41.02%**		
73	MSCI All China Net Total Return Index		-2.61%	-0.18%	-0.18%	15.39%	23.66%		
74	**Mellon MSCI World ex-USA**	**1,447,251,163**	**-1.67%**	**-1.94%**	**-1.94%**	**7.95%**	**14.26%**	**5.60%**	**6.34%**
75	**DFA International Large Cap**	**947,547,363**	**-1.78%**	**-1.65%**	**-1.65%**	**10.20%**	**16.70%**	**6.64%**	**6.89%**
76	Int'l Passive/Quasi-Passive Custom Benchm		-1.73%	-2.04%	-2.04%	7.85%	13.92%	5.30%	6.04%
77	**DFA International Small Cap Value**	**431,668,577**	**-2.08%**	**-2.36%**	**-2.36%**	**9.66%**	**16.62%**	**11.17%**	**10.94%**
78	MSCI World ex-USA Small Cap Value Ind		-1.31%	-1.77%	-1.77%	10.53%	17.66%	9.72%	8.78%
79	**DFA International Small Company**	**434,161,231**	**-1.22%**	**-0.66%**	**-0.66%**	**11.88%**	**20.46%**	**12.38%**	**10.67%**
80	**SSgA International Developed Small Cap**	**424,497,788**	**-1.05%**	**-0.44%**	**-0.44%**	**12.93%**	**21.44%**	**11.55%**	**10.05%**
81	MSCI World ex-USA Small Cap Index		-1.09%	-0.50%	-0.50%	12.93%	21.16%	11.30%	9.71%
82	**Acadian Asset Mgmt**	**536,436,439**	**-1.63%**	**1.15%**	**1.15%**	**14.32%**	**20.38%**	**11.01%**	**7.68%**
83	MSCI Custom Benchmark[2]		-2.24%	-2.52%	-2.52%	7.00%	11.66%	5.56%	6.20%
84	**LSV International Large Cap**	**580,220,020**	**-2.08%**	**-0.81%**	**-0.81%**	**11.03%**	**17.34%**	**7.49%**	
85	**Schroders International Large Cap**	**623,186,967**	**-1.66%**	**-0.42%**	**-0.42%**	**9.12%**	**14.43%**	**8.52%**	
86	MSCI All Country World ex-USA Value Inc		-2.17%	-1.50%	-1.50%	8.82%	13.26%	5.04%	
87	**Johnston International Large Cap**	**400,807,493**	**-0.18%**	**1.46%**	**1.46%**	**15.67%**	**25.76%**	**11.34%**	
88	**JP Morgan International Large Cap**	**579,342,770**	**-1.50%**	**-1.16%**	**-1.16%**	**9.98%**	**19.00%**	**8.27%**	
89	MSCI World ex-USA Growth Index		-1.23%	-1.56%	-1.56%	8.69%	16.28%	6.06%	
90	**GLOBAL EQUITIES**	**9,995,181,571**	**-1.93%**	**-0.66%**	**-0.66%**	**10.09%**	**14.18%**	**7.89%**	**9.83%**
91	MSCI ACWI IMI		-1.87%	-0.89%	-0.89%	10.35%	15.03%	8.27%	9.34%
92	**AQR Global Equity**	**1,549,337,975**	**-2.01%**	**-0.53%**	**-0.53%**	**12.28%**	**17.18%**	**9.71%**	**11.50%**
93	**SSgA MSCI World**	**178,874,863**	**-2.12%**	**-1.17%**	**-1.17%**	**9.50%**	**14.15%**	**8.47%**	
94	**CDAM Global Equity**	**146,884,755**	**-3.31%**	**-5.31%**	**-5.31%**				
95	MSCI World Index		-2.18%	-1.28%	-1.28%	9.19%	13.59%	7.97%	9.70%
96	**SSgA Russell Fundamental Developed Lı**	**1,594,513,929**	**-1.81%**	**-2.16%**	**-2.16%**	**9.46%**	**12.61%**	**7.92%**	**9.97%**
97	Russell Fundamental Dvlpd Lrg Co Index		-1.80%	-2.25%	-2.25%	9.48%	12.55%	8.05%	10.11%
98	**Lazard Asset Management[4]**	**1,351,136,002**	**-0.41%**	**0.25%**	**0.25%**	**10.52%**	**14.67%**	**7.83%**	**9.86%**
99	**McKinley Capital Management**	**739,005,893**	**-2.47%**	**1.33%**	**1.33%**	**13.59%**	**18.97%**	**8.48%**	**10.85%**
100	**RBA Global Equity**	**207,161,980**	**-1.66%**	**1.32%**	**1.32%**				
101	**WCM Global Equity**	**205,591,077**	**-1.45%**	**0.75%**	**0.75%**				
102	MSCI All-Country World Index		-2.14%	-0.96%	-0.96%	10.14%	14.85%	8.12%	9.20%
103	**APF Tactical Tilts**	**2,768,293,047**	**-2.08%**	**-0.43%**	**-0.43%**	**9.03%**	**12.96%**	**4.04%**	
104	**SSgA MSCI ACWI IMI**	**165,588,139**	**-1.81%**	**-0.85%**	**-0.85%**	**10.43%**	**15.33%**		
105	**APF Global Equities**	**101,928,843**	**-1.45%**	**-0.51%**	**-0.51%**				
106	**Arrowstreet Global Equity**	**600,959,706**	**-2.14%**	**0.35%**	**0.35%**				
107	**Longview Global Equity**	**385,218,544**							
108	MSCI All-Country World IMI		-1.87%	-0.89%	-0.89%	10.35%	15.03%	8.27%	
109	**DOMESTIC EQUITIES**	**6,957,047,639**	**-1.33%**	**-0.40%**	**-0.40%**	**11.23%**	**14.40%**	**10.28%**	**13.31%**
110	RUSSELL 3000 INDEX		-2.01%	-0.64%	-0.64%	10.48%	13.81%	10.22%	13.03%
111	**Mellon S&P 500**	**285,999,916**	**-2.54%**	**-0.75%**	**-0.75%**	**10.64%**	**14.07%**	**10.71%**	**13.27%**
112	S&P 500 Index		-2.54%	-0.75%	-0.75%	10.58%	14.00%	10.78%	13.31%
113	**Mellon FTSE RAFI US Large Cap**	**429,582,863**	**-1.86%**	**-2.43%**	**-2.43%**	**8.50%**	**9.98%**	**9.09%**	**12.03%**
114	FTSE RAFI US 1000 Index		-1.87%	-2.43%	-2.43%	8.46%	9.95%	9.20%	12.09%
115	**AGI - Large Cap**	**879,046,242**	**-2.63%**	**1.67%**	**1.67%**	**15.75%**	**21.18%**	**12.31%**	**15.87%**
116	**SSgA Large Cap**	**221,482,878**	**-2.41%**	**1.31%**	**1.31%**	**12.21%**	**17.55%**	**11.30%**	**15.09%**
117	**DSM - Large Cap**	**489,895,661**	**-2.78%**	**2.24%**	**2.24%**	**16.46%**	**28.58%**	**13.38%**	
118	**CastleArk - Large Cap**	**324,202,172**	**-1.55%**	**4.53%**	**4.53%**	**21.57%**	**26.98%**	**14.66%**	
119	**APF SPDR Yield**	**382,899,568**	**-1.22%**	**-2.73%**	**-2.73%**	**6.98%**	**7.38%**		
120	**APF SPDR Momentum**	**408,226,820**	**-0.27%**	**0.04%**	**0.04%**	**12.69%**	**14.44%**		
121	**APF SPDR Low Vol**	**404,041,761**	**0.05%**	**-0.86%**	**-0.86%**	**8.29%**	**10.41%**		
122	Russell 1000 Growth Index		-2.74%	1.42%	1.42%	15.84%	21.25%	12.90%	15.53%
123	Russell 1000 Index		-2.27%	-0.69%	-0.69%	10.59%	13.98%	10.39%	13.17%
124	**Lyrical - Large Cap**	**678,341,721**	**-1.63%**	**-3.23%**	**-3.23%**	**5.66%**	**7.88%**	**7.45%**	
125	**SKBA - Large Cap**	**357,328,899**	**-1.75%**	**-1.19%**	**-1.19%**	**14.03%**	**15.57%**	**11.19%**	
126	**LSV - Large Cap Value**	**874,351,326**	**-2.27%**	**-2.00%**	**-2.00%**	**10.90%**	**11.81%**		
127	Russell 1000 Value Index		-1.76%	-2.83%	-2.83%	5.53%	6.95%	7.88%	
128	**Mellon S&P 400**	**173,296,480**	**0.92%**	**-0.77%**	**-0.77%**	**8.83%**	**10.98%**	**8.99%**	**12.00%**
129	S&P 400 Index		0.93%	-0.77%	-0.77%	8.83%	10.97%	8.96%	11.97%
130	**Jennison Associates LLC**	**184,201,224**	**1.40%**	**1.85%**	**1.85%**	**11.70%**	**15.98%**	**8.05%**	**12.58%**
131	Russell 2000 Index		1.29%	-0.08%	-0.08%	9.11%	11.79%	8.39%	11.47%
132	**RBC Asset Mgmt**	**162,836,855**	**3.03%**	**2.42%**	**2.42%**	**9.99%**	**14.18%**	**8.77%**	**11.59%**
133	**Eagle Asset Mgmt**	**189,961,681**	**0.46%**	**2.88%**	**2.88%**	**14.23%**	**18.96%**	**11.72%**	**13.29%**
134	Russell 2000 Growth Index		1.35%	2.30%	2.30%	13.64%	18.63%	8.77%	12.90%
135	Russell 2000 Index		1.29%	-0.08%	-0.08%	9.11%	11.79%	8.39%	11.47%
136	**T Rowe Price**	**177,663,464**	**1.79%**	**-2.08%**	**-2.08%**	**8.14%**	**9.90%**	**11.46%**	**11.19%**
137	**Pzena Investment Mgmt**	**183,134,264**	**2.41%**	**-0.83%**	**-0.83%**	**6.65%**	**5.21%**	**10.45%**	**13.39%**
138	Russell 2000 Value Index		1.24%	-2.64%	-2.64%	4.43%	5.13%	7.87%	9.96%
139	Russell 2000 Index		1.29%	-0.08%	-0.08%	9.11%	11.79%	8.39%	11.47%
140	**AGI Structured Alpha**	**150,553,845**	**-2.52%**	**-2.14%**	**-2.14%**	**10.21%**	**14.25%**		
141	S&P 500 Index		-2.54%	-0.75%	-0.75%	10.58%	14.00%		

[1] Int'l Passive/Quasi-Passive Custom Benchmark is MSCI EAFE through 5/26/10 then MSCI World ex US thereafter.
[2] MSCI Custom Blend benchmark is MSCI EAFE TRI through 2/28/11, MSCI World ex-USA TRI through 4/30/2016, then MSCI World ex-USA Value TRI thereafter.
[3] MSCI World ex-USA/MSCI EAFE benchmark is MSCI EAFE TRI through 2/28/11 then MSCI World ex-USA TRI thereafter.
[4] Lazard global equity accounts' annual fees do not include fees paid on imbedded mutual fund positions.
* Reported market values represent total fund holdings, which consists of 99.16% APF and 0.84% AMH, and are consistent with the timing of the APF and AMH Financial Statements.

#		Market Values as of 3/31/2018*	(A) 1 Month	(B) 3 Months	(C) CYTD	(D) FYTD	(E) 1 Year	(F) 3 Years	(G) 5 Years	
			Returns as of 3/31/2018							
142	**FIXED INCOME PLUS ◊ † ‡**	**13,959,911,035**	**0.64%**	**-1.74%**	**-1.74%**	**0.87%**	**2.84%**	**2.63%**	**2.50%**	
143	PUBLIC INCOME BENCHMARK		0.61%	-1.83%	-1.83%	0.45%	2.28%	2.36%	3.08%	
144	**US FIXED INCOME AGGREGATE**	**3,761,906,047**	**0.55%**	**-1.56%**	**-1.56%**	**-0.16%**	**1.29%**	**1.44%**		
145	BC AGGREGATE		0.64%	-1.46%	-1.46%	-0.24%	1.20%	1.20%		
146	**APF Fixed Income - Aggregate**	**3,761,906,047**	**0.55%**	**-1.56%**	**-1.56%**	**-0.16%**	**1.29%**	**1.44%**		
147	**US INVESTMENT GRADE CORPORATE**	**3,665,558,429**	**0.21%**	**-2.44%**	**-2.44%**	**0.41%**	**3.14%**	**2.75%**	**3.62%**	
148	BC CORPORATE		0.25%	-2.32%	-2.32%	0.15%	2.70%	2.30%	3.02%	
149	**APF Corporate Bonds**	**3,665,558,429**	**0.21%**	**-2.44%**	**-2.44%**	**0.41%**	**3.14%**	**2.75%**	**3.62%**	
150	**NON US FIXED INCOME**	**920,728,430**	**1.25%**	**1.11%**	**1.11%**	**2.57%**	**3.10%**	**2.22%**	**3.40%**	
151	BC GLOBAL TREASURY EX-US		1.19%	1.23%	1.23%	2.96%	3.51%	2.60%	3.76%	
152	**Rogge Global Partners**	**351,150,899**	**1.28%**	**1.16%**	**1.16%**	**2.97%**	**3.54%**	**2.45%**	**3.48%**	
153	**APF Global Government Bonds**	**569,577,531**	**1.23%**	**1.06%**	**1.06%**	**2.69%**	**3.16%**	**2.11%**		
154	**GLOBAL HIGH YIELD**	**1,436,726,874**	**-0.53%**	**-0.85%**	**-0.85%**	**1.55%**	**3.33%**	**4.44%**	**4.49%**	
155	BC US HIGH YIELD 2% ISSUER CAP		-0.60%	-0.86%	-0.86%	1.58%	3.78%	5.18%	5.00%	
156	**Oaktree High Yield**	**577,696,975**	**-0.56%**	**-1.09%**	**-1.09%**	**0.91%**	**3.24%**	**3.83%**	**3.90%**	
156	**Capital Guardian High Yield**	**399,108,702**	**-0.75%**	**-0.64%**	**-0.64%**	**2.73%**	**3.47%**	**6.12%**	**6.01%**	
157	**APF High Yield**	**459,921,196**	**-0.31%**	**-0.80%**	**-0.80%**	**1.18%**	**3.40%**			
158	BC US High Yield 2% Issuer Cap Index		-0.60%	-0.86%	-0.86%	1.58%	3.78%	5.18%	5.00%	
159	HY Fixed Income Custom Blend[1]		-0.60%	-0.86%	-0.86%	1.58%	3.78%	5.32%	5.29%	
160	**FIXED INCOME PLUS CASH**	**601,079,661**	**0.13%**	**0.36%**	**0.36%**	**0.79%**	**1.07%**			
161	90 DAY T-BILLS		0.14%	0.35%	0.35%	0.91%	1.11%			
162	**APF Fixed Income Plus Cash**	**600,962,693**	**0.13%**	**0.36%**	**0.36%**	**0.79%**	**1.07%**			
163	**EMERGING MARKET DEBT**	**886,547,125**	**0.78%**	**1.95%**	**1.95%**	**6.65%**	**9.28%**	**5.60%**	**2.11%**	
164	BC EMD HARD CURRENCY AGG		0.19%	-1.04%	-1.04%	2.50%	5.07%	5.36%	3.79%	
165	**Capital Guardian HY EM Gov't**	**679,077,156**	**0.74%**	**2.17%**	**2.17%**	**6.94%**	**9.58%**	**5.70%**	**2.17%**	
166	HY Emerging Markets Benchmark[2]		0.69%	1.30%	1.30%	5.03%	8.10%	5.53%	1.63%	
167	**APF Emerging Market Debt**	**207,469,969**	**0.89%**	**1.16%**	**1.16%**					
168	BC EMD Hard Currency AGG		0.19%	-1.04%	-1.04%					
169	**TIPS**	**755,531,232**	**0.99%**	**-0.74%**	**-0.74%**	**1.26%**	**0.94%**	**1.30%**	**0.05%**	
170	BC US TIPS		1.05%	-0.79%	-0.79%	1.33%	0.92%	1.30%	0.05%	
171	**APF TIPS**	**628,933,440**	**1.02%**	**-0.81%**	**-0.81%**	**1.30%**	**0.99%**	**1.35%**	**0.10%**	
172	BC U.S. TIPS		1.05%	-0.79%	-0.79%	1.33%	0.92%	1.30%	0.05%	
173	**Alaska Permanent Capital Mgmt**	**126,597,792**	**0.80%**	**-0.33%**	**-0.33%**	**0.88%**	**0.55%**	**1.24%**	**0.00%**	
174	BC U.S. TIPS 1-10 Year Index		0.82%	-0.40%	-0.40%	0.83%	0.43%	1.24%	-0.06%	
175	**REITS † ‡**	**1,301,601,822**	**2.91%**	**-5.34%**	**-5.34%**	**-0.67%**	**1.41%**	**6.40%**	**5.31%**	
176	S&P GLOBAL REIT		2.59%	-5.79%	-5.79%	-1.89%	-0.25%	0.94%	4.12%	
177	**AEW Global RE Securities**	**502,210,446**	**3.10%**	**-4.93%**	**-4.93%**	**0.81%**	**3.91%**	**3.17%**	**6.28%**	
178	**American Homes 4 Rent †**	**33,655,226**	**4.90%**	**-7.82%**	**-7.82%**	**-10.39%**	**-16.45%**	**5.87%**	**7.69%**	**Net**
179	MSCI US REIT Index		3.90%	-8.09%	-8.09%	-5.93%	-4.38%	0.87%	5.86%	
180	REIT Benchmark[3]		3.21%	-5.07%	-5.07%	-0.03%	2.45%	2.45%	5.60%	
181	**SSGA REITS**	**765,736,150**	**2.70%**	**-5.50%**	**-5.50%**	**-1.17%**	**0.71%**			
182	S&P GLOBAL REIT		2.59%	-5.79%	-5.79%	-1.89%	-0.25%			
183	**LISTED INFRASTRUCTURE ◊**	**630,231,413**	**0.78%**	**-5.10%**	**-5.10%**	**0.05%**	**5.44%**	**6.69%**		
184	S&P GLOBAL LISTED INFRASTRUCTURE		0.02%	-5.70%	-5.70%	-1.35%	4.20%	3.52%		
185	**Lazard Listed Infrastructure**	**180,773,623**	**1.32%**	**-5.75%**	**-5.75%**	**-0.67%**	**5.07%**	**9.70%**		
186	FTSE Core Developed Infrastructure (Hedg		1.87%	-4.14%	-4.14%	-0.58%	2.88%	4.74%		
187	**Cohen & Steers Listed Infrastructure**	**136,764,768**	**1.66%**	**-3.19%**	**-3.19%**	**2.93%**	**7.47%**	**4.98%**		
188	FTSE Core Developed Infrastructure Custo		1.52%	-3.81%	-3.81%	0.93%	5.13%	5.28%		
189	**SSGA Listed Infrastructure**	**312,682,994**	**0.10%**	**-5.53%**	**-5.53%**	**-0.86%**	**4.88%**			
190	S&P Global Listed Infrastructure		0.02%	-5.70%	-5.70%	-1.35%	4.20%			
191	**ABSOLUTE RETURN**	**2,636,910,530**	**N/A**	**0.80%**	**0.80%**	**5.26%**	**6.07%**	**3.15%**	**3.54%**	**Net**
192	ABSOLUTE RETURN BENCHMARK		N/A	0.14%	0.14%	4.99%	6.08%	6.03%	5.99%	
193	**ASSET ALLOCATION**	**6,272,362,709**	**-0.28%**	**-0.81%**	**-0.81%**	**3.01%**	**3.16%**	**2.02%**	**2.18%**	
194	**APF FI LIQUIDITY**	**637,453,492**	**1.01%**	**-1.30%**	**-1.30%**	**-1.00%**				
195	**APF ASSET ALLOCATION CASH**	**962,851,313**	**0.11%**	**0.30%**	**0.30%**	**0.86%**	**1.17%**	**0.48%**	**0.29%**	
196	90 DAY T-BILLS		0.14%	0.35%	0.35%	0.91%	1.11%	0.53%	0.34%	
197	**NISA CASH OVERLAY COMPOSITE**	**2,137,265,457**	**-0.98%**							
198	**MULTI-STRATEGY**	**2,534,792,447**	**-0.43%**	**-0.42%**	**-0.42%**	**5.65%**	**5.65%**	**4.12%**	**4.81%**	
199	Performance Benchmark ●		-0.44%	0.15%	0.15%	7.34%	10.70%	6.34%	7.22%	
200	**Bridgewater**	**842,907,896**	**-0.95%**	**0.05%**	**0.05%**	**6.00%**	**4.34%**	**2.64%**	**5.16%**	
201	**AQR**	**871,012,862**	**-0.09%**	**0.06%**	**0.06%**	**6.47%**	**5.79%**	**6.64%**	**6.50%**	
202	**Goldman Sachs**	**820,871,689**	**-0.23%**	**-1.39%**	**-1.39%**	**4.44%**	**6.88%**	**3.14%**	**4.15%**	
203	CPI + 5%		0.62%	2.41%	2.41%	5.58%	7.36%	6.86%	6.40%	

[1] HY Fixed Income Custom Blend is BC Global High Yield Corporate Index through 7/31/2016 then BC US High Yield 2% Issuer Cap Index thereafter.

[2] HY Emerging Markets Benchmark is 50% JP Morgan Emerging Markets Bond Index Global and 50% JP Morgan Government Bond Index-Emerging Markets Global

[3] REIT Benchmark is UBS Global Real Estate Investors Index through 12/31/2014 then FTSE EPRA/NAREIT Developed Rental Index thereafter.

* Reported market values represent total fund holdings, which consists of 99.16% APF and 0.84% AMH, and are consistent with the timing of the APF and AMH Financial Statements.

● For investments within Private Equity and Growth Opportunities, Real Estate, and Infrastructure, Private Credit, and Income Opportunities asset classes, returns are lagged one (1) quarter. Composites that incorporate these investments as well as associated benchmarks are also lagged one (1) quarter.

◊ Public infrastructure investments are included with Infrastructure prior to 9/30/2016 and Fixed Income Plus thereafter.

† REITs are included with Real Estate prior to 9/30/2016 and Fixed Income Plus thereafter.

‡ American Homes 4 Rent became a public investment on 7/31/2013. It is included in Income Opportunities from inception to 7/31/2013, Real Estate from 8/1/2013 to 9/30/2016, and

		Market Values as of 3/31/2018*	(A)	(B) 3 Months	(C) CYTD	(D) FYTD	(E) 1 Year	(F) 3 Years	(G) 5 Years	
				Returns as of 3/31/2018						
204	**PRIVATE EQUITY & GROWTH OPPORTUNITIES ●**	**7,607,143,418**		**4.55%**	**4.55%**	**18.24%**	**23.48%**	**12.39%**	**21.24%**	
205	CAMBRIDGE PRIVATE EQUITY ●			5.11%	5.11%	14.84%	19.38%	12.32%	13.90%	
206	**PRIVATE EQUITY ●**	**4,778,716,726**		**4.58%**	**4.58%**	**17.09%**	**22.27%**	**17.07%**	**18.25%**	
207	PRIVATE EQUITY CUSTOM BENCHMARK ●			5.11%	5.11%	14.84%	19.38%	8.37%	11.61%	
208	**Pathway Capital Mgmt - Direct Private E**	**772,805,848**		**6.81%**	**6.81%**	**26.40%**	**29.41%**	**20.48%**	**18.90%**	**Various**
209	**Rapid Partners LP**	**76,013,274**		**-10.50%**	**-10.50%**	**-9.80%**	**-3.43%**			**Net**
210	**Kelso Hammer LP**	**32,131,279**		**5.23%**	**5.23%**	**12.55%**	**13.14%**			**Gross**
211	**HarbourVest Legacy**	**1,345,073,272**		**5.78%**	**5.78%**	**21.05%**	**27.75%**	**20.94%**	**19.90%**	**Net**
212	**Pathway Capital Mgmt - Private Equity**	**2,361,411,470**		**4.10%**	**4.10%**	**13.71%**	**18.48%**	**14.28%**	**16.73%**	**Net**
213	**BlackRock Co-investment Funds**	**191,281,583**		**1.07%**	**1.07%**	**21.12%**	**25.22%**	**3.86%**		**Net**
214	**GROWTH OPPORTUNITIES ●**	**2,828,426,692**		**4.49%**	**4.49%**	**20.03%**	**25.38%**	**6.28%**		**Net**
215	CAMBRIDGE PRIVATE EQUITY ●			5.11%	5.11%	14.84%	19.38%	12.32%		
216	**REAL ESTATE ● † ‡**	**4,083,094,865**		**1.80%**	**1.80%**	**4.74%**	**6.46%**	**9.10%**	**9.86%**	
217	NCREIF TOTAL INDEX ●			1.80%	1.80%	5.33%	6.96%	9.38%	10.19%	
218	**L&B Realty Advisors**	**2,099,649,889**		**1.09%**	**1.09%**	**3.91%**	**5.19%**	**11.30%**	**11.62%**	**Net**
219	**Sentinel Real Estate**	**1,021,099,131**		**1.38%**	**1.38%**	**-1.17%**	**0.80%**	**6.82%**	**7.92%**	**Net**
220	**LaSalle Investment Mgmt-United Kingdo**	**257,903,315**		**5.19%**	**5.19%**	**20.23%**	**22.39%**	**-12.01%**		**Net**
221	**Lincoln Industrial**	**89,644,133**		**7.00%**	**7.00%**	**16.80%**	**18.18%**	**15.16%**		**Net**
222	**CB Richard Ellis - Europe**	**175,762,295**		**4.37%**	**4.37%**	**19.26%**	**31.51%**	**21.07%**		**Net**
223	**CS Capital**	**439,036,102**		**5.08%**	**5.08%**	**10.62%**	**14.72%**			**Net**
224	**INFRA. & INCOME OPPORTUNITIES ● ◊ ‡**	**3,700,361,844**		**4.07%**	**4.07%**	**13.95%**	**16.93%**	**13.40%**	**11.98%**	
225	INFRA. & INCOME OPPORTUNITIES ●			1.39%	1.39%	7.36%	12.67%	5.91%	8.85%	
226	**INFRASTRUCTURE ● ◊**	**2,285,348,600**		**6.11%**	**6.11%**	**18.93%**	**22.94%**	**20.40%**	**15.93%**	**Net**
227	FTSE DEVELOPED CORE INFRA. TRI ●			1.98%	1.98%	9.12%	16.16%	5.49%	10.81%	
228	**GIP**	**185,526,217**		**3.94%**	**3.94%**	**43.78%**	**47.98%**	**43.40%**	**35.88%**	**Net**
229	**GIP II**	**376,603,905**		**3.66%**	**3.66%**	**13.36%**	**17.77%**	**16.81%**	**22.58%**	**Net**
230	**Gateway IFR**	**283,512,754**		**5.08%**	**5.08%**	**16.84%**	**17.10%**	**10.07%**	**-0.43%**	**Net**
231	**G Sachs**	**367,164,886**		**15.78%**	**15.78%**	**29.73%**	**30.65%**	**23.49%**	**19.67%**	**Net**
232	**EQT II**	**40,572,460**		**4.67%**	**4.67%**	**41.85%**	**42.54%**	**31.23%**		**Net**
233	**GIP II Co-Invest 2**	**89,231,418**		**5.08%**	**5.08%**	**13.68%**	**13.67%**	**26.09%**		**Net**
234	**ACTIS Energy 3**	**79,604,203**		**3.98%**	**3.98%**	**10.32%**	**16.91%**	**17.04%**		**Net**
235	**LS Power III**	**150,658,223**		**N/A**	**N/A**	**20.77%**	**19.78%**	**18.45%**		**Net**
236	**North Haven**	**113,944,847**		**2.63%**	**2.63%**	**28.90%**	**32.42%**	**13.28%**		**Net**
237	**Twin Creeks Timber**	**89,286,467**		**0.74%**	**0.74%**	**-5.09%**	**-3.57%**			**Net**
238	**GIP III**	**180,432,668**		**1.31%**	**1.31%**	**-9.58%**	**8.04%**			**Net**
239	**GIP III Canary**	**111,193,781**		**5.53%**	**5.53%**	**8.28%**	**37.48%**			**Net**
240	**CIM Fund II**	**85,526,448**		**-0.66%**	**-0.66%**	**0.29%**				**Net**
241	**ACTIS Energy 4**	**20,569,612**		**-3.17%**	**-3.17%**	**N/A**				**Net**
242	**Meridiam III**	**495,949**		**N/A**	**N/A**					**Net**
243	**GIP III Zenith**	**100,541,695**								**Net**
244	**ENCAP FM IV**	**832,720**								**Net**
245	**INFRARED V**	**9,650,347**								**Net**
246	FTSE Core Developed Infrastructure TRI			1.98%	1.98%	9.12%	16.16%	5.49%	10.81%	
247	**PUBLIC/PRIVATE CREDIT ●**	**1,157,678,495**		**2.09%**	**2.09%**	**7.72%**	**9.34%**	**6.74%**	**7.59%**	**Net**
248	BC US HIGH YIELD 2% ISSUER CAP ●			0.47%	0.47%	4.68%	7.50%	6.36%	5.78%	
249	**INCOME OPPORTUNITIES ● ‡**	**257,334,748**		**-4.61%**	**-4.61%**	**1.56%**	**3.20%**	**7.56%**		**Net**
250	**American Homes 4 Rent II**	**163,911,206**		**-5.97%**	**-5.97%**	**0.43%**	**2.05%**	**7.15%**		**Net**
251	**Athyrium III**	**6,916,042**		**0.40%**	**0.40%**					**Net**
252	**Generate Capital**	**84,792,634**		**-0.44%**	**-0.44%**					**Net**
253	**Broadriver III**	**1,714,866**								**Net**

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Strategic and Tactical Moves

Board Report on Tactical and Strategic Manager Actions
12/31/2017 through 3/31/2018

Private Income and Absolute Return

Tactical Changes Implemented:

Private Income

Fund Commitments closed in Q3:

$100.0 million to Heitman Real Estate Debt Separate Account
$200.0 million to KKR Infrastructure III

Direct Investments/Co-Investments closed in Q3:

$15.9 million private credit co-investment with Clearlake Capital

Real Estate Direct Investment Dispositions closed in Q3:

$1.6 billion of proceeds from the sale of three multi-family/apartment assets including Simpson Housing REOC, Bent Tree (Centreville, VA), and Churchill on the Park (Dallas, TX)

Absolute Return

$10 million to Market Neutral Equity Manger
$50 million to Hedged Event Driven Manager
$150 million to Systematic Macro / CTA Manager
$100 million to Market Neutral Equity Manager
$100 million to Fixed Income Arbitrage / Relative Value Manager
$90 million to Systematic Macro Manager

Strategic Changes Implemented:

Private Income and Absolute Return - None

Private Equity and Special Opportunities

Tactical Changes Implemented:

Fund Commitments closed in Fiscal Q3:

$26 million to Holtzbrinck Ventures VII
$85 million to Sentinel Partners VI (incl. junior capital fund)
$36 million to Battery Ventures XII
$100 million to Kelso X
$75 million to Lightspeed XII (incl. Lightspeed Select III)

$322 million total fund commitments

Structured Fund Arrangements closed in Fiscal Q3:

$50 million to Altitude Life Science Ventures III

Direct Investments/Co-investments closed in Fiscal Q3:

$35 million invested in Camino Natural Resources
$25 million invested in Dental Corp. of Canada*
$40 million invested in Sound Inpatient Physicians*

$100 million total direct investments

Significant Realizations/distributions in Fiscal Q3:

$599 million from sale of Juno Therapeutics to Celgene
$654 million from sale of secondary assets (Project Alyeska)
$210 million from other misc. distributions and asset sales

$1,463 million total distribution

Strategic Changes Implemented:

None

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* Denotes closing after 3/31.

Public Equity

Strategic Changes Implemented:

January 17-24: Redeemed $1.3 billion from Public Equities. The details are as follows:

External Managers:	**$700 million**
Acadian International	$200 million
SSGA US Large Cap Growth	$100 million
William Blair EM	$100 million
JP Morgan International	$70 million
Jennison US SC	$40 million
Eagle US Small Cap	$40 million
RBC US Small Cap	$40 million
Pzena US Small Cap	$40 million
TRowe US Small Cap	$40 million
Hardman Johnston	$30 million
In-House	**$600 million**

Investment Management Fee Report

APFC ALASKA PERMANENT FUND CORPORATION

Quarterly Investment Management Fees

	Quarter Ended 3/31/2018	12/31/2017	9/30/2017	YTD FY2018	6/30/2017	Quarter Ended 3/31/2017	12/31/2016	9/30/2016	YTD FY2017
Transition Management [a]	-	562,000	-	562,000	-	-	-	-	-
Non-Domestic Equity & FI Managers	670,000	735,000	597,000	2,002,000	546,000	564,000	540,000	744,000	2,394,000
Real Estate Advisors:									
Real Estate Advisors [b][f][h]	7,761,000	8,311,000	6,281,000	22,353,000	10,433,000	5,580,000	4,723,000	3,282,000	24,018,000
Abs. Return, Mezz. & Distressed Debt [c][d]	4,440,000	4,793,000	4,337,000	13,570,000	5,018,000	5,339,000	8,117,000	7,105,000	25,579,000
Infrastructure	6,546,000	5,851,000	4,779,000	17,176,000	6,425,000	5,610,000	7,899,000	6,506,000	26,440,000
Public Equity [g]	-	793,000	493,000	1,286,000	685,000	163,000	366,000	257,000	1,471,000
Private Equity [e][h]	51,890,000	51,674,000	54,081,000	157,645,000	39,326,000	7,688,000	12,098,000	9,313,000	68,425,000
Fees Funded by Investments	**71,307,000**	**72,719,000**	**70,568,000**	**214,594,000**	**62,433,000**	**24,944,000**	**33,743,000**	**27,207,000**	**148,327,000**
Fees Funded by Appropriation	**39,831,000**	**25,202,000**	**26,127,000**	**91,160,000**	**24,467,000**	**32,815,000**	**22,825,000**	**22,756,000**	**102,863,000**
APFC Corporate Expenses	**7,627,000**	**4,909,000**	**4,391,000**	**16,927,000**	**6,465,000**	**4,568,000**	**4,154,000**	**4,229,000**	**19,416,000**
TOTAL Investment Management Fees	**118,765,000**	**102,830,000**	**101,086,000**	**322,681,000**	**93,365,000**	**62,327,000**	**60,722,000**	**54,192,000**	**270,606,000**
Assets Under Management	**65,118,515,000**	**64,527,103,000**	**62,043,958,000**	**65,118,515,000**	**60,286,353,000**	**58,245,649,000**	**55,859,408,000**	**55,239,923,000**	**60,286,353,000**

Notes:

[a] Commissions and futures overlay fees only (if applicable, including commissions paid to third party brokers); excludes taxes and other implementation costs.

[b] Includes accrued but unpaid real estate advisor incentive fees.

[c] Fund-of-Fund structures include only fund manager fees, not underlying partnership fees.

[d] Remaining ECIOs moved to Absolute Return beginning in FY2016.

[e] Direct placement Private Equity began in FY2014.

[f] FY16 Q1 negative fees result from reversal of accrued incentive fees because actual performance did not live up to expectations.

[g] Public Equity with a net of fees component began in FY2016.

[h] Beginning with the quarter ended 6/30/17, estimates of management fees for private equity and real estate investments accessed through external managers are included.

a) FY2018 Budget Status

ALASKA PERMANENT FUND CORPORATION

FY18 BUDGET STATUS
as of March 31, 2018

Corporate Operations Budget Allocation	**Board approved authorization**	**Payments and Encumbrances**	**Budget Remaining**
Personal Services	$ 9,600,700	$ 7,046,770	$ 2,553,930
Staff	9,572,700	7,033,430	2,539,270
Board: Honorarium	28,000	13,340	14,660
Travel	605,500	384,763	220,737
Staff	492,785	343,262	149,523
Trustees	47,300	14,832	32,468
Moving/Non-Employee	65,415	26,669	38,746
Contractual Services	1,870,900	1,198,503	672,397
Audit, Legal, Consulting	260,500	150,636	109,864
Public Communications	146,500	93,916	52,584
Board Support and Meetings	94,500	53,001	41,499
Information Technology	617,100	298,782	318,318
HR and Recruitment	20,000	-	20,000
Training/Education	56,500	22,140	34,360
Office Support	675,800	580,027	95,773
Commodities	97,300	29,117	68,183
Equipment	80,000	61,380	18,620
Total	**$ 12,254,400**	**$ 8,720,532**	**$ 3,533,868**

Investment Management Budget Allocation			
Investment Systems	$ 5,447,100	$ 3,403,563	$ 2,043,537
Investment Due Diligence	6,095,000	1,704,355	4,390,645
Custody Fees	1,400,000	1,014,977	385,023
Investment Manager Fees	130,827,100	91,159,393	39,667,707
Public Equities	68,827,100	56,862,998	11,964,102
Fixed Income	11,250,000	8,114,101	3,135,899
Real Estate	4,500,000	537,291	3,962,709
Alternative Assets	46,250,000	25,645,003	20,604,997
Total	**$ 143,769,200**	**$ 97,282,288**	**$ 46,486,912**
Total appropriation	**$ 156,023,600**	**$ 106,002,820**	**$ 50,020,780**

b) Budget to Actual Report FY 2018

Budget to Actual Report FY 2018

Including All FY 2018 Activity Through 3/31/2018

For All Profit Centers Combined

		Budget	Actuals	Encumbrances	Actual plus Encumbrances	Budget Remaining
Operating Budget						
Personal Services						
Staff						
50000	Salaries	6,547,916.18	4,852,459.20	0.00	4,852,459.20	1,695,456.98
50010	Benefits	3,024,783.82	2,172,790.27	0.00	2,172,790.27	851,993.55
Staff Subtotal		9,572,700.00	7,025,249.47	0.00	7,025,249.47	2,547,450.53
Interns						
50500	Salary - Intern	0.00	7,480.19	0.00	7,480.19	-7,480.19
50510	Benefits - Intern	0.00	700.54	0.00	700.54	-700.54
Interns Subtotal		0.00	8,180.73	0.00	8,180.73	-8,180.73
Board						
50600	Salary - Board	25,500.00	12,400.00	0.00	12,400.00	13,100.00
50610	Benefits - Board	2,500.00	939.92	0.00	939.92	1,560.08
Board Subtotal		28,000.00	13,339.92	0.00	13,339.92	14,660.08
Personal Services Total		**9,600,700.00**	**7,046,770.12**	**0.00**	**7,046,770.12**	**2,553,929.88**
Travel						
Staff						
51000	Staff: Alaska Travel	43,725.00	22,442.46	0.00	22,442.46	21,282.54
51010	Staff: US/Canada Travel	365,460.00	220,182.47	0.00	220,182.47	145,277.53
51020	Staff: International Travel	83,600.00	100,636.63	0.00	100,636.63	-17,036.63
Staff Subtotal		492,785.00	343,261.56	0.00	343,261.56	149,523.44
Board						
51210	Board: Alaska Travel	17,300.00	10,826.96	0.00	10,826.96	6,473.04
51220	Board: US/Canada Travel	30,000.00	4,005.21	0.00	4,005.21	25,994.79
Board Subtotal		47,300.00	14,832.17	0.00	14,832.17	32,467.83
Moving/Non Employee						
51300	Moving - Trans/Per Diem	20,000.00	16,190.78	0.00	16,190.78	3,809.22
51320	Shipment of Personal Property	30,415.00	6,122.32	0.00	6,122.32	24,292.68
51400	Trans/Per Diem Non Employees	15,000.00	4,355.64	0.00	4,355.64	10,644.36
Moving/Non Employee Subtotal		65,415.00	26,668.74	0.00	26,668.74	38,746.26
Travel Total		**605,500.00**	**384,762.47**	**0.00**	**384,762.47**	**220,737.53**
Contractual Services						
Expenses						
52723	Commissioner's Office	54,215.00	0.00	0.00	0.00	54,215.00
52724	Inter-agency Safety (Parking)	124.00	97.71	0.00	97.71	26.29
52726	Admin Services	28,846.00	377.06	0.00	377.06	28,468.94
Expenses Subtotal		83,185.00	474.77	0.00	474.77	82,710.23
Staff						
52721	Inter-agency Human Resources	31,261.00	32,946.65	0.00	32,946.65	-1,685.65
Staff Subtotal		31,261.00	32,946.65	0.00	32,946.65	-1,685.65

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Budget to Actual Report FY 2018

Including All FY 2018 Activity Through 3/31/2018

For All Profit Centers Combined

		Budget	Actuals	Encumbrances	Actual plus Encumbrances	Budget Remaining
Professional Services						
52100	Annual Audit	145,500.00	0.00	145,500.00	145,500.00	0.00
52110	Auditor Consulting	10,000.00	0.00	0.00	0.00	10,000.00
52490	Consulting Other	45,000.00	35,320.37	0.00	35,320.37	9,679.63
52510	Legal Fees Corp Matters	75,000.00	468.00	0.00	468.00	74,532.00
52520	DOL Legal	30,000.00	4,668.48	0.00	4,668.48	25,331.52
Professional Services Subtotal		305,500.00	40,456.85	145,500.00	185,956.85	119,543.15
Public Educ./Info. Progra						
52600	Communications Program	102,000.00	51,910.06	3,300.75	55,210.81	46,789.19
Public Educ./Info. Program Subtotal		102,000.00	51,910.06	3,300.75	55,210.81	46,789.19
IT Services						
52700	IT Consulting Services	96,500.00	14,040.00	60,699.34	74,739.34	21,760.66
52704	MIS System Services	100,000.00	0.00	4,500.00	4,500.00	95,500.00
53810	Netwk/Server Software Lic/Mnt.	283,200.00	94,207.19	57,398.63	151,605.82	131,594.18
IT Services Subtotal		479,700.00	108,247.19	122,597.97	230,845.16	248,854.84
Communications						
53100	Phone/Fax Lines/Toll/Cell	40,000.00	16,614.62	20,520.56	37,135.18	2,864.82
53110	State EPR Charge	4,000.00	4,000.00	0.00	4,000.00	0.00
53120	Tele/Videoconferencing	7,500.00	2,111.01	4,933.69	7,044.70	455.30
53140	Mobile Devices	35,000.00	10,112.93	9,644.16	19,757.09	15,242.91
Communications Subtotal		86,500.00	32,838.56	35,098.41	67,936.97	18,563.03
Investment Systems						
Investment Systems Subtotal		0.00	0.00	0.00	0.00	0.00
Postage/Transportation						
53300	Inter-agency Mail	4,000.00	3,340.90	0.00	3,340.90	659.10
53320	Delivery Services	2,300.00	908.19	220.46	1,128.65	1,171.35
53325	Postage	250.00	363.10	59.75	422.85	-172.85
Postage/Transportation Subtotal		6,550.00	4,612.19	280.21	4,892.40	1,657.60
Advertising/Printing/Bind						
53440	Recruitment Notices	20,000.00	0.00	0.00	0.00	20,000.00
53500	Communications Advert/Print	44,500.00	38,705.52	0.00	38,705.52	5,794.48
Advertising/Printing/Binding Subtotal		64,500.00	38,705.52	0.00	38,705.52	25,794.48
Repairs/Maintenance						
53600	Office Furniture/Other Repair	3,000.00	108.50	2,191.00	2,299.50	700.50
53610	Copier/FAX Maintenance	11,500.00	7,447.24	4,052.76	11,500.00	0.00
53650	IT Equipment Repair	50,900.00	12,749.03	0.00	12,749.03	38,150.97
Repairs/Maintenance Subtotal		65,400.00	20,304.77	6,243.76	26,548.53	38,851.47
Leases						
53700	Office Rent/Lease	510,000.00	505,399.08	0.00	505,399.08	4,600.92
53710	Records Retention Storage	2,500.00	1,653.00	847.00	2,500.00	0.00
53720	Copier Lease	5,000.00	1,787.67	595.89	2,383.56	2,616.44
53790	Other Rent/Leases	1,000.00	1,020.00	0.00	1,020.00	-20.00
Leases Subtotal		518,500.00	509,859.75	1,442.89	511,302.64	7,197.36
Training/Education						
53900	Training & Conferences	56,500.00	22,140.07	0.00	22,140.07	34,359.93

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Budget to Actual Report FY 2018

Including All FY 2018 Activity Through 3/31/2018

For All Profit Centers Combined

		Budget	Actuals	Encumbrances	Actual plus Encumbrances	Budget Remaining
Training/Education Subtotal		56,500.00	22,140.07	0.00	22,140.07	34,359.93
Meeting Expenses						
53920	Meeting Room/Equipment Rental	6,800.00	102.65	0.00	102.65	6,697.35
53930	Catering/Food/Coffee Fund	15,700.00	5,796.63	0.00	5,796.63	9,903.37
53940	Meeting Transcription	26,000.00	11,489.27	0.00	11,489.27	14,510.73
53990	Other Meeting Expenses	1,000.00	292.00	0.00	292.00	708.00
Meeting Expenses Subtotal		49,500.00	17,680.55	0.00	17,680.55	31,819.45
Other						
52722	Inter-agency Insurance	4,728.00	2,607.33	0.00	2,607.33	2,120.67
53995	Other Misc Expenses	15,663.00	360.00	90.00	450.00	15,213.00
55120	PCard Holding	0.00	1.97	0.00	1.97	-1.97
Other Subtotal		20,391.00	2,969.30	90.00	3,059.30	17,331.70
State Support Services						
52720	Inter-agency Financial	1,413.00	803.00	0.00	803.00	610.00
State Support Services Subtotal		1,413.00	803.00	0.00	803.00	610.00
Contractual Services Total		**1,870,900.00**	**883,949.23**	**314,553.99**	**1,198,503.22**	**672,396.78**
Commodities						
Commodities						
53400	Subscriptions	27,530.00	17,146.85	2,267.96	19,414.81	8,115.19
55100	Office Supplies	12,000.00	6,105.67	0.00	6,105.67	5,894.33
55400	IT Supplies (FKA commodities)	2,300.00	161.26	0.00	161.26	2,138.74
55450	Workstation Equipment	51,270.00	3,434.83	0.00	3,434.83	47,835.17
55600	Office Furniture/Equipment	4,200.00	0.00	0.00	0.00	4,200.00
Commodities Subtotal		97,300.00	26,848.61	2,267.96	29,116.57	68,183.43
Commodities Total		**97,300.00**	**26,848.61**	**2,267.96**	**29,116.57**	**68,183.43**
Equipment						
Equipment						
55475	Network/Server Equip. > $5 K	80,000.00	10,610.10	50,769.69	61,379.79	18,620.21
Equipment Subtotal		80,000.00	10,610.10	50,769.69	61,379.79	18,620.21
Equipment Total		**80,000.00**	**10,610.10**	**50,769.69**	**61,379.79**	**18,620.21**
Operating Budget Total		**12,254,400.00**	**8,352,940.53**	**367,591.64**	**8,720,532.17**	**3,533,867.83**
Invmt Mgt Fees Budget						
Contractual Services						
Professional Services						
Professional Services Subtotal		0.00	0.00	0.00	0.00	0.00
Investment Systems						
52480	Consulting & Modeling	1,319,500.00	338,873.82	170,790.18	509,664.00	809,836.00
53280	Shared Services/Analytics/Data	4,402,600.00	2,097,920.39	775,578.78	2,873,499.17	1,529,100.83
53281	Invest/Fin Network Access Fees	25,000.00	15,300.00	5,100.00	20,400.00	4,600.00

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Budget to Actual Report FY 2018

Including All FY 2018 Activity Through 3/31/2018

For All Profit Centers Combined

		Budget	Actuals	Encumbrances	Actual plus Encumbrances	Budget Remaining
Investment Systems Subtotal		5,747,100.00	2,452,094.21	951,468.96	3,403,563.17	2,343,536.83
Investment Due Diligence						
52405	Fiduciary Advice	2,000,000.00	533,458.53	189,666.71	723,125.24	1,276,874.76
52415	Subject Matter Experts	1,385,000.00	0.00	0.00	0.00	1,385,000.00
52435	Performance Measurement	650,000.00	368,954.50	0.00	368,954.50	281,045.50
52440	Research & Memberships	100,000.00	38,821.75	353.93	39,175.68	60,824.32
52455	Manager Searches	160,000.00	38,250.00	0.00	38,250.00	121,750.00
52502	Legal Fees-Investment Specific	1,500,000.00	534,850.05	0.00	534,850.05	965,149.95
Investment Due Diligence Subtotal		5,795,000.00	1,514,334.83	190,020.64	1,704,355.47	4,090,644.53
Custody						
52200	Custody Fees	1,400,000.00	1,014,976.70	0.00	1,014,976.70	385,023.30
Custody Subtotal		1,400,000.00	1,014,976.70	0.00	1,014,976.70	385,023.30
Investment Manager Fees						
52300	Public Equities Manager Fees	68,827,100.00	56,862,998.28	0.00	56,862,998.28	11,964,101.72
52310	Fixed Income Manager Fees	11,250,000.00	8,114,100.51	0.00	8,114,100.51	3,135,899.49
52320	Real Estate Manager Fees	4,500,000.00	537,290.82	0.00	537,290.82	3,962,709.18
52330	Alternative Markets Mgr Fees	46,250,000.00	25,645,002.93	0.00	25,645,002.93	20,604,997.07
Investment Manager Fees Subtotal		130,827,100.00	91,159,392.54	0.00	91,159,392.54	39,667,707.46
Contractual Services Total		**143,769,200.00**	**96,140,798.28**	**1,141,489.60**	**97,282,287.88**	**46,486,912.12**
Invmt Mgt Fees Budget Total		**143,769,200.00**	**96,140,798.28**	**1,141,489.60**	**97,282,287.88**	**46,486,912.12**
Total Before Legislative Appropriations		**156,023,600.00**	**104,493,738.81**	**1,509,081.24**	**106,002,820.05**	**50,020,779.95**
Legislative Appropriation						
Legislative Appropriation						
Legislative Appropriation						
59100	Law Legislative Appropriation	2,616,500.00	2,616,500.00	0.00	2,616,500.00	0.00
59200	DNR Legislative Appropriation	5,959,400.00	5,959,400.00	0.00	5,959,400.00	0.00
59300	DOR Legislative Appropriation	94,100.00	0.00	0.00	0.00	94,100.00
Legislative Appropriations Subtotal		8,670,000.00	8,575,900.00	0.00	8,575,900.00	94,100.00
Legislative Appropriations Total		**8,670,000.00**	**8,575,900.00**	**0.00**	**8,575,900.00**	**94,100.00**
Legislative Appropriations Total		**8,670,000.00**	**8,575,900.00**	**0.00**	**8,575,900.00**	**94,100.00**
Grand Total		**164,693,600.00**	**113,069,638.81**	**1,509,081.24**	**114,578,720.05**	**50,114,879.95**

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CIO's Report Memo

APFC ALASKA PERMANENT FUND CORPORATION
801 W 10TH SUITE 302 | JUNEAU, AK 99801
907.796.1500 | apfc.org

SUBJECT: Chief Investment Officer's Report

DATE: 5/23/2018 **INFORMATION:** _____X_____

APFC's Chief Investment Officer provides a summary investment review of the Permanent Fund on a quarterly basis at each Board Meeting, which is read and also provided in hardcopy form.

a) CIO's Report

CIO Report for the May 23, 2018 APFC Board Meeting

Good morning, Mr. Chairman and members of the Permanent Fund Board.

In contrast to the generally strong market returns for both US and international stocks in the year-and-a half period from mid-2016 through 2017, 2018 is proving to be a different year altogether. Despite sometimes breathtaking day-to-day volatility in stock markets, the story for stocks cumulatively year-to-date is largely that they are range-bound and their investment performance flat. Moreover, with rising interest rates, fixed-income plus has retreated nearly 1 ¾ % in the first three months of 2018. As we noted at our previous Board meeting in February, we anticipate that rising interest rates will likely continue to mute stock returns for most of the remainder of the calendar year or longer. In essence, despite some impressive increases in corporate earnings among companies, the rate at which the market discounts those earnings has also increased, thereby offsetting the potential benefits of those earnings increases.

For the first three-quarters of the current fiscal year through March 2018, the Permanent Fund has returned 8.86%, or slightly less than ½ % better than for the 6-month period reported at our recent February Board meeting. This strong 9-month overall return for the Fund resulted from better than a 15% return on Private Equity & Special Opportunities, better than a 10% return for infrastructure and public equities, better than a 5% return for absolute return funds and real estate, and positive contributions for the remainder of APFC's investment programs. As you will see from our performance scorecard to be presented later this morning by Valeria Martinez, our long-term (5-year) performance of 8.35% has outperformed the Fund's CPI+5% objective by nearly 2%, our medium-term (3-year) performance of 7.65% has out-performed the median US public fund peer by 1%, and our short-term 12-month Fund return of 12.14% has outpaced benchmark indexes by nearly 1.5%. Consequently, the overall size of the Permanent Fund rose to $64.6 billion, up only slightly from the end of 2017 but $4.8 billion more than where we started the fiscal year in July 2017. The Fund's size is comprised of $47 billion in Principal and a record $17.6 billion in its Earnings Reserve (up by $2.3 billion compared with December 31st).

If the US stock market continues to be range bound for the remainder of 2018 or even longer, how could the Permanent Fund be expected to add value? The answer lies in the Permanent Fund's multiple sources of investment return. First, US stocks comprise only about 20% of the Permanent Fund's overall portfolio. Another 20% is invested in international stocks with a relative underweight to Europe and an overweight towards the Emerging Markets. Thus APFC's relatively modest exposure to publicly-traded stocks (less than half our overall Fund) contrasts to most public plans in the United States whose stock portfolio comprises a majority of plan assets. Second, APFC's strong private equity and private income programs (including infrastructure) have been increasing moderately in scale while preserving their top-quartile record against peer programs. Thus, the illiquidity premium that we seek by investing in private market assets has continued to add meaningful value. Third, our fund is typically more diversified globally (particularly across the Emerging Markets) in every asset class than many of our US fund peers.

This diversification advantage has also resulted in meaningful ways from investment partnerships that the Fund has already established or continues to develop with investment managers and large plan peers internationally in virtually every asset class. Notably thus far this calendar year, APFC has launched (1) Capital Constellation for new Private Equity managers in conjunction with the Kuwait Social Security System (PIFSS) and UK's RaiPen and (2) the MEASA (Middle East, Africa, South Asia) Stock Fund in conjunction with McKinley Capital and sovereign wealth funds from the Middle East and Far East. We anticipate that the strength of these international investment partnerships will effectively give the Permanent Fund a materially higher quality and quantity of investment opportunities compared with other US and even other sovereign wealth funds.

As a result of APFC's generally strong investment performance coupled with strong partnerships and initiatives, we have secured some important recognition as of late. Specifically, APFC has been named North American Private Equity Investment Plan of the Year for 2017 by PEI Magazine and has also been named as one of five finalists for two-consecutive years as best Sovereign Wealth Fund manager of hedge funds by Institutional Investor magazine.

Although APFC will undoubtedly be unable to achieve such strong performance against market indexes, peers, and CPI+5% for all periods in the future, staff believes that strong relative and absolute investment performance should generally continue so long as the quality of our staff, external investment managers, and international investment partnerships remain a competitive advantage.

The Board meeting today and tomorrow will cover some special topics in addition to the usual review of the Fund and its asset classes. Specifically, at the Board's request from our last meeting, we will hear from a panel of Environmental, Social, and Governance or ESG experts from our leading fund management partners regarding prevailing industry best practices. Also, we have completed an entirely new revision of APFC's Investment Policies & Procedures, by my reckoning for only the third time in the past 23 years, which we believe reflects the prevailing best practice standards among investment plans as well as APFC's unique investment plan history and trajectory.

Thank you in advance for your consideration, questions, and recommendations. We very much look forward to our work with you over the coming two days. I am happy to answer any questions you may have regarding APFC's overall investment strategy and outlook.

Investing with Environmental, Social & Governance Factors Memo

SUBJECT: ESG Panel Discussion ACTION: ____________

DATE: 5/23/2018 INFORMATION: ______X______

BACKGROUND:
At the most recent APFC Board meeting in February 2018, the Board of Trustees requested that staff prepare an ESG panel discussion so that it could evaluate potential policy alternatives. Investing by public plans, endowments, and foundations which reflects environmental, social, and governance (ESG) objectives has become of increasing interest among plan boards, legislatures, and constituencies over the past several years. Legislatures and plan boards have adopted a range of ESG policy options, including: (1)no action, (2) targeted divestments, (3) targeted engagement to transformative investment themes in the private markets, (4) shareholder activism, and (5) the use of some form of ESG factors in making future investment decisions. Importantly, these institutional investors need to reconcile the objectives of the selected option with the fiduciary requirements that guide their investment process. That said, several state legislatures and foreign governments have expressly imposed ESG requirements on government-managed investment plans based upon prevailing social objectives of those states or countries.

The objective of this two-hour panel discussion is to identify the range of evolving best practices among institutional investment plans and their boards. The panel will be moderated by Russell Read (APFC's Chief Investment Officer) with the following three panelists representing some of the most respected and experienced ESG-related investment efforts from our leading investment management partners:

Brian Deese (Managing Director, Blackrock):
Brian Deese, Managing Director, is Global Head of Sustainable Investing at BlackRock. The Sustainable Investing team is focused on identifying drivers of long-term return associated with environmental, social and governance issues, integrating them throughout Blackrock's investment processes, and creating solutions for our clients to achieve sustainable investment return. Previously, Brian worked in White House under President Obama where he was the President's senior advisor for climate and energy policy, helping to negotiate the Paris Climate Agreement and other national and international initiatives. Early on in the Obama Administration, Brian was one of the key architects in the resurgence of the auto industry after the financial crisis. Brian also served as deputy director of the National Economic Council and deputy director of the Office of Management and Budget. Most recently, he has been providing advice to institutions interested in sustainable investing strategies and lecturing at the Kennedy School of Government at Harvard University. Brian earned a J.D. from Yale Law School, and a B.A. from Middlebury College. He lives in Brookline Massachusetts.

John Goldstein (Managing Director, Goldman Sachs):
John Goldstein is a managing director within Goldman Sachs Asset Management. John joined Goldman Sachs in 2015 through the acquisition of Imprint Capital to help expand the firm's Environmental, Social and Governance and impact investing capabilities. He co-founded Imprint Capital Advisors in 2007 to help foundations, families and financial institutions create and manage impact investing programs and portfolios. Imprint made and managed more than 120 investments with its clients across asset classes, geographies, and impact themes and worked with 11 of the 25 largest foundations in the United States. Previously, John served as senior managing director of Medley Global Advisors. During that time, he co-founded and served as the executive director of the Medley Institute. Prior to that, John was a management consultant at Andersen Consulting (now Accenture). John has served as an advisor or board member to a diverse set of organizations in the impact space including groups such as the US National Advisory Board of the G8 Social Impact Investing Task Force, the Global Impact Investing Network's ImpactBase initiative, the Global Social Venture Competition, McKinsey's working group on Social Impact Bonds, Global Giving, the Sustainable Food Lab, the UN Capital Development Fund, the International Interfaith Investment Group and a range of other organizations. John graduated from Yale University with honors. He was awarded the Richter Fellowship and the Townsend Prize.

Hilary Irby (Managing Director, Morgan Stanley):
Hilary Irby is a Managing Director and Co-Head of Morgan Stanley's Global Sustainable Finance group, where her focus is on mobilizing private-sector capital to address major global challenges. As the leader of the Morgan Stanley Investing with Impact Initiative, Hilary works across the firm to develop financial products and solutions that provide financial returns as well as positive environmental or social impact. Under Hilary's leadership, Morgan Stanley continues to develop innovative sustainable and impact investing opportunities, delivering custom solutions to institutional and individual investors, as well as developing sustainable and impact investing solutions for individuals. In a constantly evolving market, Hilary's understanding of clients' distinct and complex financial and impact objectives drives the ongoing development of leading edge solutions. Prior to Morgan Stanley, Hilary was Operating Partner at JVP, a leading Israeli venture capital fund with over $900 million under management. Previously, Hilary worked at Goldman Sachs & Co.; helped manage the growth of Fort Point Partners, an internet consulting and integration firm; and served as a change management consultant at Andersen Consulting. Hilary holds a Masters in Industrial and Organizational Psychology from Rensselaer Polytechnic Institute and a Bachelor of Science from St. Lawrence University.

RECOMMENDATION: Given the heightened focus on ESG-related investments nationally and internationally among investment plans, staff recommends that the Board give a clear direction on ESG policy in the future, reflecting the prevailing fiduciary standards of the Permanent Fund, applicable statutes, and prevailing industry best practice standards. If the Board chooses to pursue an ESG Policy, Staff will draft that policy based upon the direction of the Board for consideration at a future Board meeting.

BlackRock Presentation

Sustainable Investing Landscape

Brian Deese, Global Head of Sustainable Investing, BlackRock

May 2018

BLACKROCK®

Sustainable Investing at BlackRock

Sustainable investing spans a range of strategies that combine traditional investment approaches with environmental, social and governance (ESG) insights to seek enhanced long term risk-adjusted return

- We believe sustainability-related issues – ranging from board composition to human capital management to climate change – have real financial impacts
- We are passionate about providing clients a clear picture of how sustainability-related issues affect risk and long-term financial performance, and then delivering ESG solutions that improve their investment outcomes

Source: BlackRock Sustainable Investing, April 2018. For illustrative purposes only. There is no guarantee that a positive investment outcome will be achieved.

We believe companies that effectively manage ESG risks and opportunities perform better over time

MSCI found that companies with strong ESG profiles exhibit the following characteristics:

Stronger cash flows

- They are ***more competitive*** than their peers because they more efficiently use their resources, and/or have better human capital management as well as better manage long term business plans.
- This leads to ***higher profitability*** and ***higher dividends***.

Less idiosyncratic risk

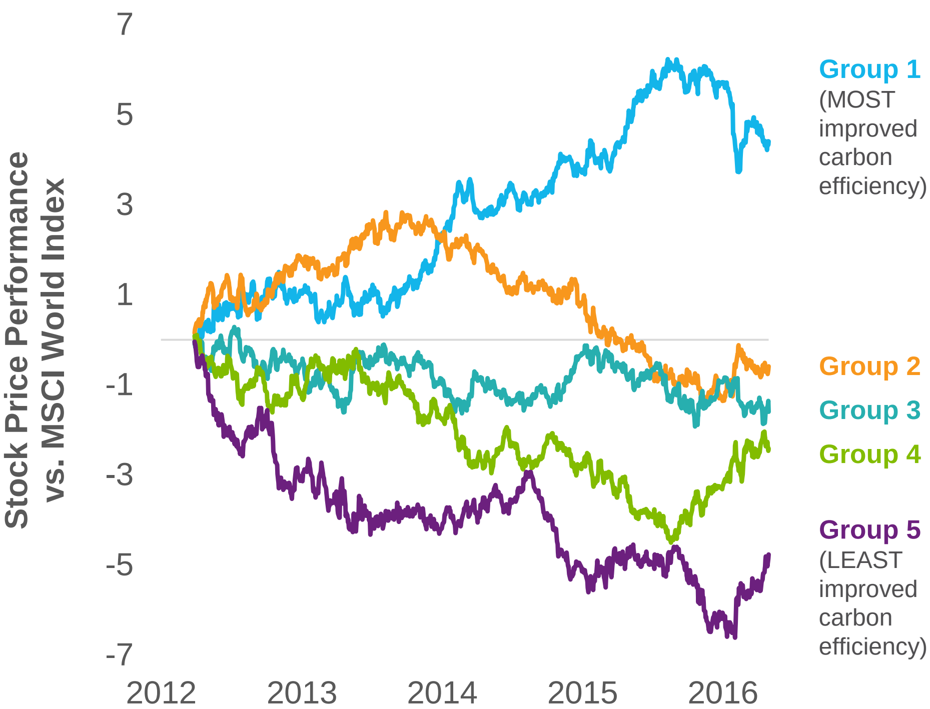
- They have ***better risk control*** and compliance standards.
- Better risk control leads to **fewer negative incidents** and ***less stock-specific downside or tail risk*** in the company's stock price.

Higher valuations

- They are ***less vulnerable to systematic market shocks*** and therefore show lower systematic risk.
- Lower systematic risk means a lower beta, which translate to **lower cost of capital** and a ***higher valuation***. Further valuation is increased through the ***increased size of investor base***.

BlackRock found that companies who reduce their carbon footprint also have stronger equity performance

Efficiency Improvement:
Equity Performance by Carbon Intensity 2012-2016



MSCI: "Foundations of ESG Investing, Part 1: How ESG affects Equity Valuation, Risk and Performance," 2017. Giese, Guido, Lee, Melas, Nagy, Nishik

Sources: BlackRock Investment Institute, ASSET4 and MSCI, July 2016. Notes: The analysis above calculates the carbon intensity of all MSCI World companies by dividing their annual carbon emissions by annual sales. Companies are ranked and bucketed in five quintiles based on their year-over-year change in carbon intensity. We then analyze each quintile's stock price performance versus the MSCI World Index. Most improved means the 20% of companies that posted the greatest annual decline in carbon intensity. Data are from March 2012 through April 2016. The example is for illustrative purposes only. Past performance is no indication of future results.

Broad spectrum of ways to incorporate Sustainable Investing

Clients motivations often fall into one of two categories: Avoid and Advance

- Avoid is about eliminating exposures to certain sectors or activities
- Advance is about aligning capital with certain behaviors, activities or outcomes

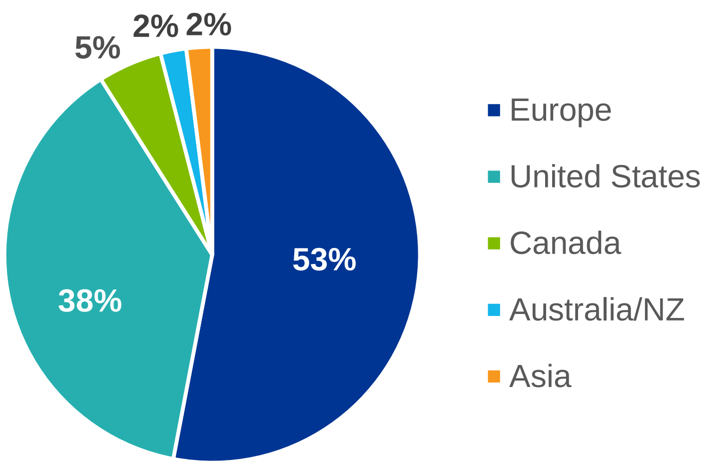
Sustainable Investing			
Avoid	**Advance**		
Exclusionary Screens	**ESG**	**Thematic**	**Impact**
• Removal of certain companies based on specific criteria such as business involvement, sector, or controversy	• Scoring of ESG data at the security or asset level • Weights the data to provide an investment solution that aligns capital with stronger ESG performance	• Focuses on a particular E, S, or G issue, for example carbon emissions or the diversity of a company's workforce • Particular issues are weighted in a thematic sustainable investment solution	• Identifies a specific sustainable outcome as a goal of the investment solution, alongside financial returns • Provides dedicated reporting on progress toward that outcome as a part of the investment solution

Source: BlackRock Sustainable Investing, April 2018. For illustrative purposes only and should not be interpreted as investment advice or recommendation.

Global growth in sustainable investing driven by a range of factors

Country–Imposed Regulations	Risks Posed by Global Challenges	Demographic Shifts	Organizations Facing Client Pressure	Asset Owners with Social Missions
• Fund mandates demanding global ESG integration	• Business models and industries changing in response to climate risks	• Transfer of wealth to millennial generation	• Stakeholder advocacy for social objectives	• Foundations aligning investments with mission

Global sustainable assets = approx. $23tn*



75% and 86%

- **75% of the general population and 86% of millennial investors** are interested in sustainable investing[1]

Article 173

- **France passed a law introducing mandatory climate change-related reporting** for asset owners and asset managers

500 Institutions

- **Institutions facing client pressure** > 500 institutions, which combined managed over $3.4T in assets managed, have committed to divesting from fossil fuels[2]

Source: Global Sustainable Investment Review 2016
* Most widely used industry figure. Exclusionary screens, Environmental Social Governance (ESG), and Impact Investment Strategies
1 Morgan Stanley Sustainable Signals, 2017 https://www.morganstanley.com/pub/content/dam/msdotcom/ideas/sustainable-signals/pdf/Sustainable_Signals_Whitepaper.pdf
2 GoFossilFuelFree.org. http://gofossilfree.org/commitments/

Top sustainability-related challenges clients are looking to solve

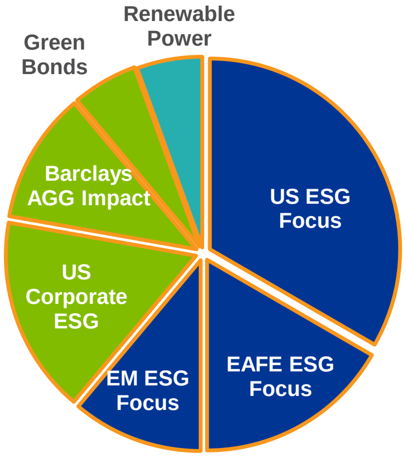
Client Objective	Solution
I am concerned about headline risks in my portfolio	• Avoid companies and industries that are involved in controversial businesses or are undergoing controversies through implementing screens
I am looking to mitigate exposure to climate risk	• Avoid companies and industries most exposure to climate risks by implementing an ***ex Fossil-Fuels*** or ***ex-Thermal Coal*** approach • Advance companies that have lower emissions and underweight companies that have higher emissions with a ***Low Carbon*** strategy.
I want to invest in a sustainable solution, but cannot take on much active risk and do not want to disrupt my current allocations	• Advance companies with higher ESG scores by investing in an ***ESG Optimized*** solution that seeks to track a traditional index as well as increase the portfolio's overall ESG profile
I want to integrate positive impact outcomes in my public portfolio without sacrificing returns	• Advance debt issuers that are addressing specific environmental outcomes, e.g. ***Green Bonds*** strategies
I want to capture alpha through a sustainability focus	• Advance companies that are addressing specific ESG/sustainability outcomes important to investors while seeking to outperform a traditional benchmark
I want to invest in the UN's Sustainable Development Goals (SDGs)	• Advance companies that offer products and services that addresses one of the UN's sustainable development goals

[1]SDG: UN Sustainable Development Goals
For illustrative purposes only and should not be interpreted as investment advice or recommendation.

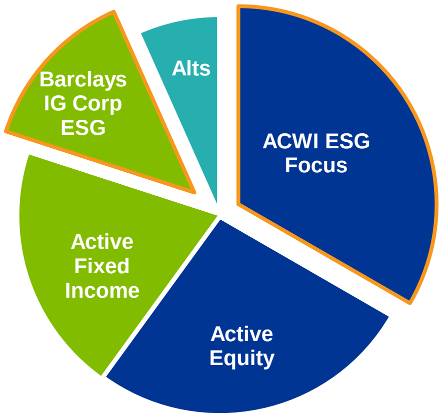
Incorporating sustainable investment strategies

Institutional clients incorporate sustainable strategies into their overall investment program in various ways:

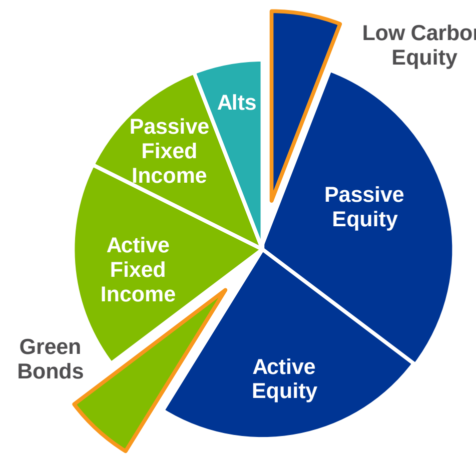
Broad allocation
Take total portfolio view on sustainability



Index replacement
Substitute traditional passive solutions with sustainable investments



Carve out
Allocate a portion of an asset class to sustainable investments



Key considerations in building a sustainable investment portfolio:

1) ***Know what you own*** by using risk and sustainability metrics (e.g., ESG ratings, carbon emissions, sustainable sectors)
2) ***Set objectives*** e.g., reduce carbon exposure, integrate ESG, target impact
3) ***Take action & evaluate*** by implementing sustainable investments and re-assessing risk and sustainability performance

Asset allocations are shown for illustrative purposes only.

Case Studies

Putting it into practice: Defined Contribution

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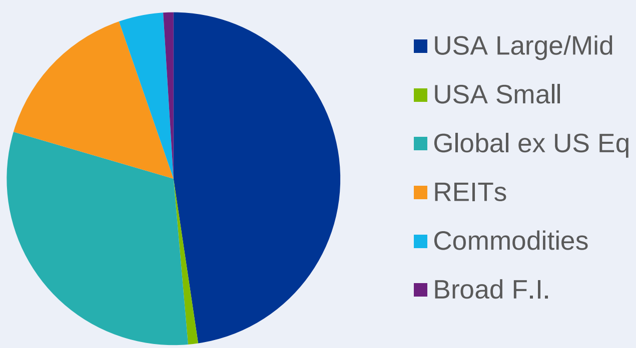
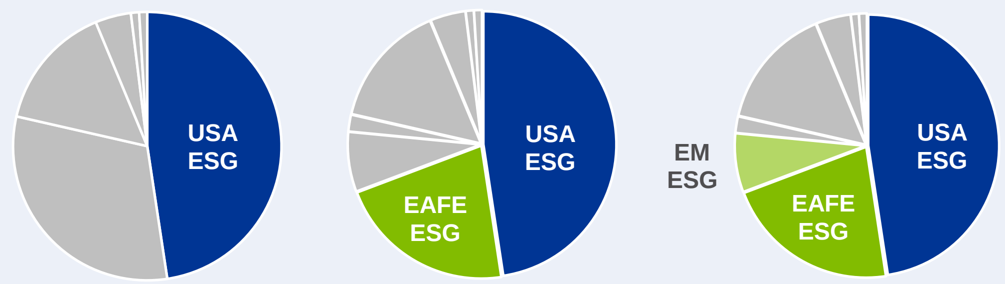
CASE STUDY

US Corporation considering implementing ESG in a target date structure

- **Background:** US corporation with a commitment to sustainability and a younger work force considered offering target date fund that utilizes ESG building blocks. The investment objective is to: 1) Offer competitive risk adjusted returns relative to traditional target date funds, and 2) Demonstrate improved ESG ratings profile relative to traditional target date funds
- **Analysis:** BlackRock ran an analysis of existing index target date strategy leveraging equity and fixed income building blocks that optimize for ESG factors.
- **Proposed Solution**: Results indicated that plan participants could potentially realize financial results in line with the traditional index strategy while improving the ESG score of their investments





	Standard LifePath Fund	USA ESG	USA + EAFE ESG	USA + EAFE + EM ESG
MSCI ESG Score	5.0	5.84	6.13	6.25
MSCI ESG Letter Score	BBB	A	A	A
ESG score potential % increase		**+16.80%**	**+22.60%**	**+25.0%**

Source: BSI Analysis, as of April 2018. The above represents BlackRock's observations and analysis process in proposing solutions to introduce ESG factors in a target date strategy. It should not be assumed that these solutions were implemented and if implemented were actually successful. Source: BlackRock, MSCI. MSCI ESG scores are on a numerical scale of 0-10, which is mapped to a 7 –point letter rating scale of CCC (worst) to AAA (best) and are based on 37 ESG key issues as determined by MSCI. Assessments for each company's ESG performance is relative to the standards and performance of its industry peers. Case studies are for illustrative purposes only. They are not meant as a guarantee of any future results or experience, and should not be interpreted as advice or recommendation.

Putting it into practice: US Pension

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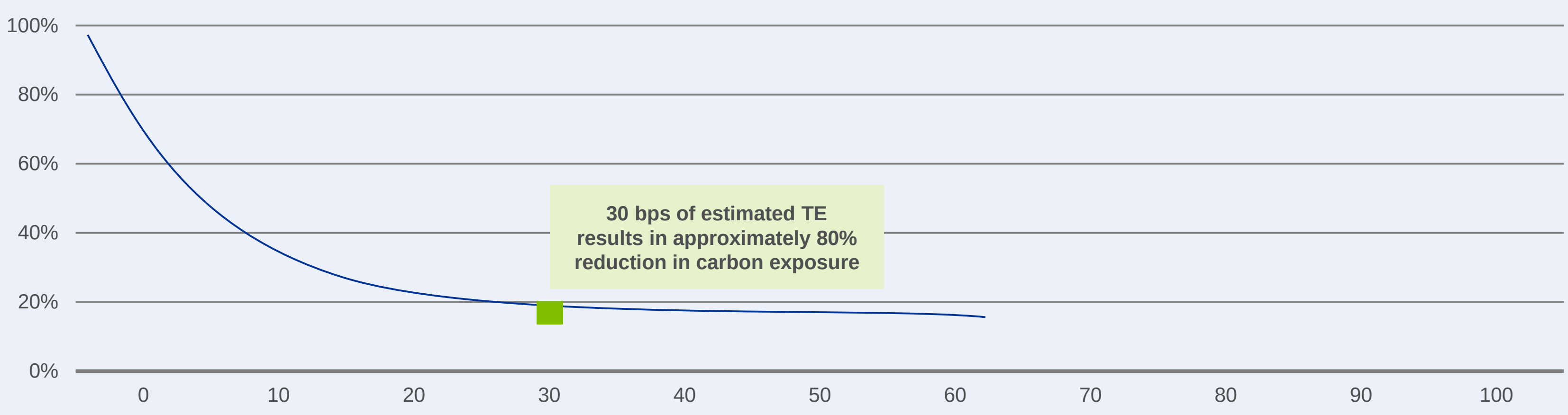
CASE STUDY

Constructing a Low Carbon Solution

- **Background:** A large private pension was seeking a solution for the passive portfolio that could achieve two objectives: 1) competitive risk-adjusted return relative to index 2) reduced carbon emissions
- **Analysis:** BlackRock sought to demonstrate that by replacing a portion of their passive equity solution, the pension could significantly reduce emissions while tracking the standard benchmark
- **Proposed Solution**: BlackRock sought to create a risk-based low carbon optimized solution which has similar traditional risk factor exposures as the policy benchmark with significantly lower carbon emissions

New Product Development: CO2 Exposure versus Tracking Error



Source: MSCI, BlackRock calculations as of 30 December 2016. Notes: The above is based on a simulation that aims to maximize a hypothetical portfolio's ESG rating. In constructing the hypothetical portfolio, BlackRock takes all companies in the MSCI World Index and MSCI ESG data and performs a standard mean variance optimization for each given tracking error. Carbon emissions data are measured in metric tons per million US dollars in total capital (total equity and debt). The forward looking tracking error is an estimation that uses the BlackRock Fundamental Risk for Equity model. This does not represent an actual portfolio, fund managed by BlackRock or investable product, nor is it a recommendation to adopt any particular investment strategy. Case study shown for illustrative purposes only. This is not meant as a guarantee of any future result or experience. This information should not be relied upon as research, investment advice or a recommendation regarding the iShares Funds or any security in particular.

Putting it into practice: EMEA Pension

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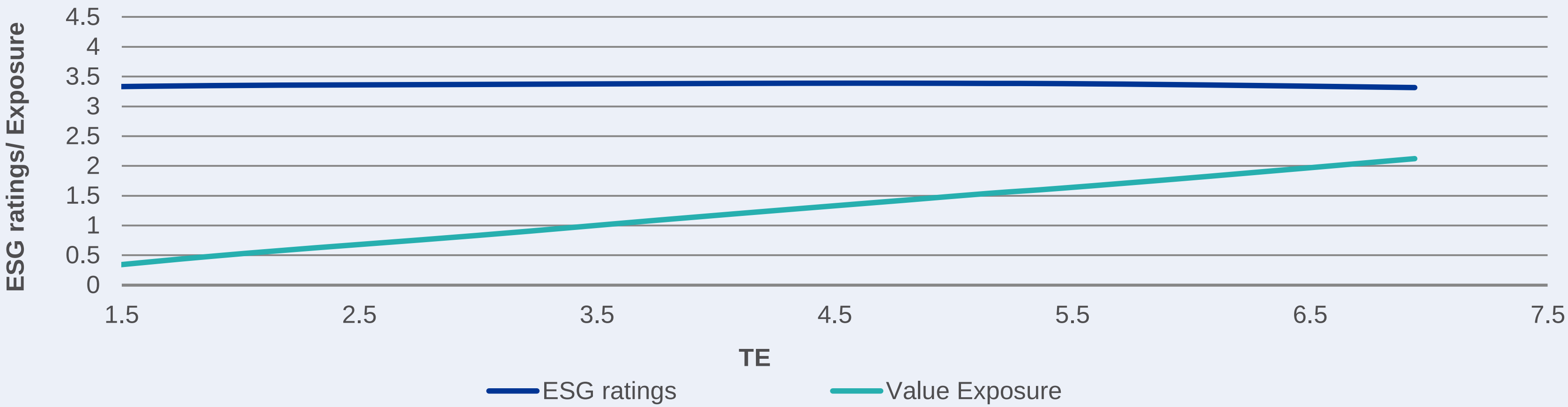
CASE STUDY

Constructing an ESG + Value strategy

- **Background:** A European pension wanted to move a $2billion allocation from a value index portfolio to a value index strategy that incorporated Environmental, Social and Governance (ESG) consideration in a cost efficient manner. The client's primary objective was to maintain a high value factor loading, but also show a meaningful improvement in ESG metrics.
- **Analysis:** BlackRock in partnership with an index provider, delivered factor analysis and simulated multiple combinations to understand the impact of combining ESG scores and the value factor.
- **Proposed Solution**: BlackRock created a solution that targeted improved levels of active value factor exposure compared to the broad market cap weighted index, while also seeking an increase in ESG ratings.

Analysis of Single ESG Tilt with Variable Value Tilt



* TE between Mar 2015 - Mar 2017

Source: FTSE Russell as at March 2015 to March 2017. The above represents BlackRock's observations and analysis process in proposing solutions to introduce a single ESG tilt with variable value tilt. It should not be assumed that these solutions were implemented and if implemented were actually successful. MSCI ESG scores are on a numerical scale of 0-10, which are based on 37 ESG key issues as determined by MSCI. Assessments for each company's ESG performance is relative to the standards and performance of its industry peers. Case studies are for illustrative purposes only; they are not meant as a guarantee of any future results or experience, and should not be interpreted as advice or a recommendation.

Putting it into practice: Foundation & Endowment

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CASE STUDY

University Endowment de-carbonizes and integrates ESG into equity allocation

- **Background:** In late 2016, a consultant approached BlackRock with an opportunity for a University endowment. The University had made a commitment to fossil fuel divestment as well as ESG integration and was looking to move their entire passive global equity exposure to a new index that could incorporate these objectives.
- **Analysis:** In working with the consultant, BlackRock provided analysis to the client that showed hypothetical portfolios that could exclude fossil fuel reserves, while increasing overall ESG score, and minimizing tracking error relative to the ACWI.
- **Proposed Solution**: The University's board unanimously approved MSCI ACWI ex FF ESG Focus Index that has a PTE of 60 bps to the MSCI ACWI.

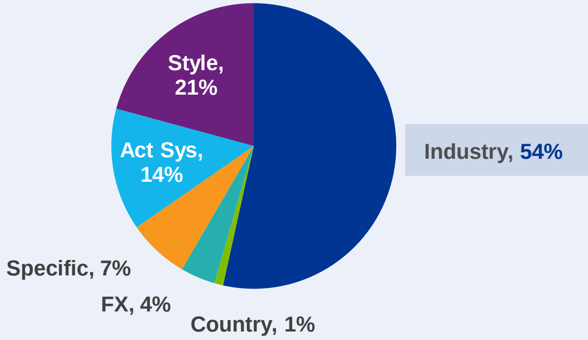
Active Risk Decomposition

Temporary Portfolio (TMP)

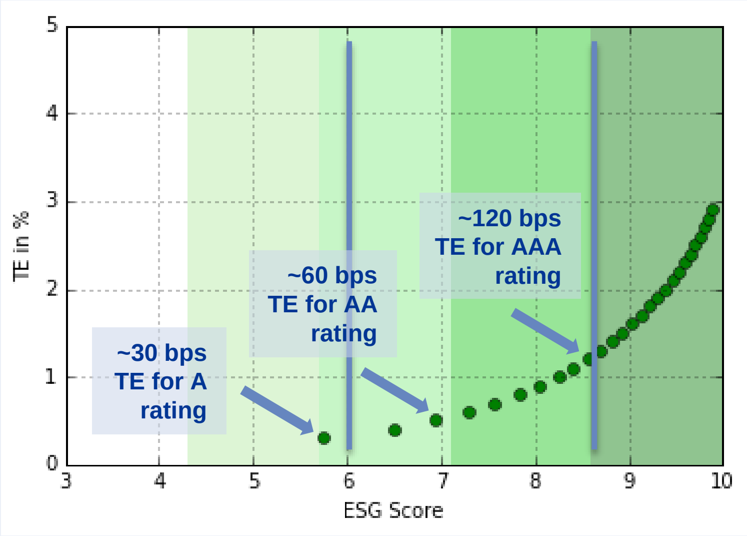
Benchmark: MSCI All Country World Index (Net Total Return)

Active Risk: **0.84%** Portfolio Beta: **0.98**

Risk Contributions by Block



Efficient Frontier ESG



The above is a simulation that aims to minimize a hypothetical portfolio's tracking error. The forward looking tracking error is an estimation that uses the BlackRock Fundamental Risk for Equity model. This does not represent an actual portfolio, fund managed by BlackRock or investable product, nor is it a recommendation to adopt any particular investment strategy. Source: BlackRock Aladdin. Data as of Jul 29, 2016. Using BFRE covariances for equity (EQ) and FX Factors. Equity Inter Model Correlations, Equity, Fixed Income (FI), and FX covariances calculated using weighting FMI: 312 week history, 52 week half-life. Factor Exposures: ^WRLDA. Case studies are for illustrative purposes only; they are not meant as a guarantee of any future results or experience, and should not be interpreted as advice or a recommendation

Putting it into practice: Insurance Company

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CASE STUDY

Building an Impact Reporting Framework within Green Bonds and Infrastructure

- **Background:** Large insurance plan seeking to better to understand social and environmental impact across real assets and green bonds portfolios
- **Analysis:** BlackRock reviewed available impact reporting standards, uncovered common standards across provider, and determined feasibility to source underlying project metrics on ongoing basis
- **Proposed Solution**: BlackRock proposed ongoing impact evaluation report for investment exposures – focus on key social and environmental metrics, allowing client to track progress overtime.

Key Sectors	Project Type	Indicator 1	Indicator 2	Indicator 3	Indicator 4	Indicator 5
Power	Renewable Thermal Transmission	Annual Energy Produced (MWh) (PD2713, PD6052, WB)	Renewable Capacity Added (MWh) (WB, EIB, UK Green IB)	Annual GHG Emissions Avoided (tons of CO2 eq.) (P17623, WB, EIB, UK Green IB, Envision)	Target Community (# served, demographics) (PI7954, PD5752, PD6384)	Other (project specific detail)
Energy	Midstream District Heating Energy Efficiency	Annual Energy Savings Efficiency/Conservation (MWh) (PI4009)	Annual GHG Emissions Avoided (tons of CO2 eq.) (P17623, WB, EIB, UK Green IB, Envision)	Target Community (# served) (PI7954, PD5752, PD6384)	Other (project specific detail)	
Utilities	Power Gas Water Waste	Annual Amount Stored, Treated or Transported (Tons H20/NO2, MWh) (PD2713, PD3523)	Annual Energy Savings Efficiency/Conservation (MWh) (PI4009)	Annual GHG Emissions Avoided (tons of CO2 eq.) (P17623, WB, EIB, UK Green IB, Envision)	Target Community (# served) (PI7954, PD5752, PD6384)	C (projec d
Transportation	Road Rail Airport Seaport Bridge Tunnel Parking	Travel Reduction Time (WB)	Target Community (# served, demographics) (PI7954, PD5752, PD6384)	Annual GHG Emissions Avoided (tons of CO2 eq.) (P17623, WB)	Other (project specific detail)	
Water & Waste	Desalination Pipeline Landfill	Annual Amount Stored, Treated or Transported (Tons H20/NO2, MWh) (PD2713, PD3523)	Target Community (# served) (PI7954, PD5752, PD6384)	Other (project specific detail)		
Social	Education Government Hospital Health Facility Correctional Facility Court House Social Housing	Target Community (# of units, people served) (PI5965, PI7954, PD5752, PD6384)	% Low Income or Subsidized (PI7098)	Other (project specific detail)		

#	Link to more information	Project name (number | year/s loans approved) and description	A/M /a	Project life	Target results /b: Annual energy savings/c MWh	Annual energy produced MWh	Renewable capacity added MW	Annual GHG emissions avoided tons of CO_2 eq.	Other results	Committed US$ mil /d	IBRD share/e	Allocated US$ mil /f
1		**Belarus - Biomass District Heating (P146194 | FY14):** increase energy efficiency in district heating systems and replace natural gas with wood biomass as a renewable energy source.	M	20	236,000	1,660,000	106	420,000	Cumulative over 5 years: ● 1,180,000 MWh energy savings from efficiency investments. ● 2,100,000 tons of CO2 eq. emissions reduced.	90.0	100%	3.6
2		**China - Beijing Rooftop Solar Photovoltaic Scale-Up (Sunshine Schools) Project (P125022 | FY13):** promote renewable energy in 1000 schools and other educational institutions.	M	20	na	100,000	100	89,590	● 10 to 15 % of the schools' annual power use provided by renewable sources. ● 650,000 students in 1,000 schools benefit.	120.0	50%	7.6
3		**China - Eco-Farming Project (P096556 | FY09):** promote sustainable farming systems and reduce greenhouse gas emissions (from methane and burning coal and firewood) benefiting rural communities with biogas systems.	M	20	na	~	~	900,000	● 400,000 - 500,000 rural households benefit with cleaner biogas-based cooking and heating systems.	119.8	27%	119.8
4		**China - Energy Efficiency Financing (P084874 | FY08, FY12):** promote energy conservation in China's industrial sector supporting intermediary loans for energy efficiency projects in medium and large-sized manufacturing companies.	M	20	21,807,900	na	na	6,490,000	● 2,666,000 tons of coal eq. (tce) annual energy savings (assuming 150 subprojects)	300.0	45%	253.8
5		**China - Energy Efficiency Financing II Project (P113766 | FY10):** promote energy conservation in China's industrial sector through intermediary loans to energy efficiency projects.	M	20	20,200,000	na	na	6,100,000		100.0	66%	40.3
6		**China - Green Energy Schemes for Low-carbon City in Shanghai (P127035 | FY13):** promote greener city development with energy efficiency and renewable energy installations in commercial and government buildings.	M	20	621,700	~	~	165,000		100.0	41%	3.6

Source: BlackRock, World Bank, as of April 2018. The above represents BlackRock's observations and analysis process in proposing solutions in impact measurement and reporting. It should not be assumed that these solutions were implemented and if implemented were actually successful. Screenshots are for illustrative purposes only.

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Important Notes

Index
It is not possible to directly invest in an unmanaged index.

Risk
Investing in the bond market is subject to certain risks including market, interest-rate, issuer, credit, and inflation risk. Equities may decline in value due to both real and perceived general market, economic, and industry conditions. Mortgage and asset-backed securities may be sensitive to changes in interest rates, subject to early repayment risk, and while generally backed by a government, government-agency or private guarantor there is no assurance that the guarantor will meet its obligations. High-yield, lower-rated, securities involve greater risk than higher-rated securities; portfolios that invest in them may be subject to greater levels of credit and liquidity risk than portfolios that do not. Investors will, at times, incur a tax liability. Income from municipal bonds may be subject to state and local taxes and at times the alternative minimum tax. Derivatives may involve certain costs and risks such as liquidity, interest rate, market, credit, management and the risk that a position could not be closed when most advantageous. Investing in derivatives could lose more than the amount invested.

BlackRock Sustainable Investing intends to invest in companies with measurable societal impact outcomes, as determined by BlackRock, and screen out particular companies and industries. This may affect the portfolio's exposure to certain companies or industries and the portfolio will forego certain investment opportunities. The portfolio's results may be lower than other portfolios that do not seek to invest in companies based on expected societal impact outcomes and/or screen out certain companies or industries. BlackRock Sustainable Investing seeks to identify companies that it believes may have a societal impact outcome, but investors may differ in their views of what constitutes positive or negative societal impact outcomes. As a result, the portfolio may invest in companies that do not reflect the beliefs and values of any particular investor.

Under certain market conditions, growth investments have performed better during the later stages of economic expansion and value investments have performed better during periods of economic recovery. Therefore, these investment styles may over time go in and out of favor. At times when the investment style used by BlackRock Sustainable Investing is out of favor, the BlackRock Sustainable Investing may underperform other equity strategies that use different investment styles.

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Goldman Sachs Presentation

Asset Management

ESG & Impact Investing Overview

Goldman Sachs Asset Management

May 2018

Executive Summary

Goldman Sachs
Asset Management

- ESG and impact investing is of growing importance to Goldman Sachs Asset Management
  - In 2015, we acquired the assets of Imprint Capital Advisors, a leading ESG and impact investing advisor
  - We have more than **30 ESG and impact investing experts** and supervise more than **$13.2B in ESG and impact investments**[1]
- Broadly, ESG and impact investing strategies are designed to enable investors to do the following:
  - Alignment: **Optimize units of alignment with ESG factors per incremental unit of tracking error**
  - ESG integration: Invest in managers who incorporate a company's **environmental, social, and governance practices** into their selection process, believing it might be material to financial returns
  - Impact investing: Invest in private companies that seek **social and environmental impact alongside market-rate financial returns**
- We seek high-quality ESG and impact strategies that **target market rates of return**
- We work with clients in an advisory capacity to design and implement the appropriate ESG and impact investing strategy **across their asset class allocation**

[1]Assets and personnel as of February 2018.

We view ESG and impact investing as a spectrum of approaches with varying financial and impact characteristics

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ESG and Impact Investing Spectrum

	Market Rate			Concessionary	
	Alignment*	**ESG Integration**	**Market Rate Impact Investing**	Concessionary Impact Investing	Philanthropy
	Alignment ⟷ Impact				
What	• Avoiding objectionable exposures, optimizing for desired exposures	• Integrating ESG factors into active investment analysis	• Investing in strategies with social/ environmental impacts that seek market rates of return	• Accepting below market rates of return for impact	• Donating
Why	• To better align portfolio with ESG factors with minimal financial impact	• To drive better performance by incorporating financially material ESG factors	• To have positive impact and produce sustained alpha, predominantly in private markets	• To have a positive impact	
How	• Ex. Passive low carbon equity strategy	• Ex. Active ESG equity strategy	• Ex. Private markets impact investing	• While we do not focus here, we can help clients think through how it fits in a comprehensive program.	

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* Historically Socially Responsible Investing "SRI"

We believe ESG factors can be financially material

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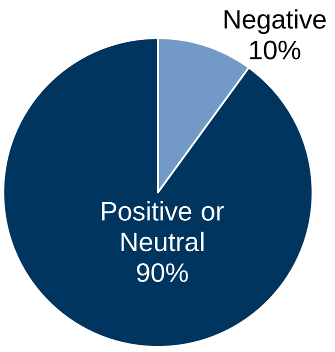
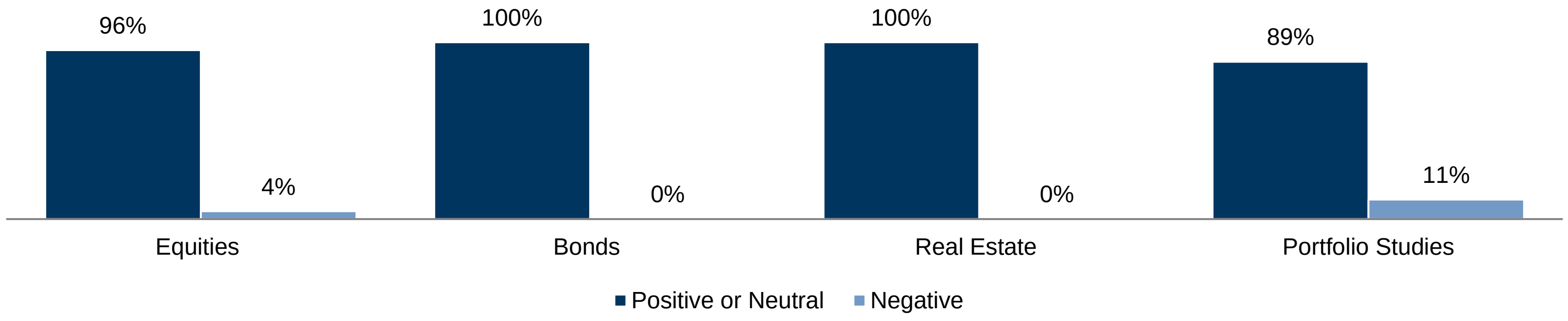
Sample Meta Study: Findings from more than 2,200 Unique Empirical Studies

Key Observations

- We believe that the business case for ESG investing is empirically well founded
- The positive ESG impact on corporate financial performance has remained stable over time



ESG & Financial Performance (Percentage of Studies with Positive, Neutral, or Negative Findings)



Source: Friede, Busch, Bassen (December 2015). **Past performance does not guarantee future results, which may vary.** Views and opinions are current as of the date of this presentation and may be subject to change, they should not be construed as investment advice.

