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Agenda

APFC ALASKA PERMANENT FUND CORPORATION
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ANNUAL MEETING OF THE BOARD OF TRUSTEES
September 27-28, 2017

Alaska Permanent Fund Corporation
Hugh Malone Board Room
801 West 10th Street, Suite 302, Juneau, AK 99801

Teleconference Access
Call-in toll-free number: 1-844-740-1264
Access Code (Meeting Number): 806 786 040

AGENDA

WEDNESDAY, SEPTEMBER 27, 2017

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

ROLL CALL (Action)

APPROVAL OF AGENDA (Action)

APPROVAL OF MINUTES (Action)
- **May 16-17, 2017**

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**

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

9:15 a.m.	**REPORT OF ANNUAL AUDIT (Action)** **Beth Stuart, Office Managing Partner, KPMG** **Valerie Mertz, Chief Financial Officer, APFC**
9:45 a.m.	**RISK AND ASSET ALLOCATION OVERVIEW (Information)** **Valeria Martinez, Director of Risk Management, APFC** **Russell Read, Chief Investment Officer, APFC**
10:30 a.m.	***BREAK***
10:45 a.m.	**PERFORMANCE REVIEW (Information)** **Greg Allan and Steve Center, Callan Associates Inc.**
11:45 a.m.	***BREAK/LUNCH***
12:15 p.m.	**ASSET CLASS UPDATES (Information)** **Fixed Income – Jim Parise** **Public Equities – Fawad Razzaque** **Real Estate – Rose Duran** **Private Equity & Special Growth Opportunities – Steve Moseley** **Infrastructure, Special Income Opportunities & Absolute Return – Marcus Frampton**
2:30 p.m.	***BREAK***
2.45 p.m.	**ASSET ALLOCATION AND CAPITAL MARKET PROJECTIONS** **Valeria Martinez, Director of Risk Management, APFC** **Greg Allan, Callan Associates** **Steve Center, Callan Associates**
3:15 p.m.	**INVESTMENT PERFORMANCE: METRICS AND STANDARDS (Action)** **Russell Read, APFC** **Greg Allan, Callan Associates** **Steve Center, Callan Associates**
4:15 p.m.	**STRATEGIC PLAN, INVESTMENT POLICY, AND REAL ESTATE STRATEGIC PLAN REVIEW AND DISCUSSION (Action)** **Angela Rodell, Chief Executive Officer, APFC** **Russell Read, Chief Investment Officer, APFC**
5:00 p.m.	***EXECUTIVE (CLOSED) SESSION*** **Multifamily Real Estate**
6:00 p.m.	**BOARD RECESS FOR THE DAY**

THURSDAY, SEPTEMBER 28, 2017

8:30 a.m.	**RECONVENE**

8:35 a.m.	**LIQUIDITY MANAGEMENT PLAN: Manager Selection (Action)** **Valeria Martinez, Director of Risk Management, APFC** **Greg Allan and Steve Center, Callan Associates Inc.**
9:05 a.m.	**STRATEGIC CONSIDERATIONS: THREATS AND OPPORTUNITIES IN VENTURE CAPITAL (Information)** **Moderator: Steve Moseley** **Robert Nelsen, Co-founder, Arch Venture Partners** **Arif Janmohamed, Partner, Lightspeed Venture Partners** **Ryan Watts, President and CEO, Denali Therapeutics**
10:30 a.m.	***BREAK***
10:45 a.m.	**POLICIES & PROCEDURES (Action)** **TRAVEL POLICY (Action)** **BOARD SEAT POLICY (Information)** **Angela Rodell, Chief Executive Officer, APFC**
11:45 a.m.	***EXECUTIVE (CLOSED) SESSION*** **Disaster Recovery**
12:30 p.m.	***BREAK/LUNCH***
1:00 p.m.	**FY19 BUDGET APPROVAL (Action)** **Laura Achee, Director of Operations, APFC**
2:00 p.m.	**LEGISLATIVE REQUESTS (Action)** **Angela Rodell, Chief Executive Officer, APFC**
2:30 p.m.	**ELECTION OF CORPORATE OFFICERS (Action)** **Chair and Vice Chair, APFC Board of Trustees**
2:45 p.m.	**OTHER MATTERS** **2018-2019 Calendar of Board Meetings (Action)** **Angela Rodell, Chief Executive Officer, APFC**
3:00 p.m.	**INVESTMENT ADVISOR COMMENTS (Information)** **Jerrold Mitchell**
3:15 p.m.	**TRUSTEE COMMENTS** **FUTURE AGENDA ITEMS**
3:30 p.m.	**ADJOURNMENT**

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

Approval of Minutes Memo

SUBJECT: Board of Trustees Meeting Minutes ACTION: _____X___

DATE: September 27, 2017 INFORMATION: ___________

BACKGROUND:

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

- May 16-17, 2017 Quarterly Board of Trustees Meeting

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

a) May 16-17, 2017 Quarterly BOT Meeting

ALASKA PERMANENT FUND CORPORATION

BOARD OF TRUSTEES MEETING

May 16-17, 2017

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

SUMMARY MINUTES

Trustees Present:	William G. Moran, Chair Carl Brady, Vice Chair Larry Cash Sheldon Fisher Randall Hoffbeck Marty Rutherford
Investment Advisor:	Timothy Walsh

Staff Present:

Angela Rodell, CEO	Russell Read, CIO	Valerie Mertz
Chris Poag	Paulyn Swanson	Valeria Martinez
Marcus Frampton	Steve Moseley	Fawad Razzaque
Laura Achee	Jim Parise	Chad Brown
Jacob Vandervest	Moctar Diouf	Chris Cummins
Christi Grussendorf	Karen Emberton	Tim Andreyka
Scott Balovich	John Seagren	Masha Skuratovskaya
Janice Hotch	Yup Kim	Robin Mason
Travis Brown	Katherine Smith	Youlian Ninkov
Jacki Mallinger	Jared Brimberry	Tim Davis
Tom O'Day	Shannon McCain	Joe Shinn
Paul Nakachi		

Invited Participants and Others Present:

Gregory Allen, Callan Associates
Steven Center, Callan Associates
Donald Percival, Davis Wright Tremaine
Anthony Caso, Davis Wright Tremaine
Zia Uddin, Monroe Capital
R. Sean Duff, Monroe Capital
David Rosenburg, Oaktree Capital Management

PROCEEDINGS

CALL TO ORDER

CHAIR MORAN called the meeting to order.

ROLL CALL

CHAIR MORAN, VICE CHAIR BRADY, TRUSTEES CASH, RUTHERFORD, and FISHER were present to form a quorum.

APPROVAL OF AGENDA

There were no objections raised to the meeting agenda, as presented.

APPROVAL OF MINUTES (February 22-23, 2017)

There being no objections raised, the minutes from February 22-23, 2017, were approved, as presented.

SCHEDULED APPEARANCES AND PUBLIC PARTICIPATION

There were no scheduled appearances or public participation.

CHIEF EXECUTIVE OFFICER'S REPORTS

CEO RODELL introduced Robin Mason, the new chief technology officer and asked her to introduce the team that she put together.

MS. MASON introduced Anthony Shaw, who holds a math and physics degree; Scott Balovich, senior IT specialist; Nellie Metcalfe, help desk. She stated that she is excited with the brand-new staff.

CEO RODELL also introduced Paul Nakachi, accounting intern, and stated that Moctar Diouf was promoted to public equities analyst. She talked about the excitement of the team changing and growing. She went through the pending board matters and added liquidity management to the list, along with the travel resolution. She stated that it will be a review of all of the outstanding resolutions. She added the plan to review the strategic plan after one year at the September meeting. She pointed out the communications report, and stated that it was time to do a refresh of the logo. She moved to the cash transfers report, showing how much money flowed in and out of the Fund over the last quarter.

CHIEF INVESTMENT OFFICER'S REPORT

CIO READ reported that the investment performance of the Alaska Permanent Fund has been strong and on pace toward contributing toward the long-term CPI plus 5 percent or better investment return objective on one-year, three-year, and five-year bases. He stated that fiscal year 2017 has witnessed the resurgence of strengths in global stocks, particularly since the November 2016 election in the U.S. He moved to three topics in his overview: First is the capacity of the Permanent Fund to partly meet the operating budget needs for the State of Alaska in the years to come; second is the long-term investment outlook for the Permanent Fund and its asset classes; and third, the topics the board can expect to cover over the coming two days. He stated that the APFC has never been in a stronger position to provide much needed endowment payments to the State for operating budget purposes. The Permanent Fund is nicely positioned to meet future percent-of-market-value-related distributions for many years to come. He continued to the long-term investment outlook for the Permanent Fund, noting that its asset classes are on track towards achieving the Fund's long-term investment objective, CPI plus 5 percent or better. Achieving this objective is a requirement for satisfying the critical and practical potential future for POMV distributions. APFC has been successful in leveraging its credibility as America's premier sovereign wealth investor to gain access to some of the most highly competitive investment opportunities and partnerships internationally. Regarding the highlights, the plans to deliver compelling returns in each of APFC's target asset classes, while controlling risks and increasing the overall investment efficiency and effectiveness of the Permanent Fund, will be discussed. He stated that the board will be evaluating three finalists for its general consultant role for the coming five years; reviewing and approving a new currency overlay investment program; and approving a pacing program for new investments in its private equity, infrastructure, private credit, and special opportunities programs for the coming year.

VICE CHAIR BRADY stated that there was a reference to being prepared and ready for the legislation that is going to impact the Fund as far as liquidity. He asked for comment on that.

CIO READ replied that the Fund is positioned to meet the liquidity requirements that are either in the House or the Senate bills. He stated that he does not anticipate the asset allocation being disrupted. He added that at the September workshop and board meeting a hard look at the asset allocation trajectories, particularly for the private markets, will be looked at.

CALLAN ASSOCIATES APFC PERFORMANCE REVIEW

MR. CENTER began with the capital markets overview and stated that the first quarter of 2017 was another period of strong equity returns. The U.S. equities base returned right; large cap equities were positive 6 percent for the quarter. There was a snapback in non-U.S. equities with MSCI ACWI, ex-U.S., which represents non-U.S., both developed and emerging markets, was up 8 percent. He continued that small caps pulled back a bit but are still positive at 2.5 percent. The U.S. equities space for the quarter did trail non-U.S., which was primarily driven by the weakness of the U.S. dollar. He stated that currency performance over time for the developed market currencies showed a downward trend which ticked up slightly during the first quarter of 2017. He noted that, overall, there was continued investor demand for both credit and secured space with overall positive returns for fixed income. Global yields continued to improve relative to the U.S. There was also some improvement on both the developed and emerging bond space. The NCREIF property index has advanced 1.6 for the quarter; its lowest quarterly return since 2010. Appreciation as a percentage of the benchmarks return fell for the eighth consecutive quarter. He stated that the real estate benchmark continues to create a positive return each quarter, but has become a smaller return as the trends have slowed down. He continued to hedge funds which had a very positive return period. The best performing strategy was the long/short equity space. In private equity, the first quarter launched 310 new private-equity funds with a goal raised of approximately $80 billion. This is a substantial uptick in the private-equity space versus what has been seen. There has been a significant amount of institutional interest in the private equity, which brings concerns about a potential bubble.