In quantitative approaches, it's important to identify the specific metrics that can potentially generate alpha, given the growth of ESG data

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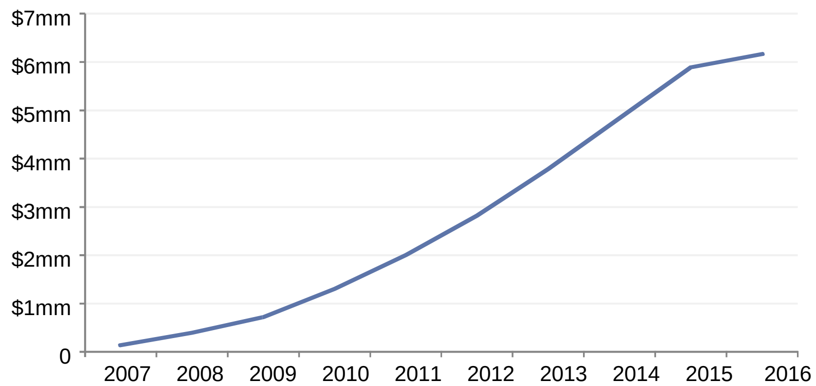
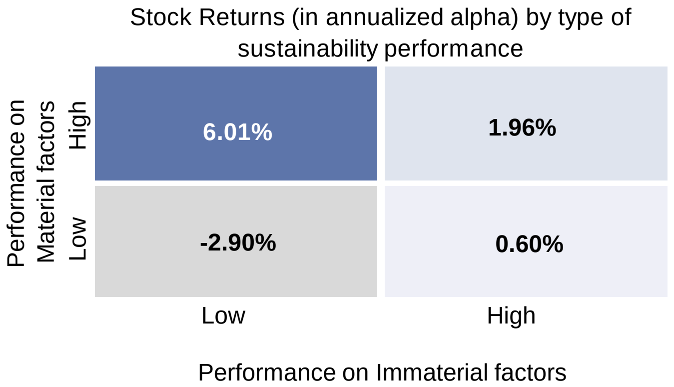
Growth of ESG data availability[1]

Cumulative ESG data points available from Bloomberg for 453 select metrics



Importance of material ESG metrics[2]



[1] Bloomberg data cited in The GS Sustain Report, "The PM's Guide to the ESG Revolution" (April 18, 2017) [2] "Corporate Sustainability: First Evidence of Materiality", HBS, 2015, Mozaffar Khan, George Serafeim & Aaron Yoon. Charted cited in The GS Sustain Report, "The PM's Guide to the ESG Revolution" [3] GSAM Quantitative Investment Strategies as of October 2017. There can be no assurance that the same or similar results to those presented above can or will be achieved. **Past performance does not guarantee future results, which may vary.**

We believe ESG integration can be a potential driver of portfolio value

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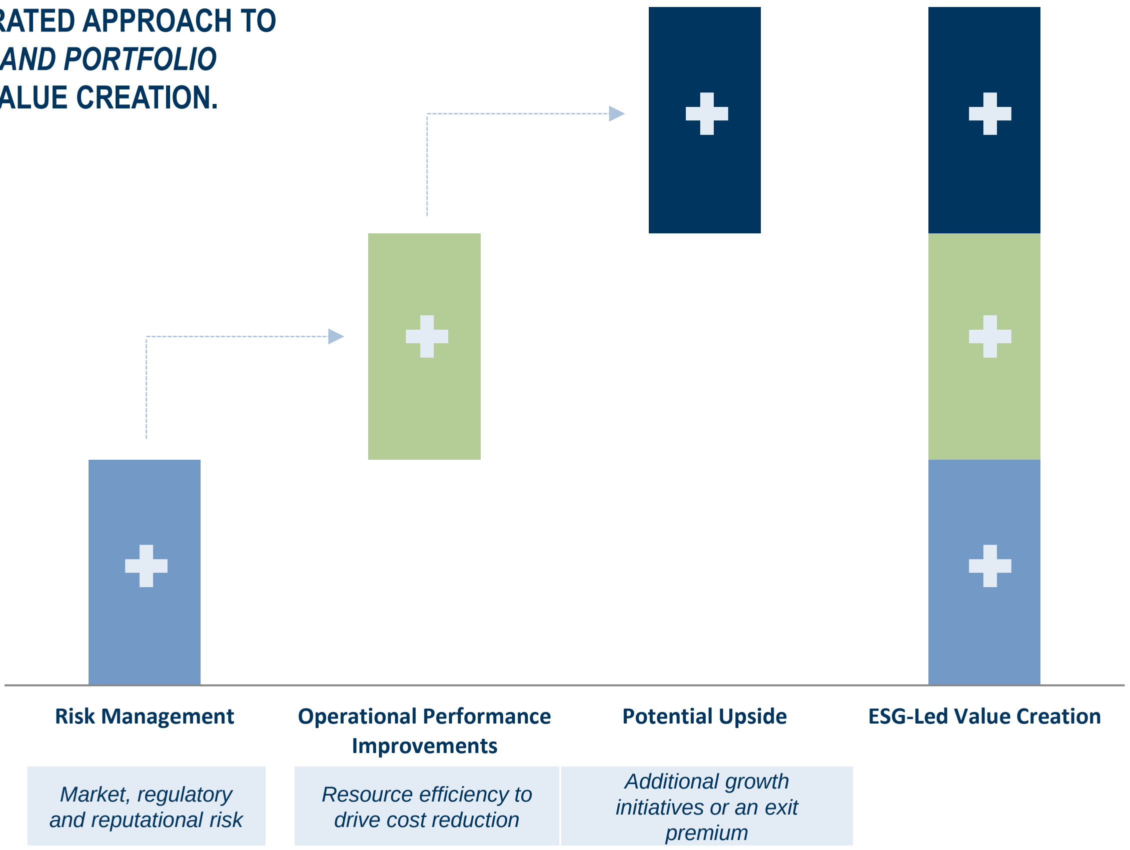
WE BELIEVE AN ESG INTEGRATED APPROACH TO *SOURCING, DUE DILIGENCE AND PORTFOLIO MANAGEMENT* CAN DRIVE VALUE CREATION.



AIMS Imprint, March 2018. For discussion purposes. The portfolio risk management process includes an effort to monitor and manage risk, but does not imply low risk.

ESG integration can also help to drive value in other asset classes, such as real estate

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	Seeking to Increase Margins	Improving the Brand of the Property
Goals	– Increase Rental Rates – Reduce Utility Expenses – Reduce Frequency and Cost of Capital Expenditures	– Align Business Plan with Tenant (Opex, Capex, Amenities) – Increase Desirability of Asset from a Capital Markets Perspective – Implement Discrete Projects to Integrate the Property's Brand with the Community's Identity
Implementation Strategy	– Lighting Retrofit Programs – Higher-Quality / Higher-Efficiency Mechanicals – Recycled Materials Use in Capital Investment Programs – Asset Specific Retro-Commissioning Measures	– Local Artist Engagement or Property Focal Pieces (LED Sunroof / Live Walls) – Effective Opex / Capex Management may Attract Tenants and/or Buyers – Increase Operating and Capital Expense Transparency to Attract Tenant
Positive Externalities	– Reduce Carbon Footprint – Reduce Materials Waste – Employ Minority and Veteran Owned Businesses	– Job Creation for Local Artists and Businesses – Support Local Culture – Support Local Quality of Life

For illustrative purposes only. Any mention of an investment decision is intended only to illustrate our investment approach and/or strategy, and is not indicative of the performance of our strategy as a whole. It should not be assumed that any investment decisions shown will prove to be profitable, or that any investment decisions made in the future will be profitable or will equal the performance of the investments discussed herein. Please see additional disclosures. Objectives stated do not provide any assurance as to future results as there is no guarantee that the objectives will be met.

An integrated ESG process among teams helps to identify potential risks and opportunities

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Fixed Income
Credit Risk
Financial Statement Analysis
Management Meetings
Industry Reviews

Fundamental Equity
Sector Reviews
Management Meetings
Shareholder Engagement

ESG Themes
Risks
Inclusions
Exclusions
Topical Themes

Quantitative Investment Strategies
Big Data
Proprietary Alpha Factors
Rules-Based Overlays

GSAM Privates
Private Real Estate
Credit Alternatives
Operational Perspective

Imprint
Internal Research | External Research | Ongoing Partnership | NGO/Sector Networks

For illustrative purposes only.

Assessing managers’ ESG capabilities

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	DESK REVIEW	MANAGER INTERVIEW	MANAGER EVALUATION	MONITOR ENGAGE IMPROVE
STANDARD APPROACH	• Send ESG DDQ			
ADVANCED APPROACH	• Review public materials • Send ESG DDQ	• ESG professionals		• Review annual reports
OUR APPROACH	• Review public materials • Review portfolio • Send ESG DDQ • Prepare focused diligence questions	• ESG professionals • Portfolio managers	• Determine factor scores • Identify areas of prospective concern for monitoring • Integrate into relevant reference calls • Where applicable, establish KPI’s with the manager	• Complete annual review with manager • Provide feedback on best practices • Incorporate key findings into ESG process

AIMS Imprint, January 2018. For illustrative purposes only. This is not intended to be a complete description of the due diligence process.

Impact investments are primarily in private markets and cover a broad range of themes

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Private Equity	Private Credit	Real Assets
RESOURCE EFFICIENCY	CONSUMER LENDING	SUSTAINABLE TIMBER & ECOSYSTEMS SERVICES
FOOD, HEALTH & WELL BEING	SMALL BUSINESS LENDING	SUSTAINABLE AGRICULTURE & WATER
EDUCATION	ENVIRONMENTAL ASSETS	SUSTAINABLE REAL ESTATE
HEALTH IT & SERVICES		CLEAN INFRASTRUCTURE
FINANCIAL SERVICES		

Thesis driven investing

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Process Overview

- Complete comprehensive scan of market
- Update view of relative attractiveness of market on a quarterly basis
- Filter manager database to short list
- Map short list against financial & impact factors
- Initiate diligence on top picks

Sample Scan: Renewable Energy

Attractive risk/return strategies are available in certain segments of the renewables sector

Operating projects are efficiently priced, so investors should look to project development or niche subsectors for attractive risk adjusted returns

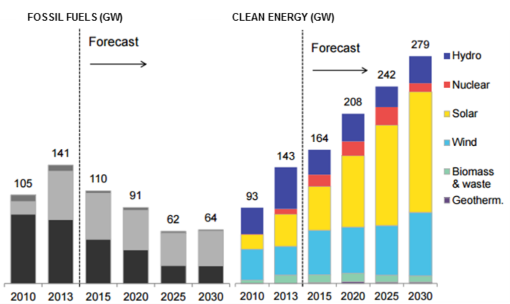
THE OPPORTUNITY IN RENEWABLES HAS STRONG GROWTH PROSPECTS DUE TO WELL-UNDERSTOOD FUNDAMENTALS:

- *Renewables have become the dominant growth area for investing in power production:* Renewables are expected to account for ~70% of global power capacity additions between 2012 and 2030.[1]
- *Advancement in renewable technologies makes costs economically competitive without subsidy:* Solar and wind costs have declined dramatically over the last few years. Once installed, renewables plants are not subject to the same price volatility associated with fossil fuel sources, though intermittency is a challenge.

OPERATING ASSETS ARE EFFICIENTLY PRICED, LIMITING THE SCOPE OF RETURN INVESTORS CAN ACHIEVE IN CORE EQUITY:

- Revenues are largely fixed by 20-year Power Purchase Agreements ("PPAs and operating costs are low and stable, offering bond-like yields.
- These assets may be most suitable for investors looking for long-term investments to match long-duration liabilities.

GLOBAL POWER GENERATION CAPACITY ADDITIONS[1]



TO TARGET ATTRACTIVE RISK ADJUSTED RETURNS, THERE ARE A NUMBER OF STRATEGIES INVESTORS MAY CONSIDER:

A. **GEOGRAPHY:** Focus on markets with attractive and well-understood risk premiums (especially emerging markets).

B. **STAGE:** Look to managers that create or access development-stage deals to capture early-stage premiums.

C. **MERCHANT POWER / HIGHER RISK COUTERPARTIES:** Non-contracted power exposure can capture higher prices in exchange for less certainty. The Commercial & Industrial segment benefits from higher electricity prices and less market efficiency than utility-scale or residential.

D. **GRID SERVICES:** Capture savings by avoiding costly grid infrastructure improvement through investments in grid services (i.e. demand response, energy storage, distributed generation).

Sources: AIMS Imprint Views, [1]Bloomberg New Energy Finance, 2014

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Source: GSAM. As of October 2017. For illustrative purposes only to demonstrate a sample report/analysis and should not be construed as investment advice or an offer to sell or the solicitation of an offer to buy any Goldman Sachs product or service described herein. The information shown herein should not be relied upon as representative of actual or future information for any Goldman Sachs products. Results for the products depicted herein may vary substantially from those in this report or analysis.

In addition to our market scans, we complete an investment views process on a quarterly basis

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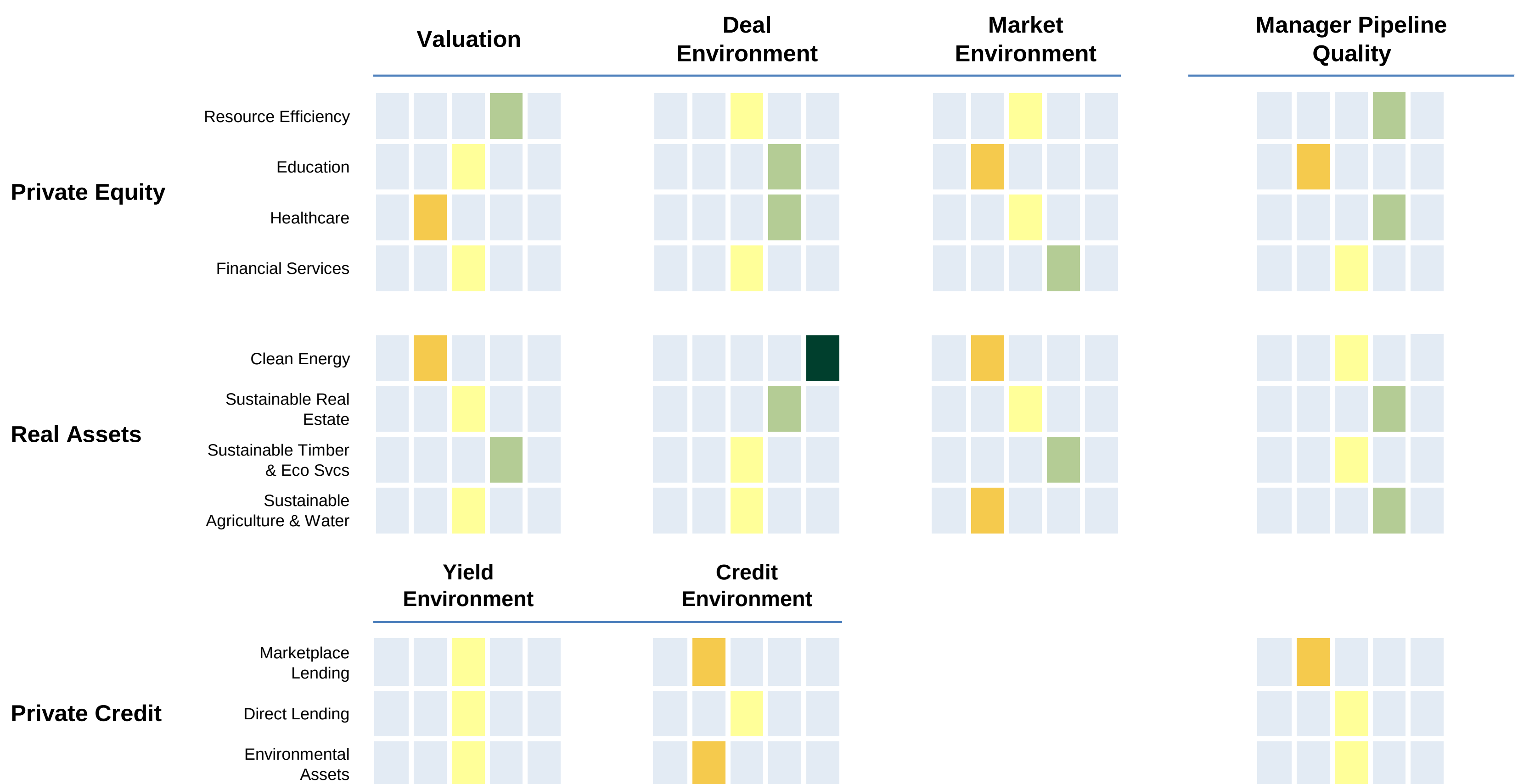

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Appendix & Important Disclosures

Appendix: Theme Definitions

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Alignment: Strategies that seek to eliminate or mitigate portfolio exposure to holdings that investors may regard as objectionable such as coal, tobacco or weapons companies. Alternatively, values-aligned strategies may also seek to provide clients with enhanced exposure to holdings that positively reflect their social or environmental values such as companies with low carbon emissions profiles or high levels of executive diversity.

ESG Integration: Strategies that formally incorporate environmental, social and governance-related factors into an investment process with the objective of enhancing risk-adjusted returns.

Thematic Strategies: Strategies that seek to identify alpha associated with a secular ESG theme. An example is “resource efficiency,” wherein investors seek to identify companies that provide solutions to challenges associated with scarce resources or resource-related externalities.

Resource Efficiency: Companies developing technologies and/or business models that use resources in a sustainable manner while minimizing environmental impact. Examples include alternative energy technologies such as wind and solar, energy efficiency technologies such as LED lighting, etc.

Food, Health & Well Being: Consumer-oriented companies offering a broad range of products and services that improve health and/or minimize environmental impact. Examples include healthy and organic foods, green packaging solutions, fitness and wellness services, and mental health solutions.

Education: Companies whose primary purpose is to improve outcomes for all learners, regardless of age. Examples include infrastructure software, content generation and distribution, mobile and social applications, technologies that improve teaching and learning processes and methodologies, credentialing, curricular innovation, as well as schools, universities, and service providers.

Health IT & Services: Companies providing healthcare delivery and life science solutions that increase access, improve care, and lower costs to underserved populations. Examples include single and multi-specialty clinics and hospitals, telemedicine and healthcare IT solutions, medical technology devices, and diagnostic solutions.

Financial Services: Companies that provide beneficial financial services to underserved populations. Examples include technologies and services in the areas of payments, credit, savings, and insurance.

Appendix: Theme Definitions

Goldman Sachs Asset Management

Sustainable Timber & Ecosystem Services: Timberland that has been preserved from future development and/or harvested responsibly using sustainable management practices. Ecosystem services capitalize on environmental offset markets by deriving revenue from carbon or the restoration of wetlands, streams, or endangered species.

Sustainable Agriculture & Water: Production of food and fiber through farmland management practices and/or agricultural technologies that have the potential to enhance yields and reduce inputs while limiting negative environmental impacts.

Sustainable Real Estate: Residential and non-residential buildings that are energy efficient and environmentally friendly and/or provide access to low income populations or create jobs and economic activity in low wealth communities. Examples include LEED certified office buildings that are energy efficient and affordable housing projects for low income tenants.

Clean Infrastructure: Asset-backed assets that have minimal environmental impacts related to power generation and distribution or transit. Examples include clean and low carbon power generation from solar and wind projects as well as transit investments in electric vehicle charging infrastructure and electrified mass transit.

Consumer Lending: Providing appropriately structured and/or lower cost credit to consumers directly or through online platforms. Examples include micro loans to underserved consumers in emerging markets and lower cost loans to prime and sub-prime borrowers in developed markets via online platforms.

Small Business Lending: Providing appropriately structured credit to small businesses directly or through online platforms. Examples include working capital financing, receivables financing, factoring, supply chain financing, and credit insurance and guarantees to underserved small businesses and/or businesses with social/environmental attributes.

Environmental Assets: Loanable assets with tangible environmental attributes. Examples include renewable energy infrastructure projects and energy efficiency solutions in areas such as lighting, HVAC systems, and water heating that improve efficiencies while decreasing natural resource use.

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Tracking Error (TE) is one possible measurement of the dispersion of a portfolio's returns from its stated benchmark. More specifically, it is the standard deviation of such excess returns. TE figures are representations of statistical expectations falling within "normal" distributions of return patterns. Normal statistical distributions of returns suggests that approximately two thirds of the time the annual gross returns of the accounts will lie in a range equal to the benchmark return plus or minus the TE if the market behaves in a manner suggested by historical returns. Targeted TE therefore applies statistical probabilities (and the language of uncertainty) and so cannot be predictive of actual results. In addition, past tracking error is not indicative of future TE and there can be no assurance that the TE actually reflected in your accounts will be at levels either specified in the investment objectives or suggested by our forecasts.

Back tested performance results do not represent the results of actual trading using client assets. They do not reflect the reinvestment of dividends, the deduction of any fees, commissions or any other expenses a client would have to pay. If GSAM had managed your account during the period, it is highly improbable that your account would have been managed in a similar fashion due to differences in economic and market conditions.

Disclosures

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Asset Management

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ESG strategies will be subject to the risks associated with their underlying investments' asset classes. Further, the demand within certain markets or sectors that an ESG strategy targets may not develop as forecasted or may develop more slowly than anticipated.

The business of investing in assets such as energy, real assets, infrastructure, and commodities assets is highly competitive and will be subject to risk associated with market changes in interest rates as well as certain risks related to adverse economic or regulatory occurrences, as well as environmental liabilities, force majeure events, and high interest costs in connection with capital construction programs, among others.

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Index Benchmarks

Indices are unmanaged. The figures for the index reflect the reinvestment of all income or dividends, as applicable, but do not reflect the deduction of any fees or expenses which would reduce returns. Investors cannot invest directly in indices.

The indices referenced herein have been selected because they are well known, easily recognized by investors, and reflect those indices that the Investment Manager believes, in part based on industry practice, provide a suitable benchmark against which to evaluate the investment or broader market described herein. The exclusion of "failed" or closed hedge funds may mean that each index overstates the performance of hedge funds generally.

References to indices, benchmarks or other measures of relative market performance over a specified period of time are provided for your information only and do not imply that the portfolio will achieve similar results. The index composition may not reflect the manner in which a portfolio is constructed. While an adviser seeks to design a portfolio which reflects appropriate risk and return features, portfolio characteristics may deviate from those of the benchmark.

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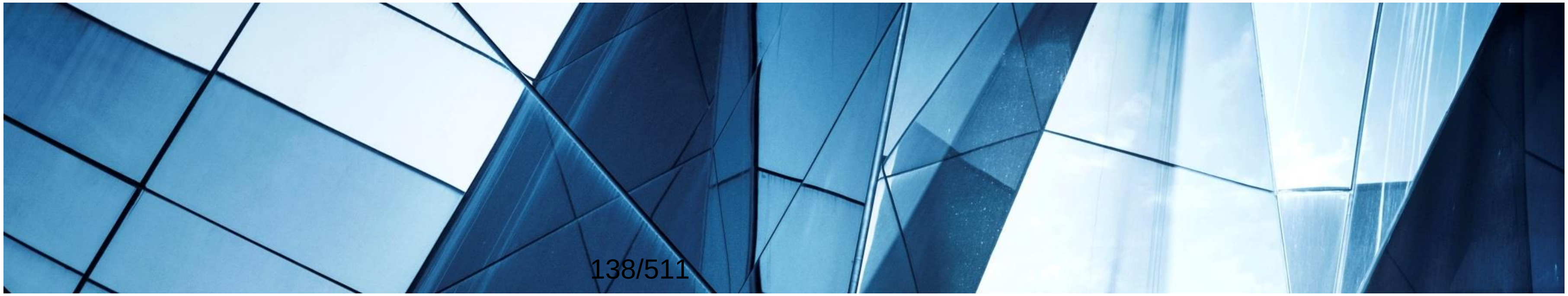
Morgan Stanley Presentation

Morgan Stanley

INVESTMENT MANAGEMENT

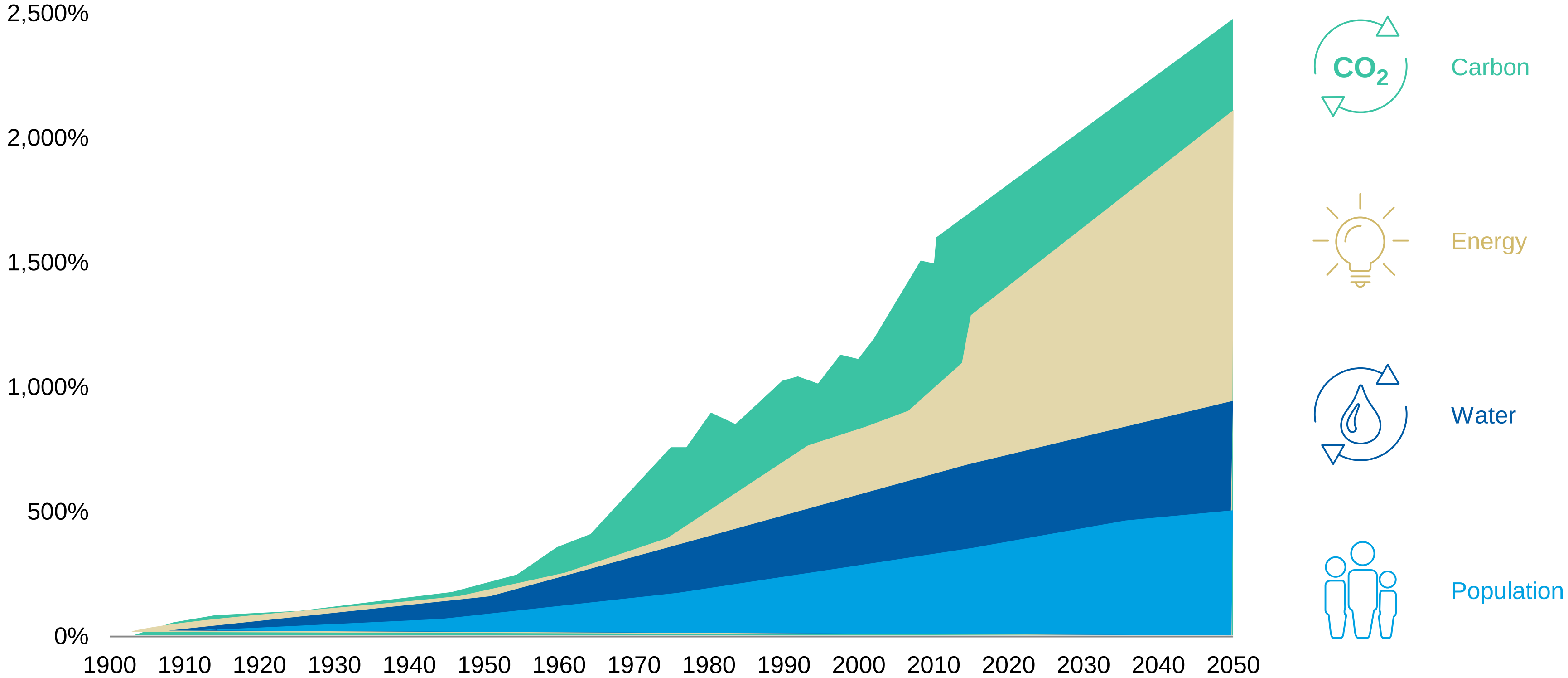
Sustainable Investing: Drivers and Themes

May 2018



Global Demands Are Growing Rapidly

% Change from 1900 Baseline



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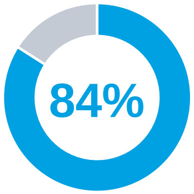
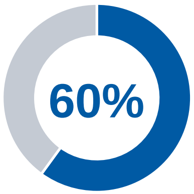
2. Change in global exojoule consumption, Smil, V. 2010. Energy Transitions: History, Requirements, Prospects. Praeger, Santa Barbara, CA, ix + 178 pp. U.S. Energy Information Agency.
3. Change in km3 Shiklomanov I. A., World Water Resources: Modern Assessment and Outlook for the 21st Century, 1999. (Summary of World Water Resources at the Beginning of the 21st Century, prepared in the framework of the IHP UNESCO). Federal Service of Russia for Hydrometeorology & Environment Monitoring, State Hydrological Institute, St. Petersburg., OECD (2012), OECD Environmental Outlook to 2050, OECD Publishing.
4. Change in Million Metric Tons of Carbon, Boden, T.A., Marland, G., and Andres, R.J. (2015). National CO_2 Emissions from Fossil-Fuel Burning, Cement Manufacture, and Gas Flaring: 1751 – 2011, Carbon Dioxide Information Analysis Center, Oak Ridge National Laboratory, U.S. Department of Energy, doi, OECD (2012), OECD Environmental Outlook 2050 , OECD Publishing.

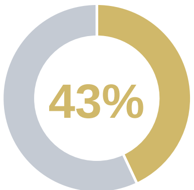
Institutional Investors Are Taking Action



84% of asset owners are either **already integrating ESG criteria – or actively considering integration of ESG criteria** – within their investment process



Among asset owners integrating ESG criteria, 60% have **begun doing so within the last 4 years** – with 40% doing so for the past 5 years or more



Among asset owners integrating or considering ESG criteria, 43% **can envision a time when allocations will be limited to managers with a formal approach to sustainable investing**

… Driven by a Range of Motivations (1)

Risk Management	Return Potential	Mission Alignment	Evolving Policies and Regulations	Constituent and Stakeholder Demand
(78%)	(77%)	(77%)	(76%)	(74%)

Source: Morgan Stanley Institute for Sustainable Investing as of March 31, 2018, "Sustainable Signals: Asset Owners Embrace Sustainability," forthcoming

1. Percentages reflect motivations identified as "extremely" or "somewhat" important.

The Investment Logic of Sustainable Investing

Asset Owners May Pursue Sustainable Investing as a Means of Reducing Tail Risk, Capitalizing on Corresponding Opportunities, or a Strategic Combination of Both

APPROACHES TO SUSTAINABLE INVESTING	MANAGE DOWNSIDE RISK / VOLATILITY	MANAGE AND IMPROVE ESG PERFORMANCE	CAPTURE UPSIDE OPPORTUNITY
Restriction Screening	✓	✓	
ESG Integration	✓	✓	✓
Thematic Exposure		✓	✓
Impact Investing			✓
Shareholder Engagement	✓	✓	✓

4 Approaches to ESG Integration

True Integration
Use ESG as a lens for value

ESG Improvement
Seek companies improving ESG Practices

ESG Leaders
Identify investable universe or tilt towards "best-in-class"

Measuring ESG Risk
Use ESG data to limit investable universe

Source: Morgan Stanley Institute for Sustainable Investing, as of March 31, 2018

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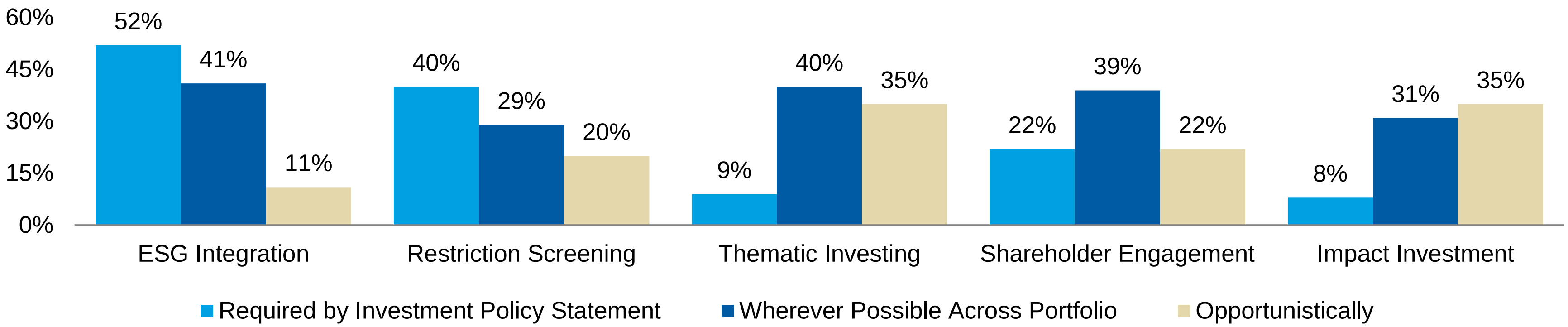
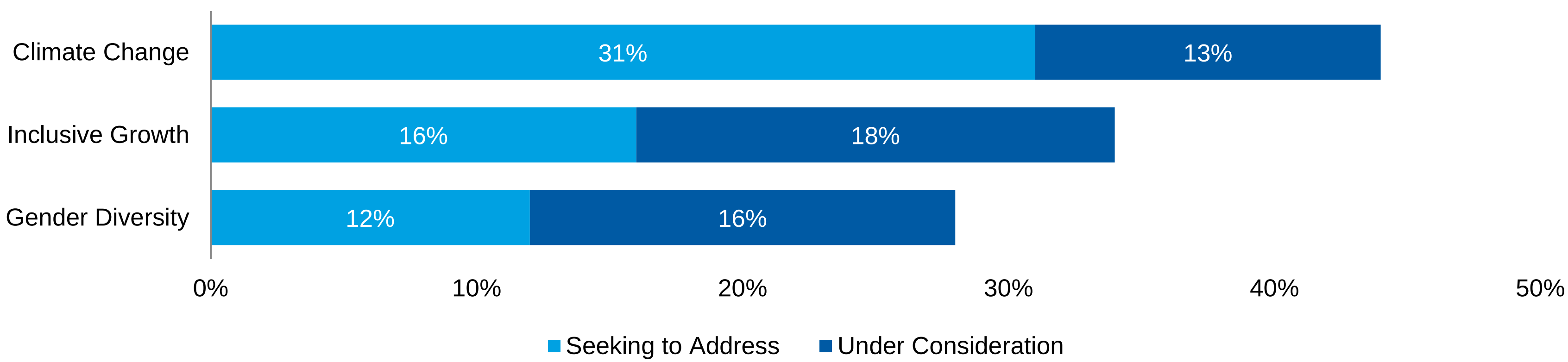
Institutional Investors Employ a Range of Approaches

A Spectrum of Approaches to Sustainable Investing



Climate Change Is a Leading Investment Theme



Source: Morgan Stanley Institute for Sustainable Investing, as of March 31, 2018. "Sustainable Signals: Asset Owners Embrace Sustainability," forthcoming

Approaches to Climate Change Investing

There is No One-size-fits All Approach, But a Tailored Approach Can Help Investors Accomplish Their Unique Goals

Objective

Reduce Climate Risk → Increase Climate Opportunity

Strategies

Fossil Fuel-aware

Eliminate or reduce exposure to companies producing coal, oil and nuclear energy or owning significant fossil fuel reserves

Environmental Leaders

Exposure to all sectors and industry groups including energy, but only in companies that reflect the best environmental practices relative to industry peers

Thematic Opportunities

Focus on investable themes that seek to improve climate change mitigation and / or adaptation solutions

Shareholder Engagement Drive positive environmental change through active dialogue with invested companies

Source: Morgan Stanley (2016), “Climate Change and Fossil Fuel Aware Investing”

Approaches to Investing for Inclusive Growth

Select Investment Opportunities Can Help Address Poverty and Promote Human Rights

INCLUSIVE GROWTH

Broad based economic growth that provides wide opportunity for participation

Productive Employment		Opportunity for Entrepreneurship	
FINANCIAL INCLUSION	INCLUSIVE HEALTHCARE	INCLUSIVE EDUCATION	GENDER INCLUSION

PILLARS OF INCLUSIVE GROWTH

Source: Morgan Stanley Institute for Sustainable Investing, "Inclusive Growth Opportunities Index 2017," 2017

Amplifying Sustainable Investing Activities

Are Key Stakeholders Aware of Strategic Priorities, Targets and Accomplishments?

Potential Key Stakeholders

- **Internal** stakeholders may include:
  - Board and/or Investment Committee
  - Senior management and executives
  - Employees (including investment and public affairs teams)
  - Third-party service providers
- **External** stakeholders may include:
  - Beneficiaries
  - Potential clients
  - General public and community members
  - Partners and peers

Sample Channels of Communication

CHANNEL	INTERNAL	EXTERNAL
Vision Statement	✓ Formalizes objectives	✓ Communicates objectives
Governing Policies and Procedures	✓ Creates clear processes	✓ Promotes accountability
Goals or Targets	✓ Guides investment decision-making; helps track progress	✓ Promotes accountability; demonstrates measureable commitment
KPI Dashboard	✓ Tracks progress of key performance indicators	
Execution Plans	✓ Guides implementation activities	✓ Promotes accountability and market learnings
Sustainability Report/ Webpage		✓ Provides transparency and highlights progress and achievements
Commitments and Affiliations	✓ Promotes knowledge-sharing and alignment with peers	✓ Signals commitment and raises awareness

Source: Morgan Stanley Institute for Sustainable Investing, as of March 31, 2018

Morgan Stanley Institute for Sustainable Investing

Delivering Sustainable Investing Ideas and Solutions to All Morgan Stanley Clients

WEALTH MANAGEMENT	INVESTMENT MANAGEMENT	RESEARCH	GLOBAL CAPITAL MARKETS	SALES & TRADING
Investing with Impact Platform	Custom Portfolio Solutions Public & Private Markets Strategies	Integrating ESG into Stock Valuation Models	Green / Social Bonds Renewable Energy & Clean Tech Finance	Strategic advice and Bespoke Structured Finance

Morgan Stanley Institute for Sustainable Investing

Sustainable Investing

- Fosters innovation by leveraging our experience and market perspective to advance the field of sustainable investing

Thought Leadership

- Produces informative analysis and thought leadership from firm, industry and issue experts to inform and empower investors

Capacity Building

- Trains and develops the next generation of sustainable investing leaders through strategic partnerships and programs

Source: Morgan Stanley Institute for Sustainable Investing, as of March 31, 2018

Disclaimers

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The views and opinions expressed in this material are as of the time of this writing and do not necessarily represent those of Morgan Stanley, its affiliates or its other employees. These views may change without notice in response to changing circumstances and market conditions. Furthermore, this material contains forward-looking statements and there can be no guarantee that they will come to pass. Past performance is not a guarantee of future results.

Although the statements of fact and data in this report have been obtained from, and are based upon, sources that Morgan Stanley believes to be reliable, we do not guarantee their accuracy, and any such information may be incomplete or condensed.

Private Funds (which include hedge funds and private equity funds) often engage in speculative investment techniques and are only suitable for long-term, qualified investors. Investors could lose all or a substantial amount of their investment. They are generally illiquid, not tax-efficient and have higher fees than many traditional investments.

Investing in the market entails the risk of market volatility. The value of all types of investments may increase or decrease over varying time periods. Fixed Income investing entails credit risks and interest rate risks. When interest rates rise, bond prices generally fall.

The returns on a portfolio consisting primarily of sustainable investments may be lower or higher than a portfolio that is more diversified or where decisions are based solely on investment considerations. Because sustainability criteria exclude some investments, investors may not be able to take advantage of the same opportunities or market trends as investors that do not use such criteria.

An investment in an exchange-traded fund involves risks similar to those of investing in a broadly based portfolio of equity securities traded on exchange in the relevant securities market, such as market fluctuations caused by such factors as economic and political developments, changes in interest rates and perceived trends in stock prices. The investment return and principal value of ETF investments will fluctuate so that an investor's ETF shares, if or when sold, may be worth more or less than the original cost.

Investors should carefully consider the investment objectives and risks as well as charges and expenses of a mutual fund / exchange-traded fund before investing. To obtain a prospectus, contact your Financial Advisor or visit the fund company's website. The prospectus contains this and other information about the mutual fund / exchange-traded fund. Read the prospectus carefully before investing.

Callan APFC Performance Review Memo

SUBJECT: Callan Associates, Inc.
APFC Performance Review

ACTION:

DATE: May 23, 2018

INFORMATION: X

BACKGROUND:

Callan Associates, Inc. is currently under contract to perform APFC's core general consulting services of 1) investment policies and procedures review; 2) annual preparation of an asset allocation plan; 3) performance reporting and analysis; 4) risk analysis; 5) statistical modeling, manager searches, selection, and oversight; and 6) other special consulting services as needed.

STATUS:

At every quarterly board meeting or as requested, Callan Associates, Inc. provides an extensive review of the Fund's performance as well as updates on market conditions. President, Gregory Allen, and Senior Vice President, Steve Center, will be the presenters at this meeting.

Callan APFC Performance Presentation

Callan

May 23, 2018

Alaska Permanent Fund Corporation

1st Quarter 2018
Performance Review

Greg Allen
CEO and Chief Research Officer

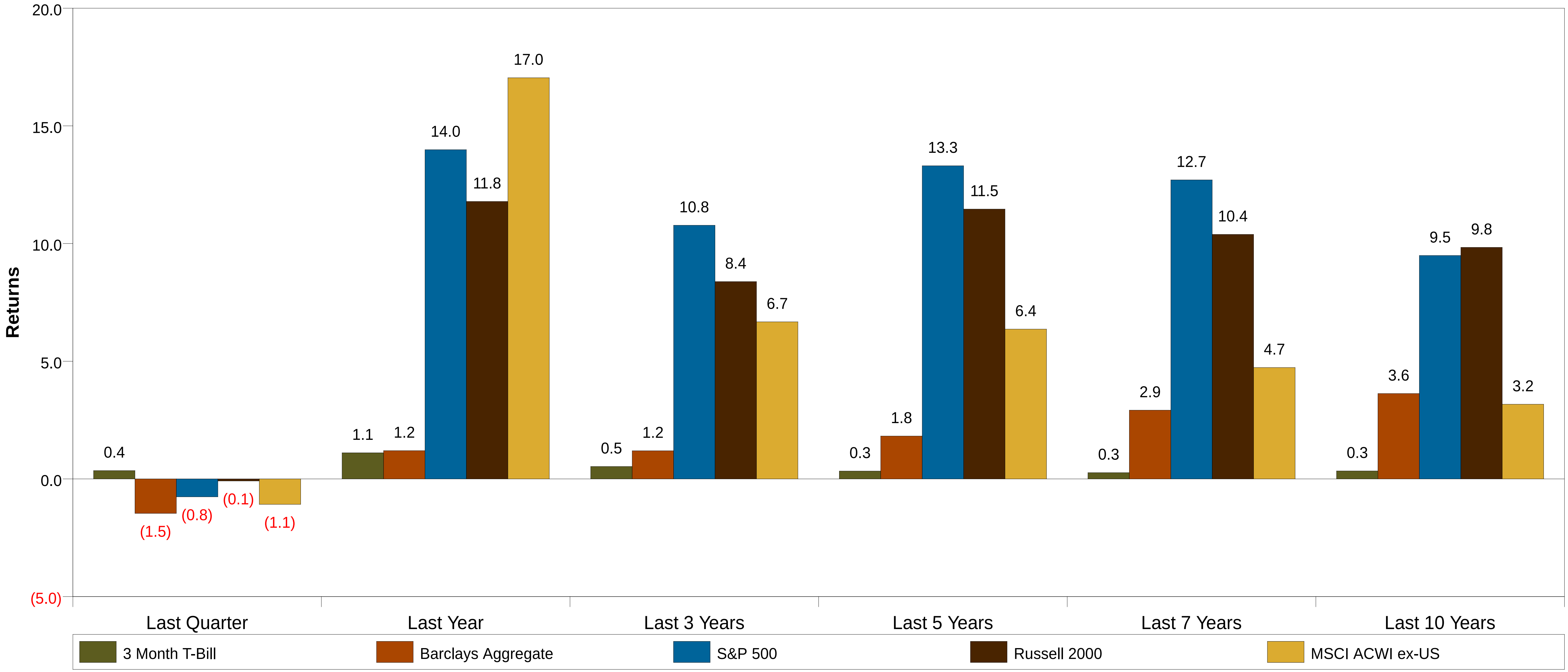
Steven Center, CFA
Senior Vice President

Agenda

- Capital Markets Overview
- Total Fund Asset Allocation and Performance
- Asset Class Structure and Performance

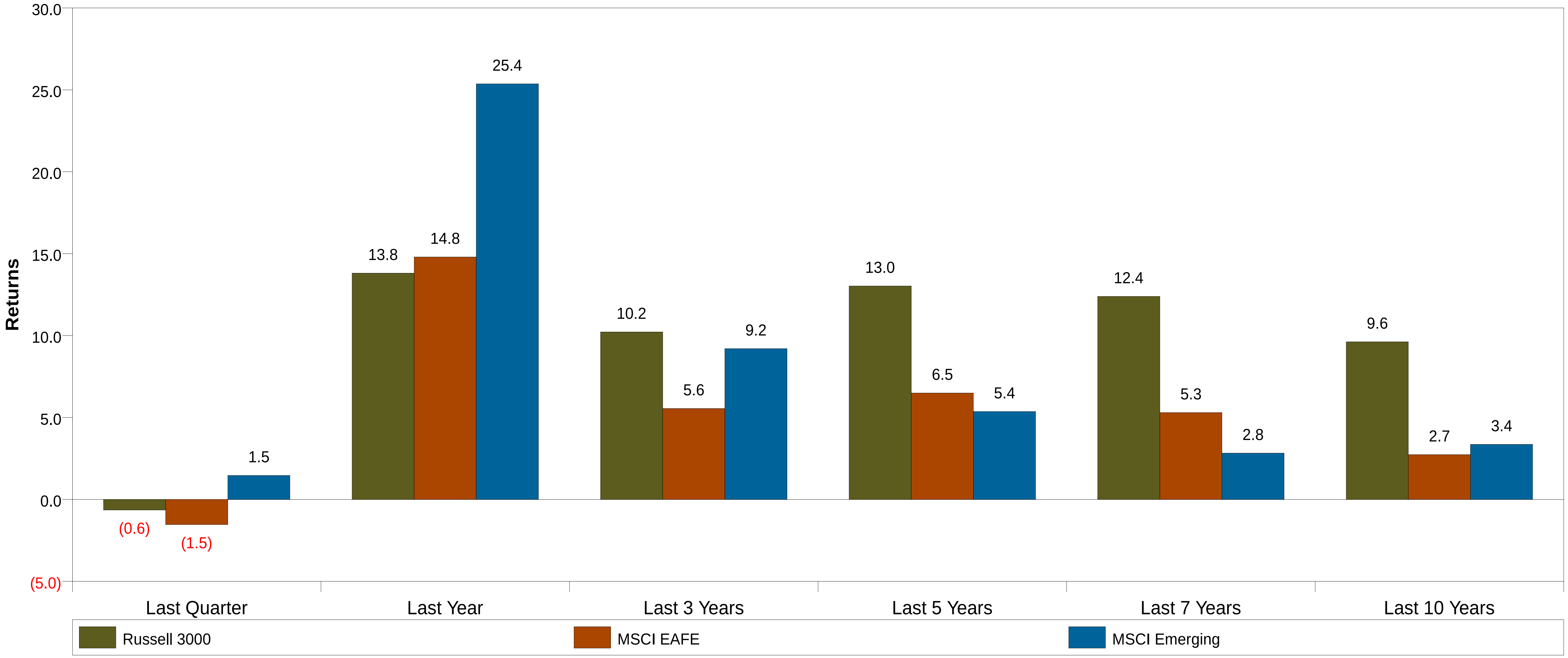
Broad Capital Market Performance

Periods Ended March 31, 2018



Public Equity Capital Market Performance

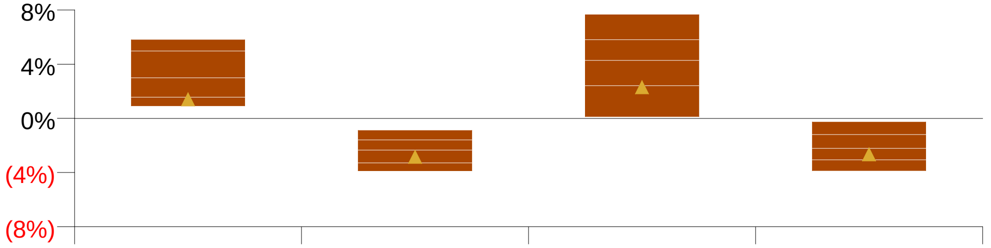
Periods Ended March 31, 2018



U.S. Equity

First Quarter 2018

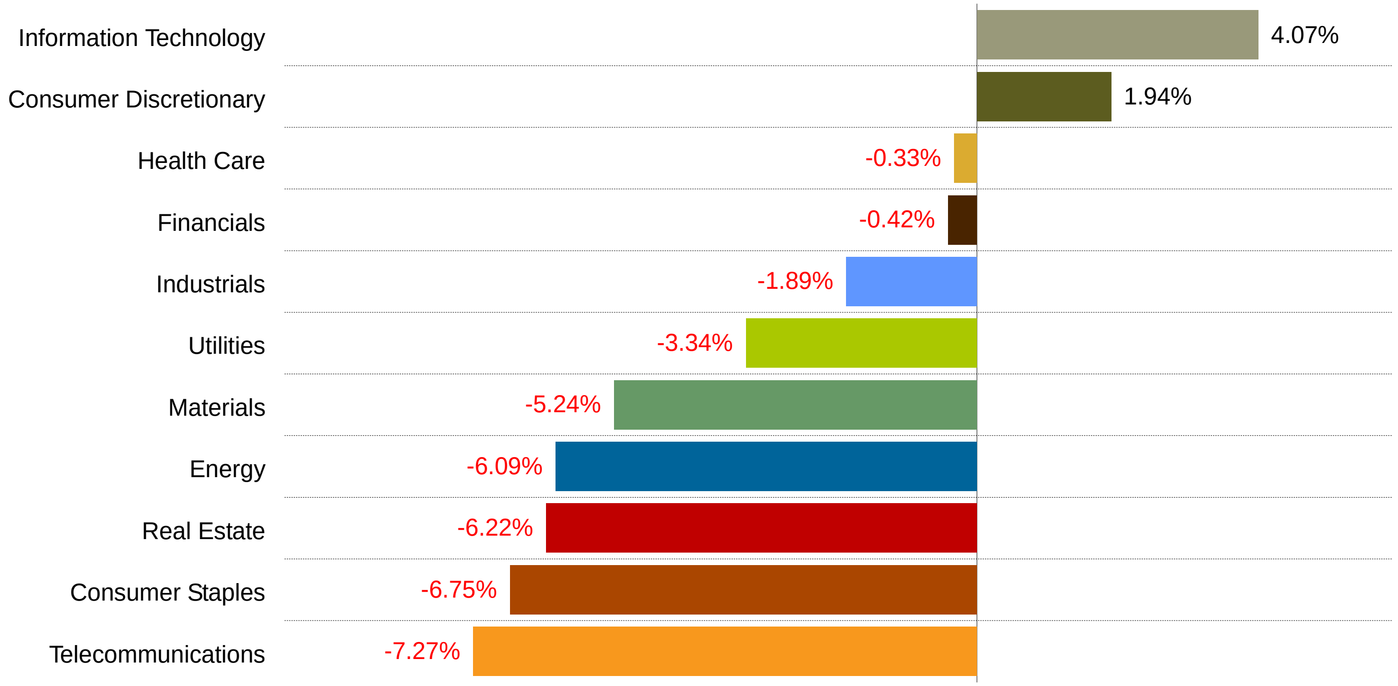
Callan Style Group Quarterly Returns



	Large Cap Growth Style vs. R1000 Growth	Large Cap Value Style vs. R1000 Value	Small Cap Growth Style vs. R2000 Growth	Small Cap Value Style vs. R2000 Value
10th Percentile	5.80	-0.89	7.66	-0.27
25th Percentile	4.98	-1.58	5.82	-1.18
Median	3.00	-2.34	4.29	-2.20
75th Percentile	1.57	-3.29	2.43	-3.06
90th Percentile	0.93	-3.87	0.13	-3.84
Benchmark ▲	1.42	-2.83	2.30	-2.64

Sources: Callan, Russell Investment Group

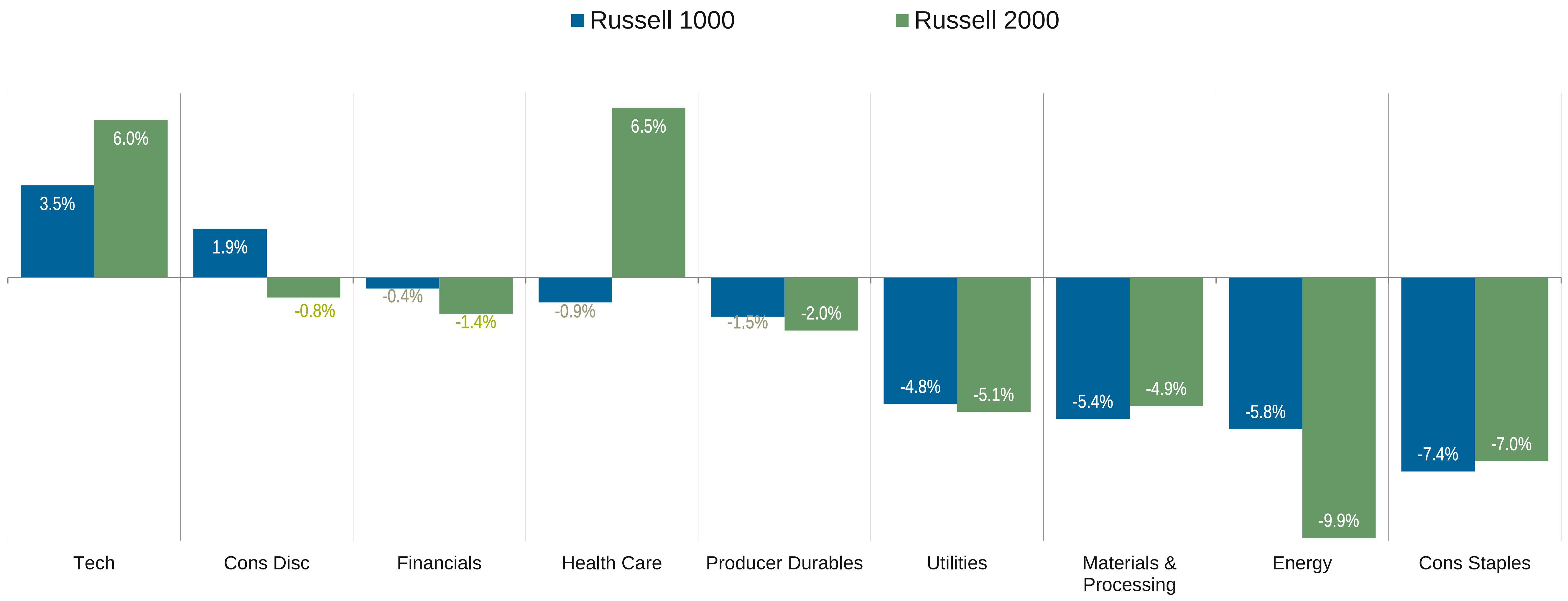
Economic Sector Quarterly Returns (Russell 3000)



- Volatility returned in 1Q18, with the Russell 3000 (-0.6%) losing ground — a first since 3Q15. After starting strong on the back of solid earnings and tax reform, U.S. equities faltered in the 2nd half over concerns about a more aggressive global trade policy and uncertainty over the pace of interest rate hikes.
- Small Cap (Russell 2000: -0.1%) outperformed Large Cap (Russell 1000: -0.7%) across styles for the quarter. Possible trade war with China weighed on large companies from their higher exposure to international markets.
- Growth, in a repeat of last quarter, outperformed Value across the market cap range (R1G: +1.4% vs R1V: -2.8%; R2G: +2.3% vs R2V: -2.6%). Value trailed as accelerating rates brought down interest rate-sensitive sectors (Financials, Real Estate, & Utilities) and from a prospective rise in inflation.
- Within Russell 3000, Consumer Discretionary & Tech topped performance, supported by Amazon, Netflix & Microsoft. Energy took a hit as Exxon Mobil & Chevron missed 4Q17 earnings expectations. Staples & Telecom were the two worst-performing sectors.

U.S. Equity

Economic Sector Quarterly Performance

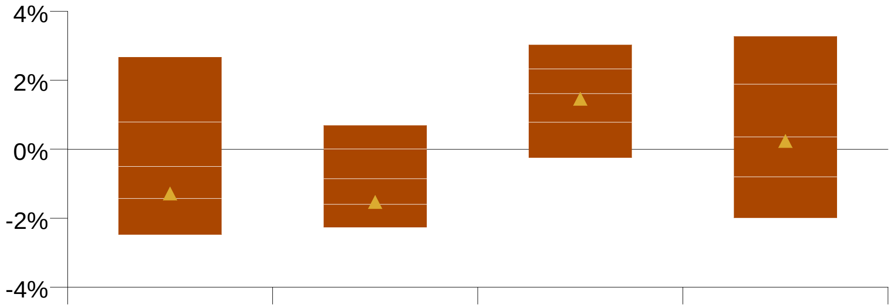


Source: Russell Investment Group

Non-U.S. Equity

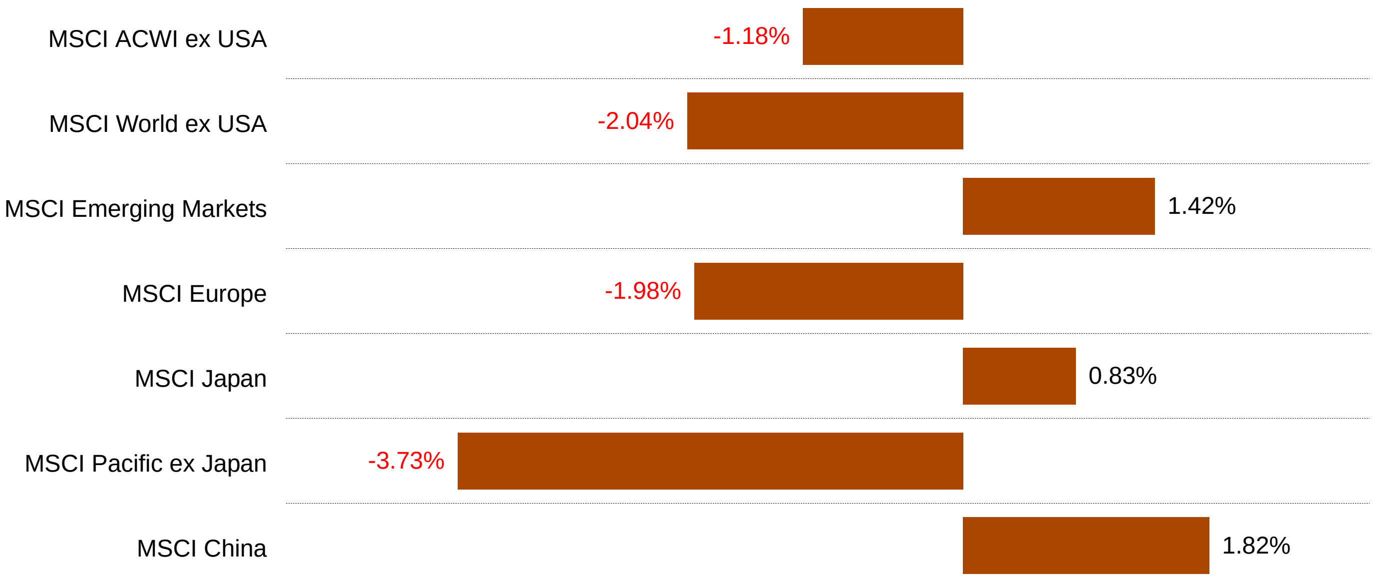
First Quarter 2018

Callan Style Group Quarterly Returns



	Global Equity Style vs MSCI World	Non-U.S. Equity Style vs MSCI EAFE	Emerging Markets Style vs MSCI Emerging Markets	Int Small Cap Style vs MSCI EAFE Small Cap
10th Percentile	2.66	0.69	3.03	3.27
25th Percentile	0.79	0.01	2.33	1.89
Median	-0.50	-0.85	1.62	0.36
75th Percentile	-1.42	-1.59	0.78	-0.80
90th Percentile	-2.47	-2.26	-0.23	-1.98
Benchmark ▲	-1.28	-1.53	1.47	0.24

Regional Quarterly Performance (U.S. Dollar)

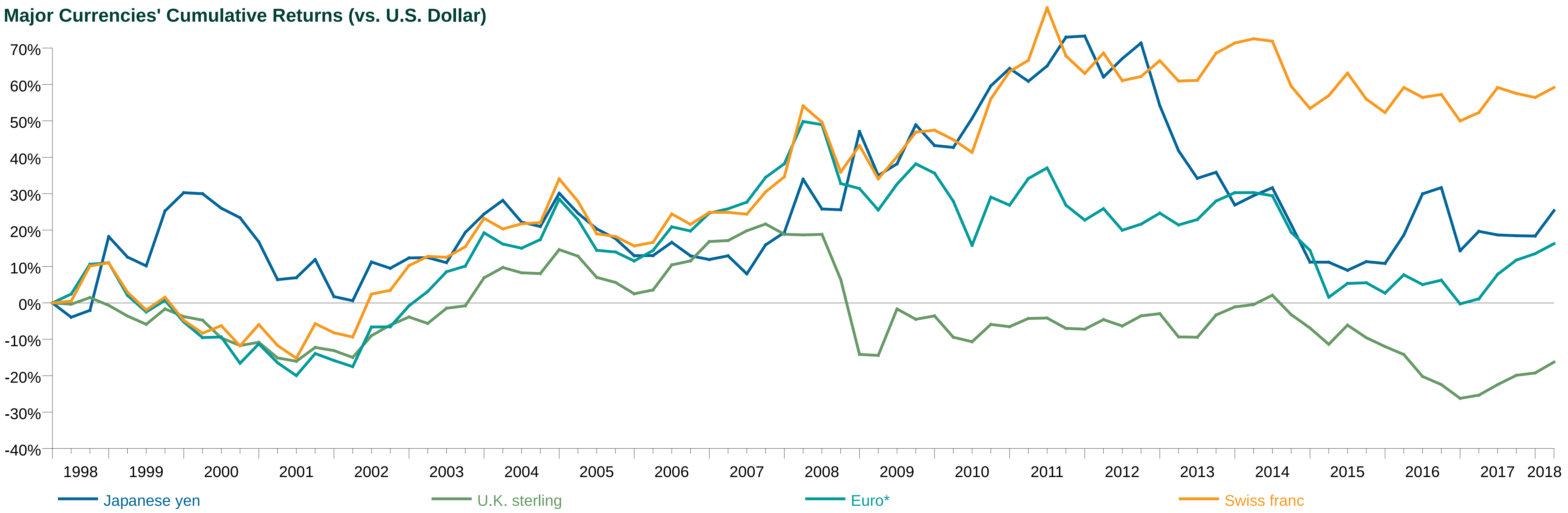


Sources: Callan, MSCI

- Non-U.S. developed equity underperformed U.S. as non-U.S. equity markets were spooked by geopolitical tension and market volatility along with fears of rising U.S. interest rates and inflation - despite positive economic data.
- Most non-U.S. markets posted negative results in local terms, however a weakening U.S. dollar cushioned losses for U.S. based investors. Overall, MSCI ACWI ex U.S. fell 3.1% in local terms, but only lost 1.2% in USD terms.
- Regionally, Japan performed well, as the strength of the yen brought up returns to +0.8%. Emerging Markets (+1.4%) performed best, helped by Brazil and Russia, from climbing oil prices and improving economic conditions. China boosted EM as well, despite U.S.-China trade tension and a slowdown of Chinese Tech companies; China's supply-side reforms are kicking in and economic growth in retail & home sales exceeded expectations.

Non-U.S. Equity

Currencies



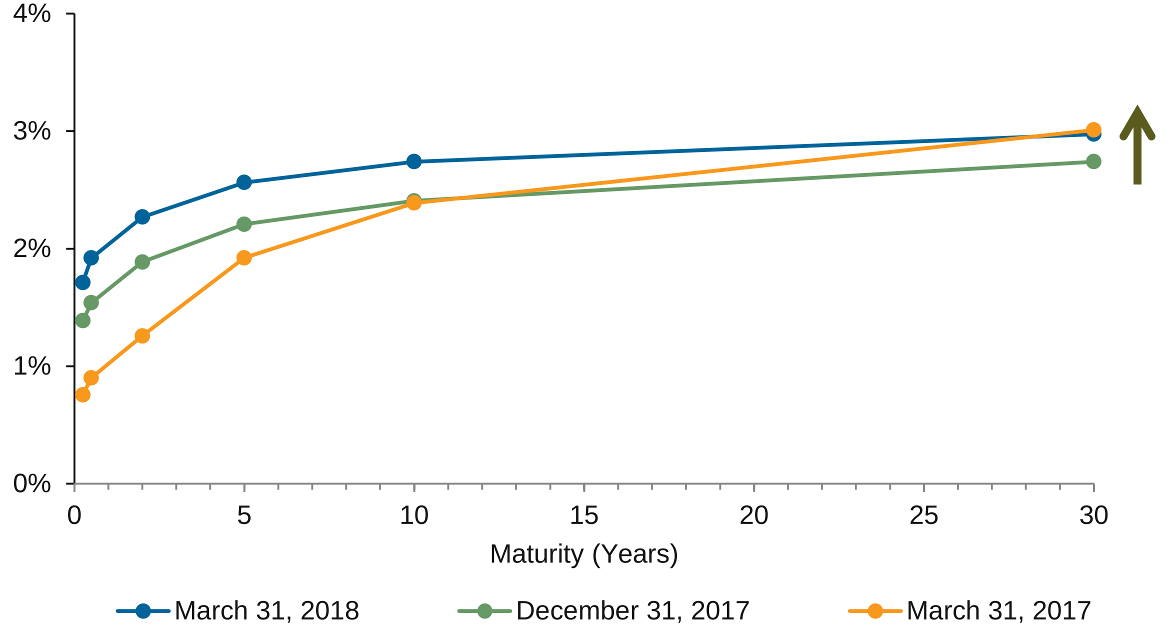
- The U.S. dollar fell against all major currencies, a trend observed over the last 12 months.

* Euro returns from 1Q99. German mark prior to 1Q99. Source: MSCI

Fixed Income

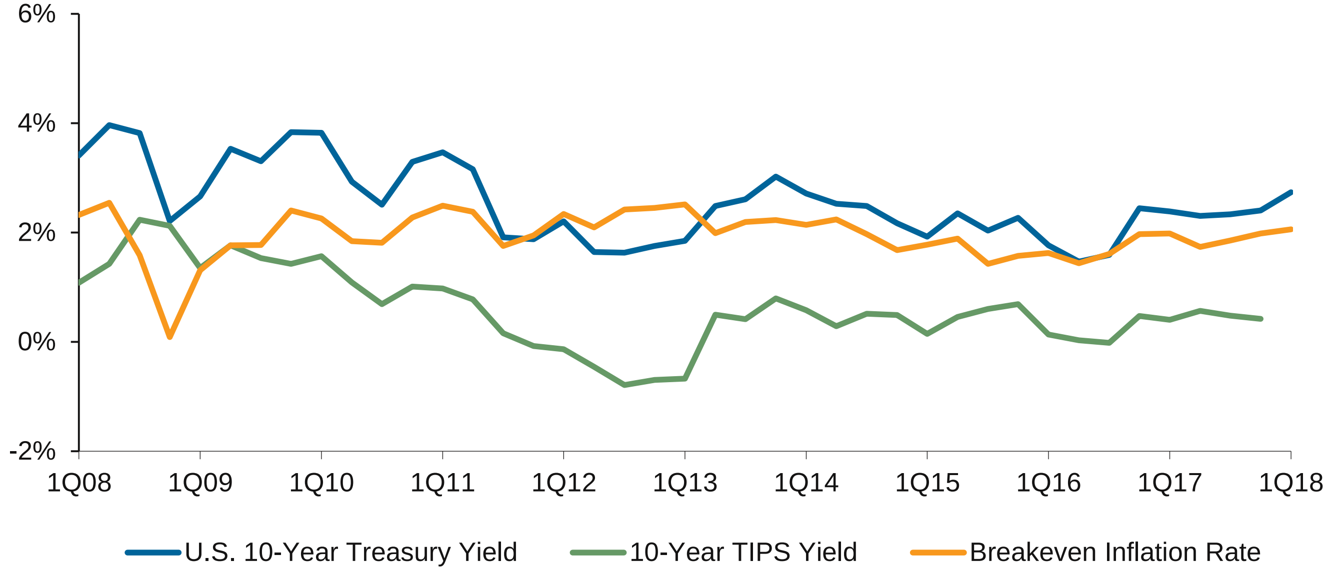
First Quarter 2018

U.S. Treasury Yield Curves



Source: Bloomberg

Historical 10-Year Yields

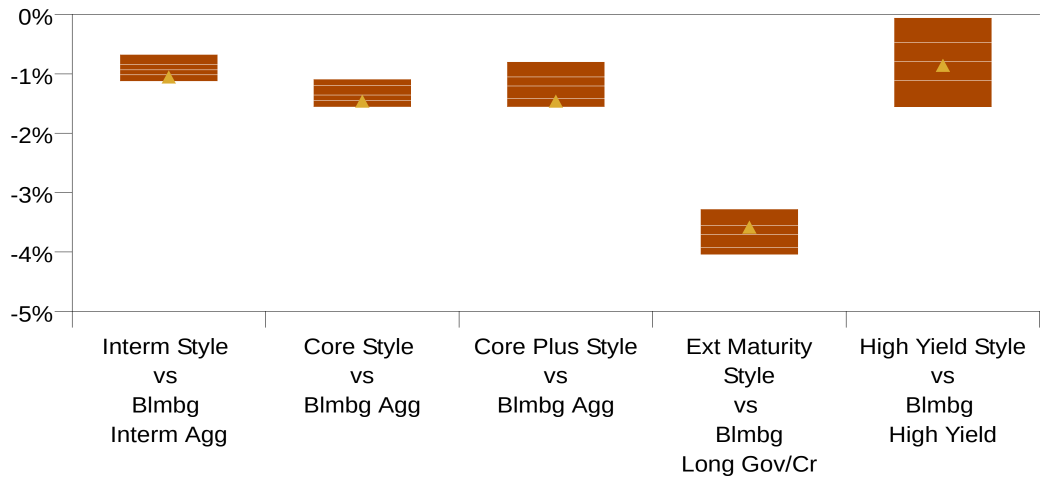


- Going into 2018, U.S. markets continued to rally higher due to solid economic data, the U.S. tax reform, and rising expectations for corporate earnings growth. However, in March, optimism turned to concern over rising wage pressures, policy uncertainty, and escalating U.S.-China trade tensions.
- The new Fed Chair, Jerome Powell, announced his first (widely expected) rate hike in March, raising the Fed Funds rate to 1.50 – 1.75%. Two more rate hikes are projected this year, and three to four more in 2019.
- Interest rates rose about 30 bps across the U.S. Treasury yield curve. On the short end, the two-year U.S. Treasury yields rose nearly 40 bps to their highest level since 2008, closing the quarter at 2.27%. On the long end, the 10-year U.S. Treasury yields steadily rose to a peak of nearly 3%, before closing the quarter at 2.74%, 34 bps higher than at the start of the year.

Fixed Income

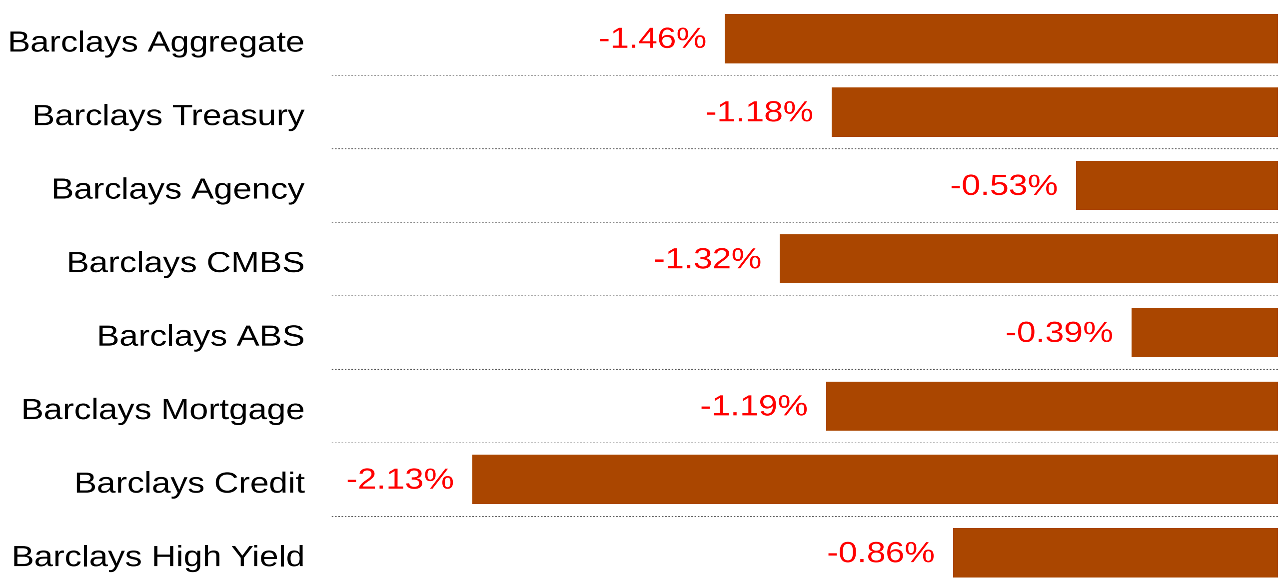
First Quarter 2018

Callan Style Group Quarterly Returns



	Interm Style vs Blmbg Interm Agg	Core Style vs Blmbg Agg	Core Plus Style vs Blmbg Agg	Ext Maturity Style vs Blmbg Long Gov/Cr	High Yield Style vs Blmbg High Yield
10th Percentile	-0.68	-1.10	-0.80	-3.28	-0.06
25th Percentile	-0.84	-1.19	-1.05	-3.56	-0.47
Median	-0.93	-1.36	-1.20	-3.70	-0.79
75th Percentile	-1.01	-1.45	-1.41	-3.92	-1.11
90th Percentile	-1.12	-1.55	-1.55	-4.03	-1.55
Benchmark ▲	-1.05	-1.46	-1.46	-3.58	-0.86

Absolute Returns for Quarter ended March 31, 2018



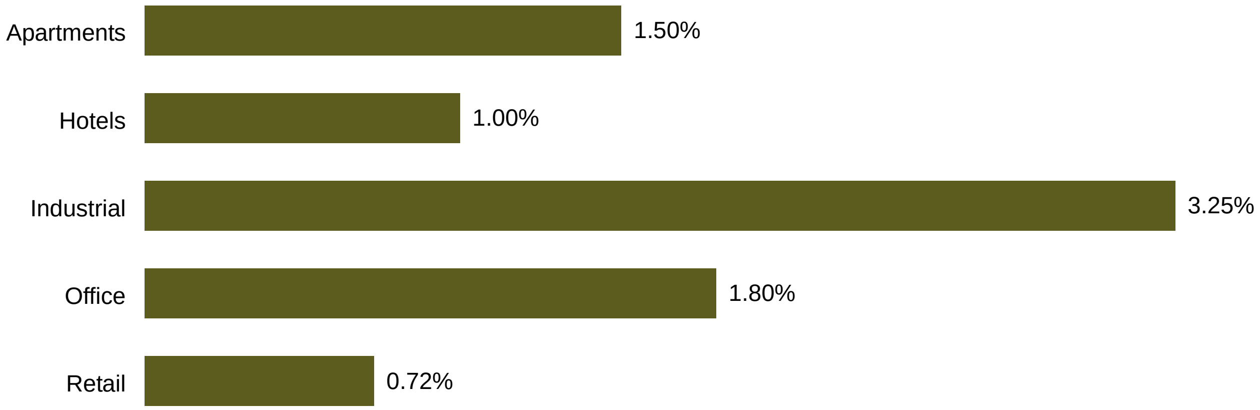
Sources: Bloomberg Barclays, Callan

- Volatility picked up across risk assets as geopolitical uncertainties took center stage; market expectations reflect the possibility of four rate hikes, up from three at the end of 2017. The U.S. bond market, represented by the Bloomberg Barclays U.S. Aggregate Bond Index returned -1.5%.
- Corporate and securitized sectors underperformed Treasuries for the first time in many quarters on the back of corporate risk premia that tightened, then widened, for both investment grade and high yield corporates.
- Investment grade corporates returned -2.1%. Investors were fairly sanguine as they reassessed fairly healthy balance sheets juxtaposed with fair/rich valuations. High yield corporates returned -0.9%. Corporate fundamentals remained healthy as earnings growth supported debt coverage. On a positive note, Bank loans returned +1.4%, benefitted by healthy balance sheets, strong demand for CLO formation, and higher short-term interest rates.

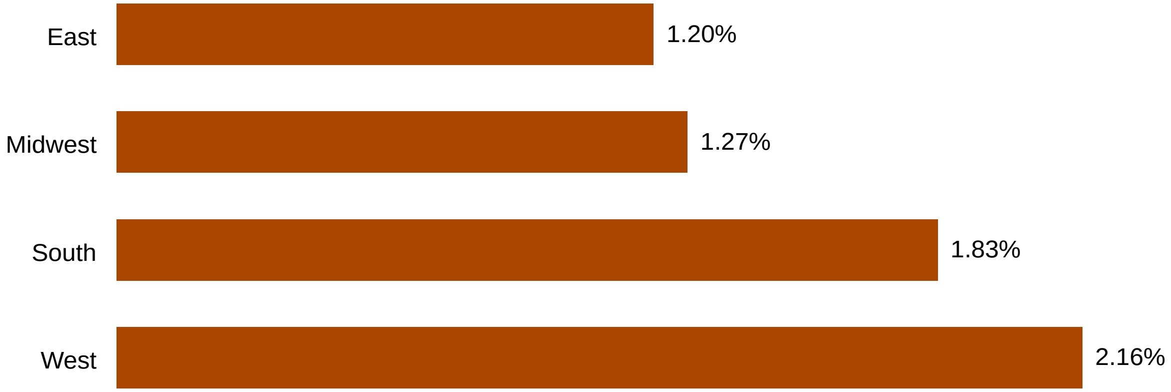
Real Estate

First Quarter 2018

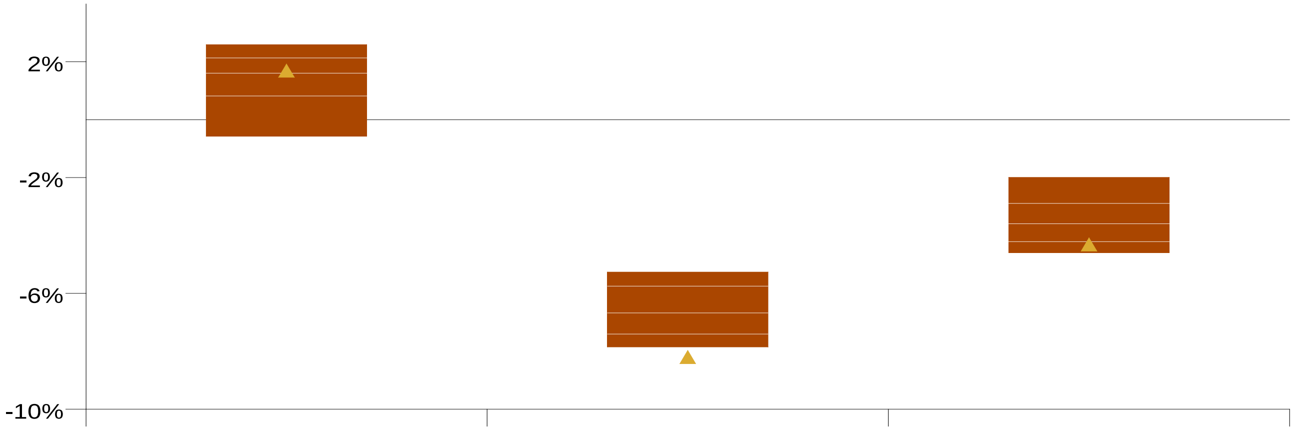
NCREIF All Equity Sector Returns By Property Type



NCREIF All Equity Sector Returns By Region



Callan Style Group Quarterly Returns



	Real Estate Database vs NCREIF Property	REIT Database vs NAREIT Equity	Global REIT Database vs EPRA/NAREIT Developed REITs
10th Percentile	2.60	-5.26	-1.99
25th Percentile	2.14	-5.75	-2.89
Median	1.61	-6.67	-3.59
75th Percentile	0.82	-7.40	-4.21
90th Percentile	-0.57	-7.85	-4.59
Benchmark ▲	1.70	-8.20	-4.30

Sources: Callan, NAREIT, NCREIF, The FTSE Group

- Supply and demand fundamentals are balanced but peaking. Supply is in check and aided by strict commercial real estate lending standards. Demand continues on the back of synchronized domestic growth.
- The NCREIF Property Index advanced 1.7% during the 1st quarter (Income: +1.1%; Appreciation: +0.6%). Global REITs outperformed U.S. REITs, but still lost 4.3%. U.S. REITs ended the quarter with -8.2%.
- The industrial sector is performing the strongest, benefitting as structural shifts in the economy, property markets, and consumer habits continue to dampen demand for traditional retail space. The Western region continues to lead other regions.

Hedge Funds

First Quarter 2018

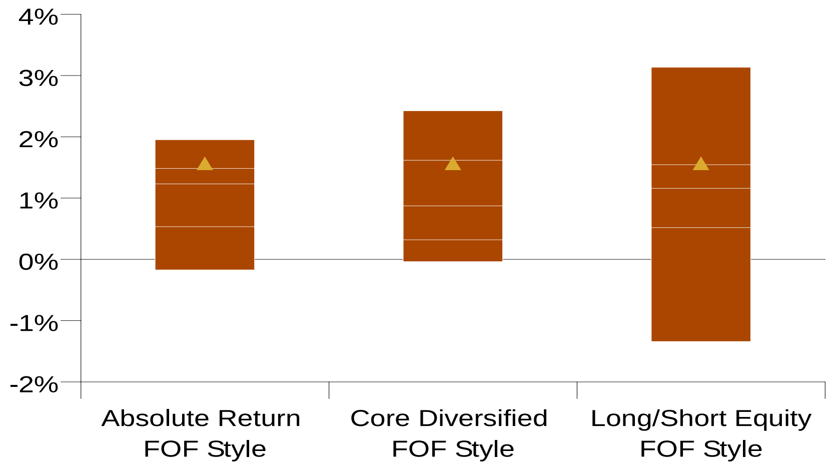
Style Median and Index Returns* for Periods ended March 31, 2018

Diversified Hedge Fund Strategy	Last Quarter	Year to Date	Last Year	Last 3 Years	Last 5 Years	Last 10 Years	Last 15 Years
Hedge Fund-of-Funds Database	1.16	1.16	5.34	2.51	4.28	3.51	5.04
CS Hedge Fund	0.47	0.47	5.43	1.82	3.61	3.49	5.89
Credit Suisse Subindices							
Equity Market Neutral	0.73	0.73	6.96	2.81	2.58	-3.10	0.51
Convertible Arbitrage	0.84	0.84	3.56	4.24	2.93	4.59	4.19
Fixed Income Arbitrage	1.75	1.75	5.93	4.42	3.81	4.60	4.24
Multi-Strategy	1.66	1.66	5.68	4.56	6.15	5.47	6.80
Distressed	0.36	0.36	5.31	2.66	4.21	4.16	7.15
Risk Arbitrage	-0.58	-0.58	3.93	3.57	2.91	2.69	4.35
Event Driven Multi-Strategy	-0.46	-0.46	2.41	-0.85	2.09	3.01	6.10
Long/Short Equity	1.01	1.01	10.73	4.00	6.26	4.54	7.07
Global Macro	0.57	0.57	2.48	0.67	2.33	3.72	7.06
Managed Futures	-3.45	-3.45	0.76	-4.99	0.48	1.04	3.18
Emerging Markets	1.20	1.20	13.43	6.74	5.44	3.96	8.55

*Returns less than one year are not annualized.
Sources: Callan, Credit Suisse Hedge Index

- Despite the quarter's rocky ride for stocks and bonds, hedge fund strategies were mostly positive. As a proxy of unmanaged hedge fund interests without implementation costs, the *Credit Suisse Hedge Fund Index (CS HFI)* grew 0.5%. Representing actual hedge fund-of-fund portfolios, the median manager in the *Callan Hedge Fund-of-Funds Database* gained 1.2%, net of all fees and expenses.
- Within CS HFI, the best-performing strategy was *Long/Short Equity* (+1.0%). Despite the quarter's negative market beta, the strategy provided investors with some positive alpha. *Managed Futures* struggled to add value.
- Market exposures marginally affected performance. The median *Callan Long/Short Equity FOF* matched the *Callan Absolute Return FOF* with 1.2% gains, while the *Core Diversified FOF* returned 0.9%.

Callan Style Group Quarterly Returns



	Absolute Return FOF Style	Core Diversified FOF Style	Long/Short Equity FOF Style
10th Percentile	1.95	2.43	3.13
25th Percentile	1.49	1.62	1.55
Median	1.23	0.87	1.16
75th Percentile	0.53	0.32	0.52
90th Percentile	-0.17	-0.03	-1.34
T-Bills + 5% ▲	1.57	1.57	1.57

Sources: Callan, Merrill Lynch

Private Equity

First Quarter 2018

Funds Closed January 1 through March 31, 2018

Strategy	# of Funds	$ Amt (mil)	%
Venture Capital	111	6,034	9%
Acquisition/Buyouts	91	52,481	79%
Private Debt	18	4,133	6%
Secondary and Other	10	2,231	3%
Fund-of-funds	12	1,593	2%
Totals	242	66,472	100%

Source: Private Equity Analyst

Private Equity Performance Database – Pooled Horizon IRRs
Through September 30, 2017 – Returns are net of fees

Strategy	3 Mos	1 Yr	3 Yrs	5 Yrs	10 Yrs	15 yrs	20 Yrs
All Venture	3.5%	8.8%	12.3%	15.5%	9.5%	9.0%	17.9%
Growth Equity	4.9%	15.8%	10.7%	13.2%	10.1%	12.6%	13.1%
All Buyouts	4.6%	19.3%	12.6%	14.4%	8.8%	14.4%	12.5%
Mezzanine	4.2%	13.1%	9.4%	10.1%	9.0%	9.5%	8.6%
Distressed	2.4%	14.9%	9.0%	11.4%	9.1%	11.3%	11.3%
All Private Equity	4.3%	16.2%	11.9%	14.1%	9.1%	12.7%	13.0%
S&P 500	4.5	18.6	10.8	14.2	7.4	10.0	7.0

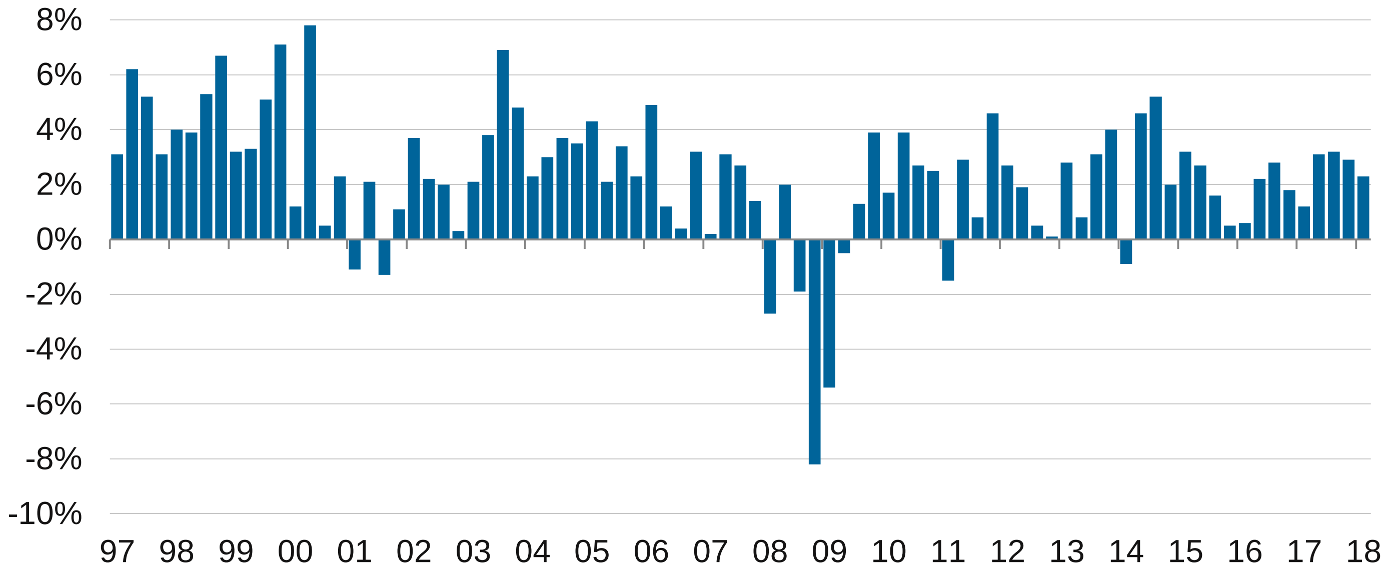
Source: Thomson Reuters/Cambridge

- Investors remain enthusiastic, however rising borrowing costs and the impact of tax reform may curb some of the optimism, on a near-term and long-term basis.
- Fund raising figures indicate that 2018 is off to a slower start than 2017 by about 17%. Oversubscribed funds remain common and vigilance in commitment pacing is recommended during this frothy market.
- Once published, we anticipate returns to be in line with the Russell 3000.
- Valuations remain elevated. Within Buyouts, the median purchase and leverage multiples remained elevated in 1Q18 tracking upwards of 10x and 5x respectively. In VC, the median pre-money valuation continues to increase, only Series D+ fell, showing a 20% decline.
- Exits: Buyouts first quarter M&A exits held steady with last years quarter rates with 164 sales and $28.8 billion in disclosed value. The 11 IPO backed exits raising $3.9 billion was the strongest quarterly rate since 2Q15.
- 1Q18 VC-backed exits were lower than any quarter in 2017, 188 exits and $8.1 billion of disclosed values. The exits were split between 173 M&A exits with $6.0 billion of announced value and 15 IPOs raising $2.1 billion.

U.S. Economy

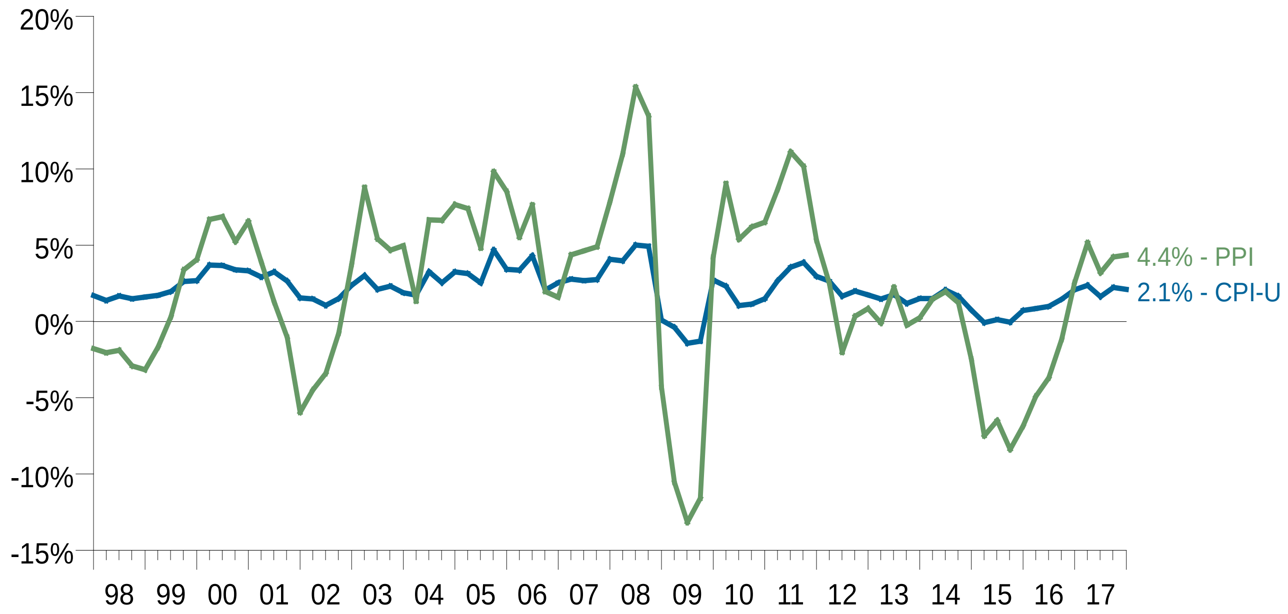
First Quarter 2018

Quarterly Real GDP Growth (20 Years)



Source: Bureau of Economic Analysis

Inflation Year-Over-Year



Source: Bureau of Labor Statistics

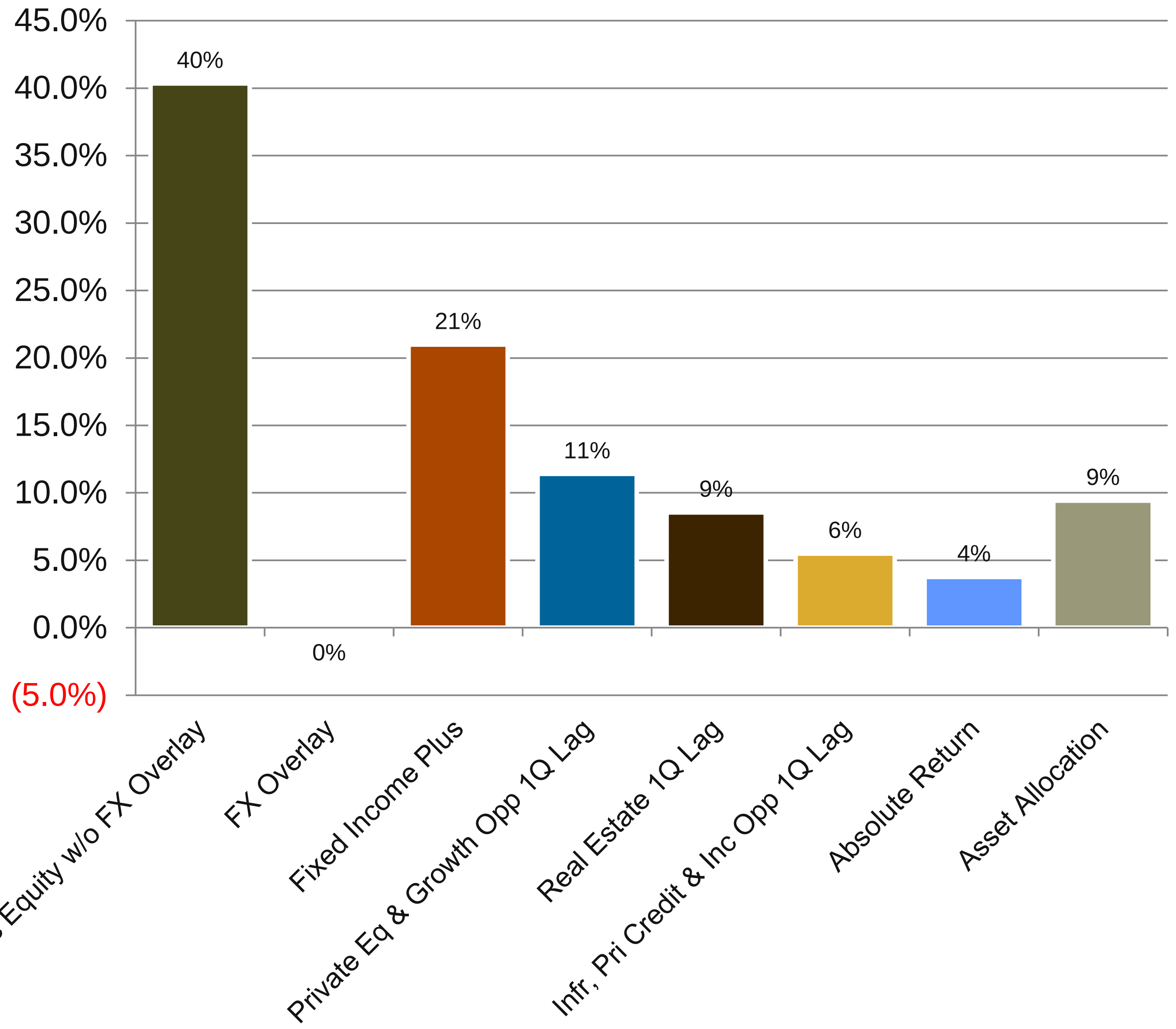
Labor Force Statistics from the Current Population Survey				
2018 (Seasonally Adj.)	**December**	**January**	**February**	**March**
Employment Level (thousands)	154,021	154,430	155,215	155,178
Unemployment Level (thousands)	6,576	6,684	6,706	6,585
Civilian Labor Force Level (thousands)	160,597	161,115	161,921	161,763
Unemployment Rate	4.1%	4.1%	4.1%	4.1%
Labor Force Participation Rate	62.7%	62.7%	63.0%	62.9%

Total Fund
Asset Allocation and Performance

Total Fund Asset Allocation

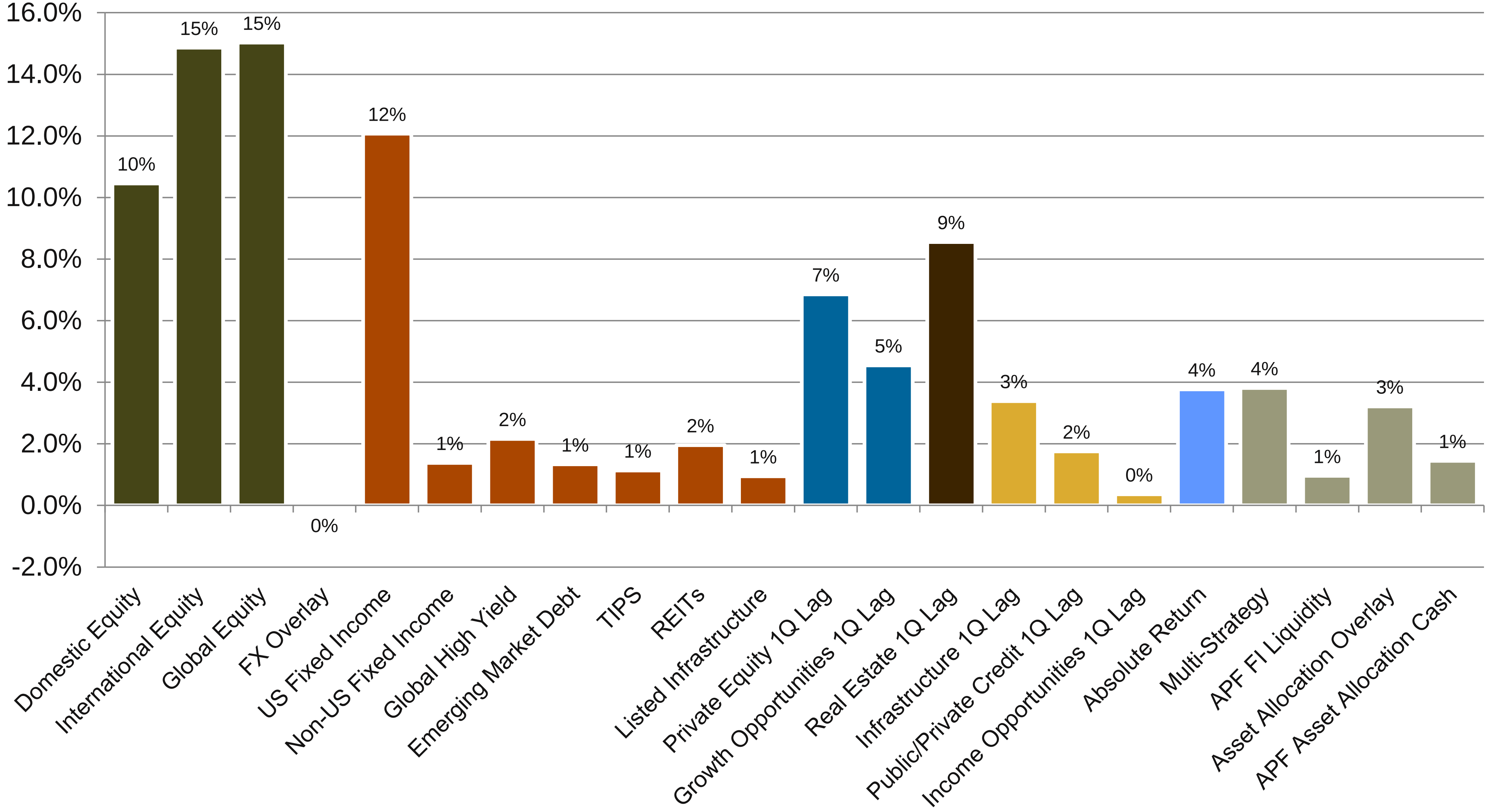
As of March 31, 2018

- APFC portfolio is well diversified across all major asset classes employed by institutional investors.
- Using institutional standard asset class definitions, the portfolio is currently allocated 40% to public equity, 21% to fixed income, and 39% to alternative investments.
- Compared to allocations in the 4th quarter, this reflects a 4% decrease in public equity and a corresponding increase in alternative investments. Fixed income allocation remained unchanged.
- Alternatives include private equity, growth opportunities, real estate, private infrastructure, private credit, income opportunities, absolute return, and asset allocation.
- Private Equity & Growth Opportunities, Real Estate, and Infrastructure/Private Credit/Income Opportunities are now reported on a one-quarter lag.



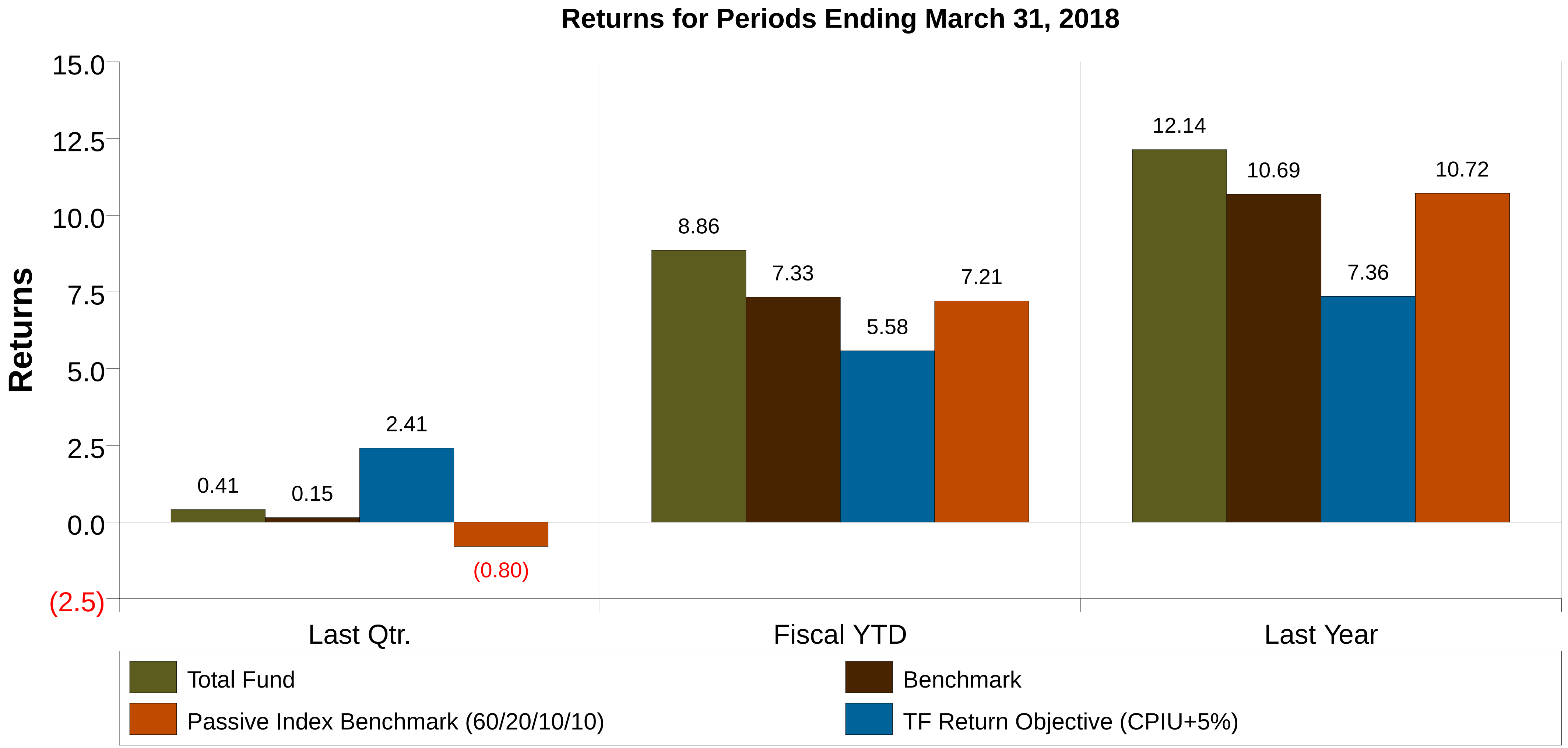
Total Fund Asset Allocation

As of March 31, 2018



APFC Total Fund Cumulative Returns

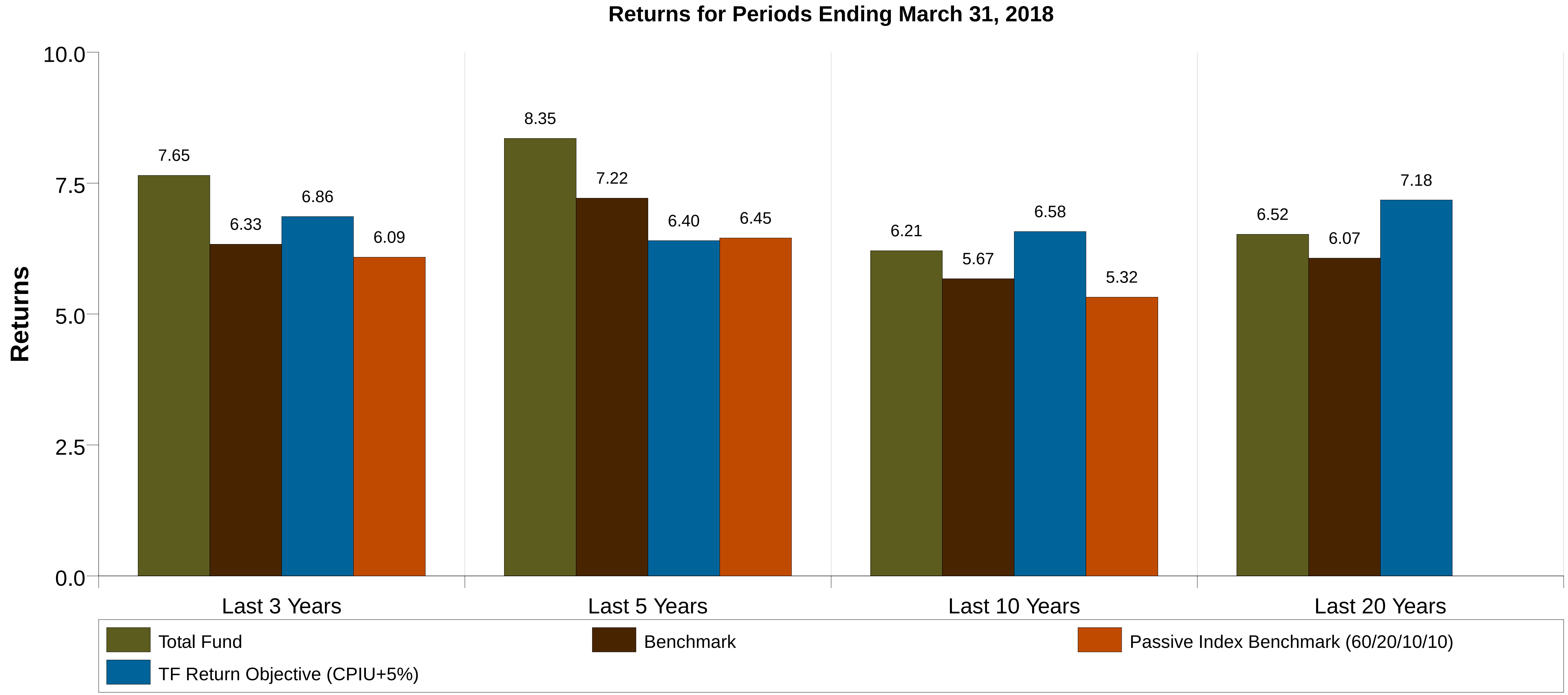
Total Fund versus Total Fund Targets



- Current Total Fund Benchmark = 39% MSCI ACWI IMI, 1.1% 90 Day T-Bills, 1.1% BB US TIPS, 5.5% BB Agg, 5.5% BB Credit, 2.2% BB Global Treasury ex-US Hedged, 1.1% BB EMD Hard Currency Agg, 2.2% BB US High Yield 2% Issuer Cap 2.2% S&P Global REIT, 1.1% S&P Global Listed Infrastructure, 11% Cambridge PE (lagged), 11% NCREIF Total Index (lagged), 3.6% FTSE Developed Core Infrastructure (lagged), 2.4% BB US High Yield 2% Issuer Cap (lagged), 5% HFRI Total HFOF Universe (weighted), 2% 90 Day T-Bills, and 4% Performance Benchmark (rounded to nearest tenth).

APFC Total Fund Cumulative Returns

Total Fund versus Total Fund Targets



- Current Total Fund Benchmark = 39% MSCI ACWI IMI, 1.1% 90 Day T-Bills, 1.1% BB US TIPS, 5.5% BB Agg, 5.5% BB Credit, 2.2% BB Global Treasury ex-US Hedged, 1.1% BB EMD Hard Currency Agg, 2.2% BB US High Yield 2% Issuer Cap 2.2% S&P Global REIT, 1.1% S&P Global Listed Infrastructure, 11% Cambridge PE (lagged), 11% NCREIF Total Index (lagged), 3.6% FTSE Developed Core Infrastructure (lagged), 2.4% BB US High Yield 2% Issuer Cap (lagged), 5% HFRI Total HFOF Universe (weighted), 2% 90 Day T-Bills, and 4% Performance Benchmark (rounded to nearest tenth).

APFC Total Fund Attribution

For One Quarter Ended March 31, 2018

Asset Class	Effective Actual Weight	Effective Target Weight	Actual Return	Target Return	Manager Effect	Asset Allocation	Total Relative Return
Public Equities + FXO	42%	39%	(0.47%)	(0.89%)	0.18%	0.02%	0.20%
Fixed Income Plus	21%	22%	(1.74%)	(1.83%)	0.02%	0.02%	0.04%
Real Estate	9%	11%	1.89%	1.80%	0.01%	(0.04%)	(0.04%)
Priv Credit/Infra/Inc Opp	5%	6%	4.07%	1.39%	0.14%	(0.01%)	0.13%
Absolute Return	4%	5%	0.80%	0.02%	0.03%	0.00%	0.03%
Private Eq & Growth Opp	11%	11%	4.71%	5.11%	(0.04%)	0.01%	(0.03%)
Asset Allocation	8%	6%	(0.81%)	0.23%	(0.08%)	0.02%	(0.06%)
Total			**0.41% =**	**0.15% +**	**0.26% +**	**0.01%**	**0.26%**

- The Total Fund outperformed the Performance Benchmark by 0.3% during the quarter.
- Manager performance within Public Equities and Infrastructure/ Private Credit/ Income Opportunities was beneficial and offset manager performance within Asset Allocation, which detracted slightly.
- In aggregate, active management added 26 basis points to the relative performance, while deviations from the Policy Target were neutral.

APFC Total Fund Attribution

For Fiscal YTD Ended March 31, 2018

Asset Class	Effective Actual Weight	Effective Target Weight	Actual Return	Target Return	Manager Effect	Asset Allocation	Total Relative Return
Public Equities + FXO	44%	39%	11.35%	10.35%	0.42%	0.24%	0.67%
Fixed Income Plus	21%	22%	0.87%	0.45%	0.09%	0.10%	0.20%
Real Estate	9%	11%	5.00%	5.33%	(0.04%)	0.02%	(0.01%)
Priv Credit/Infra/Inc Opp	5%	6%	13.96%	7.36%	0.34%	(0.01%)	0.33%
Absolute Return	4%	5%	5.26%	4.86%	0.02%	0.04%	0.05%
Private Eq & Growth Opp	11%	11%	18.94%	14.84%	0.42%	0.02%	0.44%
Asset Allocation	7%	6%	3.01%	5.17%	(0.16%)	0.01%	(0.15%)
Total			**8.86%** =	**7.33%** +	**1.11%** +	**0.42%**	**1.53%**

- The Total Fund outperformed the Performance Benchmark by 1.5% for Fiscal YTD 2018.
- Manager performance within Public Equity with FX Overlay, Private Equity & Growth Opportunities, and Private Credit/ Infrastructure/ Income Opportunities was beneficial, and offset manager performance within Asset Allocation, which detracted.
- In aggregate, active management added 111 basis points to the relative performance, while deviations from the Policy Target contributed 42 basis points (primarily due to a slight underweight to Fixed Income Plus and an overweight to Public Equities with FX Overlay).

APFC Total Fund Attribution

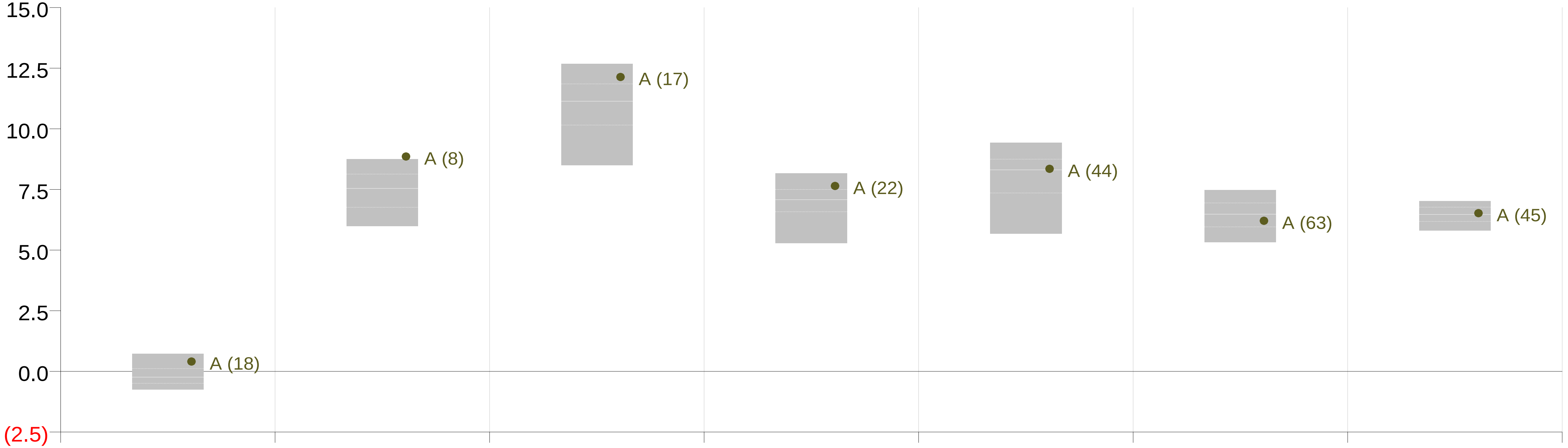
For One Year Ended March 31, 2018

Asset Class	Effective Actual Weight	Effective Target Weight	Actual Return	Target Return	Manager Effect	Asset Allocation	Total Relative Return
Public Equities + FXO	43%	39%	16.24%	15.03%	0.50%	0.26%	0.76%
Fixed Income Plus	20%	22%	2.84%	2.28%	0.12%	0.14%	0.26%
Real Estate	9%	11%	6.82%	6.96%	(0.02%)	0.05%	0.03%
Priv Credit/Infra/Inc Opp	5%	6%	16.93%	12.67%	0.22%	(0.00%)	0.22%
Absolute Return	4%	5%	6.07%	5.94%	0.01%	0.07%	0.07%
Private Eq & Growth Opp	11%	11%	24.38%	19.38%	0.51%	0.02%	0.52%
Asset Allocation	8%	6%	3.16%	7.42%	(0.38%)	(0.03%)	(0.41%)
Total			**12.14%**	**= 10.69%**	**+ 0.96%**	**+ 0.49%**	**1.45%**

- The Total Fund outperformed the Performance Benchmark by 1.5% during the trailing twelve months.
- Manager performance within Public Equity with FX Overlay and Private Equity & Growth Opportunities was beneficial, and offset manager performance within Asset Allocation, which detracted.
- In aggregate, active management added 96 basis points to the relative performance, while deviations from the Policy Target contributed 49 basis points (primarily due to a slight underweight to Fixed Income Plus and an overweight to Public Equities with FX Overlay).

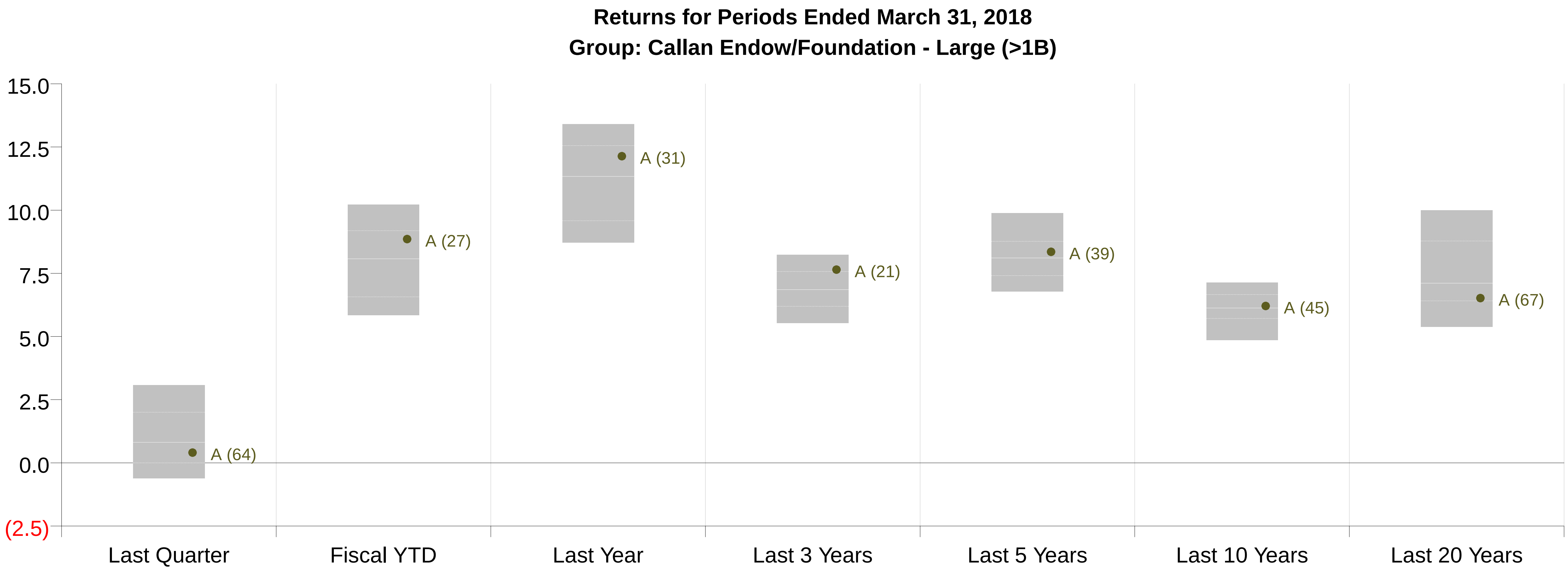
APFC Total Fund Relative to Callan's Large Public Fund Database

Returns for Periods Ended March 31, 2018
Group: Callan Public Fund Sponsor - Large (>1B)



	Last Quarter	Fiscal YTD	Last Year	Last 3 Years	Last 5 Years	Last 10 Years	Last 20 Years
10th Percentile	0.72	8.76	12.69	8.17	9.44	7.47	7.03
25th Percentile	0.12	8.14	11.85	7.50	8.75	6.95	6.77
Median	(0.24)	7.55	11.14	7.08	8.31	6.48	6.47
75th Percentile	(0.49)	6.77	10.16	6.59	7.36	5.96	6.18
90th Percentile	(0.75)	6.00	8.50	5.29	5.68	5.33	5.81
Member Count	76	75	75	75	73	70	56
Total Fund ● A	0.41	8.86	12.14	7.65	8.35	6.21	6.52

APFC Total Fund Relative to Callan's Large Endowment / Foundation Database

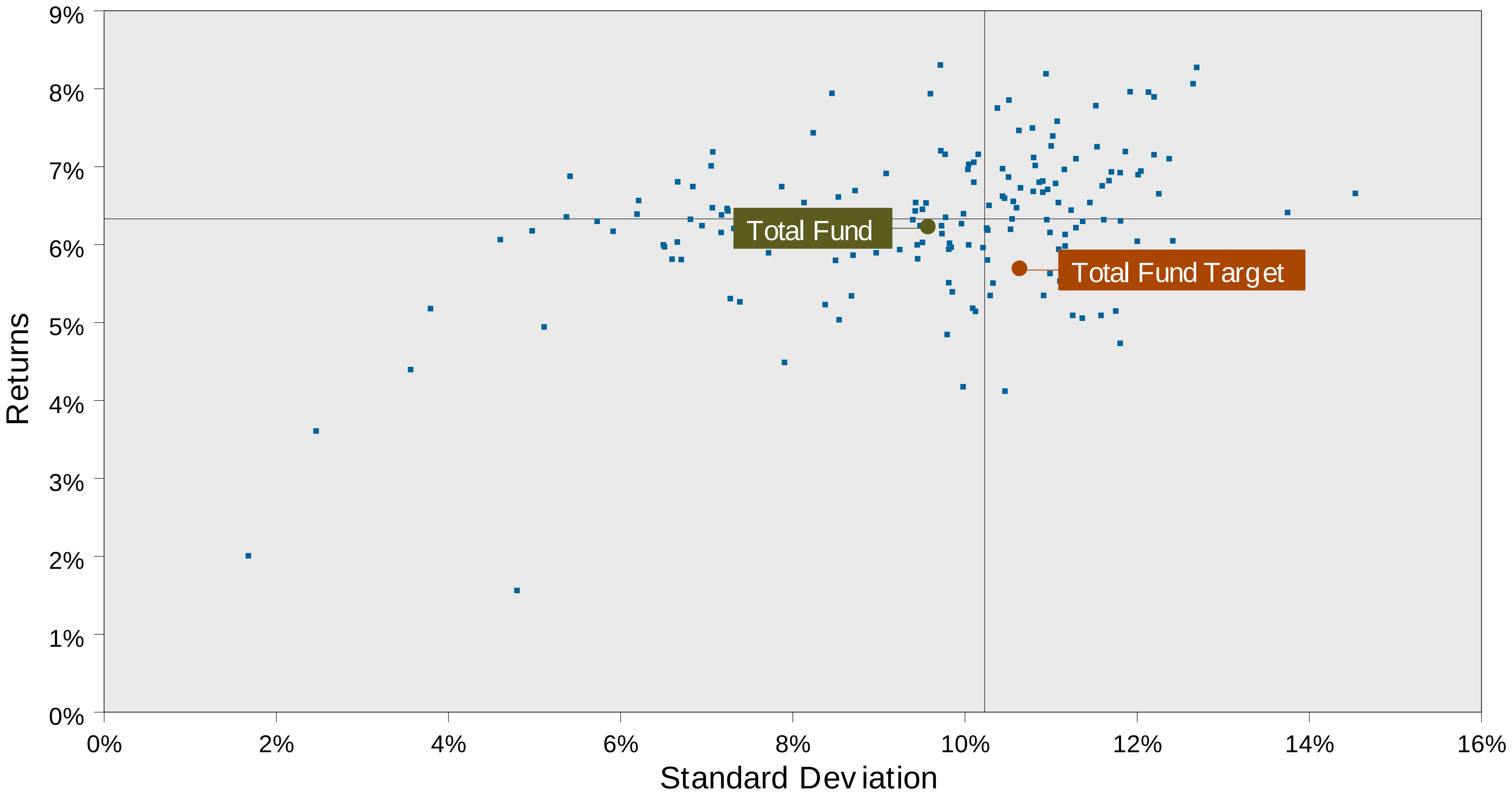


	Last Quarter	Fiscal YTD	Last Year	Last 3 Years	Last 5 Years	Last 10 Years	Last 20 Years
10th Percentile	3.07	10.23	13.41	8.24	9.89	7.15	10.00
25th Percentile	2.00	9.19	12.55	7.57	8.77	6.66	8.78
Median	0.82	8.08	11.34	6.86	8.11	6.13	7.11
75th Percentile	0.00	6.57	9.58	6.20	7.41	5.72	6.42
90th Percentile	(0.62)	5.85	8.72	5.54	6.78	4.86	5.38
Member Count	37	37	37	37	37	36	23
Total Fund ● A	0.41	8.86	12.14	7.65	8.35	6.21	6.52

APFC Total Fund Return versus Standard Deviation

Relative to Callan's Public Fund Database

Ten Year Annualized Risk vs Return

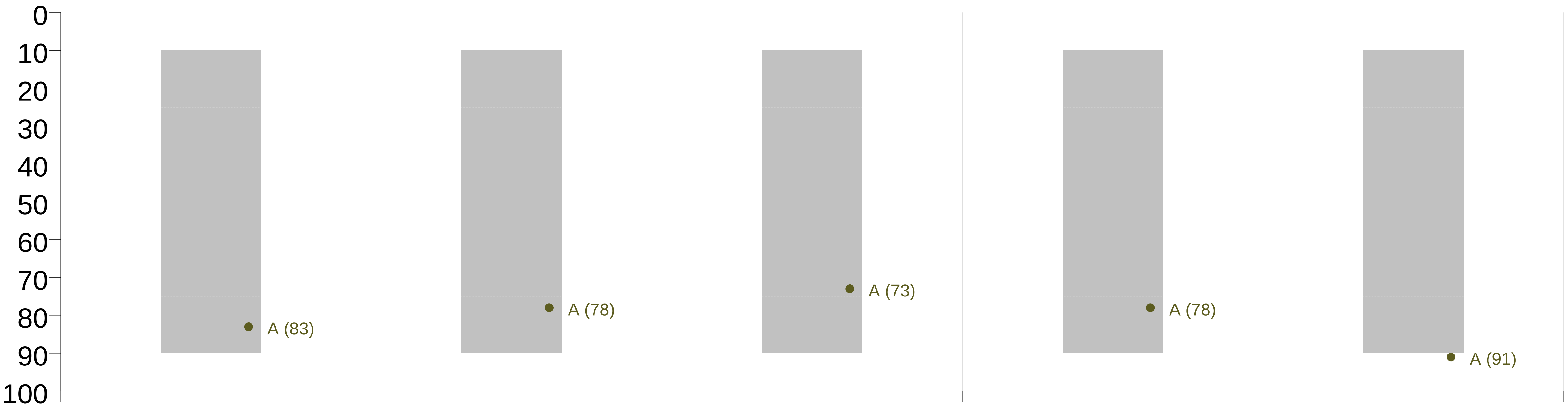


Squares represent membership of the Callan Public Fund Sponsor Database

APFC Total Fund Standard Deviation Relative to Callan's Large Public Fund Database

Standard Deviation for Periods Ended March 31, 2018

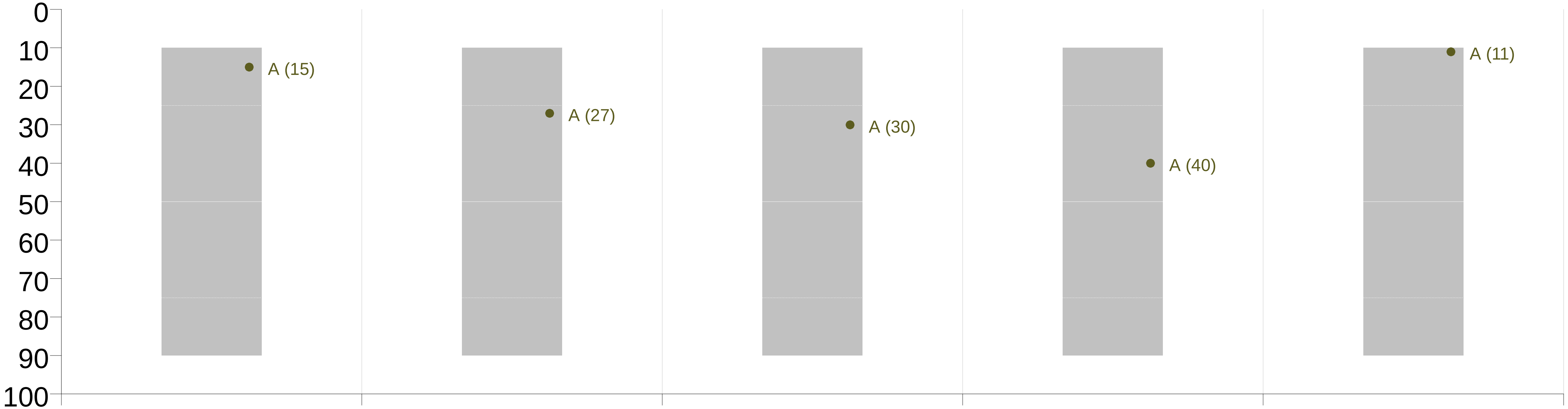
Group: Callan Public Fund Sponsor - Large (>1B)



	Last 3 Years	Last 5 Years	Last 7 Years	Last 10 Years	Last 20 Years
10th Percentile	6.22	5.85	8.41	12.09	11.18
25th Percentile	5.88	5.44	7.51	11.27	10.90
Median	5.31	5.08	6.81	10.63	10.49
75th Percentile	5.03	4.74	6.08	9.69	9.68
90th Percentile	4.26	3.98	5.12	8.25	9.08
Member Count	75	73	70	70	56
Total Fund ● A	4.64	4.63	6.16	9.59	8.99

APFC Total Fund Sharpe Ratio Relative to Callan's Large Public Fund Database

Sharpe Ratio for Periods Ended March 31, 2018
Group: Callan Public Fund Sponsor - Large (>1B)



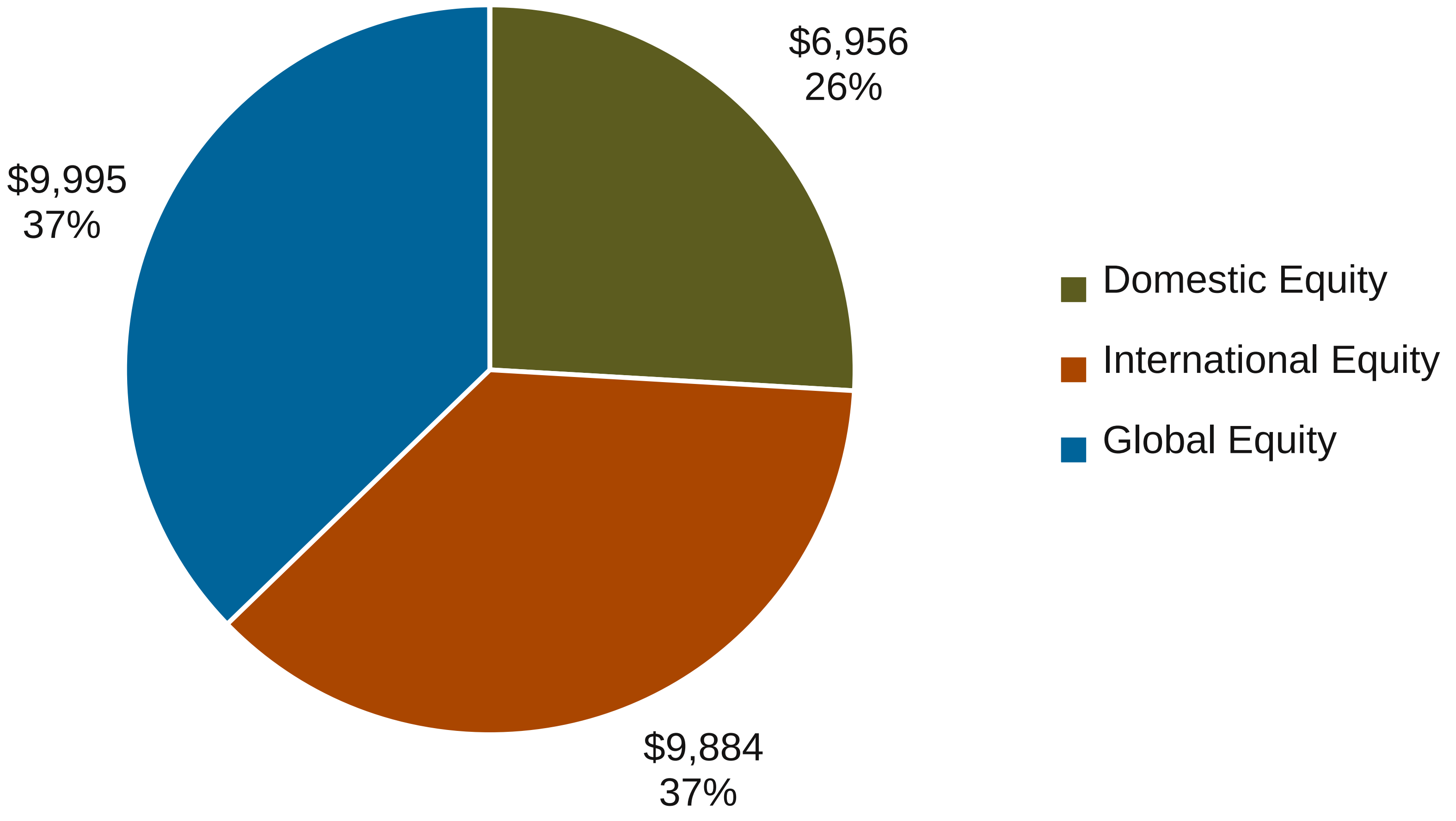
	Last 3 Years	Last 5 Years	Last 7 Years	Last 10 Years	Last 20 Years
10th Percentile	1.61	1.93	1.39	0.75	0.51
25th Percentile	1.36	1.77	1.25	0.64	0.46
Median	1.18	1.55	1.10	0.59	0.43
75th Percentile	1.07	1.33	1.01	0.54	0.41
90th Percentile	0.90	1.11	0.94	0.49	0.38
Member Count	75	73	70	70	56
Total Fund ● A	1.53	1.73	1.23	0.61	0.50

Asset Classes
Structure and Performance

APFC Public Market Equity Structure

As of March 31, 2018

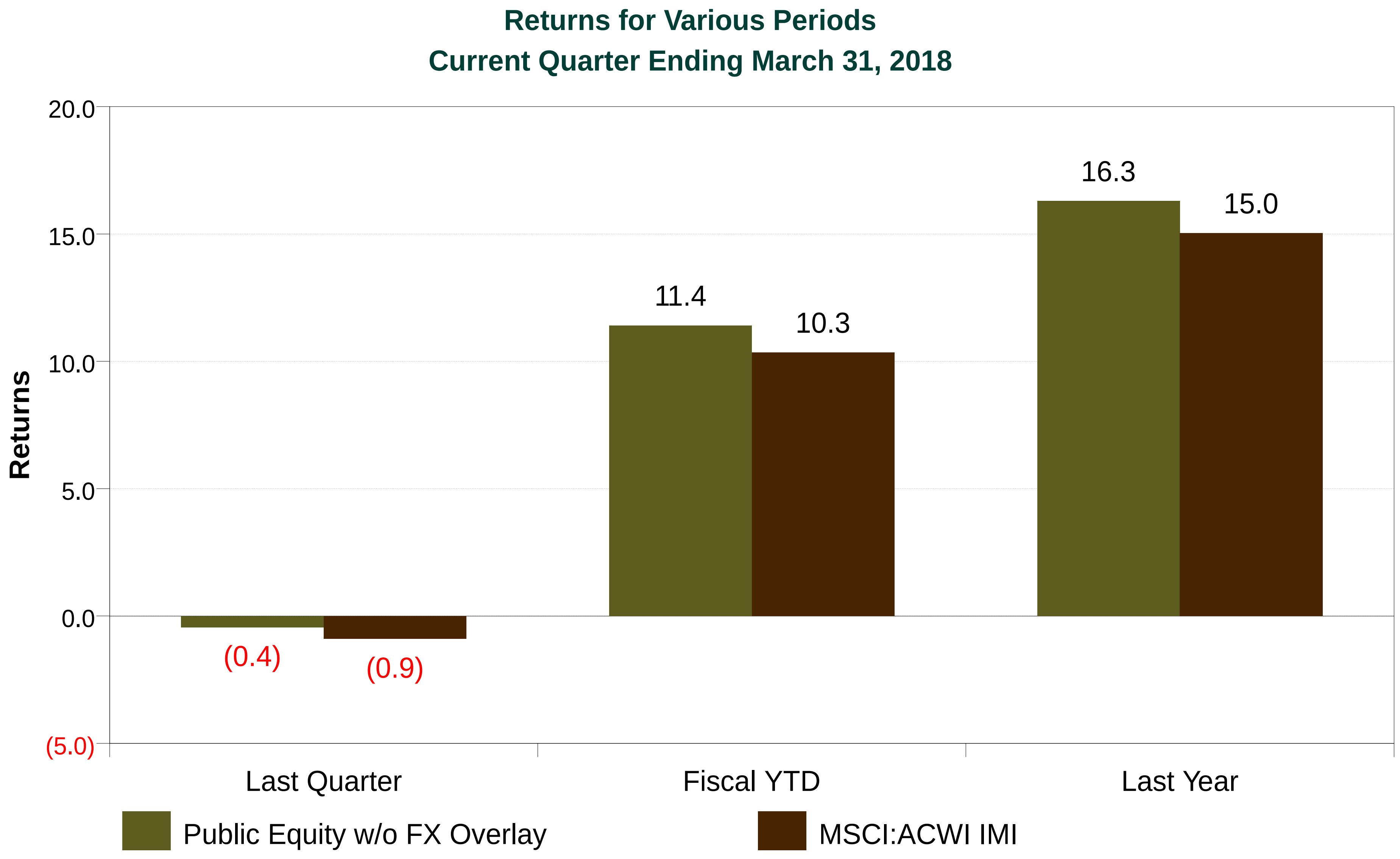
- APFC public equity portfolio has a weighting of roughly 47% in US equity, and 53% in non-US equity.
- The MSCI ACWI IMI benchmark has a weighting of roughly 52% in US equity, and 48% in non-US equity.
- The median allocation to US equity across public equity portfolios in Callan's Large Public Fund Sponsor database is roughly 60%.
- Note that all of the following information does not include the Juno Therapeutics exposure, which resides within the Growth Opportunities allocation.



APFC Public Equities w/o FX Overlay vs. MSCI ACWI-IMI

Periods Ended March 31, 2018

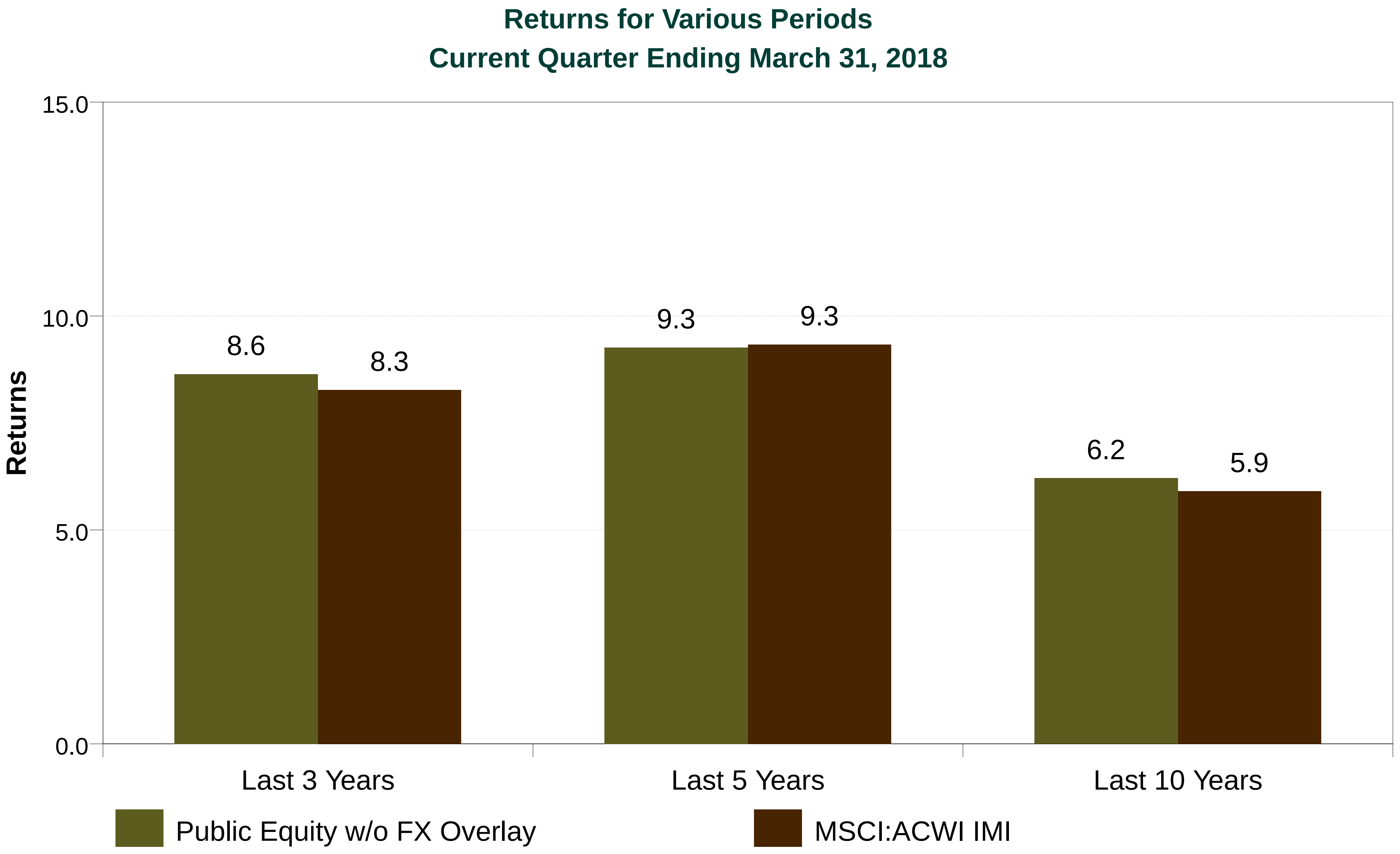
- The Total Public Equity w/o FX Overlay portfolio outperformed the MSCI ACWI IMI index in the first quarter.
- The portfolio is solidly ahead of the benchmark for Fiscal YTD and over the trailing 12 months.
- Much of this outperformance is attributable to the portfolio's overweight exposure to non-US equity, including emerging markets, along with strong relative performance from US managers.



APFC Public Equities Performance vs. MSCI ACWI-IMI

Periods Ended March 31, 2018

- The Total Public Equity w/o FX Overlay portfolio should be expected to track the index over time, which it does, in both the intermediate- and long-term periods shown on the chart.
- Overall, the portfolio is well diversified across regions, countries, and underlying strategies.

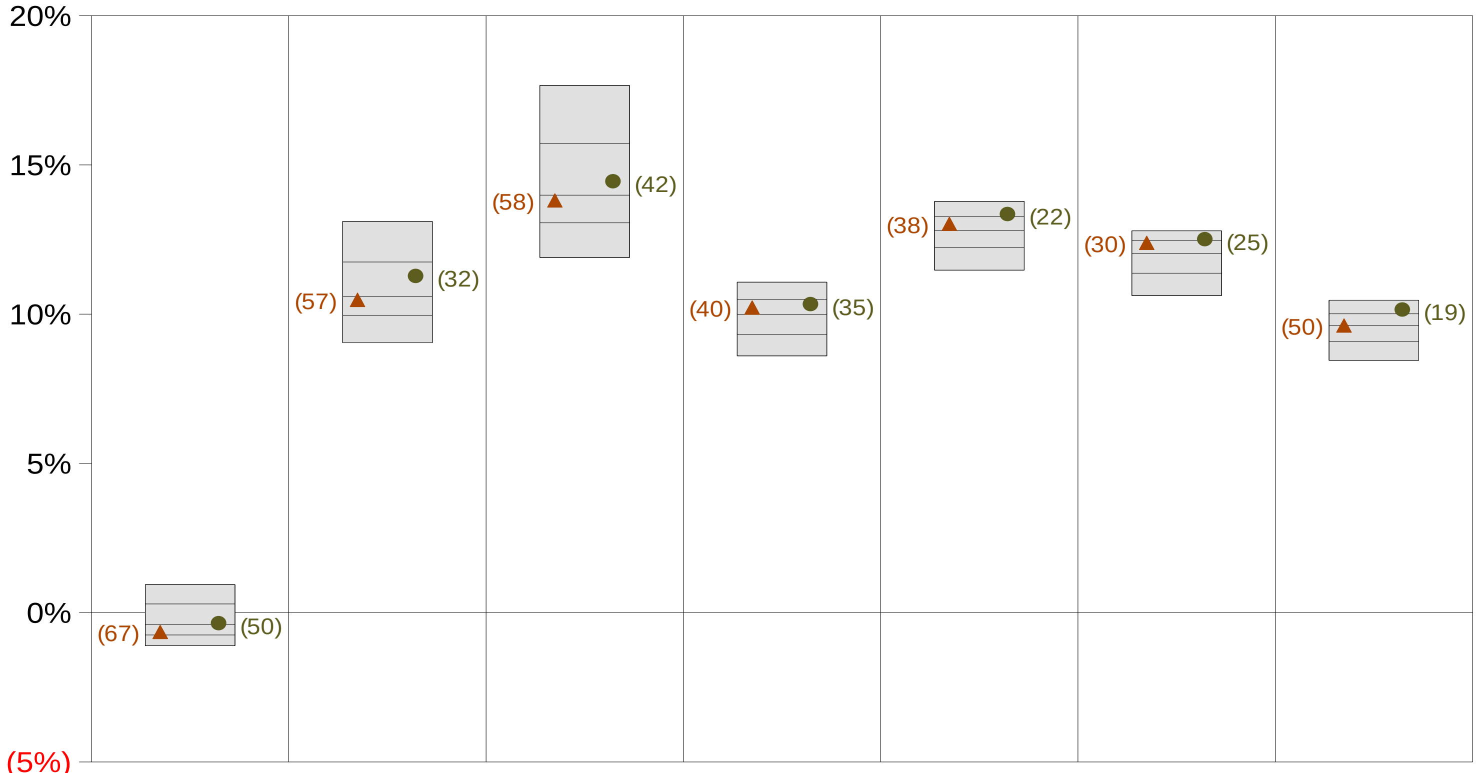


APFC US Equity Performance vs. Fund Sponsor US Equity

Periods Ended March 31, 2018

- Universe is comprised of total domestic equity portfolios of large institutional investors in Callan's Fund Sponsor Database.
- APFC total US equity portfolio ranks favorably against US equity portfolios of other large institutional investors over all time periods shown.
- US equity portfolio returned -0.4% in the 1st quarter of 2018.
- Longer-term performance exceeds the benchmark and ranks above median.

Performance vs Fund Spnsor - Domestic Equity (Gross)



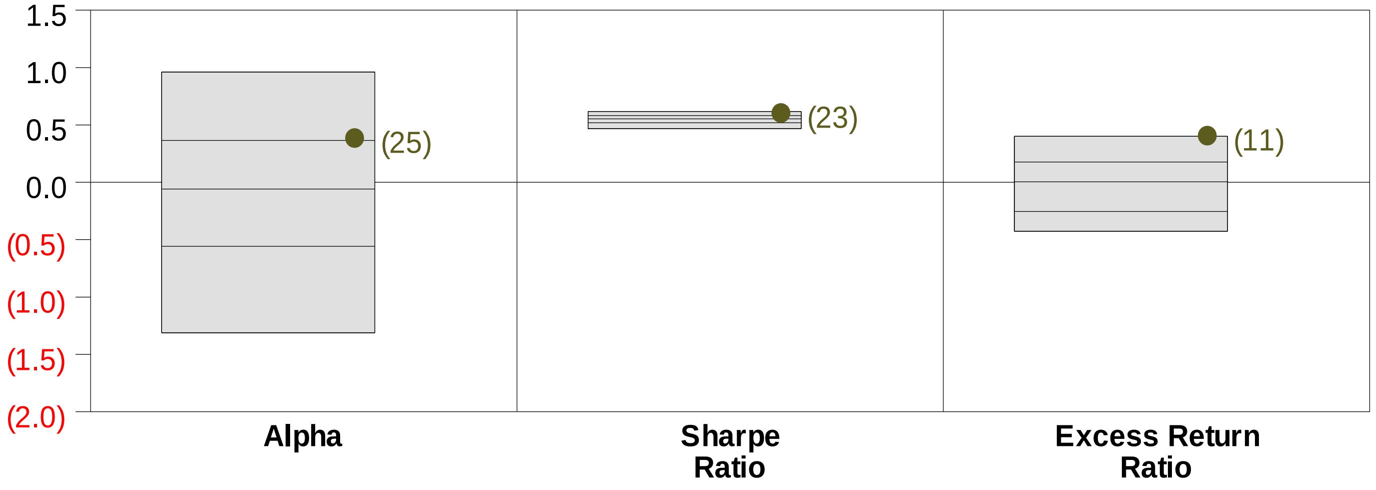
	Last Quarter	Fiscal YTD	Last Year	Last 3 Years	Last 5 Years	Last 7 Years	Last 10 Years
10th Percentile	0.94	13.11	17.66	11.07	13.78	12.80	10.47
25th Percentile	0.29	11.75	15.73	10.50	13.26	12.47	10.01
Median	(0.40)	10.59	13.99	10.00	12.80	12.04	9.63
75th Percentile	(0.75)	9.95	13.06	9.32	12.24	11.37	9.08
90th Percentile	(1.10)	9.04	11.90	8.61	11.47	10.62	8.45
Domestic Equity ●	(0.40)	11.23	14.40	10.28	13.31	12.46	10.11
Russell 3000 Index ▲	(0.64)	10.48	13.81	10.22	13.03	12.39	9.62

APFC US Equity Portfolio Risk Adjusted Return Rankings

Ten Years Ended March 31, 2018

- Universe comprised of total domestic equity portfolios of large institutional investors in Callan's Fund Sponsor Domestic Equity Database.
- For the trailing ten-year period, APFC portfolio ranks in the top quartile for all three risk adjusted return measures.
- Alpha measures contribution to performance – portfolio's return above index adjusted for risk.
- Sharpe Ratio represents return gained per unit of risk taken (return/risk).
- Excess Return Ratio measures alpha (return above benchmark) divided by tracking error (risk versus benchmark).

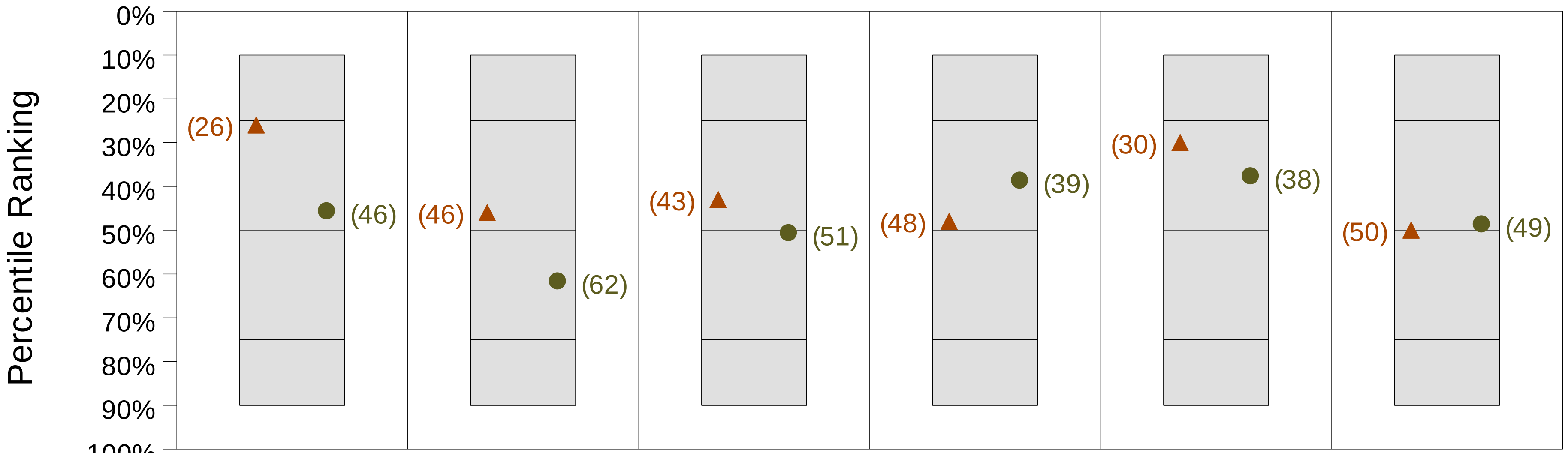
Risk Adjusted Return Measures vs Russell 3000 Index Rankings Against Fund Sponsor Domestic Equity Database



	Alpha	Sharpe Ratio	Excess Return Ratio
10th Percentile	0.96	0.62	0.40
25th Percentile	0.36	0.58	0.18
Median	(0.06)	0.55	0.00
75th Percentile	(0.56)	0.52	(0.25)
90th Percentile	(1.31)	0.47	(0.43)
Domestic Equity ●	0.37	0.58	0.39

APFC US Equity Portfolio Characteristics Rankings

Portfolio Characteristics Percentile Rankings
Rankings Against Total Domestic Equity Database
as of March 31, 2018



	Weighted Median Market Cap	Price/Fore-casted Earnings	Price/Book	Forecasted Earnings Growth	Dividend Yield	MSCI Combined Z-Score
10th Percentile	98.89	25.09	4.87	20.03	2.49	0.88
25th Percentile	64.98	20.35	3.59	17.14	1.94	0.49
Median	14.98	16.81	2.64	14.91	1.43	(0.01)
75th Percentile	3.29	14.99	2.07	12.66	0.92	(0.36)
90th Percentile	1.83	13.69	1.74	10.36	0.55	(0.70)
***Domestic Equity** ●	21.61	15.93	2.62	15.62	1.69	0.00
Russell 3000 Index ▲	64.11	17.23	2.87	14.97	1.85	(0.01)

- US equity portfolio has a small capitalization bias relative to the index, which benefitted performance during the quarter.

Capitalization and Style Allocation: US Equity

As of March 31, 2018

- Highlighted cells indicate largest biases relative to the Russell 3000 index.
- The small-cap overweight helped performance over the most recent quarter.
- Small and mid cap over-weights relative to the index are common in actively managed US equity portfolios.
- Note that until December 31, 2017, Callan’s style metrics excluded the internally-overseen ETF investments. This has been corrected as of 1Q18 and going forward. Stylistically, the US Equity portfolio is now in-line with its benchmark.

Style Exposure Matrix
Holdings as of March 31, 2018

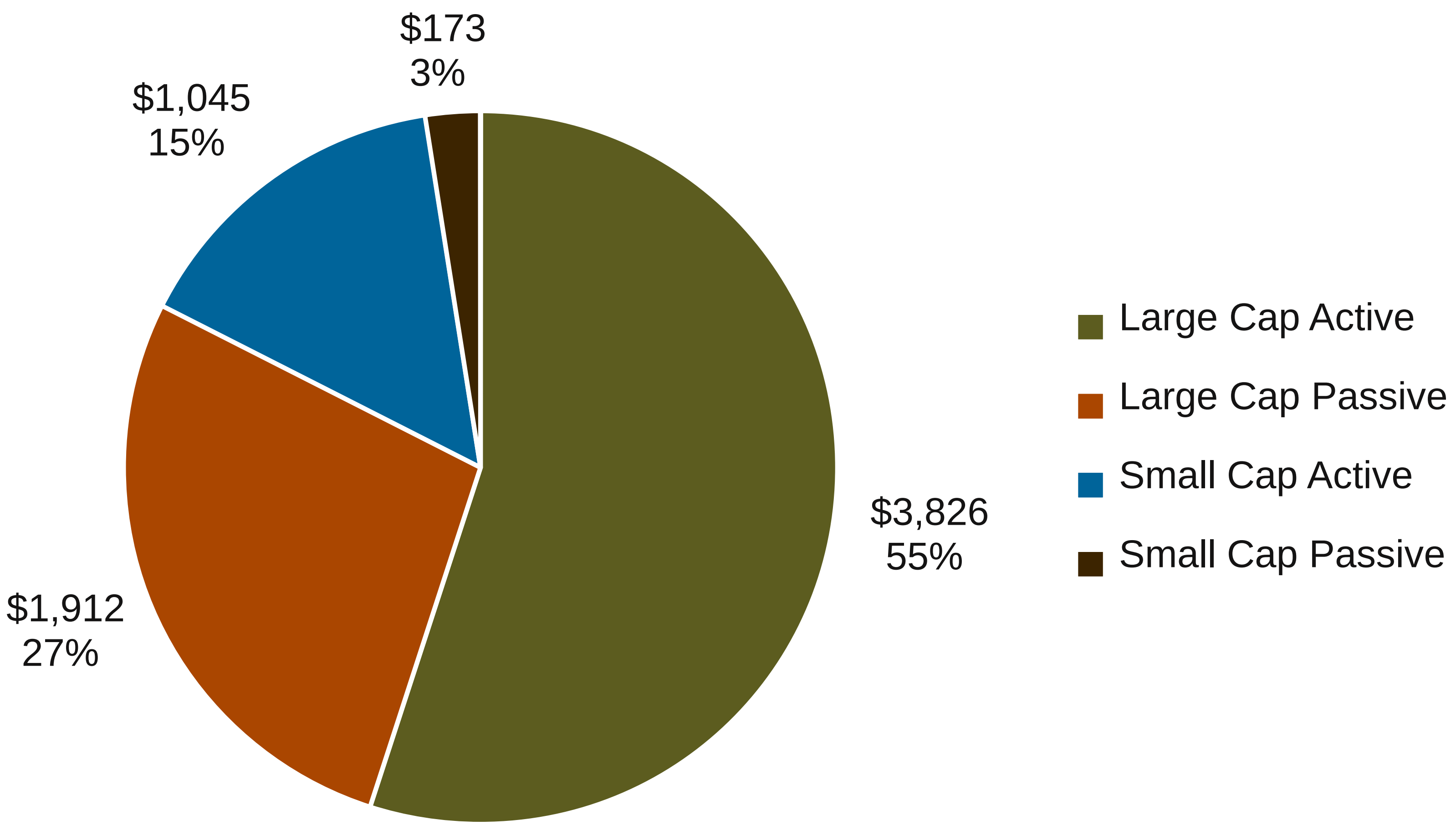
	Value	Core	Growth	Total
Large	19.6% (112) 27.8% (110)	12.5% (94) 19.8% (87)	21.5% (102) 26.9% (96)	**53.7% (308)** **74.5% (293)**
Mid	10.4% (171) 4.9% (168)	12.0% (212) 6.6% (214)	8.9% (195) 6.0% (204)	**31.2% (578)** **17.5% (586)**
Small	3.9% (197) 2.1% (318)	5.9% (229) 2.8% (484)	4.6% (161) 2.3% (371)	**14.5% (587)** **7.1% (1173)**
Micro	0.4% (23) 0.3% (298)	0.2% (23) 0.4% (360)	0.1% (11) 0.2% (222)	**0.7% (57)** **0.9% (880)**
Total	**34.2% (503)** **35.1% (894)**	**30.6% (558)** **29.6% (1145)**	**35.1% (469)** **35.4% (893)**	**100.0% (1530)** **100.0% (2932)**

APFC Portfolio **Russell 3000 Index**

APFC US Equity Structure

As of March 31, 2018

- US equity portfolio is roughly 70% actively managed and 30% passive (or quasi-passive).
- Structure has a slight overweight to small cap with 18% of portfolio allocated to dedicated small cap strategies.
- Roughly 67% of the large cap allocation is actively managed while 83% of the small cap allocation is actively managed.

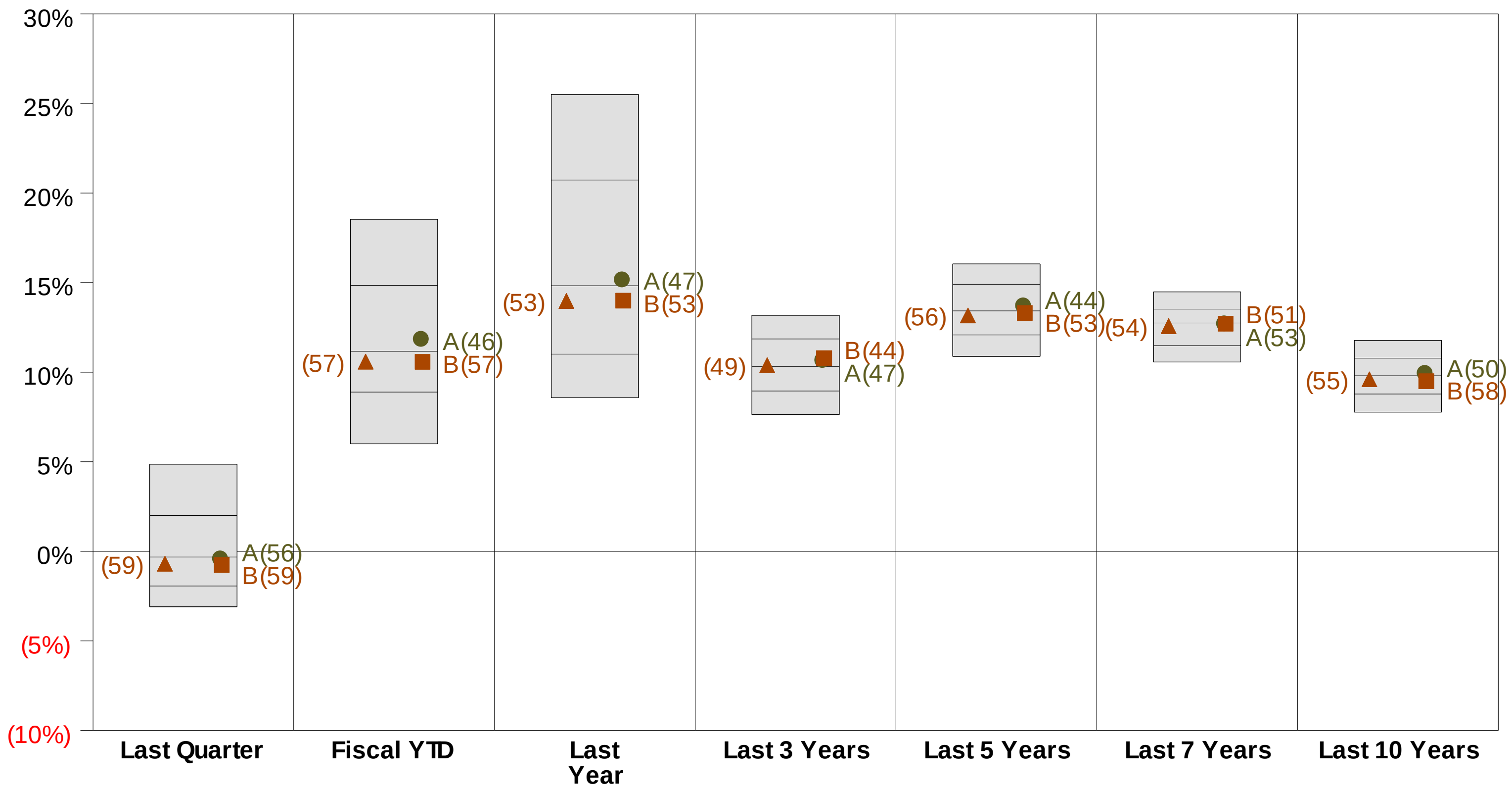


APFC Large Cap Equity Relative to Large Cap Universe

Periods Ended March 31, 2018

- APFC's large cap portfolio ranks around median within the large cap universe over all time periods shown.
- Large cap portfolio is ahead of the benchmark for all time periods measured.
- Large cap portfolio has a small cap size bias relative to the index.
- Large Cap Equity Composite was ahead of the Index in the 1st quarter. Returns were lifted by small cap stocks as they led large cap stocks by about 60 bps during the quarter.

Performance vs Callan Large Capitalization (Gross)



		Last Quarter	Fiscal YTD	Last Year	Last 3 Years	Last 5 Years	Last 7 Years	Last 10 Years
10th Percentile		4.86	18.54	25.50	13.17	16.04	14.49	11.78
25th Percentile		2.00	14.85	20.73	11.86	14.91	13.52	10.79
Median		(0.32)	11.17	14.82	10.32	13.42	12.75	9.80
75th Percentile		(1.94)	8.89	11.01	8.95	12.08	11.48	8.78
90th Percentile		(3.10)	6.00	8.58	7.63	10.89	10.57	7.77
Large Cap Equity Composite	● A	(0.50)	11.76	15.10	10.59	13.63	12.64	9.86
Standard & Poor's 500	■ B	(0.76)	10.58	13.99	10.78	13.31	12.71	9.50
Russell 1000 Index	▲	(0.69)	10.59	13.98	10.39	13.17	12.57	9.61

Capitalization and Style Allocation: Large Cap Equity

As of March 31, 2018

- Highlighted cells indicate largest biases relative to the Russell 1000 index.
- The large cap portfolio has a small cap tilt relative to the benchmark in the dimension of capitalization.
- Note that until December 31, 2017, Callan’s style metrics excluded the internally-overseen ETF investments. This has been corrected for 1Q18 and going forward. Stylistically, the Large Cap Equity portfolio is now in-line with its benchmark.

Style Exposure Matrix
Holdings as of March 31, 2018

	Value	Core	Growth	Total
Large	23.2% (112) 29.6% (109)	14.8% (94) 21.6% (87)	25.5% (102) 29.3% (96)	63.5% (308) 80.5% (292)
Mid	11.1% (170) 5.3% (162)	12.1% (210) 6.9% (198)	7.8% (171) 5.7% (163)	31.1% (551) 17.9% (523)
Small	2.2% (149) 0.7% (70)	2.2% (104) 0.5% (47)	0.9% (44) 0.3% (35)	5.2% (297) 1.6% (152)
Micro	0.1% (10) 0.0% (0)	0.0% (6) 0.0% (0)	0.0% (1) 0.0% (1)	0.1% (17) 0.0% (1)
Total	36.7% (441) 35.7% (341)	29.2% (414) 28.9% (332)	34.2% (318) 35.4% (295)	100.0% (1173) 100.0% (968)

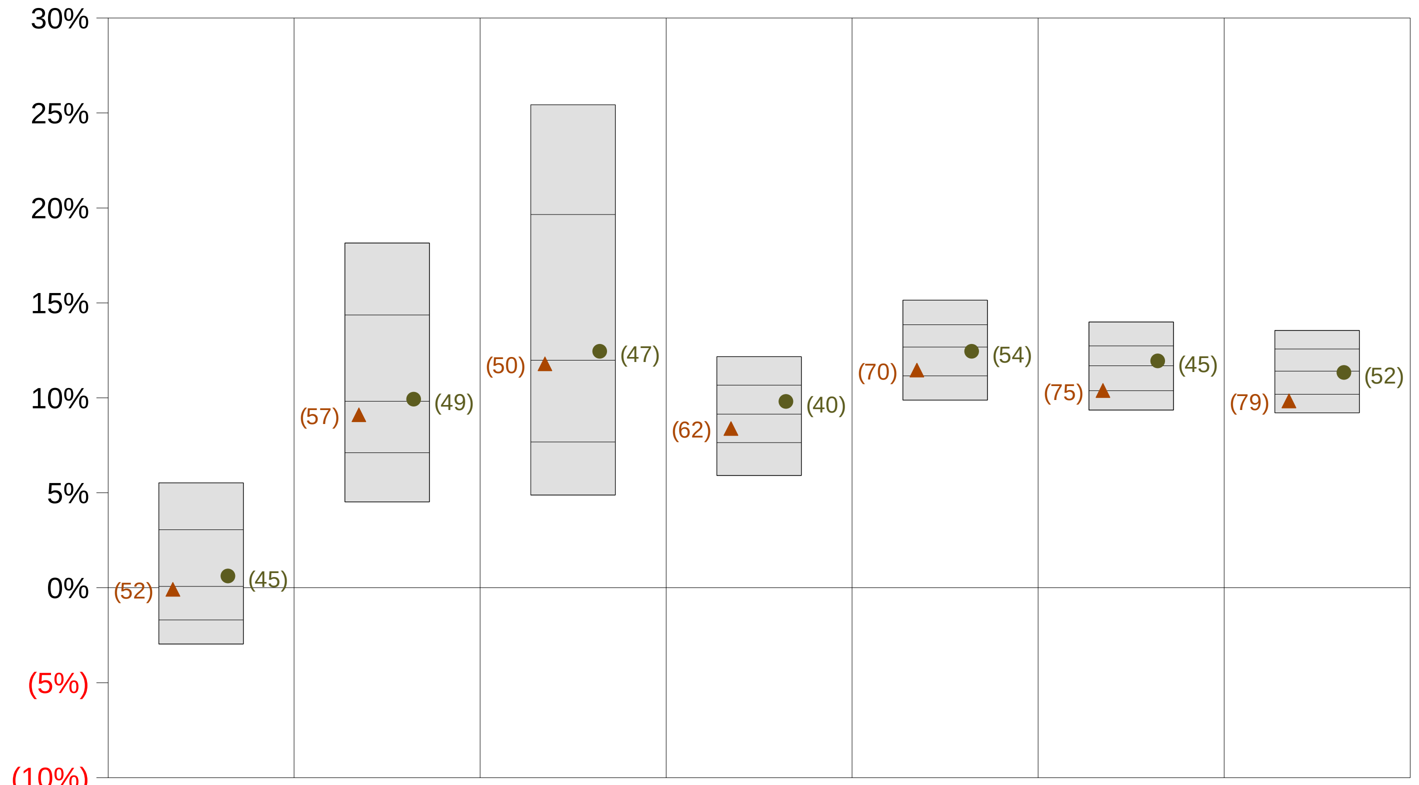
APFC Portfolio   Russell 1000 Index

APFC Small Cap Equity Relative to Small Cap Universe

Periods Ended March 31, 2018

- APFC small cap portfolio ranks near the small cap universe median over all time periods.
- 1st quarter results led the index by 61 basis points. Performance for all other time periods shown in the chart is also ahead of the benchmark.
- APFC small cap investments are relatively mature and successful products. Due to higher AUM levels, such products tend to maintain a mid cap bias.
- Portfolio's growth tilt contributed to returns, as growth outperformed value by 5% during the quarter.

Performance vs Callan Small Capitalization (Gross)



	Last Quarter	Fiscal YTD	Last Year	Last 3 Years	Last 5 Years	Last 7 Years	Last 10 Years
10th Percentile	5.53	18.15	25.43	12.17	15.15	13.99	13.55
25th Percentile	3.05	14.37	19.66	10.66	13.85	12.74	12.58
Median	0.07	9.82	11.98	9.14	12.68	11.69	11.41
75th Percentile	(1.70)	7.11	7.68	7.64	11.16	10.37	10.19
90th Percentile	(2.96)	4.52	4.88	5.91	9.88	9.36	9.21
Small Cap Equity Composite ●	0.53	9.84	12.36	9.73	12.36	11.86	11.25
Russell 2000 Index ▲	(0.08)	9.11	11.79	8.39	11.47	10.39	9.84

Capitalization and Style Allocation Small Cap Equity

As of March 31, 2018

- The APFC small cap equity portfolio has a higher market capitalization bias when compared to the Russell 2000 Index.
- The portfolio tends to be more growth oriented than the Index, which is relatively in-line with actively managed small cap products. The growth orientation increased from 37% last quarter.

Style Exposure Matrix
Holdings as of March 31, 2018

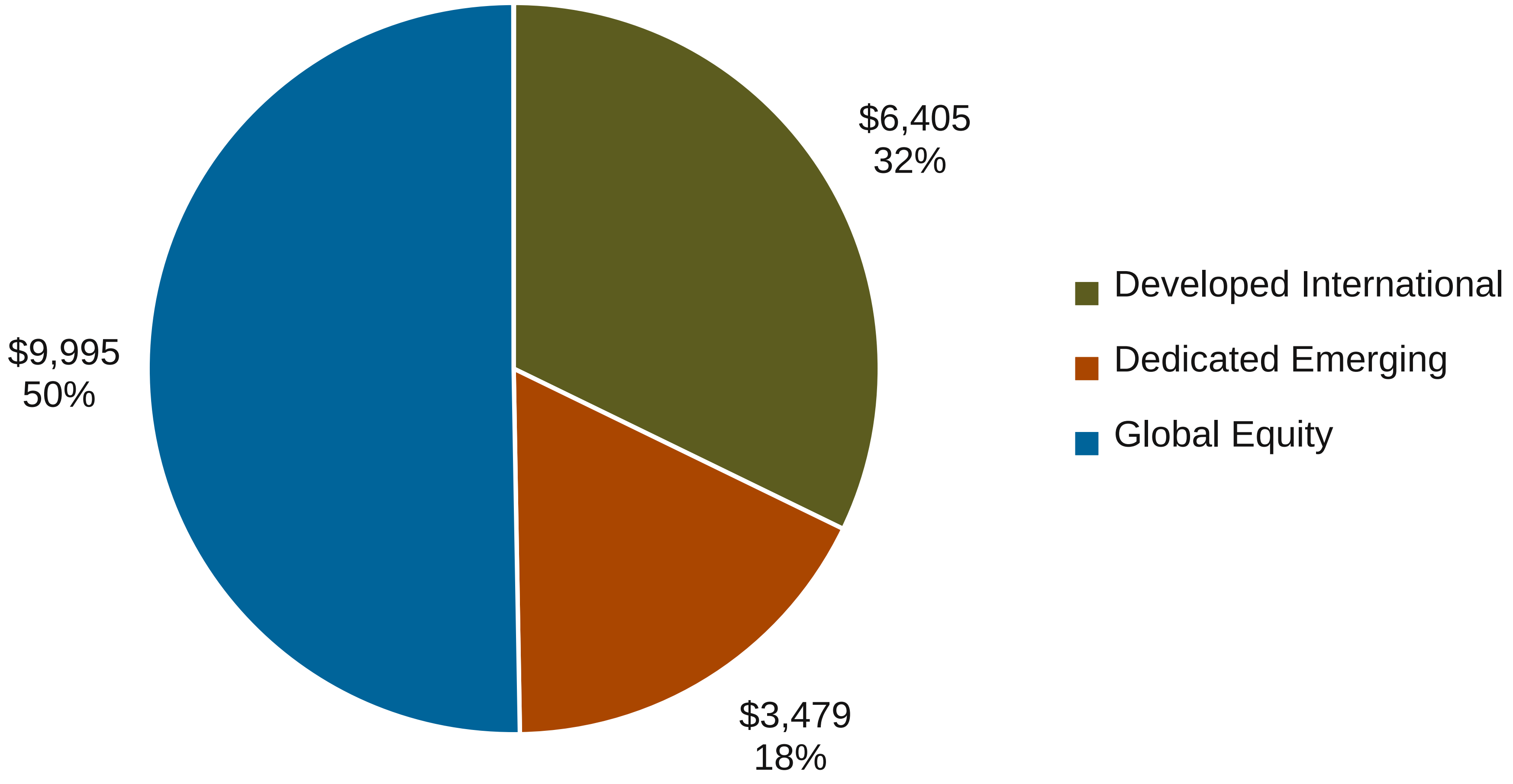
	Value	Core	Growth	**Total**
Large	0.0% (0) / 0.0% (0)	0.1% (1) / 0.0% (0)	0.0% (0) / 0.0% (0)	**0.1% (1) / 0.0% (0)**
Mid	6.2% (57) / 1.1% (6)	11.3% (85) / 3.4% (16)	14.5% (88) / 9.2% (41)	**32.1% (230) / 13.7% (63)**
Small	13.1% (132) / 18.0% (248)	26.3% (187) / 31.1% (437)	24.9% (137) / 25.3% (336)	**64.3% (456) / 74.3% (1021)**
Micro	1.8% (15) / 4.0% (298)	1.0% (17) / 4.7% (360)	0.7% (10) / 3.2% (221)	**3.5% (42) / 11.9% (879)**
Total	**21.2% (204) / 23.1% (552)**	**38.7% (290) / 39.2% (813)**	**40.1% (235) / 37.7% (598)**	**100.0% (729) / 100.0% (1963)**

APFC Portfolio (upper value in each cell) / Russell 2000 Index (lower value in each cell)

APFC Non-US Equity Structure

As of March 31, 2018

- Portfolio is divided between global, non-US, and emerging markets mandates.
- Both global and non-US equity managers invest in emerging markets.
- Global managers invest in US markets as part of their mandate.

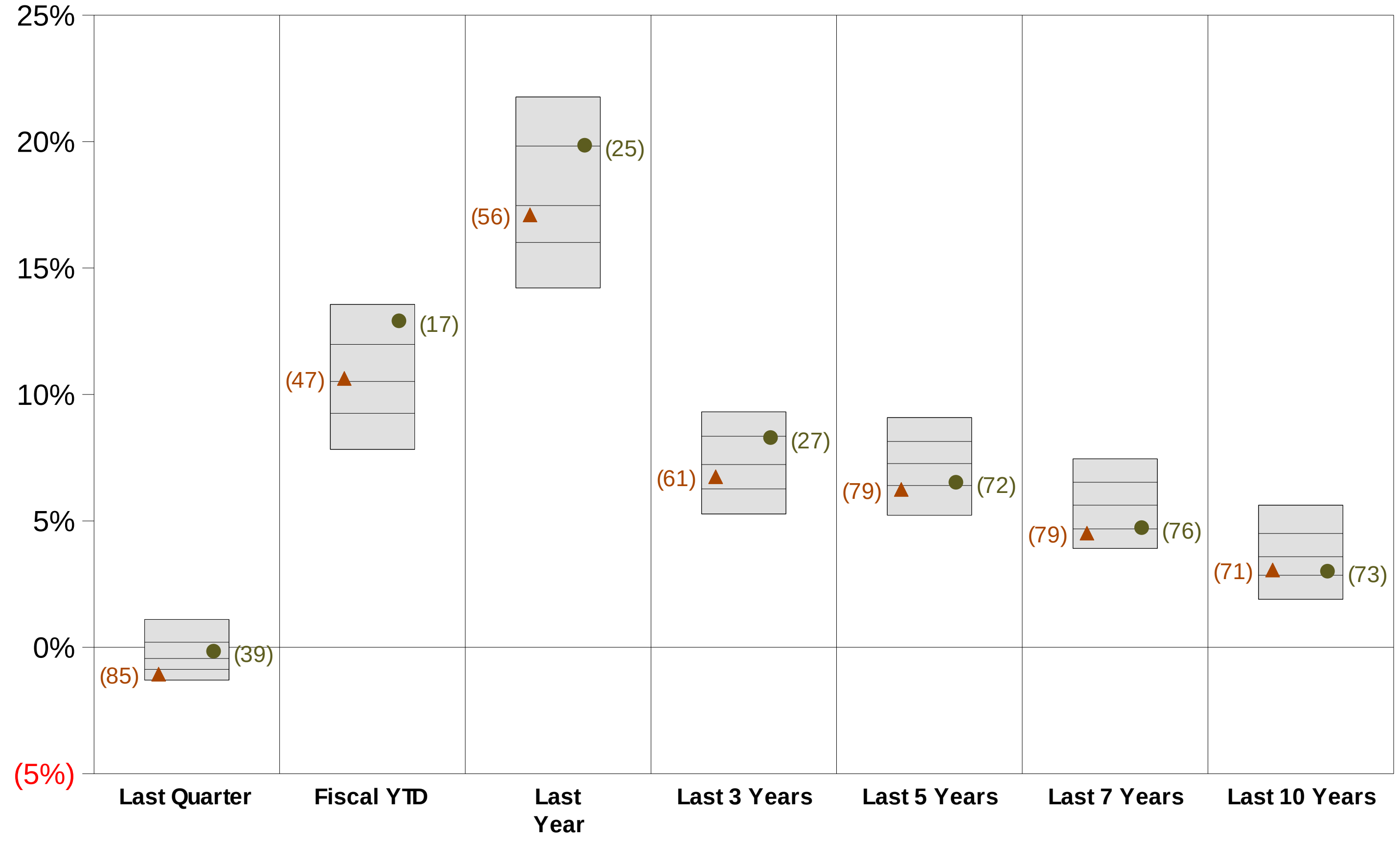


APFC International Equity Relative to Fund Sponsor Universe

Periods Ended March 31, 2018

- During the quarter, weak US dollar and strong Emerging Markets that continue to outpace developed, aided performance. As a result, APFC international equity portfolio bested its target.
- Longer-term returns are either ahead or almost caught up with the benchmark.
- Relative to other fund sponsor international equity portfolios, performance sits above median in the short-term and below median over longer time periods.
- In the longer-term developed markets have outperformed emerging markets. However, emerging equities have had a better run over the last few years.
- This has had a positive impact on portfolio's shorter-term returns, but weighs down portfolio's longer-term returns.

Performance vs Fund Spnsor - International Equity (Gross)



	Last Quarter	Fiscal YTD	Last Year	Last 3 Years	Last 5 Years	Last 7 Years	Last 10 Years
10th Percentile	1.10	13.56	21.77	9.31	9.09	7.45	5.62
25th Percentile	0.20	11.98	19.82	8.35	8.14	6.53	4.50
Median	(0.44)	10.52	17.47	7.23	7.26	5.62	3.59
75th Percentile	(0.88)	9.26	16.01	6.26	6.40	4.68	2.85
90th Percentile	(1.30)	7.83	14.21	5.27	5.22	3.91	1.90
International Equity Composite ●	(0.22)	12.85	19.79	8.23	6.46	4.67	2.94
MSCI ACWI ex US IMI ▲	(1.06)	10.63	17.10	6.75	6.24	4.52	3.06

Region and Style Allocation International Equity

As of March 31, 2018

- The APFC portfolio has a meaningful overweight to Emerging Markets (40% vs 26%).
- The portfolio is underweight Europe (33% vs 43%), Pacific/Asia (23% vs 26%), and N. America (5% vs 6%).
- During the quarter, APFC international equity portfolio benefitted from broad-based regional gains, particularly from the notable overweight to Emerging Markets, which had a strong quarter. Underweight to Europe was also a benefit, as this region lagged.

Style Exposure Matrix
Holdings as of March 31, 2018

	Value	Core	Growth	Total
Europe/ Mid East	10.5% (600) 13.3% (427)	10.7% (710) 13.8% (530)	11.7% (699) 15.5% (534)	32.9% (2009) 42.5% (1491)
N. America	1.4% (159) 1.8% (96)	2.2% (178) 2.9% (134)	1.2% (107) 1.7% (86)	4.7% (444) 6.4% (316)
Pacific	8.1% (1238) 9.1% (597)	6.3% (885) 7.0% (569)	8.2% (820) 9.5% (542)	22.7% (2943) 25.5% (1708)
Emerging/ FM	13.7% (1550) 7.8% (900)	12.8% (1212) 8.0% (899)	13.2% (1091) 9.8% (853)	39.7% (3853) 25.6% (2652)
Total	33.7% (3547) 32.0% (2020)	32.0% (2985) 31.6% (2132)	34.3% (2717) 36.5% (2015)	100.0% (9249) 100.0% (6167)

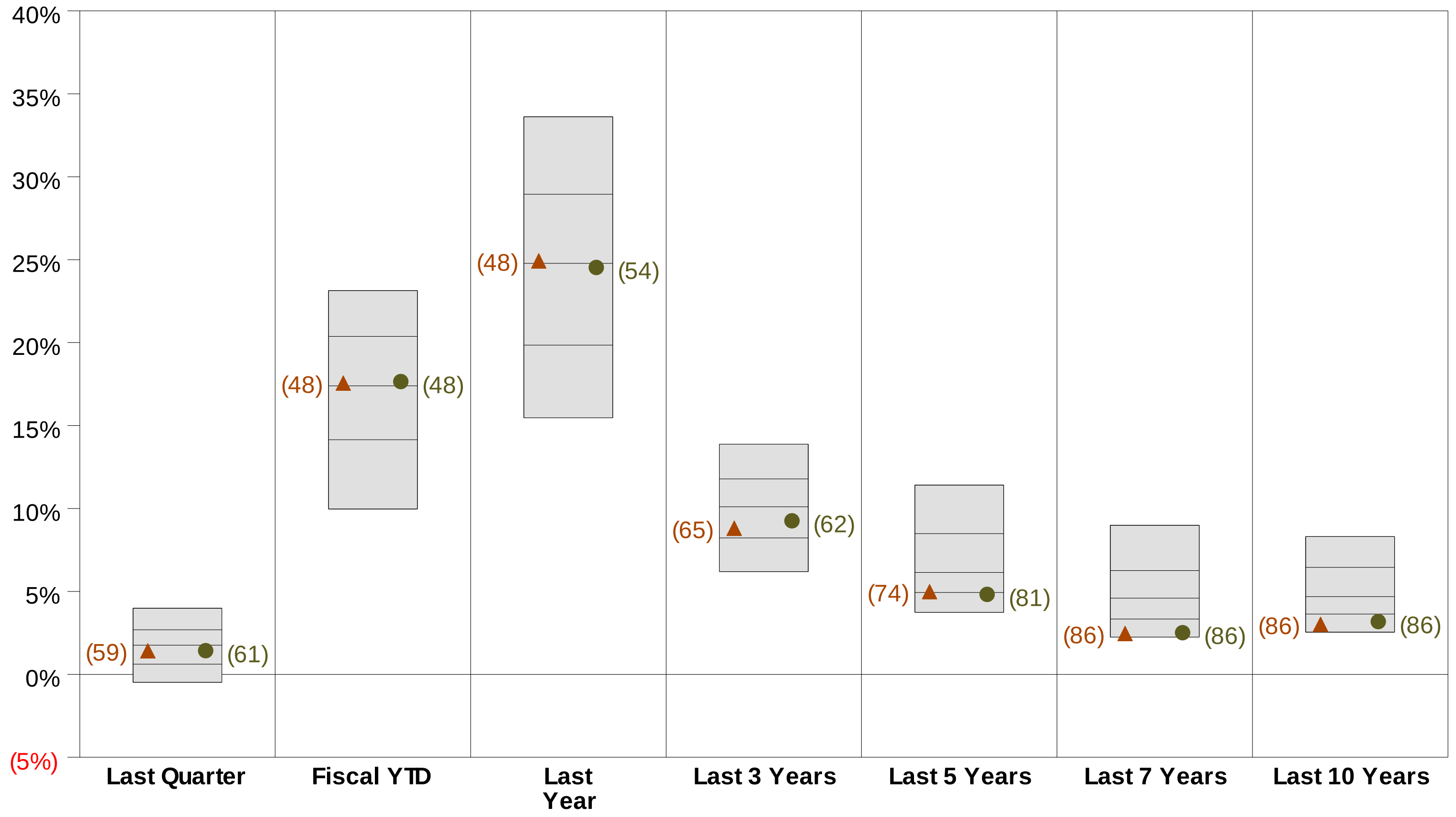
APFC Portfolio **MSCI ACWI ex-US Index**

APFC Emerging Markets Equity Relative to EM Universe

Periods March 31, 2018

- APFC emerging markets equity portfolio performed roughly in-line with the benchmark, adding 1.3%.
- Additionally, composite's trailing one-year return is impressive in absolute terms, up 24%.
- The portfolio underperforms the median actively managed portfolio over all time periods except for the last 3 years.
- Recent strength in the asset class has resulted in near-term performance improvement for APFC's overall public equity portfolio.

Performance vs Emerging Markets Equity DB (Gross)



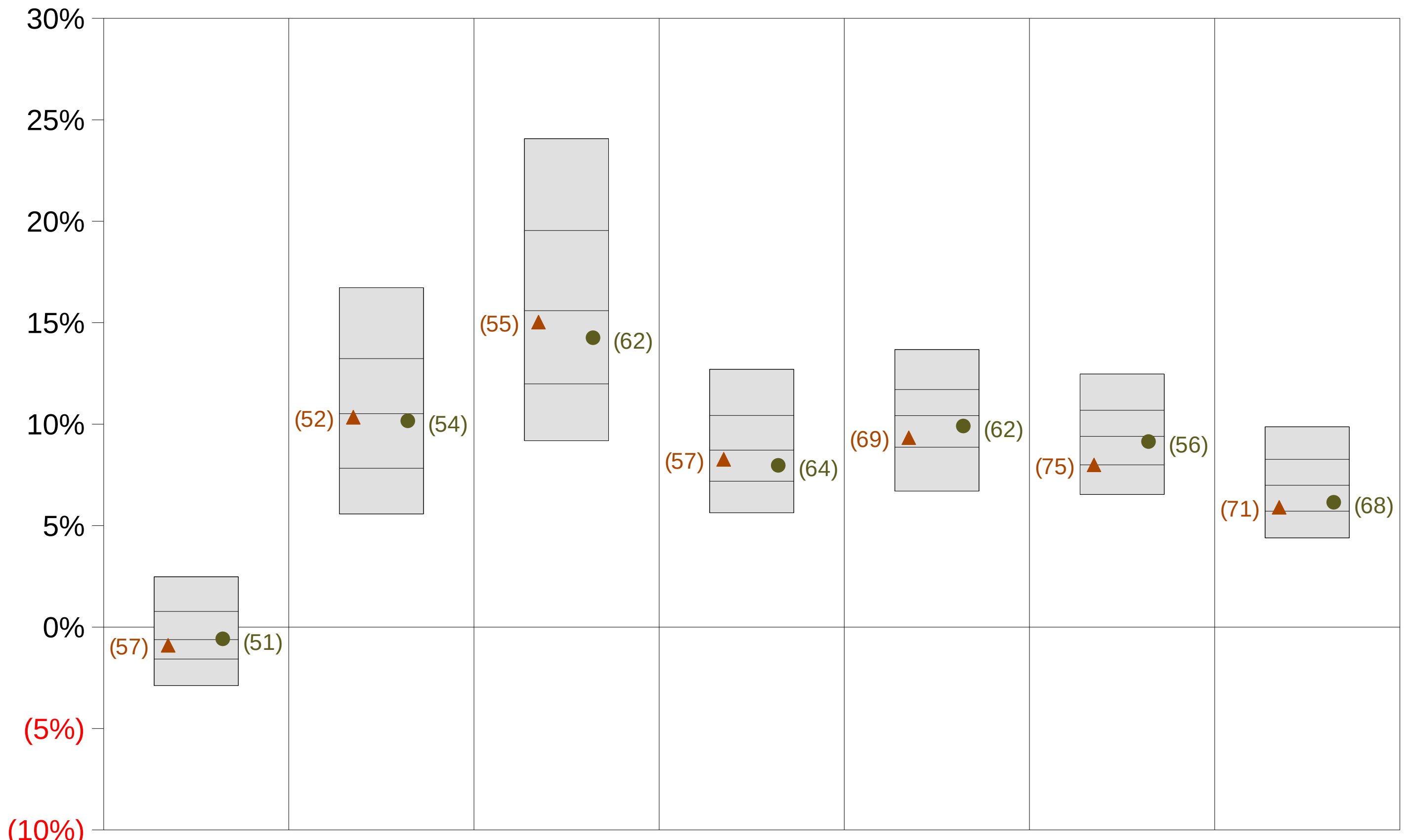
	Last Quarter	Fiscal YTD	Last Year	Last 3 Years	Last 5 Years	Last 7 Years	Last 10 Years
10th Percentile	3.99	23.14	33.62	13.88	11.41	8.98	8.31
25th Percentile	2.68	20.37	28.94	11.78	8.49	6.26	6.46
Median	1.76	17.40	24.78	10.10	6.15	4.60	4.69
75th Percentile	0.61	14.14	19.85	8.22	4.94	3.34	3.63
90th Percentile	(0.48)	9.97	15.46	6.19	3.74	2.24	2.54
Emerging Markets Composite ●	1.32	17.55	24.44	9.15	4.72	2.42	3.08
MSCI EM ▲	1.42	17.56	24.93	8.81	4.99	2.47	3.02

APFC Global Equity Relative to Global Universe

Periods Ended March 31, 2018

- APFC global equity portfolio ranks in the third quartile when compared to other global equity managers over all time periods.
- Portfolio's 1st quarter performance was 23 bps ahead of the index.
- Trailing one year performance has fallen behind the benchmark, but is strong in an absolute sense.
- Performance for longer time periods shown solidly exceeds the benchmark.