MR. ALLEN moved to total fund asset allocation and answered some questions about liquidity, the earnings reserve, and the need to be able to fund appropriations. In looking at the asset allocation, the 41 percent in equity and 19 percent in fixed income can be thought of as the liquidity buckets. He continued that the rest would be difficult to impossible to liquidate to fund a transfer. There is 60 percent liquidity and about 20 percent in the earnings reserve, with enough room to fund the needs.

MR. CENTER stated that the fund is well diversified across asset classes, both on a liquidity and illiquid bases. He continued that, over the last fiscal year, the fund returned just below 9 percent, well ahead of all three benchmarks. He added that the goal is to determine overall performance, how it is driven, whether it is by performance at the manager level or by asset allocation deviations from the target. Over this last quarter it is driven by a blend of strong manager-level performance and a little by asset allocation.

(Trustee Hoffbeck joined the meeting.)

MR. CENTER stated that the longer the performance with these asset class definitions are tracked, the more information will be done on an attribution basis. He continued explaining the new risk charts that focus on total fund return versus standard deviation. He then moved to asset classes, structure and performance. The public equity portfolio was allocated approximately 48 percent to U.S. and 52 percent to non-U.S. This is discussed every quarter because it is slightly different than both the benchmark and most public fund peers. The total performance for the equity portfolio compared favorably versus the benchmark.

MR. ALLEN stated that the U.S. equity portfolio has had a slight growth bias that has been in place for a while, and was a benefit to performance during the quarter. It also has a slight small capitalization bias relative to the index.

MR. CENTER stated that the overall asset allocation for the non-U.S. equity portfolio is divided between developed strategies, dedicated emerging market strategies, and global equity strategies. The global equity strategies do invest within the U.S., and the global and developed strategies will invest in emerging markets to a degree. The Permanent Fund's international equity portfolio has been slightly underweight; the Pacific region has been overweight to emerging markets. Despite that, the Pacific region was the stronger performing developed market space during the last quarter.

MR. ALLEN commented that because there are allocations to high dividend-paying equities in the bond portfolio, these peer comparisons are a very different structure from the typical public plan, which is all straight-up fixed income. He stated that in strong equity markets this portfolio is expected to do well relative to peers. He added that in weak equity markets it is expected to rank poorly relative to peers. That does not mean that it is poorly or well managed.

MR. CENTER stated that REIT performance was strong during the quarter with a substantial pop over the last year. He continued to the alternatives and began with the real estate portfolio, which does not include the performance of the REIT investments. Those were moved to other areas of the portfolio. The real estate portfolio has performed in line with its target over the long term, and has been very well structured at the Permanent Fund. He continued his presentation looking at the absolute return portfolio, which has been in line with the custom benchmark for the one quarter and ahead over trailing year. He stated that the multi-asset class portfolio has been an overall benefit to the Fund over time, and three remain within this program.

CHAIR MORAN called a break.

(Break.)

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

RISK MEASUREMENT, MANAGEMENT AND EFFICIENCY

MS. MARTINEZ began with broad asset classes and asset allocation. The first category is the objective of the strategy, and about 60 percent of the portfolio is in growth strategies. The other 40 percent of assets are in the income strategies. She stated that the two categories are divided into liquid strategies, or tradeable, and illiquid strategies. She moved to the two concepts when discussing risk: one is volatility, and the other is value at risk. In general, the Fund is expected to follow a normal range of returns around its historical mean. The Fund may experience an abnormal event creating spikes in volatility, and volatility (standard deviation) does not quantify the unexpected risks. The other problem with volatility, in general, is that it is difficult to calculate for asset classes that are not public. She added that it is a good measure and is used for public assets and for the Fund. She stated that value at risk introduces more of the maximum loss and is a downside estimate of how much the Fund could lose. It also helps to distinguish between different portfolios. She continued that a combination of measures to identify different risks in the portfolios are used. She noted that risk is not one-dimensional, and that we want to look at different things, including how much is invested capital versus committed capital. That would influence what the cash needs would be. She noted tracing error, also called active risk. This risk is measured by the portfolio managers due to active management decisions. It indicates how closely a portfolio follows the benchmark that was given to that portfolio manager. She stated that risk measurement depends on risk being measured, and we have the choice to take risk in public assets or private assets. She moved to the illiquid assets and why it is measured. There are some mature portfolios, a mature private equity portfolio and a real estate portfolio, and are all good, and we want to keep investing in them. She continued that they come with some particularities that need to be considered, especially when we are required to have liquidity for things that are outside the control of the staff.

CIO READ stated that, over the long term, a Sharpe ratio of 0.5 or 50 percent is considered excellent. Our ability to achieve a Sharpe ratio has been much higher, and yet prevailing volatility has been much lower. He continued that the drop-in-market volatility has raised an interesting issue because it has been so dramatic. The market volatility index dropped to its lowest level in 24 years, which raises an interesting structural issue. He added that if the low-volatility environment continues, a reassessment for risk undertaken needs to be done. The actual prevailing measurement of risk in the portfolio is low.

CHAIR MORAN called a lunch break.

(Lunch break.)

CHAIR MORAN recognized Jim Parise.

ASSET CLASS UPDATES

FIXED INCOME

MR. PARISE reported that the quarter was very good with all the portfolios either matching or beating their indices. The internal corporate bond portfolio, a $3 billion portfolio, continues to have very good performance. The TIPS portfolio has done well in all time periods and is particularly impressive because there are around 29 to 31 securities to choose from. This is particularly hard to do, picking the best of the 29 and across the curve. He added that Ms. Skuratovskaya does this impressively. The global rates portfolio overall risk reflects a combination of views rather than an overriding global rates outlook. He stated that the fixed-income-plus allocation is the new benchmark that includes REITs and listed infrastructure. He continued that State Street Goal Assets was hired to do passive portfolios in both REITs and listed infrastructure.

INFRASTRUCTURE, PRIVATE CREDIT, AND INCOME OPPORTUNITIES.

MR. FRAMPTON stated that the private income portfolio is about 5 percent of the portfolio slated to grow to 9 percent by 2021. He recapped performance, infrastructure, private credit, and income special opportunities which are six-month returns on the fiscal year-to-date against nine-month benchmarks. He added that there was outperformance in all three areas. On the absolute return side, the numbers there against the CPI plus 500 basis points return objective, and on the long-term basis, has been more encouraging in the last year. He continued with hedge funds and reiterated the new strategy, which is to focus entirely on direct hedge fund holdings as opposed to fund-of-funds. We are going to focus on the legacy-directed hedge fund investments with more of a seeding emphasis. He stated that the returns this year have been better than in the past, and the new direct program is advancing as well as expected.

MR. BRIMBERRY introduced private credit and income opportunities. He pointed out a name change in the fifth row: Formerly known as CCOPS, it is now the AK Credit Opportunities Fund. That represents the change in strategy from having a fund-of-fund manager for most of the private credit exposure to doing that internally. It improved performance over time doing the in-house versus paying someone to do it. He stated that in the income special opportunities portfolio there is still one commitment with American Homes 4 Rent; and we continue to get quarterly distributions from that. He added that there is a $25 million commitment to a commercial-stage healthcare lending opportunity. Once the capital is drawn and invested in that fund, the performance will be shown. In terms of the market update, there has been a significant growth in interest in private credit, and he noted that as something to be concerned about.

MR. FRAMPTON stated that the last area to cover is infrastructure. The key metric for that is the last 12 months' capital calls versus distributions, with a little less than 2 to 1 in favor of capital calls. He continued, that it is consistent with the plan to build this private income exposure from 5 percent to 9 percent over a four- or five-year period. He added that the underlying infrastructure portfolio contains about 60 assets, and there has been one realized loss out of those 60 where something did not go as anticipated. This has been a solid area of the portfolio over the last few years.

PUBLIC EQUITY

MR. RAZZAQUE stated that there was strong absolute returns across the mandates, and relative performance, noting that international equities outperformed the domestic equities. The quarter outperformed by almost 50 basis points, and 35 basis points of the 49 came from fund manager selection and their performance. 14 basis points came through the asset allocation. He noted that throughout the quarter the majority of the fund managers outperformed quarter after quarter. Active managers, 70 percent of them, outperformed quasi-passive managers. He added that it is a very good year in the market. In the sectors, MSCI All Country IMI, tech, health care, and consumer discretionary outperformed, traditional growth sectors outperformed; whereas energy, financials, and real estate underperformed. It was a growth quarter with a defensive tone, as well. He stated that, in regards to currency, it was a weak dollar market. The dollar underperformed the rest of the currencies. The internal in-house tactical tilt account outperformed by 45 basis points. The fund managers are studying hard to pick the best stocks within their respective mandates. He continued to the performance of the fund managers over the last five years; 75 percent managed to outperform their benchmark over this five-year period. He stated that fund managers continue to execute as expected. The asset allocation has been relative to performance. Internal equity management is still in its infancy. That is an area to strengthen and enhance the capabilities during the next fiscal year and onward. He noted that the major risk to positioning is U.S./China relations. It is difficult to predict how that overall relationship and trade relation will evolve. He added that corporate earnings have sustained equity markets and the valuation.

REAL ESTATE

MS. DURAN stated that, at the end of March, the total investment value was $5.7 billion. This is 9.8 percent of the total fund, and under the 11 percent allocation. She continued that the returns are net of fee. She pointed out that LaSalle on the domestic account was terminated on February 28th, and those assets were transferred to Sentinel. She added that the LaSalle U.K. team on the U.K. assets were maintained, and we plan to keep them going forward. The transaction volume versus valuation cap shows that the broader market research, which shows investment sales in real estate, has been declining for the last few quarters. She focused on the retail because that is a good weighting of the portfolio and there are some issues on occupancy. There has been a structural shift in consumer behavior in shopping habits. E-commerce has had an impact on that. Distressed retailers are being weeded out. There is also a lot of retail negative press hitting the stock prices of the different retail REITs. She added that some retailers are doing great. TJX is planning on opening several stores. They own the TJ Maxx brand, the Marshalls brand, and Home Goods brand. These brands are expanding in the marketplace. She continued that Zara is known to deliver from concept to stores in 25 days, which is unheard of. Their inventory keeps pace with quick-changing trends and a fast-fashion format. She added that it is planning on opening some 500 stores in the next year. She asked Mr. Andreyka to summarize some of the projects in the noncore tilt to the portfolio.

MR. ANDREYKA stated that first is Sandlake West, the development in Orlando. It is a 95-acre, eight-building project that still has three phases to build. A lease has been signed to do a build-to-suit for approximately 90,000 square feet. It should be built by February 2018. He continued with negotiating terms with the senior housing developer at the City Center North site in Houston. This is part of a mixed-use development and, currently, there is retail on the first floor. Sentinel is meeting with them to finalize some of the terms and to finish up their underwriting. That is expected to be recommended soon. There is also an interest for a build-to-suit office building on the same site which would be the headquarters of a Fortune 500 company that is already located in Houston. Next is the Gateway project, a White Plains transit station next to our office building. The benefit of this site is that it is an express ride to Grand Central Station. The potential is to build residential there with retail on the first floor, and they are going through the zoning and planning stages. He moved on to Tyson's, an ongoing development project with two million square feet of vested rights to develop. There is also another site there, Watson Street, containing Pearle Vision and Crate & Barrel. That would be on top of the two million square feet. Then, Wabash has 780,000 square feet with existing rights that are developable. He added that Callan is doing a manager search for the private real estate debt, and we expect to have a final list June 5th.