Performance vs Global Equity Database (Gross)

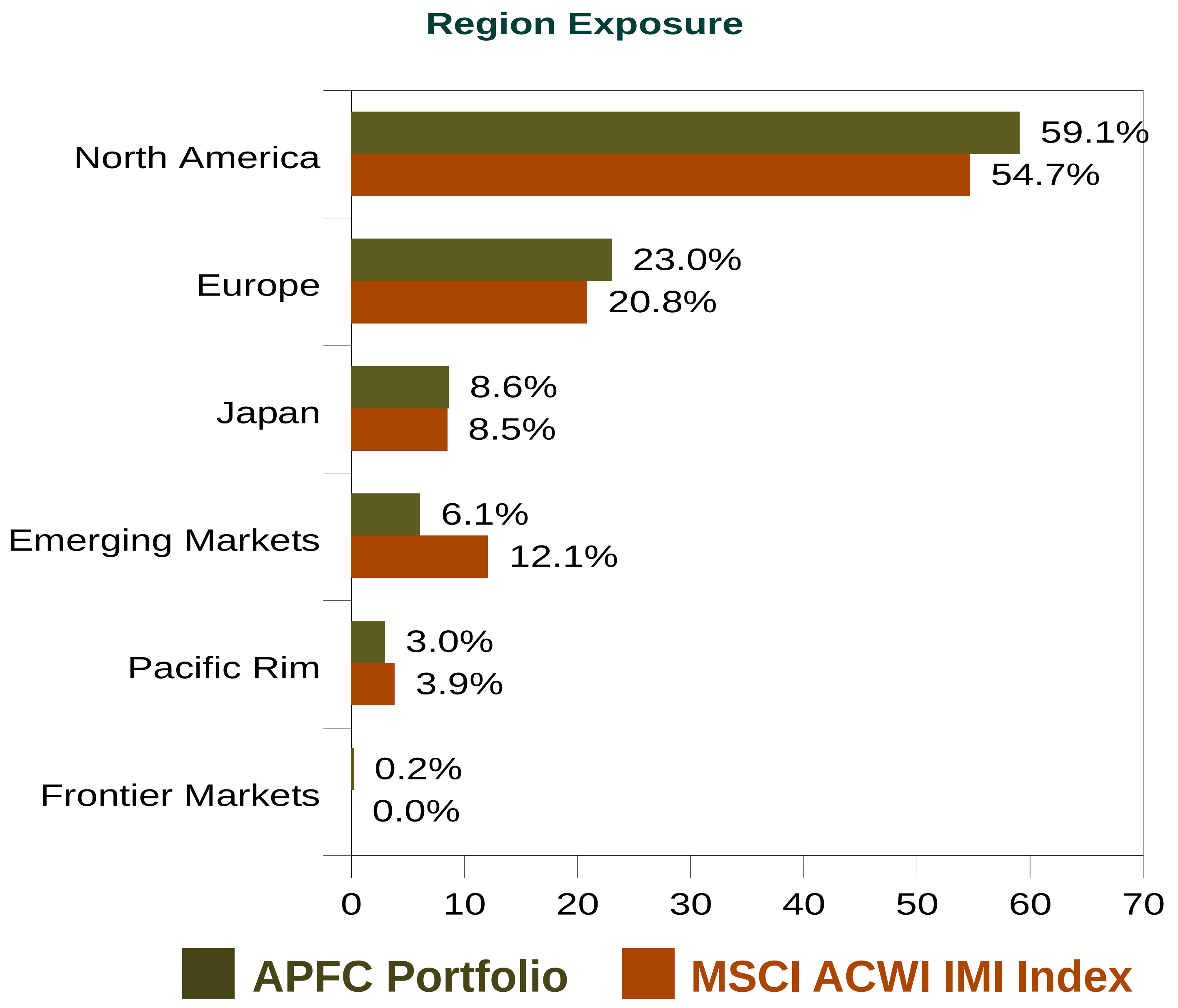


	Last Quarter	Fiscal YTD	Last Year	Last 3 Years	Last 5 Years	Last 7 Years	Last 10 Years
10th Percentile	2.48	16.72	24.07	12.70	13.68	12.48	9.87
25th Percentile	0.77	13.23	19.55	10.43	11.71	10.68	8.27
Median	(0.62)	10.51	15.59	8.72	10.42	9.40	6.99
75th Percentile	(1.58)	7.83	11.99	7.19	8.86	8.00	5.71
90th Percentile	(2.88)	5.58	9.19	5.64	6.70	6.53	4.40
Global Equity ●	(0.66)	10.09	14.18	7.89	9.83	9.05	6.07
MSCI ACWI IMI ▲	(0.89)	10.35	15.03	8.27	9.34	7.99	5.91

APFC Global Equity Portfolio Region Exposure

As of March 31, 2018

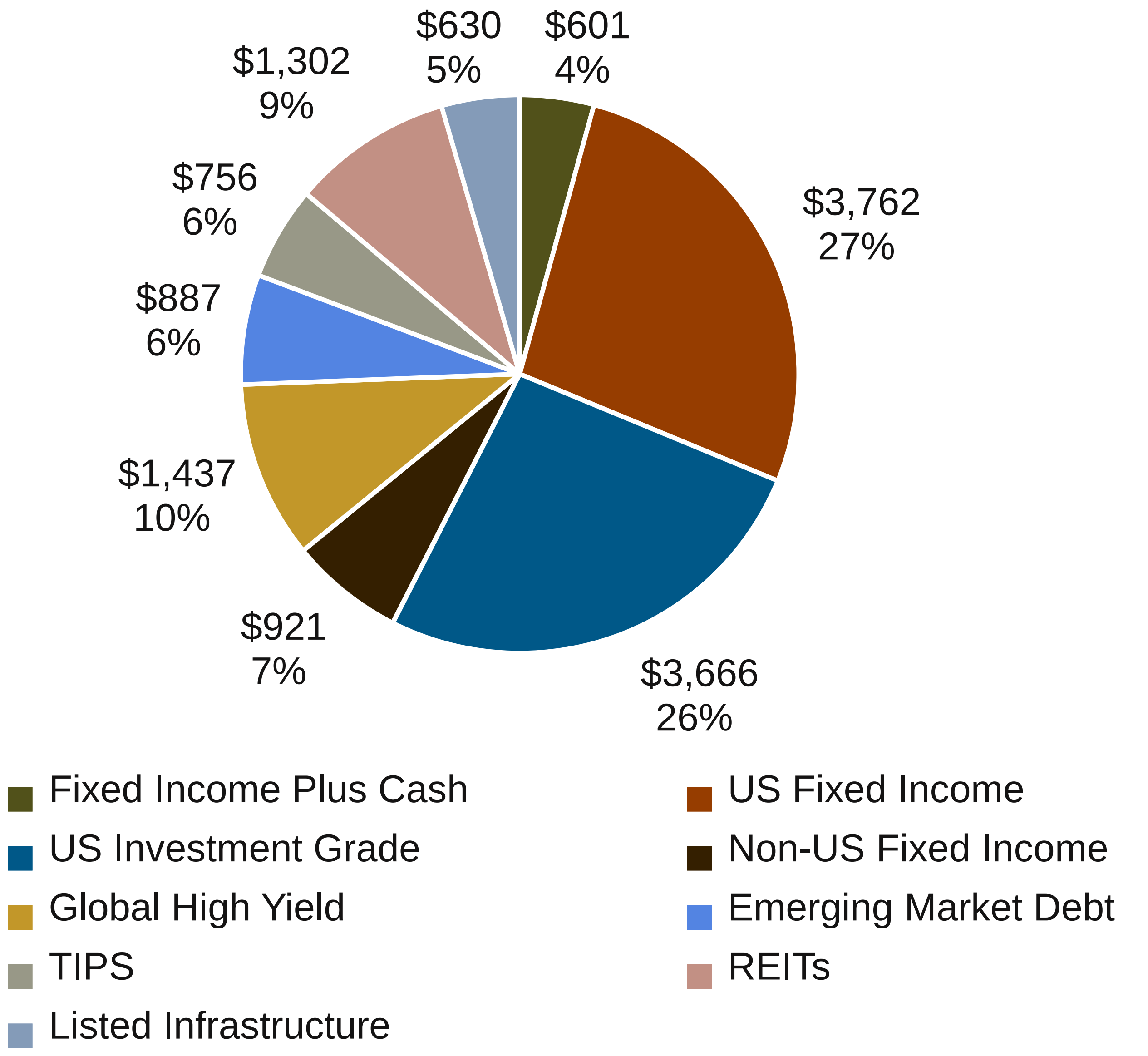
- The APFC global equity portfolio has an underweight to Emerging Markets and the Pacific Rim relative to its benchmark.
- The portfolio has a corresponding relative overweight to North America and Europe. Allocation to Japan is in-line with the index.
- This positioning hurt the performance of the global equity portfolio. In particular, the benefits of the North America overweight were offset by the underweight exposure to Emerging Markets and higher-than-index allocation to Europe.



APFC Fixed Income Plus Structure

As of March 31, 2018

- 66% of the fixed income plus portfolio is managed internally, including allocations within Fixed Income Plus Cash, US Fixed Income, US Investment Grade, Non-US Fixed Income, and TIPS.
- External mandates are focused in specialty areas including Non-US Fixed Income, Global High Yield, Emerging Market Debt, REITs, and Listed Infrastructure.

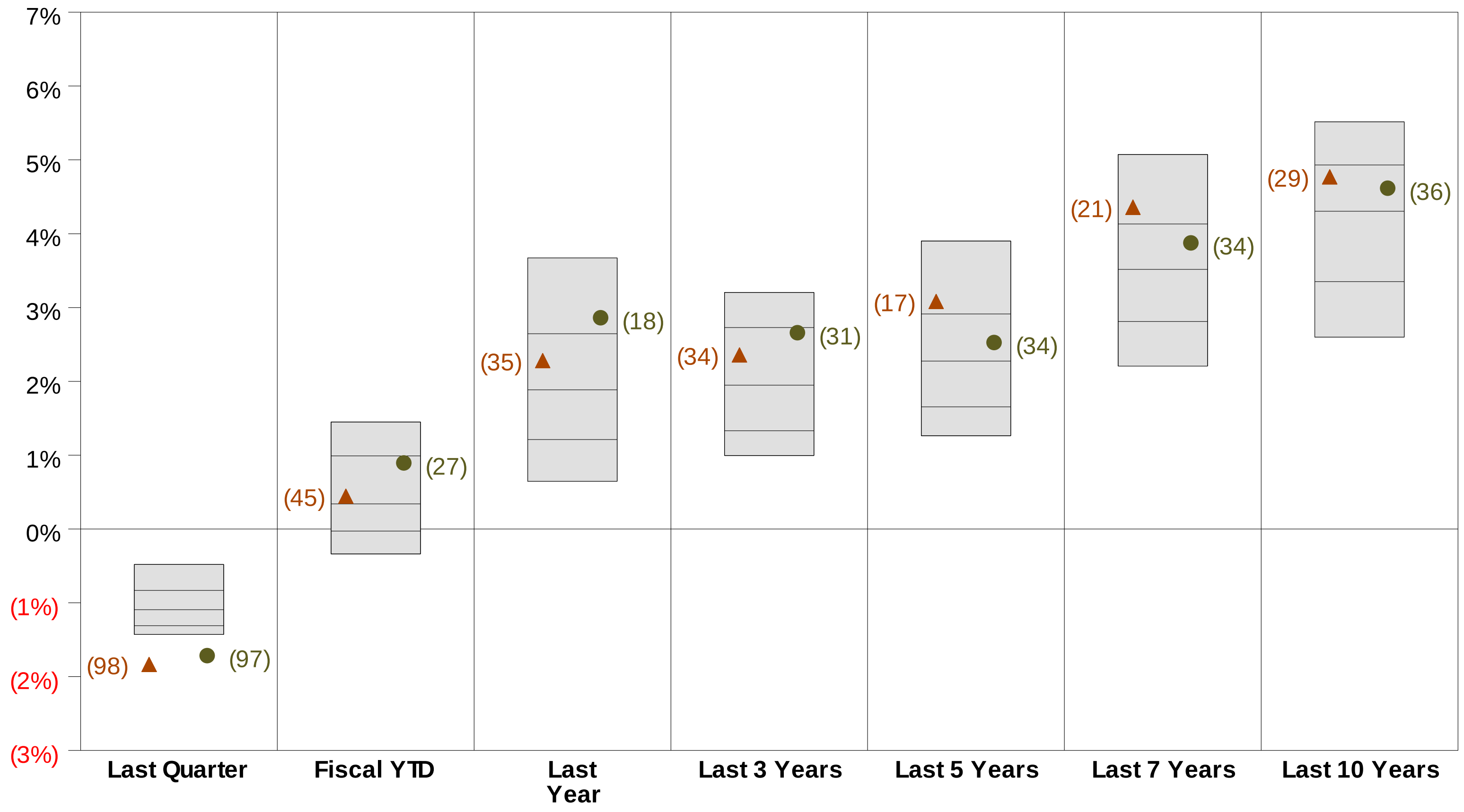


Fixed Income Plus Relative to Public Fixed Income Funds

Periods Ended March 31, 2018

- The APFC Fixed Income Plus portfolio leads its benchmark in the short-term time, but trails in the longer-term time periods.
- When compared to its peers, with the exception of the current quarter, the portfolio maintains a solid lead over all other time periods measured.
- Prior to October 1, 2016, presented history does not include REITs or Listed Infrastructure.
- REITs and Listed Infrastructure, both down over -5.0%, were primary source of underperformance for the quarter.

Performance vs Public Fund - Domestic Fixed (Gross)



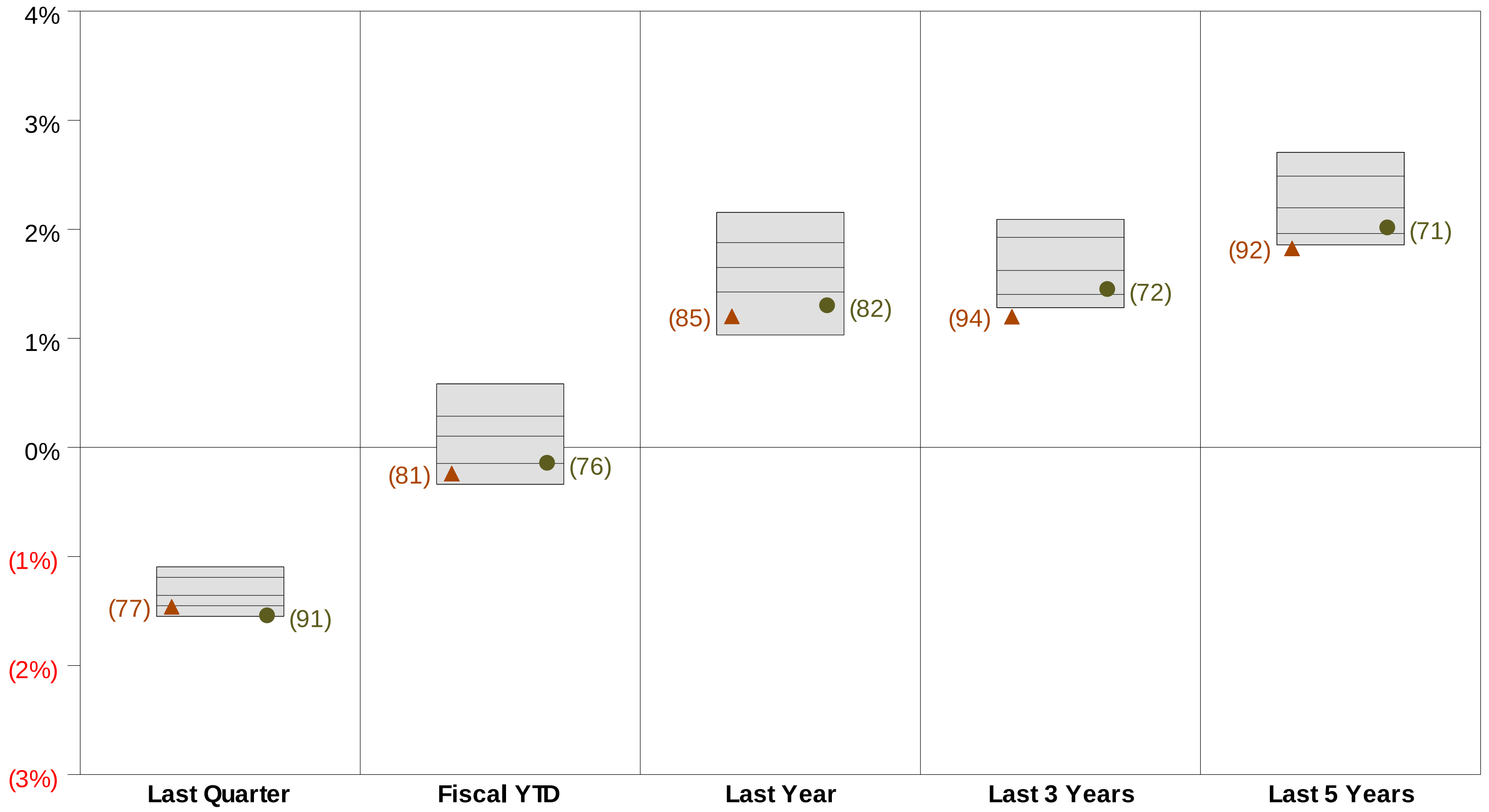
	Last Quarter	Fiscal YTD	Last Year	Last 3 Years	Last 5 Years	Last 7 Years	Last 10 Years
10th Percentile	(0.48)	1.45	3.67	3.21	3.90	5.07	5.52
25th Percentile	(0.83)	0.99	2.64	2.73	2.91	4.13	4.93
Median	(1.09)	0.34	1.89	1.95	2.27	3.52	4.30
75th Percentile	(1.31)	(0.03)	1.21	1.33	1.66	2.81	3.35
90th Percentile	(1.43)	(0.34)	0.65	1.00	1.26	2.21	2.60
Fixed Income Plus ●	(1.74)	0.87	2.84	2.63	2.50	3.85	4.59
Fixed Income Plus Benchmark ▲	(1.83)	0.45	2.28	2.36	3.08	4.36	4.77

US Fixed Income Relative to Core Bond Funds

Periods Ended March 31, 2018

- APFC US Fixed Income portfolio marginally trailed the benchmark during the recent quarter but is ahead over all other time periods measured.
- The portfolio lags the median core bond manager for all time periods shown on the chart.
- Underperformance is primarily driven by APFC's higher quality bias and lower allocation to credit relative to peers.

Performance vs Callan Core Bond Fixed Income (Gross)



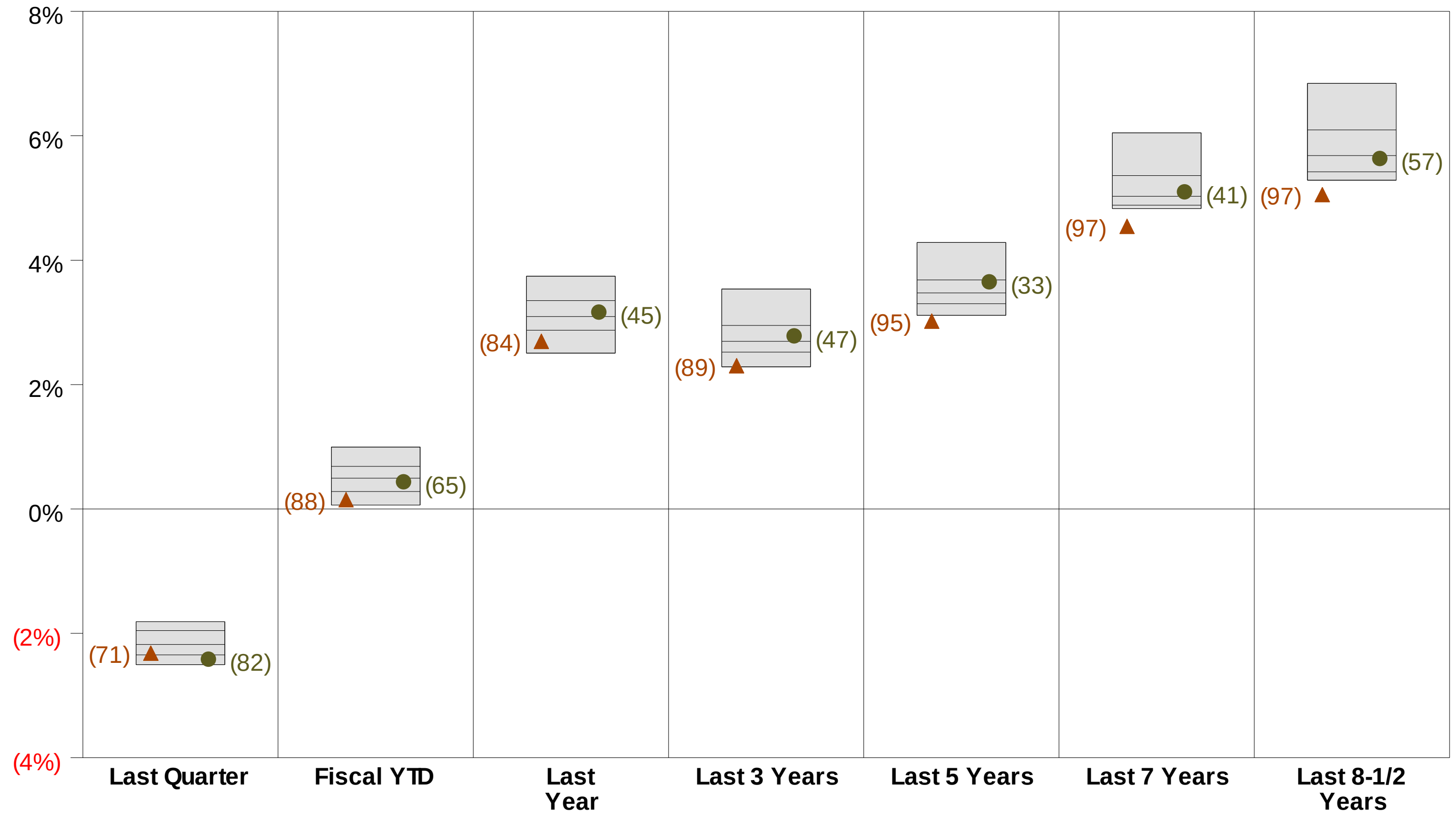
	Last Quarter	Fiscal YTD	Last Year	Last 3 Years	Last 5 Years
10th Percentile	(1.10)	0.58	2.16	2.09	2.71
25th Percentile	(1.19)	0.29	1.88	1.93	2.49
Median	(1.36)	0.10	1.65	1.62	2.20
75th Percentile	(1.45)	(0.15)	1.43	1.40	1.96
90th Percentile	(1.55)	(0.34)	1.03	1.28	1.86
US Fixed Income Aggregate ●	(1.56)	(0.16)	1.29	1.44	2.00
Blmbg Aggregate ▲	(1.46)	(0.24)	1.20	1.20	1.82

US Investment Grade Relative to Investment Grade Funds

Periods Ended March 31, 2018

- During the recent quarter, APFC US Investment Grade was just shy of its index.
- The portfolio has a comfortable lead over the benchmark for all other time periods shown.
- The Investment Grade composite is slightly below median in the short- and long-term, and above peer median over the intermediate-term time periods.

Performance vs Callan Investment Grade Credit Fixed Inc (Gross)



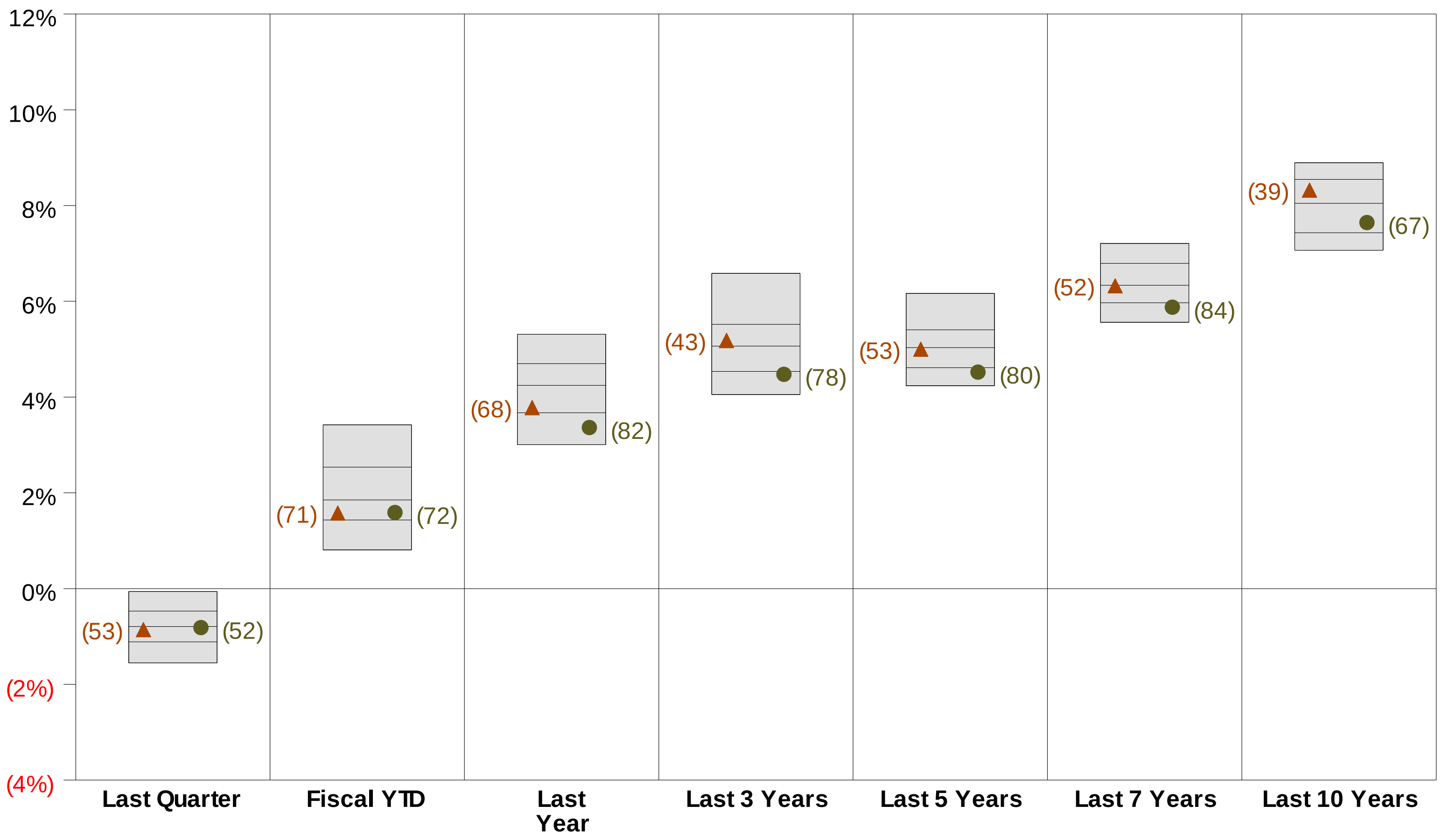
	Last Quarter	Fiscal YTD	Last Year	Last 3 Years	Last 5 Years	Last 7 Years	Last 8-1/2 Years
10th Percentile	(1.81)	1.00	3.74	3.54	4.28	6.05	6.84
25th Percentile	(1.96)	0.69	3.35	2.95	3.68	5.36	6.10
Median	(2.18)	0.49	3.09	2.70	3.47	5.03	5.68
75th Percentile	(2.34)	0.28	2.87	2.52	3.30	4.89	5.42
90th Percentile	(2.50)	0.06	2.51	2.29	3.11	4.83	5.29
US Invest Grade Corp Bonds ●	(2.44)	0.41	3.14	2.75	3.62	5.07	5.61
Blmbg Corporate ▲	(2.32)	0.15	2.70	2.30	3.02	4.55	5.06

Global High Yield Relative to High Yield Funds

Periods Ended March 31, 2018

- The APFC Global High Yield portfolio performed on par with its index during the quarter and Fiscal YTD, but trails for the remainder of time periods shown.
- When compared to peers, the portfolio kept up with the median manager in the first quarter, but falls behind during all other time periods measured.
- This composite includes allocations to Oaktree, Capital Guardian, and an iShares ETF.

Performance vs Callan High Yield Fixed Income (Gross)



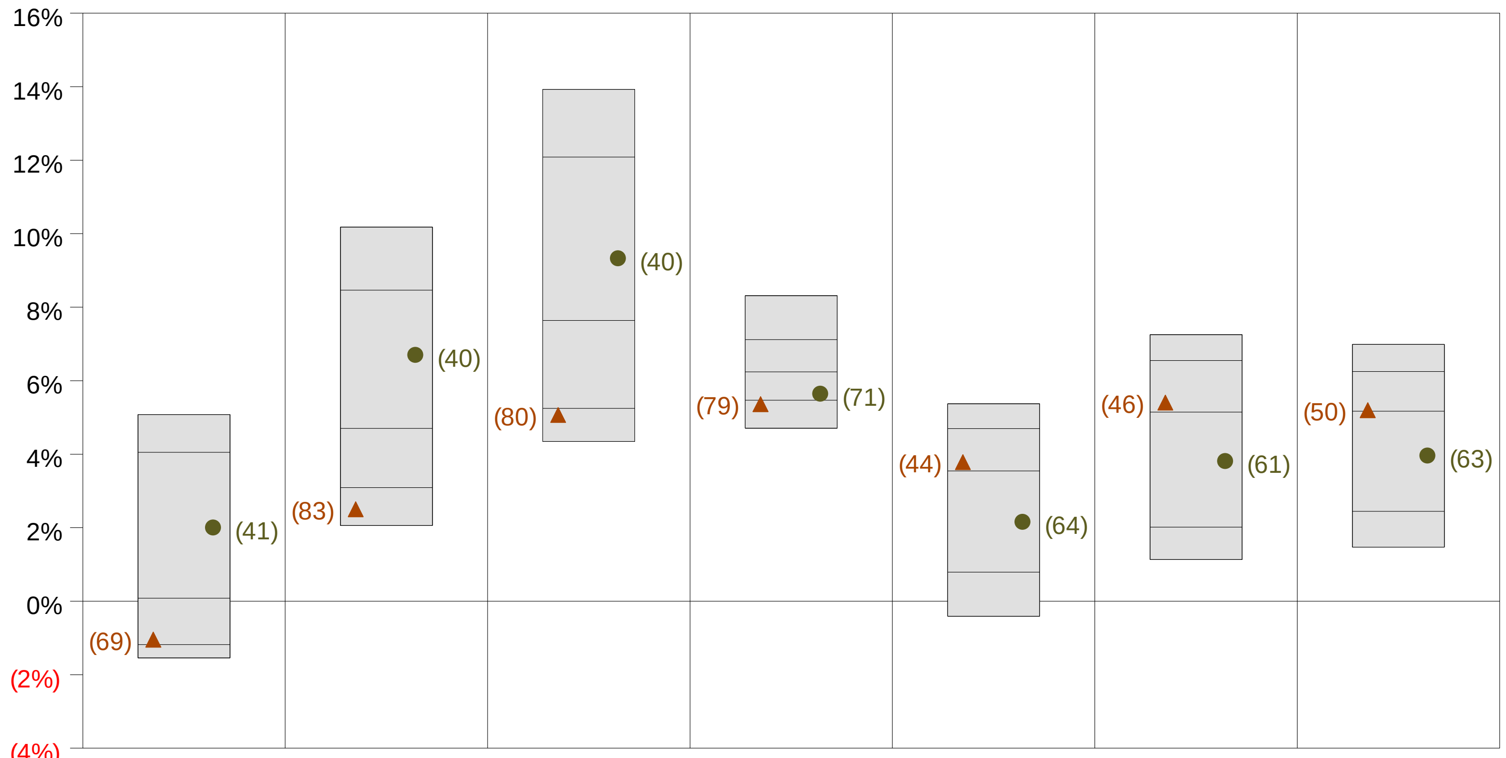
	Last Quarter	Fiscal YTD	Last Year	Last 3 Years	Last 5 Years	Last 7 Years	Last 10 Years
10th Percentile	(0.06)	3.42	5.31	6.58	6.17	7.21	8.90
25th Percentile	(0.47)	2.54	4.70	5.52	5.41	6.79	8.55
Median	(0.79)	1.85	4.24	5.06	5.03	6.33	8.05
75th Percentile	(1.11)	1.43	3.67	4.53	4.61	5.97	7.43
90th Percentile	(1.55)	0.81	3.01	4.05	4.24	5.56	7.07
Global High Yield ●	(0.85)	1.55	3.33	4.44	4.49	5.84	7.61
Blmbg HY 2% Iss Cap ▲	(0.86)	1.58	3.78	5.18	5.00	6.32	8.32

Emerging Market Debt Relative to EMD Funds

Periods Ended March 31, 2018

- APFC emerging market debt portfolio added 3% over its benchmark in the 1st quarter.
- Trailing year performance is notable in absolute and relative sense.
- However, the EMD portfolio has fallen behind the index for the periods of 5-years and greater.
- The composite hovers around 40th percentile in Callan's EMD database in the shorter-term, and around 60th percentile in the longer-term.

Performance vs Emerging Debt Database (Gross)



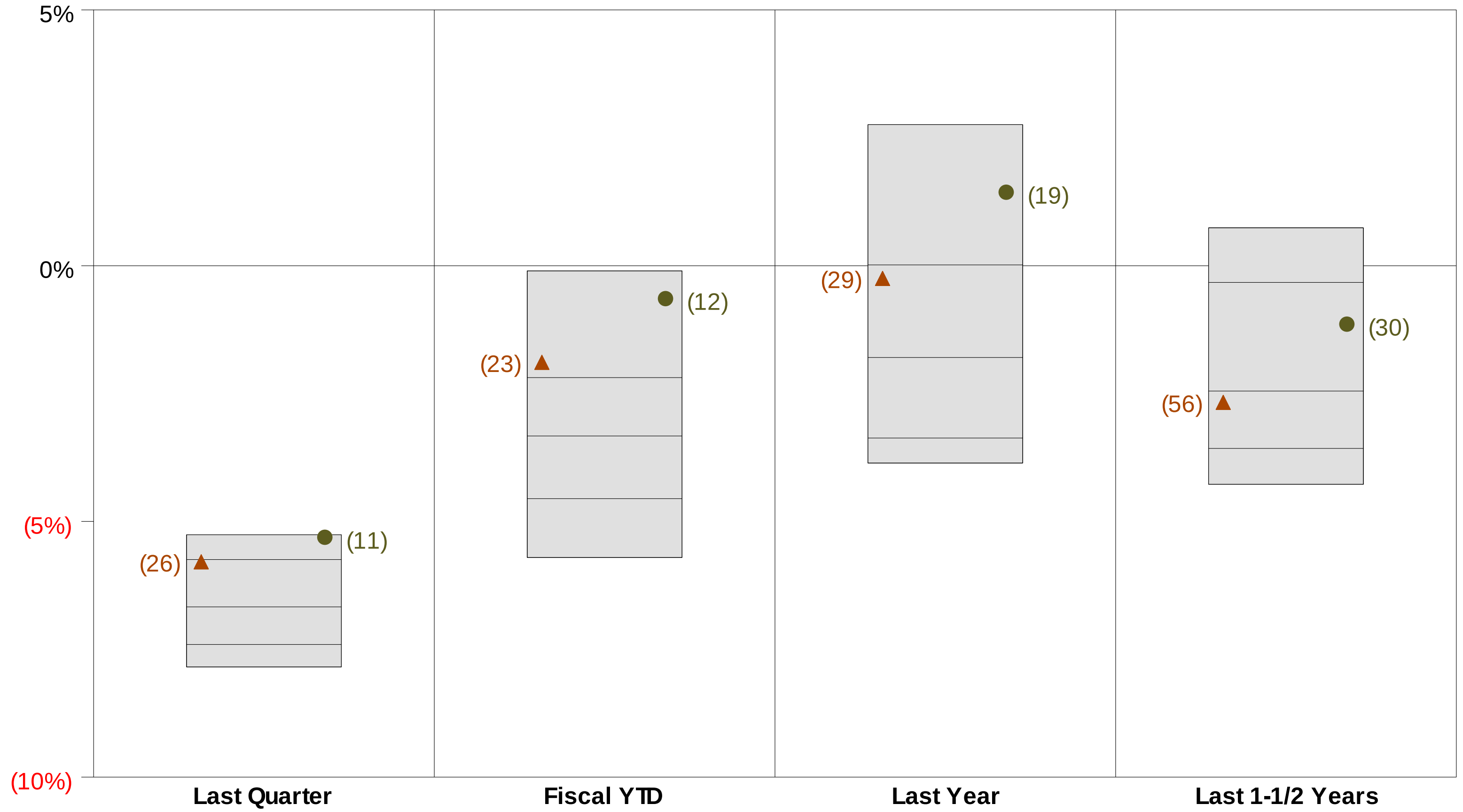
	Last Quarter	Fiscal YTD	Last Year	Last 3 Years	Last 5 Years	Last 7 Years	Last 7-1/2 Years
10th Percentile	5.08	10.18	13.93	8.31	5.37	7.25	6.99
25th Percentile	4.05	8.46	12.09	7.12	4.70	6.55	6.25
Median	0.08	4.70	7.64	6.24	3.54	5.15	5.17
75th Percentile	(1.18)	3.09	5.25	5.47	0.79	2.02	2.45
90th Percentile	(1.54)	2.06	4.34	4.71	(0.41)	1.13	1.47
Emerging Market Debt ●	1.95	6.65	9.28	5.60	2.11	3.77	3.92
Blmbg EM Hard Curr Agg ▲	(1.04)	2.50	5.07	5.36	3.79	5.41	5.20

REITs Performance Relative to Callan's REITs database

Periods Ended March 31, 2018

- APFC REITs portfolio has done well versus its benchmark and peers over all time periods shown.
- REITs allocation includes AEW Global, SSGA, and American Homes 4 Rent.

Performance vs Callan Real Estate REIT (Gross)



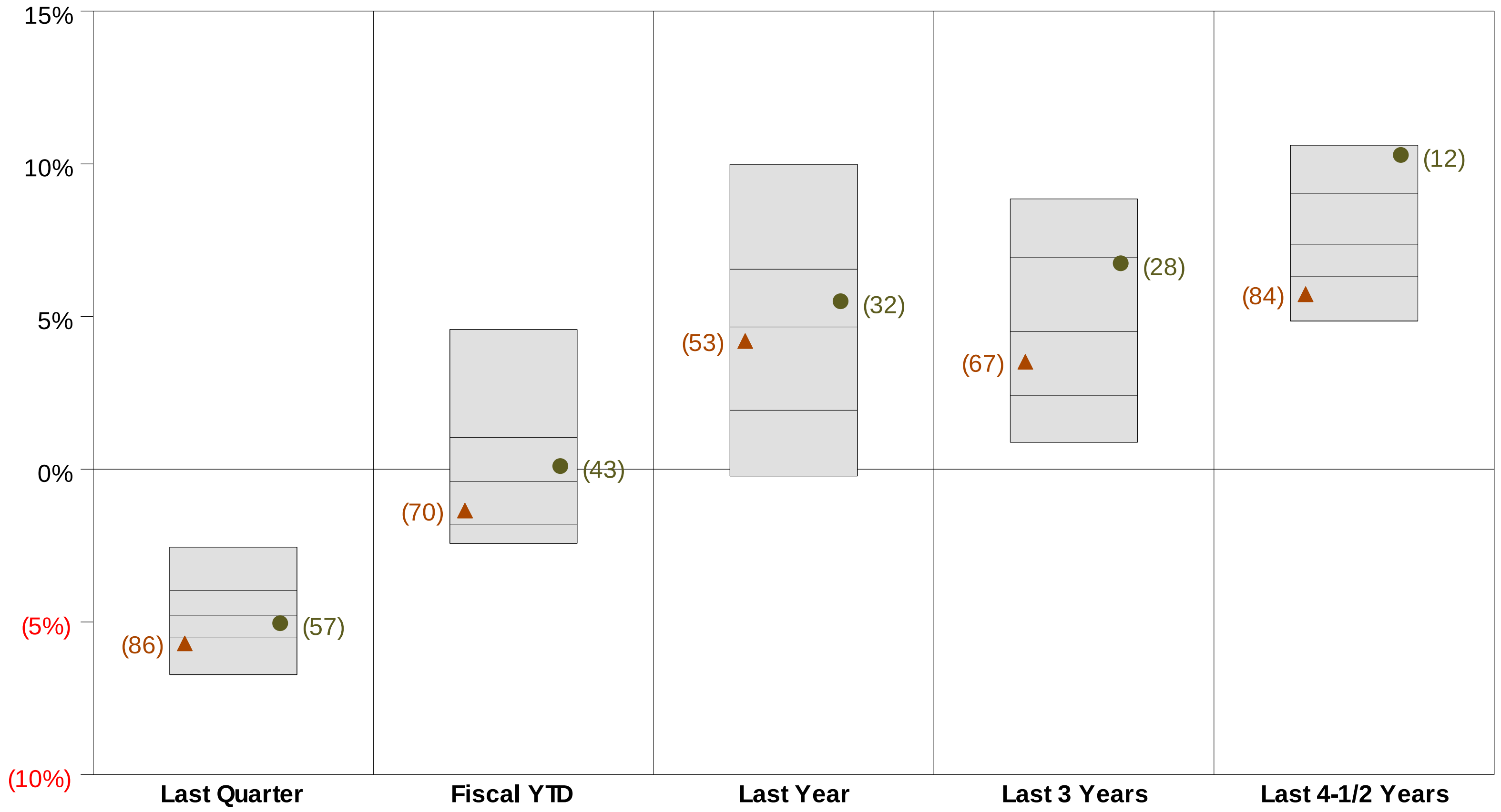
	Last Quarter	Fiscal YTD	Last Year	Last 1-1/2 Years
10th Percentile	(5.26)	(0.10)	2.76	0.74
25th Percentile	(5.75)	(2.19)	0.01	(0.33)
Median	(6.67)	(3.33)	(1.79)	(2.45)
75th Percentile	(7.40)	(4.56)	(3.37)	(3.57)
90th Percentile	(7.85)	(5.71)	(3.86)	(4.27)
REITs ●	(5.34)	(0.67)	1.41	(1.18)
S&P Global REIT ▲	(5.79)	(1.89)	(0.25)	(2.67)

Listed Infrastructure Relative to Listed Infrastructure Funds

Periods Ended March 31, 2018

- APFC listed infrastructure portfolio has performed well relative to both its index and the Publicly Listed Infrastructure peer group over all time periods.
- Since Inception (4 ½ years), the portfolio has outperformed its benchmark by 4.5%.
- Listed Infrastructure composite includes Lazard, Cohen & Steers, and SSGA.

Performance vs Callan Publicly Listed Infrastructure (Gross)

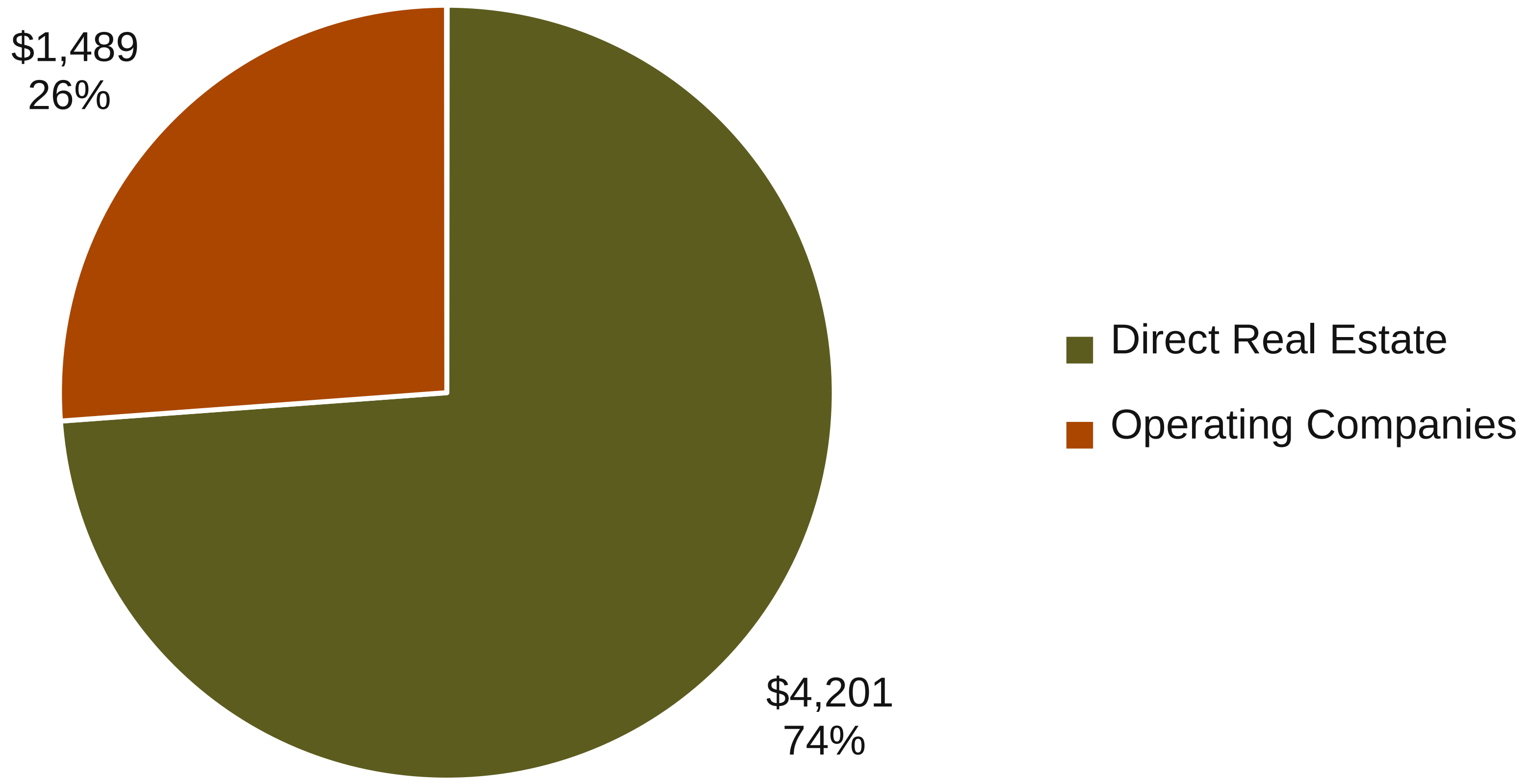


	Last Quarter	Fiscal YTD	Last Year	Last 3 Years	Last 4-1/2 Years
10th Percentile	(2.55)	4.58	9.99	8.85	10.61
25th Percentile	(3.97)	1.04	6.55	6.93	9.04
Median	(4.80)	(0.40)	4.66	4.50	7.37
75th Percentile	(5.49)	(1.80)	1.93	2.40	6.32
90th Percentile	(6.72)	(2.43)	(0.23)	0.88	4.85
Listed Infrastructure ●	(5.10)	0.05	5.44	6.69	10.23
S&P Global Infrastructure ▲	(5.70)	(1.35)	4.20	3.52	5.73

APFC Real Estate Structure *(1Q LAG)*

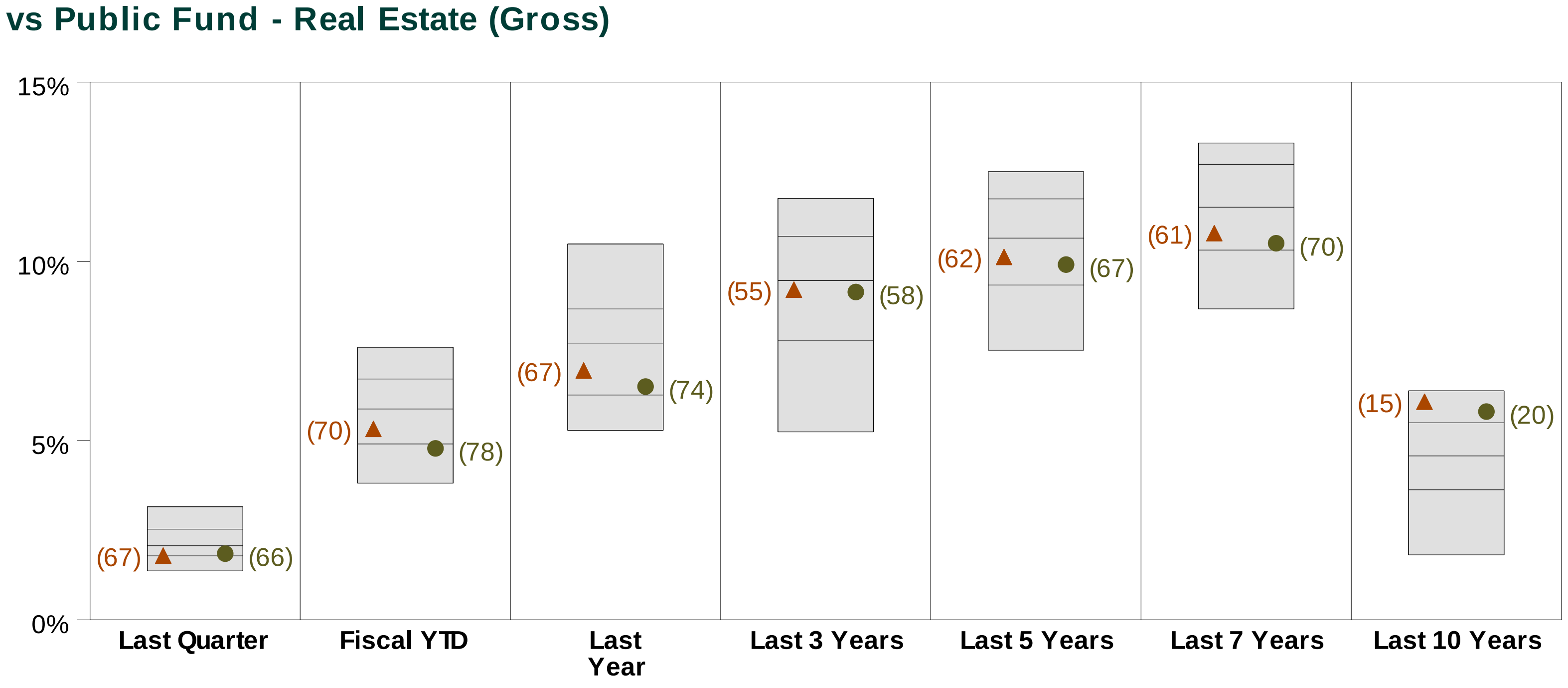
As of March 31, 2018

- 74% of the structure is invested in direct real estate portfolio. 10% of this allocation is invested internationally (CBRE Europe and LaSalle UK).
- 26% of the structure is invested in real estate operating companies (Simpson and Lincoln).



Real Estate Relative to Callan's Total Real Estate Database

Periods Ended March 31, 2018



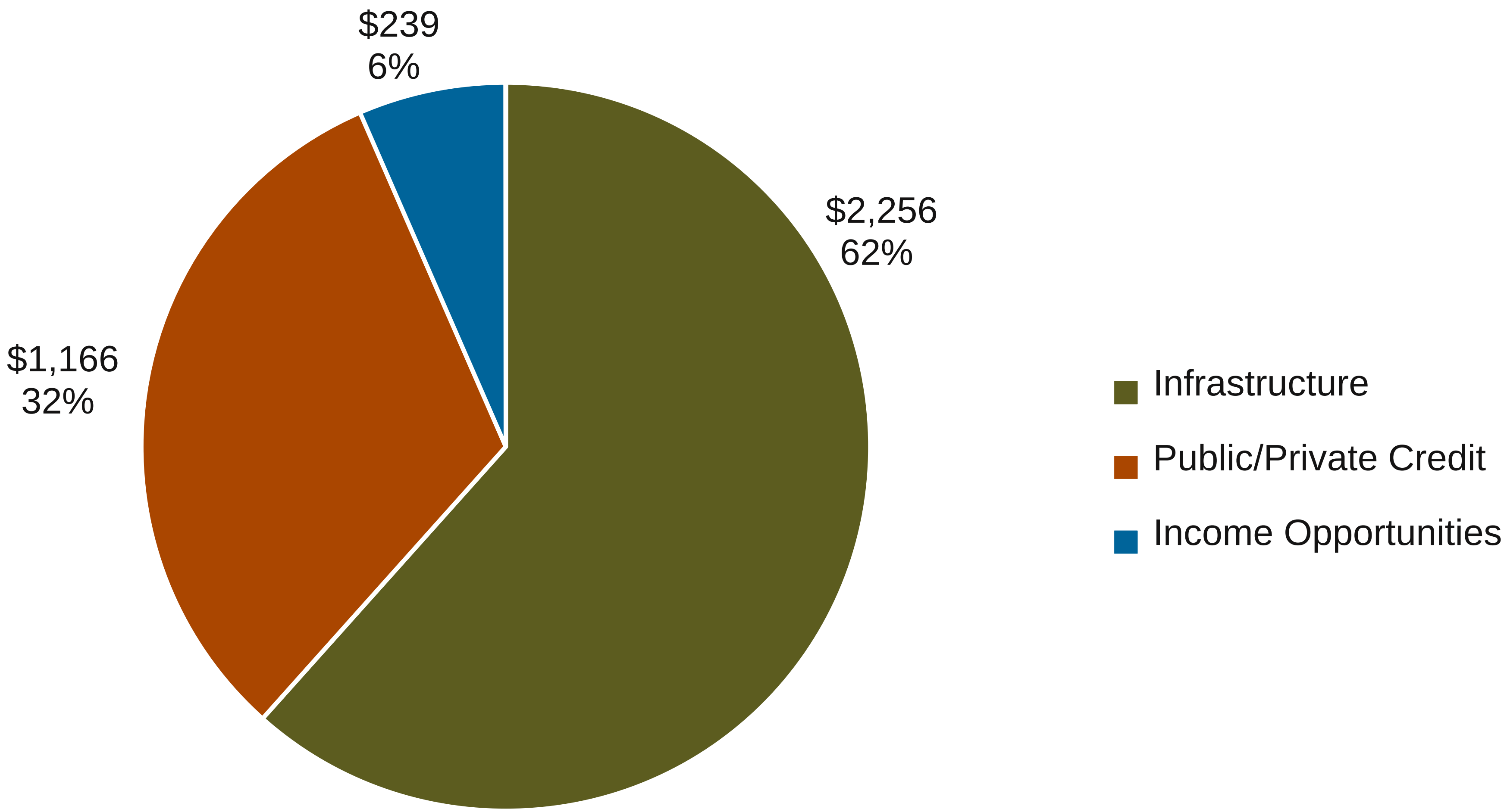
	Last Quarter	Fiscal YTD	Last Year	Last 3 Years	Last 5 Years	Last 7 Years	Last 10 Years
10th Percentile	3.16	7.61	10.48	11.76	12.50	13.30	6.39
25th Percentile	2.53	6.72	8.67	10.70	11.74	12.71	5.50
Median	2.07	5.88	7.70	9.47	10.65	11.51	4.57
75th Percentile	1.79	4.91	6.27	7.78	9.34	10.31	3.63
90th Percentile	1.37	3.82	5.29	5.25	7.52	8.68	1.81
APFC Real Estate ●	1.80	4.74	6.46	9.10	9.86	10.46	5.77
APFC Target ▲	1.80	5.33	6.96	9.21	10.13	10.79	6.09

- Real estate portfolio performance is shown net of fees for all investments.
- APFC Real Estate was in-line with its target in the 1st quarter and trails for all other time periods measured on the chart.
- Relative to the peer group, the portfolio ranks favorably in the very long run, but falls below median in the short- and intermediate-term.

APFC Infrastructure, Private Credit & Income Opp. Structure *(1Q LAG)*

As of March 31, 2018

- 62% of the structure is invested in infrastructure funds, which includes a diversified portfolio of infrastructure, timber, energy, and power assets.
- 32% of the structure is invested in public/private credit mandates including mezzanine debt, opportunistic credit, and direct lending strategies.
- 6% of the structure is invested in income opportunities, which currently includes the American Homes 4 Rent II fund.



Infrastructure, Private Credit & Income Opp. Performance *(1Q LAG)*

As of March 31, 2018

	Last Quarter	FYTD	Last Year	Last 3 Years	Last 5 Years
Infrastructure, Private Credit, Income Opp	4.07	13.96	16.93	13.41	11.99
60% FTSE Dev Core Infr / 40% BC US Corp HY 2%	1.39	7.36	12.67	5.91	8.85

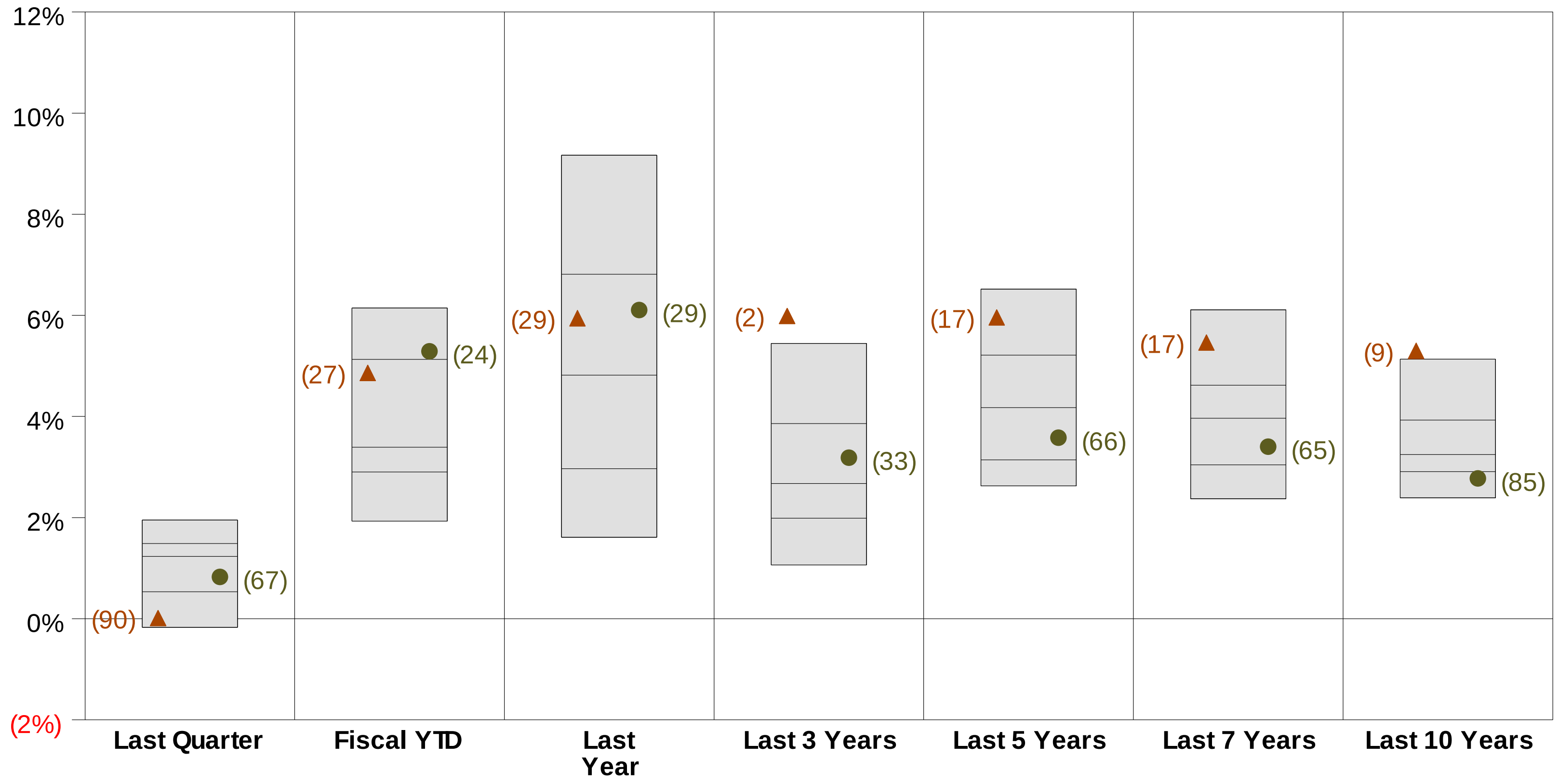
- APFC's Infrastructure, Private Credit, and Income Opportunities composite is ahead of its custom benchmark (60% FTSE Developed Core Infrastructure and 40% BC US Corp HY 2%) for all time periods shown.
- Quarterly outperformance is attributable to Infrastructure, which added 6.1% for the quarter, with notable performance from the Goldman Sachs (+16%) portfolio.

Absolute Return Portfolio Relative to HFOF Universe

Periods Ended March 31, 2018

- The portfolio leads its custom benchmark in the 1st quarter, Fiscal YTD and trailing year.
- However for periods of 3 years and greater, portfolio sits behind its index.
- Absolute Return composite ranks above median relative to peers for Fiscal YTD, trailing year- and three-years, and behind median for recent quarter and longer time periods shown on the chart.

Performance vs Callan Absolute Rtn Hedge Fund of Funds (Net)

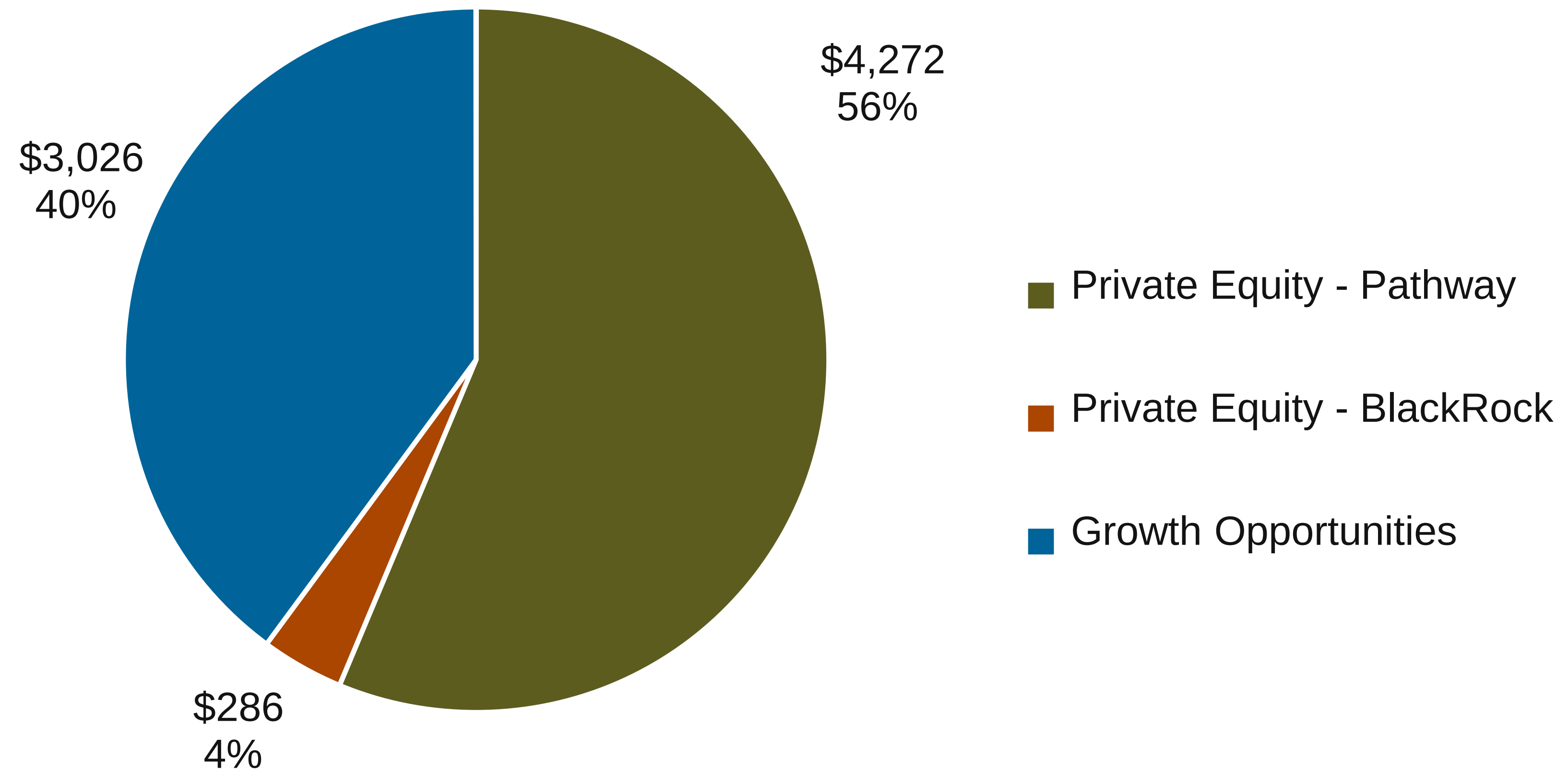


	Last Quarter	Fiscal YTD	Last Year	Last 3 Years	Last 5 Years	Last 7 Years	Last 10 Years
10th Percentile	1.95	6.15	9.17	5.45	6.52	6.11	5.13
25th Percentile	1.49	5.13	6.81	3.86	5.21	4.62	3.93
Median	1.23	3.39	4.82	2.67	4.18	3.97	3.25
75th Percentile	0.53	2.90	2.97	1.99	3.14	3.04	2.91
90th Percentile	(0.17)	1.93	1.61	1.06	2.63	2.37	2.39
Absolute Return (net) ●	0.80	5.26	6.07	3.15	3.54	3.37	2.74
Absolute Return Benchmark ▲	0.02	4.86	5.94	5.99	5.96	5.46	5.30

APFC Private Equity and Growth Opportunities Structure *(1Q LAG)*

As of March 31, 2018

- 60% of the structure is invested in private equity.
- The legacy HarbourVest investments have been transferred to Pathway for oversight management.
- The Pathway portfolio also includes direct investments overseen by Pathway.
- 40% of the structure is invested in growth opportunities.



APFC Private Equity and Growth Opportunities Performance *(1Q LAG)*

As of March 31, 2018

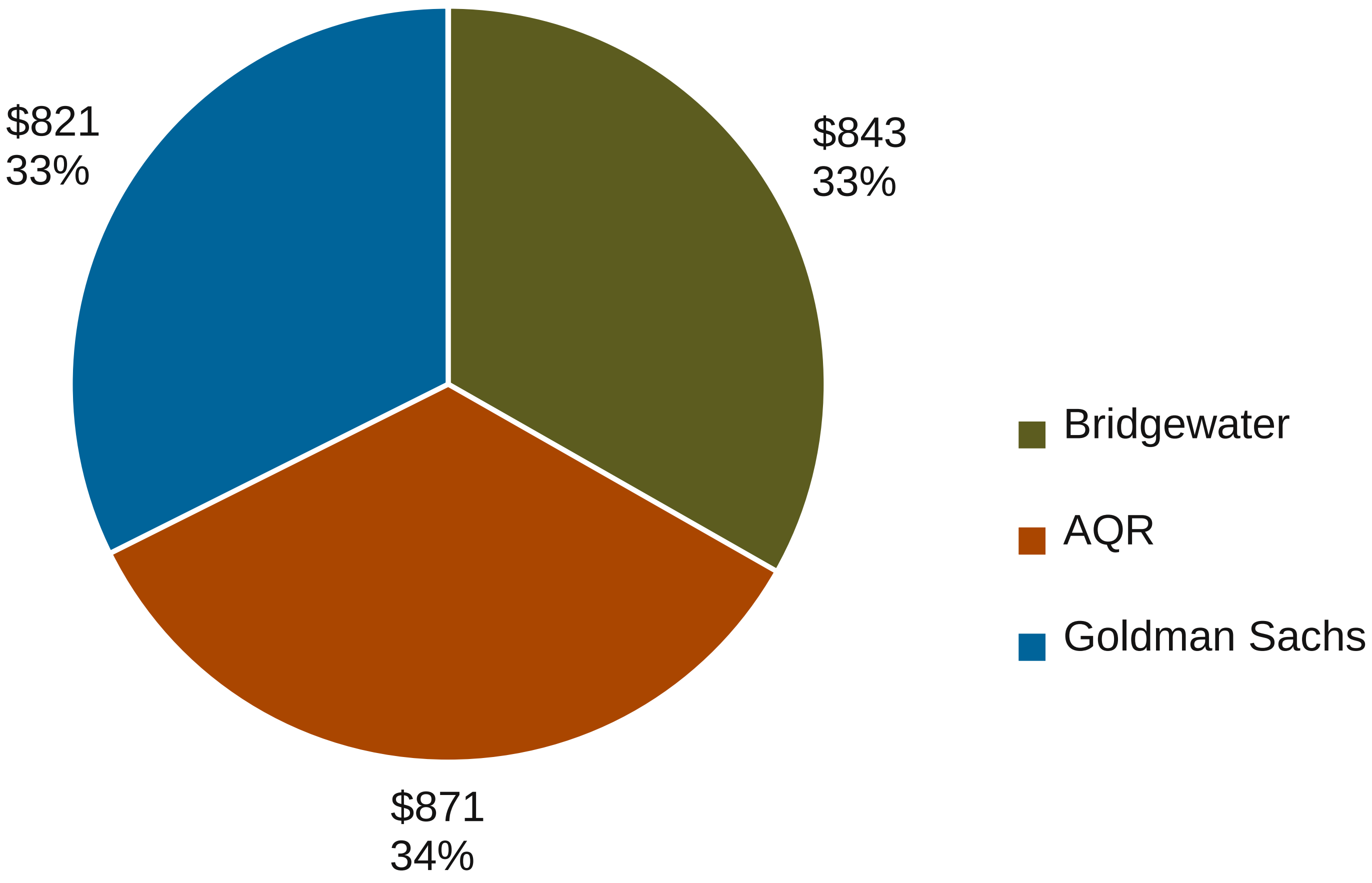
	Last Quarter	FYTD	Last Year	Last 3 Years	Last 5 Years
Private Equity and Growth Opportunities	4.71	18.94	24.38	13.08	22.04
Cambridge Private Equity	5.11	14.84	19.38	12.32	13.90

- APFC's Private Credit and Growth Opportunities composite is ahead of the Cambridge Private Equity Index for all time periods shown, except the recent quarter.
- Quarterly performance was roughly similar between the two portfolios, with Private Equity gaining 4.8% and Growth Opportunities adding 4.5%.

APFC Multi-Strategy Structure

As of March 31, 2018

- Roughly $2.5 billion distributed across three mandates.
- Equal weight target.
- Multi asset class portfolios, limited use of illiquid assets.
- Leverage is used to amplify the impact of asset classes and/or strategies.
- Generally has maintained higher fixed income exposure than APFC total fund.
- Medium-term improvement in performance, particularly from AQR, has enhanced value added since inception of the program



Multi-Strategy Performance

Periods Ended March 31, 2018

	Last Quarter	FYTD	Last Year	Last 3 Years	Last 5 Years	Last 8 Years
AQR	0.06	6.47	5.79	6.64	6.50	9.06
Bridgewater	0.05	6.00	4.34	2.64	5.16	9.36
Goldman Sachs	(1.39)	4.44	6.88	3.14	4.15	6.23
Multi-Strategy Portfolio	**(0.42)**	**5.65**	**5.65**	**4.12**	**4.81**	**6.65**
TF Ret Objective (CPIU+5%)	2.41	5.58	7.36	6.86	6.40	6.73
Benchmark	0.15	7.33	10.69	6.33	7.22	7.66
Passive Index (60/20/10/10)	(0.80)	7.21	10.72	6.09	6.45	6.78
Total Fund	**0.41**	**8.86**	**12.14**	**7.65**	**8.35**	**8.38**

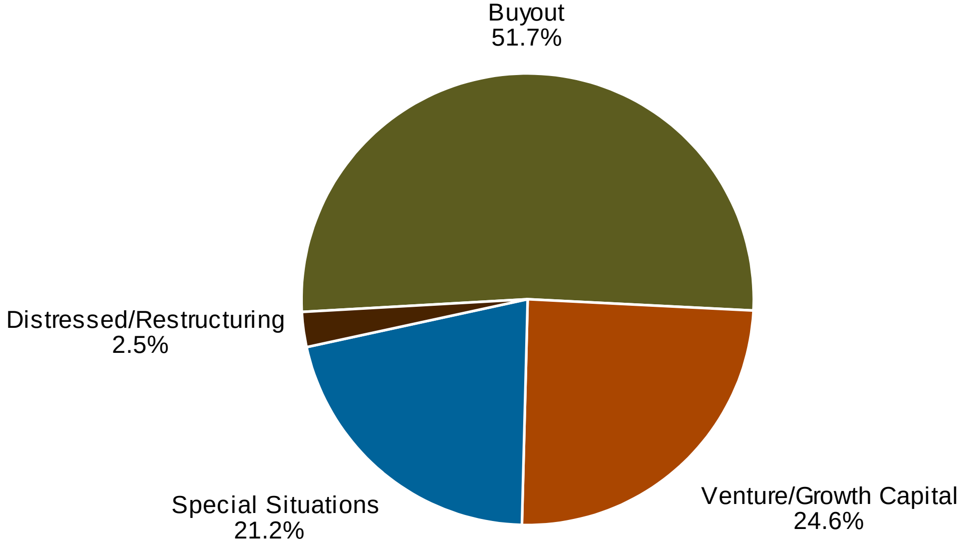
- The multi-strategy portfolio trails the Total Fund, the CPIU+5% objective, the Performance Benchmark, and the Passive Benchmark over the majority of the time periods measured, including since inception.
- Recent improvement in performance has dramatically strengthened long-term returns for the program, however the multi-strategy program still trails the total fund since inception. Since Inception, Bridgewater has contributed the most, followed by AQR, with Goldman contributing the least. However, Goldman has performed best over the last twelve months.
- Long-term underperformance relative to the total fund is explained by a number of factors, but primarily can be attributed to a low exposure to US Equity, an overweight to emerging markets, and levered exposure to fixed income. Additionally, the Multi-Strategy Composite includes terminated managers PIMCO and GMO.

Private Equity Portfolio Positioning

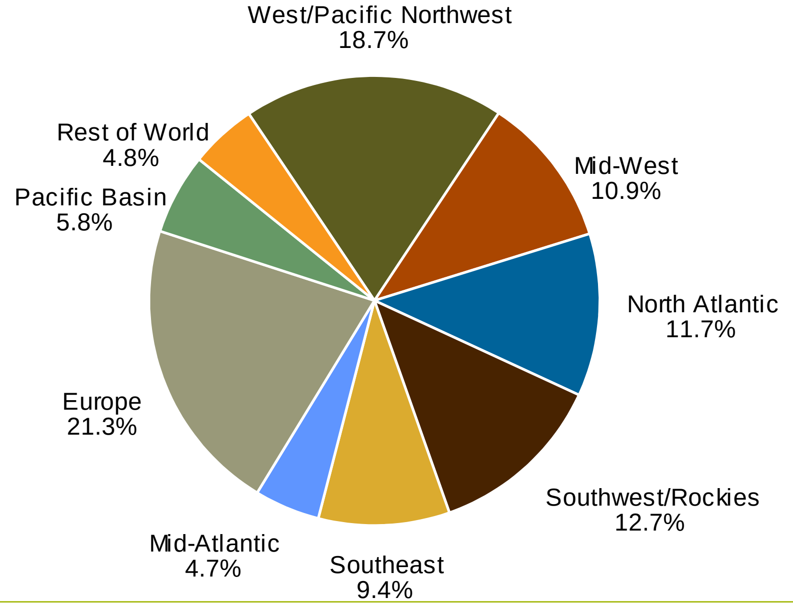
As of September 30, 2017

- APFC's Total Private Equity Portfolio is well-diversified by strategy, geography, and industry.
- All key sectors are included: venture capital, buyout, special situations and distressed debt. Buyouts remain the largest allocation.
- The largest non-U.S. sector exposure is developed Europe.
- The largest industry sector is Technology.

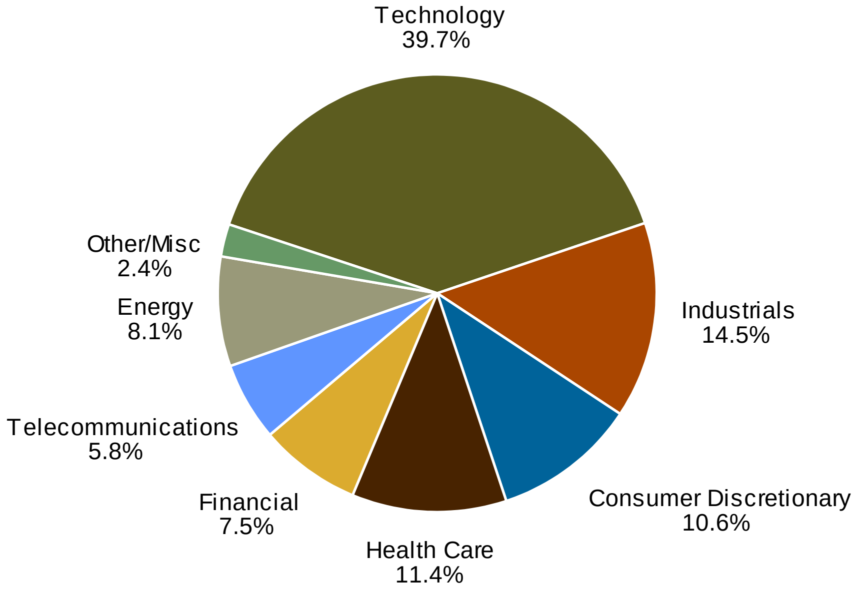
Portfolio Diversification by NAV



Geographic Diversification by NAV



Industry Diversification by NAV



Closing Remarks

- Total Fund ended the first quarter of 2018 with $66.5 billion in assets, gaining 0.4% for the quarter. For the last 12 months, the Fund has risen 12.1%. This trailing year performance puts the Total Fund in the top fifth relative to other large public funds, and in the top third versus other large endowments/foundations.
- Total Fund trails the CPIU+5% objective for the quarter, but bests the other two performance targets. Additionally, Total Fund is ahead of all three targets for Fiscal YTD and the trailing 1-, 3- and 5-year periods.
- Over longer periods (last 10- and 20-years), the total Fund trails only the CPIU+5% return objective.
- Strong recent performance has helped the Fund perform well relative to most large public funds and endowments. Longer-term performance has not fared as well versus peers, largely due to a comparatively high allocation to non-US equity, emerging markets, and fixed income – this effect, particularly versus endowments, has improved in the near-term.
- The Public Equity portfolio led its index during the quarter. Within Domestic Equities, the small capitalization bias benefitted performance. International Equities performance was aided by a weak US dollar and an overweight to the strong performing emerging markets. Intermediate- and longer-term performance of the Public Equity portfolio closely tracks the index.
- The Fixed Income Plus portfolio was roughly in-line with its respective benchmark. Non US Fixed Income and Emerging Market Debt helped buoy returns, but were offset by absolute performance from REITs and Listed Infrastructure.
- The alternatives portfolios' performance for the most part saw broad based gains. Private Equity & Growth Opportunities (+4.7%) added the most value to overall performance, followed by Infrastructure, Private Credit & Income Opportunities (+4.1%), Real Estate (+1.9% gross), and Absolute Return (+0.8%). Asset Allocation (-0.8%) was the only portfolio with returns in the red.
- The Total Fund return in the 1st quarter provided solid gains. Prudent asset allocation with appropriate levels of diversification and a long-term perspective remain Callan's recommended course.

Asset Allocation and Performance Memo

APFC ALASKA PERMANENT FUND CORPORATION
801 W 10TH SUITE 302 | JUNEAU, AK 99801
907.796.1500 | apfc.org

SUBJECT: Asset Allocation and Performance ACTION:

DATE: May 23, 2018 INFORMATION: X

BACKGROUND:

The Asset Allocation and Performance overview provides a snapshot of the asset allocation and performance of the Total Fund and its underlying asset classes through March 31, 2018.

STATUS:

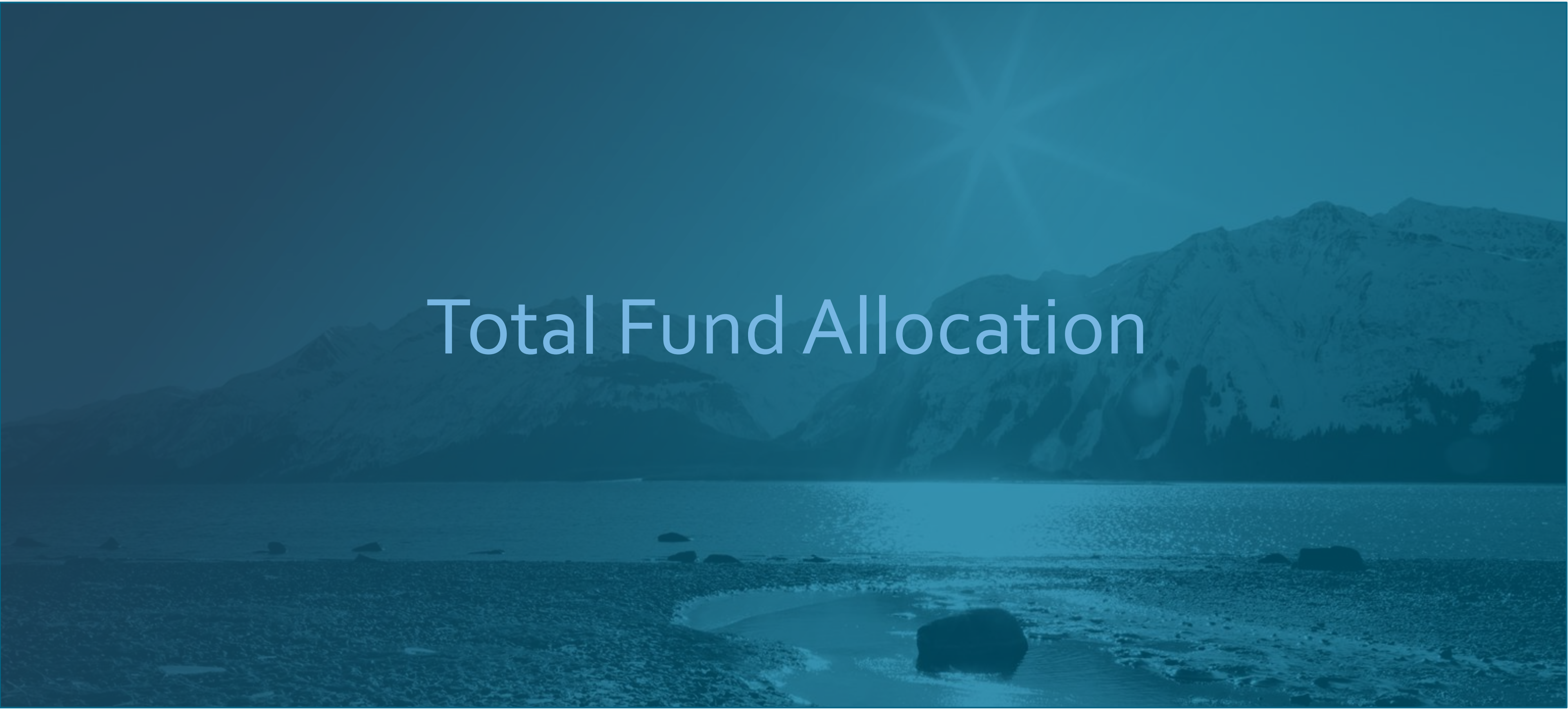
At this meeting, the Director of Risk and Asset Allocation will provide an overview of key measures of asset allocation and performance.

Asset Allocation and Performance Presentation

APFC ALASKA PERMANENT FUND CORPORATION

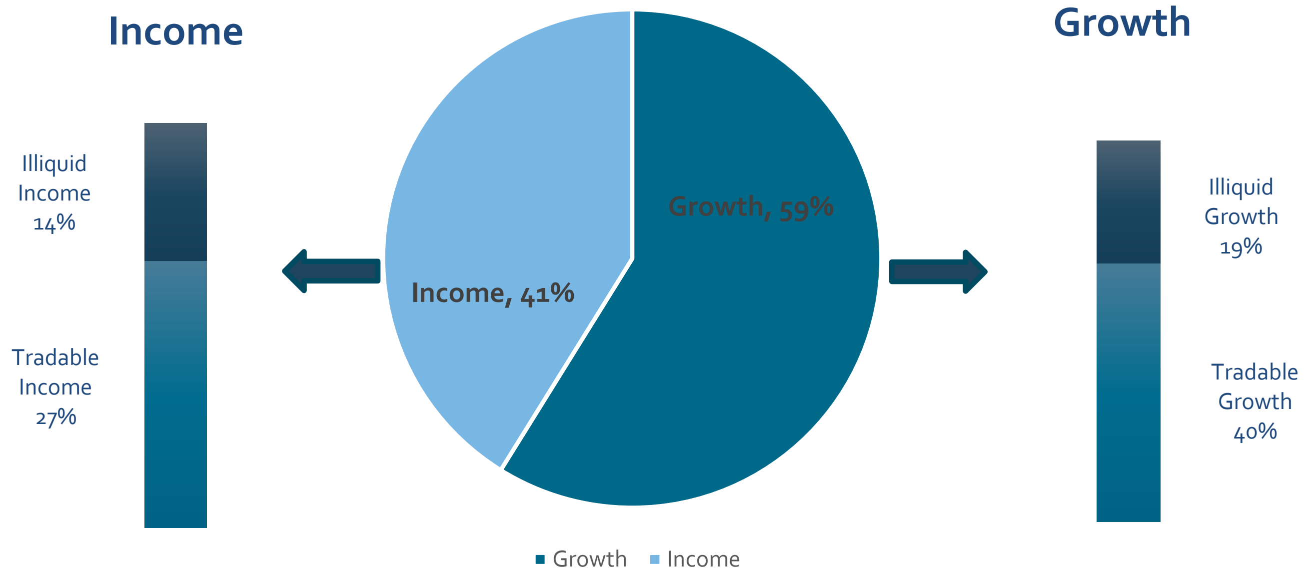
Asset Allocation and Performance

May 2018


Total Fund Allocation

Asset Allocation by Objective

as of 3/31/2018



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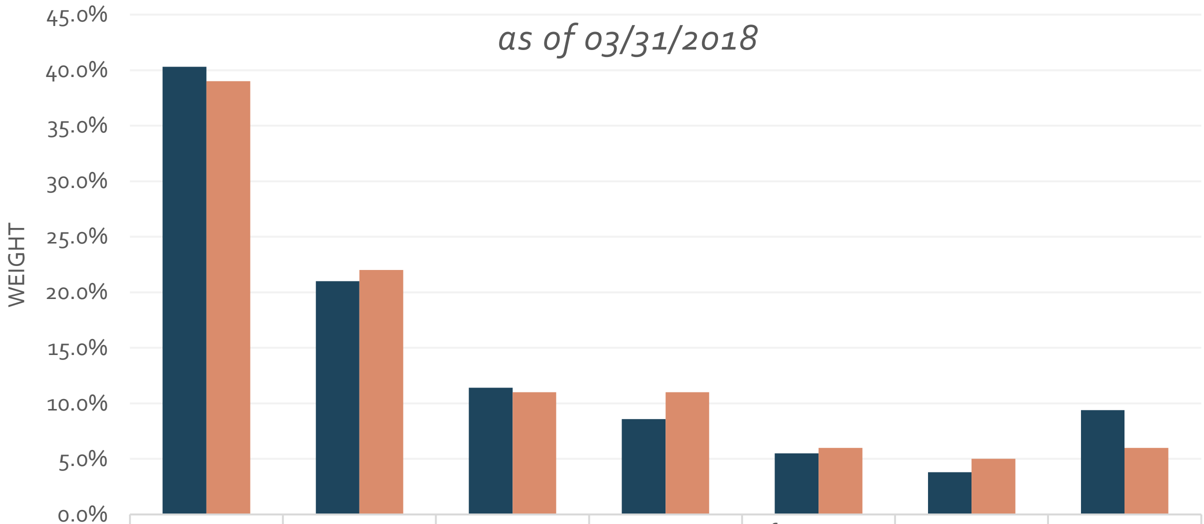
Asset Allocation by Strategy



	Public Equities	Fixed Income Plus	Private Equity & Special Growth	Real Estate	Infrastructure & Special Income	Absolute Return	Asset Allocation
Actual	40.3%	21.0%	11.4%	8.6%	5.5%	3.8%	9.4%
Target	39.0%	22.0%	11.0%	11.0%	6.0%	5.0%	6.0%


Performance

Performance *as of 3/31/2018*

	Last Quarter	Last Year	Last 3 Years	Last 5 Years
Fund	0.41%	12.14%	7.65%	8.35%
Performance Benchmark	0.15%	10.69%	6.33%	7.22%
Passive Benchmark	-0.80%	10.72%	6.09%	6.45%
CPI+5%	2.41%	7.36%	6.86%	6.40%

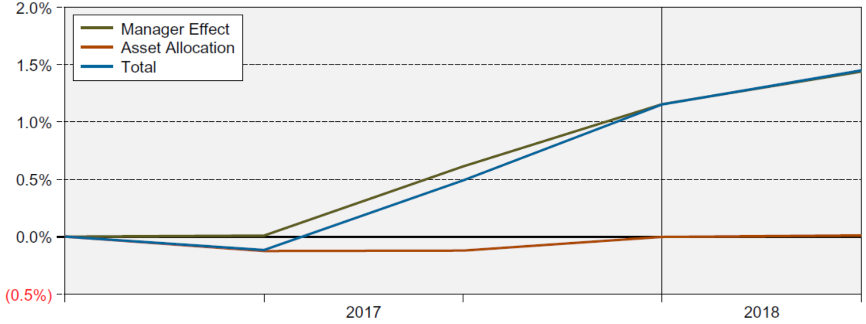
Performance Benchmark as of 3/31/2018: 40.6% MSCI ACWI IMI, 11.5% NCREIF 1Q Lag, 11.5% CAPEI 1Q Lag, 5.7% Blmbg Aggregate, 5.7% Blmbg Corporate, 5.2% HFRI Fund Weighted Compos, 3.8% FTSEIFRTR 1Q Lag (FTDCII), 3.2% 3-month Treasury Bill, 2.5% FLHY 1Q Lag (LBHYC2), 2.3% Blmbg Glob Treas ex US H, 2.3% Blmbg HY 2% Iss Cap, 2.3% S&P Global REIT (Net), 1.1% Blmbg EM Hard Curr Agg, 1.1% Blmbg US TIPS and 1.1% S&P Global Infra Net Idx.
Passive Index Benchmark as of 6/30/2010: 60% MSCI ACWI IMI/ 30% BC Global Agg/10% MS US REITs; through 6/30/13: 60% MSCI ACWI IMI/ 30% BC Global Agg,/5% MS US REITs/ 5% 3 month T-bills; and 60% MSCI ACWI IMI, 20% BC Global Agg, 10% FTSE EPRA/NAREIT Rental and 10% US TIPS thereafter.

Fund vs. Risk Benchmark *as of 3/31/2018*

3 months ending 3/18	Portfolio Weight	Portfolio Return	Benchmark Weight	Benchmark Return	Relative Contribution
Public Equities	40.30%	-0.42%	39.00%	-0.89%	0.18%
Fixed Income Plus	21.00%	-1.74%	22.00%	-1.83%	0.04%
Private Equity and Growth	11.40%	4.71%	11.00%	5.11%	-0.03%
Real Estate	8.60%	1.89%	11.00%	1.80%	-0.04%
Infrastructure, Private Credit and Income Opportunities	5.51%	4.07%	6.00%	1.39%	0.14%
Absolute Return	3.80%	0.80%	5.00%	0.02%	0.03%
Asset Allocation	9.40%	-0.81%	6.00%	0.15%	-0.09%

One Year Relative Attribution *as of 3/31/2018*

Cumulative Relative Attribution Effects

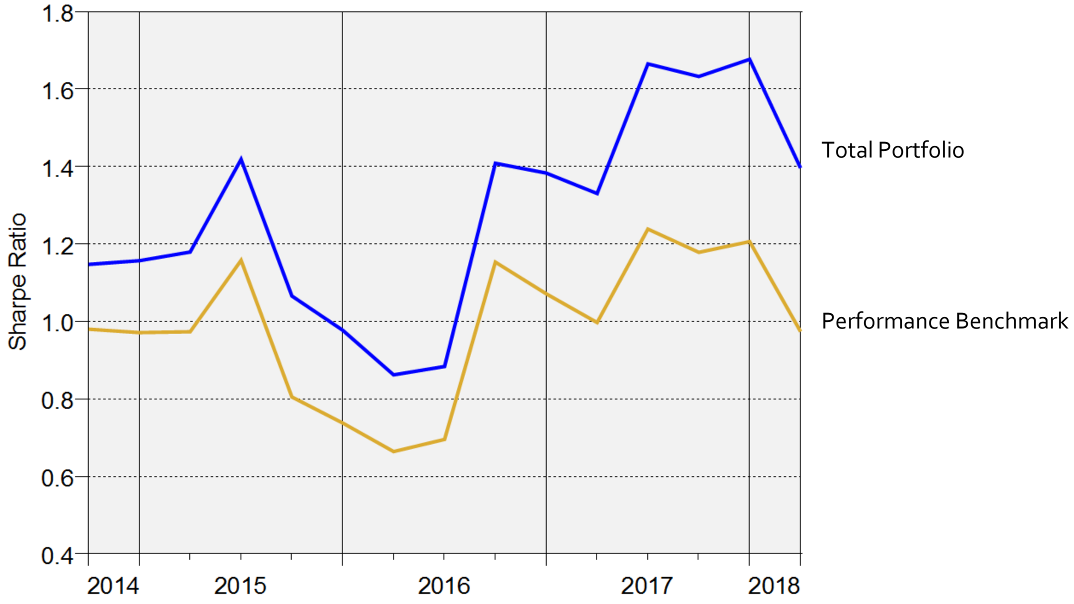


One Year Relative Attribution Effects

Asset Class	Effective Actual Weight	Effective Target Weight	Actual Return	Target Return	Manager Effect	Asset Allocation	Total Relative Return
Public Equities	43%	41%	16.31%	15.03%	0.52%	0.18%	0.70%
Fixed Income Plus	20%	22%	2.84%	2.34%	0.11%	0.11%	0.22%
Real Estate	9%	11%	6.82%	6.96%	(0.02%)	0.06%	0.04%
Priv Credit/Infra/Inc Opp	5%	6%	16.93%	12.67%	0.22%	(0.01%)	0.21%
Adrian Lee FX	0%	0%	(74.55%)	(74.55%)	0.00%	0.00%	0.00%
Absolute Return	4%	5%	6.07%	5.94%	0.01%	0.07%	0.08%
Private Eq & Growth Opp	11%	11%	24.38%	19.38%	0.51%	(0.03%)	0.48%
Asset Allocation	8%	3%	3.16%	1.11%	0.09%	(0.38%)	(0.29%)
Total			**12.14%**	**= 10.69%**	**+ 1.44%**	**+ 0.01%**	**1.45%**

Efficiency *as of 3/31/2018*

Rolling 60 Month Sharpe Ratio
for 3 1/2 Years Ended March 31, 2018



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Performance Scorecard *as of 3/31/2018*

Time Horizon	Objective	APFC	Benchmark	Percentile
Short-Term (1 year Return)	Outperform Indexes	12.14%	10.71%	24%ile
Medium Term (3-year Return)	Outperform Peers	7.65%	6.66%	11%ile
Long-Term (5-year Return and Sharpe Ratio)	Outperform CPI +5%	8.35%	6.40%	16%ile
	Sharpe Ratio > 0.5	1.4	0.5	4%ile
			Average Long-Term Percentile	10%ile
Average Percentile Ranking Among the Three Objectives: 15%ile				
Average Percentile Ranking as of December 31, 2017: 19%ile				

Investment Risk Report Memo

APFC ALASKA PERMANENT FUND CORPORATION

801 W 10TH SUITE 302 | JUNEAU, AK 99801
907.796.1500 | apfc.org

SUBJECT: Investment Risk Report ACTION: ____

DATE: May 23, 2018 INFORMATION: ___X_

BACKGROUND:

The Investment Risk Report provides an overview of historical and forward-looking measures of risk for the Total Fund and its underlying asset classes.