PRIVATE EQUITY AND GROWTH OPPORTUNITIES

MR. MOSELEY stated that the portfolio continues to generate strong risk-adjusted returns contributing uncorrelated alpha to the overall portfolio. The summary slide captured performance and is starting to address attribution and some other factors. He noted that the 4.2 percent return for special opportunities was impacted by nearly a half-billion-dollar loss in the public position in Juno Pharmaceuticals. He stated that the most important thing is that apparent volatility, which could have been a lot worse. It sold a third of the position and locked in a $300 million gain. He continued that a lot was done to manage down the largest positions and offset a lot of the risks that exist in the portfolio with complementary assets. He added that, from a risk management perspective, that is good. He stated that the Permanent Fund is outperforming the median private equity manager over each one of the periods, and it is the longer times that matter most because it is holding for a long time.

EXECUTIVE SESSION

CEO RODELL stated that the contract with Callan expires on June 30, 2017, and a request for proposals was issued. A proposal evaluation team comprised of Commissioner Hoffbeck, Trustee Cash, Russell Read, Valeria Martinez, and Valerie Mertz reviewed the written proposals. Three finalists were selected to make presentations today. She explained that each firm has 30 minutes; 20 minutes for a presentation and 10 minutes for questions from the board. She asked for a motion to go into executive session.

> MOTION: Pursuant to Alaska's Open Meetings Act, VICE CHAIR BRADY made a motion that the board of trustees convene in executive session for the following two processes: One, to hear presentations by three potential general consultants to the board, which is appropriate for executive session because the subject matter they have been asked to present could have an adverse effect on the finances of the Permanent Fund; two, following the presentations, the board will deliberate about which of the presenters

would be the best consultant to advise the board on investment matters for the next three to five years. Because such deliberations could prejudice the reputation of the presenters, such deliberations should take place in executive session. TRUSTEE RUTHERFORD seconded.

Following the roll call vote, the MOTION WAS APPROVED by the Trustees in attendance (BRADY, CASH, FISHER, HOFFBECK, RUTHERFORD, MORAN).

(Executive Session from 2:37 p.m. until 5:28 p.m.)

CHAIR MORAN moved back into regular session. He announced that while in executive session the board considered only the matters mentioned in the motion and took no action.

CURRENCY MANAGEMENT: VALUE-ADDED HEDGING PROGRAM

MS. MARTINEZ stated that almost a year ago a proposal in the strategic plan was the implementation of a currency hedging program that explored what would be good for the Fund because of known dollar exposure. There is about 30 percent foreign currency, and we want to make sure that is managed. She added that most of it is unmanaged, and most of the exposure comes from the public equity portfolio.

MR. ALLEN stated that currency risk is an important part of the volatility of the fund. He continued that it is generally unmanaged and there are organizations out there that will professionally manage just the currency component of the portfolio. He added that currency managers are very flexible, and part of this is designing the program. A well-designed currency program attempts to adapt to the different risk regimes, adjusting the hedge ratio over time. It will also reduce the hedge ratio during periods of weak dollar. He moved to the proposed currency hedge program which is designed to actively manage a portion of the fund's currency exposure. It will be a deliberated and methodical implement. It will start small and build up over time. He stated that the program is primarily focused initially on risk mitigation, both at the overall portfolio level and the cash flow level. He continued that the target portfolio will be the MSCI EAFE index which represents a good starting point for a new program.

MS. MARTINEZ stated that this is recommended by staff.

MOTION: VICE CHAIR BRADY made a motion that the board approve the staff recommendation, and upon the recommendation of the general consultant, to appoint Adrian Lee & Partners as Alaska Permanent Fund's currency overlay manager and currency consultant at the scale prescribed in the staff recommendation. TRUSTEE HOFFBECK seconded.

Following the roll call vote, the MOTION WAS APPROVED by the Trustees in attendance (BRADY, RUTHERFORD, FISHER, HOFFBECK, CASH, MORAN).

CEO RODELL stated that the final item for the day is also in executive session.

MOTION: VICE CHAIR BRADY made a motion, pursuant to Alaska's Open Meetings Act, that the board of trustees convene an executive session for the following purpose: To receive an update and legal advice on an existing multi-family real estate investment, which is appropriate for executive session because the immediate knowledge of this information could have an adverse effect upon the value of this investment and, in turn, the Permanent Fund. Seconded by TRUSTEE RUTHERFORD.

Following the roll call vote, the MOTION WAS APPROVED by the Trustees in attendance (FISHER, CASH, RUTHERFORD, HOFFBECK, BRADY, MORAN).

(Executive Session from 6:02 p.m. until 6:39 p.m.)

CHAIR MORAN called the meeting back to order and stated that, while in executive session, the board considered only the matters mentioned in the motion and took no action. He adjourned for the day.

(Alaska Permanent Fund Corporation board meeting recessed at 6:40 p.m.)

MAY 17, 2017

CHAIR MORAN called the meeting to order, and moved to management best practices.

LIQUIDITY MANAGEMENT: BEST PRACTICES AND RECOMMENDATIONS

MS. MARTINEZ stated that a short presentation of liquidity best practice was put together, and she asked Mr. Center to begin.

MR. CENTER stated that given the long-term nature of most institutional investors, most were relatively unconcerned with overall liquidity prior to the events of the global financial crisis of 2007-2008. Many pension plans and endowments and foundations were faced with liquidity needs during a period when it was extremely difficult to sell illiquid assets. He added that even liquid assets that dipped in value ended up being the only ones that could be sold. As a result, many institutional investors have explored ways to better manage and monitor total fund liquidity after the GFC. He continued that in looking at liquidity more information is better. It is a lot easier to plan for liquidity needs when the actual outflow is known. He stated that current proposals being considered by the Legislature smooth out any potential draw by using a lookback mechanism that takes an average across multiple fiscal years, ignoring the most recent year. Any draw amount should be known well in advance. The second practice is the concept of monitoring the asset allocations through a liquidity lens and not just through an asset allocation lens. He explained with the example of a case study and how it worked. The third best practice is the concept of monitoring cash needs within the Fund, not just cashflow needs to exit the Fund. The fourth best practice is a liquidity buffer with synthetic overlay. This exposure is very low cost and highly liquid. The futures portfolio greatly reduces the performance drag caused by a liquidity reserve. He continued that the fifth best practice is to explore a line of credit which would provide flexibility and allow the fund to meet short-term liquidity needs. This would be a line of credit secured with a basket of assets that the Permanent Fund owns; like using a real estate asset for leverage.

MS. MARTINEZ moved to liquidity management and stated that the Fund investments in private markets or less liquid investments represent about 30 percent of the assets. That includes private real estate, private equity, private credit, and private infrastructure. She stated that staff is trying to make suggestions on how to manage liquidity so there is still the advantage of private opportunities to consider that will increase returns for the Fund. She continued that the other thing to consider is the potential new funding obligations near the future for APFC that are not related to investments. She explained the practices: the first one was for liquidity needs, more information is better, and stated that certain decisions are not under APFC's control when it comes to liquidity requirements. Staff makes every effort to understand what the liquidity of the investments are. Distributions, especially for the mature investments, are also monitored. The second practice is to monitor asset allocation through a liquidity lens. She stated that APFC organizes asset allocation from different lenses based on liquidity and uses a securities liquidity profile to monitor it. In terms of the best practice, the third one is to closely monitor internal cash needs. These are tracked and shown every quarter. She moved to the liquidity buffer with synthetic overlay and stated that the Fund has a strategic allocation to cash and short-term liquid securities. She added that staff is exploring opening a liquidity account that exposes the liquidity portfolio to the equity and fixed-income market using derivatives. The fifth current practice is to explore a line of credit. She stated that the board approved staff to facilitate a line of credit at a previous meeting. She noted that this arrangement with a financial institution would provide flexibility to meet short-term liquidity needs at low interest rates. She added that certain statutory constraints make utilizing this credit facility complicated to structure.

INVESTMENT AND ALLOCATION STRATEGY LEGISLATIVE UPDATE

CEO RODELL began with Senate Bill 26, which is a Permanent Fund bill currently residing in a conference committee. She summarized and compared both the House and Senate versions of the bill. She stated that one initiative not in the packet is House Joint Resolution 23, which is a constitutional amendment that would create a POMV of 5 percent based on annual market value. It is not a rolling average market value. The draw amount would be limited by the net income under Generally Accepted Accounting Principles. It also enshrines a dividend in that constitutional amendment resolution. The second bill, House Bill 57 is the operating budget. There are currently no differences in the operating budgets between the Senate and the House, and all the operating budgets are in conference committee. There is nothing in dispute, and currently, there is no operating budget for fiscal year '18. She continued that normally the board would adopt whatever the Legislature had passed and was sending to the Governor for approval, because the bill lasts two years. What the board has done in the past was pass a motion authorizing staff to make any necessary adjustments based on what ultimately comes out of conference committee.

> MOTION: TRUSTEE FISHER made a motion to authorize staff to make any adjustments to the fiscal year '18 budget as a result of legislative and executive actions taken at the conclusion of the session. TRUSTEE HOFFBECK seconded.
>
> Following the roll call vote, the MOTION WAS APPROVED by the Trustees in attendance (CASH, RUTHERFORD, HOFFBECK, FISHER, BRADY, MORAN).

TRUSTEE FISHER asked for an update on the order management system.

MS. ACHEE replied that staff has been working through the Chair on the implementation since late January. She stated that there are several folks on site from Black Rock and from Cutter, the consultants on that project, and we are on track to go live on June 26th. She continued that the contract with Charles River expires on July 31st and, at this time, there is no need to overrun. She added that it was a huge amount of work to make this happen, and there will not only be a new trade order management system that will suit the needs and improve efficiencies, but some of the processes are being realigned on how things are done.

CIO READ highlighted four items as information in anticipation of potential legislation coming through and what the implications would be for the asset allocation work, particularly going into the September meetings. The first is the potential for a differentiated asset allocation between the fund's principal or corpus and the earnings reserve. This is to maintain the orderliness of the program for private-market investments and infrastructure, real estate, private equity. The second is increasing the liquidity profile as needed for work related to the earnings reserve. Third is having a concept of normalized asset allocation ranges. He continued that fourth, to the extent that there is legislation passed that specifies POMV future obligations, would be to give a regularized probability analysis that the earnings reserve will be able to meet. This gives a longer-term view for the Permanent Fund to fulfill its role as an endowment if it is called on by the Legislature.

ANNUAL INVESTMENT PACING FOR PRIVATE EQUITY, INFRASTRUCTURE, AND REAL ESTATE

CIO READ introduced Marcus Frampton and Steve Moseley. He stated that Mr. Frampton will start with pacing for private credit, special income opportunities and infrastructure.

MR. FRAMPTON stated that this is an action item where every May, per the investment policy, we come to the board to explain the plans for the next fiscal year and to get an allocation request for private-market pacing. He noted that in a period where there is an equity market drawdown, that is the period to be active on the private market side. He explained that most of what we have are private-equity-style funds where managers are purchasing assets on behalf of the fund, have a range of making investments, and then dispose assets. He stated that with the current pace and commitment program, the portfolio is on track to achieve and maintain a 14% long-term target by 2021.

CEO RODELL stated that this is not an action item because it is covered under the investment policy, for information purposes only. She continued that in the past action was taken, but not today.