The updated Investment Risk Report considers realized volatility and Sharpe Ratios as a risk framework for evaluating forward-looking Value-at-Risk and scenario analysis. It then covers Geographic, Currency, and Liquidity risks for the Total Fund.

STATUS:

At this meeting, Staff will present some of the key measures of the Risk of the fund. The graphical presentation of the APFC's key risk measures include statistics that measure realized volatility and Sharpe Ratios, asset class and factor contributions to risk, tracking error to benchmarks, risk scenarios, and Value-at-Risk.

Investment Risk Report

APFC ALASKA PERMANENT FUND CORPORATION

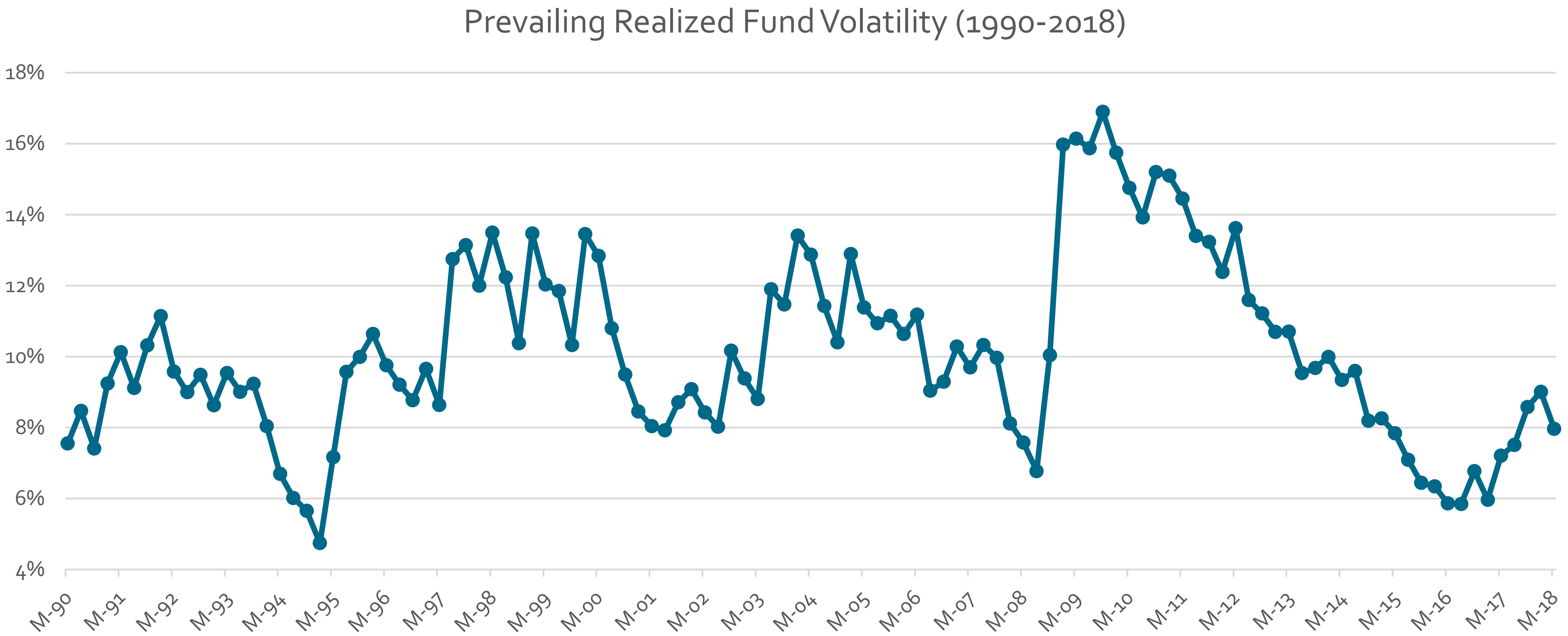
Investment Risk Report

May 23, 2018

Prevailing Realized Fund Risk

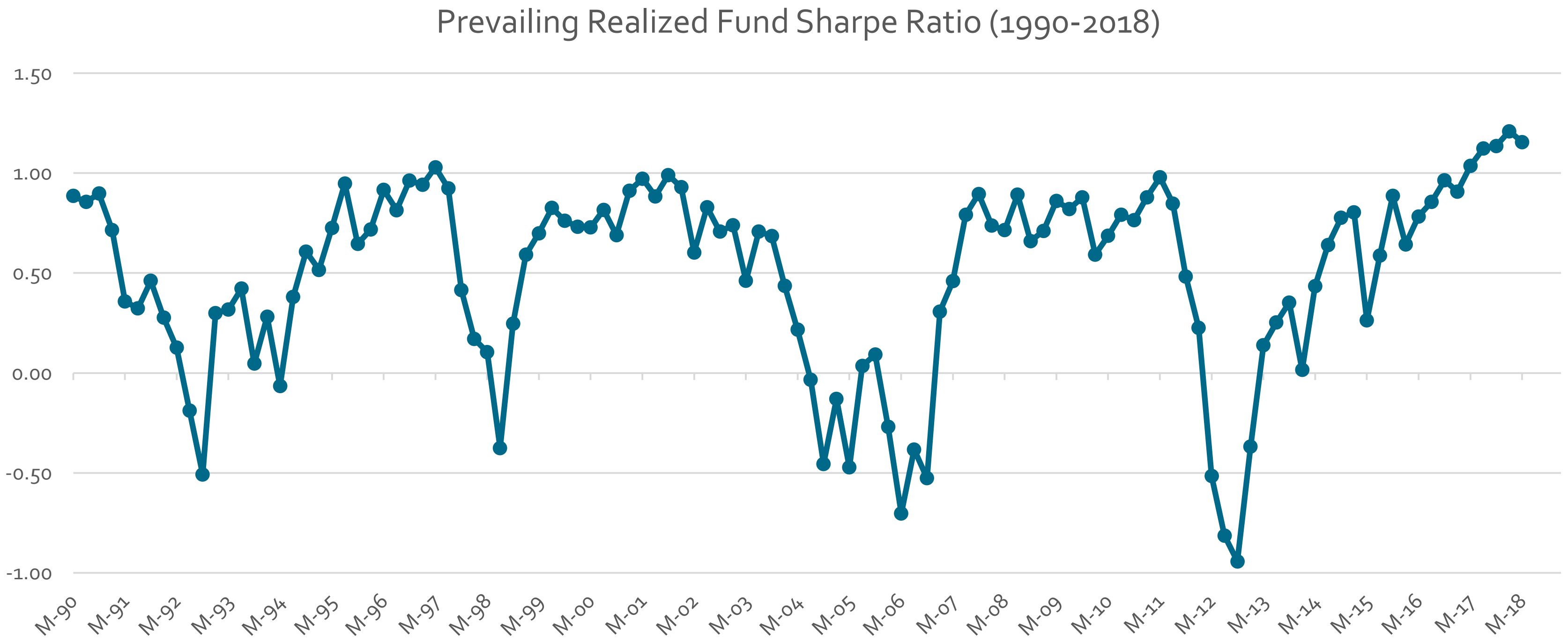
As of March 30, 2018

Realized Fund Volatility



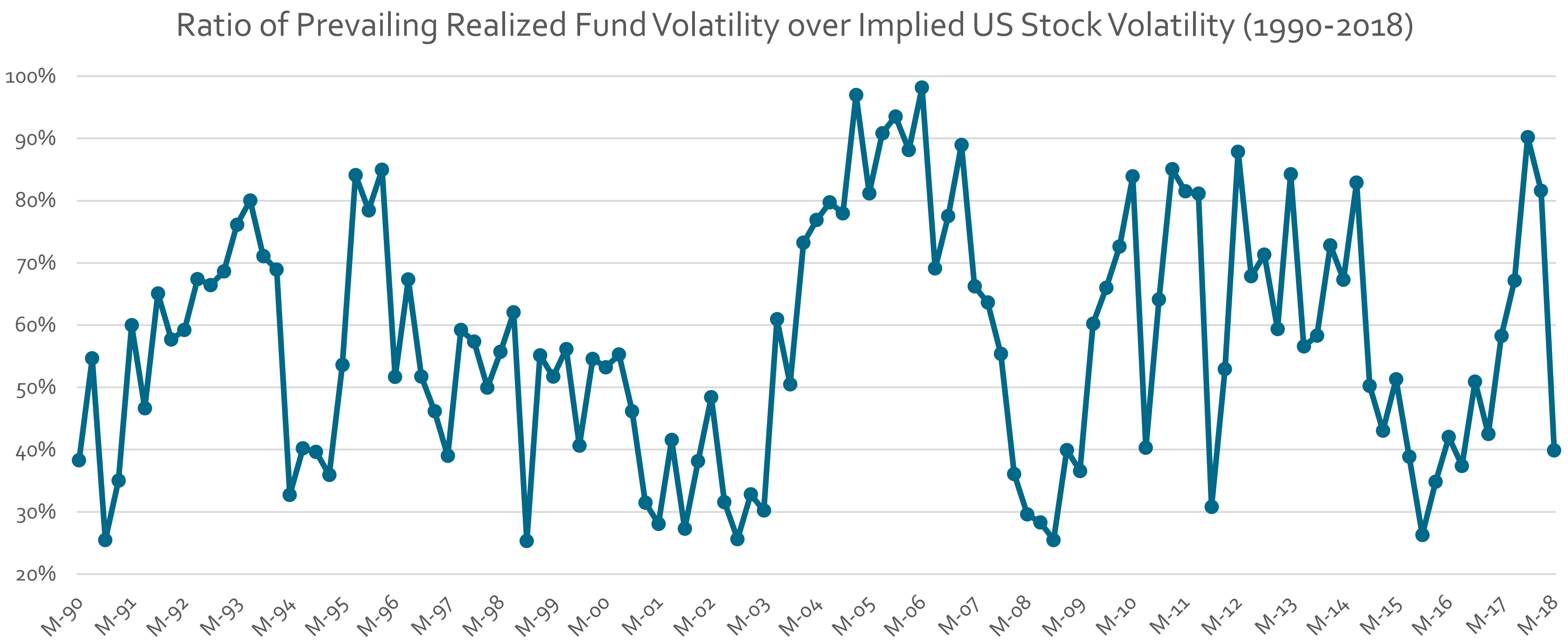
- Calculated as 3-Year Rolling Weighted Moving Average Volatility
- M = March

Realized Fund Sharpe Ratio



- Calculated using 3 Mo. US Govt. Bonds and 3 year Rolling Weighted Moving Average Returns and Volatility for the Total Fund
- M = March

Comparative Fund Volatility

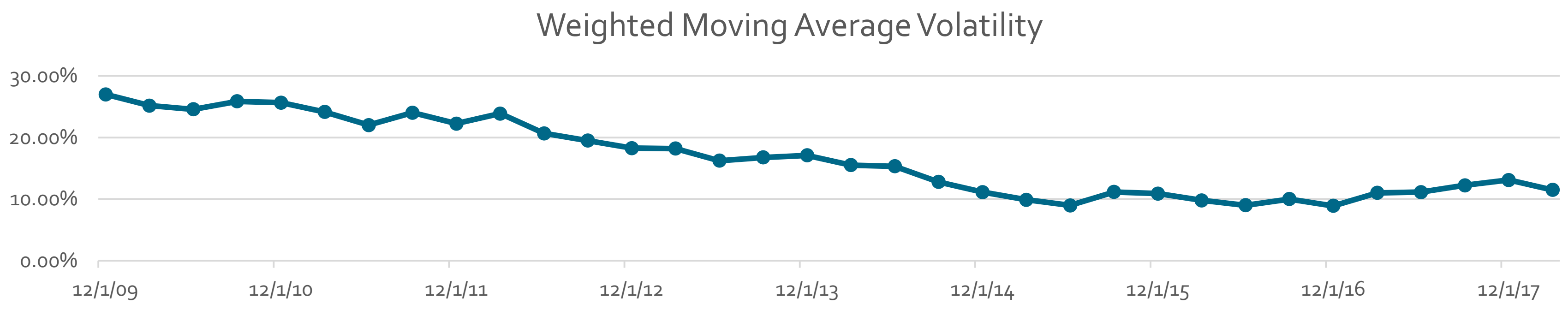


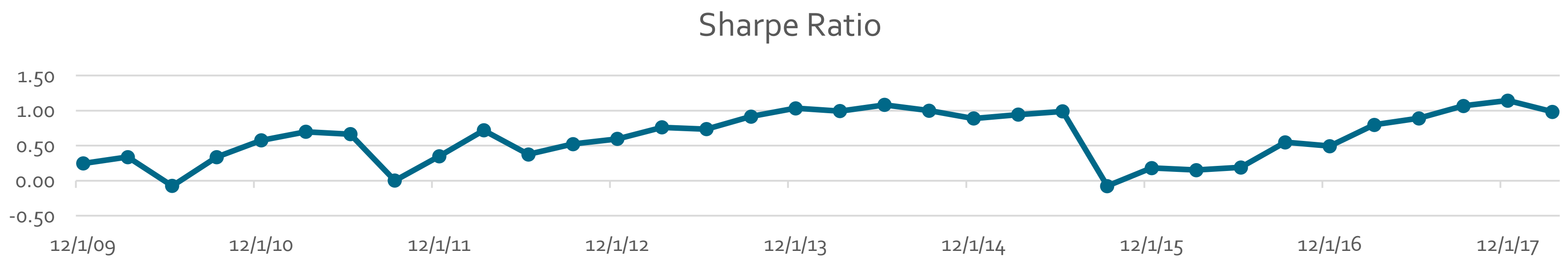
- Calculated using VIX and Rolling Weighted Average Volatility
- M = March

Asset Class Risk

As of March 30, 2018

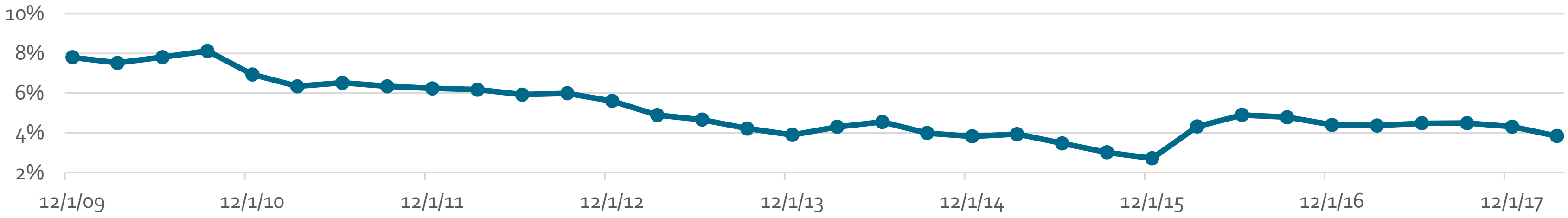
Public Equities *(as of 03/30/2018)*



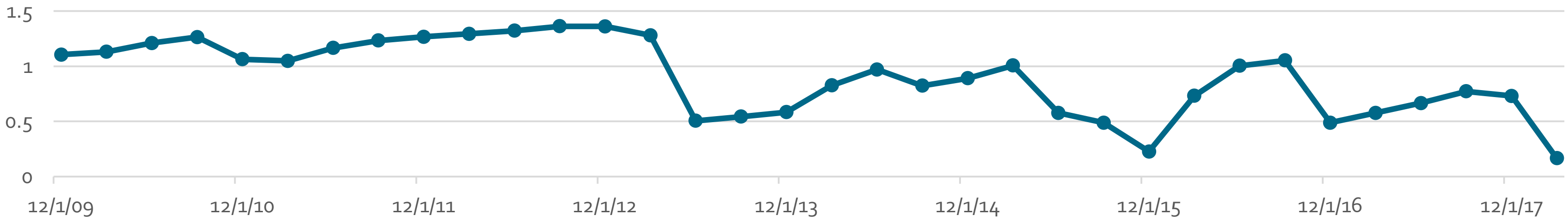


Fixed Income Plus *(as of 03/30/2018)*

Weighted Moving Average Volatility

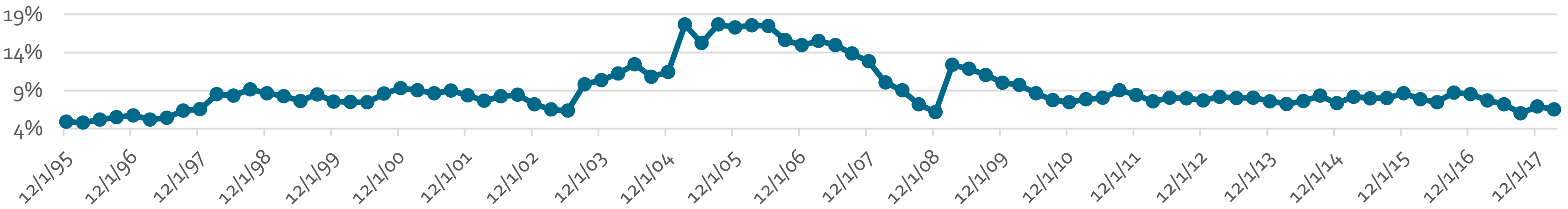


Sharpe Ratio

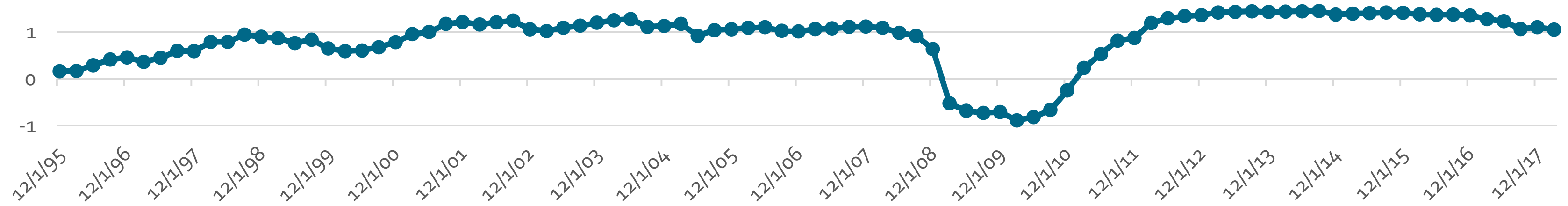


Real Estate *(as of 03/30/2018)*

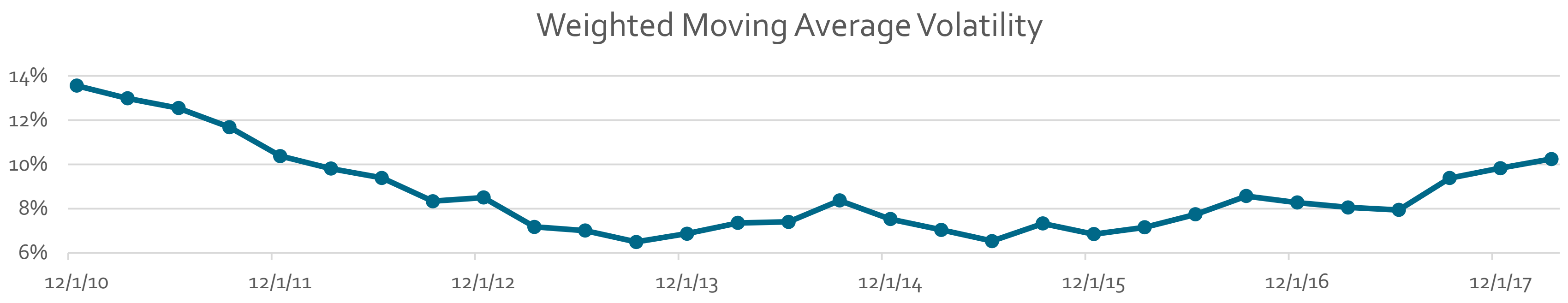
Weighted Moving Average Volatility

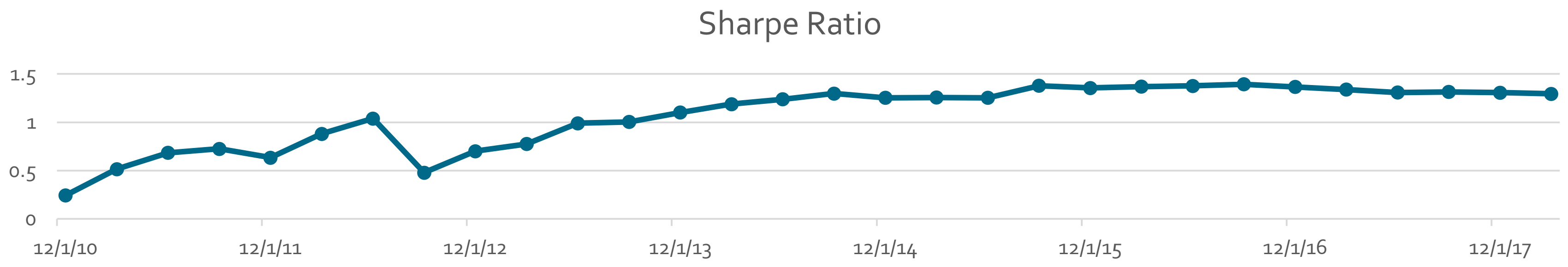


Sharpe Ratio



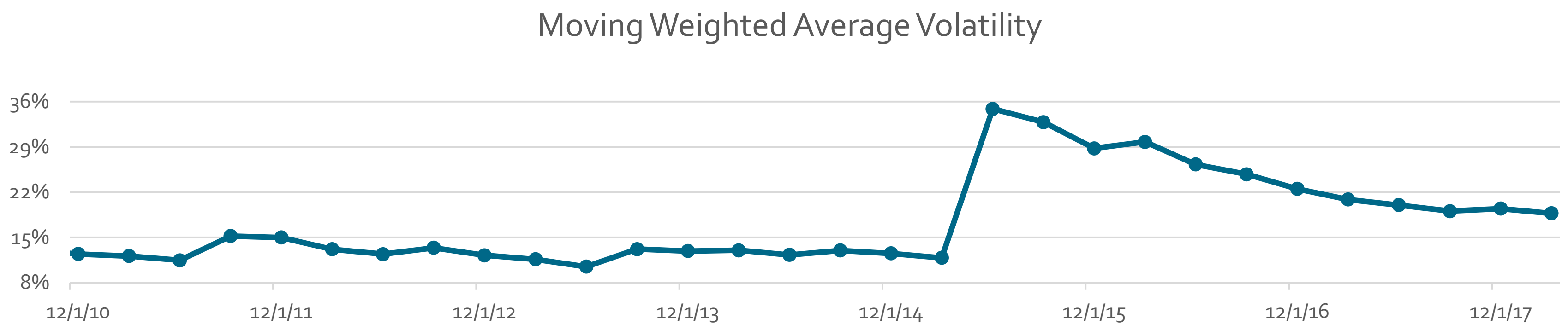
Infrastructure, Private Credit, and Income Opportunities
(as of 03/30/2018)

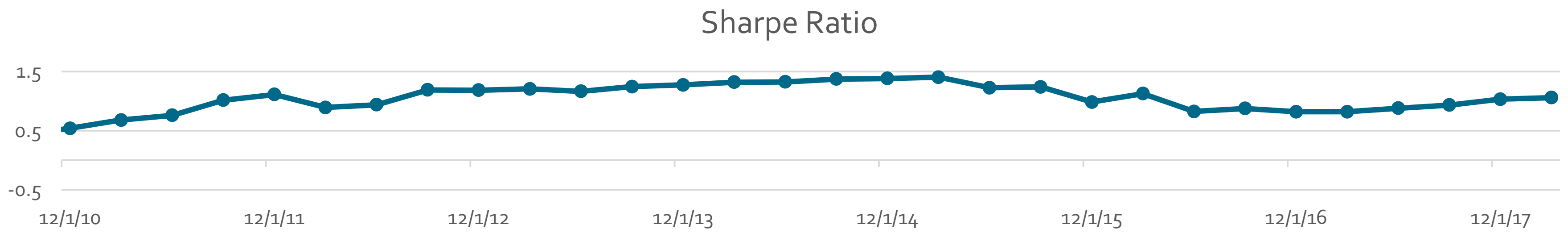




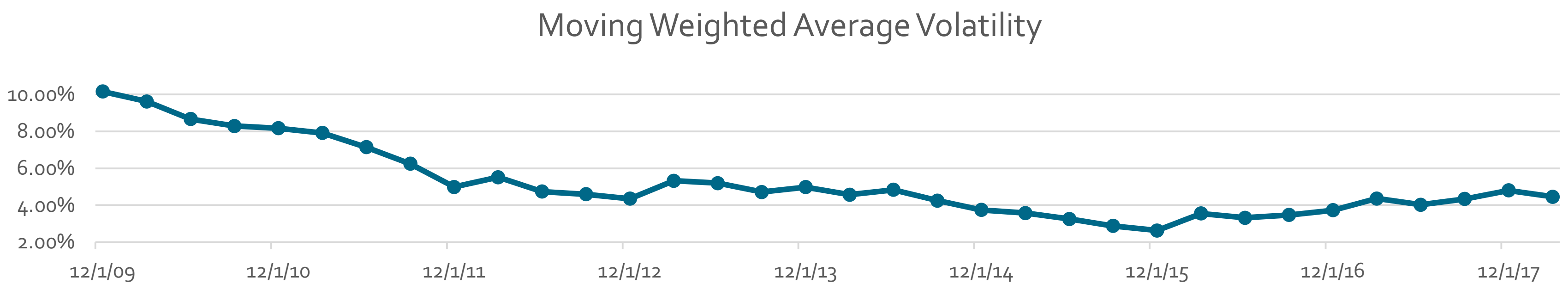
Private Equity and Special Opportunities

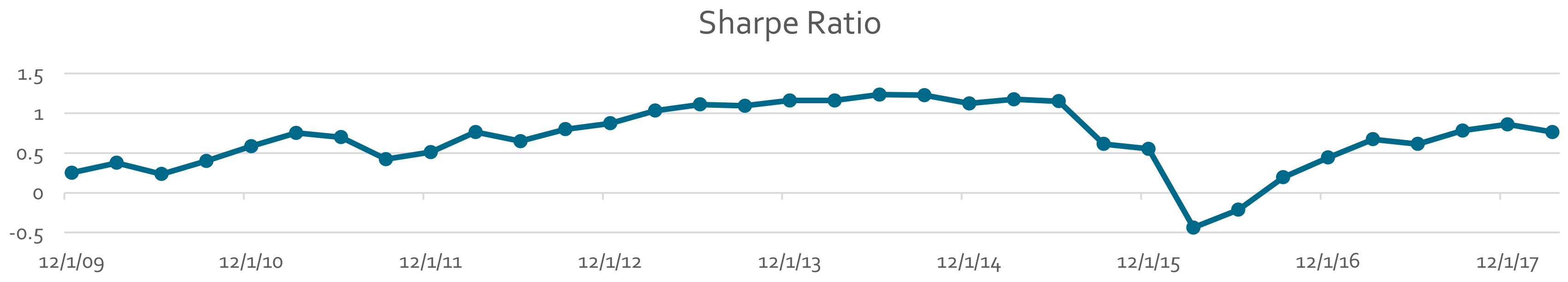
(as of 03/30/2018)





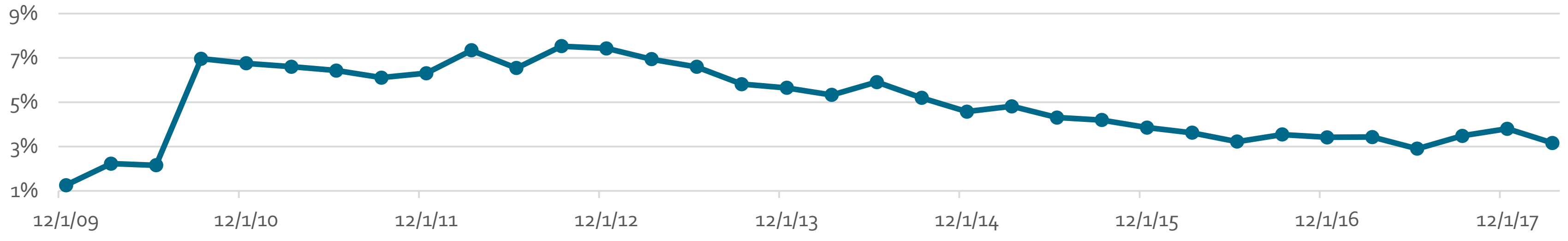
Absolute Return *(as of 03/30/2018)*



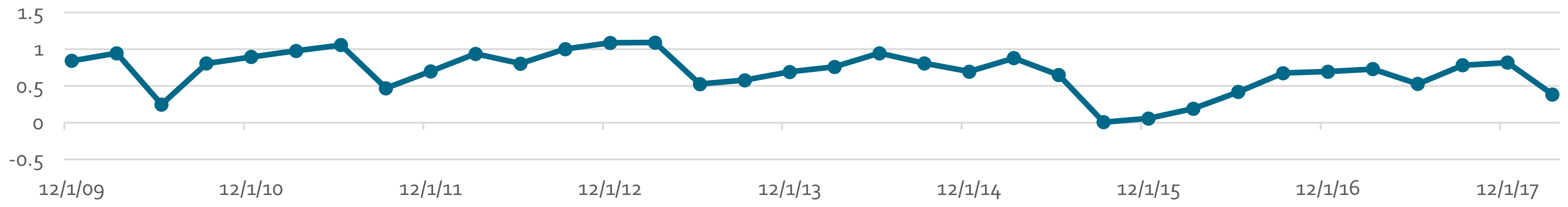


Asset Allocation *(as of 03/30/2018)*

Moving Weighted Average Volatility



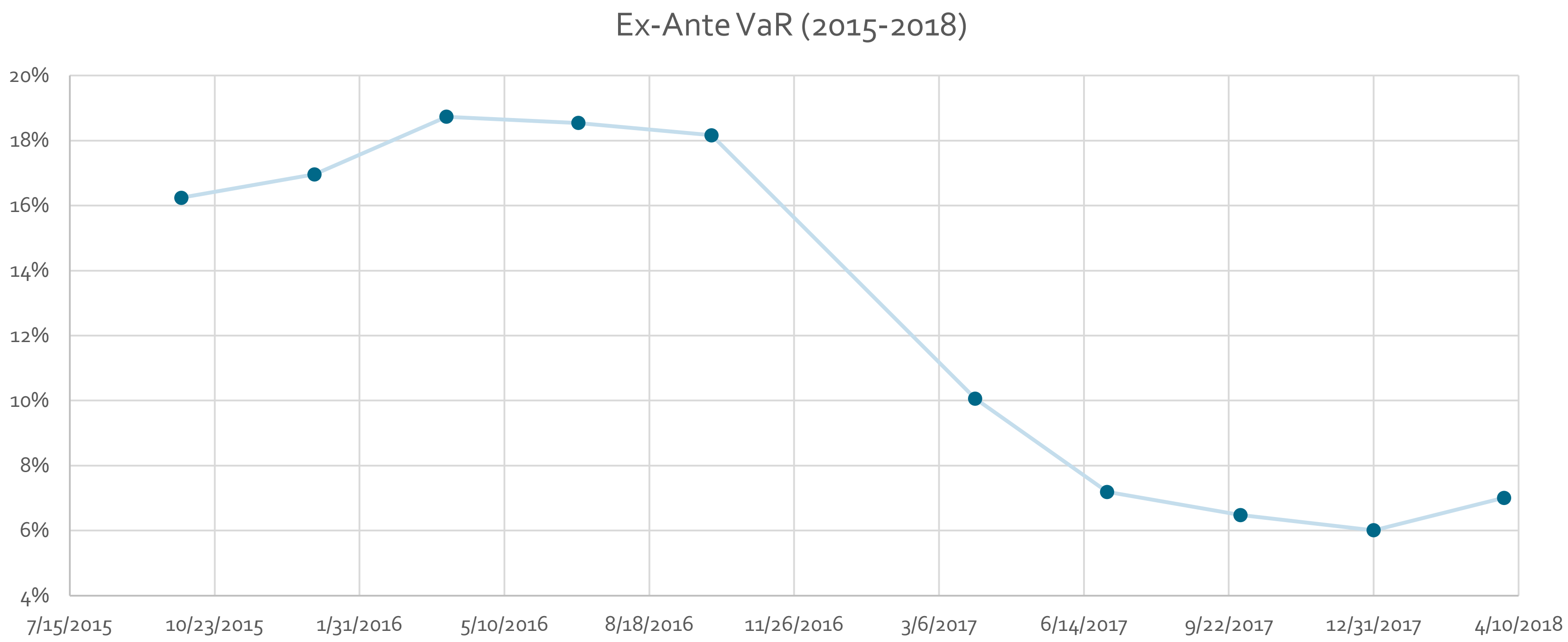
Sharpe Ratio



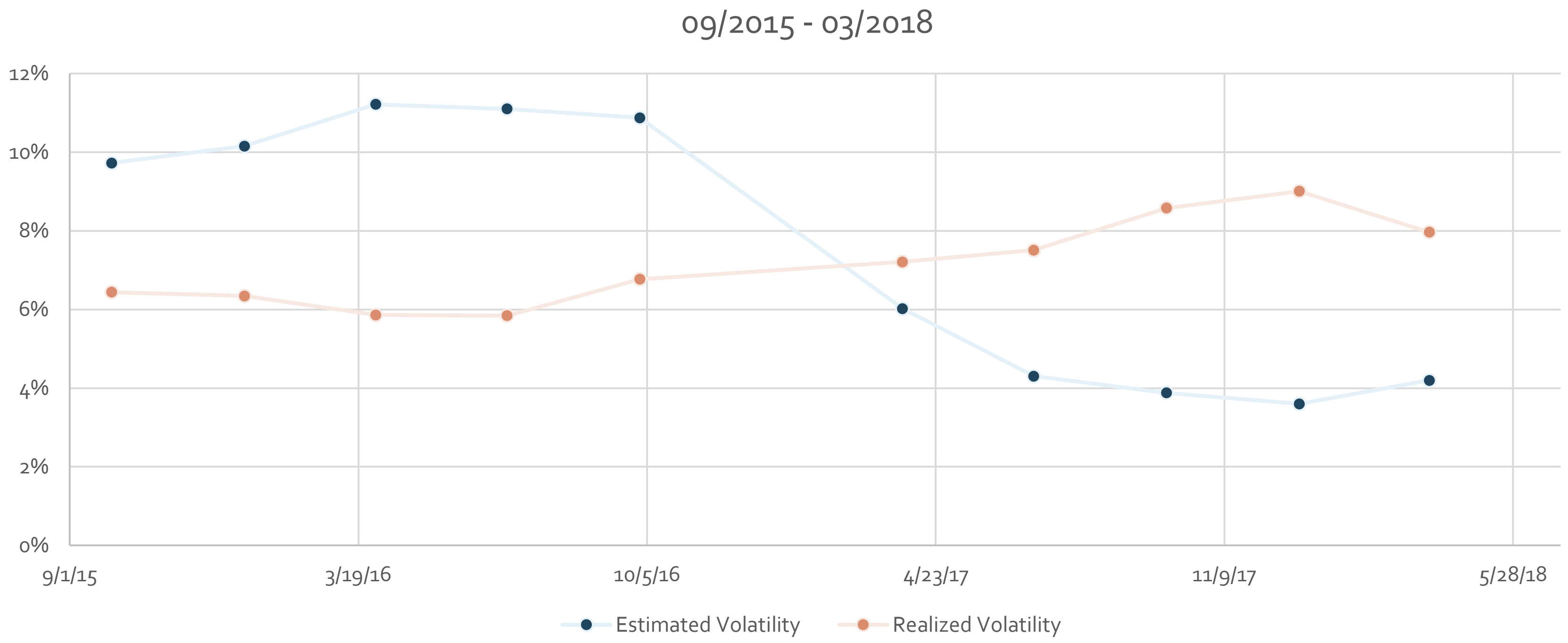
Value-at-Risk

As of March 30, 2018

Historical Ex-Ante Value-at-Risk (VaR)



Total Fund Estimated Volatility Compared to Realized Volatility



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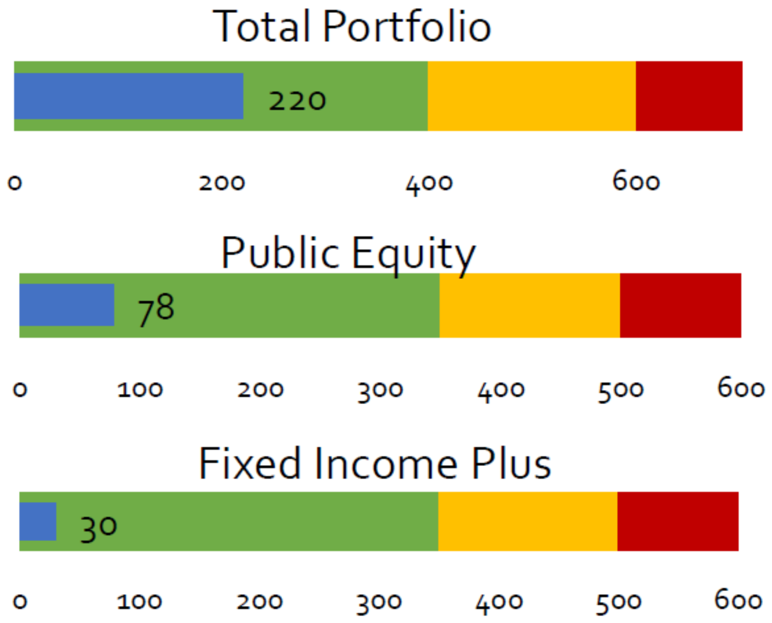
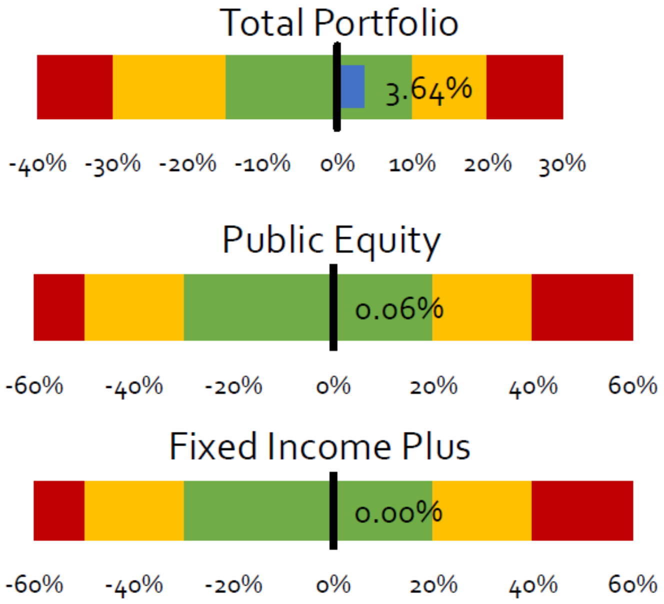
Ex-Ante VaR & Tracking Error *(as of 03/30/2018)*

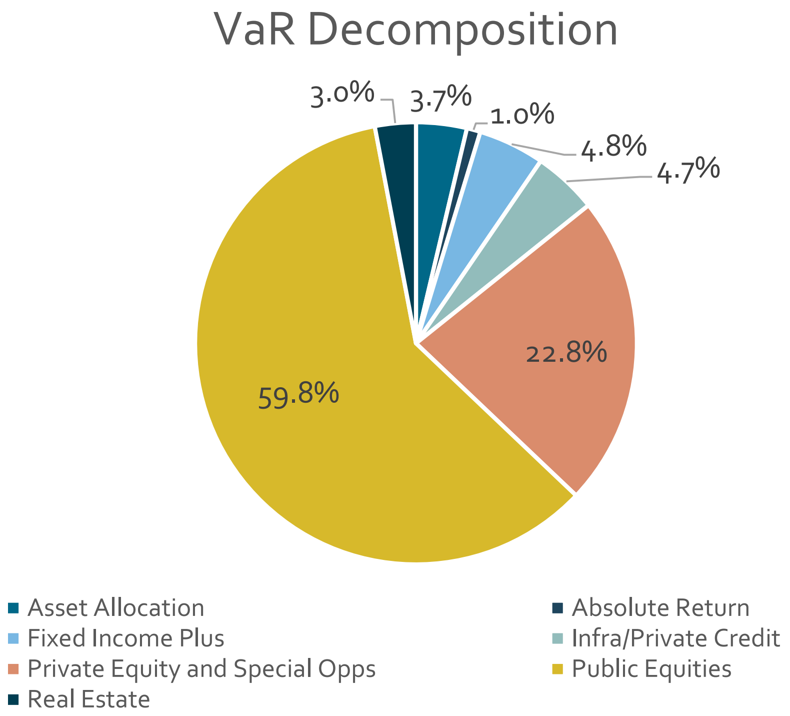
Tracking Error (1-Year)



Value at Risk (1-Year, vs. BM)



Ex-Ante VaR Decomposition *(as of 03/29/2018)*



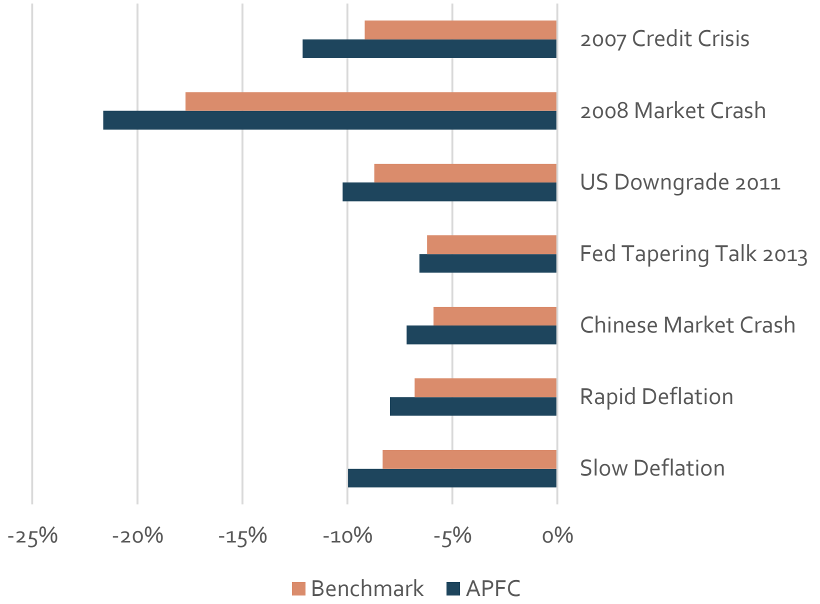
Scenario Analysis

As of March 30, 2018

Tail Risk: Scenarios

Scenario	Definition
2007 Credit Crisis	Credit & liquidity crisis stemming from a severe slowdown in the housing market causing significant widening of credit spreads and increased implied volatility.
2008 Market Crash	S&P 500 down 20% (2000 bps).
US Downgrade 2011	The period starts with 50% chance US downgrade indication from S&P standards and ends with Operational Twist announcement from the Fed (stock market losses and bond market gains).
Fed Tapering Talk 2013	Equity & bond markets sold off. EM suffered badly due to hot money flight back to U.S.
Chinese Market Crash	Chinese stock market crash beginning with the popping of the stock market bubble on June 12, 2017.
Rapid Deflation	Oil down 60% (6000 bps); ST Inflation down 350 bps; Mortgage spreads tighten 25 bps.
Slow Deflation	LT deflation down 200 bps; LT Treasury Rates down 100 bps; Mortgage spreads tighten 25 bps.

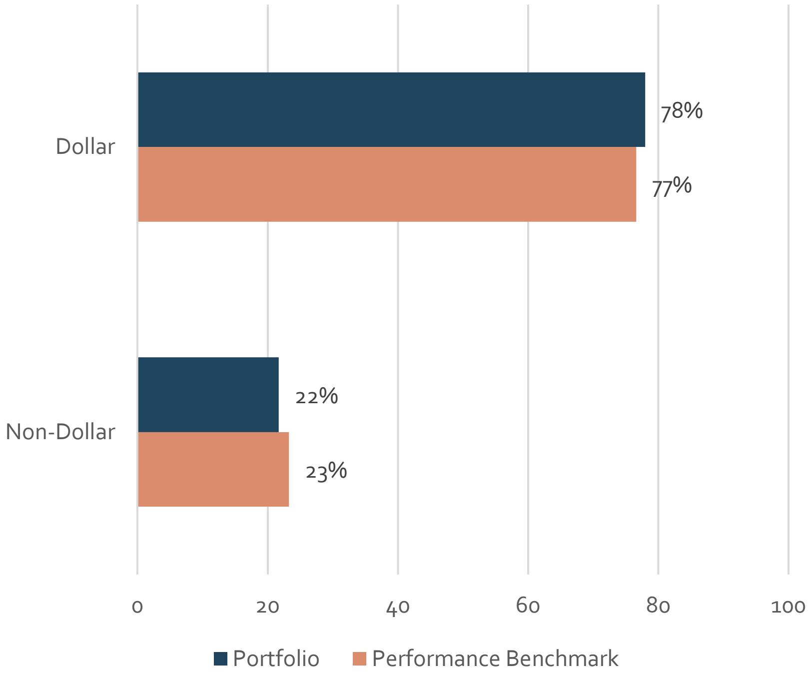
Scenarios (as of March 30, 2018)

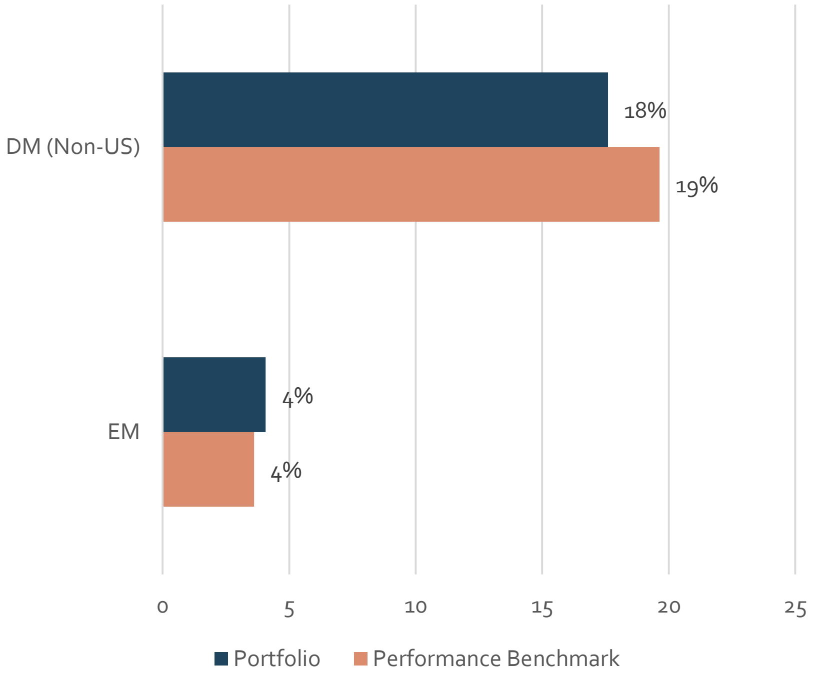


Other Risk Factors

As of March 30, 2018

Currency Risk *(as of 03/30/2018)*

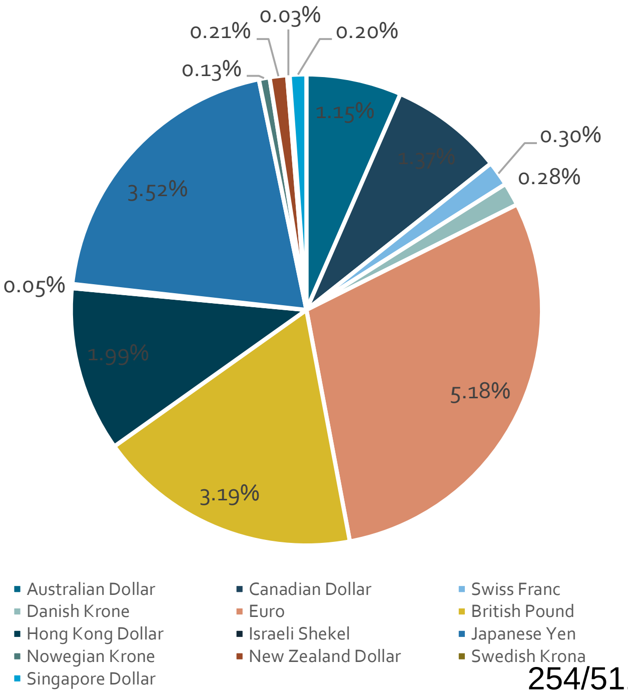




Non-US Developed Market Currency Exposures

(as of 03/30/2018)

Currency Exposures



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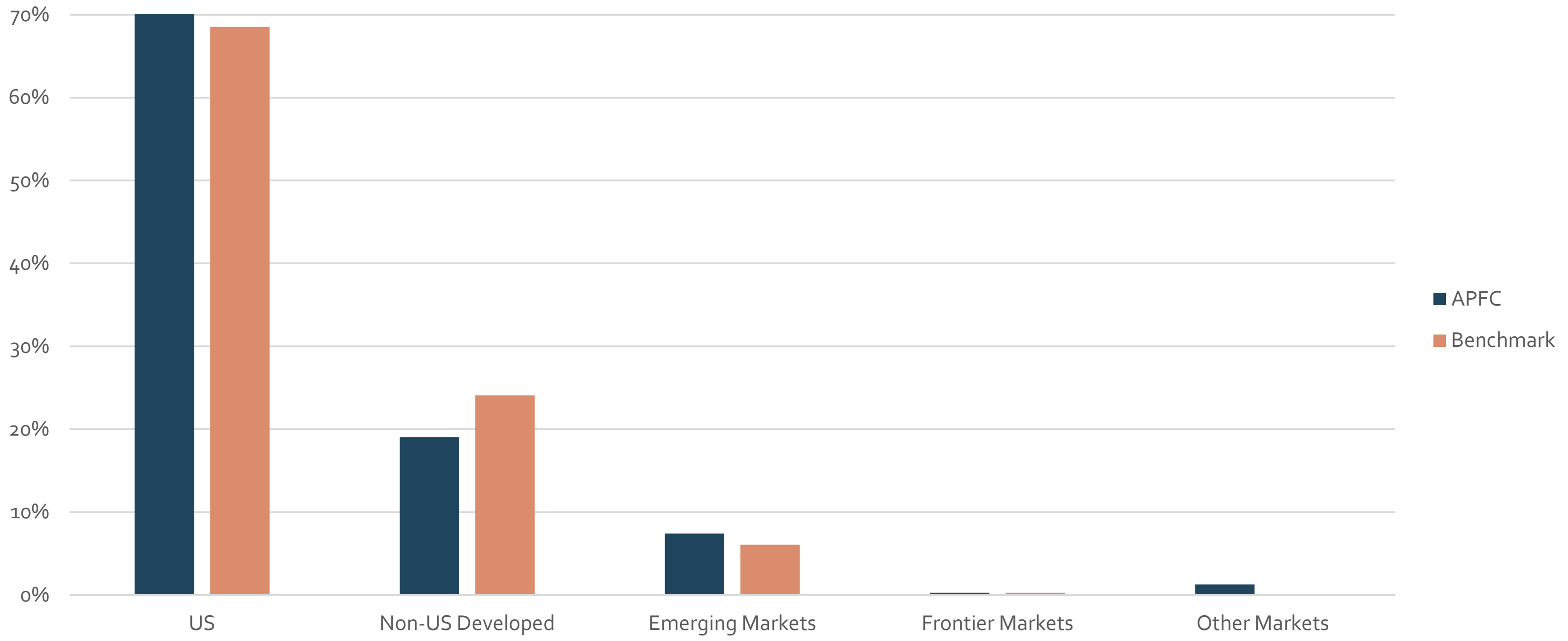
Top Non-US DM Currency Exposures

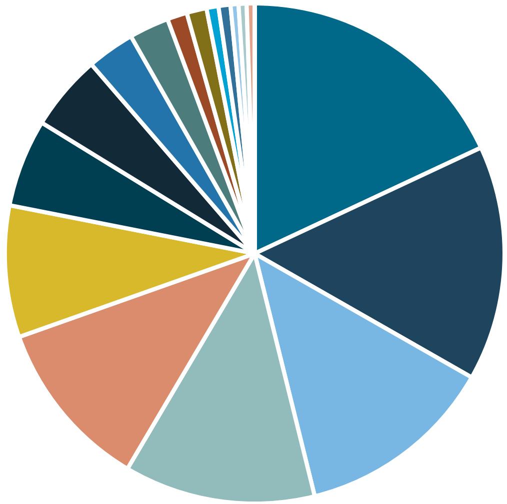
Country Name	Exposure ($, millions)
Euro	3,364
British Pound	2,286
Japanese Yen	2,072
Hong Kong Dollar	1,292
Canadian Dollar	890
Total	**9,904 (15% of NAV)**
Total Non-US DM Exposure	**11,430 (18% of NAV)**

Geographic Risk *(as of 03/30/2018)*



Emerging Market Exposure *(as of 03/30/2018)*

EM Country Exposures

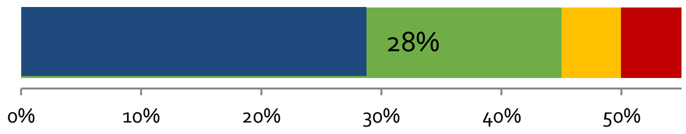


Top EM Country Exposures

Country Name	Exposure ($, millions)
South Korea	455
India	383
Brazil	325
Taiwan	312
South Africa	279
Thailand	214
Total	**1,968 (3.03% of NAV)**
Total EM Exposure	**2,520 (3.88% of NAV)**

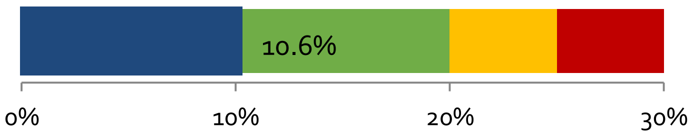
Liquidity Risk *(as of 03/30/2018)*

Private Investment Limits



$17.9 Billion Invested in Private Markets

Future Commitments Limits



$6.9 Billion Committed to Managers

Risk Highlights

Realized Volatility and Sharpe Ratios

Provides useful framework for appreciating existing and future risks

Ex-Ante VaR

Uneven success as a prediction tool, but still important to consider

Other Risk Factors

Remain in the approved 'green zones'

Asset Class Updates Memo: Real Assets

APFC ALASKA PERMANENT FUND CORPORATION

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907.796.1500 | apfc.org

SUBJECT: APFC Real Assets/Private Income & Absolute Return Asset Class Update

ACTION: ____________

DATE: May 23, 2018

INFORMATION: X

BACKGROUND:

The Real Assets/Private Income and Absolute Return presentation provides a portfolio update and investment performance analysis. Specific portfolios covered will include Real Estate, Infrastructure, Private Credit, Income Opportunities and Absolute Return.

STATUS:

At this meeting Staff will present some of the key elements of the Real Asset/Private Income and Absolute Return portfolio including, as context, overall market performance and outlook. Staff will also compare performance of, and provide updates on, portfolio components.

a) Presentation: Real Assets (Infrastructure, Special Income, Real Estate, Absolute Return)

APFC ALASKA PERMANENT FUND CORPORATION

Real Assets, Private Income and Absolute Return

May 23, 2018

Summary Performance

Time Weighted Returns & Exposures as a % of Total Fund (per Callan)

($ in millions)	NAV @ 3/31/2018	% of APFC	(Nine Months) Fiscal Year To-date	3 Year Net Returns	5 Year Net Returns
Private Income / Real Assets					
APFC Private Infrastructure	$2,256	3.4%	18.9%	20.4%	15.9%
FTSE Infrastructure Index			*9.1%*	*5.5%*	*10.8%*
APFC Private Real Estate (1)	$4,090	6.2%	5.0%	9.4%	10.1%
NCREIF NPI Index			*5.3%*	*9.4%*	*10.2%*
APFC Private Credit	$1,166	1.8%	7.7%	6.7%	7.6%
BC US High Yield Index			*4.7%*	*6.4%*	*5.8%*
APFC Income Opportunities	$239	0.4%	1.7%	7.8%	NA
60% FTSE Infrastructure / 40% BC US High Yield			*7.4%*	*5.9%*	*NA*
Total APFC Real Assets/Private Income (2)	**$7,751**	**11.7%**	**9.4%**	**12.2%**	**11.4%**
Blended Benchmark (2)			***6.4%***	***7.7%***	***9.7%***
Absolute Return					
APFC Absolute Return	**$2,506**	**3.8%**	**5.3%**	**3.2%**	**3.5%**
CPI + 500 bps			***5.6%***	***6.9%***	***6.4%***

(1) Private Real Estate NAV adjusted downward by $1.6 billion for fiscal Q3 dispositions of multi-family assets.
(2) Blended figures derived by asset weighting each categories figures using current NAV.
Source: Callan official performance reports.

Portfolio Highlights

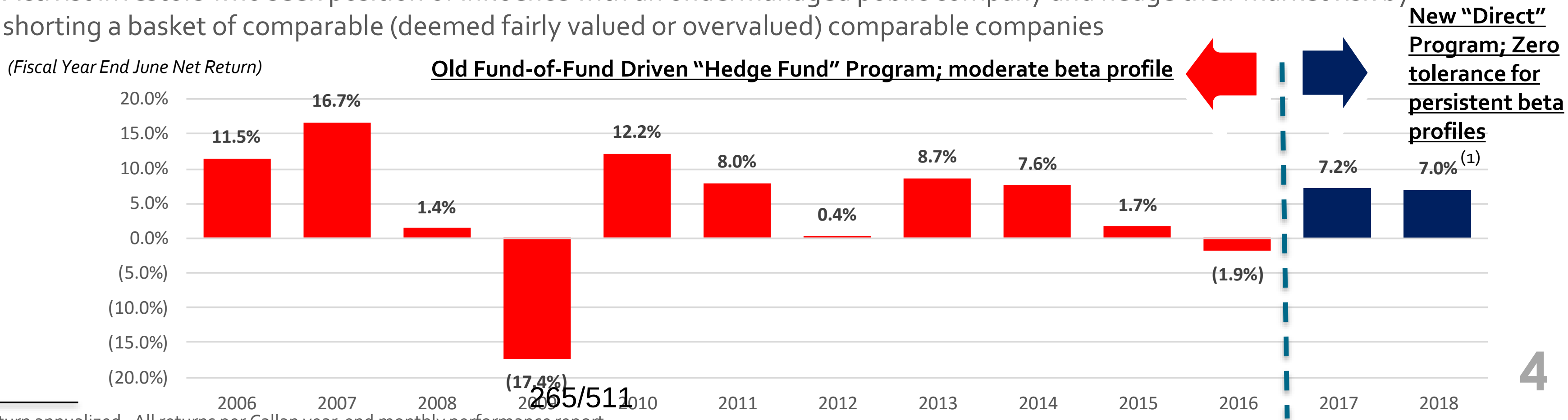
Quarter Ended March 31, 2018

Absolute Return	• Two years into new direct strategy, results continue to be very promising with ~7-8% annualized returns over this period (vs. low single digits previously); made money in seven of the eight down months on the S&P 500 in this period • In calendar year-to-date period, team has been active on the deployment front (~$700 million deployed to seven managers)
Private Real Estate	• Underlying portfolio performance remains solid (in spite of low leverage profile and occasional quarter-to-quarter appraisal "noise") and generating strong cash distributions to the APFC • Focused on International diversification (via funds/co-invest) and direct investment activity domestically led by in-house team
Private Credit	• As is the case with Absolute Return, we have (in the past several years) moved away from a Fund-of-Fund model for Private Credit; the new Staff Direct program has been performing particularly well • Net Returns solidly beating the investable benchmark (US High Yield) for FYTD, 1-year, 3-year and 5-year periods
Income Opportunities	• Portfolio today is relatively small ($239 million of NAV) and have two investments that make up substantially all of current exposure (American Homes for Rent JV and Generate Capital direct equity investment) • Going forward, Staff plans to grow portfolio through recent notable initiatives: (i) BroadRiver life settlements investment and (ii) Alaska Direct Alternative Credit (ADAC), a collaboration with the Fixed Income Plus team to manage a fully in-house opportunistic credit strategy comprised of high yield bonds/ETFs and co-investments with Private Credit managers
Private Infrastructure	• Twelve years since the establishment of APFC's Private Infrastructure program, the portfolio is a well diversified mix of Transportation, Energy and Other (Telecom, Waste, Timber) inflation-protected cash yielding investments with a mix of Fund investments and Direct/Co-Investments • Portfolio has benefitted from being the first area of the APFC Private Markets portfolio where a co-investment strategy was implemented

Absolute Return

Program Summary and Objectives

- **The Absolute Return program objective is to deliver reasonably consistent and accretive returns (versus the CPI + 500 bps Total Fund objective) that are largely uncorrelated with traditional, market-driven asset classes (i.e., avoid "market beta")**
- Representative Investments: (i) Zero beta/market neutral equity managers who short as much stock as they are long, (ii) Macro hedge fund managers who specialize in trading relative value in commodity, interest rate, and currency markets, (iii) Activist investors who seek position of influence with an undermanaged public company and hedge their market risk by shorting a basket of comparable (deemed fairly valued or overvalued) comparable companies



1. FYTD net return annualized. All returns per Callan year-end monthly performance report.

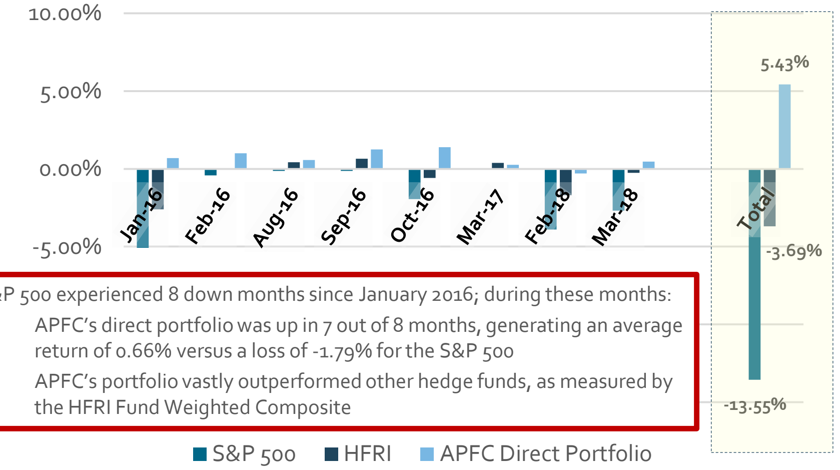
Absolute Return (cont’d)

Portfolio Performance

($ in millions)	3/31/2018 NAV	FY 2018 Return	Q3 2018 Return
Fund-of-Funds			
Crestline	$402	8.7%	1.0%
Mariner	$144	5.0%	1.6%
Total - Fund-of-Funds	**$549**	**7.2%**	**1.3%**
Direct Program			
Total - Direct Program	**$1,948**	**5.4%**	**1.3%**
Total - Overall	*$2,496*	*5.9%*	*1.3%*

Source: APFC manager statements and investment staff calculations.
Note: March NAV and performance figures may utilize preliminary estimates where finalized numbers not yet available; performance figures calculated as NAV-weighted geometric mean over applicable timeframe

APFC Performance vs. S&P 500 Down Months



The S&P 500 experienced 8 down months since January 2016; during these months:

- APFC’s direct portfolio was up in 7 out of 8 months, generating an average return of 0.66% versus a loss of -1.79% for the S&P 500
- APFC’s portfolio vastly outperformed other hedge funds, as measured by the HFRI Fund Weighted Composite

Source: Bloomberg and Investment Staff calculations.

Absolute Return (Cont'd)

CY2018 Q1 Update

Demonstrated non-correlated return stream

- The S&P 500 drew down -3.69% in February and -2.54% in March
- APFC's direct Absolute Return portfolio remained resilient during the market drawdowns, demonstrating our intended non-correlation to broader asset classes
- In spite of this, we have observed higher volatility amongst our managers monthly returns
- APFC has deployed ~$700 mm across 7 managers calendar year-to-date

APFC Direct Portfolio (1)	
Avg Return	7.92%
Corr to S&P	0.02
Corr to HFRI	-0.27
Volatility	2.60%
Sharpe	2.57

	2018				
	Jan	Feb	Mar	Feb & Mar	Q1
APFC Direct HF	**1.12%**	**-0.29%**	**0.45%**	**0.16%**	**1.28%**
S&P 500	5.73%	-3.69%	-2.54%	-6.14%	-0.76%

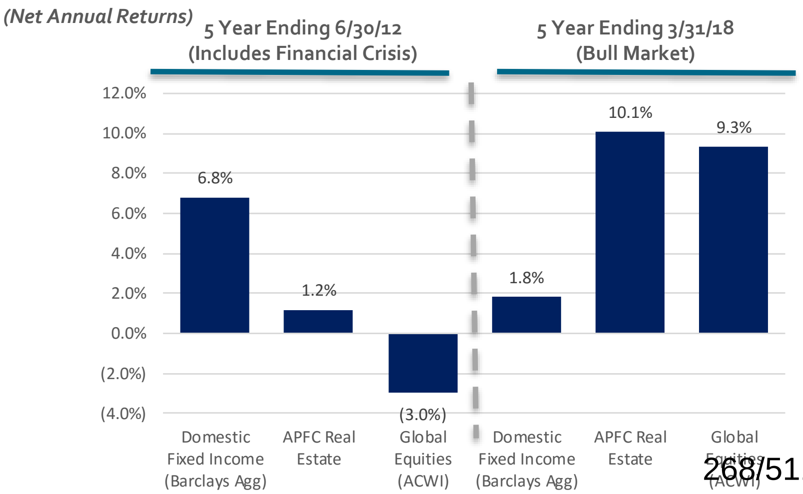
(1) APFC Direct Portfolio includes all direct investments measured from inception of APFC's new direct mandate, less any managers from whom APFC had issued redemptions

Private Real Estate

Program Summary and Objectives

- **The APFC's Private Real Estate objective is to generate an inflation-protected private income stream to the APFC with a total return between public equities and public fixed income**

Real Estate's Place in Risk/Return Landscape



- Because the vast majority of our properties are directly-held and managed internally, APFC controls or co-controls key decisions like leverage, capital budgets and leases

- <u>Representative Investments:</u> (i) 50% Joint Venture stakes in Class A/Trophy well-positioned assets like 299 Park and Tyson's Corner, (ii) Directly held 100% interests in Real Estate assets in United States and Western Europe, (iii) new focus on International/Global private funds and co-investments

Private Real Estate (Cont'd)

Portfolio Update

Portfolio Composition by Property Type

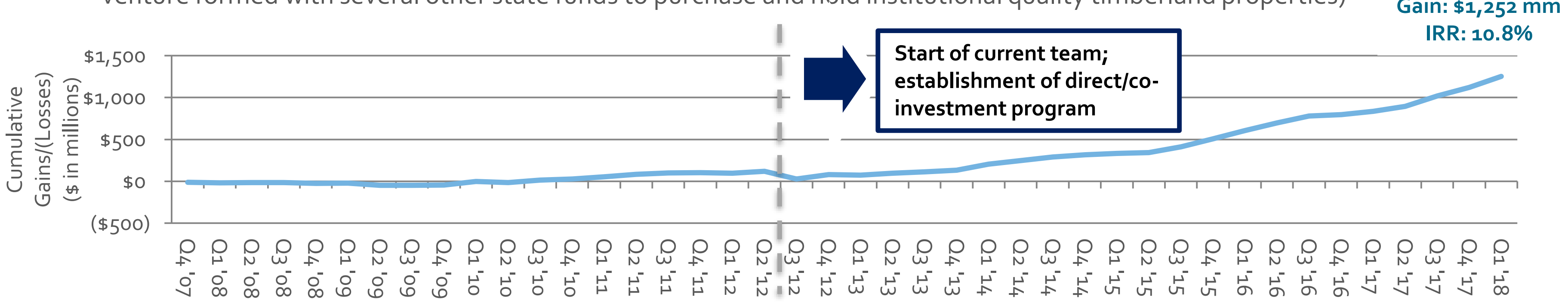
Property Type	March 2018 Market Value ($mm)	% of Portfolio	NCREIF % of Portfolio March 2018	LTV %	GROSS RETURNS 1 Year APFC	GROSS RETURNS 1 Year NCREIF	GROSS RETURNS 3 Year APFC	GROSS RETURNS 3 Year NCREIF
Hotel	$68	1%	1%	0.0%	7.1%	4.9%	10.7%	7.5%
Industrial	$271	5%	15%	25.4%	13.9%	13.1%	11.1%	13.4%
Multi-Family	$1,958	34%	24%	31.1%	6.7%	6.2%	11.2%	8.5%
Office	$1,484	26%	37%	26.6%	3.3%	6.0%	6.2%	8.2%
Retail	$1,909	34%	23%	34.7%	9.1%	5.7%	10.3%	9.9%
Total:	**$5,690**	**100%**	**100%**	**30.8%**	**6.8%**	**7.0%**	**9.3%**	**9.4%**

(Note: Real Estate values and returns are reported with a one quarter lag.)

Private Infrastructure

Program Summary and Objectives

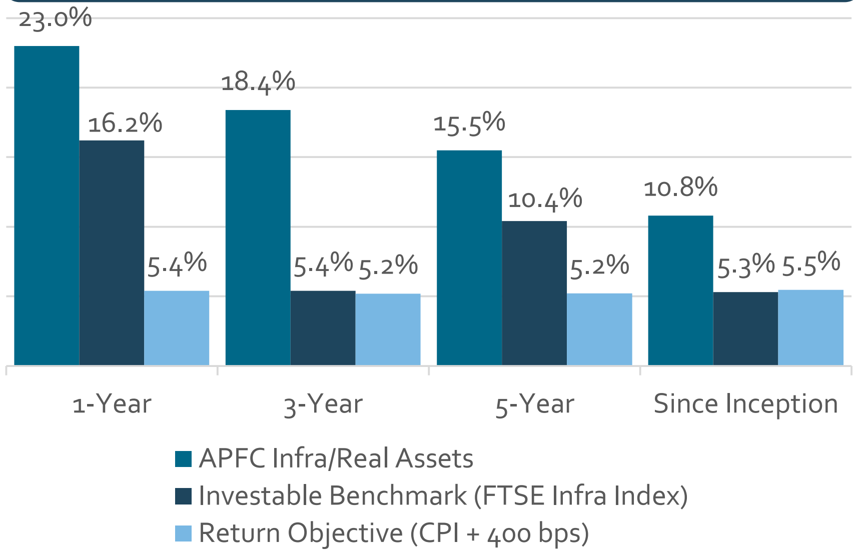
- **The APFC's Private Infrastructure program seeks to invest in long-lived assets and companies that exhibit contractual and/or inflation-protection characteristics while protecting capital and generating income**
- Representative Investments: (i) Gatwick Airport (via Fund), (ii) Equis Energy, LLC (renewable energy developer via Fund and Direct investment), (iii) Terminal Investments, Ltd. (via Fund and Direct investment), (iv) Twin Creeks Timber, LLC (joint venture formed with several other state funds to purchase and hold institutional quality timberland properties)



Since Inception Net IRR @ Calendar Year End: 2.4% 3.7% 6.0% 7.3% 8.8% 10.3%

Private Infrastructure (Cont'd)

Horizon IRR's @ December 31 Marks



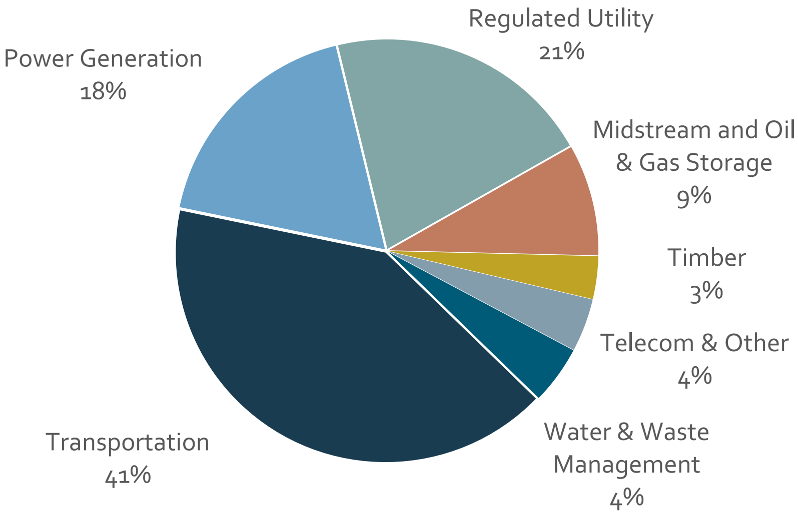
Since Inception Portfolio Performance

($ in millions)	Capital Committed	Capital Called	Capital Returned	Current Value	Net IRR	Multiple-of-Money
Pre-2012 Funds	$1,700	$1,567	$1,350	$1,213	10.4%	1.64x
2012 and Newer Funds	$1,956	739	152	688	10.6%	1.14x
Total Fund Investments	$3,656	$2,306	$1,502	$1,901	10.4%	1.48x
Direct Investments	$370	$342	$13	$387	12.3%	1.17x
Listed Infrastructure	$300	$300	$397	$0	10.6%	1.32x
Total - 12/31/17	**$4,326**	**$2,948**	**$1,912**	**$2,288**	**10.8%**	**1.42x**
12-Months Ago	*$3,604*	*$2,470*	*$1,518*	*$1,787*	*8.8%*	*1.34x*
Total (Excl. Citi Infra)	**$3,826**	**$2,503**	**$1,807**	**$2,004**	**16.1%**	**1.52x**

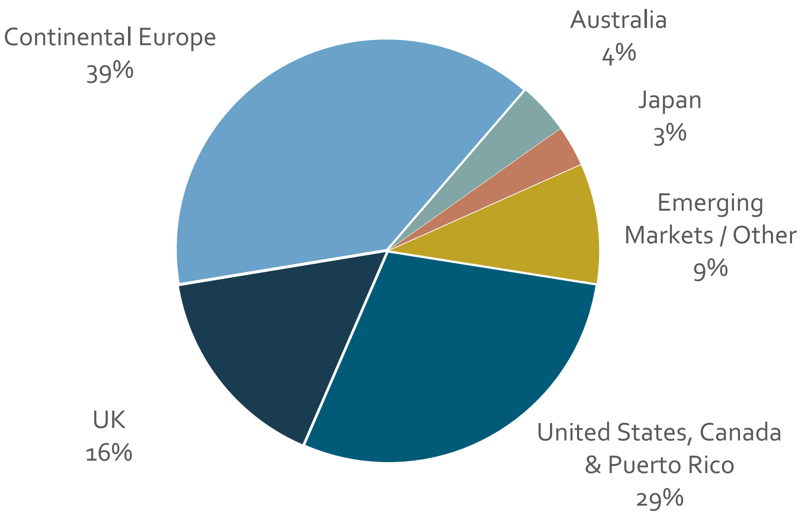
Note: Returns are as of December 31, 2018 NAVs as calculated by APFC Staff and Pathway Capital. APFC portfolio returns are calculated on a money-weighted (IRR) basis as opposed to Callan's returns which are reported on a time weighted basis.

Private Infrastructure (Cont'd)

Sector Mix



Geographic Mix



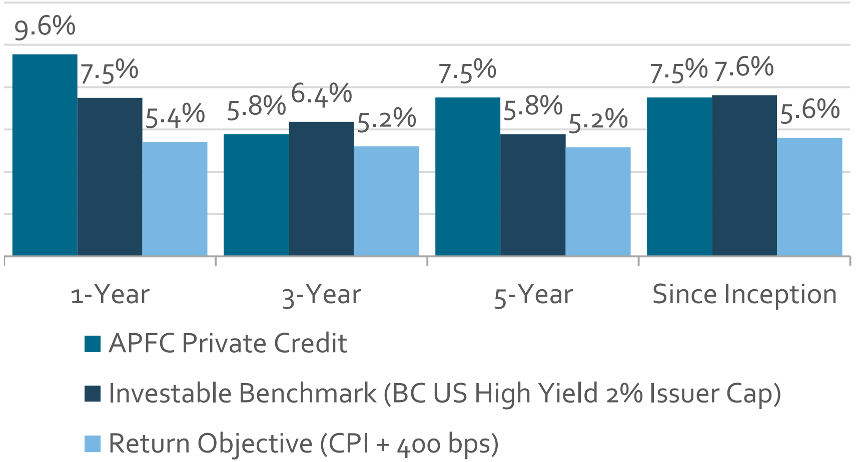
Private Credit and Income Opportunities

Program Summary and Objectives

- **The Private Credit and Income Opportunities program objective is to provide an income source to the APFC in excess of what is available in public markets for similar risk investments and outperform a US High Yield and a blended Real Assets benchmark**
- Generally speaking, in the Real Assets and Private Income portfolio we are defaulting to allocating capital to Private Infrastructure and Private Real Estate, so a decision to allocate capital to a Private Credit or Income Opportunities investment is a statement that we believe the risk/return profile of that particular investment is more attractive than the default options
- Income Opportunities reflects the reality that there will from time-to-time be interesting opportunistic investments that do not fit neatly into the Real Estate, Infrastructure, or Private Credit categories – one recent example is Life Settlements
- APFC's Private Credit program involves allocating capital to private funds which engage in direct lending to private companies and other activities such as distressed debt; we invest largely through closed-end, draw-down private funds, but also consider open-ended alternative credit funds where we can achieve immediate exposure and do not have to commit to multi-year unfunded commitments
- Representative Investments: (i) Mezzanine Debt or Senior Direct Lending Funds, (ii) Alaska Direct Alternative Credit (ADAC), (iii) Generate Capital direct investment, (iv) American Homes 4 Rent Joint Venture

Private Credit

Horizon IRR's @ December 31 Marks



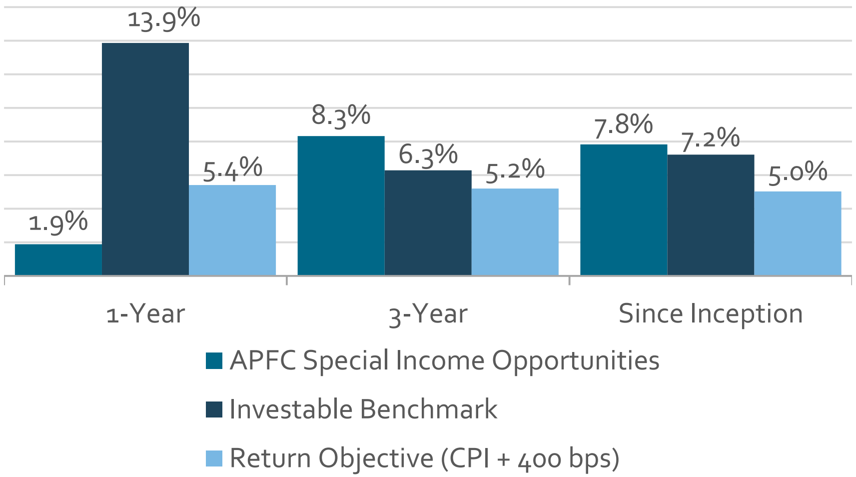
Since Inception Portfolio Performance

($ in millions)	Vintage Year	Capital Called	Capital Dist.	Current Value	Net IRR	MOIC
Crestline AK Distressed Investments	2007	$429	$490	$0	6.5%	1.1x
Oak Tree VIII (Distressed Debt)	2009	$250	$314	$45	8.9%	1.4x
Oak Tree III (Mezzanine Debt)	2010	$229	$237	$59	9.4%	1.3x
Audax III (Mezzanine Debt)	2010	$223	$201	$89	10.2%	1.3x
AK Credit Opportunities Fund	2011	$716	$353	$700	6.7%	1.5x
Audax IV (Mezzanine Debt)	2015	$11	$1	$10	8.2%	1.0x
Crestline AK Opportunistic	2015	$142	$30	$130	12.1%	1.1x
APFC Staff Direct	2015	$141	$13	$138	11.5%	1.1x
Total Private Credit		**$2,140**	**$1,640**	**$1,166**	**7.5%**	**1.3x**
12 months ago		*$1,996*	*$1,431*	*$1,129*	*7.1%*	*1.3x*

Note: Returns are as of December 31, 2017 NAVs as calculated by APFC Staff and Pathway Capital. APFC portfolio returns are calculated on a money-weighted (IRR) basis as opposed to Callan's returns which are reported on a time weighted basis.

Income Opportunities

Horizon IRR's @ December 31 Marks



Note: Investable Benchmark is 60% FTSE Developed Core Infrastructure and 40% Barclays U.S. High Yield. Returns are as of December 31, 2017 NAVs as calculated by APFC Staff and Pathway Capital. APFC portfolio returns are calculated on a money-weighted (IRR) basis as opposed to Callan's returns which are reported on a time weighted basis.

Since Inception Portfolio Performance

($ in millions)	Vintage Year	Capital Called	Capital Dist.	Current Value	Net IRR	MOIC
American Homes for Rent II	2013	$161	$32	$165	11.2%	1.2x
Athyrium Opportunities Fund III	2016	$6	$1	$5	NM	1.0x
Generate Capital	2017	$70	$0	$70	NM	1.0x
BroadRiver III	2017	$0	$0	$0	NM	NM
Total Income Opportunities		**$237**	**$32**	**$239**	**7.8%**	**1.1x**
12 months ago		*$164*	*$29*	*$161*	*10.7%*	*1.2x*

Asset Allocation Strategies Memo

APFC ALASKA PERMANENT FUND CORPORATION

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907.796.1500 | apfc.org

SUBJECT: Asset Allocation Strategies

ACTION:

DATE: May 23, 2018

INFORMATION: X

BACKGROUND:

The Asset Allocation Strategies presentation provides information on the Asset Allocation Asset Class through March 31, 2018.

STATUS:

At this meeting, the Director of Risk and Asset Allocation will present on key elements of the Asset Allocation Portfolio, which includes the Liquidity portfolio, the eCIO program, and the FX Overlay. This presentation will provide an overview of Portfolio composition and performance.

Asset Allocation Strategies Asset Class Review

APFC ALASKA PERMANENT FUND CORPORATION

Asset Allocation Strategies

March 23, 2018

AA Strategies Overview

Liquidity

Liquidity increased from 900mm (1.4%) to 3.7 billion (5.7%)

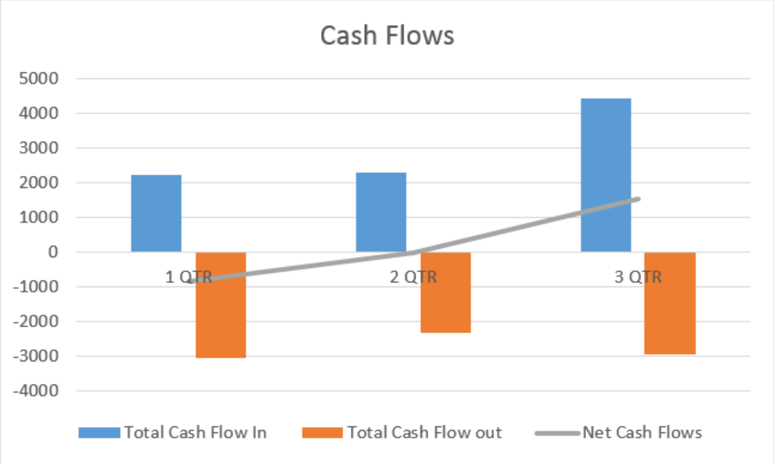
Multi-Asset

A portfolio of multi-strategy managers focused on investing within an outlined risk framework

FX Overlay

$2 billion currency overlay program

Liquidity



Source: Callan, Staff calculations.

Liquidity					
($ in millions)	3/31/2018 NAV	1 QTR Return	1 Year Return	3 Year Return	5 Year Return
Cash	963	0.30%	1.17%	0.48%	0.29%
Fixed Income Liquidity	638	-1.30%			
Securitized Cash	2,137				
Total - Liquidity	**3,738**				
90 Day T-Bills		*0.35%*	*1.11%*	*0.53%*	*0.34%*

Cash Flows FY2018				
($ in millions)	1 QTR	2 QTR	3 QTR	Total
Cash tranferred In (Distributions)	2124.8	2,211	4,338	8,674
Other Income	96	91	118	305
Total Cash Flow In	**2220.8**	**2302.8**	**4455.6**	**8,979**
Cash Transferred Out (Contributions)	-2241.6	(2,285)	(2,854)	(7,381)
Operational Expenses	-805.7	(32)	(69)	(907)
Total Cash Flow out	**-3047.3**	**-2317.4**	**-2923**	**(8,288)**
Net Cash Flows	**(827)**	**(15)**	**1,533**	**692**

Liquidity Overlay

Program Performance

Fixed Income Overlay Program

		Portfolio Performance		Benchmark Performance				Net
	Beginning Benchmark Notional ($MM)	Change in MV ($MM)	Portfolio Return	US Agg Index Return (X)	1-Month LIBOR (Y)	Cash (Z)	Benchmark Return (X) - (Y) + (Z)	Over/Under Performance
2018 February*	$349.1	-$2.4	-0.68%	-0.68%	0.12%	0.02%	-0.77%	0.10%
March	$343.0	$5.9	0.84%	0.64%	0.14%	0.03%	0.52%	0.32%
Q1	$349.1	$3.5	0.16%	-0.04%	0.26%	0.05%	-0.26%	0.42%
YTD	$692.0	$3.5	0.16%	-0.04%	0.26%	0.05%	-0.26%	0.42%

Equity Overlay Program

		Portfolio Performance		Benchmark Performance				Net
	Beginning Benchmark Notional ($MM)	Change in MV ($MM)	Portfolio Return	ACWI IMI Index Return (X)	1-Month LIBOR (Y)	Cash (Z)	Benchmark Return (X) - (Y) + (Z)	Over/Under Performance
2018 February*	$649.8	-$29.7	-4.57%	-4.14%	0.12%	0.02%	-4.24%	-0.33%
March	$626.5	-$26.5	-1.74%	-1.87%	0.14%	0.02%	-1.99%	0.25%
Q1	$649.8	-$56.2	-6.23%	-5.93%	0.26%	0.05%	-6.14%	-0.09%
YTD	$649.8	-$56.2	-6.23%	-5.93%	0.26%	0.05%	-6.14%	-0.09%

*Program inception dated 2/2/2018. Therefore, February 2018 performance is calculated from 2/2/2018 to 2/28/2018.

Fixed Income Overlay Program Benchmark is the Bloomberg Barclays US Aggregate Index Net Financing.

Equity Overlay Program Benchmark is the ACWI-IMI Index Net

Source: Manager calculations.

Liquidity Overlay

Program Performance

Combined Program

			Program Performance		Benchmark	Net
		Beginning Benchmark Notional ($MM)	Change in MV ($MM)	Portfolio Return	Benchmark Return	Over/Under Performance
2018	February*	$998.8	-$32.1	-3.21%	-3.03%	-0.18%
	March	$969.4	$0.7	-0.84%	-1.11%	0.27%
	Q1	$998.8	-$31.3	-4.02%	-4.10%	0.08%
	YTD	$998.8	-$31.3	-4.02%	-4.10%	0.08%

*Program inception dated 2/2/2018. Therefore, February 2018 performance is calculated from 2/2/2018 to 2/28/2018.

Fixed Income Overlay Program Benchmark is the Bloomberg Barclays US Aggregate Index Net Financing.

Equity Overlay Program Benchmark is the ACWI-IMI Index Net

Source: Manager calculations.

Liquidity Overlay

Performance Attribution – Q1 2018

Fixed Income Overlay Program

	Benchmark Return	Portfolio Return	Over/Under Performance	Performance Attribution: Spread Mismatch	Performance Attribution: Other
Bps	-25	16	41	28	13
$mm	1.4	3.5	2.1	1.4	0.7

Equity Overlay Program

	Benchmark Return	Portfolio Return	Over/Under Performance	Performance Attribution: Component Weighting	Performance Attribution: Instrument Mismatch	Performance Attribution: Timing Differences	Performance Attribution: Other
Bps	-623	-631	-9	-8	-32	15	16
$mm	-57.9	-56.2	1.7	-1.2	-2.4	4.2	1.0

Source: Manager calculations.

Program inception dated 2/2/2018. Therefore, February 2018 performance is calculated from 2/2/2018 to 2/28/2018.
Fixed Income Overlay Program Benchmark is the Bloomberg Barclays US Aggregate Index Net Financing.
Equity Overlay Program Benchmark is the ACWI-IMI Index Net

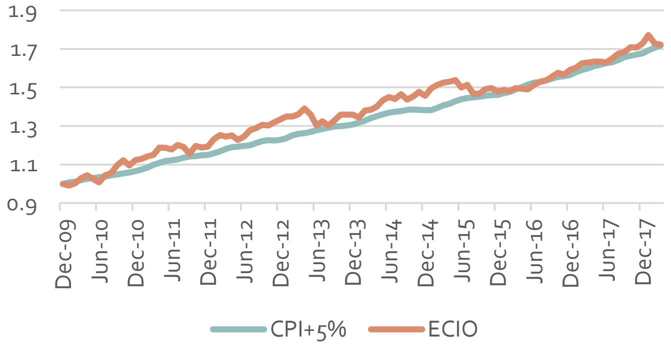
Multi-Asset Managers (ECIOs)

Portfolio Performance

($ in millions)	3/31/2018 NAV	1 QTR Return	1 Year Return	3 Year Return	5 Year Return
ECIO's					
AQR	871	0.06%	5.79%	6.64%	6.50%
Bridgewater	843	0.05%	4.34%	2.64%	5.16%
Goldman Sachs	821	-1.39%	6.88%	3.14%	4.15%
Total - ECIO's	**2,535**	**-0.42%**	**5.65%**	**4.12%**	**4.81%**

Source: Callan, Managers, and Investment Staff Calculations

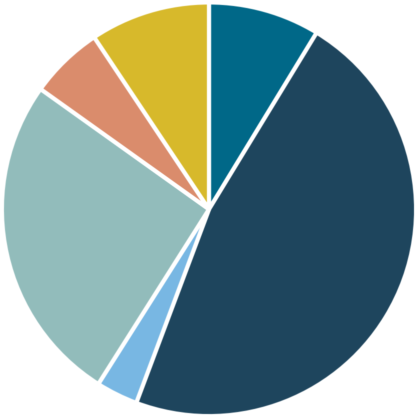
Since inception



Source: Manager calculations, Albourne, Callan.

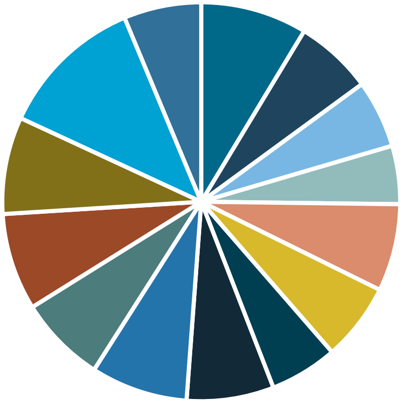
ECIO Portfolio Positioning

By Region



▪ Global ▪ Europe ▪ North America ▪ Asia & Oceania ▪ South America & Africa ▪ Other

Sector Mix



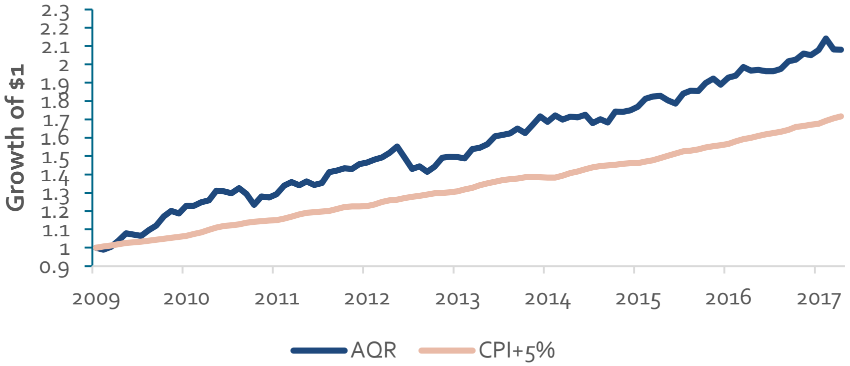
▪ Energy ▪ Materials ▪ Industrials ▪ Consumer Discr ▪ Consumer Staples
▪ Health Care ▪ Financials ▪ Info Tech ▪ Telcom Services ▪ Utilities
▪ Real Estate ▪ Conglomerates ▪ Brd Mkt Indexes ▪ Other

AQR

Current Portfolio Characteristics	Since Inception	Last Year
Expected Volatility	7.55%	-
Beta to Equities (S&P 500)	0.25	0.44
Beta to Equities (MSCI World)	0.24	0.38
Volatility Annualized	5.81%	4.11%

	YTD	1 year
Total Portfolio Return	0.06%	5.79%
Benchmark (CPI+5%)	2.41%	7.36%
Excess Return	-2.35%	-1.57%
Sharpe Ratio	-	1.14

Since Inception Performance



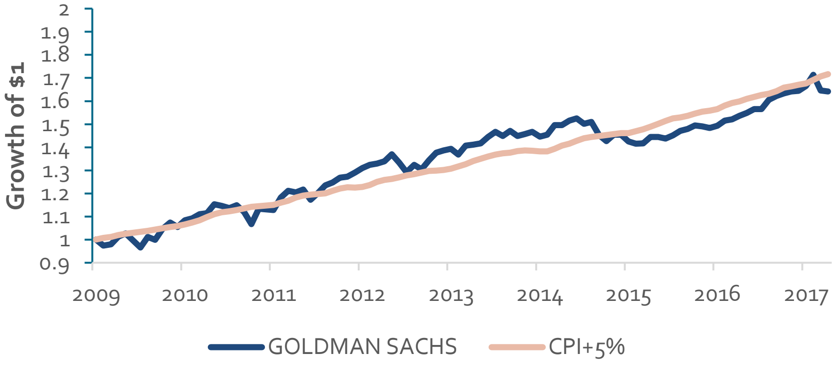
Source: Manager calculations, Albourne.

Goldman

Current Portfolio Characteristics	Since Inception	Last Year
Expected Volatility	10.70%	-
Beta to Equities (S&P 500)	0.42	0.55
Beta to Equities (MSCI World)	0.46	0.65
Volatility Annualized	6.54%	4.48%

	YTD	1 Year
Total Portfolio Return	-1.39%	6.88%
Benchmark (CPI+5%)	2.41%	7.36%
Excess Return	-3.80%	-0.48%
Sharpe Ratio	-	1.29

Since Inception Performance



Source: Manager calculations, Albourne.