CHAIR MORAN asked that when asset allocation is talked about at the next meeting, if this will be incorporated in the whole picture.

CIO READ replied yes.

CEO RODELL added that this is to get to the target 2021 asset allocation of 9 percent. She appreciates Mr. Frampton for the work on the sensitivity analysis and the understanding of how that can end up with an overallocation or an underallocation depending on the fund values and what happens on the total portfolio.

CIO READ stated that Steve Moseley will discuss special situations and private equity.

MR. MOSELEY stated that the recommendation is a continuation of the pace of the last fiscal year. The expectation is doing the same sort of pace next year in both special opportunities and private equity. The proposal is a deployment pace of $1.35 billion, which is almost exactly what was done this fiscal year pro forma for a couple of deals that are closing before the end of the month.

MR. BROWN stated that he also assumed a $4.5 billion one-time draw at the end of the fiscal year, and 2 percent nominal growth investments under management going forward net of any distribution and appropriations. This forecasting is based on the duration of the underlying investments, the rate of contribution, specifically as it relates to funds and the expected returns. He continued that the marginal return at the end of some of the funds is much less interesting than the alternative new investments being made.

TRUSTEE RUTHERFORD asked about exit strategies.

MR. MOSELEY replied that there is an exit strategy going into every single investment and an approximate timeline to that plan; and there is probably room to tighten that approach.

CIO READ added that is a skill that has gotten better. This last year was very good and was different than the past. Adding American Homes 4 Rent, JUNO and the secondary sale added up to almost $2 billion.

CHAIR MORAN called a break.

(Break.)

CHAIR MORAN called the meeting back to order.

PUBLIC VERSUS PRIVATE CREDIT INVESTMENT

MR. PARISE stated that the panel will focus on credit. There are credit investments in both the public and private sectors. In the public sectors, it ranges from internally managed investment grade corporate bond portfolio to the high-yield mandate. In the private markets, there are mezzanine debt and direct lending. He continued that two of APFC's credit managers, Oak Tree and Monroe Capital, will discuss public and private credit markets, how they operate and the difference between the two. He introduced Zia Uddin, managing director, partner, and portfolio manager of Monroe Capital's private credit investment vehicles, which is about $2-plus billion. He is responsible for all aspects of the investment process at Monroe. He then introduced Sean Duff, a managing director, marketing, and investor relations for Monroe. He is responsible for all aspects of marketing and investor relations. From Oak Tree, he introduced David Rosenberg who serves as the co-portfolio manager of Oak Tree's U.S. high-yield bond and global-high-yield bond strategies.

MR. DUFF states that there are three benefits to being in this space: The high current income; the lower downside risk; and the absolute returns. High current income returns are predominantly based on current income, have an ameliorated J-curve effect, and are several hundred basis points above alternative and traditional asset classes. Lower downside risk are senior loans at the top of the capital structure with a senior lien on assets and a pledge of company stock; lack of capital from previous sources and lower default rated and higher recovery rates in lower-middle market senior-secured loans. He continued that absolute returns are not dependent on anything else that is going on in the world, and they have historically performed well throughout various economic environments. They are structured as floating rate over LIBOR, with a floor, to protect and provide a hedge against rising interest.

MR. UDDIN stated that distributions are made every quarter. It is a private-equity-type structure where it is a locked-up fund with current income so that the LPs get income every quarter.

MR. ROSENBURG began with a brief overview of Oak Tree which started as a high-yield group, then spun out of TCW 22 years ago. He stated that credit has been done for a long time and thinks that is where value is added. There is a different strategy at Oak Tree for high-yield by buying distressed, discounted bonds, which is a success pattern -- a different skill set and unique way of looking at the world. He continued that there is a very robust process of vetting every credit from the beginning. There is an eight-factor model they go through on every credit before it is bought. High yield is about consistency, and trying to be in the upper tier to be the best over the long term. He added that the companies have a special niche, ones that are not thought about normally.

CHAIR MORAN asked if they are overseas.

MR. ROSENBURG replied that for high yield it would be a mixture.

MR. UDDIN stated that mall traffic is down significantly, about 30 to 40 percent.

MR. ROSENBURG continued that retail is a challenge. He stated that debt investing, in general, which is probably true of both private and public markets, is that buying debt is a second chance of life. It is bought because it is a promising investment. He added that if it changed or it is wrong, there is an option to take the debt, convert it into equity, wipe out the old equity and still own the business. This gives a second chance to get the money back.

MR. UDDIN stated in their space they are the agent of the transaction, and when there is a downturn the key is to control destiny. He explained that they are 100 percent the agent and, typically, the only lender in that facility. To control destiny, the stock is needed as collateral, must be able to execute the pledge, have folks that have turnaround experience. All that must be done is reduce the rate, lower the standards, and then a lot of capital can be deployed into the market.

MR. DUFF stated that the key in their process is that they only have zero-notice rights. That means they go in without giving them any time to decide what they need to do. The goal is to get there before bankruptcy is declared. That is a huge benefit.

MR. ROSENBURG stated that his group tends to lead; First, the job is to avoid these situations, and we are good at that. The benefit of being one of the largest holders, they can get a small group of large holders and drive the process and leverage the distressed debt colleagues. He continued that the value is to avoid the problem from the beginning, and stay away from retail.

CEO RODELL asked if there was a sector that you want to steer into because the thought is that there is going to be a tremendous opportunity in the next few months, or whatever the time horizon is.

MR. ROSENBURG replied that he likes food businesses, things with stable demand, consumer-retail type businesses; not the clothing retail. He likes businesses with a contractual element to the demand. He stated that, from his perspective, it is better to build a portfolio from the bottom up and go one name at a time.

MR. UDDIN stated that tremendous opportunity is not needed because the money comes back with fees and interest, which is an equity risk. He continued that structuring cyclical company transactions can capture the cash flow while things are good.

MR. DUFF explained that they had two components of amortization, both fixed and variable, and that ranges anywhere from 15 to 15-percent plus. He continues that minimizing the number of covenant breaches in the portfolio is done by focusing on core economics. These are companies that tend to reduce the amount of fluctuation in the revenue streams quarter by quarter.

MR. PARISE thanked Monroe and Oak Tree, and stated that it was very interesting.

INVESTMENT ADVISOR COMMENTS

MR. WALSH stated that it is not good news for the fixed income group and some of the hedge fund group. He continued that this is what happened in New Jersey at the end and thinks that it is basically where it is right now. A lot of assets, international bonds, absolute return funds, market neutral funds and longshore funds were eliminated. He added that the exposure to corporate fixed income has a dramatic decrease. Unless something is done with leverage, the numbers do not work, and there is a need for some diversification for a rainy day. He thinks that this is where the portfolio is today. U.S. Treasury has become minimal. This was kept for longer duration and for a rainy-day fund. He stated that part 2, which will probably not affect Alaska, is the nightmare scenario. This happened when there is a massive drop because of what the government did, TARP, TAL, Fed balance sheet went up $5 trillion and there was a hockey-stick recovery. He added that a lot of bad scenarios happen because of the constant cutting into the corpus. He stated that he is not scheduled for the September meeting, but would be happy to answer any questions on asset allocation. It is not easy if the proposed legislation happens, but it does change how to look at asset allocation.

SELECTION OF GENERAL CONSULTANT

CHAIR MORAN moves to the selection of the general consultant. He stated that there was a vigorous debate and discussion in executive session yesterday. He asked for a motion.

> MOTION: VICE CHAIR BRADY made a motion that Alaska Permanent Fund Corporation wants to entertain a contract with Callan for another three years, with two one-year options, and effective currently. Seconded by TRUSTEE CASH.

TRUSTEE RUTHERFORD clarified that a lot of different opinions were identified and the discussion clarified a lot for us, but there were no final decisions made in the executive session.

> Following the roll call vote, the MOTION WAS APPROVED by the Trustees in attendance (RUTHERFORD, CASH, BRADY, MORAN).

CHAIR MORAN congratulated Mr. Allen.

CEO RODELL reminded all that on September 7th the annual work session is scheduled in Anchorage. Normally, that is the Audit Committee, hearing the results of the external audit work and work on the budget. She stated that some additional tasks will be added in terms of prepping for a full board meeting, which is scheduled for September 27th and 28th. It is the annual meeting, and it will be held in Juneau.

CHAIR MORAN asked if something comes out of the Legislature in the next few weeks that will have a significant impact on the Fund, if there will be an additional meeting scheduled.

CEO RODELL replied that it depends on what happens.

VICE CHAIR BRADY stated that an analysis of the law should be the first thing from the corporation; which could be done telephonically.

CHAIR MORAN asked for future agenda items.

CEO RODELL replied that some future board action items thought about are asset allocation, policy update. If there is anything that has not been discussed, she asked to please let her know. She noted the request for time with the consultant.

CIO READ suggested a session on looking at U.S. private and public equity, particularly given the political uncertainties that are unfolding.

TRUSTEE RUTHERFORD stated, for the Audit Committee, a reminder to talk about some training opportunities.

TRUSTEE COMMENTS

CHAIR MORAN stated that it was a great meeting and thanked the staff for all the work in making it so successful.

TRUSTEE RUTHERFORD stated that she appreciated Mr. Walsh's comments and believes that if the Legislature does not act in a statutory fashion to make changes to the Permanent Fund, there should be some dialogue among the Corporation, both staff and the board, as to whether the 5 percent is an appropriate level.

TRUSTEE FISHER stated that it was a productive meeting with a lot of valuable information.

> MOTION: TRUSTEE CASH made a motion to adjourn.
> There being no objections, the meeting was adjourned.

(Alaska Permanent Fund Corporation board meeting adjourned at 11:54 a.m.)

a) Pending Board Matters

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

SUBJECT:	Pending Board Matters	ACTION:	______
DATE:	September 27, 2017	INFORMATION:	X

BY	TASK	CAPTURED	TARGET	COMPLETED
Rodell / Mason	Update on APFC Disaster Recovery Plan	9/16	9/17	9/17 Agenda
Rodell / Brown	Salary Structure Study	12/16	9/17	
Rodell / Achee	Travel Resolution Updates	2/17	9/17	9/17 Agenda
Rodell / Read	Updates to Asset Allocation: Investment Policy	9/17	5/18	

b) Trustee Education

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

SUBJECT: Trustee Education Opportunities ACTION: ____________

DATE: September 27, 2017 INFORMATION: ______X______

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
Callan Institute	Regional Workshops	New York, NY Chicago, IL	October 24, 2017 October 26, 2017
ARMB Education Conference		New York, NY	November 9-10, 2017
2017 Fiduciaries' Forum	Public Pensions & Investments	San Francisco, CA	Nov 30 – Dec 1, 2017
Pacific Pension & Investments	Winter Roundtables	Washington, D.C. Los Angeles, CA	March 14-16, 2018 Feb 27 – March 1, 2019
	Summer Roundtables	La Jolla, CA Chicago, IL	July 11-13, 2018 July 10-12, 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: September 5, 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 April 1 – June 31, 2017.

April 2017			
Name	**Position Title**	**Disclosure Type**	**Received**
Larry Cash	Trustee	Individual Transaction	05/11/2017
Jared Brimberry	Portfolio Manager	Individual Transaction	05/01/2017
Jay Klinger	Accountant	Individual Transaction	04/04/2017
Marcus Frampton	Director of Investments	Individual Transaction	05/01/2017
William Moran	Trustee	Individual Transaction	05/03/2017
Chris LaVallee	Accountant	Individual Transaction	06/15/2017
Jim Parise	Director of Investments	Individual Transaction	05/01/2017

May 2017			
Name	**Position Title**	**Disclosure Type**	**Received**
Jared Brimberry	Portfolio Manager	Individual Transaction	06/05/2017
Chris LaVallee	Accountant	Individual Transaction	06/15/2017
William Moran	Trustee	Individual Transaction	06/12/2017
Matthew Olmsted	Senior Portfolio Manager	Individual Transaction	06/05/2017
Marcus Frampton	Director of Investments	Individual Transaction	06/03/2017

June 2017			
Name	**Position Title**	**Disclosure Type**	**Received**
Carl Brady	Trustee	Individual Transaction	07/18/2017
Jared Brimberry	Portfolio Manager	Individual Transaction	07/18/2017
Chris LaVallee	Accountant	Individual Transaction	07/18/2017
Marcus Frampton	Director of Investments	Individual Transaction	07/16/2017
Steve Moseley	Director of Investments	Individual Transaction	07/14/2017
William Moran	Trustee	Individual Transaction	07/14/2017

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	ACTION:	____________
DATE:	September 11, 2017	INFORMATION:	X

BACKGROUND:

This report includes APFC Board/staff completed travel for the period April 30, 2017 through September 4, 2017. The travel report is presented to the Board of Trustees for review at each board meeting as required by APFC Resolution 04-10.

Board Members	Travel Period	Destination
William Moran, Chair		
Board of Trustees meeting	05/15 – 05/17	Juneau
Inventive compensation meetings	08/21 – 08/22	Juneau
Carl Brady, Vice Chair		
Board of Trustees meeting	05/15 – 05/17	Juneau
Larry Cash, Trustee		
Board of Trustees meeting	05/15 – 05/17	Juneau
Sheldon Fisher, Trustee		
Board of Trustees meeting	05/15 – 05/17	Juneau
Randall Hoffbeck, Trustee		
Callan Institute workshop	06/28 – 06/29	San Francisco
Marty Rutherford, Trustee		
Board of Trustees meeting	05/15 – 05/17	Juneau
Staff		
Angela Rodell, Chief Executive Officer		
Attend Milken Institute Global conference	04/29 – 05/03	Los Angles
Tech meetings	06/06 – 06/07	Seattle
Manager meetings; Pacific Pension & Investment meeting	07/23 – 07/30	New York; Toronto
Alaska Mental Health Trust meeting; Alaska Journal of Commerce meeting; meet with legislative staff	08/23 – 08/25	Anchorage; Kenai
Laura Achee, Director of Operations		
Attend Cutter Investment management alliance	06/05 – 06/08	Boston
Timothy Andreyka, Senior Real Estate Portfolio Manager		
Manager meetings	05/31 – 06/11	Charleston, SC; Nashville, TN; Boston; Columbus; Cincinnati; San Francisco
Macerich quarterly meeting	06/13 – 06/19	Washington, DC
Due diligence	07/06 – 07/13	Chicago; New York
On-site inspections and manager meetings	07/22 – 08/01	London; Lisbon; Alicante; Madrid
SHLP quarterly meeting	08/26 – 08/29	Denver

SCOTT BALOVICH, Senior Network Systems Administrator

Vmware Horizon 7 training	08/07 – 08/13	San Jose, CA

TRAVIS BROWN, Senior Associate of Private Equities – Special Opportunities

Due diligence and manager meetings	04/27 – 05/09	Dallas; Houston; Austin
Attend ILPA training	07/30 – 08/04	Chicago
Due diligence	08/27 – 09/04	London

VALERIA BUSCHFORT, Senior Portfolio Accountant

Attend ILPA training	07/27 – 08/03	Chicago

BEN CHANG, Senior Associate – Private Markets

Morgan Stanley Infrastructure; GIP annual meeting; manager meetings	05/12 – 05/22	New York; Boston
Due diligence	06/26 – 06/27	San Francisco

ROSEMARIE DURAN, Director Investments – Real Estate

Manager meetings	05/31 – 06/02	Charleston, SC
Manager meetings	06/04 – 06/11	Nashville, TN; Boston; Columbus
Macerich quarterly meeting	06/13 – 06/16	Washington, DC
Due diligence	07/10 – 07/13	Chicago; New York
On-site inspections and manager meetings	07/22 – 08/01	London; Lisbon; Alicante; Madrid
SHLP quarterly meeting	05/28 – 08/29	Denver

MARCUS FRAMPTON, Director of Investments – Private Markets

Due diligence	05/07 – 05/09	Seattle
Attend CIM annual meeting, AH4R meeting	06/09 – 06/15	San Diego
Due diligence; attend Institutional Investors Hedge Fund industry dinner	06/20 – 06/23	New York
Due diligence	06/26 – 06/27	San Francisco

YUP KIM, Senior Portfolio Manager – Special Opportunities

1) Due diligence; attend Milken conference; Global Funds Roundtable 2) Sovereign Institute Global West Government Funds Roundtable; due diligence	4/22 – 05/13	1) Los Angeles; 2) London; Germany
Attend Denali board meeting; due diligence	06/16 – 05/21	San Francisco
Manager meetings; due diligence	05/30 – 06/18	Boston; New York
Due diligence	07/30 – 08/01	San Francisco; San Diego
Due diligence	08/17 – 08/27	New York

VALERIA MARTINEZ, Director of Investments – Risk Management

Meet with liquidity management firms	06/13 – 06/20	Seattle ; St. Louis

ROBIN MASON, Chief Technology Officer

Tech meetings; Global Knowledge training	06/06 – 06/18	Seattle; Chicago

STEPHEN MOSELEY, Director of Investments – Private Equities & Special Opportunities

Due diligence	05/01 – 05/15	New York
Due diligence, manager meetings	05/22 – 06/04	New York; Boston
Due diligence	06/23 – 07/04	New York; Bermuda

YOULIAN NINKOV, Equities Strategist Trader

Manager meetings	07/20 – 07/26	Seattle

MATT OLMSTED, Credit Analyst – Fixed Income

Due diligence	06/06 – 06/18	Los Angeles

FAWAD RAZZAQUE, Director of Public Equities

Manager meetings; due diligence	07/07 – 07/21	Laguna Beach, CA
Manager meetings	07/30 – 08/05	Montreal; Boston

RUSSELL READ, Chief Investments Officer

1) Attend Connex conference 2) Attend Milken Institute Global conference 3) Manager meetings	04/21 – 05/07	1) Denver, CO; 2) Seattle; 3) San Francisco
Attend International Forum of Sovereign Wealth Funds conference; manager meetings	05/19 – 05/29	New York
Manager meetings	07/23 – 07/24	Seattle
Manager meetings	08/11 – 08/17	San Francisco