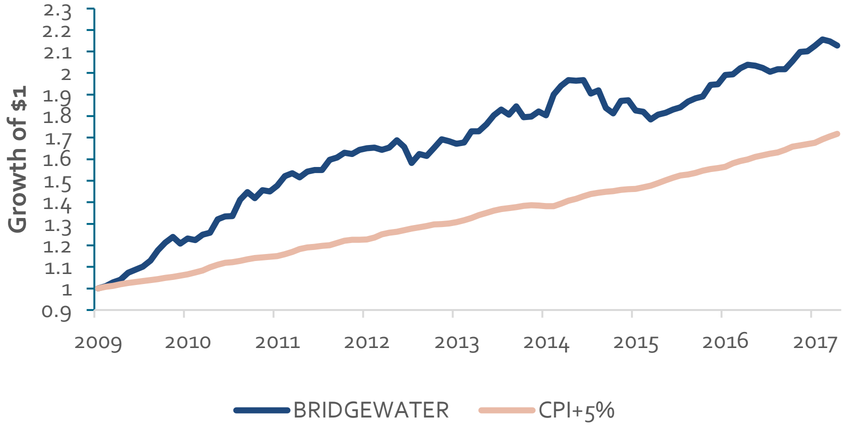
Bridgewater

Current Portfolio Characteristics	Since Inception	Last Year
Expected Volatility	7.15%	-
Beta to Equities (S&P 500)	0.03	0.49
Beta to Equities (MSCI World)	0.08	0.35
Volatillity Annualized	6.90%	4.54%

	YTD	1 Year
Total Portfolio Return	0.05%	4.34%
Benchmark (CPI+5%)	2.41%	7.36%
Excess Return	-2.36%	-3.02%
Sharpe Ratio	-	0.71

Source: Manager calculations, Albourne.

Since Inception Performance



Currency Overlay Program Performance (Adrian Lee & Partners)

Guidelines

- Actively manage foreign currency exposure of $2 billion
- Mitigate adverse impact of foreign currency weakening
- Add value over benchmark by 100 bps per annum over a 3-5 yr period
- Annual ex-post active risk expected to be 175-200 bps on average

- Benchmark is the currency component of return on the unhedged MSCI EAFE plus Canada index

- Hedging shall be between 0%-100% per currency.
- Cross hedging is allowed
- Authorized instruments are foreign exchange spot and forward contracts of currencies in the MSCI EAFE plus Canada

Currency Overlay Program Performance (Adrian Lee & Partners)

Period	Passive Return (%)	Overlay Return (%)	Managed Currency Return (%)	Excess Currency Return (%)
January 2018	3.65	-0.05	3.60	-0.05
February 2018	-1.55	-0.54	-2.08	-0.53
March 2018	0.35	-0.02	0.33	-0.02
Compound Returns				
Last 3 Months	2.41	-0.61	1.79	-0.62
Since Inception	2.78	-0.87	1.90	-0.88
Annualized SD	6.27	1.59	6.76	1.60

Source: Manager calculations.

Currency Overlay Program Performance (Adrian Lee & Partners)

Currency	Asset (%) (Mar. 31, 2018)	Deviation (%)	Currency Return (%)	Excess Currency Return (%)
US Dollars	0.00	0.07	0.00	0.00
Japanese Yen	22.41	-5.14	5.92	-0.46
Euro	30.29	-2.55	2.42	-0.01
British Pound	15.92	-1.60	3.70	-0.11
Swiss Franc	7.13	-6.96	1.76	-0.09
Canadian Dollar	8.36	4.44	-2.82	-0.10
Australian Dollar	6.05	5.08	-1.93	-0.07
Swedish Krona	2.43	-0.31	-2.24	-0.03
Norwegian Krone	0.64	5.00	4.18	0.15
New Zealand Dollar	0.15	4.30	1.43	0.06
Singapore Dollar	1.24	-0.75	1.91	-0.01
Israeli Shekel	0.41	-1.55	-1.12	0.07

Source: Manager calculations.

Portfolio Summary

Quarter Ended March 31, 2018

Liquidity

- Since Inception last quarter, liquidity increased from 900mm (1.4%) to 3.7 billion (5.7%)
- Recent notable programs include the liquidity overlay to securitize excess cash
- Of the current liquidity, approximately 2 billion is securitized with a mix of bond and equity derivatives
- Other liquidity includes treasury holdings and cash for operational activities
- The liquidity portfolio contributes to all funding of new programs, capital calls and operational expenses of the Fund

Multi-Asset

- Program is a mix of managers that allocates to risks in a balanced way and adjusts the risk profile for the economic cycle
- Program started and has been in the same cycle from inception. Since inception return 6.81%, Sharpe ratio of 1.28
- Diversified portfolio exposed to all asset classes with 10%-12% expected volatility, beta to MSCI of 0.5
- Accessed through hedge funds and actively managed long only products
- Current themes include:
  - Moderating Expansion
  - Monetary tightening
  - Low return environment supportive of dynamic asset allocation
  - Preference of emerging markets over developed markets

FX Overlay

- Uses fundamental economic factors and research-driven valuation analysis
- $2 billion of currency exposure resulting from our international investments are actively managed
- During this quarter trade war concerns brought volatility up pushing investors temporarily to safe heaven currencies
- This quarter FX overlay detracted 2 basis points

Asset Class Updates Memo: Fixed Income

APFC ALASKA PERMANENT FUND CORPORATION
801 W 10TH SUITE 302 | JUNEAU, AK 99801
907.796.1500 | apfc.org

SUBJECT: APFC Fixed Income Asset Class Update

ACTION:

DATE: May 23, 2018

INFORMATION: X

BACKGROUND:

The Fixed Income presentation provides information on the Fixed Income + Portfolio

STATUS:

At this meeting staff will present some of the key elements of the Fixed Income Portfolio including performance and positioning. We will also cover the publicly traded mandates that are part of the Fixed Income + strategy.

Presentation: Fixed Income

APFC ALASKA PERMANENT FUND CORPORATION

APFC Internal Fixed Income Portfolio

May 23, 2018

Fixed Income Plus Performance

Fixed Income Plus ($13,960mm)

- Overweight US Agg, Corporates, High Yield and Emerging Markets
- Underweight REITs, Global Rates, Listed Infrastructure and Cash

	QTD (%)	1Yr (%)	3Yr (%)	5Yr(%)
Strategy	-1.74%	2.84%	n/a	n/a
Index	-1.83%	2.28%	n/a	n/a

Barclays U.S. Aggregate Portfolio ($3,762mm)

- Neutral duration
- Overweight spread product and reduced TIPS exposure

	QTD (%)	1Yr (%)	3Yr (%)	5Yr(%)
Portfolio	-1.56%	1.29%	1.44%	n/a
Index	-1.46%	1.20%	1.20%	n/a

Corporate Bond Portfolio ($3,666mm)

- Increase in credit quality while spreads tightened
- Overweight 10+ year Credit

	QTD (%)	1Yr (%)	3Yr (%)	5Yr(%)
Portfolio	-2.44%	3.14%	2.75%	3.62%
Index	-2.32%	2.70%	2.30%	3.02%

Fixed Income Plus Performance

Global Rates ($570mm)

- Portfolio benefited from overweight to Mexico and Eastern Europe
- Duration underweight to Eurozone periphery, underexposure to Japan and newly-established position in India detracted from performance

	QTD (%)	1Yr (%)	3Yr (%)	5Yr(%)
Portfolio	1.06%	3.16%	2.11%	n/a
Index	1.23%	3.51%	2.60%	n/a

TIPS ($629mm)

- Neutral duration with overweight to 10yrs vs 5s and 30s

	QTD (%)	1Yr (%)	3Yr (%)	5Yr(%)
Portfolio	-0.81%	0.99%	1.35%	0.10%
Index	-0.79%	0.92%	1.30%	0.05%

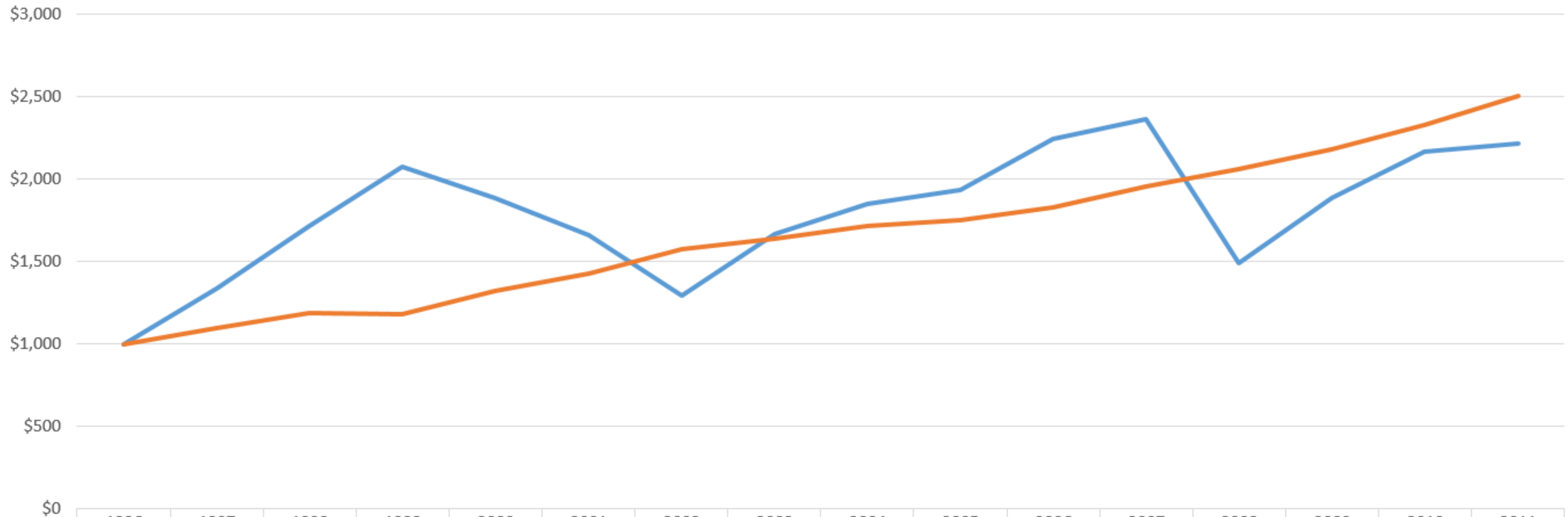
Fixed Income Plus Cash($601 mm)

- Source of liquidity
- Seek to at least match T-Bills

	QTD (%)	1Yr (%)	3Yr (%)	5Yr(%)
Portfolio	0.36%	1.07%	n/a	n/a
Index	0.35%	1.11%	n/a	n/a

Bonds vs. Stocks 1996 – 2011

Steady long-term outperformance makes bonds critical to portfolio construction



	1996	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011
S&P 500	$1,000	$1,333	$1,714	$2,075	$1,886	$1,661	$1,294	$1,665	$1,847	$1,938	$2,244	$2,367	$1,491	$1,886	$2,170	$2,216
Barclays Agg	$1,000	$1,096	$1,191	$1,181	$1,318	$1,430	$1,577	$1,641	$1,713	$1,754	$1,830	$1,958	$2,060	$2,183	$2,326	$2,508

Internal Aggregate Portfolio

Performance

	Latest Quarter	YTD	One Year	Three Year
Portfolio	-1.56%	-1.56%	1.29%	1.44%
Index	-1.46%	-1.46%	1.20%	1.20%

Quarterly Attribution

	Duration/ Curve	Asset Allocation	Security Selection	Other
Portfolio	+0.01%	-0.06%	-0.03%	-0.02%

Predicted Tracking Error

Total Tracking Error	Curve	Sector Spread	Inflation	Other
28 bps	4%	88%	8%	0%

Index Comparison

	Portfolio	Index
Duration	5.9	5.9
Yield	3.1	3.1
Spread	51	43
Rating	Aa2	Aa2

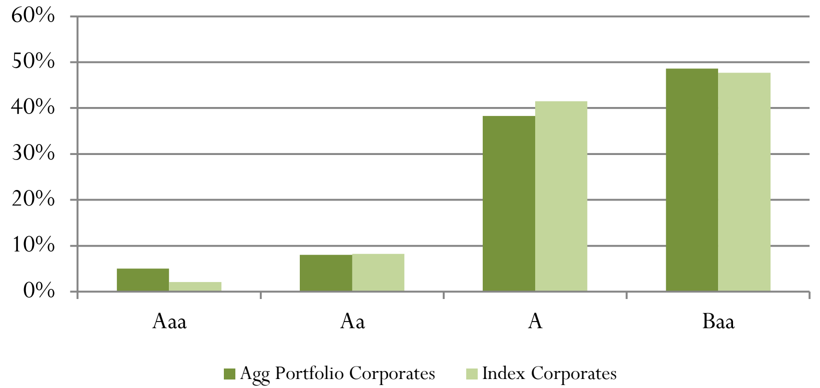
Composition

- $3.762 Billion
- Investment Grade Bonds
- Barclays' US Aggregate Index
- Duration based on interest rate forecast
- Internal Fixed Income Team's Best Ideas
- Primary PM: Jim Parise, Chris Cummins, Masha Skuratovskaya

Internal Fixed Income Aggregate Portfolio

Sector	MV ($mil)	% of Portfolio	% of Index
Total Portfolio	$3,762	100%	100%
Treasury	$1,075	28.6%	37.2%
Government-Related	$254	6.8%	6.9%
Corporate	$1,133	30.1%	25.2%
MBS	$963	25.6%	27.8%
ABS	$128	3.4%	0.5%
CMBS	$175	4.7%	1.9%
Cash	$34	0.8%	0.5%

Portfolio Credit Quality vs. Index



	Portfolio	Index	Over/Under Weight
Duration	5.9	5.9	-0.0

Internal Corporate Bonds

Performance

	Latest Quarter	YTD	One Year	Three Year	Five Year
Portfolio	-2.44%	-2.44%	3.14%	2.75%	3.62%
Index	-2.32%	-2.32%	2.70%	2.30%	3.02%

Quarterly Attribution

	Duration/ Curve	Asset Allocation	Security Selection	Other
Portfolio	0.01%	-0.07%	-0.06%	0.00%

Predicted Tracking Error

Total Tracking Error	Curve	Sector Spread	Idiosyncratic	Other
52	0.0%	100%	0.0%	0.0%

Index Comparison

	Portfolio	Index
Duration	7.3	7.3
Yield	3.8	3.8
Spread	110	109
Rating	A3	A3

Composition

- $3.666 Billion
- Investment Grade Corporate Bonds
- 300+ positions with 200+ issuers
- Barclays' U.S. Corporate Bond Index
- Futures used to control curve and duration exposure
- Primary PM: Jim Parise

Internal Tips Portfolio

Performance

	Latest Quarter	YTD	One Year	Three Year	Five Year
Portfolio	-0.81%	-0.81%	0.99%	1.35%	0.10%
Index	-0.79%	-0.79%	0.92%	1.30%	0.05%

Quarterly Attribution

	Duration/ Curve	Asset Allocation	Security Selection	Other
Portfolio	-0.01%	0.00%	0.02%	-0.03%

Predicted Tracking Error

Total Tracking Error	Curve	Sector Spread	Inflation	Other
8 bps	37%	0%	63%	0%

Index Comparison

	Portfolio	Index
Duration	7.5	7.5
Yield	2.6	2.6

Composition

- $629 Million
- US Treasury Inflation Protected Securities
- 14+ positions
- Barclays' U.S. TIPS Index
- Portfolio duration and curve position reflects views on rates and inflation valuation
- Primary PM: Masha Skuratovskaya

*The internal TIPS portfolio is managed to the BC U.S. TIPS index while the external TIPS portfolio is managed to the BC US TIPS 1-10 year index because the portfolios have a different duration target.

Internal Global Government Bonds

Performance

	Latest Quarter	YTD	One Year	Three Year
Portfolio	1.06%	1.06%	3.16%	2.11%
Index	1.23%	1.23%	3.51%	2.60%

Quarterly Attribution

	FX Hedging	Country Allocation	Duration / Curve	Asset Allocation	Security Selection
Portfolio	-0.17%	0.0%	-0.07%	-0.07%	0.12%

Predicted Tracking Error

Total Tracking Error	Curve	Sector Spread	Idiosyncratic	Other
31 bps	95%	0%	4%	1%

Index Comparison

	Portfolio	Index
Duration	7.9	8.5
Yield	3.16	2.19
Rating	A1	A1

Composition

- $570 Million
- Investment Grade Sovereign and Agency bonds
- 60+ positions with 25+ issuers
- Barclays' Global Treasury Ex-U.S. Index Hedged
- Cross country allocation is driven by expectation for relative performance. Primary PM: Masha Skuratovskaya

Fixed Income + Allocation

	Fixed Income + Allocation (000's)				CYTD Excess Return Contribution		
	Benchmark		Portfolio		Sector Allocation	Within Sector Allocation	Total Excess Return
US Aggregate	25.00%	3,489,977	26.95%	3,761,906	-0.01%	0.04%	0.03%
US Corporates	25.00%	3,489,977	26.26%	3,665,558	0.00%	0.07%	0.07%
High Yield	10.00%	1,395,991	10.29%	1,436,726	0.00%	-0.01%	-0.01%
REITs	10.00%	1,395,991	9.32%	1,301,601	0.00%	0.13%	0.12%
Non-US Rates	10.00%	1,395,991	6.60%	920,728	-0.10%	-0.01%	-0.12%
TIPS	5.00%	697,995	5.41%	755,531	0.01%	-0.01%	0.00%
Emerging Market	5.00%	697,995	6.35%	886,547	0.02%	0.24%	0.26%
Listed Infrastructure	5.00%	697,995	4.51%	630,231	0.00%	0.04%	0.04%
Total Cash	5.00%	697,995	4.31%	601,079	-0.01%	0.04%	0.03%
Total	100.00%		100.00%		-0.10%	0.52%	0.42%

Fixed Income Plus Performance

Fixed Income Plus ($13,960mm)
- Overweight US Agg, Corporates, High Yield and Emerging Markets
- Underweight REITs, Global Rates, Listed Infrastructure and Cash

Barclays U.S. Aggregate Portfolio ($3,762mm)
- Neutral duration
- Overweight spread product and reduced TIPS exposure

Corporate Bond Portfolio ($3,666mm)
- Increase in credit quality while spreads tightened
- Overweight 10+ year Credit

Global Rates ($921mm)
Internal ($570mm)
- Portfolio benefited from overweight to Mexico and Eastern Europe
- Duration underweight to Eurozone periphery, underexposure to Japan and newly-established position in India detracted from performance

Allianz ($351mm)
- Headline duration underweight and overweight to Italy and Mexico worked out
- Performance suffered from underweight to Japan and overweights to New Zealand and Canada.

	QTD (%)	1Yr (%)	3Yr (%)	5Yr(%)
Aggregate	-1.74%	2.84%	2.63%	2.50%
Index	-1.83%	2.28%	2.36%	3.08%
Strategy	-1.56%	1.29%	1.44%	n/a
Index	-1.46%	1.20%	1.20%	n/a
Strategy	-2.44%	3.14%	2.75%	3.62%
Index	-2.32%	2.70%	2.30%	3.02%
Strategy	1.11%	3.10%	2.22%	3.40%
Index	1.23%	3.51%	2.60%	3.76%
In House	1.06%	3.16%	2.11%	n/a
Index	1.23%	3.51%	2.60%	n/a
Allianz	1.16%	3.54%	2.45%	3.48%
Index	1.23%	3.51%	2.60%	3.76%

Performance as of 3/31/2018

Fixed Income Plus Performance

Global High Yield ($1,437mm)
- Predominantly managed externally. ETFs used to fill allocation

High Yield ETF ($460mm)
- Outperformed the index due to risk underweight

Oaktree High Yield ($578mm)
- Performance trailed due to higher yields (risk) benefitting from rising rates

Capital Guardian High Yield ($399mm)
- BB underweight and B overweight were accretive to relative results; Underweight CCC detracted

TIPS ($756mm)

Internal TIPS ($629mm)
- Neutral duration with overweight to 10yrs vs 5s and 30s

Alaska Permanent Capital Mgmt. ($127mm)
- Maintain short duration bias and reduce underweight in 10yr sector vs 5yrs

	QTD (%)	1Yr (%)	3Yr (%)	5Yr(%)
Strategy	**-0.85%**	**3.33%**	**4.44%**	**4.49%**
Index	**-0.86%**	**3.78%**	**5.18%**	**5.00%**
ETF	-0.80%	3.40%	n/a	n/a
Index	-0.86%	3.78%	n/a	n/a
OakTree	-1.09%	3.24%	3.83%	3.90%
Index	-0.86%	3.78%	5.32%	5.29%
CapGuard	-0.64%	3.47%	6.12%	6.01%
Index	-0.65%	4.42%	5.46%	5.38%
Strategy	**-0.74%**	**0.94%**	**1.30%**	**0.05%**
Index	**-0.79%**	**0.92%**	**1.30%**	**0.05%**
In House	-0.81%	0.99%	1.35%	0.10%
Index	-0.79%	0.92%	1.30%	0.05%
APCM	-0.33%	0.55%	1.24%	0.00%
Index	-0.40%	0.43%	1.24%	-0.06%

Performance as of 3/31/2018

*The internal TIPS portfolio is managed to the BC U.S. TIPS index while the external TIPS portfolio is managed to the BC US TIPS 1-10 year index because the portfolios have a different duration target.

Fixed Income Plus Performance

Emerging Market Debt ($887mm)
ETF ($207mm)

- Overweight Local Currency vs Hard Currency debt

Capital Group ($679mm)

- Benefitted from overweight to unhedged Local Currency debt in Mexico
- Suffered from exposure to Brazil and Argentina

REITS ($1,302mm)

- Small underweight to the overall REIT sector

AEW ($502mm)

- Rising long-term rates were a headwind for U.S. REITs in Q1
- Corporate tax cuts were much more beneficial to earnings growth in other equity sectors relative to U.S. REITs
- Overweight Industrial REITs and underweight Shopping Center REITs benefited relative performance to the index

American Homes 4 Rent ($34mm)

SSGA Global REITS ($766mm)

	QTD (%)	1Yr (%)	3Yr (%)	5Yr(%)
Strategy	**1.95%**	**9.28%**	**5.60%**	**2.11%**
Index	**-1.04%**	**5.07%**	**5.36%**	**3.79%**
ETF	1.16%	n/a	n/a	n/a
Index	-1.04%	n/a	n/a	n/a
CapGuard	2.17%	9.58%	5.70%	2.17%
Index	1.30%	8.10%	5.53%	1.63%
Strategy	**-5.34%**	**1.41%**	**6.40%**	**5.31%**
Index	**-5.79%**	**-0.25%**	**0.94%**	**4.12%**
AEW	-4.93%	3.91%	3.17%	6.28%
Index	-5.79%	-0.25%	0.94%	4.12%
AH4R	-7.82%	-16.45%	5.87%	7.69%
Index	-5.79%	-0.25%	0.94%	4.12%
SSGA	-5.50%	0.71%	n/a	n/a
Index	-5.79%	-0.25%	n/a	n/a

Performance as of 3/31/2018

Fixed Income Plus Performance

Listed Infrastructure ($630 mm)

- Small underweight to overall sector

Lazard ($181 mm)

- World leading satellite companies (SES and Eutelsat) and UK Infrastructure companies (United Utilities and Pennon Group) dragged performance lower.
- As the portfolio maintains a full, passive currency hedge, it did not benefit from a weaker dollar.

SSGA ($313 mm)

- Passive portfolio used to adjust weighting

Cohen & Steers ($137 mm)

- Q1 Infrastructure sector underperformance to the broad equity market reflected weakness in electric utilities drive by the spike in 10 Year Treasury rate.

Fixed Income Plus Cash($601 mm)

- Neutral duration while focused on security selection

	QTD (%)	1Yr (%)	3Yr (%)	5Yr(%)
Strategy	**-5.10%**	**5.44%**	**6.69%**	**n/a**
Index	**-5.70%**	**4.20%**	**3.52%**	**n/a**
Lazard	-5.75%	5.07%	9.70%	n/a
Index	-4.14%	2.88%	4.74%	n/a
SSGA	-5.53%	4.88%	n/a	n/a
Index	-5.70%	4.20%	n/a	n/a
C&S	-3.19%	7.47%	4.98%	n/a
Index	-3.81%	5.13%	5.28%	n/a
Strategy	**0.36%**	**1.07%**	**n/a**	**n/a**
Index	**0.35%**	**1.11%**	**n/a**	**n/a**

Asset Class Updates Memo: Public Equities

APFC ALASKA PERMANENT FUND CORPORATION
801 W 10TH SUITE 302 | JUNEAU, AK 99801
907.796.1500 | apfc.org

SUBJECT: APFC Public Equities Asset Class Update ACTION: ____

DATE: May 23, 2018 INFORMATION: __X___

BACKGROUND:

The Public Equities presentation provides information on the APFC Public Equities Portfolio.

STATUS:

At this meeting staff will present key elements of performance, positioning, initiatives, and expectations of APFC Public Equities Portfolio. This includes overview of the markets, manager selection, asset allocation, and internal management of equities.

a) Presentation: Public Equities

APFC ALASKA PERMANENT FUND CORPORATION

Public Equities

Portfolio Update

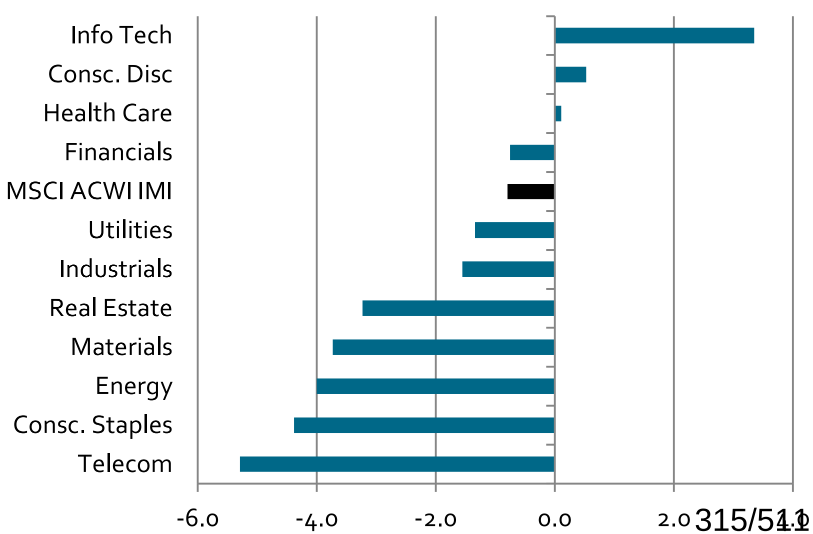
Fawad Razzaque

May 23, 2018

Public Equities – Performance

Public Equities	FY18 Q3 Ret. (%)
MSCI ACWI IMI	**-0.89**
MSCI Emerging Markets	+1.28
Russell 3000	-0.64
MSCI World ex US	-2.19

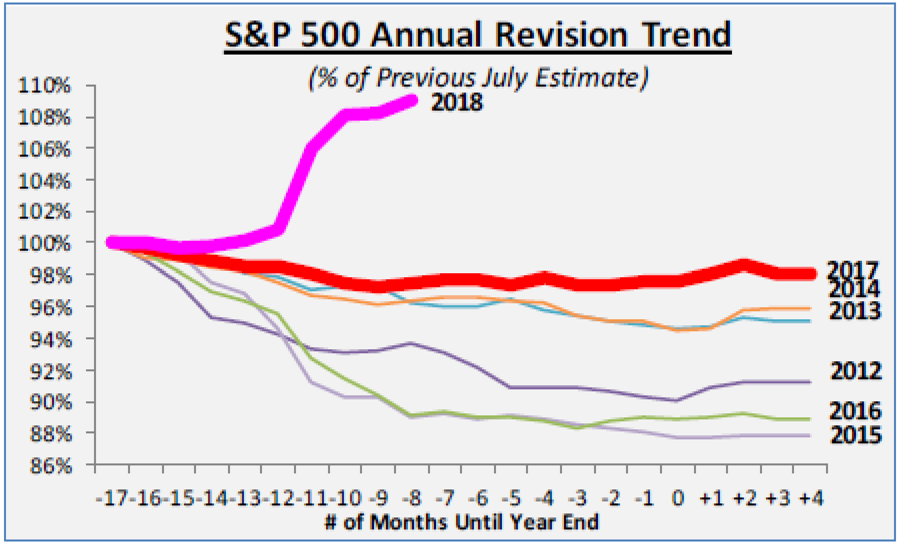
MSCI ACWI IMI Sector Returns

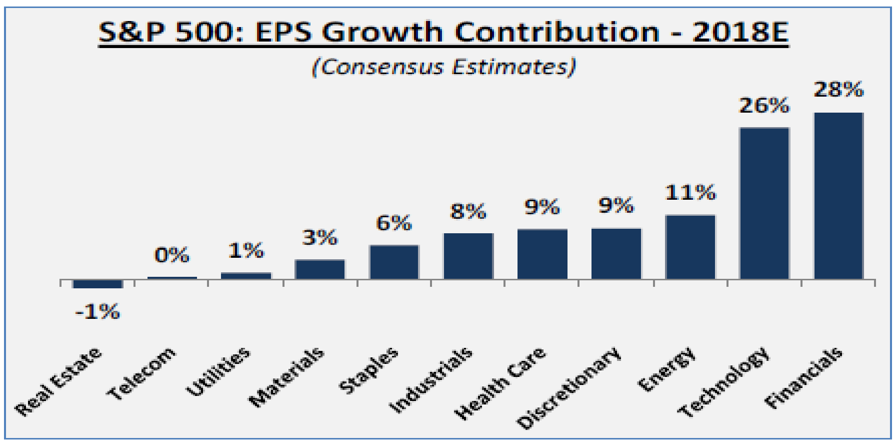


What Drove Equity Market Returns in the March quarter?

- **Global Economic Growth with Concerns over Inflation and Global Trade**
  - Continued positive trend in Global Corporate Revenue and Earnings Growth
  - Valuation compression due to fear of tighter (than expected) monetary policy in the US
  - Growth Scare related to Global Trade issues
- **Relative Outperformance**
  - Emerging Markets Equities outperformed US and Non US Developed markets
  - Narrow Sector Performance
  - US Growth outperformed US Value
  - Small Caps outperformed Large caps in Developed Markets

Stronger Earnings Growth Should Support Stocks Despite Slightly Tighter Monetary Policy



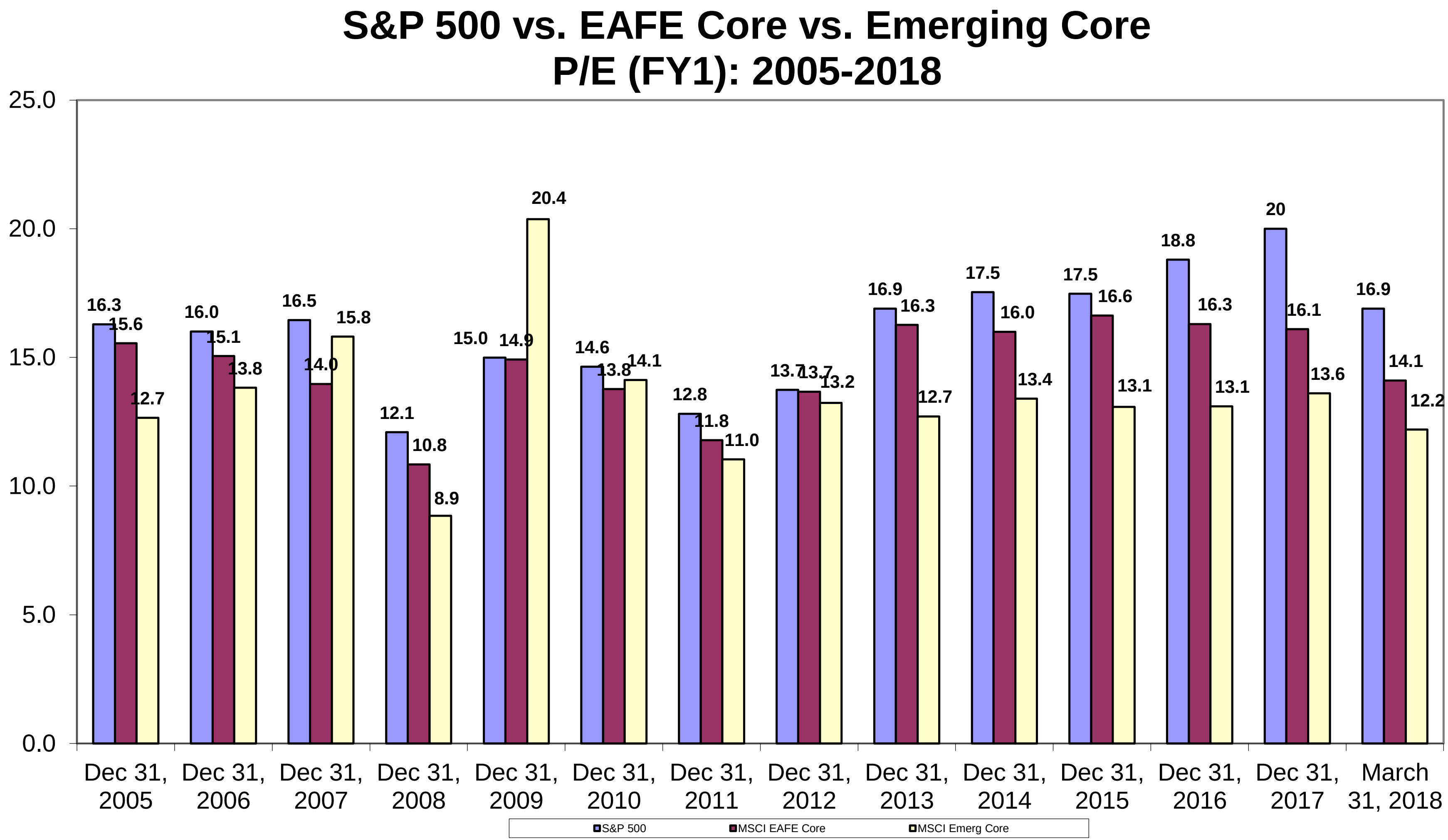


S&P 500 Operating EPS	S&P 500 Operating EPS Consensus - Bottom-Up EPS	YoY
FY 2016A	118.04	0.5%
FY 2017A	132.00	11.8%
1Q18E	37.17	20.3%
2Q18E	38.85	19.2%
3Q18E	40.72	21.7%
4Q18E	42.35	17.6%
FY 2018E	158.80	20.3%
1Q19E	40.52	9.0%
2Q19E	42.88	10.4%
3Q19E	44.73	9.8%
4Q19E	46.63	10.1%
FY 2019E	174.28	9.8%

As of April 30, 2018

Sources: Wolfe Research Portfolio Strategy, Compustat, Standard & Poor's, Thomson Reuters, Bloomberg, and Factset

Public Equities – Valuation



The profits Cycle Drives Cyclical vs. Defensive Pperformance
S&P 500® Sector Performance & The Profits Cycle

Cyclical

Defensive

Decelerating Profits Growth

9/89-6/90	3/91-12/91	3/93-9/93	3/95-6/96	3/97-12/98	3/00-12/01	12/03-6/05	3/06-3/09	6/10-3/13	12/13-12/15
HlthCare 19%	HlthCare 29%	Tel. Svcs 11%	HlthCare 54%	HlthCare 72%	Cons Stpl 32%	Energy 58%	Cons Stpl -3%	Cons. Disc 91%	HlthCare 34%
Cons Stpl 16%	Cons Stpl 20%	Energy 9%	Financials 50%	Tel. Svcs 71%	HlthCare 20%	Utilities 43%	Utilities -7%	Tel. Svcs 79%	Info Tech 27%
Energy 11%	Utilities 19%	Utilities 9%	Cons Stpl 47%	Info Tech 66%	Financials 12%	Tel. Svcs 14%	Energy -12%	HlthCare 74%	Cons Stpl 24%
Info Tech 10%	Financials 18%	Financials 8%	Info Tech 44%	Utilities 44%	Utilities 2%	Industrials 12%	Tel. Svcs -14%	Cons Stpl 70%	Utilities 23%
Industrials 7%	Cons. Disc 16%	Industrials 7%	Industrials 40%	Cons. Disc 41%	Energy 1%	**S&P 500 10%**	HlthCare -19%	Energy 66%	Cons. Disc 21%
S&P 500 5%	Materials 14%	Info Tech 4%	**S&P 500 38%**	**S&P 500 38%**	Industrials 1%	Financials 8%	Materials -28%	Industrials 62%	**S&P 500 15%**
Utilities 2%	**S&P 500 14%**	**S&P 500 3%**	Tel. Svcs 32%	Financials 29%	Materials -1%	Cons Stpl 8%	Info Tech -28%	**S&P 500 61%**	Financials 13%
Cons. Disc -1%	Industrials 12%	Materials 1%	Energy 30%	Cons Stpl 20%	Cons. Disc -15%	Cons. Disc 6%	**S&P 500 -34%**	Utilities 56%	Industrials 7%
Tel. Svcs -2%	Tel. Svcs 9%	Cons. Disc 0%	Utilities 29%	Industrials 19%	**S&P 500 -22%**	HlthCare 5%	Cons. Disc -39%	Materials 53%	Tel. Svcs 6%
Materials -6%	Energy 0%	HlthCare -4%	Cons. Disc 26%	Energy 18%	Tel. Svcs -46%	Materials 4%	Industrials -44%	Info Tech 52%	Materials -2%
Financials -13%	Info Tech -5%	Cons Stpl -9%	Materials 19%	Materials -2%	Info Tech -61%	Info Tech -3%	Financials -70%	Financials 39%	Energy -27%

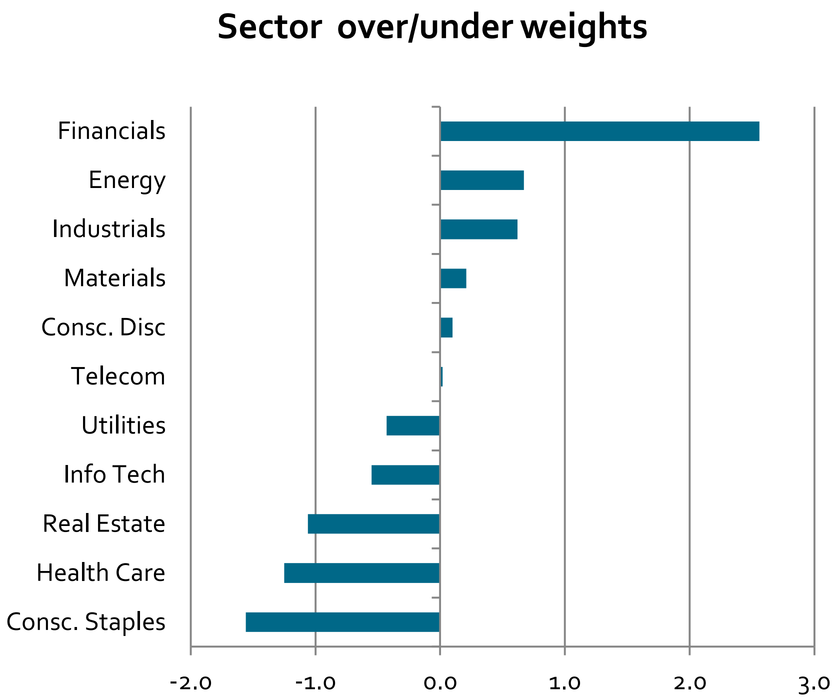
Accelerating Profits Growth

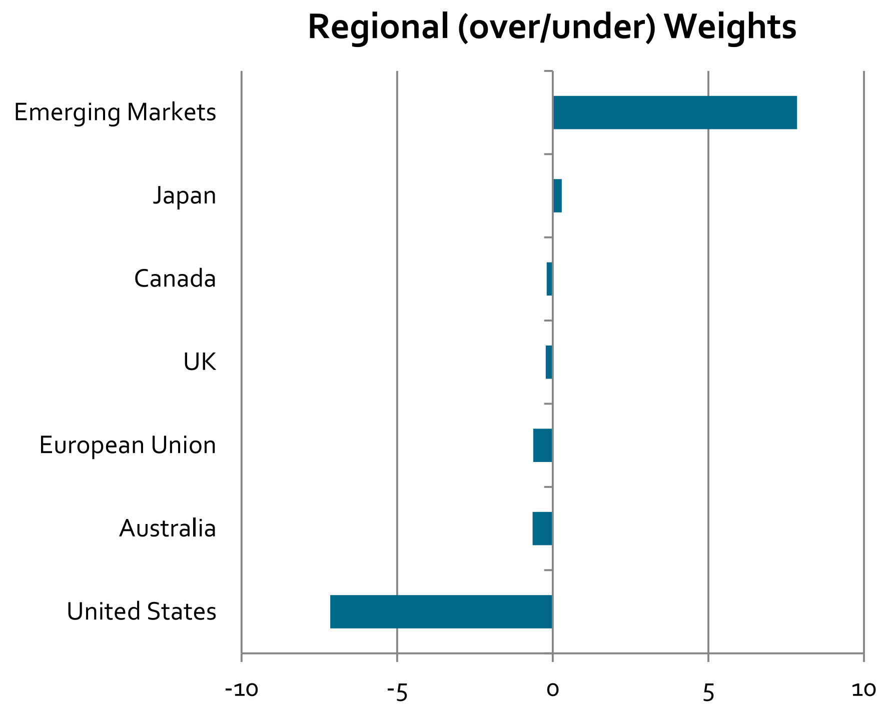
6/90-3/91	12/91-3/93	9/93-3/95-	6/96-3/97	12/98-3/00	12/01-12/03	6/05-3/06	3/09-6/10	3/13-12/13	12/15-12/17
HlthCare 24%	Financials 35%	Info Tech 42%	Financials 28%	Info Tech 177%	Materials 31%	Materials 22%	Financials 59%	Cons. Disc 28%	Info Tech 58%
Cons Stpl 23%	Tel. Svcs 29%	HlthCare 39%	Info Tech 26%	Cons. Disc 56%	Financials 12%	Energy 19%	Industrials 52%	Industrials 27%	Financials 50%
Utilities 10%	Cons. Disc 28%	Cons Stpl 30%	Energy 20%	Tel. Svcs 51%	Energy 12%	Industrials 15%	Cons. Disc 51%	Info Tech 23%	Materials 45%
Energy 9%	Utilities 19%	Materials 27%	HlthCare 17%	**S&P 500 50%**	Cons Stpl 7%	Tel. Svcs 13%	Info Tech 39%	HlthCare 22%	Industrials 44%
S&P 500 8%	Energy 15%	Industrials 16%	Cons Stpl 15%	Industrials 42%	Cons. Disc 5%	Financials 13%	**S&P 500 33%**	Financials 22%	**S&P 500 36%**
Financials 6%	Industrials 14%	**S&P 500 14%**	**S&P 500 15%**	Financials 30%	**S&P 500 0%**	Info Tech 12%	Materials 32%	Materials 20%	Cons. Disc 30%
Materials 3%	Info Tech 14%	Energy 10%	Industrials 11%	Energy 23%	Industrials -3%	**S&P 500 10%**	Cons Stpl 25%	**S&P 500 20%**	Utilities 30%
Cons. Disc 2%	Materials 12%	Cons. Disc 6%	Materials 9%	Materials 13%	HlthCare -7%	Cons Stpl 5%	HlthCare 19%	Energy 14%	Energy 26%
Industrials 0%	**S&P 500 12%**	Financials 1%	Cons. Disc 4%	HlthCare 3%	Info Tech -8%	HlthCare 4%	Utilities 16%	Cons Stpl 10%	Tel. Svcs 22%
Info Tech -1%	Cons Stpl 3%	Tel. Svcs -5%	Tel. Svcs 1%	Utilities 0%	Utilities -12%	Cons. Disc 3%	Energy 13%	Tel. Svcs 2%	Cons Stpl 20%
Tel. Svcs -2%	HlthCare -27%	Utilities -13%	Utilities -1%	Cons Stpl -14%	Tel. Svcs -29%	Utilities 0%	Tel. Svcs 7%	Utilities 0%	HlthCare 19%

Public Equities - Allocation

March 31, 2018

APFC Public Equity Regions and Sectors





Public Equities - Performance
March 31, 2018

APFC Public Equity	FY 18 Q3 (%)	FYTD
Public Equities	**-0.42**	**11.42**
MSCI ACWI IMI	*-0.89*	*10.35*
Excess Returns (bps)	**+47**	**+107**
Domestic Equities	***-0.40***	***11.23***
Russell 3000 Index	*-0.64*	*10.48*
Excess Returns (bps)	***+24***	***+75***
International Equities	***-0.22***	***12.85***
MSCI ACWI IMI ex-US	*-1.06*	*10.63*
Excess Returns (bps)	***+84***	***+222***
Global Equities	***-0.66***	***10.09***
MSCI ACWI IMI	*-0.89*	*10.35*
Excess Returns (bps)	***+23***	***-26***

What Drove Relative Returns in the December Quarter?

- Fund Managers
- Emerging markets

Domestic Equities

- Positive relative performance from Active Managers (+8 bps)
- Over Weight to Small Caps over Large caps modestly beneficial

International Equities

- Positive relative performance from Active Managers (+15 bps)
- Over Weight to Emerging Markets and Info. Tech Sector was beneficial

Global Equities

- Positive relative performance from Active Managers (+15 bps)
- Tactical Tilts (+5 bps) added value
- Overweight to Europe was a drag

Public Equities – Performance

APFC Allocation	FY Q3 2018 (%)
Excess Returns (bps)	+47
Breakdown of Excess Returns (Approx.)	
Fund Manager (bps)	+38
Asset Allocation (bps)	+4
Regional (OW EM & UW US)	+
Style, Size, and Sector tilts	-
In-house Tactical Tilts (bps)	+5

What Drove Relative Returns?

- **Fund Managers** **+38bps**
  - Success Rate: 70%
  - Skew: Outperformers gained by 60 bps while Underperformers lost by 22 bps
- **Asset Allocation** **+4 bps**
  - Key Contributors: Overweight Emerging Markets, Underweight US Equities
  - Key Detractors: Overweight Value, Overweight Cyclical sectors
- **Internal Equity** **+5 bps**

Performance – Positive Skew in Fund Manager Excess Returns (FY 18 Q3)

Fund Managers	Assets	Attribution
McKinley Global Growth	2.75%	0.06%
Lazard Global Core	5.03%	0.06%
Acadian Intl LCV	2.00%	0.05%
Johnston Intl LCG	1.49%	0.05%
AQR Global Core	5.77%	0.04%
CastleArk US LCG	1.21%	0.04%
ArrowStreet Global	2.24%	0.03%
LSV US LC Value	3.26%	0.03%
Schroders Intl ACV	2.32%	0.03%
Trustbridge EM	0.67%	0.02%
SKBA US LCV	1.33%	0.02%
RBA Global	0.77%	0.02%
DSM US LCG	1.83%	0.01%
LSV Intl LCV	2.16%	0.01%
DFA INTL Large Cap	3.53%	0.01%
Jennison US SCC	0.69%	0.01%
WCM Global	0.77%	0.01%
Pzena US SCV	0.68%	0.01%
In House SPDR Momentum	1.53%	0.01%
DFA EM Value	2.26%	0.01%
Wells Capital	0.28%	0.01%
JP Morgan Intl LCG	2.16%	0.01%
AGI US LCG	3.28%	0.01%

Fund Managers	Assets	Attribution
Eagle US SCG	0.71%	0.00%
T Rowe US SCV	0.66%	0.00%
DFA EM Small Cap	0.80%	0.00%
Lee Munder EM	0.38%	0.00%
Macquarie EM	0.94%	0.00%
APF Global Equities	0.38%	0.00%
RBC US SCG	0.61%	0.00%
SSGA US LCG	0.83%	0.00%
In House SPDR Low Vol	1.51%	0.00%
DFA INTL Small Company	1.62%	0.00%
AGI Structured Alpha	0.55%	-0.01%
DFA INTL SCV	1.61%	-0.01%
William Blair EM	2.16%	-0.01%
Lyrical US LCV	2.53%	-0.01%
JP Morgan EM	2.11%	-0.01%
CDAM Global	0.55%	-0.02%
Mellon FTSE RAFI US LC	1.60%	-0.03%
In House SPDR Yield	1.43%	-0.03%
Mondrian EM	2.33%	-0.03%
SSgA Russ FDMTL DVLPD LC	5.94%	-0.05%
Total		**0.38%**

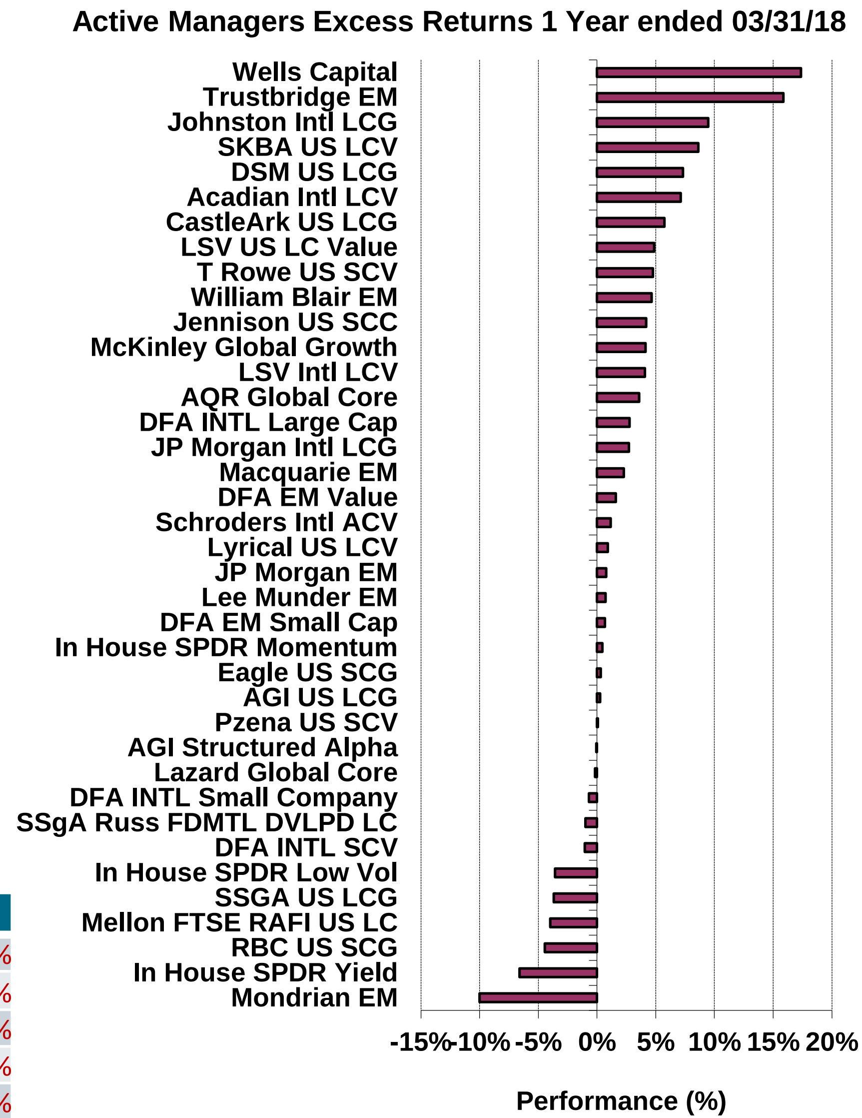
FY 18 Q3 Performance – Global Equity Managers

Global Equity Managers	1 Year (%)	3 Years (%)	5 Years (%)
Public Equities	**16.31**	**8.65**	**9.27**
MSCI ACWI IMI	**15.03**	**8.27**	**9.34**
Domestic Equities	14.40	10.28	13.31
Russell 3000	13.81	10.22	13.03
International Equities	19.79	8.23	6.46
MSCI ACWI ex-US	17.10	6.75	6.24
Global Equities	14.18	7.89	9.83
MSCI ACWI	14.85	8.12	9.20

Performance – External Fund Managers (1 Year)

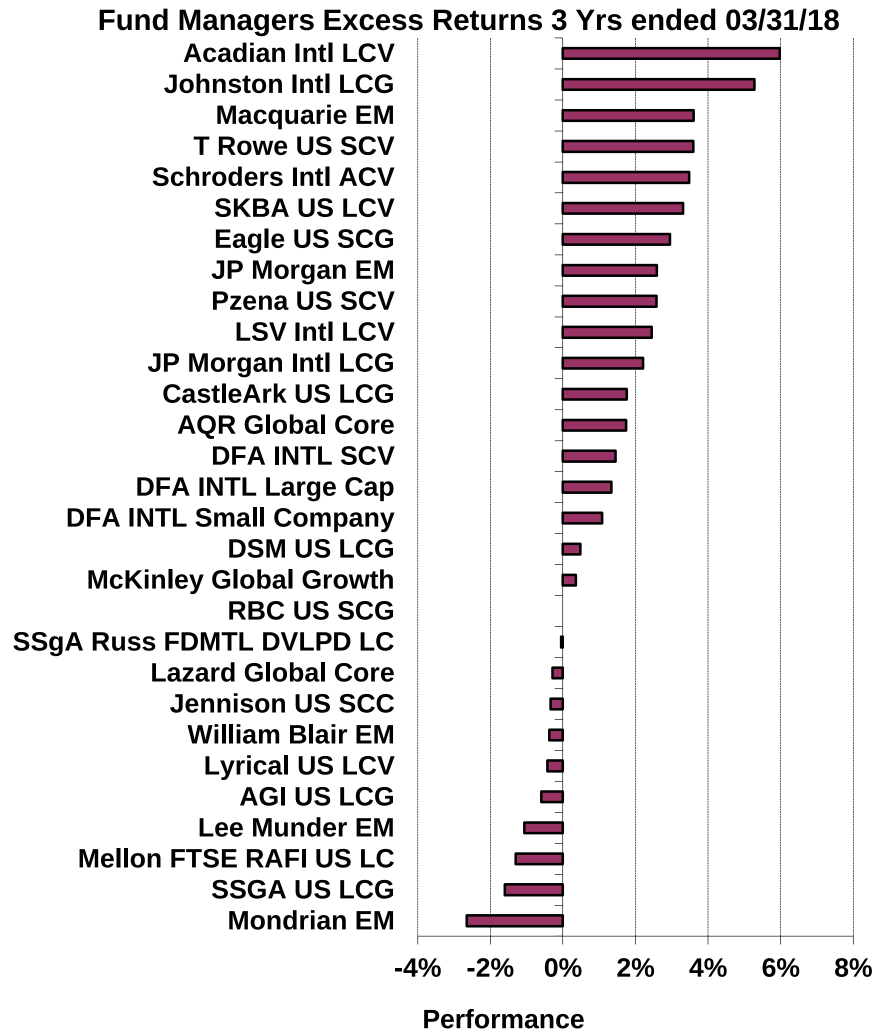
Fund Managers with 3 yrs of Fund history	Excess Returns (%)
Wells Capital	17.36%
Trustbridge EM	15.87%
Johnston Intl LCG	9.48%
SKBA US LCV	8.62%
DSM US LCG	7.33%
Acadian Intl LCV	7.12%
CastleArk US LCG	5.73%
LSV US LC Value	4.86%
T Rowe US SCV	4.77%
William Blair EM	4.65%
Jennison US SCC	4.19%
McKinley Global Growth	4.12%
LSV Intl LCV	4.08%
AQR Global Core	3.59%
DFA INTL Large Cap	2.78%
JP Morgan Intl LCG	2.72%
Macquarie EM	2.28%
DFA EM Value	1.59%
Schroders Intl ACV	1.17%
Lyrical US LCV	0.93%
JP Morgan EM	0.79%
Lee Munder EM	0.73%
DFA EM Small Cap	0.68%
In House SPDR Momentum	0.46%
Eagle US SCG	0.33%
AGI US LCG	0.25%
Pzena US SCV	0.08%
AGI Structured Alpha	-0.07%
Lazard Global Core	-0.18%
DFA INTL Small Company	-0.70%
SSgA Russ FDMTL DVLPD LC	-0.98%
DFA INTL SCV	-1.04%
In House SPDR Low Vol	-3.57%
SSGA US LCG	-3.70%
Mellon FTSE RAFI US LC	-4.00%
RBC US SCG	-4.45%
In House SPDR Yield	-6.60%
Mondrian EM	-10.01%

68% Outperformed



Public Equities – Fund Managers (3 Years)

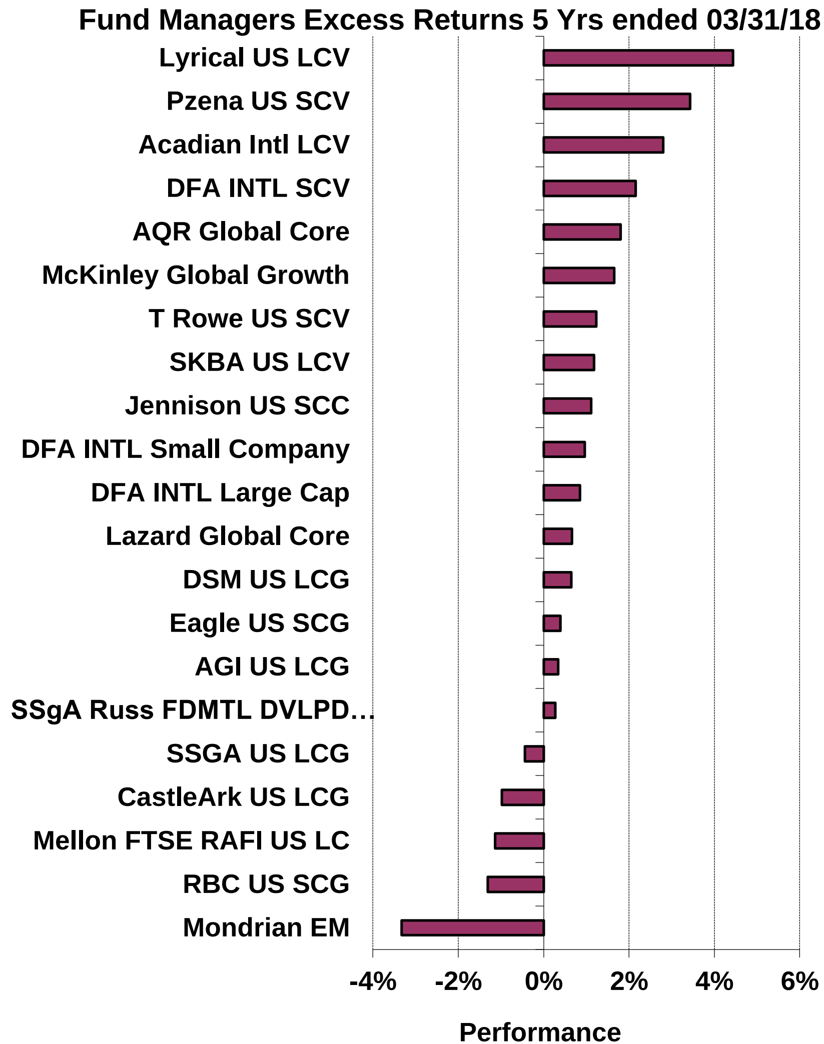
Fund Managers with 3 yrs of Fund history	Excess Returns (%)
Acadian Intl LCV	5.97%
Johnston Intl LCG	5.28%
Macquarie EM	3.60%
T Rowe US SCV	3.59%
Schroders Intl ACV	3.48%
SKBA US LCV	3.31%
Eagle US SCG	2.95%
JP Morgan EM	2.59%
Pzena US SCV	2.58%
LSV Intl LCV	2.45%
JP Morgan Intl LCG	2.21%
CastleArk US LCG	1.76%
AQR Global Core	1.74%
DFA INTL SCV	1.45%
DFA INTL Large Cap	1.34%
DFA INTL Small Company	1.08%
DSM US LCG	0.48%
McKinley Global Growth	0.36%
RBC US SCG	0.00%
SSgA Russ FDMTL DVLPD LC	-0.05%
Lazard Global Core	-0.29%
Jennison US SCC	-0.34%
William Blair EM	-0.37%
Lyrical US LCV	-0.43%
AGI US LCG	-0.59%
Lee Munder EM	-1.06%
Mellon FTSE RAFI US LC	-1.30%
SSGA US LCG	-1.60%
Mondrian EM	-2.65%
Herndon	*
SSGA INTL	*



APFC External Fund Managers: 61% Outperformed

Fund Manager Selection – Excess Returns (5 Years)

Fund Managers 5 Yr Fund history	Mgr Ret. (%)	Index (%)	+/- (%)
Lyrical US LCV	15.22%	10.78%	4.44%
Pzena US SCV	13.39%	9.96%	3.43%
Acadian Intl LCV	7.68%	4.88%	2.80%
DFA INTL SCV	10.94%	8.78%	2.16%
AQR Global Core	11.50%	9.70%	1.80%
McKinley Global Growth	10.85%	9.20%	1.65%
T Rowe US SCV	11.19%	9.96%	1.23%
SKBA US LCV	11.96%	10.78%	1.18%
Jennison US SCC	12.58%	11.47%	1.11%
DFA INTL Small Company	10.67%	9.71%	0.96%
DFA INTL Large Cap	6.89%	6.04%	0.85%
Lazard Global Core	9.86%	9.20%	0.66%
DSM US LCG	16.18%	15.53%	0.65%
Eagle US SCG	13.29%	12.90%	0.39%
AGI US LCG	15.87%	15.53%	0.34%
SSgA Russ FDMTL DVLPD LC	9.97%	9.70%	0.27%
SSGA US LCG	15.09%	15.53%	-0.44%
CastleArk US LCG	14.55%	15.53%	-0.98%
Mellon FTSE RAFI US LC	12.03%	13.17%	-1.14%
RBC US SCG	11.59%	12.90%	-1.31%
Mondrian EM	1.66%	4.99%	-3.33%
SSGA INTL	*		
Herndon US LCV	*		
Cap Group EM	*		
GMO Global Core	*		



APFC Fund Managers: 64% Outperformed

- *GMO, Capital Group were terminated in 2014 and 2015, respectively
- Herndon and SSGA INTL were terminated in 2017
- **No Survivorship bias**

FY 2018 Performance – Global Equity Managers

Global Equity Managers		Assets (mil)	FY 18 Q3 (%)	Benchmark (%)	Excess (bps)
McKinley Capital Management	(MSCI ACWI)	739	1.33	-0.96	+237
RBA Global Equity*	(MSCI ACWI)	207	1.32	-0.96	+236
WCM Global Equity *	(MSCI ACWI)	205	0.75	-0.96	+179
Arrowstreet Global Equity*	(MSCI ACWI IMI)	600	0.35	-0.89	+146
Lazard Asset Management	(MSCI ACWI)	1,351	0.25	-0.96	+129
AQR Global Equity	(MSCI World)	1,549	-0.53	-1.28	+75
In House Tactical Tilts	(MSCI ACWI IMI)	2,768	-0.43	-0.89	+46
APF Global Equities	(MSCI ACWI IMI)	101	-0.51	-0.89	+38
SSgA Russell Fundamental Dvlpd LC	(MSCI World)	1,594	-2.16	-1.28	-88
CDAM Global Equity*	(MSCI World)	146	-5.31	-1.28	-403

*New Global Equity Managers added in December 2018

In-House Tactical Tilt – Positions as of 3/31/2018

In-House Tactical Tilts (2,768 million)	(%)
Vanguard S&P 500 (VOO)	30.2
Vanguard FTSE Emerging Markets (VWO)	13.7
Vanguard FTSE Developed Markets (VEA)	11.4
US Financial Select SPDR (XLF)	10.0
US Technology Select SPDR (XLK)	8.0
Ishares Russell 2000 (IWM)	5.3
Ishares MSCI Europe Financial (EUFN)	4.5
Kranesahres CSI China Internet*	3.6
Ishares MSCI China ETF*	3.5
Ishares MSCI Mexico	3.0
US Energy Sector Select SPDR (XLE)	2.9
Ishares MSCI Taiwan	1.8
Ishares MSCI South Korea	1.8
Total	100%

Allocation	%	+/-
US	56.4	+
Non US DM	15.9	-
EM	27.4	+

Sector Emphasis:
Financials
Technology
Energy

Regional Emphasis:
Overweight US Equities
Overweight Emerging Markets
Underweight non-US DM

Public Equities - Positioning

March 31, 2018

APFC Public Equity Allocation – No Change:

- Regions: Overweight to Emerging Markets - Strategic/Tactical
- Sectors: Modest tilt towards economically sensitive sectors - Tactical
- Style: Modest tilt in favor of Value - Tactical

Risks to Current Positioning (Listed in the order of Importance)

- Rise in US Dollar
- US - China Trade Relations
- Sharp rise in US Interest Rates / QT
- Inverted Yield Curve
- Decline in Corporate Earnings
- Greater than expected slowdown in China Growth
- Geopolitical Risks – North Korea/Mideast

Public Equities – Key Macro Factors to Watch

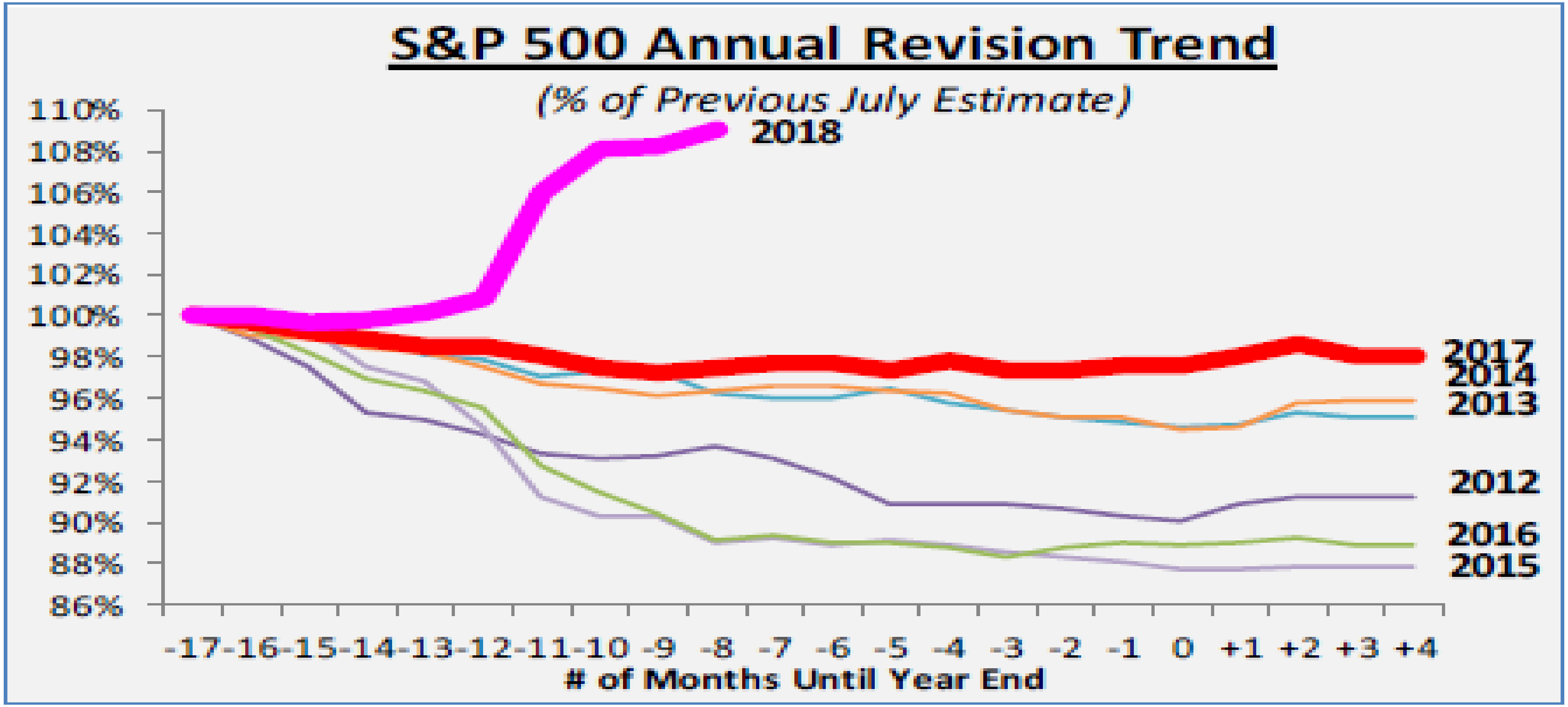
US DOLLAR (5 Yr period)

Public Equities – Key Macro Factors to Watch

Yield Spread between US 10 Yr and US 2 Yr (1977 – 2018) - at the lowest point over the last decade, 47 bps from the point of inversion

331/511

Public Equities – Key Macro Factors to Watch



As of April 30, 2018

Sources: Wolfe Research Portfolio Strategy, Compustat, Standard &Poor's, Thomson Reuters, Bloomberg, and Factset

Asset Class Updates Memo: Private Equity & Special Opportunities

APFC ALASKA PERMANENT FUND CORPORATION
801 W 10TH SUITE 302 | JUNEAU, AK 99801
907.796.1500 | apfc.org

SUBJECT: Private Equity & Special Opportunities Asset Class Update ACTION: ___________

DATE: May 23, 2018 INFORMATION: ___X___

BACKGROUND:

The Private Equity and Special Opportunities presentation provides a portfolio update and investment performance analysis.

STATUS:

At this meeting staff will present some of the key elements of the Private Equity and Special Opportunities portfolio including, as context, overall market performance and outlook. Staff will compare performance of portfolio components, including performance of staff investments versus gatekeeper investments and fund investments versus co-investments. All Policy guidelines are identified in the Investment Policy Manual and Strategic Plan.

a) Presentation: Private Equity & Special Opportunities

APFC ALASKA PERMANENT FUND CORPORATION

Private Equity & Special Opportunities

Portfolio Update | May 23, 2018

Steve Moseley

Executive Summary

Portfolio continues to generate strong returns; cumulative net gains reached $4.9 billion at calendar year end

Portfolio Summary

($mm, 31-Dec-17) Portfolio	Market Value	% APF	1-Year Net IRR	3-Year Net IRR	Since Inception Returns Net IRR	Since Inception Returns Net Gain
Private Equity	$4,735	7.3%	23.5%	16.5%	13.3%	$3,190
Special Opportunities	3,049	4.7%	27.0%	7.0%	28.7%	1,672
Combined Portfolio	**$7,784**	**12.0%[4]**	**24.8%**	**12.6%**	**15.4%**	**$4,862**
Public Benchmark[1]			23.0%	10.4%	9.5%	$2,368
Excess Return			**1.8%**	**2.2%**	**5.9%**	**$2,494**

Program Summary

($mm, 31-Dec-17) Program	Commitments FY 2018[2]	Commitments Total	Since Inception Net IRR
Pathway + HarbourVest	$416	$6,556	12.9%
APFC PE	723	2,677	21.2%
APFC SpecOps	367	4,087	28.7%
Combined Portfolio	**$1,505**	**$13,320**	**15.4%**

Tactical Summary

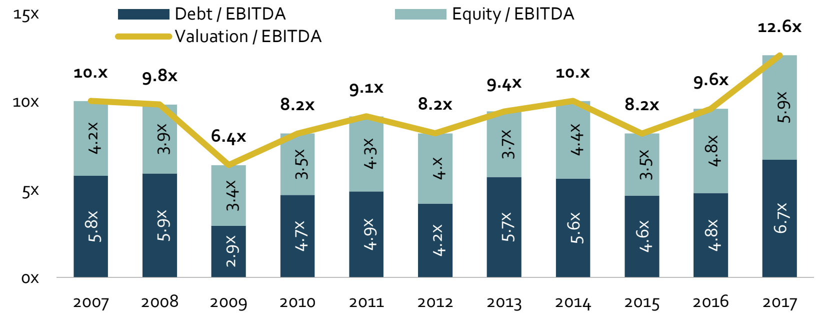
($mm, 31-Dec-17) Investment Activity	Investment Activity FY2018[2]	Investment Activity Total	Investment Activity Average	Since Inception Net Returns IRR	Since Inception Net Returns Multiple	Since Inception Net Returns Gain	Comments
Fund Commitments	$1,448	$12,251	$37	**12.8%**	**1.4x**	**$3,453**	• Private equity program launched with gatekeepers in 2004
Direct/co-investments	$58	$1,069	$49	**64.0%**	**2.4x**	**$1,409**	• Staff-managed program launched in 2014; minimal fees

Source: Pathway Capital Management as of 31-Dec-2017, unless otherwise specified.
Note: All dollars in millions. All returns net of management fees and carry. Returns may differ slightly from Callan due to timing and methodology.
(1) Public market equivalent benchmark assumes combined portfolio cash flows are invested in, or distributed from, a public index fund (60% Russell 3000/40% MSCI EAFE).
(2) Includes commitments through March 31, 2018.
(3) Of the portfolio's 397 partnerships, December 31, 2017, data was pending or not yet available for 16 (5% by market value) at the time of this report.
(4) Pro-forma for completed Q1 '18 strategic sales, Combined Portfolio % drops to 11.4%.

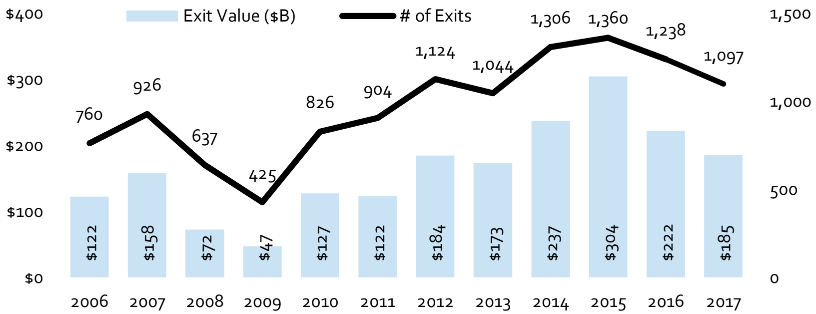
Private Equity Market Update

Purchase price multiples and fundraising velocity will eventually depress returns

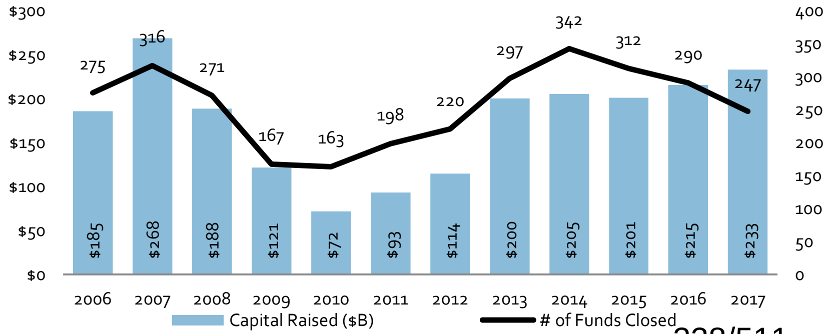
U.S. PE multiples reach new highs (again)...



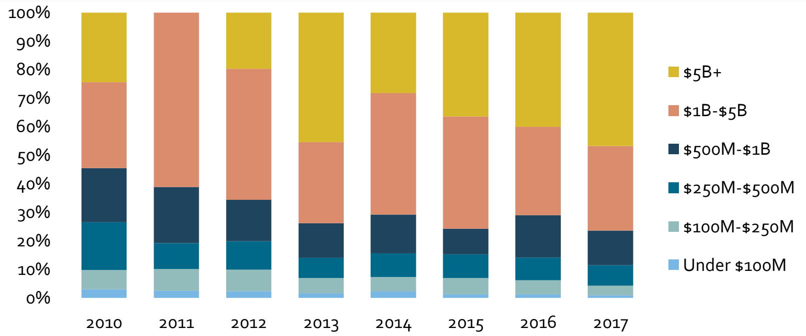
...although exit activity decelerated in 2017.



Institutional investors continue to break recent PE allocation records...



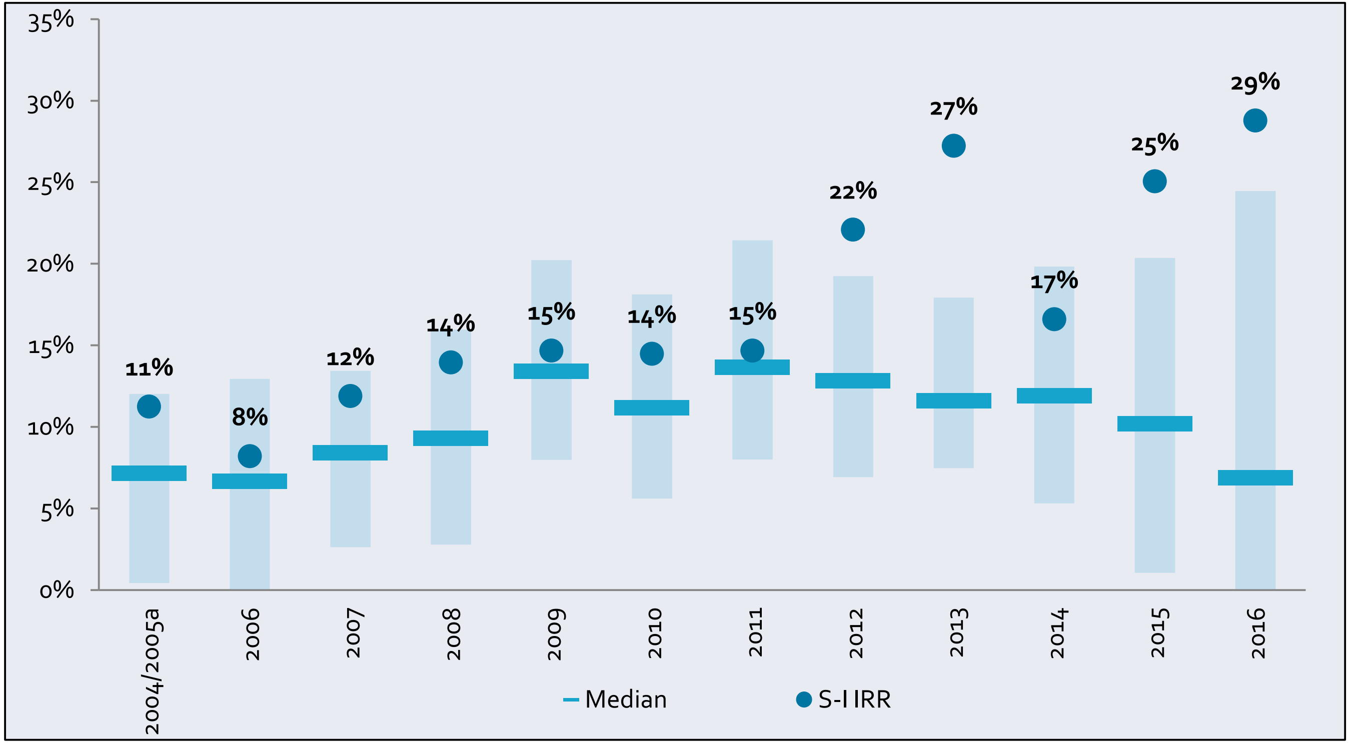
- *...with large cap PE firms raising a disproportionate share of the capital*

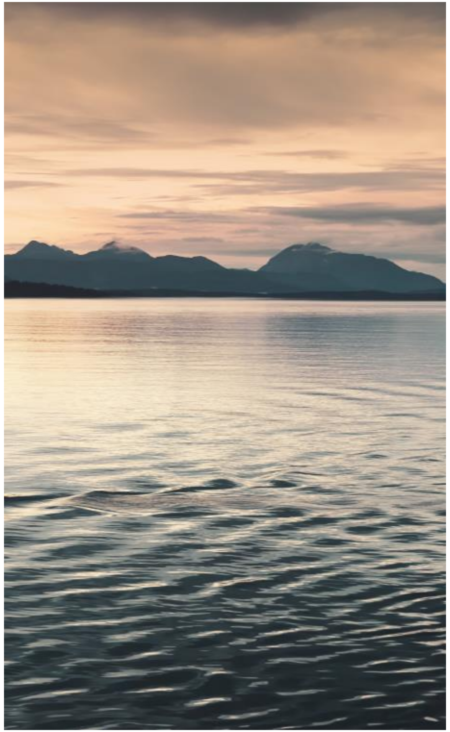


Source: Pitchbook as of Q4 2017.

Vintage Year Performance

APFC has outperformed the median private equity benchmark every year since inception

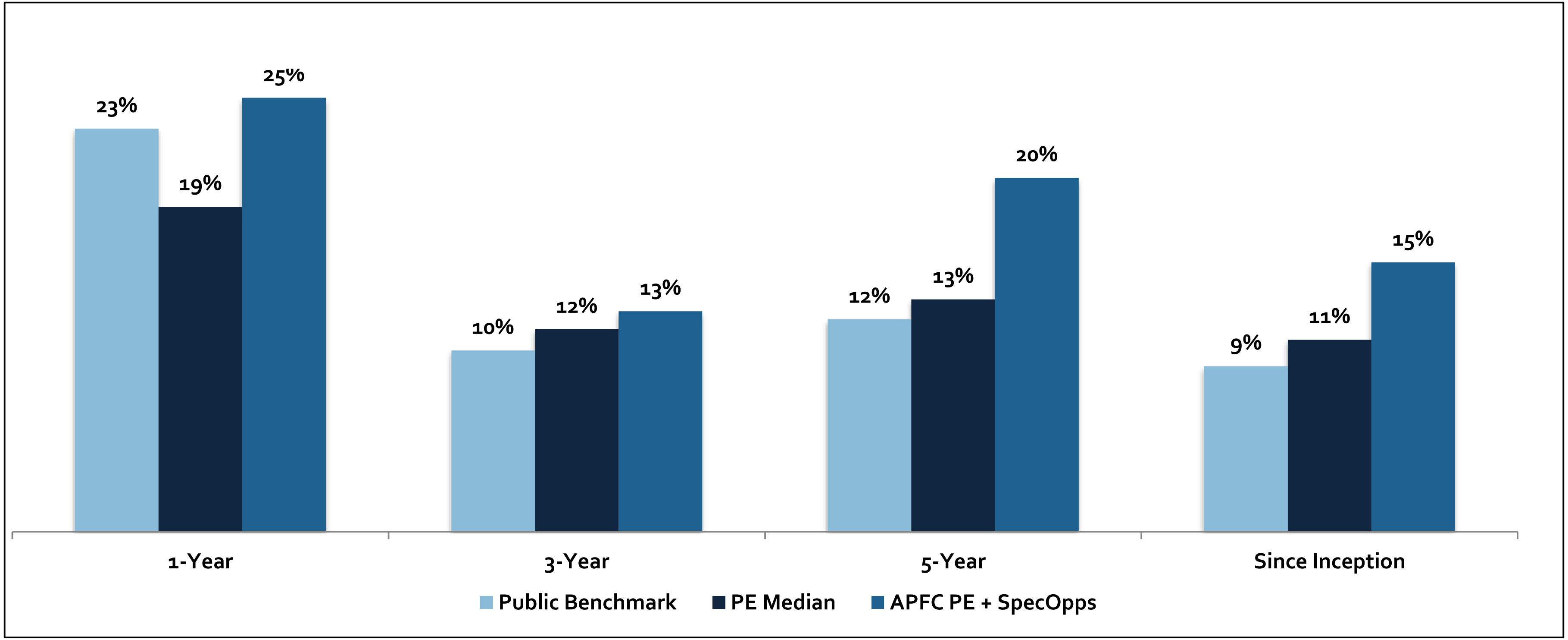




Source: Pathway Capital Management and Burgiss as of 31-Dec-2017.
Note: All returns net of management fees and carry. Returns may differ slightly from Callan's time-weighted returns due to reporting lag and methodology.
a) Represents weighted average benchmark, based on APFC fund commitments for each vintage year.

Portfolio Performance

PE and SpecOps portfolios continue to outperform both public market and industry benchmarks



Sources: Pathway Capital Management and Cambridge Associates as of 31-Dec-2017.

Notes: All returns net of management fees and carry. Returns may differ slightly from Callan due to timing and methodology.

Public market equivalent benchmark assumes combined portfolio cash flows are invested in, or distributed from, a public index fund (60% Russell 3000/40% MSCI EAFE).

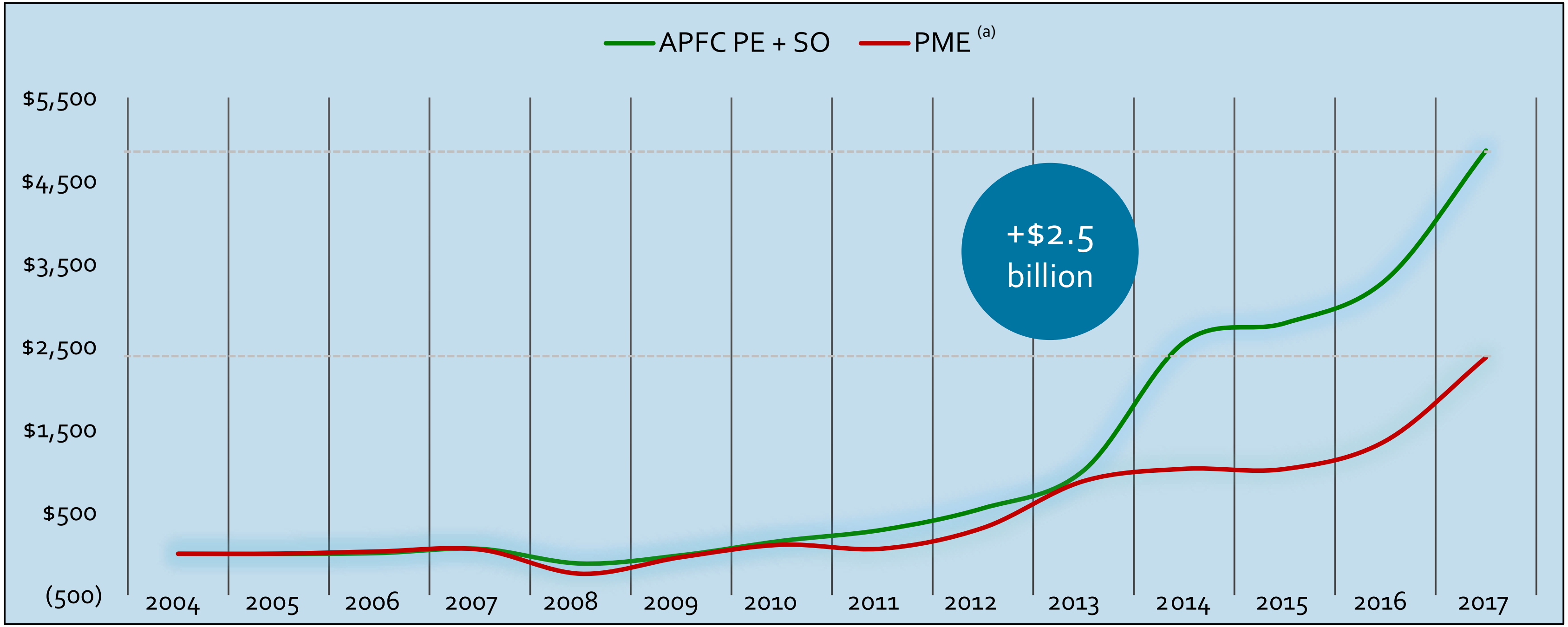
PE Median represents the Cambridge Associates global all private equity return benchmark for 2004 through 2017-vintage funds, as of December 31, 2017, as produced using Cambridge data.

Of the portfolio's 397 investments, December 31, 2017, data was not yet available for 16 (5% by market value) at the time of this report.

Private Equity Value-added

PE portfolio has outperformed public benchmark, generating an incremental $2.5 billion of gains to Alaska since inception

($ in millions)



Sources: Pathway Capital Management as of 31-Dec-2017.

Note: All returns net of management fees and carry. Returns may differ slightly from Callan due to timing and methodology.

a) PME benchmark assumes all portfolio cash flows are invested in, or distributed from, a public index (60% Russell 3000/40% MSCI EAFE).

b) Of the portfolio's 397 partnerships, December 31, 2017, data was pending or not yet available for 16 (5% by market value) at the time of this report.

Market perception of APFC supports our market objectives

Pensions&Investments — News | Data | Insights | Multimedia | Events | Careers | Research Ce

ALTERNATIVES

Asset owners, managers trying new ways to take direct approach

Investors go beyond traditional alternative investment

BY ARLEEN JACOBIUS · MARCH 5, 2018

Some asset owners and money managers are starting to tinker with the traditionally high-fee alternative investment model.

NORTH TO THE FUTURE
Alaska Permanent Fund's supercharged PE portfolio

PRIVATE EQUITY INTERNATIONAL
AWARDS 2017

LIMITED PARTNER OF THE YEAR IN NORTH AMERICA

1. Alaska Permanent Fund
2. University of California
3. Ford Foundation

The newest converts are often the most zealous, and Alaska Permanent Fund is no exception.
The $65 billion sovereign wealth fund is a relative newcomer to private equity, having only invested through two separately managed accounts prior to the appointment of Stephen Moseley as head of private equity in 2013.

MERGERS&ACQUISITIONS — Lenders

Alternative investment fund formed by group that includes Alaska Permanent Fund

By Keith Button Archive
Published February 28 2018, 12:00pm EST
More in Alternative investments, Financial services

ALTERNATIVES

3 asset owners team up for alternatives joint venture

BY ARLEEN JACOBIUS · FEBRUARY 22, 2018 12:01 AM

The Alaska Permanent Fund Corp., The Public Institution for Social Security of Kuwait and RPMI Railpen are making a combined initial $700 million commitment to launch a joint venture that will invest in new private equity and alternative investment managers.

Alaska rocks

The $65bn Alaska Permanent Fund is creating a supercharged private equity portfolio, writes Alex Lynn

PRIVATELY SPEAKING 20

ALASKA PERMANENT FUND
The $65bn sovereign wealth fund is creating a supercharged private equity portfolio

WSJ PRO PRIVATE EQUITY

Alaska Permanent Fund, RPMI Railpen among LPs teaming up to create Constellation investment vehicle

February 23, 2018

Capital Constellation

Alaska takes $73 mln stake in Kelso reinsurance investment

- Alaska co-investment portfolio returning 36.8 pct IRR
- New co-investments include healthcare, software stakes
- $57.3 bln wealth fund also backs Quad-C, Vista funds

Alaska Permanent Fund Corp inked more than $100 million of private equity co-investments in recent months, documents

Whitehorse Liquidity gets anchor commitment from Alaska

- Whitehorse Liquidity pursues preferred equity strategy
- Formed by CPPIB veteran Yann Robard
- Alaska commits $100 mln to Fund I

Whitehorse Liquidity Partners, in the market with its debut fund that focuses on a preferred equity strategy, recently got a big vote of confidence from **Alaska Permanent Fund Corp.**

BUYOUTS

A big player just moved into the PE 'next-gen' seeding world

- Alaska, UK, Kuwait institutions form pool of capital
- Will be managed by Wafra

Alaska set to chase unique private equity structures

342/511

FUND NEWS | NORTH AMERICA , EUROPE , ASIA , FINANCIAL SERVICES

Three Big Financial Players Form Joint Venture

The Alaska Permanent Fund, the Public Institution for Social Security of Kuwait, RPMI Railpen and Wafra have committed a total of $700m to the venture, which is expected to deploy more than $1.5bn over the next five years.

Highlights and expectations

Portfolio continues to achieve return and diversification objectives; only early evidence of progress on key strategic and operational initiatives

Recent activity

- **Risk**
  - Reduced targeted concentrations and harvested gains
- **Returns** (1)
  - 1-yr, 3-yr, and 5-yr net returns of 25%, 13%, and 20%, respectively
  - Exceeded PE industry and public market equivalent benchmarks
  - Cum. incremental gain of $2.5 billion above public benchmark
  - Direct and co-investments sourced by APFC staff have generated 64% net annual returns since 2014
- **Yield**
  - Record quarterly distributions: $1.463 billion Jan. to March 2018
- **Organizational management**
  - Team size limits potential and increases cost
    - Smaller team → greater costs (and vice versa)

Plans and expectations

- **Manage team and geographic constraints**
  - Sourcing and diligence more critical than ever before
  - Leverage consultants, advisors and other 3rd parties
- **Internationalize for diversification and growth**
  - Position APFC for long-term growth opportunities
- **Reinforce defensive posture**
  - Consolidate preferred GP relationships
  - Favor contractual returns, asset coverage
- **Maintain agility**
  - Enhance portfolio monitoring and data analytics
  - Harvest gains, de-risk portfolio, maintain steady pacing
  - Seek counter-cyclical, uncorrelated strategies and assets
  - Deploy with conviction when markets turn

Source: Returns as reported by Pathway Capital Management as of 31-Dec-2017, unless otherwise specified.
Note: All returns net of management fees and carry. Returns may differ slightly from Callan data due to timing and methodology.
(1) PE Median represents the Cambridge Associates global all private equity return benchmark for 2004- through 2017-vintage funds, as of December 31, 2017, as produced using Cambridge data.. Public market equivalent benchmark assumes combined portfolio cash flows are invested in, or distributed from, a public index fund (60% Russell 3000/40% MSCI EAFE).

Executive Session Memo

APFC ALASKA PERMANENT FUND CORPORATION
801 W 10TH SUITE 302 | JUNEAU, AK 99801
907.796.1500 | apfc.org

SUBJECT: Executive Session – AMHTA Audit ACTION: ________

DATE: May 24, 2018 INFORMATION: ___X___

BACKGROUND:

The Division of Legislative Audit is in the process of finalizing a special audit of the Alaska Mental Health Trust Authority's compliance with state and federal law in the management of its assets.

At the time this memo was composed, the preliminary audit report is considered a confidential record under state law. Consequently, until this audit report has been finalized and made public, any discussion of its contents and its potential impacts on APFC must take place in executive session for the reasons identified in AS 44.62.310(c)(4).

RECOMMENDATION:

Convene an Executive Session for the Board of Trustees to receive a briefing on how the audit may affect APFC.

Investment Policy and Procedures Memo

APFC ALASKA PERMANENT FUND CORPORATION
801 W 10TH SUITE 302 | JUNEAU, AK 99801
907.796.1500 | apfc.org

SUBJECT: Investment Policy & Procedures ACTION: ______X_______

DATE: 5/23/2018 INFORMATION: _____________

BACKGROUND: APFC's Investment Policy & Procedures are intended to provide the Board with its primary mechanism for expressing its objectives, operating expectations, and preferred practices for how APFC should succeed in its management of the Permanent Fund and other state assets as prescribed by law. Previous Policy was established on May 27th, 2010 (with amendments thereafter) and an earlier version dating back to April 25th, 1995. Since this policy was last established in 2010, investment plans across the United States have sought to adapt better to the prevailing industry best practice standards, improve policy comparability with other leading plans, and to distill the language of their policies into its most accessible form possible.

STATUS: Attached you will find a streamlined proposed statement of Investment Policy & Procedures, along with related appendices listing prevailing Investment Guidelines, a listing of internal APFC portfolio managers and traders, a glossary of terms, a listing of the previous Investment Policy adoption and amendments, and a chart covering Callan's capital markets projections from 2018-2027. The objective is for the Board to consider and potentially ratify a readable, compelling document which can be used to direct staff, consultants, and advisors to work in the best possible interests of the Plan and its investments. This Policy & Procedures statement generally does not seek to make new policy at this time but rather to translate existing policies and practices into a much more accessible and compelling format.

RECOMMENDATION: Staff recommends that the APFC Board approve the new Investment Policy & Procedures as of May 23, 2018 to take effect for the new fiscal year beginning on July 1, 2018.

Proposed Investment Policy MAY 2018

APFC Investment Policy & Procedures

Adopted May 23, 2018 to be effective July 1, 2018

TABLE OF CONTENTS

I OBJECTIVES

Mission

The Mission of the Alaska Permanent Fund Corporation ("Corporation" or "APFC") is to manage and invest the assets of the Alaska Permanent Fund ("Fund") and other funds designated by law.

Vision and Values

APFC's vision is to deliver sustained, compelling investment returns as the United States' leading sovereign endowment manager, benefiting all current and future generations of Alaskans.

To fulfill its mission and vision, the Corporation will adhere to the following values:

- Integrity: We act in an honorable, respectful, professional manner that continually earns and justifies the trust and confidence of each other and those we serve.
- Stewardship: We are committed to wisely investing and protecting the assets, resources, and information with which we have been entrusted.
- Passion: We are driven to excellence through self-improvement, innovative solutions, and an open, creative culture; and are energized by the challenges and rewards of serving Alaskans.

II TOTAL FUND & PORTFOLIO DESIGN PHILOSOPHY

A. Purpose

The purpose of this Investment Policy & Procedures Statement ("Policy & Procedures") is to provide a formal plan for investing and managing the assets of the Alaska Permanent Fund and other state assets as prescribed by law to achieve the defined investment objectives consistent with the APFC Mission adopted by the Board. The Policy & Procedures also define the roles and responsibilities of the various parties involved in the investment process and facilitates external communication of investment policy. The appendices to the Policy & Procedures are incorporated into and form part of this document. Terms that are not defined within the body of the Policy & Procedures have meanings assigned to them in the "Glossary," Appendix C of this document.

This document is not intended to be a static, one-time document and will be considered for possible amendment on an annual basis or any time the Board of Trustees ("Board") modifies or adds to the Corporation's investment-related policies and practices. Amendment to this document require Board action as described in AS 37.13.080. Following any Board approved amendment to this document, changes will be noted in Board meeting minutes and as soon as practicable this document will be amended to reflect the approved changes and posted on the APFC website.

The Policy & Procedures addressed herein shall be interpreted and applied in a manner consistent with: (1) 15 AAC 137.410 – 15 AAC 137.990, and (2) AS 37.13.120(a), which provides, in relevant part:

> *The prudent-investor rule as applied to investment activity of the fund means that the corporation shall exercise the judgment and care under the circumstances then prevailing that an institutional investor of ordinary prudence, discretion, and intelligence exercises in the designation and management of large investments entrusted to it, not in regard to speculation, but in regard to permanent disposition of funds, considering preservation of purchasing power of the fund over time while maximizing the expected total return from both income and appreciation of capital.*

B. Roles of Board, Staff, Consultants, and Advisors

The Board has the primary fiduciary responsibility for investing Fund assets in accordance with the Alaska Constitution and applicable law. The roles of the Board are to set investment policy and procedures, oversee investment management through the Executive Director and Staff through regularly scheduled and special meetings, and ensure the adequacy of staff resources and structure needed for the Corporation to fulfill its objectives as effectively as possible.

APFC Staff, in turn, is tasked with the fiduciary responsibility for managing the investment portfolio and operations needed to fulfill the Fund's objectives, as specified by the Board, in line with the Policy & Procedures. Staff advises and informs the Executive Director and the Board about investments and recommends changes as needed to the Policy & Procedures. Staff executes all transactions, performs risk-management functions, and prepares investment reports.

Consultants provide advice and implementation assistance on investment programs to the Board and Staff on both the overall Fund as well as with specific asset classes. Consistent with 15 AAC 137.460(b)(2), Consultants may also be used to evaluate whether a specific investment is a prudent investment of Fund assets. Finally, Consultants report on the progress that the Fund is making with regard to specific programs and makes comparisons of Fund performance against its target benchmarks, including Fund peers.

Consistent with the Board's Charters and Governance Policies, Investment Advisors are selected by the Board to provide education, advice, commentary, and discussion as requested at Board meetings, based upon their industry experience with peer institutions.

C. Total Fund Objectives

The objective of the Fund is to provide compelling investment returns with acceptable levels of risk. To that end, the effectiveness of the Fund's design and portfolio management will be assessed based upon the following criteria:

i. Investment Performance: ability to meet or exceed long-term (5^+ years) inflation-adjusted actuarial, medium-term (3-year) peer group, and short-term (1-year) index benchmarks;
ii. Investment Efficiency: ability for the Fund to harvest investment returns commensurate with the overall level of risk undertaken by the portfolio, as measured primarily by the Sharpe Ratio; and
iii. Investment Risk: ability of the Fund to measure and control risks in line with State and Board tolerances and peer group norms.

D. Total Fund Asset Mix

APFC's investment programs are generally organized by asset classes, each of which has a specific investment objective and liquidity profile. The total return objectives for the Fund are thus a composite of the "growth" or "income" objectives for each asset class. Furthermore, expected return hurdles for each asset class are a function of investment risk (as measured by volatility or Value-of-Risk) and liquidity.

APFC Staff will assist the Board in engaging in an asset allocation study for the Fund at least once every five (5) years to review asset classes, return-risk assumptions, and correlations of investment returns with applicable benchmarks and across asset classes. A key objective of the asset allocation study shall be the development through statistical modelling techniques of a diversified portfolio that specifies ranges of prudent portfolio exposures and “long-term target” position for each asset class. The normal portfolio mix will represent the portfolio that is expected to meet the Board’s actuarial, peer group, and index benchmark targets within the risk tolerances specified herein.

Each asset class allocation percentage has a “long-term target” position within the overall portfolio as well as maximum and minimum ranges around those targets. Ranges are specified by a “green zone” which reflect normal expected variability around the targets, “yellow zones” which prescribe remediation by the staff according to prudent portfolio management over a reasonable period of time, and “red zones” which require reporting to the Board and a remediation plan to be presented by staff at the regularly scheduled Board Meetings. Allocation ranges of these zones are expressed as percentages of the overall Fund.

Table 1

Category	Target Allocation (FY2019)	Green Zone (CIO)	Yellow Zone (ED)	Red Zone (Board)
Investment Objective				
Growth (Public Equities + Private Equity + Absolute Return & Asset Allocation)	60%	+/- 10%	0-5% beyond the green zone	>5% beyond the green zone
Income (Fixed-Income-Plus + Real Estate, Private Income)	40%	+/- 10%	0-5% beyond the green zone	>5% beyond the green zone
Investment Objective - Liquidity				
Tradable (Public Equities + Fixed-Income-Plus + Asset Allocation)	65%	+/- 10%	0-5% beyond the green zone	>5% beyond the green zone
Illiquid (Private Equity + Real Estate, Private Income + Absolute Return)	35%	+/- 10%	0-5% beyond the green zone	>5% beyond the green zone
Asset Classes				
Public Equities	38%	+/- 5%	0-10% beyond the green zone	>10% beyond the green zone
Fixed Income Plus	22%	+/- 5%	0-10% beyond the green zone	>10% beyond the green zone
Private Equity & Special Opportunities	12%	+/- 5%	0-5% beyond the green zone	>5% beyond the green zone
Real Estate	11%	+/- 5%	0-5% beyond the green zone	>5% beyond the green zone
Private Income	7%	+/- 5%	0-5% beyond the green zone	>5% beyond the green zone
Absolute Return	5%	+/- 3%	0-5% beyond the green zone	>5% beyond the green zone
Asset Allocation	5%	+/-3%	0-3% beyond the green zone	>3% beyond the green zone

E. Total Fund Measurement & Reporting Criteria—Performance Scorecard

The Board's General Consultant will deliver reports to the Board at each regular Board meeting which indicate whether the Fund is meeting its objectives as described in the Policy & Procedures. In addition, the General Consultant will provide a "Performance Scorecard" at each Board meeting based on the prior quarter-end investment performance intended to assess the overall effectiveness of the Fund in terms of its objectives as outlined above in Section II.C. Reporting on measures of Investment Performance and Investment Efficiency will be distilled into the equivalent of "percentile rankings" through comparisons with peers (i.e., institutional investment plans) and through the computation of statistical "Z-scores" against investment return and variability targets. The overall percentile ranking of the Fund will be assessed and reported as the simple average of its returns in comparison with long-term (5+ year) inflation-adjusted actuarial, medium-term (3-year) peer group, and short-term (1-year) index benchmarks.

Each asset class is associated with a benchmark that describes in general terms the opportunity set and return characteristics associated with the asset class. For certain private or more complex asset classes, the benchmark serves as a proxy for expected returns rather than an approximation of the actual investments that will characterize that component of the portfolio. Those benchmarks, along with the allocation ranges, for each asset class are also referred to as Policy Benchmarks. Note that the investment returns and benchmarks for all private market asset classes (i.e., Private Equity & Special Opportunities, Real Estate, Infrastructure, Private Credit, and Income Opportunities) are lagged by 1-quarter for performance calculation purposes, as is common practice among large complex investment plans in the United States and internationally.

The long-term investment objectives for the Fund should target a return of CPI+5% or better into the future. This CPI+5% or better target should be achieved through a combination of (1) strategic asset allocation among the asset classes, (2) tactical asset allocation, which overweights or underweights specific assets classes on a shorter-term basis due to perceived valuational or risk imbalances between the asset classes, and (3) value-added contributions within each asset class. The following table reflects the long-term return objectives for each of the asset classes based upon the prevailing strategic asset allocation and value-added contributions from both tactical asset allocation and asset class portfolio management:

Table 2

Asset Class—Allocation Targets	Long-Term Return	Alloc. FY2019	Alloc. FY2020	Alloc. FY2021	Index Benchmark
Public Equities	CPI+5.25%	38%	37%	35%	MSCI ACWI-IMI
Fixed Income Plus	CPI+2%⁺	22%	20%	18%	FI-Plus Composite (see Guidelines)
Private Equity & Special Opportunities	CPI+7.5%⁺	12%	13%	14%	Cambridge PE
Real Estate	CPI+5%⁺	11%	12%	13%	NCREIF
Private Income	CPI+5%⁺	7%	8%	9%	60% FTSE Developed Infrastructure + 40% US HY Bond
Absolute Return	CPI+5%⁺	5%	5%	6%	HFRI-FOF
Asset Allocation	CPI+3%⁺	5%	5%	5%	40% 90-day T-bills, 60%*total Fund target
Implied Strategic Target Return→		**CPI+4.6%**	**CPI+4.7%**	**CPI+4.8%**	
Plus value-added tactical allocation		**.25-.5%**	**.25-.5%**	**.25-.5%**	
Overall Long-Term Target Return→		**CPI+5%⁺**	**CPI+5.1%⁺**	**CPI+5.2%⁺**	

Table 3

Total Fund Performance Benchmark Indices	2019	2020	2021
MSCI ACWI IMI	39%	38%	36%
90 Day T-Bills	3%	3%	3%
BC US TIPS	1%	1%	1%
BC US Aggregate	6%	5%	5%
BC US Credit	6%	5%	5%
BC Global Treasury ex-US (Hedged)	2%	2%	2%
BC EMD Hard Currency	1%	1%	1%
BC US High Yield 2% issuer cap index	5%	5%	6%
S&P Global REIT	2%	2%	2%
S&P Global Infrastructure	1%	1%	1%
Cambridge Private Equity	12%	13%	14%
NCREIF Index	11%	12%	13%
FTSE Developed Core Infrastructure	4%	5%	6%
HFRI Total Fund HFOF Universe	5%	5%	6%

In addition, after the conclusion of each fiscal year, the General Consultant will provide an asset class breakdown of the Performance Scorecard (in addition to the total Fund Performance Scorecard which will be reported quarterly). Rather than utilizing equal weightings among long-term, medium-term, and short-term objectives, however, the asset class Performance Scorecards will reflect the greater relevance of short-term (40% weight) and medium-term peer group (40% weighting) objectives versus the long-term inflation-adjusted actuarial (20% weighting) objective for Public Equities and Fixed-Income-Plus asset classes. By contrast, private markets asset classes including Private Equity, Real Estate, and Private Income will emphasize the greater importance of medium term peer group (40% weighting) and long-term inflation-adjusted actuarial (40%) objectives versus the short-term index benchmark (20% weighting) objective.

Peer group comparisons will generally be made on a 3-year basis for assessing the effectiveness of the Fund and its asset classes on a medium-term basis. Fund peers will include large US Public Funds as well as other plans deemed comparable by the General Consultant, Staff, and Board. To the extent that peer comparisons may not be directly available for specific asset class comparisons, the General Consultant should select the closest available proxy for comparison and percentile ranking purposes (including the use of statistical Z-scores when appropriate).

Index comparisons are to be utilized for assessing the short-term (1-year) performance of the Fund. Such comparisons should include a Passive Index Benchmark (comprised of investable publicly traded securities, reflected as 60% MSCI ACWI IMI, 20% Barclay's Fixed-Income Global Aggregate Index, 10% US TIPS, and 10% FTSE EPRA NAREIT) and the Performance Benchmark (comprised of both publicly traded and private indexes, see Table 3).

F. Total Fund Portfolio Implementation, Restrictions, Delegations

The structure of the Fund is organized through asset classes, each with a distinctive investment objective (growth or income) as well as liquidity profile (tradable or illiquid), plus an allocation to a portfolio named "Asset Allocation," designed to: (1) manage Fund liquidity, and (2) manage Fund risk through rebalancing and tactical hedging. APFC Staff directs all investment activities through a delegation from the Board to the Executive Director as described in the Board's Bylaws. Delegations of Authority will thus be conferred from the Board to the Executive Director (ED) and then by extension to specific investment staff in order to effect investment transactions. The Executive Director will also convene a Public Markets Investment Committee and a Private Markets Investment Committee on a regular and as needed basis in order to discuss and deliberate on decisions requiring the authorization of ED from the Policy & Procedures or

Investment Guidelines. Investment decisions resulting from those meetings will generally be affirmed by email to and from the ED.

G. Relationship of the Policy & Procedures with Regulations and Guidelines

As required by Alaska Statute 37.13.120(a), the Board has adopted regulations specifically designating the types of investments that Fund assets can be invested in. All investments authorized by the Policy & Procedures shall be limited to those investments authorized and in the manner authorized by the Board's investment regulations, 15 AAC 137.010 – 15 AAC 137.990. Recommended changes to these regulations must be approved by the Board and adopted in conformity with the process provided in Alaska Statute 37.13.206.

The Investment Guidelines attached as Appendix A, reflect the day-to-day operational expectations and requirements needed to ensure effective management of Fund assets consistent with the regulations and the Policy & Procedures. With the written approval of the Executive Director, the Investment Guidelines may be changed and any approved changes will be described to the Board at its next regular meeting.

III PUBLIC MARKETS

A. Public Equity

i. Objective

The objective of the APFC's Public Equity portfolio is to invest in publicly traded securities to meet or exceed the performance of a well-diversified pool of global equities, embodied in the MSCI ACWI IMI Index, while staying within predefined risk constraints.

The above objective is achieved via both external and internal investment management activities with respect to security selection and allocation size.

ii. Structure

The structure of the Public Equity portfolio may include a combination of actively and passively managed investments within prescribed tracking error targets relative to the ACWI IMI benchmark:

- Actively managed equity strategies that strive to enhance total returns of a portfolio relative to its assigned benchmark;
- Passively managed equity strategies that strive to replicate, in a cost efficient manner, the returns of a benchmark index;

iii. Authorized Investments

The Public Equity portfolio, whether external or internal, are authorized to invest in the following:

- All publicly traded equity securities described in 15 AAC 137.440(1), including equity-oriented funds, or equity related securities, and securities issued in underwritten initial public offerings ("IPOs");
- Equity derivatives as described in 15 AAC 440(2), including forwards, futures, options, swaps, collateralized securities, and structure notes; and
- Other investment as permitted in the APFC Regulations, including commingled investment funds as described in 15 AAC 137.470.

iv. Rebalancing and Mandate Modification

The Director of Public Equity may:

- With the approval of the Chief Investment Officer and the Executive Director, add, terminate, or rebalance Public Equity portfolio mandates and allocations for external investment managers; and
- Rebalance assets to, from, or between individual Public Equity portfolios at his/her own discretion within the Guidelines.

B. Fixed Income Plus

i. Objective

The Fixed Income Plus portfolio is intended to provide meaningful income-oriented investment returns and diversify the risks of the Fund's equity and other growth-oriented programs. This portfolio should provide steady, low volatility returns in normal market conditions and act as a cushion when more volatile asset classes experience a market drop. The liquidity of this portfolio will also allow it to serve as a funding source for other, less liquid asset classes, and to meet annual Fund liabilities. The Fixed Income Plus portfolio invests in publicly traded and other liquid income-oriented investments intended to meet or exceed the investment return of an index composite benchmark comprised of liquid, income-producing assets.

ii. Structure

Consistent with performance objectives, and applicable tracking error guidelines, the structure of the Fixed Income Plus portfolio may include:

- Actively managed income producing strategies that strive to enhance total returns of a portfolio relative to its assigned benchmark; and
- Passively managed income producing strategies that strive to replicate, in a cost efficient manner, the returns of the benchmark index.

iii. Authorized Investments

The Fixed Income Plus portfolio, whether external or internal, is authorized to invest in the following:

- All fixed-income investments as described in 15 AAC 137.430, including US and International fixed-income securities including those issued in the Emerging Markets, with investment grade, non-investment grade (high yield) or implied ratings;
- Fixed-income derivatives as described in 15 AAC 137.430(a)(19), including forwards, futures, options, swaps, collateralized securities, structured notes, and credit default swaps;
- Real Estate Investment Trusts (REITs) and real estate investment trust exchange traded funds as described in 15 AAC 137.450(a)(4);
- Exchange traded securities, commingled funds, and other tradable investments related to liquid infrastructure investments; and
- Other investment as permitted in the APFC Regulations.

iv. Rebalancing and Mandate Modification

The Director of Fixed Income Plus may:

- With the approval of the Chief Investment Officer and Executive Director hire, terminate, approve or modify any external manager mandate within Fixed-Income Plus; and
- Rebalance assets to, from or between individual external managers at his/her discretion within the Guidelines.

C. Asset Allocation

i. Objectives

The objectives of the Asset Allocation portfolio are to: (1) provide liquidity management for the Fund, (2) manage foreign currency risks, (3) avoid "cash drag" by maintaining synthetic public equity and fixed-income exposure to surplus portfolio cash, (4) manage allocation transfers between asset classes, and (5) manage a liquid Risk Parity portfolio with an attractive risk/return profile. In aggregate, the long-term return of the Asset Allocation portfolio is intended to produce investment returns equal to 65% MSCI ACWI IMI + 35% Barclays Fixed Income Aggregate a benchmark of or better.

ii. Structure and Authorized Investments

The Asset Allocation portfolio refers to four distinct programs, each with specific roles for the Fund:

- Liquidity Program—Comprised of cash, cash equivalents and other liquid investment balances, including lines of credit and letters of credit, this program is intended to meet the Fund's operational needs including capital calls and appropriations from the earnings reserve account to the State's general fund. This program may also utilize stock and bond-related securities used for transitional purposes;
- Cash Overlay Program—Comprised of exchange-traded and over-the-counter derivatives managed by external investment managers to provide efficient exposure to public equity and fixed-income markets, thereby reducing "cash drag" that is a natural side effect of holding cash for liquidity management purposes;
- Currency Overlay Program—Comprised of currency-related derivatives, as described in 15 AAC 137.480, managed by external investment managers, this program seeks to add value and manage the risks associated with the Fund's exposure to foreign currencies; and
- Risk Parity Program—Designed to deliver long-term returns of CPI+5% or better through external managers which seek to generate returns that are less

correlated to global public markets through allocation of risk (i.e. volatility) rather than allocation of capital. Private market investments are generally excluded from Risk Parity funds. Because Risk Parity investments are diversifying, they represent a small share of the Fund's risk while generating a proportionately larger share of the Fund's returns. To avoid investment manager concentration risk, allocations to Risk Parity Managers shall be limited to no more than 1% of the Fund at the time of investment. Risk Parity investments are generally liquid and highly scalable. Risk Parity Fund investments will be consummated following a search process and the recommendation of APFC's General Consultant.

D. Securities Lending

The Executive Director may execute an agreement with the Fund's custodian or other lending agent to lend domestic and non-domestic public equity and debt securities from the Fund's portfolio directly to borrowers for a fee in accordance with 15 AAC 137.510 and the following guidelines:

i. The custodian or lending agent shall extend without reservation or qualification complete indemnification against any direct loss from a borrower default, the reinvestment of cash collateral, and failure to comply with the terms and conditions of the lending agreements;

ii. As described in 15 AAC 137.510, collateral shall be required at the following levels:

- Minimum of 102% of the market value of the loaned securities which are denominated in the same currency as the collateral provided by the borrower; and
- Minimum of 105% of the market value of the loaned securities which are denominated in a currency other than the collateral provided by the borrower;

iii. Collateral and loaned securities shall be marked to market daily;

iv. The investment of cash collateral posted by borrowers shall be restricted to those investment-grade securities permissible under the provisions of AS 37.13.120, 15 AAC 137, and the Investment Guidelines; and

v. The Corporation shall periodically review investments of cash collateral for compliance with the provisions of AS 37.13.120, 15 AAC 137, and the Investment Guidelines.

At the discretion of the Executive Director, the Corporation may elect to have cash collateral released to the Corporation to meet liquidity needs rather than having it invested by the Custodian or lending agent.

IV ALTERNATIVE INVESTMENTS

A. Private Equity & Special Opportunities

i. Objectives

The objective of the Private Equity & Special Opportunities portfolio is to diversify and enhance the overall expected return of the Fund through the identification, purchase, and sales of illiquid growth-oriented investments. The portfolio will seek to benefit from the:

- long-term ownership of businesses and assets;
- application of specialized skills;
- allocation of capital into disrupted markets; and
- potential incremental return premium connected with the illiquidity of targeted investments.

Private Equity: Private equity assets are typically characterized by long investment horizons and limited liquidity but bring to the Fund increased diversification and the potential for risk-adjusted returns that exceed those of publicly-listed securities. In constructing a diversified private equity portfolio, Staff will consider the following characteristics: strategy, geography, industry, investment size, leverage, investment structure, competitive landscape, market position, and vintage year.

Special Opportunities: Technological innovation and market volatility periodically create attractive investment opportunities that do not fit precisely into standard, predetermined categories. These opportunities may be caused by temporary market dislocations, evolving social or economic trends, or a changing regulatory environment. APFC seeks to be positioned to capture such opportunities for the benefit of the Fund.

Portfolio performance will be evaluated using:

- a comparison of vintage year performance against the Cambridge Private Equity Index benchmark; and
- a comparison of long-term performance over five- and ten-year rolling periods to public equity benchmarks plus a premium of 200 basis points;
- and CPI+7.5%.

Annually, Staff will provide to the Board a pacing and investment plan that reflects then current exposures, assumptions, and outlook.

ii. Authorized Investments

Investment strategies include venture capital, growth equity, leveraged buyouts, special situations, and distressed debt. Opportunities are accessed both through long-term commitments to funds managed by external investment managers and through targeted, co-investments and direct investments into operating companies.

The purchase or sale of individual private equity or special opportunities investments or fund investments with a single manager that exceed 1% of the Fund shall be approved Board. In addition, as described in 15 AAC 137.460(b), investments into new externally-managed funds may be consummated following the advice and recommendation of a qualified, independent consultant. A commitment to successor funds to ones previously invested in by APFC shall also be deemed consistent with regulation. Co-investments and direct investments shall only be consummated pursuant to the advice and recommendation of an independent fiduciary, except a co-investment alongside an existing manager or a commitment to subsequent funds managed by an existing manager, however, shall be deemed to have met the requirements of 15 AAC 137.460(b).

B. Real Estate, Infrastructure, and Private Income

i. Objective

The long-term objective of the Real Estate, Infrastructure & Private Income Portfolio is to generate a return between the expected return for public equity and fixed income that is comprised of an attractive level of current income and capital appreciation, while maintaining a prudent diversification of assets. Staff will seek to accomplish this as follows:

- Achieve investment returns in excess of the long-term and short-term portfolio benchmarks listed in Section II.F.;
- Generate a sustained, attractive level of current income judged relative to comparable risk income investments available in the public markets; and
- Construct a diversified portfolio as measured by the following attributes: asset type, strategy, industry, geography, vintage year, inflation sensitivity, public market sensitivity, and fund or asset manager.

ii. Structure

APFC shall invest in the Real Estate, Infrastructure & Private Income Portfolio primarily through limited liability entities into (i) commingled or separately managed fund investments with independent fiduciaries, (ii) co-investments with independent fiduciaries, or (iii) direct equity interests in, or debt obligations secured by, securities or interests of real assets or companies. Fund investments shall primarily be made through commitments to drawdown funds with multi-year investment periods, followed by multi-year harvest periods and a defined termination date. As described in 15 AAC 137.460(b), co-investments shall primarily be made alongside current APFC investment managers or upon the advice of a qualified, independent consultant.

iii. Authorized Investments

The Real Estate, Infrastructure & Private Income Portfolio will consist of four programs with specific goals designed to contribute to long-term objectives of the portfolio and the Fund. The performance of these programs will be evaluated individually against the return mandate of the portfolio and an asset-specific benchmark. The purchase or sale of individual investments or fund investments with a single manager in any of the four programs that exceed 1% of the Fund shall be approved Board.

- Private Real Estate: Private Real Estate investments shall primarily target (i) directly-held income producing, core real estate in the United States and globally, (ii) directly-held build-to-core or other non-core properties, (iii) funds that invest predominantly in real estate strategies (e.g. core, core-plus, value-added, and opportunistic), and (iv) co-investments alongside fund managers described above.
- Private Infrastructure: Private Infrastructure investments shall primarily target long-lived assets and companies that exhibit contractual or inflation protection characteristics, while safeguarding principal. Investments may include energy infrastructure, transportation, water infrastructure, telecommunications, social infrastructure (e.g. lotteries, student housing, prisons), other infrastructure (e.g. protected income stream assets, other interests of infrastructure issuers, infrastructure-related assets), other real assets (e.g. timberlands, agricultural farmlands, leasable hard assets), and any other tangible or intangible asset that possesses similar characteristics as those outlined in this section.
- Private Credit: Private Credit investments, in the context of a diversified portfolio, shall exhibit a high level of income and potentially provide for capital appreciation, while safeguarding principal. These investments shall primarily target funds that pursue one or more of the following strategies: direct lending, subordinated and mezzanine lending, distressed debt, opportunistic credit-oriented funds with flexibility to pursue illiquid and liquid strategies, and other private credit (e.g. special situations, asset-based lending, structured credit, leasing, royalties lending, ventured debt).
- Income Opportunities: The dynamic nature of global markets, company innovation, market volatility, and behavioral economics often create attractive investment opportunities that do not fit precisely into standard, predetermined categories. These Income Opportunities, to the extent they are income generating in nature, shall be included in the Real Estate, Infrastructure & Private Income portfolio.

C. Absolute Return

i. Objective

The long-term objective for the Absolute Return Portfolio is to deliver reasonably consistent and accretive returns that are largely uncorrelated with traditional, market-driven asset classes. The Absolute Return Portfolio will accomplish this by pursuing the following investment objectives:

- Achieve investment returns in excess of the long-term and short-term portfolio benchmarks listed previously in Section II.E, Table 2
- Generate a long-term correlation of monthly returns compared to the Fund's overall returns of less than fifty percent (50.0%) as measured over rolling 36 month periods; and
- Generate an ex-ante standard deviation of monthly returns of less than twelve percent (12.0%) per annum as measured over rolling 36 month periods.

ii. Structure

APFC shall invest the Absolute Return Portfolio by committing to comingled or separately managed limited liability entities classified as direct funds or fund-of-funds managers. These managers may invest in public or private securities and other financial instruments and may use leverage consistent with other managers of similar strategies. Funds will often have restrictions on liquidity including redemption windows (e.g. monthly, quarterly, annually), notice periods (e.g. 30, 60, or 90 days), lock-ups (e.g. soft, hard), gates (e.g. investor-level, fund-level), and, at times, withdrawal fees. Fund investments shall primarily be made through subscriptions into open-ended investment vehicles.

iii. Authorized Investments

The Absolute Return Portfolio shall primarily target funds that include one or more of the following strategies, with no fund exceeding 10% of the Absolute Return portfolio size as measured at the time of purchase without Board approval:

a. Relative Value, including equity market neutral, fixed income arbitrage, and convertible arbitrage;
b. Event-Driven, including merger arbitrage, distressed securities/discounted bank debt, and special situations; and
c. Directional/Tactical/Opportunistic, including long-short equity, managed futures, and global macro.

V ALASKA INVESTMENT POLICY

To implement the requirements of Alaska Statute 37.13.120(c), the Board believes the Fund should have an in-state investment policy that maintains the investment integrity of the Fund and is both proactive and impartial. As such, any in-state investment should be considered by APFC under the following considerations:

- **Honor Alaska Statute 37.13.120(c)**: Prescribes that if an Alaskan investment has equivalent risk and expected return comparable to or better than a similar non-Alaskan investment, the Alaskan investment should be preferred.
- **Require Compelling Risk-Adjusted Returns**: To honor the prudent investor rule provided in Alaska Statute 37.13.120(a), any Alaskan investment contemplated by APFC must be attractive on a stand-alone basis.
- **Ensure Fund Diversification**: In order to provide sufficient risk diversification as required under Alaska Statute 37.13.120(c), the total of all in-state investments shall generally not exceed 1% of the Fund without Board approval (measured at the time of purchase)—includes public and private market investments.
- **Seek Participation by Non-Alaskan Institutional Investors**: In order to ensure that an Alaskan investment opportunity is attractive on a stand-alone basis and satisfies the institutional quality requirements of 15 AAC 137.420, APFC should generally seek to invest into an Alaskan investment alongside of at least one of its peers (i.e., a large institutional investor, which may include endowments, foundations, sovereign wealth funds, or public or private pension funds).

VI AUTHORIZED USE OF DERIVATIVES

This section describes the applications and limitations for the use of derivatives as authorized in 15 AAC 137.430, 15 AAC 137.440, and 15 AAC 137.460; and defined in 15 AAC 137.990(6) and (7).

A. Objective

The use of derivatives as described in the Policy & Procedures and as authorized in the Board's Investment Regulations is for the purpose of efficient portfolio management and reduction of risk in various Fund portfolios.

The requirements of the Policy & Procedures apply to all derivatives transactions executed by APFC Staff and all external managers operating under an Investment Management Agreement.

B. Derivatives Definition; Authorization

As defined in 15 AAC 137.990(6), "Derivative" means "an instrument whose value, usefulness, and marketability is dependent upon or derives from an underlying asset; classes of derivatives include futures contracts, options, forward contracts, including currency forward contracts, swaps, and options on futures."

Both exchange traded and over the counter ("OTC") derivative instruments are under the scope of the Policy & Procedures. Exchange traded derivatives are listed and traded on a national exchange. In the exchange, the derivative contracts are standardized, there is no credit risk between market participants because the exchange generally guarantees the fulfilment of the contract, and there is a very visible and transparent market price of the instruments. Whereas, OTC derivatives are privately negotiated between a buyer and a counterparty directly, which may result in non-standard terms. Consequently, the value of the derivative may be affected by the credit-worthiness of the counter-party, triggering the need for this section of the Policy & Procedures.

C. Derivatives Applications Permitted

Derivative instruments maybe used by internal and external managers to achieve the objectives described in this section. Permitted applications of derivatives include:

- Implement investment strategies in a lower cost and efficient manner;
- Efficiently manage portfolio exposures synthetically as opposed to trading underlying securities;
- Build portfolios with targeted risk and return characteristics that otherwise could not be efficiently created with securities;
- Hedge and control risks of portfolios and the total Fund so they better align with benchmarks and objectives; and
- Facilitate rebalancing.

D. Derivatives Risk Management and Compliance

APFC Staff shall have due regard for operational risk associated with various derivatives strategies, including risk management, accounting systems, liquidity needs, adequate staffing, and staff qualifications.

Management of counterparty risk is required to reduce the possibility of the Fund being overly exposed to risk that a counterparty fails to fulfill its financial obligation. The risks associated with an individual counterparty may change due to factors like financial solvency, systemic risks, regulatory or legal claims; operational fraud, and financial stress. Staff will monitor and report on counterparty risk each quarter as follows:

- Regular monitoring and oversight of the exposures within portfolios, including unrealized profit and losses (P&L) and potential exposures;
- Ensuring external investment managers have strong counterparty risk controls;
- Ongoing due diligence of investment managers, including regular onsite meetings with managers.

The Fund will measure counterparty risk as the P&L, netted where applicable from OTC contracts. The P&L more accurately reflects the total amount at risk than the notional contract amount should a counterparty fail to honor its obligation. Net is preferred as the managers usually employ ISDAs and/or netting agreements. Staff will monitor and reports these exposures each quarter or more frequently if required. The Fund does not set exposure limits to individual counterparties.

Through the following strategies the risks resulting from the use of derivatives shall be measured and mitigated:

- Analyzing collateral exposure under various rate shocks;
- Establishing minimum counterparty credit ratings that the Fund uses directly;
- Diversifying counterparties;
- Collateral requirements or third-party guarantees

VII RISK MANAGEMENT & OVERSIGHT

The objective of APFC's risk management program is the balancing of risk in order to generate investment returns. The assumption of risk is necessary to meet the Fund's objectives. As such, the Board recognizes that risk cannot be eliminated and should be managed by understanding the risks in various strategies, ensuring the Fund is properly compensated for these risks, and measuring and monitoring them frequently. The Board sets the framework for risk management through the Policy & Procedures, the Fund's asset allocation, and benchmarks. In addition, the Board will express its risk tolerance in the form of various metrics of risk and defined ranges for those metrics. The CIO, Director of Risk Management and Asset Class Directors shall allocate risk exposure within and between asset classes in order to optimize return.

A. Market Risk Management

APFC Staff will establish a framework for measuring absolute and risk of the Fund and its asset classes as well as relative risks in comparison to established benchmarks. This framework should generally include a quantifiable estimates of active and relative risk. APFC Staff will monitor and produce reports as appropriate for the Board, ED, CIO, and other staff which may incorporate the following market risks:

i. **Asset allocation limits** – In addition to the Total Fund level risk limits, the portfolio will be constrained to the asset allocation percentages and ranges prescribed in Section II.D, Table 1. Accordingly, the total exposure to each asset class must be based on the individual exposures of each cash security and each outstanding derivative contract. These limits are specified in the Investment Guidelines.
ii. **Active risk limits** – Tracking error is a measure of how closely a portfolio follows the index to which it is benchmarked. Tracking error is used to ascertain how much the portfolio expected return will deviate from the prescribed risk benchmark. Tracking error is calculated for this purpose on an ex-ante basis using a holdings-based risk analytical system. By convention, tracking error is reported as the annualized one-standard deviation of the expected difference in returns between a portfolio and the risk benchmark. A target tracking error will be imposed on the Total Fund and on each underlying asset class mandate. These limits are specified in the Investment Guidelines.
iii. **Relative risk limit** – Relative risk measures the expected investment portfolio's risk and return relative to a benchmark using industry-standard risk measures. APFC Staff will model and monitor the Total Fund as compared to its benchmarks to ensure that the total estimated risk for the Total Fund is within the upper and lower bounds of this Policy and Procedure's risk framework, following the specific green zones illustrated in the Investment Guidelines.
iv. **Downside risk** – Downside risk is risk of significant loss of capital. Staff will actively monitor the Total Fund's downside risk relative to the risk benchmark using

scenario analysis and stress testing. Specific scenario analyses and stress tests are outlined in the Investment Guidelines.

v. **Scenario Analysis** – Scenario analysis utilizes historical market dislocations to evaluate mark-to-market impacts on the portfolio. For each historical market dislocation, the changes in the major risk factors are applied to the existing portfolio simultaneously. This shock may provide insight into potential future downside risks.

vi. **Stress Testing –** Stress testing involves shocking a major market factor by a predetermined magnitude to measure the Fund's change in mark-to-market. Stress testing is designed to determine which factors, given an independent move, produce a large deviation in mark-to-market.

vii. **Proxy securities and indices** – If necessary and prudent, APFC Staff will employ index proxies to approximate the economic characteristics of specific investments to the extent that the terms and conditions of those investments or the underlying holdings (in the case of funds) are not readily available or where the complexity of the underlying investment renders direct empirical measurement impractical.

viii. **Private market asset holdings** – APFC Staff will actively monitor the portion of the Total Fund invested in private market asset holdings to ensure that the percent of the total fund invested in private markets adheres to the private investments limits outlined in the Investment Guidelines.

ix. **Future Commitments** – Future commitments are a function of committed capital to private investments where the general partner has the right to drawdown capital from the limited partners over a specified period of time. To mitigate the risk presented because the cash draws are in essence a cash draw liability with unknown timing, APFC Staff will monitor and limit future commitments relative to the Fund's overall size. Specific limits are outlined in the Investment Guidelines.

In addition to this framework, APFC Staff will monitor regularly and report quarterly on a multitude of risks to the extent they are material, either on an absolute or relative basis, to the Board:

- Economic Environment;
- Country/Currency Risk;
- Counterparty Risk;
- Business Relationship Risk;
- Pricing Risk;
- Credit (Quality) Risk;
- Leverage;
- Debt Refinancing Risk;
- Active Risk Contribution;
- Liquidity Risk;
- Geographical Risk;
- Equity Style Risk;

- Fixed Income Risk;
- Ex-ante versus Ex-post VaR; and
- Ex-ante versus Ex-post Tracking Error

B. Foreign Exchange Risk

Investment managers and APFC Staff, may, with prior approval of the Executive Director, transact in any foreign exchange instrument (including currency futures and forward contracts, options, and swap agreements), to implement their investment strategies, contingent upon such transactions being consistent with the Policy & Procedures and the requirements of 15 AAC 137.480.

APFC Staff analyzes foreign exchange risk regularly and presents quarterly to the Board. This analysis includes both internal hedging and external foreign exchange overlay manager positioning and performance.

C. Legal Risk Management

Legal documentation for all internally managed public and private investments will be reviewed, negotiated and approved for execution by the Executive Director. APFC Staff will seek the assistance, review, and advice of legal counsel for all internally managed investments which are executed by the Executive Director. APFC General Counsel has primary responsibility for the engagement of outside legal counsel for investment matters, subject to applicable statutes and rules adopted by the Office of the Attorney General.

D. Permitted Use of Leverage

APFC Staff and external managers, consistent with the requirements of 15 AAC 137.500 and the Policy & Procedures (including the risk parameters established by the asset allocation ranges), is authorized to use the leverage on behalf of the overall Fund or specific funds and investments, provided that such leverage is non-recourse to APFC or the Fund.

VIII INTERNAL AND EXTERNAL MANAGERS

A. Internal versus External Management

The Board retains the authority to select internal versus external management of the Fund's assets. The Board will consider recommendations from the Executive Director, CIO, Advisors and Consultants to manage portions of or entire investment programs internally.

B. Manager Searches and Selection

The Board authorizes the Executive Director to hire new investment managers and advisors (including real estate advisors) upon conclusion of an appropriate search by a qualified consultant and Staff. Although a specific situation may warrant modifying the process, a typical manager or advisor search process would involve the following steps:

i. setting of relevant search criteria by Staff of applicable manager qualifications;

ii. identification by the Consultant of a list of potential managers that the Consultant believes are qualified to provide the investment management services needed, based on the qualifications and other search criteria established by Staff;

iii. evaluation by a review committee established within the Consultant's organization of the list of potential, qualified managers identified with the goal of recommending managers for consideration to Staff;

iv. informing the CIO of selected managers recommended by the Consultant's review committee;

v. selection by Staff of between three and five of the managers as finalists from those recommended by the Consultant's review committee. This process may include, as part of due diligence, on-site visits by Staff; presentations to Staff by the recommended managers are at the election of the CIO and Executive Director;

vi. analysis by staff which then provides a detailed recommendation to the CIO and Executive Director, taking into account not only manager-specific characteristics but also portfolio considerations; and

vii. approval of the new manager or advisor by the CIO, with Executive Director consent, assignment of benchmarks as appropriate, and the initial amount to be placed under management with the manager.

Upon the CIO's recommendation that (1) it is in the best interest of the Fund to move more quickly than the foregoing procedures permit, or (2) it is otherwise prudent due to the confidentiality or specificity of the investment strategy or structure, the Executive Director may modify or waive portions of the foregoing steps, as long as the Board Chair is promptly notified and the modification or waiver is reported to the Board at the next regularly-scheduled Board meeting.

C. Alternative Manager Search and Selection Process

Circumstances may make a deviation from normal practice appropriate. Even if this alternative process is utilized, the CIO, with Executive Director consent, retains the final manager selection authority. Use of an alternative process may be considered when any of these conditions exist:

i. a manager under consideration for hire has already been vetted in a significant manner either through a search process with a qualified consultant or advisor, or the manager is already employed in a manager capacity by APFC;

ii. the skill for which the manager is being considered is related in a substantive manner to the role the manager already fulfills for APFC or was the subject of a manager search that first identified this manager; or

iii. the Consultant and the Staff are both recommending hiring a particular manager for the specific mandate even though the CIO and Executive Director recognize that a more complete search process might reasonably be expected to identify additional qualified candidates to compete for the business.

The CIO and Executive Director are required to report use of the alternative manager search and selection process, along with the rationale for the use, at the next regularly-scheduled Board meeting.

D. Monitoring and Evaluation of Managers

The Board looks to its General Consultant as the primary source of quantitative evaluation of the performance of the Fund and its investment managers. As promptly as possible after the close of each calendar quarter, the Consultant shall submit a report to the Board, Executive Director and CIO analyzing the performance of the Fund, its asset classes and investment programs, including both internally and externally assets. The report shall include a comparison of total Fund performance with the Board's long-term investment goal, an analysis of the returns of each asset class as measured against established benchmarks for each class; and an analysis of the returns of each manager or relevant groupings of managers as measured against relevant benchmarks. The Consultant's report shall also address any special concerns or observations the Consultant concludes should be brought to the attention of the Board, Executive Director and CIO.

The Board expects Staff to also monitor the performance of the Fund's external managers, using the quarterly quantitative performance reports prepared by the Consultant, information obtained from the APFC's annual manager evaluation questionnaire, and such other review and analysis of an individual manager's performance, both quantitative and qualitative, as Staff considers appropriate, including on-site visits to the manager's offices, discussions with other clients of the manager, and such analytical tools as may be available. The CIO and Executive Director shall report to the Board any special concerns or observations they may have with respect to the performance of a manager no later than the next regular meeting of the Board.

If the CIO and Executive Director terminate or give notice of unsatisfactory performance to a particular manager, they shall inform the Board of the actions and rationale at the next regularly-scheduled Board meeting.

E. Manager Retention

A manager shall be retained by execution of a written investment management agreement ("IMA") with the APFC. The IMA shall address such matters of performance, compensation, and term/termination, investment guidelines, among others, as the APFC and the manager consider necessary and appropriate.

F. Manager Termination

The Board authorizes the CIO, with Executive Director consent, to terminate an investment manager.

G. Reporting

The CIO and Executive Director are required to report all manager additions and terminations, along with the rationale, at the next regular Board meeting.

Appendix A: Investment Guidelines

I.: Objective

The objective of the APFC Investment Guidelines is to supplement the APFC Policy & Procedures by providing operational guidelines for APFC's internal and external portfolio managers. The Executive Director may update this Appendix from time-to-time; updates will be provided to the Board at its next regularly scheduled meeting. Section headings generally correspond to their counterparts in the Policy & Procedures.

II. Total Fund & Portfolio Design Philosophy

The following table outlines the components of the Fund's Performance Scorecard (which can then be adapted to apply to individual asset classes):

Time Horizon	APFC	Benchmark	Spread (Standard Deviation)	Percentile-Calculation
Short-Term (ST)	1-year Return	50% * Performance Benchmark (Table 10.3.1.1 50% * Passive (60% MSCI ACWI IMI 20% Barclay Global Aggregate (less management and transaction fees) 20% Real Assets (10% FTSE EPRA/NAREIT Rental Index/10% US TIPs))	1-year standard deviation of returns among public plan peers (typically 1%-2%, with 2% being the conservative default)	Implied Percentile {statistical Z-score: =1-NORMSDIST((Return-Benchmark)/ 2%) }
Medium-Term (MT)	3-year Return	Peers Policy Asset Allocation Benchmark Large USPublic Plans	3-year returns for Peers	Percentile among Peers

Time Horizon	APFC	Benchmark	Spread (Standard Deviation)	Percentile-Calculation
Long-Term (LT)	5-year Return, Sharpe Ratio	CPI + 5% & Sharpe Ratio>0.5	5-year Peer variation (2%), Sharpe Ratio vol = 0.5	Implied Percentile (average): =1-Normsdist((Return-(CPI+5%))/2%) and =1-Normsdist((SR-0.5)/.5)

III.A. Public Equity

APFC's Internal Compliance will issue an alert (i.e., a notification) to APFC's Director of Public Equity for potential follow-up either internally or with external managers in the following instances:

1. **Tracking Error:** Issue an alert when the tracking error of the overall Public Equity portfolio exceeds 350 basis points ("bps") versus the MSCI ACWI IMI.

2. **Active manager concentration risk:** Issue an alert when an allocation to an active external manager reaches 5% of total Public Equity allocation; no limits are set *a priori* for passively managed assets.

3. **Other Guidelines:**
   a. **Cash**: Issue an alert when cash held by a manager reaches 5% of the manager's account's Net Asset Value ("NAV"). Transactional cash (i.e. payables/receivables) and cash used for collateral will be excluded from this calculation; there is no alert on cash for performance-fee based external managers; there is no alert on cash for internally managed public equity portfolios.

b. **Percentage Ownership**: Issue an alert when the Fund's ownership of total shares outstanding of a public company reaches 5% or more. This applies to the total shares outstanding that is used to determine the market capitalization of a company. The guideline above is applied once at the individual account level (internal or external), and separately across all public equity managers combined.
c. **Short Selling**: Issue an alert in instances of short selling in external and internal accounts (only applies to cash equities and ETFs, not to derivatives);
d. **Derivatives Holdings (External and Internal Accounts)**: Issue an alert when the gross notional value across all derivatives holdings (exchange traded and OTC) within a public equity account reaches 20% of the account NAV. Guideline applies to aggregate notional value across different types of derivatives; issue an alert when the gross notional value of all OTC derivatives holdings within an account reaches 10% of the account NAV;
e. **Rebalancing**: Generally, the team leader should seek the approvals from the CIO and ED for rebalancing programs among internal and/or external managers aggregating to in excess of 1% of the value of the Fund.

III.B. Fixed Income-Plus

Fixed Income Plus portfolios, whether managed internally or externally, must adhere to the following the guidelines in the table below:

Category	Risk Benchmark	Green Zone (CIO)	Yellow Zone (ED)	Red Zone (Board)
Fixed Income Plus (VaR)	25% US Aggregate,25% US Corp, 10% High Yield, 5% Emerging Market Debt, 10% REIT Index, 10% Non-US Rates, 5% TIPS, 5% Listed Infrastructure, 5% Cash	70% to 120%	50% to 70% & 120% to 140%	<50% & >140%
Listed Infrastructure	S&P Global Infrastructure	0 to 400 bps	400 to 500 bps	>500 bps
REITs	S&P Global REIT	0 to 400 bps	400 to 500 bps	>500 bps
Emerging Market Debt	Barclays EMD Hard Currency Aggregate	0 to 400 bps	400 to 500 bps	>500 bps
Opportunistic Income	n/a	n/a	n/a	n/a
International Government Bonds	Barclays Developed Government Bond Index (ex. U.S. & currency hedged)	0 to 200 bps	200 to 300 bps	>300 bps
Investment Grade Corporate Bonds	Barclays US Investment Grade Corporate Bond Index	0 to 200 bps	200 to 300 bps	>300 bps
High Yield Corporate Bonds	Barclays US High Yield 2% issuer cap Index	0 to 400 bps	400 to 500 bps	>500 bps
Treasury Inflation Protected Securities	Barclays U.S. Treasury Inflation Protected Securities Index	0 to 200 bps	200 to 300 bps	>300 bps
Domestic Fixed Income Aggregate	Barclays US Aggregate Index	0 to 300 bps	300 to 400 bps	>400 bps

Fixed Income Plus, may, with prior written approval of the Chief Investment Officer, transact in any derivative authorized in 15 AAC 137.430(a)(19). For purposes of rebalancing, the Director of Fixed Income Plus shall seek the approval of the CIO and ED for re-allocations among internal and/or external portfolio managers in excess of 1% of the value of the total Fund.

Requirements regarding Cash Account:

- fixed or floating rate securities with weighted average maturities of no greater than 24 months. These securities must be investment grade rated income producing listed securities.
- approved money market funds utilized for cash sweep purposes.
- Commercial paper that, at the time of purchase, is rated: (1) A-a or A-1 by S&P, or (2) P-1 by Moody's.

Requirements of Corporate Bond Portfolio:

- At time of purchase, security must be investment grade; and
- If a security falls below investment grade, it must be sold within seven months of downgrade.

Requirements of US Aggregate Portfolio:

- At time of purchase, securities must be investment grade.
- If a security falls below investment grade, it must be sold within seven months of downgrade.

Requirements of US TIPS Portfolio:

- Portfolio shall be invested in investment-grade, inflation-linked, income producing instruments.

Requirements of Global Rates Portfolio:

- Portfolio shall be invested in investment-grade, income producing instruments issued by supranational institutions, sovereign governments and their instrumentalities.
- Portfolio exposure to foreign currency cannot exceed 1% of NAV.

Investment Grade Ratings

Regarding any fixed income investment that is required by the Investment Guidelines to be "investment grade": (1) if three ratings are given, two must be investment grade, (2) if two ratings are given, both must be investment grade, (3) if one rating is given, it must be investment grade; and (4) if no rating is given, it must have an implied investment grade rating.

<u>III.C. Asset Allocation</u>

The following guidelines should be adhered to for all investments authorized by Policy & Procedures regarding the Asset Allocation portfolio:

a. The Liquidity Overlay Program should be monitored as such:
    a. Overlay manager will equitize cash in the account indicated by the portfolio manager
        i. Overlay manager is allowed to use exchange-traded futures, options on exchange-traded futures, over-the-counter or exchange-traded swap, over-the-counter or exchange-traded option, and forward contracts.
    b. The overlay manager will target an exposure of 65% ACWI IMI and 35% Bloomberg Aggregate Bond index.
    c. The notional value of the overlay exposure will be equal to 100% of the value of the underlying cash with a +/- 5% range to allow for normal daily variations.
    d. The overlay exposure will be trued up on a daily basis by the external manager based on cash reports provided by the APFC custodian.

b. To the extent that additional liquidity is desired to manage plan assets, APFC staff will notify the Board of Trustees and Investment Committee immediately to establish a an additional liquidity plan.
c. Additional guidelines will be established for the liquidity portfolio, currency overlay, and Risk Parity programs as needed for the future management of these programs, as they are managed by a combination of internal APFC staff and external investment managers.

<u>IV.A. Private Equity & Special Opportunities</u>

Standard of Care

Higher expected return implies necessarily a wider range of potential outcomes for each of the underlying assets, and this uncertainty increases the importance and the benefits of informed manager selection, rigorous deal selection, and active portfolio management. Accordingly, the following investment guidelines and restrictions are intended to ensure appropriate asset diversification, analytical deliberation, and risk mitigation.

Institutional Quality: All investments must be of institutional investment quality. Institutional quality is defined as an investment that would reasonably be considered acceptable by other prudent institutional investors (e.g., insurance company, commercial banks, employee benefit and retirement plans, endowments and foundations).

Portfolio Diversification: The part of the Private Equity & Special Opportunities portfolio committed to private equity funds will be diversified by strategy, size, vintage, industry, manager, and geography. No more than twenty percent (20%) of the total allocation will be invested at any time with or in any single general partnership, entity, or organization. No single private equity investment strategy, as described below under “Strategy Diversification,” may comprise more than 70% of the Private Equity & Special Opportunities allocation as established by the Board.

- **Strategy Diversification**: The following private equity strategies and investment types will be considered eligible for the Fund’s portfolio. Long-term ranges are established with percentage exposures based on market value plus undrawn committed capital.
    - **Venture Capital**: (5% to 45%) – Venture capital commitments and investments will be allocated into two categories.
        - Early-Stage: Seed or start-up equity investments in private companies.
        - Later-Stage: Investments in more mature companies to provide funding for growth and expansion.
    - **Buyouts/Acquisition**: (40% to 70%) – Partnerships or direct investments which provide funding to acquire substantial interests in a business or product. These investments will be diversified by industry and other relevant factors.
    - **Specialized Funds or Investments**: (0% to 50%) -This will include, but not be limited to, distressed debt strategies, royalty strategies, other direct investments, co-investments, and certain asset-specific or industry-specific strategies.
- **Geographical Diversification**: Although the priority should be to achieve diversification by investment strategy and industry, geographical diversification is also desirable. Over the long-term, the portfolio should seek reasonably balanced global geographic diversification.
    - International private equity investments should not total more than 40% of the invested private equity portfolio and shall be diversified in the context of the total portfolio.
- **Industry Sector Diversification**: The portfolio shall be diversified by industry sector (e.g., biotechnology, software, financial services, healthcare, medical, media/communications, basic industry, etc.) so that no single industry classification is too heavily represented in the private equity portfolio.
- **Time and Life Cycle Diversification**: Commitments to private investments shall be staged over time, and venture capital investments shall include early, later, and multi-stage investments.
- **General Partner Diversification**: Fund commitments shall be diversified by investment partner and will limit discretionary control of any single general partnership or investment sponsor organization to a maximum of 20% of the total private equity portfolio (based on total commitments).

IV.B. Real Estate, Infrastructure & Private Income

i. Investment Process

Real Estate, Infrastructure & Private Income investments shall only be consummated following (i) a search process conducted by a qualified, independent consultant or APFC’s general consultant, (ii) through an existing manager of APFC assets, or (iii) upon the written analysis of a qualified consultant retained to evaluate a specific proposed investment.

Investments will be identified as Private Real Estate, Private Infrastructure, Private Credit, or Income Opportunities at the time of investment and included in each respective composite from that time forward for performance and compliance purposes. Any movement of individual investments between composites will only occur with written approval of the Executive Director.

ii. Diversification

APFC Staff shall construct the Real Estate, Infrastructure & Private Income portfolio with a level of diversification consistent with other institutional investors in this asset class, specifically:

a. Manager Diversification
No manager or fund general partner shall represent more than 35% of total Real Estate, Infrastructure & Private Income exposures when measured both on the basis of (i) manager advised NAV divided by total NAV for this portfolio, and (ii) manager advised NAV plus unfunded commitments divided by total NAV for this portfolio plus unfunded commitments.

b. Strategy Diversification
Staff shall manage the portfolio with a combination of the four primary programs defined in the Policy & Procedures. Measured on the basis of NAV plus unfunded commitments (i) 0-75% of the portfolio shall be invested in the Private Real Estate program, (ii) 0-75% of the portfolio shall be invested in the Private Infrastructure program, (iii) 0-50% of the portfolio shall be invested in the Private Credit program, and (iv) 0-50% of the portfolio shall be invested in the Income Opportunities program.

c. Individual Company and Asset Diversification
Individual direct investments and co-investments (or a series of investments in securities issued by the same underlying operating entity or company) will not exceed an aggregate total commitment or cost basis of 1.0% of the value of the total Fund as determined at the time of investment. This rule does not apply to existing positions in excess of this threshold (for example, Tyson's Corner and 299 Park).

The diversification limits outlined above may be exceeded with written approval of the Executive Director.

iii. Direct Equity Real Estate Investments Guidelines

Authorized investments include directly-held core and non-core properties as noted in the Policy & Procedures. The following guidelines apply to those strategies:

a. Core real estate: leverage limited to 50% of assets.
b. Non-core real estate: leverage limited to 65% of project cost on "build-to-core" assets.
c. Total directly-held private real estate: leverage limited to 40% of assets.
d. Any additional land acquired shall be permitted so long as it is fully entitled at point of purchase. Entitlement risk may only be assumed in limited circumstances upon the approval of Executive Director.

iv. ADAC Investments Guidelines

In fiscal year 2018, Staff established an in-house hybrid liquid / illiquid alternative credit effort named Alaska Direct Alternative Credit (or "ADAC"). Investments included in ADAC will be (i) non-investment grade high yield ETF's and individual bonds and cash ("Liquid Portfolio") and (ii) co-investments with Private Credit managers and working capital cash ("Private Portfolio"). The following guidelines apply to ADAC:

a. ADAC shall be included in the Special Opportunities / Income Opportunities category.
b. Size and Funding Schedule
   - $500 million funded at inception, initially invested in Liquid Portfolio.
   - Following inception, additional funds will be invested into ADAC through cash transfers to the Liquid Portfolio and capital calls into the Private Portfolio for co-investments, or working capital or organizational expenses for the Private Credit Co-Investment Vehicle.
   - Funding of additional cash transfers to the Liquid Portfolio will be done at no greater than a 1:1 ratio with cumulative Private Portfolio capital calls.
   - Total invested capital of $1,000 million targeted to be funded within twenty-four months of inception.
c. Portfolio Control and Decision Making
   - Private Income team will have discretion over portfolio-wide decisions including: (i) percentage of portfolio invested in Liquid vs. Private Portfolio, (ii) retaining APFC Fixed Income Plus team as manager of the Liquid Portfolio, and (iii) individual investment decisions in the Private Portfolio
d. Liquid Portfolio and Benchmark
   - Liquid Portfolio, initially 100% of ADAC, ultimately scaling down to less than 50%, will be managed by the APFC Fixed Income Plus team at inception.
   - The targeted maximum allocation will be the greater of $750 million and 75% of ADAC NAV.
   - The targeted minimum allocation will be 25% of ADAC NAV.
   - ETF Account within Liquid Portfolio benchmarked to Barclays US High Yield Index (after July 1, 2018 to allow for an initial ramp-up).

- Individual securities portfolio will favor BB-B over CCC-rated securities and will be benchmarked to the Barclays BB High Yield Index (after July 1, 2018 to allow for an initial ramp-up). A relatively high tracking error to this index will be tolerated with the aim of outperformance over a full market cycle.

e. Private Portfolio and Benchmark
   - Private Portfolio, initially 0% of ADAC, ultimately scaling to greater than 50%, will be managed by the Private Income team
   - The targeted maximum allocation will be 75% of ADAC NAV.
   - The targeted minimum allocation will be 25% of ADAC NAV (after initial, twenty-four month ramp-up).
   - Private Portfolio will target having a minimum of $100 million committed within twelve months of inception and a minimum of $250 million within twenty-four months of inception.
   - Co-investment opportunities will be primarily sourced through existing managers.
   - Maximum commitment per co-investment of $75 million without Executive Director written approval.
   - Private Portfolio will be benchmarked to CPI + 500 bps.

f. Overall ADAC Portfolio Benchmarks
   - Barclays US High Yield Index (relatively high tracking error to this index will be tolerated with the aim of outperformance over a full market cycle).
   - A long-term target of CPI + 400 bps.

g. Tenor and Termination
   - This is an evergreen strategy with realized gains re-invested, which means the size of ADAC will be equal to invested capital, *plus* cumulative realized/unrealized gains, *minus* cumulative realized/unrealized losses.
   - The CIO, with Executive Director consent, may choose to invest additional capital at any time.
   - The CIO, with Executive Direct consent, may choose to terminate the strategy at any time. Upon termination, available cash will be distributed from ADAC, the Liquid Portfolio will be sold within 180 days, and the Private Portfolio will cease making new commitments (with the exception of follow-on investments to existing portfolio holdings and investments to which a written commitment to invest has already been executed; both to be pursued only with written consent of the Executive Director) and will distribute proceeds upon any partial or full realization of existing investments.

IV.C. Absolute Return

i. Investment Process

Absolute Return investments shall only be consummated following (i) a search process conducted by one of APFC's Absolute Return consultants or APFC's general consultant or (ii) upon the written analysis of a qualified consultant retained to evaluate a specific proposed investment. All investments, in addition to the preceding process, shall only be consummated following an independent review of the manager's operational processes (also known as "Operational Due Diligence").

ii. Diversification

Staff shall construct the Absolute Return portfolio with a level of diversification consistent with other institutional investors in the asset class, specifically:

a. Manager Diversification
To achieve prudent diversification, the portfolio shall (i) at any given time be limited to investments with 10 to 25 managers, and (ii) at the time of investment no individual fund shall represent more than 10% of the target Absolute Return allocation.

b. Strategy Diversification
Staff shall manage the portfolio with a mix of the three primary strategies defined in the Policy & Procedures: (i) 0-75% of the portfolio shall be invested with Relative Value Managers, (ii) 0-50% of the portfolio shall be invested with Event Driven Managers, (iii) 0-75% of the portfolio shall be invested with Directional/Tactical/Opportunistic Managers.

The diversification limits outlined above may be exceeded with written approval of the Executive Director.

iii. Liquidity

Staff shall manage the liquidity terms and portfolio composition such that they can rely on contractual terms to liquidate 50% of the NAV of the portfolio, at any given time, within a 12-month period. The legacy illiquid fund-of-fund exposures (lock-up funds, private credit exposures, and side-pocket exposures) shall not be included for purposes of applying this test.

The liquidity limits outlined above may be exceeded with written approval of the Executive Director.

VI. Derivatives

The following guidelines should be adhered for risk management purposes:

a. APFC risk management staff will monitor and report on the use of derivatives based on the following:
    a. Monthly reconciliation of managers' derivatives reports with custodian positions in derivatives;
    b. Monthly review of Managers' use of derivatives relative to their own policies and guidelines;
    c. Monthly reports of risk model results (for fixed income only):
        i. Contribution to effective duration and effective convexity, by portfolio, of all positions; and
        ii. Economic exposures and risk characteristics of derivatives.
    d. A monthly statement that all portfolios are in compliance with the Policy & Procedures and these guidelines, and a description of any instances of non-compliance and their disposition; and
    e. An annual report that compares Fund risks with and without the derivatives.
b. Permitted derivatives include those listed in Section VI.B. of the Policy & Procedures as well as others allowed in the regulations.

The following guidelines should be adhered to for risk management purposes when investing in derivatives in the Public Equities *and* Fixed Income Plus Portfolios:

a. The net of long and short dollar exposures to assets or currencies, whether derived from physical or derivative securities, must be less than or equal to the dollar market value of the portfolio, except for very small, inadvertent, or temporary amounts that occur in the normal course of portfolio management or authorized by the Executive Director;
b. The gross dollar exposures of the portfolio from physical and derivative securities (futures, options, swaps) cannot exceed 300% of the market value of the aggregate underlying portfolio at all times unless authorized by the Executive Director;
c. The CIO may impose further limits on the use of derivatives so that derivative notional values are not only constrained by their contribution to portfolio risk factors (such as beta, regional or industry exposure) but also with consideration to: liquidity, counterparty credit risk, pricing transparency, and model risk. Thus derivative use may be limited even if other portfolio risk limits are not breached.
d. If derivatives are used by a manager to actively manage currency exposure, net short exposure to any single currency remains within limits established for that manager's strategy.

VII. Risk Management and Oversight

The following tables illustrate the guidelines to be followed in terms of active risk limits:

Table VII.2. Relative Risk Guidelines – VaR (Value-at-Risk)

Category	Green Zone (CIO)	Yellow Zone (ED)	Red Zone (Board)
Portfolio	85% to 110%	70% to 85% & 110% to 120%	<70% & >120%
Fixed Income Plus	70% to 120%	50% to 70% & 120% to 140%	<50% & >140%
Public Equities	70% to 120%	50% to 70% & 120% to 140%	<50% & >140%

Table VII.3. Relative Risk Guidelines – Tracking Error

Category	Green Zone (CIO)	Yellow Zone (ED)	Red Zone (Board)
Portfolio	0 to 400 bps*	400 to 600 bps	>600 bps
Public Equities**	0 to 350 bps	350 to 500 bps	>500 bps
Fixed Income Plus	0 to 350 bps	350 to 500 bps	> 500 bps

* bps = basis points (where 100bps = 1%)

** Compared to the MSCI All Country Investable Market Equity Index

a. Scenario Analysis: APFC staff will look at a range of scenarios to evaluate mark-to-market impacts on the portfolio. These scenarios might include (illustrative):
   a. Slow Deflation
   b. Rapid Deflation
   c. Chinese Market Crash
   d. Fed Tapering Talk (2013)
   e. US Downgrade (2011)
   f. 2008 Market Crash
   g. 2007 Credit Crisis
b. Stress Testing: APFC staff will analyze how specific market shocks might affect the Total Fund. Sample shocks to be analyzed are (illustrative):
   a. Global Stock Market Crash
   b. U.S. Stock Market Crash
   c. Euro Stock Market Crash
   d. Japan Stock Market Crash
   e. U.S. Interest Rates Risk
   f. Euro Interest Rates Rise
   g. Japan Interest Rates Rise
   h. U.S. Inflation Rise
   i. Euro Inflation Rise
   j. U.S. Credit Spread Widening

k. Euro Credit Spread Widening
l. U.S. Dollar Weakens
m. VIX Volatility Spike
n. Oil Crash

c. The following table provides the guidelines regarding private market asset holdings:

Table VII.4. Private Investments Limits

Category	Green Zone (CIO)	Yellow Zone (ED)	Red Zone (Board)
Private Assets	35 to 50%	25% to 35% & 50% to 55%	<25% & >55%

d. The following table provides the guidelines regarding future commitments:

Table VII.5. Future Commitment Limits

Category	Green Zone (CIO)	Yellow Zone (ED)	Red Zone (Board)
Future Commitments	< 20%	20% to 25%	>25%

e. Counterparty Exposures: all counterparties should have at least a AAA credit rating. APFC staff should also make sure no manager is funded over 5% of the Total Fund NAV.
f. Liquidity management should be analyzed routinely by APFC Staff as such:
    a. A monthly assessment of Total Fund liquidity
    b. A monthly review and reporting of liquidity ratios
    c. A quarterly review of liquidity scenario analysis to be presented to the Board of Trustees
    d. An annual assessment of the conditions required to result in a liquidity breach event
g. Risk Management Compliance Cure Periods and Remedies should follow these guidelines:

The Green Zone Operating Range ("Green Zone") concept is designed to indicate the Board-approved operating risk limits.

1. The Green Zone is the Board-approved Chief Investment Officer ("CIO") operating range.
    a. The portfolio must be within the Green Zone at least 80% of the calendar year; the Board must approve exceptions.
2. The Yellow Zone is the Board-approved Executive Director ("ED") operating range.
    a. The Chief Financial Officer ("CFO") will notify the CIO and ED promptly upon entry into a Yellow Zone.
    b. The CIO will respond by requesting ED approval to operate within the Yellow Zone.

c. With ED approval, the CIO may operate within a Yellow Zone for up to 90 consecutive days or, if longer, until the next Board meeting following entry into a Yellow Zone.
d. The CFO will notify the Board (i) when approaching 90 days of operating within a Yellow Zone and (ii) monthly thereafter.
e. Following Board notification, a Trustee may request in writing a meeting to discuss an extension to continue operating within the Yellow Zone.
f. The Board may grant the CIO and ED an extension to continue operating within a Yellow Zone. Between Board meetings, unless a Trustee requests a meeting, the Board Chair may grant the CIO and ED an extension to continue operating within a Yellow Zone.

3. The Red Zone is the operating range that requires Board approval.
   a. The CFO will notify the Board upon entry into a Red Zone.
   b. The ED will respond to the Board with an action plan.
   c. Absent Board approval, operating within a Red Zone is limited to 30 consecutive days (plus the time needed to notice a Board meeting).
   d. The Board has the authority to approve operating within a Red Zone, beyond 30 days.

Even though the Fund is expected to operate most of the time within the Green Zone, the Fund may periodically be within a Yellow Zone, and there may be times when the Fund will be within a Red Zone. The zones are designed to increase transparency and awareness; they should not be viewed as explicit violations. A historical report showing periods of operating within the Yellow and Red Zones will be included in Board meeting packets.

Exhibit VII.1. Visual Display of Green Zone Concept

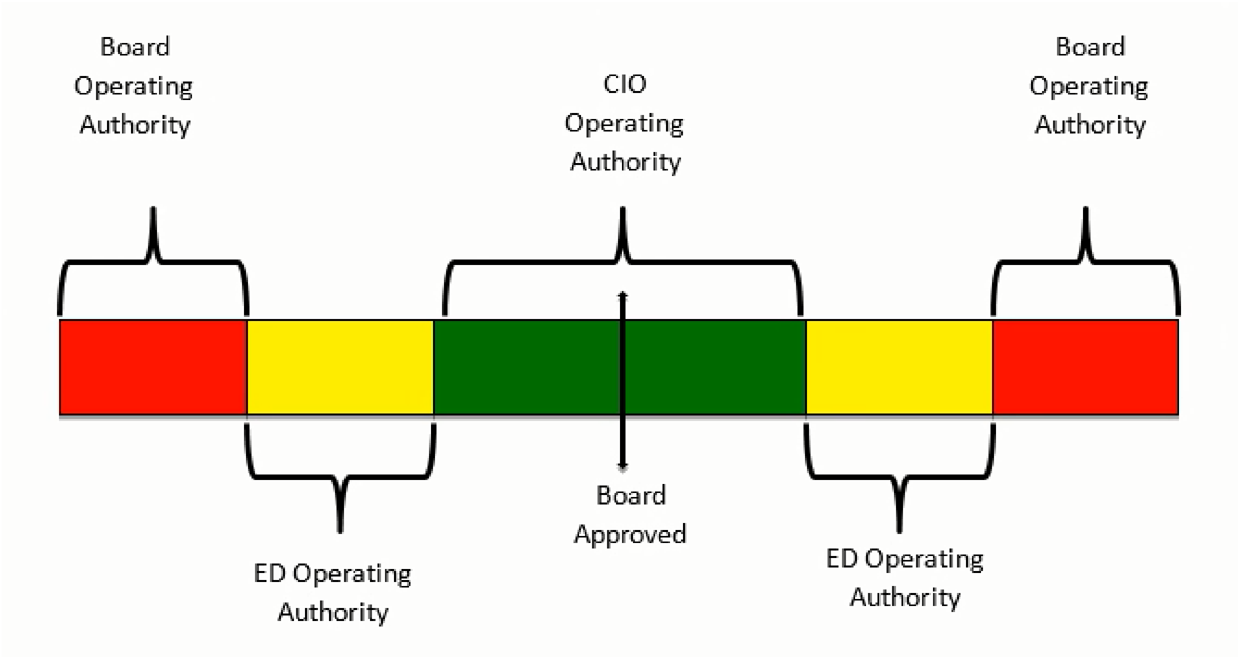
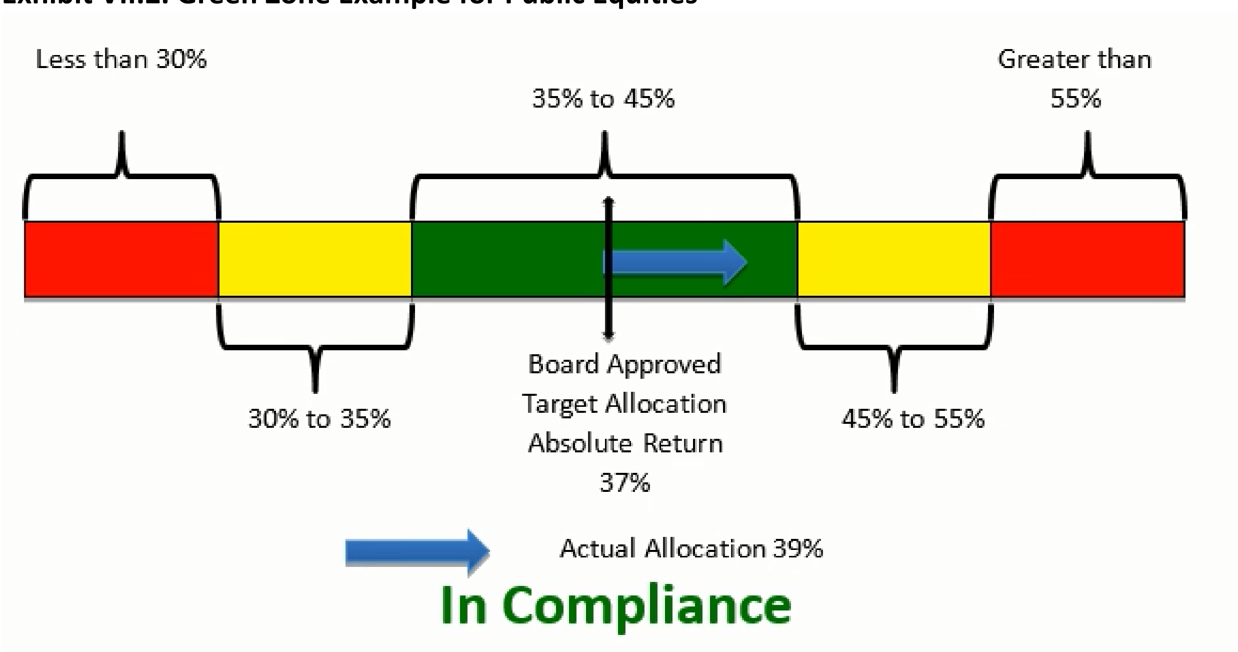


Exhibit VII.2. Green Zone Example for Public Equities



Appendix B: Internal Investment Managers

This Appendix identifies internal Investment Managers at APFC. The Executive Director may update this Appendix from time-to-time; updates will be provided to the Board at its next regularly scheduled meeting.

NAME AND TITLE	ASSET CLASS
Jim Parise, *Director of Investments, Tradable Income* Chris Cummins, *Senior Portfolio Manager, Fixed Income* Masha Skuratovskaya, *Senior Portfolio Manager, Fixed Income* Matt Olmsted, *Senior Portfolio Manager* Tom O'Day, *Analyst and Trader*	Fixed Income Plus
Marcus Frampton, *Director of Investments, Real Estate, Infrastructure and Private Income* Jared Brimberry, *Senior Portfolio Manager, Private Income* Rose Duran, *Director of Real Estate Investments* Tim Andreyka, *Senior Portfolio Manager, Real Estate*	Real Estate, Infrastructure and Private Income Absolute Return
Steve Moseley, *Director of Investments, Private Equity and Special Opportunities* Yup Kim, *Senior Portfolio Manager*	Private Equity and Special Opportunities
Fawad Razzaque, *Director of Investments, Public Equities* Youlian Ninkov, *Analyst and Trader*	Public Equities
Valeria Martinez, *Director of Investments, Asset Allocation*	Asset Allocation programs
Russell Read, *Chief Investment Officer*	Oversees all Assets Classes

Appendix C: Glossary

AAC means the Alaska Administrative Code.

ADA means the Americans With Disabilities Act of 1990.

Advisors and ***Board Advisors*** mean the investment professionals who comprise the Board's Investment Advisory Group.

APFC and ***Corporation*** mean the Alaska Permanent Fund Corporation, established under AS 37.13.040.

AS means Alaska Statutes.

Board means the Board of Trustees of the APFC.

CMBS means commercial mortgage-backed securities.

CFO means the APFC's Chief Financial Officer.

CIO means the APFC's Chief Investment Officer.

Consultant means the Board's investment consultant(s), not including Board Advisors.

CPI means the Consumer Price Index.

Custodian means the APFC's custodian.

Days means calendar days.

ED means the APFC's Executive Director.

FoF means fund-of-funds.

Fund and ***Permanent Fund*** mean the Alaska Permanent Fund, established under Article IX, Section 15, of the Alaska Constitution, and described in AS 37.13.010.

IMA means investment management agreement.

Investment Manager and ***Manager*** mean investment manager(s) retained by the APFC.

IRR means internal rate-of-return.

Long-Term means over one or more business cycles.

MBS means mortgage-backed securities.

RBM means Strategic Risk Benchmark, as defined in Section 9.3.1.

Staff means the APFC Investment staff and, where the context requires, also means or includes the Executive Director and/or other APFC staff.

TE means Tracking Error, as defined in Section 9.4.1.

Trustees means the members of the APFC's Board of Trustees.

VaR means Value at Risk, as defined in Section 9.3.2.

Appendix D: Previous Investment Policy Adoption and Amendments

The previous APFC Investment Policy was adopted or amended effective as follows:

Adopted:	May 27, 2010
Amended:	September 30, 2010 (§14.9 added)
Amended:	December 1, 2010 (§9.1 revised; new §11.1 added and prior §§11.1-11.3 and subsections thereunder renumbered; and §18.2.4 revised)
Amended:	May 20, 2011 (§18A added)
Amended:	September 30, 2011 (§§ 8, 8.2, 8.3, 8.5, 9.2, 9.3.1, 9.4.1, 11.3.1, 15.3, and 15.4 revised)
Amended:	December 8, 2011 (§11.3.2 revised)
Amended:	February 22, 2012 (§20 revised)
Amended:	April 23, 2012 (§§16.3.1 and 16.3.2 revised; and Specific Policy Modifications for Tysons Corner Phase I Project and Mariner Frontier Fund, L.P. added)
Amended:	February 27, 2013 (§§ 15.2, 15.3, and 15.4 revised)
Amended:	May 22, 2013 (§§9.5.4, 9.5.5,12.4, 12.6, 13.2, 13.3.1, 13.3.3, 14.9.4.10, 16.1.2, 16.1.3, 16.1.4, 16.2, 16.3, 16.3.1, 18A, 23.2, and 23.5 revised; Specific Policy Modification for Mariner Frontier Fund, L.P. revised; Specific Policy Modification for Crestline AK Permanent Fund, L.P. added; and Addendum re Internal Investment Managers added)
Amended:	May 23, 2013 (§§ 3.1, 3.3, 5.3, 6, 8 (including Table 8a), 8.1 revised; §8.2 deleted; §§ 8.3-8.5 renumbered (as §§ 8.2-8.4) and newly-renumbered §§ 8.2-8.4 revised; and §§ 9.2, 9.3.1, 9.4.1, 10, 11.3.1, and 22.2 revised)
Amended:	February 26, 2014 (§§23.3.1, and 23.2 revised; and Addendum re Internal Investment Managers revised)
Amended:	May 21, 2014 (§14.9.4.10 (including Table 14.9.4.10.1) revised)
Amended:	December 10, 2014 (§§ 8, 9.3.1, 11.3.2, 14.2.2, and Table 14.5.4.1revised)
Amended:	May 19, 2015 (§§ 15 and 16, including conforming changes in other sections revised)
Amended:	September 27, 2016
Amended:	December, 2016 (§§ 9, 10 and 12, including conforming changes in other sections revised)
Amended:	May 23, 2018, complete re-write of the Policy and Guidelines. Changes to be effective on July 1, 2018.

Appendix E: Callan's Capital Markets Projections (2018-2027)

		Asset Class		PROJECTED RETURN		PROJECTED RISK	
Asset Class	Performance Index	Target Weight	Target Weight	1-Year Arithmetic	10-Year Geometric*	Standard Deviation	Projected Yield
Public Equities			**39.0%**	**8.60%**	**7.05%**	**18.85%**	**2.60%**
Global Equity	MSCI ACWI - IMI			8.60%	7.05%	18.85%	2.40%
Fixed Income Plus			**22.0%**	**4.10%**	**4.05%**	**5.00%**	**4.00%**
Money Markets	90-Day T-Bill	5.0%	1.1%	2.25%	2.25%	0.90%	2.25%
TIPS	Barclays TIPS	5.0%	1.1%	3.10%	3.00%	5.25%	3.30%
US Fixed Income	Barclays Aggregate	25.0%	5.5%	3.05%	3.00%	3.75%	3.45%
US Investment Grade Credit	Barclays Credit	25.0%	5.5%	3.65%	3.55%	5.05%	4.00%
Non-US Fixed Income	Barclays Global AggregateXUS	10.0%	2.2%	1.80%	1.40%	9.20%	1.90%
Emerging Market Debt	Barclays EMD Hard Currency	5.0%	1.1%	4.85%	4.50%	9.60%	4.90%
Global High Yield	Barclays Global High Yield	10.0%	2.2%	5.20%	4.75%	10.35%	5.40%
Global REITs	S&P Global REIT	10.0%	2.2%	8.25%	6.40%	20.30%	4.30%
Global Listed Infrastructure	S&P Global Listed Infrastructure	5.0%	1.1%	7.65%	6.40%	17.25%	4.00%
Private Equity/Growth Opps			**11.0%**	**10.60%**	**8.50%**	**22.00%**	**0.00%**
Private Equity	Cambridge Private Equity		11.0%	10.60%	8.50%	22.00%	0.00%
Private Real Estate			**10.0%**	**6.90%**	**5.75%**	**16.35%**	**4.75%**
Real Estate	NCREIF Total Index		10.0%	6.90%	5.75%	16.35%	4.75%
Private Infra/Credit/Income			**6.0%**	**6.65%**	**5.75%**	**14.50%**	**5.50%**
Private Infrastructure	FTSE Global Listed Infrastruc	60.0%	3.6%	6.45%	5.75%	13.00%	5.00%
Private Credit	Barclays Global High Yield	40.0%	2.4%	6.95%	5.75%	16.50%	6.25%
Absolute Return			**6.0%**	**5.35%**	**5.05%**	**9.15%**	**0.00%**
Hedge Funds	HFRI Total HFOF Universe		6.0%	5.35%	5.05%	9.15%	0.00%
Asset Allocation			**6.0%**	**7.15%**	**6.55%**	**12.55%**	**3.00%**
Cash Equivalents	90-Day T-Bill	33.3%	2.0%	2.25%	2.25%	0.90%	2.25%
Multi Asset Class/ECIO	APFC Total Fund Target	66.7%	4.0%	7.15%	6.55%	12.55%	3.00%
Inflation	CPI-U				2.25%	1.50%	
Total Fund	APFC Total Fund Target		**100.0%**	**7.15%**	**6.55%**	**12.55%**	**3.00%**

Real Assets and Private Income Pacing Memo

APFC ALASKA PERMANENT FUND CORPORATION
801 W 10TH SUITE 302 | JUNEAU, AK 99801
907.796.1500 | apfc.org

SUBJECT: APFC Real Assets/Private Income FYE June 2019
Private Commitment Pacing

ACTION: ____________

DATE: May 24, 2018 INFORMATION: X

BACKGROUND:

Each May, APFC Private Markets investment staff provides an informational update to the Board of Trustees on their current positioning vis-à-vis target allocations and projection for the subsequent fiscal year commitment activity to the Private Market asset classes.

STATUS:

At this meeting Staff will provide an update to the Board of Trustees that includes:

- Current Real Assets / Private Income funded NAV and unfunded commitments relative to our current and FY 2021 target allocation
- Summary of FYE June 2018 commitment activity
- Projection model with recommended commitment pace for FYE June 2019 and beyond to achieve targeted 22% FY 2021 exposure for Real Assets & Private Income
- A sensitivity analysis showing the likely range of outcomes with a variety of deployment paces and overall APFC fund growth

As an Informational matter, Staff will indicate that they plan on deploying up to $2.5 billion of private commitment activity to Real Assets & Private Income in FY 2019. This is roughly in-line with the current investment pace (in FY 2018) and is required to achieve the targeted exposure levels to this asset class. In FY 2019, Staff may make some investments into liquid structures (such as certain open-ended alternative credit funds) which is not included in these private commitment projections.

Real Assets and Private Income Pacing Presentation

ALASKA PERMANENT FUND CORPORATION

Real Assets and Private Income
FY19 Deployment Plan and Pacing Projection

May 24, 2018

Key Statistics – Real Assets and Private Income

- **Programs and Underlying Structures (and current NAV)**
  - Private Real Estate ($4.1 bn): Predominantly direct investments held through LLCs; new focus on international funds and co-investments
  - Private Infrastructure ($2.3 bn): Mix of private equity style fund structures (10-25 year lives) and longer-term direct investments and JVs
  - Private Credit ($1.2 bn): Mostly private equity style fund structures (7-12 year lives)
  - Income Opportunities ($740 mm): Will vary, including direct investments, funds, and in-house non-investment grade direct credit (ADAC)

- **Current Exposure:** $8.2 billion, 12.7% of overall $65 billion fund

- **Target Allocation (combining Real Estate and Private Income):**
  - 17% for FY 2018, 18% for FY 2019, 20% for FY 2020, 22% for FY 2021
  - Current exposure is $2.8 billion below FY 2018 Target Allocation

- **Current Unfunded Commitments(1):** ~$2.7 billion
  - $1.6 billion for Private Infrastructure
  - $1.0 billion for Private Credit
  - $128 million for Income Opportunities

Note: Exposure figures outlined here are as of March 2018 adjusted for $500 million initial funding of in-house direct credit initiative (ADAC) included within Income Opportunities.
(1) Excludes commitments that are in APFC's unilateral control such as co-investment rights or funding commitments to real estate structures that APFC controls.

FY18 Real Assets and Private Income Commitment Activity

APFC Staff Expects to Complete FYE June 2018 with an Estimated $2.5 billion of Commitment Activity

Private Infrastructure

Encap Flatrock Midstream IV: $22.5 million

Equis Energy (Direct Investment): $100 million

InfraRed Infrastructure V: $100 million

LS Power IV: $200 million

Twin Creeks Timber, LLC (Direct Investment): $18.6 million

Pending Infrastructure Funds: $275 million

Total Private Infrastructure: $716 million

Private Credit

Alchemy SOF IV: $38.5 million

Atalaya AIF IV: $50.0 million

Diligent Corp. (Direct Investment): $15.9 million

Monroe Capital Private Credit Fund III: $50.0 million

TPG TAO 4.0: $100 million

Pending Private Credit Funds: $150 million

Total Private Credit: $404 million

Income Opportunities

ADAC (in-house, direct credit effort): $500 million

Broad River III: $100 million

Generate Capital (Direct Investment): $100 million

Pending Direct Investment: $15 million

Total Income Opportunities: $715 million

Private Real Estate

Heitman Credit Separate Account: $100 million

Direct Real Estate (Multi-family “build-to-core”, Industrial) $100 million

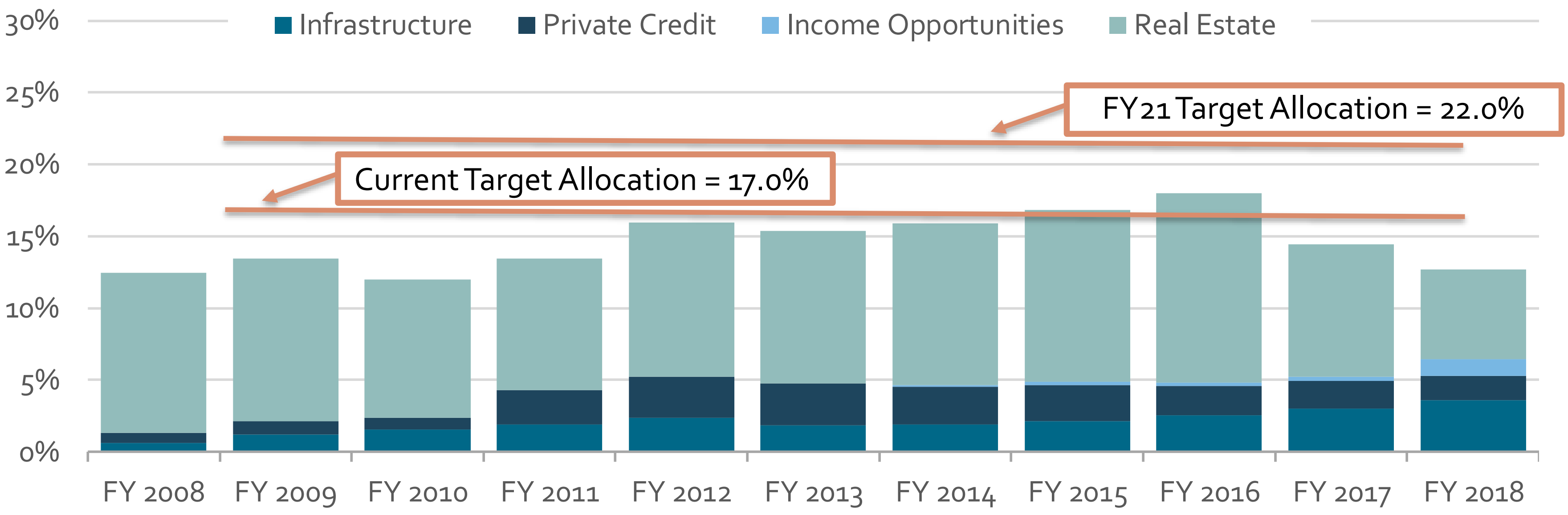
Q4 Expected Indirect Commitments: $500 million

Total Private Real Estate: $700 million

Total Expected Real Assets and Private Income FY18 Deployment: $2.5 billion

Real Assets and Private Income Exposure History

NAV as a % of Total APFC Fund Net Assets (FY 2008-2018)



Real Assets and Private Income Exposure Projection Model

Modeling of New and Existing Exposures (numerator)

- Staff models a projection for future NAV's of existing investments based on (i) known near-term cash flows, (ii) exits and distributions based on prior history of similar investments, (iii) review of legal terms of partnerships, and (iv) discussions with partners
- Similar approach taken on projected future capital deployments via funds taking into consideration mix implications of private credit funds (short duration, often <10 year partnerships) vs. infrastructure (12-25 year partnerships) vs. potentially multi-decade investments (such as some infrastructure and real estate direct investments and APFC's timber joint venture)
- Staff does not make any assumption around exiting fund interests via the secondary market due to the inconsistent availability of this exit mechanism over time and the discounted pricing that Real Assets and Private Income investments tend to command in this market vis-à-vis corporate private equity and leveraged buy-out secondary markets

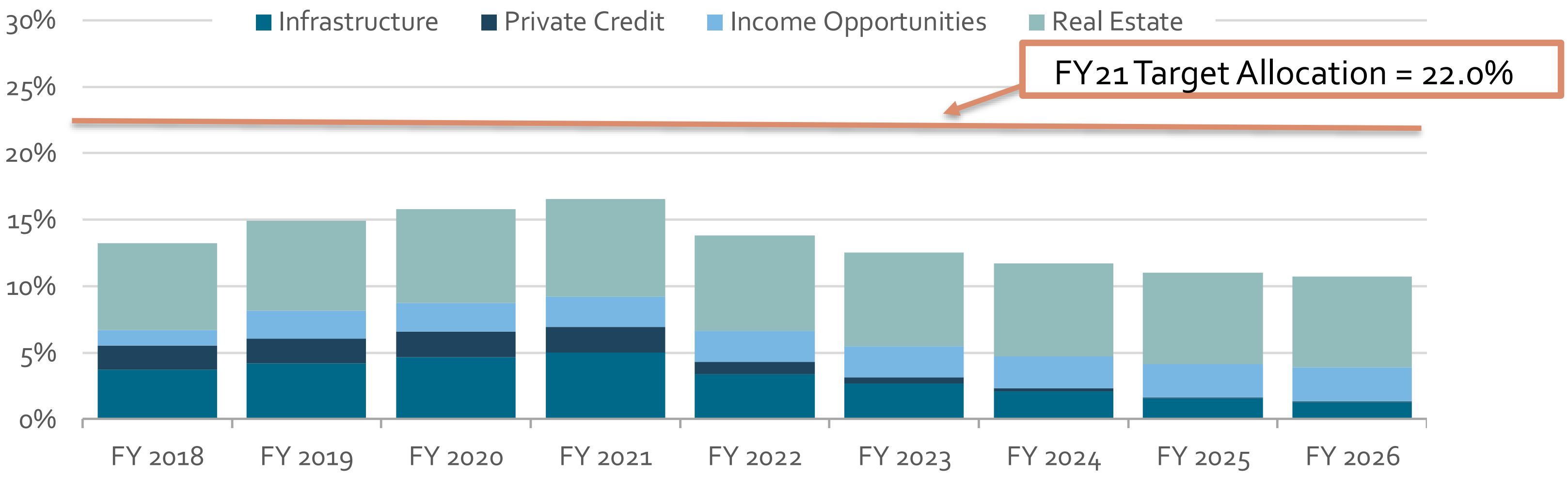
Modeling of APFC Total Fund Growth (denominator)

- For this year's projection model, Staff assumes: (i) June 2018 draw of $2.7 billion off of current value plus (ii) 2.0% annual Fund growth after dividend payments and any other transfer payments
- Similar methodology to last year; previously Staff (in consultation with Callan) had generally used a long-term growth assumption of 5.0% after dividend payments for the Total APFC Fund size

Because the Real Assets and Private Income portfolio is in growth mode, Staff will have much more ability to course correct along the way if projections deviate from currently modeled assumptions (vs. a more mature situation where a private markets investor is at or above their long-term target already)

Status Quo Pacing Projection

Assumes No New Commitments / Capital Deployment

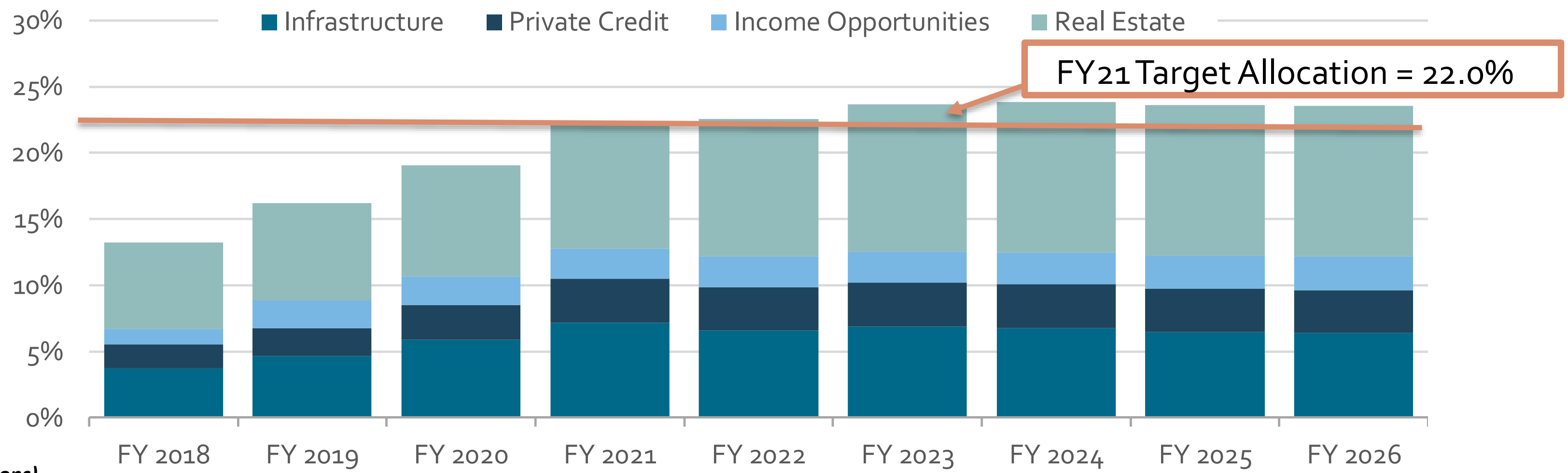


($ in billions)

Est. Fund NAV	**$62.3**	**$63.5**	**$64.8**	**$66.1**	**$67.4**	**$68.8**	**$70.2**	**$71.6**	**$73.0**
PI / RA NAV	**$8.2**	**$9.5**	**$10.2**	**$10.9**	**$9.3**	**$8.6**	**$8.2**	**$7.9**	**$7.8**
PI / RA %	**13.2%**	**14.9%**	**15.8%**	**16.5%**	**13.8%**	**12.6%**	**11.7%**	**11.0%**	**10.8%**
Target %	**17.0%**	**18.0%**	**20.0%**	**22.0%**	**22.0%**	**22.0%**	**22.0%**	**22.0%**	**22.0%**

Current Run-Rate Deployment Pacing Projection

Assumes $2.5 billion of Annual Commitments / Capital Deployment



($ in billions)									
Est. Fund NAV	**$62.3**	**$63.5**	**$64.8**	**$66.1**	**$67.4**	**$68.8**	**$70.2**	**$71.6**	**$73.0**
PI / RA NAV	**$8.2**	**$10.3**	**$12.4**	**$14.8**	**$15.2**	**$16.3**	**$16.7**	**$16.9**	**$17.2**
PI / RA %	**13.2%**	**16.2%**	**19.1%**	**22.4%**	**22.5%**	**23.7%**	**23.8%**	**23.6%**	**23.6%**
Target %	**17.0%**	**18.0%**	**20.0%**	**22.0%**	**22.0%**	**22.0%**	**22.0%**	**22.0%**	**22.0%**

Note: Annual deployment between categories will be at APFC Staff discretion based on quality of opportunities, however, for modeling purposes long-term split assumed to be 30% to Real Estate, 35% to Infrastructure, and 35% to Private Credit.