ANTHONY SHAW, IT Specialist

Attend Cisco training	05/21 – 05/28	San Jose

JANE SHERBROOKE, Operations Analyst

CPA exam	08/26	Anchorage

e) Due Diligence Log

from 4/1/2017 to 6/30/2017

Manager Due Diligence Log

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
6/15/2017	Andreyka, Duran	Macerich	Macerich	Macerich Qtly. Mtg., Property Inspection	Washington D.C.
6/29/2017	Brimbbery	Kayne Anderson	Cade McNown	Update on Private Credit Opportunity	Conference Call
4/12/2017	Brimberry	Cross Ocean Partners	Graham Goldsmith, Sandy Ewing, Nick Renwick	Discussion of Europe and US Distressed Credit Funds	Conference Call
4/12/2017	Brimberry	TPG	Brian D'Arcy	Update on TPG business activities	Conference Call
4/19/2017	Brimberry	Varde Partners	Brian Schmidt, Jeff Thunger, Eric Perry	Discussion of Mortgage Strategy	Juneau
4/28/2017	Brimberry	Macquarie	Allison Harden	Update on direct investment opportunity	Conference Call
5/9/2017	Brimberry	Clearlake	Jose Feliciano	LP Advisory Committee on Opportunities Fund	Conference Call
5/11/2017	Brimberry	AHL Man Group	Chris Gorgone, Simon Savage	Discussion on Hedge Fund Investment Opportunities	Juneau
5/15/2017	Brimberry	Silver Rock	Carl Meyer, Michael Haberkorn	Discussion on Distressed Credit Opportunity	Conference Call
5/22/2017	Brimberry	SoFi	Ashish Jain, Peter Early	Introductory Private Credit Opportunity	Conference Call
5/24/2017	Brimberry	Parallaxes Capital	Andy Lee	Introductory Private Credit Opportunity	Conference Call
6/6/2017	Brimberry	Midway Group	Jack Weiner	Introductory Call on Mortgage Strategies	Conference Call
6/8/2017	Brimberry	Grosvenor	Sean Conroy	Introductory Call on Manager Capabilities	Conference Call
6/13/2017	Brimberry	Parallaxes Capital	Andy Lee	Review Private Credit Opportunity	Conference Call
6/14/2017	Brimberry	Crescent Capital Group	Christine Vanden Beukel, Mark DeVincentis	Review Private Credit Fund Performance	Conference Call
6/14/2017	Brimberry	TPG	Brian D'Arcy	Review Private Credit Fund Opportunity	Conference Call
6/14/2017	Brimberry	Pathway Capital	Derrek Ransford, Bryan Nelson	Review Private Credit Fund Opportunity	Conference Call
6/15/2017	Brimberry	THL Capital	Sasha Kipka, Peter Gleysteen, Thomas Lee	Update on Private Credit Opportunity	Conference Call
6/21/2017	Brimberry	Swedish National Debt Office	Claes Nylander	Reference Call on Hedge Fund Investment	Conference Call
6/21/2017	Brimberry	Crestline	Doug Bratton, Keith Williams	Review Crestline Private Credit Opportunities	Juneau
6/21/2017	Brimberry	Mitsubishi Asset Management	Kato Keisuke	Reference Call on Hedge Fund Investment	Conference Call
6/22/2017	Brimberry	Ohio State University	Scott Adams	Reference Call on Hedge Fund Investment	Conference Call
6/22/2017	Brimberry	Atalaya	Ivan Zinn	LP Advisory Committee Call	Conference Call
6/22/2017	Brimberry	Nephila	Maria Rapin	Discuss Reinsurance Opportunity	Juneau
6/27/2017	Brimberry	Great American Capital Partners	John Ahn, Bob Louzan	Discuss Private Credit Opportunity	Conference Call
6/28/2017	Brimberry	IPM Systematic	Laura Wickham, Tara Skinner	Due Diligence Call	Conference Call
6/29/2017	Brimberry	Pathway Capital	Matt Lugar	Update on Private Credit Opportunity	Conference Call
6/29/2017	Brimberry	Cross Ocean Partners	Sandy Ewing	Update on Private Credit Opportunity	Conference Call
6/29/2017	Brimberry	Benefit Street Partners	Allison Davi	Update on Private Credit Opportunity	Conference Call
4/11/2017	Brimberry	Deerpath	Antonella Napolitano	Update on Direct Lending Investment	Conference Call
4/3/2017	Brimberry, Chang	Aspect Capital	Emmett Fitzgerald	Intro Meeting on CTA Strategy	Juneau
4/7/2017	Brimberry, Chang	Balyasny	Rich Arbucci, Dmitry Balyasny	Intro Meeting on Balyasny's Hedge Fund Strategy	Juneau
4/12/2017	Brimberry, Chang	Benefit Street Partners	Blair Falstich, Allison Davi	Review of Private Credit Strategy	Juneau
6/21/2017	Brimberry, Chang	InfraRed	Nick Artemenkov	Infrastructure Fund Introduction	Juneau
4/11 - 4/14	Duran, Andreyka	L&B	L&B	Property Inspection; Property Tours; and Meeting with Leasing Team	Lihue & Maui, HI
5/31/17 - 6/11/17	Duran, Andreyka	Greystar & Simpson Housing	Greystar & Simpson Housing	Strategic Partnership Meeting; SHLP Qtly. Mtg.; and Property Inspection	Charleston, Nashville, Boston, Columbus, Cincinnati & San Francisco
4/3/2017	Frampton	Elliott Management	Jaime Hobbeheydar	Discussion of Elliott Re-opening	Conference Call
4/3/2017	Frampton	Ultra Capital	Roland Vandermeer	Intro Call on Infrastructure Fund Strategy	Conference Call
4/5/2017	Frampton	Pantheon	Susan Long McAndrews	Discussion of Infrastructure and Private Credit Markets	Juneau
4/6/2017	Frampton	Societe Generale	Kristin Scherer	Discussion of Hedge Fund Marketplace	Conference Call
4/11/2017	Frampton	Alvarez & Marsal Capital Partners	Dave Perskie	Update Call	Conference Call
4/21/2017	Frampton	CFM	Gaurang Shah	Hedge Fund firm introduction	Conference Call
4/25/2017	Frampton	PDT	Jenny Zhang	Intro Call on Hedge Fund Strategy	Conference Call
4/26/2017	Frampton	Actis	Harriet Johnson	LP Advisory Committee on EM Infra Fund	Conference Call
4/27/2017	Frampton	Leucadia	Kevin Del Mauro	Introductory Call on Leucadia's Hedge Fund Strategies	Conference Call
4/27/2017	Frampton	Barclay's Capital	Angus Whelchel	Discussion on Infrastructure Direct Opportunity	Conference Call
4/27/2017	Frampton	Farallon	Ed Callaway	Introductory Meeting on Hedge Fund Strategy	Juneau
4/27/2017	Frampton	JANA Partners	Jordan Gershuny	Update Call on JANA Hedge Fund	Conference Call
4/28/2017	Frampton	CFM	Gaurang Shah	Hedge Fund due diligence call	Conference call
5/1/2017	Frampton	Morgan Stanley Infrastructure	Jim Wilmott, Markus Hottenrott	LP Advisory Committee Call	Conference Call
5/4/2017	Frampton	Ohio State University	Scott Adams	Due Diligence Reference Call on a Hedge Fund	Conference Call
5/11/2017	Frampton	KSL Capital	Kenn Lee	Review Real Assets Investment Opportunities	Conference Call
5/18/2017	Frampton			Review Direct Infrastructure Opportunity	Conference Call
5/18/2017	Frampton	Paraclete Capital	Chris Tan	Review Private Credit Opportunity	Conference Call
5/23/2017	Frampton	Basalt Infrastructure	Rob Keough	Review Fund and Co-Invest Opportunity	Conference Call
5/24/2017	Frampton	Basalt Infrastructure	Rob Keough	Review Fund and Co-Invest Opportunity	Conference Call
5/25/2017	Frampton	UBS	Asad Kazim, Mitesh Hassamal	Review Real Assets Investment Opportunity	Conference Call
5/29/2017	Frampton	Generate Capital	Scott Jacobs, Matan Friedman	Review Real Assets Investment Opportunity	San Francisco
6/5/2017	Frampton	Well Fargo	Lyndsay Wegman, Grant Thompson	Review Real Assets Investment Opportunity	Conference Call
6/5/2017	Frampton	Future Fund of Australia	Justin Ginnivan	Infrastructure Discussion	Conference Call
6/6/2017	Frampton	USS Pension	Rob Horsnall	Infrastructure Discussion	Conference Call
6/6/2017	Frampton	Sachem Head	Katie Von Hoffman	Hedge Fund Strategy Discussion	Conference Call
6/7/2017	Frampton	Corsair Infrastructure Management	Hari Rajan	Investment Update	Conference Call
6/7/2017	Frampton	Drsti Capital	Parag Pande	Discussion of Hedge Fund Investments	Conference Call
6/7/2017	Frampton	Brooklands Capital	Dan Carroll	Real Assets Direct Investment Opportunity	Juneau
6/9/2017	Frampton	Guggenheim	Jim Pass	Infrastructure Discussion	Conference Call
6/12/2017	Frampton	TCW	Jeremy Zhu	Hedge Fund Discussion	Los Angeles
6/13/2017	Frampton	CIM Infrastructure	Avi Shemesh	Annual Meeting and LP Advisory Committee	Los Angeles
6/19/2017	Frampton	PAAMCO Prima	Scott Warner	Discuss Hedge Fund Market	Conference Call
6/20/2017	Frampton	Campbell Group	John Gilleland	Timber Market Discussion	Conference Call
6/20/2017	Frampton	Crestline	Doug Bratton, Keith Williams	Review APFC Crestline Investments	Juneau
6/28/2017	Frampton	Pavilion	Jim Treanor	Discuss APFC Hedge Fund Portfolio and Market	Juneau
6/29/2017	Frampton	Lansdowne	Julian Colville	Update on APFC's Investment in Lansdowne	Conference Call
6/29/2017	Frampton	Basalt Infrastructure	Jennifer Katz	Due Diligence on Infrastructure Co-Investment	Conference Call