Sensitivity Analysis

- Probably the most important input into our Real Assets and Private Income pacing model is the underlying growth rate of the Total APFC (this is the denominator of our exposure equation and historically has been most difficult to predict variable)
- As previously noted, we are currently assuming a $2.7 billion year-end withdrawal from the Fund and a 2.0% growth rate thereafter (net of dividends, royalty deposits and transfer payments out)
- This assumption result in effectively a 0.57% Total Fund growth CAGR between current Fund NAV and FY 2021 NAV
- The one factor worth highlighting which this Sensitivity Analysis does not capture is the significant ability of APFC Staff to course correct

Sensitivity Analysis ($ millions)

Real Assets Exposure as a % of Total Fund at FYE June 2021

Fund NAV:		**$52,283**	**$55,729**	**$60,246**	**$66,118**	**$69,998**	**$75,246**	**$79,628**
Fund CAGR:		**(7.00%)**	**(5.00%)**	**(2.50%)**	**0.57%**	**2.50%**	**5.00%**	**7.00%**
	$500	21.8%	20.5%	19.0%	17.3%	16.3%	15.2%	14.3%
	$1,000	23.4%	22.0%	20.3%	18.5%	17.5%	16.3%	15.4%
Annual	**$1,500**	25.1%	23.5%	21.7%	19.8%	18.7%	17.4%	16.5%
Commitment	**$2,000**	26.7%	25.0%	23.1%	21.1%	19.9%	18.5%	17.5%
Pace	**$2,500**	28.3%	26.5%	24.5%	**22.4%**	21.1%	19.6%	18.6%
	$3,000	29.9%	28.0%	25.9%	23.6%	22.3%	20.8%	19.6%

Summary (Information Item for BOT)

- Given the growth mode of the Real Assets and Private Income portfolio and its diversity of activities across Private Real Estate, Private Infrastructure, Private Credit, and Income Opportunities, Staff intends to pursue a plan of up to $2.5 billion of new commitment / deployment activity in FYE June 2019 (net of potential sales)
- Allocation will be split between direct investments, co-investments, and fund investments as Staff sees opportunities
- In FY19 Staff may make investments into liquid structures (such as certain open-ended alternative credit funds); commitment budgeting here refers to illiquid private commitments as opposed to vehicles with liquidity features of under twelve months
- Areas of specific focus in FY19 include:
  - Private credit co-investments (via ADAC)
  - International Real Estate
  - North American Industrial Real Estate and Multi-Family "build-to-core" investments
  - North American Private Infrastructure Opportunities
  - Potential Follow-on Investments into Existing Direct Real Asset Platforms
  - Re-ups to top performing existing manager relationships who are back in the market

Private Equity and Special Opportunities Pacing Memo

APFC ALASKA PERMANENT FUND CORPORATION
801 W 10TH SUITE 302 | JUNEAU, AK 99801
907.796.1500 | apfc.org

SUBJECT: FY 2019 Private Equity and Special Opportunities Investment Pacing

ACTION: ___________

DATE: May 24, 2018 INFORMATION: ______X______

BACKGROUND:

Each May, APFC Private Equity and Special Opportunities investment staff provides an informational update to the Board of Trustees on current portfolio exposure, targets, and projections for the next fiscal year's activity in the Private Equity and Special Opportunities portfolios.

STATUS:

At this meeting Staff will provide an update to the Board of Trustees that includes:

- Current Private Equity and Special Opportunities NAV relative to target;
- snapshot of FY2018 commitment activity;
- projection model with recommended pacing for FY 2019 and beyond necessary to achieve targeted exposures; and
- A sensitivity analysis showing the probabilistic range of outcomes in various hypothetical market scenarios.

As an informational matter, staff will summarize a plan to invest or commit approximately $1.6 billion to a combination of funds, co-investments, and direct investments in FY 2019. As in prior years, staff seeks to maintain flexibility to increase or decrease deployment by up to $550 million based on market conditions, opportunistic deal flow, and transaction timing. The FY 2019 target represents a gradual increase (in absolute dollar terms though not as a percentage of the overall fund) from prior years.

Private Equity and Special Opportunities Pacing Presentation

APFC ALASKA PERMANENT FUND CORPORATION

Private Equity & Special Opportunities

FY 2019 Pacing Plan | May 23, 2018

Steve Moseley

Private Equity Pacing Model

Anticipates systematic, gradual program growth

- **Methodology and key assumptions:**
  - Base case: 2% net growth in APFC AUM (net of all inflows and outflows)
  - Assumes disbursement of $2.7 billion from APF on June 30, 2018 and reflects recent exits
  - Expected partnership life of 14 years
  - Long term historical rates of deployment and realizations but lower net PE returns
  - Sensitivity analysis to identify range and variance of potential outcomes
    - Slow (and fast) fund growth, economic stress, increased volatility, etc.

- **Targeted commitment pace also reflects cautious market outlook**
  - Portfolio successfully normalized for accelerated commitments made in 2014-2015
  - Seek to maintain flexibility to invest more aggressively in cheaper markets

Snapshot: Private Equity & Special Opportunities portfolios

(in US$ millions)	Commitments/ Investments FY2018*	Since Inception	NAV 12/31	NAV PF* 12/31
Private Equity	$1,139	$9,233	$4,735	$4,263
Special Opportunities	367	4,087	3,049	2,855
Total	**$1,505**	**$13,320**	**$7,784**	**$7,118**
		% of APFC AUM	*12.0%*	*11.4%*
		Target allocation		**11.0%**
FY 2017 Actual Commitments + Investments				$1,371
FY 2018 Actual Commitments + Investments				$1,505
FY 2019 Planned Commitments and Investments				**$1,600**

** pro forma for Q1 exits*

Proposed Portfolio Commitment Pace

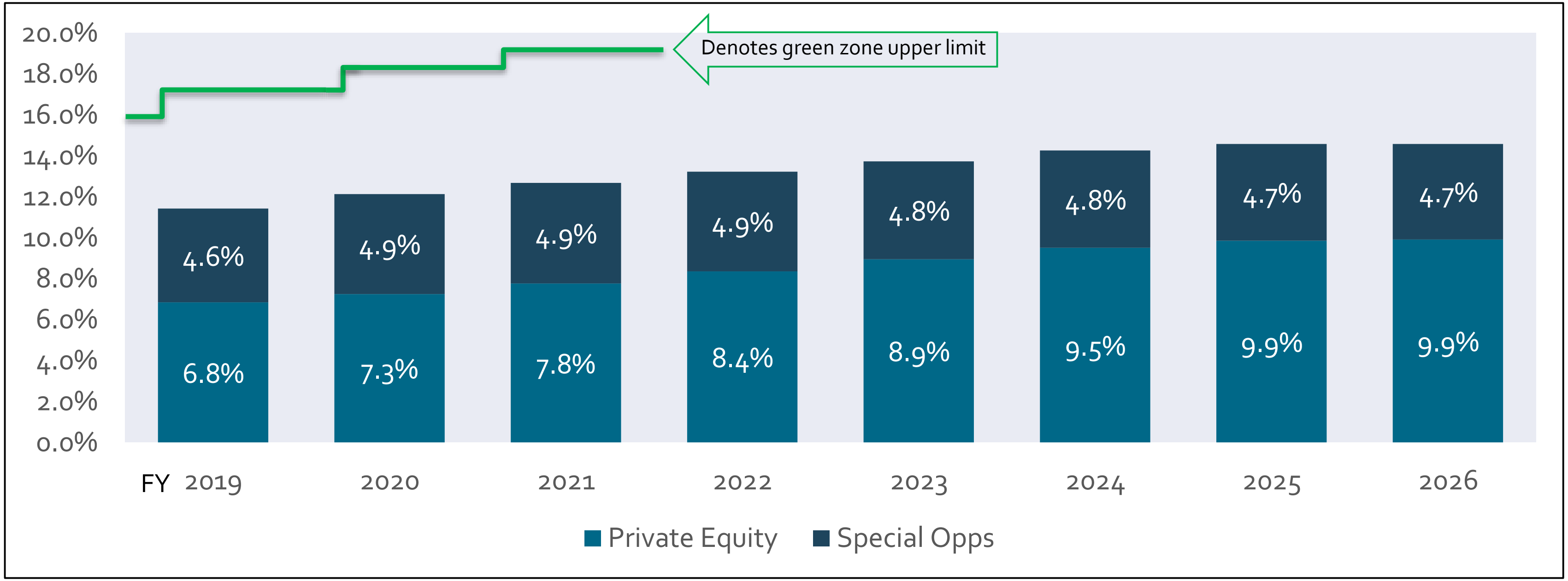
Propose $1.6 billion in commitments for FY2019 ($1.1 billion and $500 million committed to PE and Special Opps, respectively)

APFC Private Equity and Special Opportunities Exposure 5-year Projections
(in US$ millions)

APF assumed net growth rate:	**2%**					
Combined Portfolio	Current	FY 2019	FY 2020	FY 2021	FY 2022	FY 2023
Private Equity	$900	$1,100	$1,100	$1,200	$1,200	$1,200
Special Opportunities	$450	$500	$500	$500	$500	$550
Total FY Deployment	**$1,350**	**$1,600**	**$1,600**	**$1,700**	**$1,700**	**$1,750**
Private Equity	$4,735	$4,263	$4,613	$5,033	$5,527	$6,033
Special Opportunities	$3,049	$2,855	$3,099	$3,190	$3,221	$3,233
Total Market Value	**$7,784**	**$7,118**	**$7,712**	**$8,223**	**$8,748**	**$9,266**
Projected APF Market Value	$65,000	$62,300	$63,546	$64,817	$66,113	$67,436
Private Equity %		6.8%	7.3%	7.8%	8.4%	8.9%
Special Opportunities %		4.6%	4.9%	4.9%	4.9%	4.8%
PE + Spec Opps Exposure	**12.0%**	**11.4%**	**12.1%**	**12.7%**	**13.2%**	**13.7%**

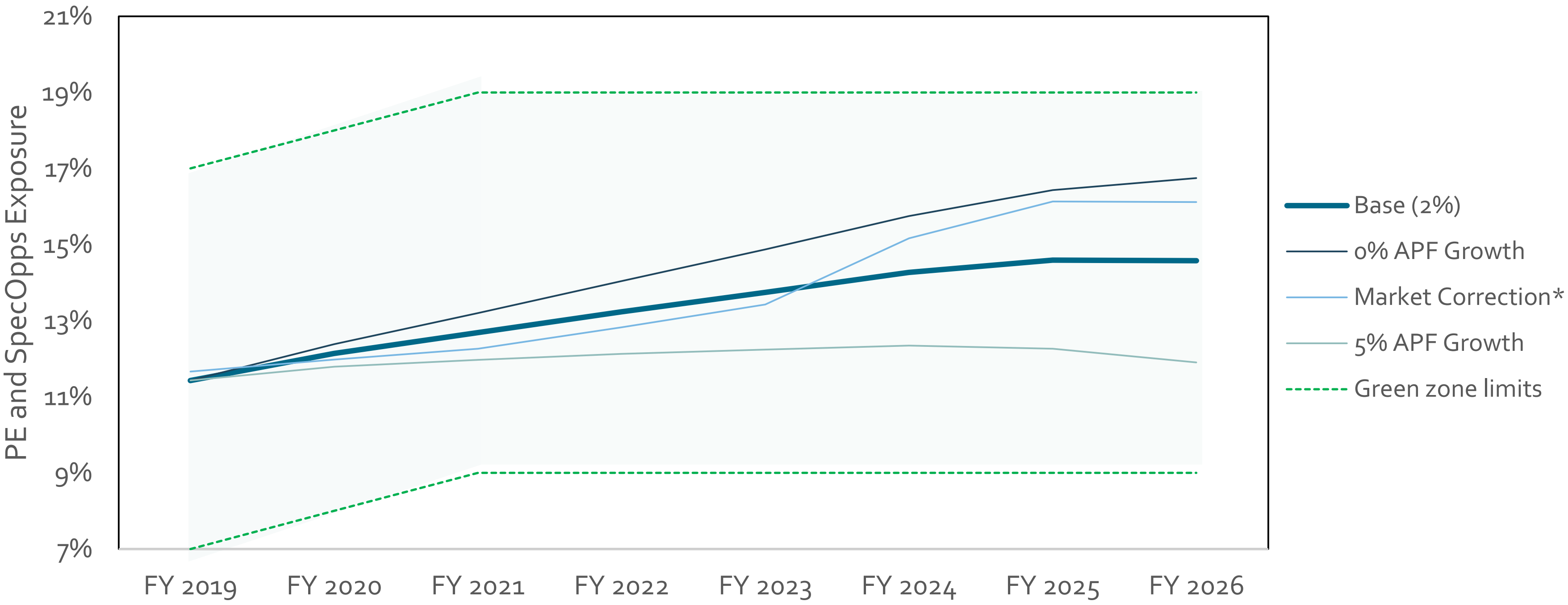
Projected Private Equity and Special Opportunities Exposure

FY 2019	FY 2020	FY 2021	FY 2022	FY 2023	FY 2024	FY 2025	FY 2026
11.4%	**12.1%**	**12.7%**	**13.2%**	**13.7%**	**14.3%**	**14.6%**	**14.6%**



Sensitivity Analysis

Broad range of scenarios suggest that the risk of significant overexposure or underexposure is small



***Market Correction Scenario:** A value decline of 26% applied to all assets, reflecting the ~26% decline for the year ended 3/31/09 (GFC trough). Assumes zero growth for 1 year with rebound over the following 5 years, and 2% annual growth thereafter

Summary FY2019 Pacing Plan

Proposed deployment targets for FY 2019

- **$1.1 billion target allocation to traditional Private Equity with:**
  - Allocation divided between co-investments (up to 30%) and fund commitments, depending on comparative value
  - Consistent with prior years, flexibility to increase to $200 million if market opportunities are compelling
  - Represents $200 million (22%) increase from FY2018 target deployment

- **$500 million target allocation to Special Opportunities with:**
  - Flexibility to increase or decrease as much as $350 million based on quality of opportunity set
  - Represents $50 million (11%) increase from FY2018 target deployment

- **Maintain and monitor diversification** (vintage, strategy, manager, industry, etc.)
  - Continue to build non-U.S. portfolio
  - Above figures refer to new commitments, net of potential sales, and may be transferable between the programs, so that aggregate new purchases are $1.6 billion with the flexibility to increase by $550 million (net of sales)

Annual Asset Allocation Review Memo

APFC ALASKA PERMANENT FUND CORPORATION
801 W 10TH SUITE 302 | JUNEAU, AK 99801
907.796.1500 | apfc.org

SUBJECT: Annual Asset Allocation Discussion
Capital Markets Assumptions

ACTION:

DATE: 5/24/2018

INFORMATION: X

BACKGROUND:
Each year, the Board of Trustees assesses APFC's asset allocation and projected returns based on the general consultant's market projections and correlations. In light of recent market volatility and progression of the current business cycle, the general consultant updated projected returns for FY2019 and FY 2021.

STATUS:
At this board meeting, the general consultant will give their market projections and correlations. Then, staff will provide an update on how these projections reflect into APFC's current target asset allocation and projected returns.

RECOMMENDATION:
Staff recommends that the current asset allocation remain the asset allocation for FY19.

Asset Allocation Review Presentation

May, 2018

Asset Allocation Discussion
FY 2019 Projections

Capital Market Projections and Asset Allocation Framework

Gregory C. Allen
President, Director of Research

Steve Center, CFA
Senior Vice President, Fund Sponsor Consulting

Outline

Evaluation of APFC Strategic Policy using Callan's Capital Market Projections

- Summary of Callan's capital market projections, economic outlook, projection process.
- Projected return and risk for 2019, and 2021 policy portfolios.
- Efficient Frontier Analysis.

Capital Market Projections

Projected Return, Standard Deviation, and Yield

Summary of Callan's Long-Term Capital Market Projections for APFC Asset Allocation Model **(FY 2019 - 2028)**

Asset Class	Performance Index	Asset Class Target Weight	Target Weight	PROJECTED RETURN 1-Year Arithmetic	PROJECTED RETURN 10-Year Geometric*	PROJECTED RISK Standard Deviation	Projected Yield
Public Equities			**38.0%**	**8.60%**	**7.05%**	**18.85%**	**2.60%**
Global Equity	MSCI ACWI - IMI			8.60%	7.05%	18.85%	2.40%
Fixed Income Plus			**22.0%**	**4.10%**	**4.05%**	**5.00%**	**4.00%**
Money Markets	90-Day T-Bill	5.0%	1.1%	2.25%	2.25%	0.90%	2.25%
TIPS	Bloomberg TIPS	5.0%	1.1%	3.10%	3.00%	5.25%	3.30%
US Fixed Income	Bloomberg Aggregate	25.0%	5.5%	3.05%	3.00%	3.75%	3.45%
US Investment Grade Credit	Bloomberg Credit	25.0%	5.5%	3.65%	3.55%	5.05%	4.00%
Non-US Fixed Income	Bloomberg Global Aggregate ex US	10.0%	2.2%	1.80%	1.40%	9.20%	1.90%
Emerging Market Debt	Bloomberg EMD Hard Currency Agg	5.0%	1.1%	4.85%	4.50%	9.60%	4.90%
High Yield	Bloomberg US High Yield	10.0%	2.2%	5.20%	4.75%	10.35%	5.40%
Global REITs	S&P Global REIT	10.0%	2.2%	8.25%	6.40%	20.30%	4.30%
Global Listed Infrastructure	S&P Global Listed Infrastructure	5.0%	1.1%	7.65%	6.40%	17.25%	4.00%
Private Equity/Growth Opps			**12.0%**	**10.60%**	**8.50%**	**22.00%**	**0.00%**
Private Equity	Cambridge Private Equity		11.0%	10.60%	8.50%	22.00%	0.00%
Private Real Estate			**11.0%**	**6.90%**	**5.75%**	**16.35%**	**4.75%**
Real Estate	NCREIF Total Index		10.0%	6.90%	5.75%	16.35%	4.75%
Private Infra/Credit/Income Opps			**7.0%**	**6.65%**	**5.75%**	**14.50%**	**5.50%**
Private Infrastructure	FTSE Global Listed Infrastructure	60.0%	4.2%	6.45%	5.75%	13.00%	5.00%
Private Credit	Bloomberg US High Yield	40.0%	2.8%	6.95%	5.75%	16.50%	6.25%
Absolute Return			**5.0%**	**5.35%**	**5.05%**	**9.15%**	**0.00%**
Hedge Funds	HFRI Total HFOF Universe		6.0%	5.35%	5.05%	9.15%	0.00%
Asset Allocation			**5.0%**	**5.20%**	**5.00%**	**7.50%**	**2.70%**
Cash Equivalents	90-Day T-Bill	40.0%	2.0%	2.25%	2.25%	0.90%	2.25%
Multi Asset Class/ECIO	APFC Total Fund Target	60.0%	3.0%	7.15%	6.55%	12.50%	3.05%
Inflation	CPI-U				2.25%	1.50%	
Total Fund	APFC Total Fund Target		**100.0%**	**7.15%**	**6.55%**	**12.50%**	**3.05%**

- 10-year projections focus on the compound, 10-year geometric return
- Geometric return incorporates the impact of capital market volatility (standard deviation) on the return earned by an investor over time

Capital Market Assumptions

Projected Correlation Matrix

	GE	CASH	TIPS	US FI	CRDT	NU FI	EMD	GHY	GR	GLI	PE	RE	PI	HF	CPI
Global Equity	**1.000**														
Cash Equivalents	-0.040	**1.000**													
US TIPS	-0.052	0.070	**1.000**												
US Fixed Income	-0.123	0.100	0.600	**1.000**											
US Investment Grade Credit	0.304	-0.081	0.404	0.688	**1.000**										
Non US Fixed Income	0.019	-0.090	0.340	0.510	0.447	**1.000**									
Emerging Market Debt	0.593	-0.070	0.180	0.100	0.254	0.010	**1.000**								
Global High Yield	0.652	-0.110	0.060	0.020	0.373	0.120	0.600	**1.000**							
Global REITS	0.860	-0.072	-0.059	-0.115	0.299	-0.067	0.541	0.598	**1.000**						
Global Listed Infrastructure	0.808	-0.068	-0.056	-0.108	0.265	-0.063	0.508	0.562	0.773	**1.000**					
Private Equity	0.745	-0.023	-0.085	-0.154	0.169	-0.046	0.438	0.492	0.652	0.613	**1.000**				
Real Estate	0.602	-0.050	0.000	-0.025	0.259	-0.042	0.365	0.465	0.540	0.507	0.457	**1.000**			
Private Infrastructure	0.439	-0.036	0.000	-0.018	0.186	-0.030	0.262	0.333	0.387	0.363	0.328	0.395	**1.000**		
Hedge Funds	0.805	-0.070	0.075	0.080	0.379	-0.080	0.540	0.570	0.712	0.670	0.600	0.502	0.360	**1.000**	
Inflation	-0.001	0.000	0.180	-0.280	-0.210	-0.150	0.000	0.070	0.020	0.019	0.046	0.083	0.060	0.200	**1.000**

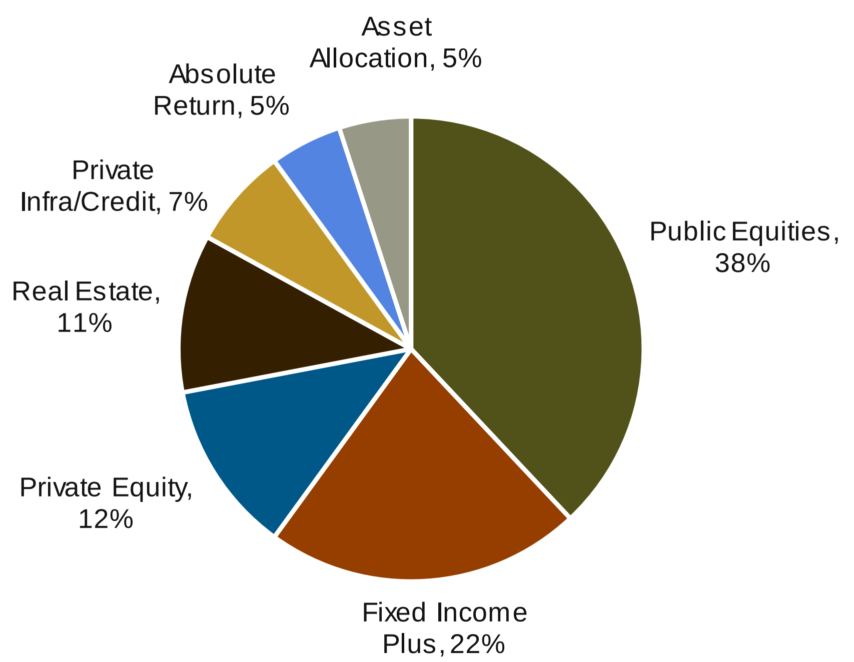
- Projected correlations between asset classes are the third dimension of capital market expectations.
- Historical trending behavior is evaluated for each pair in the matrix.
- Correlations must be consistent (positive semi-definite) as a set in order to work properly in optimization and simulation analysis.

APFC 2019 Target Asset Allocation

Projected Return and Standard Deviation

- Median expected 10-year geometric return for the 2019 Total Fund target asset allocation is roughly 6.55%.
- The projected annualized standard deviation is roughly 12.50%.
- This means that there is a 2 out of 3 chance (67%) that in any single year the return for this asset mix will fall between -5.95% and 19.05%.
- The median expected real return for this mix is 4.35% annualized.
- Based on Callan's projections, the probability of this mix exceeding a 5.00% annualized real return over the next 10 years is roughly 43%.

2019 Total Fund Target



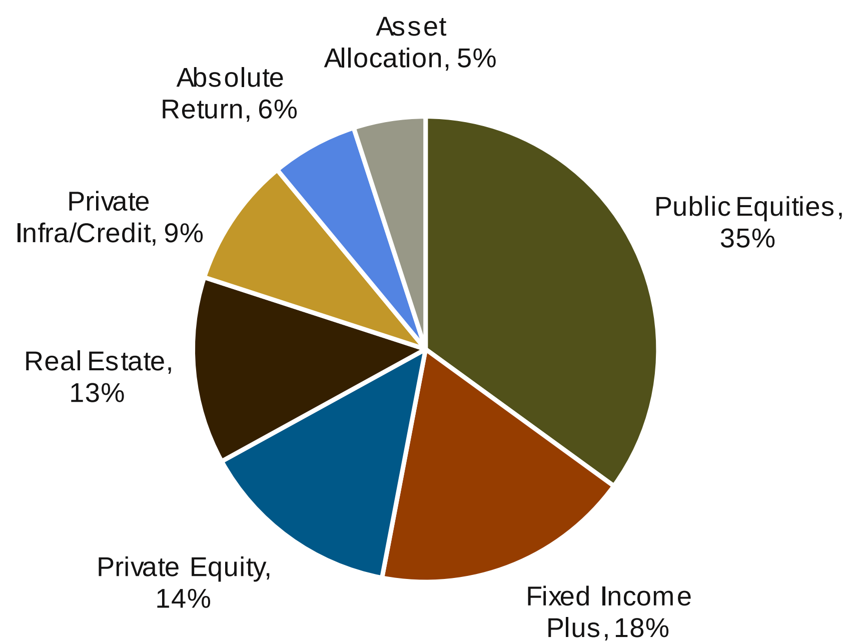
Expected 10-year Geometric Return: 6.55%
Expected Standard Deviation: 12.50%
Expected Inflation: 2.25%

APFC 2021 Target Asset Allocation

Projected Return and Standard Deviation

- The median expected 10-year geometric return for the 2021 target increases by roughly 10 basis points relative to the 2019 target.
- The projected annualized standard deviation decreases by roughly 10 basis points relative to the 2019 target.
- Improvements are due primarily to modest increases in illiquid asset classes (private equity, infrastructure, and absolute return).
- Median expected real return for this mix is 4.40% annualized.
- Based on Callan's projections, the probability of this mix exceeding a 5.00% annualized real return over the next 10 years is roughly 44%.

2021 Total Fund Target

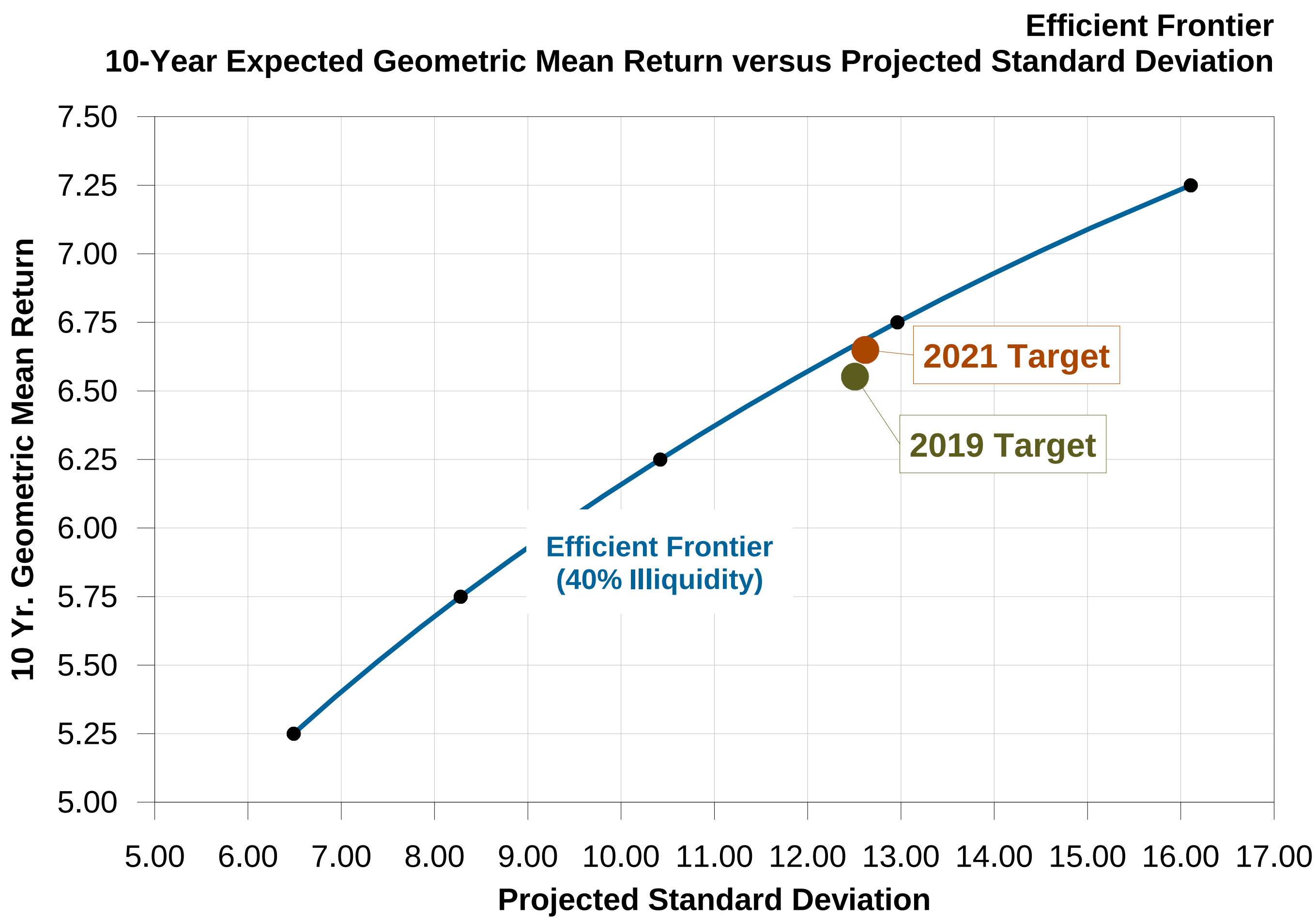


Expected 10-year Geometric Return: 6.65%
Expected Standard Deviation: 12.60%
Expected Inflation: 2.25%

Constrained Efficient Frontier Analysis 40% Private Assets

Projected Return and Standard Deviation

- This Efficient Frontier is constrained to limit the allocation to private assets to a total of 40% of portfolio (the 2021 target allocation to illiquid asset classes).
- The 2019 target is below the constrained efficient frontier due to the smaller allocation to illiquid asset categories (37% versus 40% for the frontier).
- The increase in illiquid asset classes from 37% in 2019 to 40% in 2021 improves the long-term efficiency of the portfolio.



FY18 Budget Projections Memo

APFC ALASKA PERMANENT FUND CORPORATION
801 W 10TH SUITE 302 | JUNEAU, AK 99801
907.796.1500 | apfc.org

SUBJECT: FY18 Budget Projections ACTION: X

DATE: May 24, 2018 INFORMATION:

BACKGROUND:

Per Board Resolution 98-4 – Pertaining to the Operating Budget of The Corporation:

APFC staff shall, prior to the last meeting of the Board of Trustees of each fiscal year, prepare an analysis of expenditures to date and status of programs, identify projected shortfalls and surpluses by the objects of expenditures set out herein, and recommend transfers to the Board of Trustees.

The Board of Trustees may, following discussion and due consideration of staff recommendations, authorize the transfer of budgeted funds between the objects of expenditures set out herein pursuant to such recommendations as may be amended by the Board of Trustees.

STATUS:

The attached report shows the projected fiscal year-end status of the Corporation's two Fiscal Year 2018 budget components. The estimates are based on actual expenditures through March 2018 and expenditure projections for April – June, 2018. An analysis of the projected FY2018 expenditure activity for each of the objects of expenditure is provided below, along with budget detail highlights.

OPERATIONS COMPONENT

Total Corporate Operations	FY18 Budget	FY18 Actual (projected)	Surplus (shortfall)	FY19 Request**
	$12,254,400	$11,659,235	$595,165	$168,573,300

*** The investment management component was combined with the corporate operations component, resulting in a single allocation in the FY19 budget request.*

The total expenditure for corporate operations is well within this year's budget.

Personal Services	**FY18 Budget**	**FY18 Actual (projected)**	**Surplus (shortfall)**	**FY19 Request**
	$9,600,700	**$9,433,418**	**$167,282**	**$11,861,200**

The Personal Services line is projected to have a small surplus at year-end. The corporation experienced significant restructuring during FY18, mainly in the Administration area, with the elimination of the Director of Operations position and the addition of the Chief Operating Officer. Currently, recruitment is underway to fill administrative vacancies that will provide de-centralized departmental support, as well as reception. Other departments experienced some intermittent vacancy throughout the year as positions turned over. One FTE, an investment analyst, remained vacant throughout the year.

Travel	**FY18 Budget**	**FY18 Actual (projected)**	**Surplus (shortfall)**	**FY19 Request**
	$605,500	**$560,926**	**$44,574**	**$1,203,200**

Travel expenditures are projected to be slightly less than budgeted. As the Fund grows and the portfolio becomes increasingly global in nature, travel becomes more and more essential to accessing deal flow. International travel has increased as we add non-domestic investments to almost every asset class. The authorization for staff travel is projected to be fully expended. Most of the surplus on the travel line is due to lower than anticipated Trustee travel for conferences and other non-Board meeting events.

	FY17 Actual	FY18 Projected
Total expenditure	$323,539	$560,926
Total trips	185	224
Staff travel	162	186
Trustee travel	23	19

Contractual Services	**FY18 Budget**	**FY18 Actual (projected)**	**Surplus (shortfall)**	**FY19 Request****
	$1,870,900	**$1,494,120**	**$376,780**	**$154,673,600**

*** The investment management component was combined with the corporate operations component, resulting in a single allocation in the FY19 budget request.*

The Contractual Services item of expenditure encompasses all services provided to the corporation by non-employees such as contractors, consultants, auditors, and attorneys.

	FY18 Budget	FY18 Actual (projected)	Surplus (shortfall)	FY19 Request
CONTRACTUAL SERVICES TOTAL	**$1,870,900**	**$1,494,120**	**$376,780**	**$154,673,600**
Professional Services	305,500	201,957	103,543	434,270
Public Ed/Info Program	102,000	92,136	9,864	146,500
IT Services	479,700	370,845	108,855	2,502,300
Repairs & Maintenance	65,400	30,049	35,351	93,500
Leases	518,500	511,303	7,197	538,300
Training & Education	56,500	28,440	28,060	186,620
Meeting Expenses	49,500	25,181	24,319	65,181
Other	293,800	234,209	59,591	208,229
Investment Management Fees	-	-	-	150,498,700

Professional Services – This expenditure line is expected to have a $104,000 surplus primarily as a result of lower than anticipated non-investment related legal work, both by outside counsel and on APFC’s behalf by the Department of Law. There was also an amount budgeted for consulting projects related to the audit, which is projected to go unspent. In addition to these areas, the Professional Services line funds the annual audit and the Board’s investment advisors.

Public Education / Information Program – The year-end expenditure on this line is projected to have a surplus authorization of $10,000. During FY18, a complete overhaul of the corporation’s website was funded through this line in addition to the development and printing of the annual report, newspaper inserts, and election pamphlets.

IT Services – The IT Services line is projected to lapse $109,000. Most of the funding in this line is discretionary in nature and project-based. The projects undertaken this fiscal year by IT did not utilize as many consultant resources as budgeted. This fiscal year’s IT projects included complete replacement of the corporation’s data center, setup of the disaster recovery equipment and protocol, continuing work on the conversion to Blackrock Aladdin, upgrade of OneSolution, and conversion of workstations to Virtual Desktop Infrastructure (VDI) to allow for secure remote access to workstation functionality for all APFC users.

Repairs/Maintenance — It is projected that this line will be under-expended by $35,000 due primarily to lower than anticipated IT equipment repair needs.

Leases — It is anticipated that this line will end the year with a slight surplus of $7,000. This line encompasses amounts expended for office space in addition to leases on copying equipment.

Training and Education – This line is projected to have a $28,000 surplus. Staff did attend conferences that were deemed essential to increase efficiency, performance, or reduce operational risk. However, during this year, the demands of daily work often made it more difficult for staff to travel for training, which is viewed as more discretionary than for other purposes.

Meeting Expenses – This line is projected to lapse $24,000. This is the result of hosting Board meetings in locations for which there is no charge for the venue.

Commodities	**FY18 Budget**	**FY18 Actual (projected)**	**Surplus (shortfall)**	**FY19 Request**
	$97,300	**$90,770**	**$6,530**	**$435,300**

The Commodities line includes subscriptions, reference materials and office supplies, as well as furniture and IT equipment that cost less than $5,000 per item. The expenditure in this line is under-budget by $7,000. In anticipation of the newly configured office space and to fully implement VDI, much of this budget was spent on laptops, docking stations, and monitors for staff. The surplus results from lower than anticipated expenditures on subscriptions.

Equipment	**FY18 Budget**	**FY18 Actual (projected)**	**Surplus (shortfall)**	**FY19 Request**
	$80,000	**$80,000**	**$-**	**$400,000**

The Equipment line includes furniture and IT equipment which cost more than $5,000 per item. It is anticipated that this line will be fully expended by the end of FY18. Funds from this line have been used to purchase equipment to support the new disaster recovery project and to build the new data center.

INVESTMENT MANAGEMENT COMPONENT

	FY18 Budget**	FY18 Actual (projected)	Surplus (shortfall)	FY19 Request
INVESTMENT MANAGEMENT TOTAL	**$143,769,200**	**$124,203,029**	**$19,566,171**	**$150,498,700**
Investment Manager Fees	**$130,827,100**	**$117,120,157**	**$13,706,943**	**$136,520,085**
Public Equity	68,827,100	71,733,893	(2,906,793)	82,493,617
Fixed Income Plus	11,250,000	9,824,865	1,425,135	13,116,245
Real Estate	4,500,000	709,800	3,790,200	780,000
Alternative Investments	46,250,000	34,851,600	11,398,400	40,130,223
Investment Due Diligence	**$5,795,000**	**$2,200,605**	**$3,594,395**	**$7,178,200**
Investment Systems	**$5,747,100**	**$3,548,563**	**$2,198,537**	**$5,300,415**
Custody Fees	**$1,400,000**	**$1,333,703**	**$66,297**	**$1,500,000**

*** The FY18 budget reflects the initial budget authorization in addition to the $5 million supplemental appropriation put forward by the Board and approved by the Legislature.*

Note: *This analysis includes a projection for investment management fees that are paid directly with corporate receipts. APFC has agreements in place in which management fees are netted directly from assets under management. This analysis and projection does not address these net fee arrangements directly. A report of fees paid to managers with net fee arrangements is included in each quarterly Board meeting packet.*

Total expenditures for the Investment Management budget are expected to be $124.2 million, ending the year with a surplus authorization of approximately $19.6 million. Management fees are largely dependent upon investment performance, which is difficult to predict, particularly as far in advance as the budget process requires. The budget is built based upon projected growth for each asset class combined with anticipated actual fee structures for external management. Because of the unpredictability of these inputs and the nature of the budget approval process, a conservative buffer is built in to ensure that the corporation is always in a position to honor the terms of the contracts with its investment partners. Surplus authorization does not lapse and remains invested as part of the Earnings Reserve account of the Fund.

Public Equity – The shortfall of $2.9 million for fees paid for management of the public equity portfolio is due to higher than anticipated growth in this market.

Fixed Income Plus – FY2018 fees paid for external management of these portfolios are projected to result in a surplus allocation of $1.4 million. Fees paid for fixed income management are directly related to the value of assets managed.

Real Estate – Since the FY18 budget was approved, the REIT portfolios have been moved from Real Estate to Fixed Income Plus. The surplus of $3.8 million is largely related to the amounts budgeted in this line for these accounts.

Alternatives – It is anticipated that there will be a large surplus authorization, $11.4 million, in this allocation. Included in this category are fees paid for the ECIO portfolios, the private equity gatekeeper, the currency overlay manager, and fees paid for oversight of AH4RII. To be conservative, the budget was prepared assuming that incentive fees would be paid to the ECIO managers; however, incentive fees were not paid this fiscal year on any of the ECIO or listed infrastructure portfolios.

Investment Due Diligence – The projection indicates that expenditures in this category will be about $2.2 million, which is substantially less than the budget authorization of $5.8 million. A substantial portion of this surplus authorization, approximately $3.3 million, resides in the budget to secure third-party fiduciary advice, subject matter experts, and legal services when considering and acquiring investment opportunities. Budgetary depth will continue to be requested for this discretionary work to avoid restricting the required due diligence of investment opportunities. The remainder of the surplus authorization relates to manager searches and memberships that were not utilized this fiscal year.

Investment Systems – There is a projected surplus of $2.2 million on this line for the year. Expenditures on this line include consulting related to systems that support investment activity such as Bloomberg and Aladdin, data feeds for investment systems that facilitate analytics and trading, and internet access fees. Also included in this line for FY18 are the disaster recovery expenditures related to establishing business continuity on the Aladdin trading platform.

CAPITAL PROJECTS

Project Name	Year Authorized	Authorization	Expended to Date	Balance
APFC Headquarters Renovation	FY2018	$4,050,000	$0	$4,050,000

Plans are complete for the office reconfiguration and the RFP has been released for bid. Prep work is scheduled to begin in early June, with demolition and rebuilding starting in early July. To date, Department of Transportation and Public Facilities has made all payments related to this project. The corporation has not yet been invoiced to reimburse DOT/PF for any of this work.

RECOMMENDATION:

The current direction of the corporation towards VDI and remote accessibility creates the need to update user workstations. This need has become more urgent as staff is caused to relocate during the office remodel. Staff requests Board approval to transfer $95,000 from the Contractual Services item of expenditure to Commodities and Equipment to allow some of these expenditures to happen before the end of FY18.

Planned usage of this additional equipment authorization is as follows:

Commodities:	
IT Supplies	$5,000
IP Telephony Phones	$20,000
Workstation Equipment	$50,000
Top of Rack Switches in Data Center	$8,000
Equipment:	
POE (Power Over Ethernet) Switch	$12,000

Proposed Board motion:

"The Board of Trustees approves the transfer of $95,000 from the Contractual Services item of expenditure, $83,000 to Commodities and $12,000 to Equipment."

Budget Status 3.31.18

ALASKA PERMANENT FUND CORPORATION

FY18 Budget Status Report

Payments & Encumbrances as of 3/31/18

Corporate Operations Allocation	Authorization	Payments & Encumbrances	Year-end Projection	Projected Year-end Variance
Personal Services	**9,600,700**	**7,046,770**	**9,433,418**	**167,282**
Staff & Interns	9,572,700	7,033,430	9,418,034	154,666
Board	28,000	13,340	15,384	12,616
Travel	**605,500**	**384,762**	**560,926**	**44,574**
Staff	492,785	343,262	483,626	9,159
Trustees	47,300	14,832	20,632	26,668
Moving/Non-Employee	65,415	26,669	56,669	8,746
Contractual Services	**1,870,900**	**1,198,501**	**1,494,120**	**376,780**
Professional Services	305,500	185,957	201,957	103,543
Public Education/Info Program	102,000	55,211	92,136	9,864
IT Services	479,700	230,845	370,845	108,855
Communications	86,500	67,937	48,180	38,320
Postage/Delivery	6,550	4,892	5,432	1,118
Advertising/Printing	64,500	38,706	55,706	8,794
Repairs/Maintenance	65,400	26,549	30,049	35,351
Leases	518,500	511,303	511,303	7,197
Training/Education	56,500	22,140	28,440	28,060
Meeting Expenses	49,500	17,681	25,181	24,319
Other	15,663	450	5,000	10,663
State Support Services	120,587	36,832	119,893	694
Commodities	**97,300**	**29,117**	**90,770**	**6,530**
Equipment	**80,000**	**61,380**	**80,000**	**-**
Total	12,254,400	8,720,530	11,659,235	595,165
Investment Management Fees Allocation				
Financial Networks	5,747,100	3,403,563	3,548,563	2,198,537
Investment Due Diligence	5,795,000	1,704,355	2,200,605	3,594,395
Custody Fees	1,400,000	1,014,977	1,333,703	66,297
Investment Manager Fees	**130,827,100**	**91,159,393**	**117,120,157**	**13,706,943**
Public Equities	68,827,100	56,862,998	71,733,893	(2,906,793)
Fixed Income Plus	11,250,000	8,114,101	9,824,865	1,425,135
Real Estate	4,500,000	537,291	709,800	3,790,200
Alternative Assets	46,250,000	25,645,003	34,851,600	11,398,400
Total	143,769,200	97,282,288	124,203,029	19,566,171

FY 19 Budget Approval Memo

801 W 10TH SUITE 302 | JUNEAU, AK 99801
907.796.1500 | apfc.org

SUBJECT: FY19 Budget Approval ACTION: X

DATE: May 24, 2018 INFORMATION:

BACKGROUND:

Per Board Resolution, 98-6 Authorization to Expend Approved Funds:

Before the end of the current fiscal year, APFC staff shall present to the Board of Trustees the final operating and capital budgets authorized by the Legislature for the succeeding fiscal year, and identify budget reductions by the Legislature, if any, along with an analysis of resulting corporate or program effect.

The Board of Trustees authorizes the Executive Director, following proper notification to the Trustees in accordance with the requirements of Resolution 98-6, to expend from appropriations as authorized by Trustee policy and the Legislature beginning July 1 of the fiscal year.

In September 2017, the Board approved a detailed budget for presentation to the Legislature through the Office of Management and Budget (OMB).

STATUS:

At the time this memo was drafted, HB 286, the FY19 Operating Budget, had passed out of Conference Committee and was headed to the floor of the House and the Senate for final adoption.

The bill splits APFC's budget into two allocations and moves it to the numbers section of the budget. All requested increments were approved.

APFC Operations	$18,074,600
APFC Investment Management Fees	$150,498,700

Following passage of the bill, it will be sent to the Governor for signature.

For FY19, the Board put forward a total increment of $17.5 million across the five items of expenditure in the operating budget, as well as the investment management allocation.

The increment includes ten new positions: four new investment officers and six support staff across the organization, as well as the related equipment, travel, etc. for these additional staff. The increment also includes $362,800 for reduced vacancy factor and retention adjustments to salaries. Investment management fees and due diligence were increased by $11.7 million to reflect the growing portfolio and evolving asset allocation.

RECOMMENDATION:

FY 19 Authorizations

Corporate Operations	
Personal Services	$11,861,200
Travel	$1,203,200
Contractual Services	$4,174,900
Commodities	$435,300
Equipment	$400,000
Total	**$18,074,600**
Investment Management Fees	
Investment Manager Fees	$136,520,085
Investment Due Diligence	$7,178,200
Investment Systems	$5,300,415
Custody Fees	$1,500,000
Total	**$150,498,700**
Total FY19 Authorization	**$168,573,300**

Proposed Board Motion:
“The Board moves to authorize the Chief Executive Officer to expend the APFC budget authorization as approved by the Legislature and enacted by the Governor.”

Budget Projections & Approval Presentation

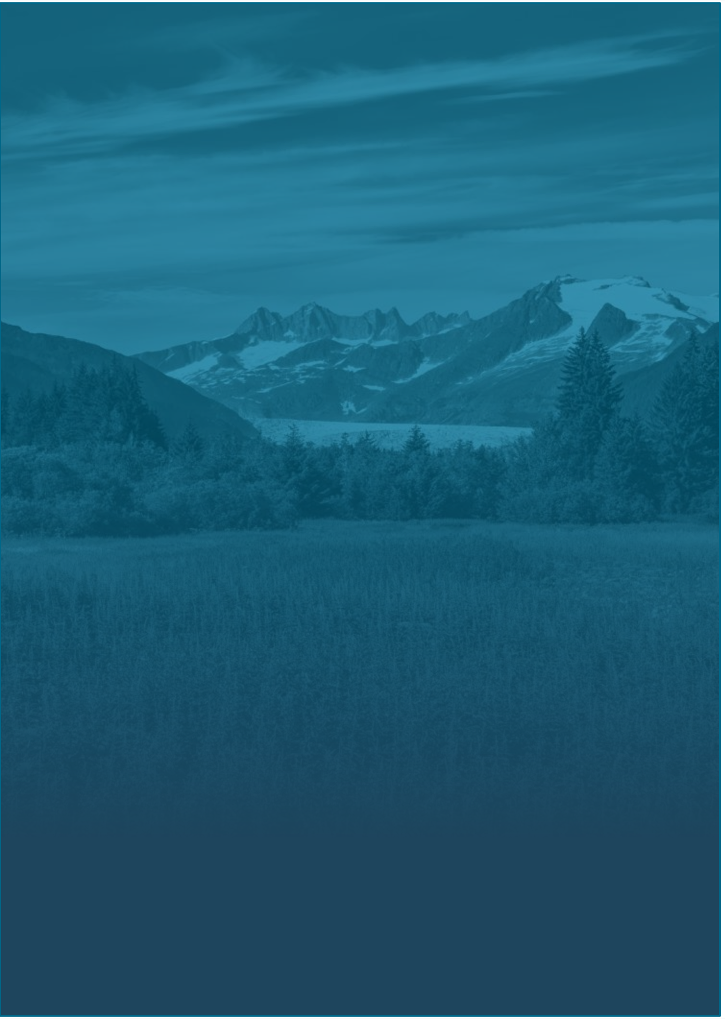
APFC ALASKA PERMANENT FUND CORPORATION

FY18 Budget Projections & FY19 Authorization

Two Allocations -

- Corporate Operations
- Investment Management Fees

Capital Budget



Corporate Operations

- Personal Services
- Travel
- Contractual Services
- Commodities
- Equipment

Total Corporate Operations

Total Corporate Operations	FY18 Budget	FY18 Actual (projected)	Surplus (shortfall)	FY19 Request
	$12,254,400	$11,659,235	$595,165	$168,573,300

Personal Services

Total Personal Services	FY18 Budget	FY18 Actual (projected)	Surplus (shortfall)	FY19 Request
	$9,600,700	$9,433,418	$167,282	$11,861,200

- Salaries
- Benefits
- Trustee Honorarium

Travel

Total Travel	FY18 Budget	FY18 Actual (projected)	Surplus (shortfall)	FY19 Request
	$605,500	$560,926	$44,574	$1,203,200

- Staff
- Trustee
- Moving/Non-employee

Contractual Services

	FY18 Budget	FY18 Actual (projected)	Surplus (shortfall)	FY19 Request
CONTRACTUAL SERVICES TOTAL	$1,870,900	$1,494,120	$376,780	$154,673,600
Professional Services	305,500	201,957	103,543	434,270
Public Ed/Info Program	102,000	92,136	9,864	146,500
IT Services	479,700	370,845	108,855	2,502,300
Repairs & Maintenance	65,400	30,049	35,351	93,500
Leases	518,500	511,303	7,197	538,300
Training & Education	56,500	28,440	28,060	186,620
Meeting Expenses	49,500	25,181	24,319	65,181
Other	293,800	234,209	59,591	208,229
Investment Management Fees	-	-	-	150,498,700

Commodities

Total Commodities	FY18 Budget	FY18 Actual (projected)	Surplus (shortfall)	FY19 Request
	$97,300	$90,770	$6,530	$435,300

- Office/IT Supplies
- Subscriptions
- Equipment < $5,000

Equipment

Total Equipment	FY18 Budget	FY18 Actual (projected)	Surplus (shortfall)	FY19 Request
	$80,000	$80,000	$-	$400,000

- Equipment > $5,000

Investment Management Fees

	FY18 Budget	FY18 Actual (projected)	Surplus (shortfall)	FY19 Request
INVESTMENT MANAGEMENT TOTAL	$143,769,200	$124,203,029	$19,566,171	$150,498,700
Investment Manager Fees	$130,827,100	$117,120,157	$13,706,943	$136,520,085
Public Equity	68,827,100	71,733,893	(2,906,793)	82,493,617
Fixed Income Plus	11,250,000	9,824,865	1,425,135	13,116,245
Real Estate	4,500,000	709,800	3,790,200	780,000
Alternative Investments	46,250,000	34,851,600	11,398,400	40,130,223
Investment Due Diligence	$5,795,000	$2,200,605	$3,594,395	$7,178,200
Investment Systems	$5,747,100	$3,548,563	$2,198,537	$5,300,415
Custody Fees	$1,400,000	$1,333,703	$66,297	$1,500,000

Capital Project

	Year Authorized	Authorization	Expended to Date	Balance
APFC Headquarters Renovation	FY2018	$4,050,000	$0	$4,050,000


Questions?

Transfer Request

Contractual Services
IT Services
$95,000

$83,000

Commodities
IT Supplies/Small Equipment

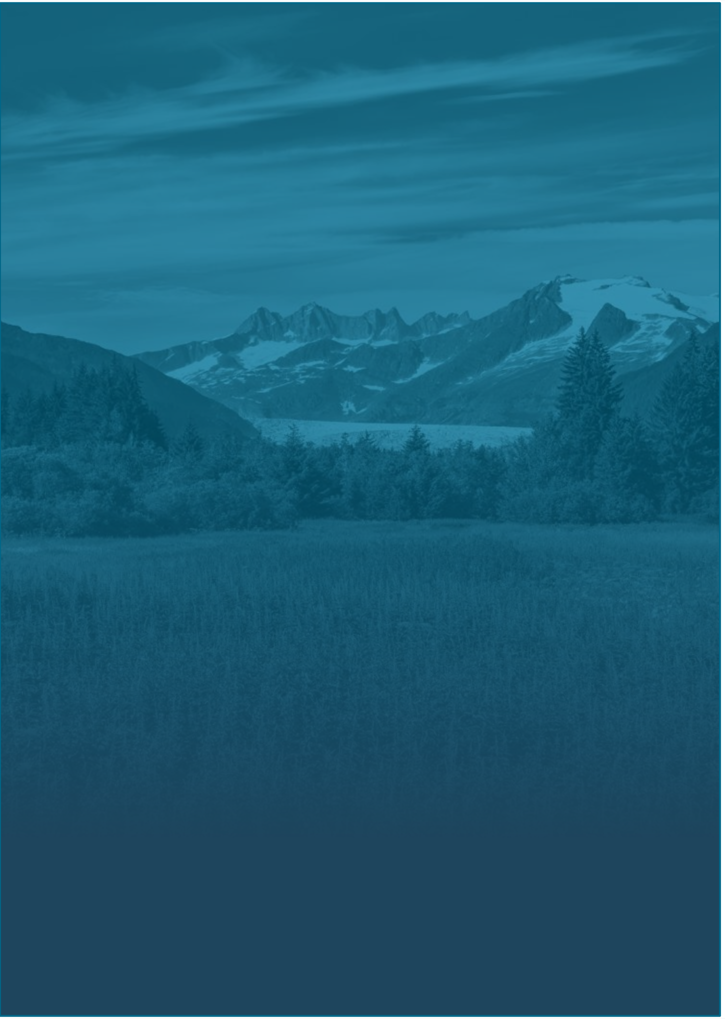
$12,000

Equipment
Network/Server Equipment

APFC

ALASKA PERMANENT FUND CORPORATION

FY19 Budget Approval



FY19 Budget Request

- $168,537,300
- Single Allocation
- Language Section

Increments

- Personal Services $3.9 million
- Travel $0.3 million
- IT Equipment/Commodities $1.6 million
- Investment Management Fees $11.7 million

HB286

Corporate Operations	
Personal Services	$11,861,200
Travel	$1,203,200
Contractual Services	$4,174,900
Commodities	$435,300
Equipment	$400,000
Total	$18,074,600
Investment Management Fees	
Investment Manager Fees	$136,520,085
Investment Due Diligence**	$7,178,200
Investment Systems	$5,300,415
Custody Fees	$1,500,000
Total	$150,498,700
Total FY19 Authorization	**$168,573,300**

** includes $300,000 for IFSWF 2019 Annual Meeting in Juneau

Motion to Authorize Expenditure

Legislative Update

APFC ALASKA PERMANENT FUND CORPORATION
801 W 10TH SUITE 302 | JUNEAU, AK 99801
907.796.1500 | apfc.org

SUBJECT: Legislative Update ACTION:

DATE: 5/24/2018 INFORMATION: X

As this memo is drafted, the second session of the 30th Alaska State Legislature is working towards sine die adjournment within the constitutional 120-day session limit.

The use of the Alaska Permanent Fund as a source of revenue to support state government and assist in filling the current fiscal gap has been a primary focus of this Legislature. Much of the debate has centered on establishing a sustainable draw amount, the distribution of those funds for dividends and general government, and the need to inflation proof the Principal of the Fund.

Both statutory and constitutional constructs for establishing a rules based framework for withdrawals from the Fund have been introduced and heard during the legislative committee process. At this time, the following bills affecting the Alaska Permanent Fund have been passed out of conference committee and it is anticipated that they will pass the legislature and be signed into law by the Governor:

Appropriation Bill – FY 19 Operating Budget

HB 286

Draw from the ERA
- 5.25% POMV draw of $2.7 billion from the ERA for FY19
- Intent Language provides flexibility over FY in transfer of $s to DOR

Inflation Proofing the Principal
- $942.0 million for FY19 Inflation Proofing
- Inflation proofing for FY16-FY18 remains unfunded.

Royalty Deposits
- $295.5 million of constitutionally required 25% of royalty proceeds
- Neither version includes 50% for the newer leases after 1979 per AS 37.13.010 (a)(2)

Earnings Reserve Account Contingency Appropriation
Language was added during conference committee that appropriates funds from the ERA to the General Fund (GF) if the required ¾ vote threshold to access the Constitutional Budget Reserve to fund FY19 appropriations is not attained. At the time this memo was written the outcome of the CBR vote was not determined.

If a ¾ vote to access the CBR fails, then funds are appropriated from the ERA to the GF–

a) fund any GF insufficiencies based on the FY19 appropriations (Mental Health Budget, Operating Budget, K-12 Education Funding, Capital Budget)

b) fund up to $100 million to balance revenue and GF appropriations should unrestricted state revenue available for appropriation in FY19 be insufficient.

Earnings Reserve Draw Legislation – Statutory POMV

SB 26

Royalty Deposits

- No changes were made to existing statute. Maintains the constitutionally required 25% of royalty deposits to the Principal of the Fund, and 50% of deposits from leases issued after 1979, which are above the constitutional requirement.
    - Note: The FY19 Operating Budget appropriates only 25% of royalties to the Principal.

POMV Draw from the Earnings Reserve Account (ERA)

- Provides for a POMV draw of the average market value of the Fund for the first five of the preceding six fiscal years (subject to annual appropriation by the Legislature);
    - 5.25% - Effective July 1, 2019 = $2.7 Billion Draw in FY19
    - Steps down to 5.0% - Effective July 1, 2021

Inflation Proofing

- Maintains existing inflation proofing mechanism, and places the inflation proofing transfer outside of the amount available for appropriation under the POMV draw.

Appropriation Limit from ERA

- Stipulates that the Legislature may not appropriate from the ERA to the GF an amount that exceeds the POMV %.
- Further stipulates that the combined total of the dividend transfer and the POMV appropriation may not exceed the POMV%.

Statutory Net Income

- Bill maintains the current statutory net income calculation and the amount available for distribution, including the current dividend calculation. But limits the amount available for appropriation from the Fund to the POMV %. Thus, APFC will still be required to calculate statutory net income and the amount available for distribution, in addition to the amount available for appropriation under POMV %. The Legislature has the power of appropriation to designate the % that will go to pay dividends and the % that will go to general government.

Incentive Compensation Structure Memo

SUBJECT: Incentive Compensation Structure ACTION: X

DATE: May 24, 2018 INFORMATION:

BACKGROUND:

Since 2011, the Board, through the adoption of its Personnel Management Program, has had a compensation philosophy as follows:

"APFC strives for a compensation program that competes well in the market and motivates all employees to bring their best efforts to the scope of their job responsibilities. The program provides a systematic means of tracking, measuring, and compensating employees and allows flexibility for APFC to act quickly."

This is a compensation philosophy that recognizes all employees are valued and that individually and collectively that value needs to be compensated for fairly. Compensation should reflect our mission, vision and values and incentivize the behaviors we want to see as an organization.

APFC Mission

To manage and invest the assets of the Permanent Fund and other funds designated by law.

APFC Vision

Our vision is to deliver sustained compelling investment returns as the United States' *leading sovereign endowment manager*, benefitting all current and future generations of Alaskans.

Strategic Priorities – From 2017-2021 Strategic Plan

Priority #3: Develop best-in-class investment management capabilities, partnerships, and geographic reach to maximize investment returns
Priority #4: Enhance talent and staff across APFC

Goals – From 2017-2021 Strategic Plan

Designed to help fulfill above Strategic Priorities
Goal #5: Implement a competitive incentive compensation program by October 2019

STATUS:

In March of 2017, APFC, at the request of the Board of Trustees, hired McLagan to undertake a compensation review and develop an incentive compensation plan for APFC. At the December 2017 Board meeting, the Board of Trustees adopted updated base salary pay bands for each position as a result of that review. The adjustments warranted by the new base salary bands have been made and were incorporated into the FY19 budget request for APFC.

The purpose of this agenda item is to take the next step and present an incentive compensation plan. This is a plan designed to attract and retain talent, recognize our value of being good stewards of resources, recognize our passion for investing for Alaskans, encourage teamwork and collaboration and ultimately deliver best in class results across all operational areas of APFC. The adoption of an incentive program will inform the budget request to be assembled by the Board in September for submission to the Governor in October.

It is important to note that the amounts adopted for an incentive compensation program are subject to Governor and Legislative approval.

RECOMMENDATION:

The Executive Director recommends adoption of the attached resolution and the creation of a limited incentive compensation program. Upon adoption, staff will develop the required changes to the Personnel Management Plan for Board approval as well as a budget request to be included in the FY20 budget submission.

Incentive Compensation Presentation

APFC ALASKA PERMANENT FUND CORPORATION

Incentive Compensation Structure

May 24, 2018

APFC's Mission

To manage and invest the assets of the permanent fund and other funds designated by law.

APFC's Vision

"to deliver sustained, compelling investment returns as the United States' leading sovereign endowment manager, benefitting all current and future generations of Alaskans"

- Reflects statutory language and intent, as well as Board and staff aspirations
- Emphasizes maximizing returns in a fully sustainable manner
- Underscores the intention for the Fund to be a perpetual resource for Alaska
- Embodies core values of -

Integrity, Stewardship, and Passion


Strategic Plan

APFC's Strategic 5 Year Plan

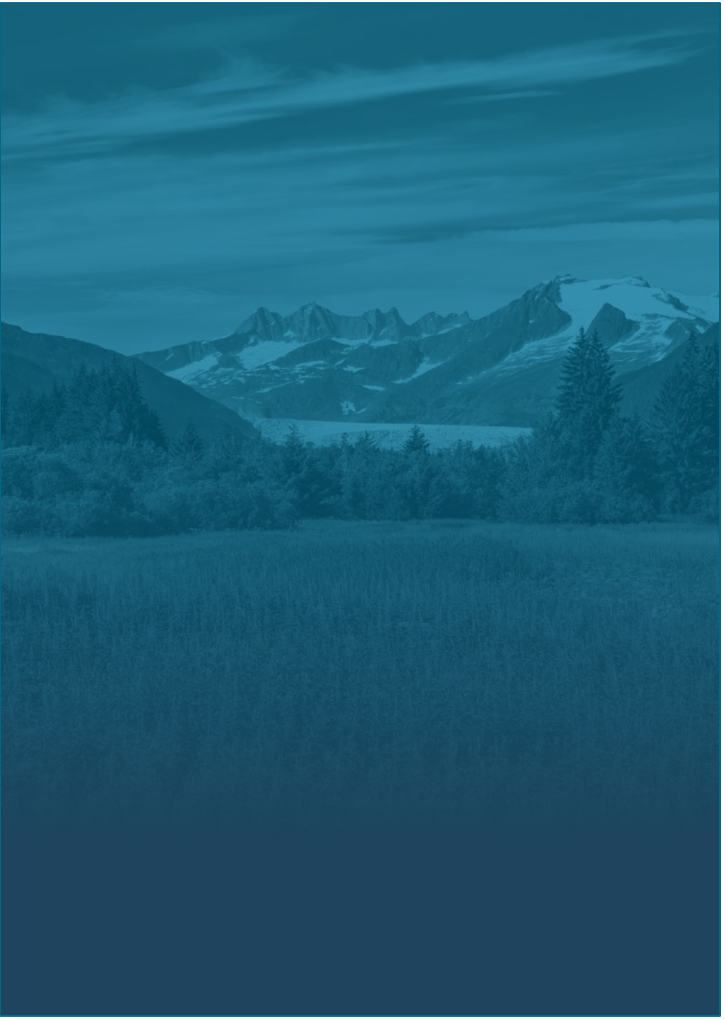
Priorities FY17-FY21

1. Gain greater control of resource allocations

2. Optimize APFC's operational processes and use of financial networks and resources

3. **Develop best-in-class investment management capabilities, partnerships, and geographic reach to maximize investment returns**

4. **Enhance talent and staff across APFC**



Strategic Plan: Goal 5

5. (P4)

Implement a competitive incentive compensation program for FY19 by Oct 2019.


Personnel Management Program

Compensation Philosophy

Since 2011, the Board, through the adoption of its Personnel Management Program, a compensation philosophy as follows:

APFC strives for a compensation program that competes well in the market and motivates all employees to bring their best efforts to the scope of their job responsibilities. The program provides a systematic means of tracking, measuring, and compensating employees and allows flexibility for APFC to act quickly.

Peer Group

- In developing an incentive program APFC needs to formally adopt a compensation peer group and potentially amend its compensation philosophy.

- The compensation peer group provides the data with which a compensation structure is developed.

Blended Peer Group

The staff recommend the board adopt a blended peer group comprised of 75% public fund and 25% private fund for the following reasons:

1. APFC views itself as a “sovereign endowment.” It recognizes that it is inherently public in nature. However, much of the investment goal is driven by “endowment-like” mandates.

2. Generally speaking, investment staff have departed APFC to work for significantly higher compensation at endowment funds.

3. It is important to continue to compensate all staff fairly and making sure staff not eligible for incentive compensation do receive merit increases to base compensation.


McLagan Analysis


Recommendation

McLagan Presentation

Alaska Permanent Fund Corporation

Compensation Program Review

May 24, 2018

Introduction

- Alaska Permanent Fund Corporation (APFC) asked McLagan to review the competitiveness of APFC's compensation program.
- Recognizing that APFC competes with a broad range of firms for investment talent, McLagan assembled pay data from three peer groups (see Appendix for additional detail on each peer group):
  I. US and Canadian public funds with internal/direct asset management capability.
  II. Private sector investment organizations with AUM less than $100B including advisory firms, banks, insurance companies, endowments, foundations, and corporate plan sponsors with.
  III. A blended peer group: 75% public fund and 25% private sector firms.
- This report contains information about:
  - The competitive range of salary and total cash compensation (e.g., salary + cash incentives) for 44 AFPC positions. Note that long-term incentives common in the private sector have been excluded (e.g., stock options, mutual fund deferrals, restricted stock, etc.).
  - The typical features and mechanics of incentive compensation plans within public funds.

Executive Summary - Overview

- APFC's salaries are mainstream while total cash compensation is positioned well below peers:
  - In aggregate, APFC's base salaries approximate the competitive market median of the blended peer group. (Note: this generally represents base salaries being at the 75th percentile of other public funds and at the 25th percentile of the private sector).
  - Without an incentive compensation plan, APFC's total cash compensation falls 31% below the blended peer group median of salary + cash incentive (19% below the public fund peer group, 53% below private sector).

APFC versus Median			
	Public Funds	**Private Sector**	**Blended Peers**
Salary	+11%	-15%	+3%
Salary + Incentive	**-19%**	**-53%**	**-31%**

- 75% of public fund peers and virtually all private sector peers offer incentive compensation.
  - Generally, all investment positions and select investment support positions are covered by incentive plans within public fund peers. At private sector firms, virtually all staff are eligible.
  - Incentives are generally weighted to quantitative and qualitative factors. Quantitative factors are generally formulaically evaluated based on investment performance and are more heavily weighted for senior investment staff.

Executive Summary - Recommendations

- APFC should consider:

  I. Confirming (formally adopting) peer groups and establishing a compensation philosophy to guide further pay decision making:

  - Salaries targeted at the 75th percentile of the public fund group with total cash, at maximum, targeted at the median of the blended peer group.

  II. Implementing a performance-based incentive compensation plan that:

  - Aligns compensation with APFC's long-term investment success.
  - Provides pay opportunities that allow APFC to attract, retain, and motivate talented investment professionals.
  - Is aligned with market practice.
  - Is fair to all stakeholders.

1. Pay Level Analysis

Salaries are Mainstream, Total Cash Well Below Market

- As detailed below, APFC's salaries, in aggregate, approximate the competitive market median of the blended peer group.
- Without incentive compensation, APFC's total cash compensation falls below the 25th percentile (31% below median).

APFC's vs. Blended Peer Group (75% Public / 25% Private)						
	Aggregate Pay Spend ($000s)					
	APFC	25th Percentile	Median	75th Percentile	Variance to Median	Quartile Positioning
Base Salary	$6,514	$5,318	$6,320	$7,525	3%	2
Total Cash	6,514	6,897	9,447	13,285	-31%	4

Represents the total pay for 44 of APFC's incumbents.

Represents the total pay, at median, for 44 matching survey positions.

1 Top quartile / Q1 pay positioning (75th to 100th percentile)

2 50th to 75th / Q2 percentile pay positioning

3 25th to 50th percentile / Q3 pay positioning

4 Bottom quartile / Q4 pay positioning (0 to 25th percentile)

Some Variation in Pay Positioning by Function

- Pay positioning varies somewhat by function:
  - Investment salaries are positioned 17% above median of the blended peer group. However, total cash compensation falls 26% below median.
  - Management is positioned closest to median on a salary only basis yet is positioned worst on a total cash basis.

APFC's vs. Blended Peer Group (75% Public / 25% Private)				
	Aggregate Pay Spend ($000s)			
	Variance to Median		Quartile Positioning	
	Base Salary	Total Cash	Base Salary	Total Cash
Management	-9%	-48%	3	4
Investments	17%	-26%	2	4
Administrative	-12%	-25%	3	4
Total	**3%**	**-31%**	2	4

1 Top quartile / Q1 pay positioning (75th to 100th percentile)

2 50th to 75th / Q2 percentile pay positioning

3 25th to 50th percentile / Q3 pay positioning

4 Bottom quartile / Q4 pay positioning (0 to 25th percentile)

Different Peer Groups = Different Pay Positioning

- Not surprisingly, APFC's competitive pay positioning varies depending on which peer group is focused on. While the majority of this report has been focused on the blended peer group is it important to note:
  - Base salaries approximate the 75th percentile of public fund peers and 25th percentile of the private sector peers.
  - Total cash compensation falls between the 25th percentile and median for public fund peers and well below the 25th percentile for private sector peers.

APFC's Pay vs. Multiple Peer Groups									
			Aggregate Pay Spend ($000s)						
			25th Percentile		Median		75th Percentile		
	# of APFC Employees	APFC	$	% APFC vs. Mkt	$	% APFC vs. Mkt	$	% APFC vs. Mkt	Quartile Positioning
Base Salary									
Private Sector Firms	44	$6,514	$6,537	0%	$7,706	-15%	$9,252	-30%	4
Public Funds	44	6,514	4,912	33%	5,858	11%	6,949	-6%	2
75%/25% Public/Private Sector	44	6,514	5,318	22%	6,320	3%	7,525	-13%	2
Total Cash Compensation									
Private Sector Firms	44	$6,514	$10,280	-37%	$13,807	-53%	$19,734	-67%	4
Public Funds	44	6,514	5,769	13%	7,994	-19%	11,135	-41%	3
75%/25% Public/Private Sector	44	6,514	6,897	-6%	9,447	-31%	13,285	-51%	4

1 Top quartile / Q1 pay positioning (75th to 100th percentile)

2 50th to 75th / Q2 percentile pay positioning

3 25th to 50th percentile / Q3 pay positioning

4 Bottom quartile / Q4 pay positioning (0 to 25th percentile)

McLAGAN

AON Empower Results®

2. Incentive Structure

Executive Summary

- ~75% of public fund peers offer incentive compensation.
  - Generally all investment and senior management positions participate in the incentive plan.
  - Incentive awards are generally weighted to quantitative and qualitative components.
    - Quantitative components generally provide formulaic linkages between pay and long-term investment returns. The most common metrics is three-year performance relative to the policy benchmark.
    - Qualitative components are generally assessed on a discretionary basis and may include performance and achievements made towards individual goals, objectives, and behaviors.
- The following pages describe a “typical” incentive plan within US public pension funds. APFC should consider adopting a market competitive incentive compensation plan.

Incentive Structure

A "Typical" Public Fund Incentive Plan

Near the Beginning of Each Year:

1. Identify/Re-Confirm Maximum Award
   - Assume $80K (for illustrative purposes)
2. Weight Maximum Award to Specific Components

Plan Component	Incentive Weighting	Weighted Portion of Target Incentive
Total Fund	20%	$16,000
Asset Class	60%	48,000
Qualitative	20%	16,000
Total	100%	$80,000

3. Establish Performance Criteria/Scales:
   - Investment performance criteria.
   - Individual performance criteria.

Total Fund Performance-Award Scale

bps of Above-B'mark Performance	Award Earned
60 bps or more	100%
:	:
30 bps	50%
:	:
0 bps or less	0%

Intermediate points are interpolated.

Asset Class - Internal Equity Performance-Award Scale

bps of Above-B'mark Performance	Award Earned
50 bps or more	100%
:	:
25 bps	50%
:	:
0 bps or less	0%

Intermediate points are interpolated.

After the End of Each Year:

1. Determine Multipliers for each Plan Component

Plan Components	Performance *(illustrative)*		Performance Multiplier
Total Fund	45 bps	➡	0.75
Asset Class	25 bps	➡	0.50
Qualitative	"Very good year"	➡	0.75

2. Determine Final Awards

Plan Component	Weighted Portion of Target Incentive		Performance Multiplier		Actual Award
Total Fund	$16,000	x	0.75	=	$12,000
Asset Class	48,000	x	0.50	=	24,000
Qualitative	16,000	x	0.75	=	12,000
			= Final Award		**$48,000**

3. Pay Out Award

APFC's Incentive Recommendation

- Mirroring the structure presented on the prior page, each participant would:
  – Have an incentive maximum expressed as a percentage of base salary. The opportunity would vary by position and be calibrated to deliver competitive levels of total cash compensation.
  – Have incentive opportunities weighted to quantitative and qualitative components. Weightings would likely vary by position with:
    - Senior leadership having a higher weighting (70%-80%) towards total fund results and a modest qualitative award.
    - Senior investment staff would have weightings toward total fund (30%-40%) and asset class (30%-40%) with a modest qualitative award.
    - Junior and administrative staff would have a modest weighting (20%-50%) to total fund performance and the majority of their incentives determined on a discretionary basis.
- Quantitative investment performance would be measured net-of-fees on a three- and/or five-year basis versus policy benchmark.

Appendix

Public Fund Peers

APFC's Public Pension Fund Comparator Group	12/31/16 AUM	% Internally Managed		12/31/16 AUM	% Internally Managed
California Public Employees Retirement System	$302.8		Virginia Retirement System	$69.9	
Canada Pension Plan Investment Board	235.9		OMERS	63.5	
Caisse de Depot	201.6		State of Michigan Retirement Systems	62.2	
California State Teachers' Retirement System	196.4		Public School Employees' Retirement System	57.8	
New York State Common Retirement Fund	186.0		Healthcare of Ontario Pension Plan	52.4	
State Board of Administration of Florida	184.6		Tennessee Consolidated Retirement System (TCRS)	47.0	
Teacher Retirement System of Texas	140.4		Colorado Public Employees' Retirement Association	45.0	
Ontario Teachers' Pension Plan Board	130.8		Arizona State Retirement System	35.1	
Washington State Investment Board	112.4		Montana Board of Investments	16.9	
State of Wisconsin Investment Board	109.1		OPTrust	14.2	
PSP Investments	101.0		New Mexico Educational Retirement Board	12.1	
Ohio Public Employees Retirement System	89.1		South Dakota Investment Council	11.3	
New York State Teachers' Retirement System	83.6		Municipal Employees' Retirement System of Michigan	9.6	
State Teachers' Retirement System of Ohio	71.7		Missouri State Employees' Retirement System (MOSERS)	8.0	
Alberta Investment Management Corporation	71.3		Employees' Retirement Fund of the City of Dallas	3.2	
State of New Jersey Pension Fund	71.2				
			75th Percentile	$121.6	68%
			Median	**71.2**	**50%**
			25th Percentile	40.1	35%
			Alaska Permanent Fund Corporation	**$55.1**	**20%**

Private Sector Peers

APFC's Private Sector Pay Comparators (AUM < $100B)		12/31/16 AUM ($Bs)		
	# Firms	25th	Median	75th
Investment Management Firms	106	$11.0	$29.2	$53.4
Banks (Investment Management Department)	23	9.3	31.0	45.3
Insurance Companies (Investment Management Departments)	41	18.5	34.7	56.3
Endowments, Foundations, & Corporate Plan Sponsors	89	2.3	5.2	11.9
Total	**259**	**$5.4**	**$18.7**	**$41.7**

Confidential Appendix – Person by Person Detail

	Competitive Market (75% Public / 25% Private)						Quartile Positioning	
	Salary			Total Cash				
Survey Match	25th Percentile	Median	75th Percentile	25th Percentile	Median	75th Percentile	Salary	T. Cash
Management								
CIO	$331	$378	$441	$462	$767	$1,303	2	4
ED without CIO Resp	261	361	447	392	704	1,444	3	4
CLO	200	249	282	238	378	499	3	4
CFO	174	240	290	222	324	614	3	4
	$966	**$1,228**	**$1,460**	**$1,315**	**$2,174**	**$3,860**	3	4
	16%	*-9%*	*-23%*	*-15%*	*-48%*	*-71%*		
Investments								
Hd of Inv Area - Fixed Income	$220	$254	$290	$347	$482	$719	1	4
Sr PM I - Fixed Income	163	193	225	242	345	449	1	3
Hd of Area/Asset Class - Real Estate	198	226	272	307	362	485	2	4
Sr PM I - Fixed Income	163	193	225	242	345	449	1	3
Hd of Area/Team Leader - Priv EQ	205	243	296	254	382	503	2	4
Hd of Area/Team Leader - EQ	169	191	219	263	326	367	1	4
Hd of Area/Team Leader - Priv EQ	205	243	296	254	382	503	3	4
Sr PM I - Real Estate	181	205	221	255	399	505	3	4
Sr Mgr / Sr PM I	152	181	211	198	237	290	2	4
Sr PM II - Fixed Income	116	138	166	163	238	295	1	3
Sr Risk/Inv Strat	111	139	172	148	199	261	2	3
Sr PM II - EQ	133	156	210	194	257	369	3	4
Sr PM II - EQ	133	156	210	194	257	369	3	4
Sr Port Analyst / Port Analyst	75	85	96	82	95	113	1	1
Sr Portfolio Analyst	78	88	117	100	119	140	1	2
Sr Portfolio Analyst	78	88	117	100	119	140	1	2
Sr Portfolio Analyst	78	88	117	100	119	140	1	2
Sr Port Analyst / Port Analyst	75	85	96	82	95	113	1	1
Interm Analyst - Ext Inv	72	81	95	77	92	107	2	3
Interm Analyst - Ext Inv	72	81	95	77	92	107	2	3
	$2,677	**$3,115**	**$3,748**	**$3,679**	**$4,945**	**$6,421**	2	4
	36%	*17%*	*-3%*	*-1%*	*-26%*	*-43%*		

Survey Match	Competitive Market (75% Public / 25% Private)						Quartile Positioning	
	Salary			Total Cash				
	25th Percentile	Median	75th Percentile	25th Percentile	Median	75th Percentile	Salary	T. Cash
Administrative								
Hd of IT	$148	$183	$214	$182	$243	$367	4	4
Hd of Plan Admin/Ops	103	121	145	113	141	184	2	2
Dept/Func Head - Fin & Acct	125	147	173	167	200	265	3	4
Hd of Media/PR	117	154	205	154	188	276	3	4
Team Lead/Supv - Fin & Acct	86	95	103	96	115	126	1	3
Hd of Infrastructure	133	146	175	150	189	324	4	4
Hd of HR	130	182	225	153	212	268	4	4
Sr Tech Exp - IT Dev	97	103	108	100	118	130	4	4
Team Lead/Supv - Fin & Acct	86	95	103	96	115	126	3	4
Supv, Sec Ops	68	77	105	77	88	112	2	3
Hd of General Services	106	122	138	109	142	164	4	4
Interm Inv Perf Analysis & Complian	57	72	82	65	73	84	3	3
Specialist, Sec Ops	58	67	75	63	71	80	3	3
Interm Staff - Fin & Accounting	54	60	67	57	63	71	2	3
Interm Staff - Fin & Accounting	54	60	67	57	63	71	2	3
Sr Admin Asst	47	53	60	50	56	65	1	2
Purchasing Asst	47	59	65	47	62	67	3	3
Admin Asst	39	45	50	42	46	52	1	1
Infra Staff - Network Sys Admin Spec	53	60	68	52	59	67	4	4
Exec Dir's Asst	69	78	89	73	84	105	4	4
	$1,675	**$1,977**	**$2,316**	**$1,903**	**$2,329**	**$3,004**	3	4
	4%	*-12%*	*-25%*	*-8%*	*-25%*	*-42%*		
Total Fund	**$5,318**	**$6,320**	**$7,525**	**$6,897**	**$9,447**	**$13,285**	2	4
	22%	*3%*	*-13%*	*-6%*	*-31%*	*-51%*		

Survey Match	Competitive Market (Public Pension Funds) Salary 25th Percentile	Salary Median	Salary 75th Percentile	Total Cash 25th Percentile	Total Cash Median	Total Cash 75th Percentile	Quartile Positioning Salary	Quartile Positioning T. Cash
Management								
CIO	$323	$364	$399	$375	$671	$1,113	1	3
ED without CIO Resp	215	330	378	215	473	921	3	3
CLO	179	224	253	180	279	387	3	3
CFO	155	221	269	173	244	518	3	3
	$872	**$1,139**	**$1,299**	**$943**	**$1,667**	**$2,939**	3	3
	28%	*-2%*	*-14%*	*19%*	*-33%*	*-62%*		
Investments								
Hd of Inv Area - Fixed Income	$218	$245	$270	$304	$437	$637	1	3
Sr PM I - Fixed Income	151	185	216	209	322	420	1	3
Hd of Area/Asset Class - Real Estate	189	215	267	220	266	380	2	3
Sr PM I - Fixed Income	151	185	216	209	322	420	1	3
Hd of Area/Team Leader - Priv EQ	187	215	266	179	292	410	2	3
Hd of Area/Team Leader - EQ	142	151	167	231	294	299	1	3
Hd of Area/Team Leader - Priv EQ	187	215	266	179	292	410	2	3
Sr PM I - Real Estate	177	207	225	230	394	514	3	4
Sr Mgr / Sr PM I	147	179	209	178	215	252	2	3
Sr PM II - Fixed Income	108	128	155	146	228	274	1	3
Sr Risk/Inv Strat	102	128	161	138	180	233	1	3
Sr PM II - EQ	121	140	197	183	217	292	2	4
Sr PM II - EQ	121	140	197	183	217	292	2	4
Sr Port Analyst / Port Analyst	76	85	92	80	88	100	1	1
Sr Portfolio Analyst	77	85	109	98	109	120	1	1
Sr Portfolio Analyst	77	85	109	98	109	120	1	1
Sr Portfolio Analyst	77	85	109	98	109	120	1	1
Sr Port Analyst / Port Analyst	76	85	92	80	88	100	1	1
Interm Analyst - Ext Inv	75	85	100	81	97	113	2	3
Interm Analyst - Ext Inv	75	85	100	81	97	113	3	3
	$2,533	**$2,924**	**$3,524**	**$3,203**	**$4,371**	**$5,617**	1	3
	44%	*25%*	*4%*	*14%*	*-16%*	*-35%*		

Survey Match	Competitive Market (Public Pension Funds)						Quartile Positioning	
	Salary			Total Cash				
	25th Percentile	Median	75th Percentile	25th Percentile	Median	75th Percentile	Salary	T. Cash
Administrative								
Hd of IT	$130	$160	$186	$135	$170	$289	3	3
Hd of Plan Admin/Ops	86	104	129	84	115	153	1	2
Dept/Func Head - Fin & Acct	111	130	155	154	183	252	3	4
Hd of Media/PR	93	130	191	109	134	217	3	3
Team Lead/Supv - Fin & Acct	82	89	95	92	111	119	1	2
Hd of Infrastructure	105	118	145	105	121	253	3	3
Hd of HR	104	160	208	100	142	192	4	4
Sr Tech Exp - IT Dev	98	103	106	101	120	133	4	4
Team Lead/Supv - Fin & Acct	82	89	95	92	111	119	1	3
Supv, Sec Ops	66	75	107	76	85	108	2	2
Hd of General Services	100	113	126	95	120	136	4	4
Interm Inv Perf Analysis & Complian	56	73	82	65	72	80	3	3
Specialist, Sec Ops	55	64	70	60	66	76	2	3
Interm Staff - Fin & Accounting	51	57	63	55	61	66	2	2
Interm Staff - Fin & Accounting	51	57	63	55	61	66	2	2
Sr Admin Asst	43	48	54	47	52	57	1	1
Purchasing Asst	44	58	62	43	61	66	3	3
Admin Asst	37	43	47	40	43	48	1	1
Infra Staff - Network Sys Admin Spec	49	55	62	48	53	61	3	3
Exec Dir's Asst	64	71	79	66	76	87	4	4
	$1,507	**$1,796**	**$2,126**	**$1,623**	**$1,957**	**$2,579**	3	3
	16%	*-3%*	*-18%*	*8%*	*-11%*	*-32%*		
Total Fund	**$4,912**	**$5,858**	**$6,949**	**$5,769**	**$7,994**	**$11,135**	2	3
	33%	*11%*	*-6%*	*13%*	*-19%*	*-41%*		

	Competitive Market (Private Sector Firms)						Quartile Positioning	
	Salary			Total Cash				
Survey Match	25th Percentile	Median	75th Percentile	25th Percentile	Median	75th Percentile	Salary	T. Cash
Management								
CIO	$356	$420	$567	$725	$1,055	$1,873	3	4
ED without CIO Resp	400	455	654	922	1,399	3,014	4	4
CLO	263	325	371	412	676	833	4	4
CFO	230	296	353	371	565	902	4	4
	$1,248	**$1,496**	**$1,944**	**$2,429**	**$3,694**	**$6,622**	4	4
	-10%	*-25%*	*-42%*	*-54%*	*-70%*	*-83%*		
Investments								
Hd of Inv Area - Fixed Income	$225	$278	$350	$473	$619	$965	2	4
Sr PM I - Fixed Income	200	217	250	341	416	535	1	4
Hd of Area/Asset Class - Real Estate	225	260	290	566	651	800	3	4
Sr PM I - Fixed Income	200	217	250	341	416	535	2	4
Hd of Area/Team Leader - Priv EQ	260	327	386	480	652	781	4	4
Hd of Area/Team Leader - EQ	248	312	375	360	424	573	4	4
Hd of Area/Team Leader - Priv EQ	260	327	386	480	652	781	4	4
Sr PM I - Real Estate	193	200	211	331	415	477	4	4
Sr Mgr / Sr PM I	166	188	219	258	301	405	3	4
Sr PM II - Fixed Income	141	169	199	216	271	358	2	4
Sr Risk/Inv Strat	140	171	205	179	258	345	3	4
Sr PM II - EQ	170	205	250	227	379	600	4	4
Sr PM II - EQ	170	205	250	227	379	600	4	4
Sr Port Analyst / Port Analyst	72	86	110	88	115	150	1	2
Sr Portfolio Analyst	80	100	140	109	151	200	2	3
Sr Portfolio Analyst	80	100	140	109	151	200	2	3
Sr Portfolio Analyst	80	100	140	109	151	200	2	3
Sr Port Analyst / Port Analyst	72	86	110	88	115	150	1	2
Interm Analyst - Ext Inv	63	70	80	63	77	88	1	2
Interm Analyst - Ext Inv	63	70	80	63	77	88	1	2
	$3,108	**$3,688**	**$4,420**	**$5,108**	**$6,668**	**$8,831**	3	4
	17%	*-1%*	*-17%*	*-29%*	*-45%*	*-59%*		

Survey Match	Competitive Market (Private Sector Firms) Salary 25th Percentile	Salary Median	Salary 75th Percentile	Total Cash 25th Percentile	Total Cash Median	Total Cash 75th Percentile	Quartile Positioning Salary	Quartile Positioning T. Cash
Administrative								
Hd of IT	$200	$250	$300	$324	$460	$602	4	4
Hd of Plan Admin/Ops	157	171	192	198	220	278	4	4
Dept/Func Head - Fin & Acct	166	197	227	207	253	303	4	4
Hd of Media/PR	188	225	250	291	348	453	4	4
Team Lead/Supv - Fin & Acct	98	112	126	108	128	148	2	3
Hd of Infrastructure	216	230	265	285	393	538	4	4
Hd of HR	210	248	274	310	422	496	4	4
Sr Tech Exp - IT Dev	96	105	115	99	110	121	3	4
Team Lead/Supv - Fin & Acct	98	112	126	108	128	148	4	4
Supv, Sec Ops	72	84	100	78	97	123	2	3
Hd of General Services	123	150	175	153	208	246	4	4
Interm Inv Perf Analysis & Complian	61	70	82	63	76	96	3	3
Specialist, Sec Ops	68	78	88	73	83	94	4	4
Interm Staff - Fin & Accounting	61	69	78	61	72	84	3	3
Interm Staff - Fin & Accounting	61	69	78	61	72	84	3	3
Sr Admin Asst	59	66	78	61	70	88	3	4
Purchasing Asst	56	62	72	58	66	71	3	4
Admin Asst	46	54	60	46	55	64	2	3
Infra Staff - Network Sys Admin Spec	64	73	83	64	77	88	4	4
Exec Dir's Asst	82	97	119	95	108	158	4	4
	$2,180	**$2,522**	**$2,888**	**$2,742**	**$3,445**	**$4,281**	4	4
	-20%	*-31%*	*-40%*	*-36%*	*-49%*	*-59%*		
Total Fund	**$6,537**	**$7,706**	**$9,252**	**$10,280**	**$13,807**	**$19,734**	4	4
	0%	*-15%*	*-30%*	*-37%*	*-53%*	*-67%*		

Compensation Resolution

<u>ALASKA PERMANENT FUND CORPORATION</u>

RESOLUTION OF THE BOARD OF TRUSTEES RELATING TO APFC STAFF COMPENSATION

RESOLUTION 18-02

All employees of the Alaska Permanent Fund Corporation ("APFC") are valued and essential to fulfilling APFC's mission to deliver sustained compelling investment returns as the United States' leading sovereign endowment manager, benefiting all current and future generations of Alaskans. In fulfillment of this mission it is imperative that APFC is in a position to attract, incent, and retain staff at all levels and in all positions.

The APFC Board of Trustees Charters and Governance Policies, therefore, obligate the Board to establish human resources policies and procedures necessary for the effective management of the Permanent Fund, including a compensation and benefits policy. Because the level and complexity of internal investment management at APFC and the value-added and savings achieved by this internal management has grown significantly in the last five years, the Board feels strongly that fair and competitive compensation for APFC staff needs to evolve and grow to acknowledge and foster this successful result.

NOW THEREFORE BE IT RESOLVED THAT:

1. Compensation for APFC staff should be commensurate with its peer equivalent, which the Board has determined shall be comprised of a weighting that reflects 75% US and Canadian public fund asset managers with internal/direct asset management capability and 25% of the private sector investment organizations with assets under management of less than $100 billion, including endowments, foundations, advisory firms, banks, insurance companies and corporate plan sponsors;

2. APFC staff responsible for the Administration and Operations, including the Director of IT, Administrative Services Director and the Human Resources Manager should be compensated at competitive regional salaries, eligible for annual merit increases, targeted at median total cash compensation in comparison to the APFC peer equivalent;

3. APFC staff responsible for the Investment, including the Chief Investment Officer should be compensated through a base salary plus annual incentive compensation targeted at median total cash compensation in comparison to the APFC peer equivalent;

4. Annual incentive compensation will be measured net-of-fees on a three year basis versus the relative performance benchmark and no incentive compensation will exceed 50% of an individual's base salary;

5. APFC Executive Management, including the Executive Director, Chief Financial Officer, Chief Operating Officer and General Counsel may be subject to incentive compensation at the discretion of the Board;

6. The Board of Trustees will include an incentive compensation request with each annual budget request beginning with its Fiscal Year 2020 request, which will be based on incentive compensation earned for Fiscal Year 2019 performance benchmarks; and

7. Upon the appropriation of funds to award annual incentive compensation and amendment to the APFC Personnel Management Program, the Executive Director will be responsible for determining and distributing individual incentive awards.

PASSED AND APPROVED by the Board of Trustees of the Alaska Permanent Fund Corporation this 24th day of May, 2018.

/s/
Bill Moran
Chairman, Board of Trustees
Alaska Permanent Fund Corporation

ATTEST:

/s/

Angela M. Rodell, Corporate Secretary

Calendar of Upcoming Board Meetings Memo

APFC ALASKA PERMANENT FUND CORPORATION

801 W 10TH SUITE 302 | JUNEAU, AK 99801
907.796.1500 | apfc.org

SUBJECT: Board of Trustees Meetings ACTION: X

DATE: May 24, 2018 INFORMATION:

BACKGROUND:
APFC's Board of Trustees holds quarterly meetings to review and evaluate the investment performance of the portfolio, the asset allocation and investment risk of the Fund, and the compliance program in relation to applicable laws, regulations, and governance policies. Special meetings of the Board of Trustees are scheduled as required.

The 2018 and 2019 Board of Trustees Meeting schedules have been previously approved. Please note that the September 2018 Annual Board Meeting will be held in Anchorage and the December 2018 Quarterly Board Meeting will be held in Juneau. Attached are the calendars for your information, please mark your schedules.

2018 BOARD OF TRUSTEES MEETINGS ARE CURRENTLY SCHEDULED:

MAY 23-24, 2018 Wednesday & Thursday Location: Anchorage	Regular Quarterly Meeting *Memorial Day is Monday, May 28*
SEPTEMBER 6, 2018 Thursday Location: Anchorage	Audit Committee/Budget Planning Session *Labor is Monday, September 3*
SEPTEMBER 26-27, 2018 Wednesday & Thursday Location: Anchorage	Annual Board Meeting
DECEMBER 11-12, 2018 Tuesday & Wednesday Location: Juneau	Regular Quarterly Meeting

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2019 BOARD OF TRUSTEES MEETINGS ARE PROPOSED TO BE SCHEDULED:

FEBRUARY 20-21, 2018 Wednesday & Thursday Location: Junuea	Regular Quarterly Meeting Advisor: TBD
MAY 22-23, 2019 Wednesday & Thursday Location: Juneau	Regular Quarterly Meeting/Audit Committee Advisor: TBD *Memorial Day is Monday, May 27*
SEPTEMBER 5, 2019 Thursday Location: Juneau	Audit Committee/Budget Planning Session Advisor: TBD *Labor Day is Monday, September 2*
SEPTEMBER 25-26, 2019 Wednesday & Thursday Location: Juneau	Annual Board Meeting Advisor: TBD
DECEMBER 3-4, 2019 Tuesday & Wednesday Location: Juneau	Regular Quarterly Meeting Advisor: TBD

RECOMMENDATION:

- Review of 2018 Board of Trustees Meeting Schedule
- Re-approval of 2019 Board of Trustees Meeting Schedule

2018 BOT Meetings

ALASKA PERMANENT FUND CORPORATION

2018 BOARD OF TRUSTEES MEETING SCHEDULE

DATE	LOCATION	TYPE OF MEETING	ADVISOR
February 21-22, 2018 (Wednesday/Thursday)	Juneau	Regular	Walsh
March 15, 2018 (Thursday)	Telephonic	Special	
May 16, 2018 (Wednesday)	Anchorage	Audit Committee	
May 23-24, 2018 (Wednesday/Thursday)	Anchorage	Regular	Mitchell
September 6, 2018* (Thursday)	Anchorage	Audit Committee Budget Work Session	
September 26-27, 2018 (Wednesday/Thursday)	Anchorage	Annual Meeting	Zinn
December 11-12, 2018 (Tuesday/Wednesday)	Juneau	Regular	Mitchell

Committee Meetings and Special or additional APFC board meetings will be scheduled as needed.

*The Audit Committee Meeting in September must be scheduled in advance to coordinate with the release dates for the Audited Statements and the Annual Report as required in statute.

2019 BOT Meetings

APFC ALASKA PERMANENT FUND CORPORATION
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907.796.1500 | apfc.org

2019 BOARD OF TRUSTEES MEETING SCHEDULE

DATE	LOCATION	TYPE OF MEETING	ADVISOR
February 20-21, 2019 (Wednesday/Thursday)	Juneau	Regular	TBD
May 22-23, 2019* (Wednesday/Thursday)	Juneau	Regular Audit Committee	TBD
September 5, 2019* (Thursday)	Juneau	Audit Committee Budget Planning Session	TBD
September 25-26, 2019 (Wednesday/Thursday)	Juneau	Annual Meeting	TBD
December 3-4, 2019 (Tuesday/Wednesday)	Juneau	Regular	TBD

Committee Meetings and Special or additional APFC board meetings will be scheduled as needed.

*The Audit Committee Meeting in September must be scheduled in advance to coordinate with the release date for the Audited Statements and the Annual Report as required in statute.