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6/29/2017	Frampton	Consector Capital	Bill Black	Intro Call on Hedge Fund Strategy	Conference Call
6/30/2017	Frampton	Lenny Carr	PDT Partners	Hedge Fund Strategy Discussion	Conference Call
4/3/2017	Frampton, Brimberry	NBAD	Sebastian Frederiks	Discussion of Middle East Infrastructure Opportunities	Conference Call
4/3/2017	Frampton, Brimberry	Field Street	Aaron Gillespie	Due Diligence on Hedge Fund	Conference Call
4/3/2017	Frampton, Brimberry	Pathway Capital	Jim Chambliss	Discuss Private Credit Investments	Conference Call
4/7/2017	Frampton, Brimberry	Morgan Stanley Infrastructure	Mark McLean	Discussion of Potential Co-investment Opportunity	Conference Call
4/10/2017	Frampton, Brimberry	Crestline	Chris Semple	Discussion of Potential Infrastructure Direct Investment	Conference Call
4/14/2017	Frampton, Brimberry	Columbia Pulp	John Begley	Discussion of Private Income Investment Opportunity	Conference Call
4/17/2017	Frampton, Brimberry	NordLB	Sondra Martinez	Discussion of Infra Lending Strategy	Conference Call
4/17/2017	Frampton, Brimberry	Silver Creek Capital	Bob Ratliffe	Discussion of Construction Materials Strategy	Conference Call
4/17/2017	Frampton, Brimberry	Crestline	Chris Semple	Discussion of Potential Infrastructure Direct Investment	Conference Call
4/19/2017	Frampton, Brimberry	Morgan Stanley Infrastructure	Mark McLean	Discussion of Potential Co-investment Opportunity	Conference Call
4/21/2017	Frampton, Brimberry	UBS	Daniel Anzalone	Reference Call on Hedge Fund Investment	Conference Call
4/21/2017	Frampton, Brimberry	Morgan Stanley Infrastructure	Greg Best	Review of Indian Infrastructure Strategy	Juneau
4/25/2017	Frampton, Brimberry	Columbia Pulp	John Begley	Due Diligence on Direct Infra Opportunity	Conference Call
4/25/2017	Frampton, Brimberry	Pathway Capital	Vince Dee, John Ruggieri	Private Credit Pipeline Discussion	Conference Call
4/28/2017	Frampton, Brimberry	Barings	Jeffrey Stammen	Update Call on Barings Real Assets Strategies	Conference Call
5/2/2017	Frampton, Brimberry	Two Sigma Investments	Chris Busby	Hedge Fund Update Call	Conference Call
5/2/2017	Frampton, Brimberry	Fund Evaluation Group	Kevin Conroy	Due Diligence Reference Call on a Hedge Fund	Conference Call
5/2/2017	Frampton, Brimberry	MH Ventures	Allison Harden	Real Assets Direct Investment Opportunity	Conference Call
5/3/2017	Frampton, Brimberry	Pathway Capital	Wayne Smith	Discussion on Audax Direct Lending Fund	Conference Call
5/4/2017	Frampton, Brimberry	Audax	Kevin Magid	Due Diligence Call on Direct Lending Fund	Conference Call
5/10/2017	Frampton, Brimberry	Hudson Capital	Paul Libari	Review CLO Opportunity	Conference Call
5/10/2017	Frampton, Brimberry	Audax	Kevin Magid	Review Legal Structure on Direct Lending Fund	Conference Call
5/11/2017	Frampton, Brimberry	Stone Peak Infrastructure	Ryan Roberge	Review Infrastructure Co-investment Opportunity	Conference Call
5/15/2017	Frampton, Brimberry	I-Squared Capital	Andreas Moon	Review Infrastructure Fund Investment Opportunity	Juneau
5/17/2017	Frampton, Brimberry	Monroe Capital	Sean Duff, Zia Uddin	APFC Investment Update - Private Credit	Juneau
5/23/2017	Frampton, Brimberry	Forest Investment Associates	Bryan Jones, Mike Clutter	Review Timber Investment Opportunities	Juneau
5/24/2017	Frampton, Brimberry	THL Capital	Sasha Kipka, Peter Gleysteen, Thomas Lee	Review Private Credit Opportunity	Conference Call
5/25/2017	Frampton, Brimberry	Owl Rock	Doug Ostrover	Review Private Credit Opportunity	Conference Call
6/5/2017	Frampton, Brimberry	DE Shaw	Letitia Yang, David Zwillinger	Review Real Assets Investment Opportunity	Conference Call
6/6/2017	Frampton, Brimberry	Pavilion	Raelan Lambert	Review Infrastructure Projects	Conference Call
6/6/2017	Frampton, Brimberry	Alyeska Investment Group	Joon Park	Update on APFC's Hedge Fund Investment	Juneau
6/7/2017	Frampton, Brimberry	Pathway Capital	Vince Dee	Private Credit Pipeline Discussion	Conference Call
6/16/2017	Frampton, Brimberry	Pavilion	Danny Fuller	Update on Direct Investment Opportunity	Conference Call
6/26/2017	Frampton, Brimberry	Digital Bridge	Tom Yanagi	Discuss Telecom Infrastructure Opportunities	Conference Call
6/28/2017	Frampton, Brimberry	BlueOrange	John Fedor	Discuss Private Credit Opportunity	Conference Call
6/6/2017	Frampton, Brimberry	NordLB	Sondra Martinez	Infrastructure Debt Discussion	Conference Call
4/4/2017	Frampton, Brimberry, Chang	Crestline Summit	Caroline Cooley, Phil Harris	Update / Review of APFC's Summit Investment	Juneau
4/4/2017	Frampton, Brimberry, Chang	Garda Capital Partners	Mike Grover	Intro Call on Fixed Income RV Strategy	Conference Call
4/5/2017	Frampton, Brimberry, Chang	Kynikos	Brian Nichols, Chuck Hobbs	Discussion of APFC's Kynikos Investment	Conference Call
4/6/2017	Frampton, Brimberry, Chang	Albourne	Lincoln Smith, James Hayward	Review of APFC's Hedge Fund Portfolio and Pipeline	Juneau
4/12/2017	Frampton, Brimberry, Chang	Sheppard Mullin	Tom Devaney	Legal Review for Potential Hedge Fund Investment	Conference Call
4/17/2017	Frampton, Brimberry, Chang	Winton	Ramyata Joshi, Nick Smith	Quarterly Update Call	Conference Call
4/18/2017	Frampton, Brimberry, Chang	Field Street	Aaron Gillespie	Due Diligence on Hedge Fund	Conference Call
4/18/2017	Frampton, Brimberry, Chang	Mariner-Galton Fund	Amy Carlson	Discussion of Hedge Fund Strategy	Conference Call
4/24/2017	Frampton, Brimberry, Chang	Macquarie	Sean Fitzgerald	Review Manufactured Housing Opportunity	Conference Call
4/25/2017	Frampton, Brimberry, Chang	Kynikos	Jim Chanos, Brian Nichols	Review APFC investment with Kynikos	Conference Call
4/27/2017	Frampton, Brimberry, Chang	Pavilion	Jim Treanor	Hedge Fund Industry and Market Discussion	Conference Call
5/3/2017	Frampton, Brimberry, Chang	Field Street	Aaron Gillespie	Due Diligence Call on Hedge Fund	Conference Call
5/11/2017	Frampton, Brimberry, Chang	Pathway Capital	Jason Jenkins, Jeff Buress	Infrastructure Pipeline Discussion	Conference Call
5/18/2017	Frampton, Brimberry, Chang	Elliott Management	Jaime Hobbeheydar	Fund Update Discussion	Conference Call
5/25/2017	Frampton, Brimberry, Chang	KKR	Greg Guest	Review Real Assets Investment Opportunity	Conference Call
5/25/2017	Frampton, Brimberry, Chang	Maltese Capital	Terry Maltese, Amanda Rice	Review Hedge Fund Investment Opportunity	Conference Call
6/6/2017	Frampton, Brimberry, Chang	First Quadrant	Earl Kleckner	Hedge Fund Strategy Discussion	Conference Call
6/7/2017	Frampton, Brimberry, Chang	Bridgewater	Joel Whidden, Brian Lawlor	Review of APFC's BW Hedge Fund Investments	Juneau
6/8/2017	Frampton, Brimberry, Chang	IPM Systematic	Tara Skinner	Due Diligence on IPM's Hedge Fund Strategy	Conference Call
6/15/2017	Frampton, Brimberry, Chang	Generate Capital	Scott Jacobs, Matan Friedman	Due Diligence Call	Conference Call
6/19/2017	Frampton, Brimberry, Chang	Pathway Capital	Jim Chambliss, Jason Jenkins, Vince Dee	Private Markets Portfolio Update	Juneau
6/19/2017	Frampton, Brimberry, Chang	Brooklands Capital	Dan Carroll, Yeatts Anderson	Due Diligence Call	Conference Call
6/29/2017	Frampton, Brimberry, Chang	Pavilion	Danny Fuller	Update Call on In-process Infra Investment	Conference Call
5/23/2017	Frampton, Brimberry, Chang, CP	Sheppard Mullin	Tom Devaney	Review Legal on Pending Hedge Fund Investment	Conference Call
4/24/2017	Frampton, Brimberry, JP	Field Street	Rod Gancas, Aaron Gillespie	Due Diligence Call on Hedge Fund	Conference Call
4/10/2017	Frampton, Brown	Rice University	Carmen Thompson	Reference Call on Hedge Fund Investment	Conference Call
4/10/2017	Frampton, Brown	Bridgewater	Joel Whidden, Brian Lawlor	Discussion of APFC's Optimal Investment	Conference Call
4/5/2017	Frampton, Chang	Arrowgrass	Matthew Bassista	Intro Meeting on Arrowgrass' Hedge Fund Strategy	Juneau
4/20/2017	Frampton, Chang	Barclay's Capital	Robert Lauer	Discussion of Hedge Fund Marketplace	Juneau
4/24/2017	Frampton, Chang	Stone Peak Infrastructure	Trent Vichey	Review Infrastructure Opportunity	Juneau
6/8/2017	Frampton, Chang	LionWorks	Ron Mincy, Simon Harford	Review Infrastructure Fund Investment Opportunity	Juneau
6/20/2017	Frampton, Chang	Infracapital	Martin Lennon, Carolyn Pearce	Infrastructure Fund Introduction	Juneau
4/12/2017	Frampton, PS	Agri Investor	Chris Janiec	Discussion of Timber and Ag Markets / Strategy	Conference Call
5/15/2017	Frampton, Read	Crestline	Doug Bratton, Keith Williams	Review Direct Infrastructure Opportunity	Conference Call
5/4/2017	Frampton, Read	Guggenheim	Jim Pass, Farhan Sharaff	Review Direct Infrastructure Opportunities	Conference Call
4/14/2017	Frampton, Read, Brimberry	Brener International	Gabriel Brener	Intro Meeting; Discussion of Mexican Infrastructure	Juneau
5/10/2017	Frampton, Read, Brimberry	Crestline	Doug Bratton, Keith Williams	Review Direct Infrastructure Opportunity	Conference Call
6/5/2017	Franmpton, Brimberry, Chang, CP	Sheppard Mullin	Tom Devaney	Review Legal on In-Process Investments	Conference Call
5/9	Grussendorf, Emberton	L&B, Colliers	L&B, Colliers	Property Manager Interview	Juneau Conference Call
5/11/2017	Grussendorf, Emberton	L&B, JLL, CBRE	L&B, JLL, CBRE	Property Manager Interview	Juneau Conference Call
5/25/2017	Grussendorf, Emberton	L&B	L&B	Property Manager Interview Follow Up	Juneau Conference Call
4/3/2017	Kim	UCD GSM	Senior mgmt	Direct opportunity	Call / mtg
4/3/2017	Kim	Charlesbank	Senior mgmt	Fund opportunity	Call / mtg
4/3/2017	Kim	Carlyle	Senior mgmt	Co-investment opportunity	Call / mtg

4/3/2017	Kim	Thunder	Senior mgmt	Direct opportunity	Call / mtg
4/4/2017	Kim	Blackrock	Senior mgmt	Fund opportunity	Call / mtg
4/4/2017	Kim	Crestline	Senior mgmt	Direct opportunity	Call / mtg
4/4/2017	Kim	Pathway	Senior mgmt	Fund opportunity	Call / mtg
4/5/2017	Kim	Guidepoint	Senior mgmt	Direct opportunity	Call / mtg
4/5/2017	Kim	eBest	Senior mgmt	Direct opportunity	Call / mtg
4/5/2017	Kim	Nextdoor	Senior mgmt	Direct opportunity	Call / mtg
4/6/2017	Kim	Adimab	Senior mgmt	Direct opportunity	Call / mtg
4/6/2017	Kim	Riverstone	Senior mgmt	Fund opportunity	Call / mtg
4/6/2017	Kim	Crestline	Senior mgmt	Fund opportunity	Call / mtg
4/7/2017	Kim	Nextdoor	Senior mgmt	Direct opportunity	SF
4/10/2017	Kim	DAG	Senior mgmt	Direct opportunity	SF
4/11/2017	Kim	Benchmark	Senior mgmt	Direct opportunity	SF
4/11/2017	Kim	Greylock	Senior mgmt	Direct opportunity	SF
4/12/2017	Kim	Charlesbank	Senior mgmt	Fund opportunity	Call / mtg
4/13/2017	Kim	Insight	Senior mgmt	Direct opportunity	Call / mtg
4/14/2017	Kim	MSD	Senior mgmt	Co-investment opportunity	Call / mtg
4/14/2017	Kim	Rubius	Senior mgmt	Direct opportunity	Call / mtg
4/17/2017	Kim	HIG	Senior mgmt	Fund opportunity	Call / mtg
4/17/2017	Kim	Pathway	Senior mgmt	Fund opportunity	Call / mtg
4/19/2017	Kim	Whitehorse	Senior mgmt	Fund opportunity	Call / mtg
4/20/2017	Kim	Zanbato	Senior mgmt	Direct opportunity	Call / mtg
4/21/2017	Kim	SVB	Senior mgmt	Co-investment opportunity	Call / mtg
4/24/2017	Kim	Spectrum	Senior mgmt	Fund opportunity	Call / mtg
4/26/2017	Kim	Vista	Senior mgmt	Fund opportunity	Call / mtg
4/28/2017	Kim	Wealthfront	Senior mgmt	Direct opportunity	Call / mtg
5/1/2017	Kim	General Atlantic	Senior mgmt	Fund opportunity	Call / mtg
5/2/2017	Kim	Providence	Senior mgmt	Fund opportunity	Call / mtg
5/8/2017	kim	SET Technologies	Senior mgmt	Direct opportunity	Germany
5/9/2017	Kim	SET Technologies	Senior mgmt	Direct opportunity	Germany
5/10/2017	Kim	SET Technologies	Senior mgmt	Direct opportunity	Germany
5/11/2017	Kim	DB Private Equity	Senior mgmt	Co-investment opportunity	Germany
5/15/2017	Kim	NIO	Senior mgmt	Direct opportunity	SF
5/15/2017	Kim	Wealthfront	Senior mgmt	Direct opportunity	Call / mtg
5/18/2017	Kim	Denali	Senior mgmt	Direct opportunity	Call / mtg
5/19/2017	Kim	Builders VC	Senior mgmt	Fund opportunity	SF
5/19/2017	Kim	Vir Bio	Senior mgmt	Direct opportunity	SF
5/19/2017	Kim	Zanbato	Senior mgmt	Direct opportunity	SF
5/22/2017	Kim	Charlesbank	Senior mgmt	Fund opportunity	Call / mtg
5/22/2017	Kim	DAG	Senior mgmt	Fund opportunity	Call / mtg
5/22/2017	Kim	8F	Senior mgmt	Fund opportunity	Call / mtg
5/22/2017	Kim	JMP	Senior mgmt	Co-investment opportunity	Call / mtg
5/23/2017	Kim	Carlyle	Senior mgmt	Fund opportunity	Call / mtg
5/23/2017	Kim	Blackrock	Senior mgmt	Direct opportunity	Call / mtg
5/24/2017	Kim	Corsair	Senior mgmt	Fund opportunity	Call / mtg
5/25/2017	Kim	Tech Stars	Senior mgmt	Fund opportunity	Call / mtg
5/25/2017	Kim	Cargill	Senior mgmt	Co-investment opportunity	Call / mtg
5/25/2017	Kim	HIG	Senior mgmt	Fund opportunity	Call / mtg
5/26/2017	Kim	Blackrock	Senior mgmt	Co-investment opportunity	Call / mtg
5/26/2017	Kim	NGP	Senior mgmt	Fund opportunity	Call / mtg
5/30/2017	Kim	Greylock	Senior mgmt	Direct opportunity	Call / mtg
5/30/2017	Kim	Pavilion	Senior mgmt	Direct opportunity	Call / mtg
5/30/2017	Kim	Albourne	Senior mgmt	Fund opportunity	Call / mtg
5/31/2017	Kim	HIG	Senior mgmt	Fund opportunity	NYC
5/31/2017	Kim	Indigo	Senior mgmt	Direct opportunity	NYC
6/1/2017	Kim	Orbimed	Senior mgmt	Fund opportunity	NYC
6/5/2017	Kim	Codiak	Senior mgmt	Direct opportunity	Boston
6/8/2017	Kim	Indigo	Senior mgmt	Direct opportunity	Call / mtg
6/13/2017	Kim	Carlyle	Senior mgmt	Fund opportunity	Call / mtg
6/22/2017	Kim	Fifth Wall	Senior mgmt	Co-investment opportunity	Call / mtg
6/23/2017	Kim	Braidy	Senior mgmt	Direct opportunity	Call / mtg
6/26/2017	Kim	Flagship	Senior mgmt	Fund opportunity	Call / mtg
6/26/2017	Kim	Grab	Senior mgmt	Co-investment opportunity	Call / mtg
6/26/2017	Kim	Codiak	Senior mgmt	Direct opportunity	Call / mtg
6/26/2017	Kim	Genbridge	Senior mgmt	Fund opportunity	Call / mtg
6/26/2017	Kim	Indigo	Senior mgmt	Direct opportunity	Call / mtg
6/27/2017	Kim	Apollo	Senior mgmt	Fund opportunity	Call / mtg
6/27/2017	Kim	Landmark	Senior mgmt	Co-investment opportunity	Call / mtg
6/27/2017	Kim	Hill Path	Senior mgmt	Co-investment opportunity	Call / mtg
6/27/2017	Kim	Crestline	Senior mgmt	Direct opportunity	Call / mtg
6/28/2017	Kim	Indigo	Senior mgmt	Direct opportunity	Call / mtg
6/28/2017	Kim	Tech Stars	Senior mgmt	Fund opportunity	Call / mtg
6/28/2017	Kim	Blackstone	Senior mgmt	Fund opportunity	Call / mtg
6/28/2017	Kim	Pavilion	Senior mgmt	Fund opportunity	Call / mtg
6/28/2017	Kim	DAG	Senior mgmt	Fund opportunity	Call / mtg
6/29/2017	Kim	Golden Seeds	Senior mgmt	Fund opportunity	Call / mtg
6/29/2017	Kim	Tenaya	Senior mgmt	Fund opportunity	Call / mtg
6/29/2017	Kim	HIG	Senior mgmt	Fund opportunity	Call / mtg
6/29/2017	Kim	Z Capital	Senior mgmt	Fund opportunity	Call / mtg
6/30/2017	Kim	Invesco	Senior mgmt	Co-investment opportunity	Call / mtg
6/30/2017	Kim	Oberland	Senior mgmt	Fund opportunity	Call / mtg
6/30/2017	Kim	Sway	Senior mgmt	Fund opportunity	Call / mtg

6/30/2017	Kim	Owl	Senior mgmt	Fund opportunity	Call / mtg
4/5/2017	Martinez	BRS,Cutter	Ed Goldthwait, jarosch Maximilian	Review Risk Platform needs	teleconference
4/6/2017	Martinez	BRS,Cutter	Ed Goldthwait, jarosch Maximilian	Review Risk Platform needs	teleconference
4/10/2017	Martinez	ISRP	Board Call	Quarterly call with risk peers	teleconference
4/18/2017	Martinez	ISRP	Noreen Jones, Guy Foutz	Risk Reporting	teleconference
4/24/2017	Martinez	GSAM	Thomas Davie, Robert Patch, Margot Smith, portfolio managers	Monthly Call review portfolio and economic overview	teleconference
4/28/2017	Martinez	Bridgewater	Katie Salatino	Update on mandates	teleconference
5/1/2017	Martinez	ISRP	Noreen Jones, Lisa Miller, etc	Board of Directors Call	teleconference
5/15/2017	Martinez	Goldman Sachs	Milan Patel	FX Hedging Discussion	teleconference
5/18/2017	Martinez	GSAM	Thomas Davie, Robert Patch, Margot Smith, portfolio managers	Monthly Call portfolio update	teleconference
5/23/2017	Martinez	POINT	Jonas	Data movement from POINT to Aladdin	teleconference
6/5/2017	Martinez	ISRP	Noreen Jones	Risk Reporting	teleconference
6/8/2017	Martinez	LGIMA	Ivy Flores	Solutions & Risk Mgmt Overview	Juneau
6/14/2017	Martinez	Parametric	Brian Langstraat, Jack Hansen, James Barrett	Overlay Discussion	Seattle, WA
6/15/2017	Martinez	GSAM	Thomas Davie, Robert Patch, Margot Smith, portfolio managers	Monthly Call	teleconference
4/10/2017	Martinez, Frampton	Bridgewater	Joel Whidden, Brian Lawlor	Optimal and Pure Alpha Discussion	teleconference
6/7/2017	Martinez, Read, Parise	American Financial Exchange	Richard Sandor & Rafael Marques	Bank Lending Opportunity	teleconference
4/5/2017	Moseley	Pantheon	Susan McAndrews	prospective investments	Juneau
4/6/2017	Moseley	Riverstone	Ken Ryan	shipping opps	conf call
4/6/2017	Moseley	Crestline	Bratton, Mahajan, Philipp	credit portfolio financings	conf call
4/6/2017	Moseley	Riverside	Stewart Kohl	strategic alternatives	conf call
4/6/2017	Moseley	Blackstone SCH	various	potential co-investment	conf call
4/12/2017	Moseley	Metalmark, First Avenue	various	new fund	conf call
4/12/2017	Moseley	Bain	Radakovich	new fund	conf call
4/19/2017	Moseley	Wafra	various	Capital Constellation	NYC
4/20/2017	Moseley	Dyal Partners	various	Dyal III, IV	NYC
4/20/2017	Moseley	Vista Partners	Smith	various capital vehicles	NYC
4/21/2017	Moseley	Greenhill	Nick, Bender	unsolicitied offer	NYC
4/24/2017	Moseley	Blackstone	Sothiros	potential investments	NYC
4/24/2017	Moseley	Catalyst	various	LPAC, review	NYC
4/25/2017	Moseley	Barclays	Edwards, et al.	project avalon	conf call
4/25/2017	Moseley	Codiak	various	clinical update	conf call
4/25/2017	Moseley	Abraaj	various	fundraising	NYC
4/26/2017	Moseley	General Atlantic	various	strategy, funding	NYC
4/26/2017	Moseley	Egis Capital	Chefitz	security vehicle	NYC
4/27/2017	Moseley	Kelso	various	funds, USLBM	NYC
5/1/2017	Moseley	KKR	Brody	direct deal	conf call
5/2/2017	Moseley	Warburg Pincus	various	various fund prospects	NYC
5/3/2017	Moseley	H.I.G.	various	Advantage	NYC
5/3/2017	Moseley	Indigo, JP Morgan	various	Series D	conf call
5/3/2017	Moseley	Centerbridge	various	LPAC, review	NYC
5/3/2017	Moseley	HiTecVision	Eertvaag, Reed, Trondsen	directs	NYC
5/3/2017	Moseley	Warburg Pincus	various	fund	NYC
5/4/2017	Moseley	Brooklands	Carroll	various	NYC
5/4/2017	Moseley	Rohatyn Group	Tunney	Argentine Fund	NYC
5/4/2017	Moseley	Goldman Sachs	Rao	secondary structure	conf call
5/8/2017	Moseley	Indigo, JP Morgan	various	series D	Boston
5/9/2017	Moseley	Indigo	board, management	board meeting	Boston
5/10/2017	Moseley	Apollo	various	COF	NYC
5/11/2017	Moseley	Insight Venture Partners	various	advisory board meeting	NYC
5/10/2017	Moseley	Harvest Partners	various	AGM	NYC
5/12/2017	Moseley	Perella Weinberg	Schectman, Leever	specialty chemicals	NYC
5/18/2017	Moseley	William Blair	Page	project stampede	conf call
5/18/2017	Moseley	Folio Capital	Lewis	fund	conf call
5/18/2017	Moseley	Denali Therapeutics	various	pipeline	conf call
5/19/2017	Moseley	Wafra	various	constellation	conf call
5/22/2017	Moseley	Apollo	Thorsen	credit strategies	conf call
5/22/2017	Moseley	KKR	Brody	insurance deal, energy deal	conf call
5/22/2017	Moseley	Crestline	Bratton, Cochran	Juno, Indigo	conf call
5/22/2017	Moseley	Vestar	O'Connell	new fund timing	conf call
5/22/2017	Moseley	TA Associates	various	fund and deal update	Boston
5/23/2017	Moseley	Bain	various	AGM	NYC
5/23/2017	Moseley	Ridgemont Equity	various	LPAC, review	NYC
5/23/2017	Moseley	Stonepoint	various	Board of advisors	NYC
5/24/2017	Moseley	Greenhill	various	portfolio discussion	conf call
5/24/2017	Moseley	Indigo	various	special board call	conf call
5/25/2017	Moseley	H.I.G. Capital	Peer, Doza	new funds	conf call
5/30/2017	Moseley	Spectrum	Cunningham	allocations	Boston
5/31/2017	Moseley	Dyal Partners	Rees, Ward	directs	conf call
5/31/2017	Moseley	Midocean	Virtue	fund status	conf call
6/2/2017	Moseley	Carlyle, Alpinvest	Youngkin, et al.	various	NYC
6/2/2017	Moseley	Riverstone	various	shipping opps	NYC
6/2/2017	Moseley	Centerbridge	various	project fortuna	conf call
6/5/2017	Moseley	Brightstar	various	fund prospect	Juneau
6/7/2017	Moseley	Acalyx	Rinehart	co-investment H	conf call
6/7/2017	Moseley	Novalpina	Peel, Kowski	fund launch	Juneau
6/7/2017	Moseley	Vestar	various	fund	Juneau
6/8/2017	Moseley	Canaan Partners	Ahrens, Simonian	portfolio and new fund	Juneau
6/9/2017	Moseley	Abraaj	various	dd	Juneau
6/12/2017	Moseley	Moelis	Kirsten	funds, directs	conf call
6/13/2017	Moseley	Jeffries	Roiter	direct	conf call
6/13/2017	Moseley	Carlyle	Carson	JVs	conf call

6/14/2017	Moseley	Adams Street	Gray	various opps	Juneau
6/15/2017	Moseley	Insight Venture Partners	Cotter	funds, directs	conf call
6/15/2017	Moseley	Riverstone	Ryan	shipping opps	conf call
6/16/2017	Moseley	Juno	Harr	strategic	conf call
6/22/2017	Moseley	Upwelling	Mark	advisory services	conf call
6/22/2017	Moseley	KKR	Brody	project Uno	conf call
6/26/2017	Moseley	Wafra, RPMI	various	constellation	NYC
6/27/2017	Moseley	Permira	various	Asia, growth, flagship	NYC
6/28/2017	Moseley	Evercore	Dawn	markets and funds	NYC
6/29/2017	Moseley	Premia	Kelso, Premia	board meeting	Bermuda
4/4/2017	Moseley	BlackRock	various	BRAK/ POF III	Juneau
4/5/2017	Moseley	Pathway	various	Archer 6	conf call
4/7/2017	Moseley, Brown	NGP	various	new fund	Juneau
4/19/2017	Moseley, Brown	Goldman Sachs	Koester, Patch, Davies	WSCP VII, co-investment	NYC
4/20/2017	Moseley, Brown	Jordan Companies	various	portfolio update, fund plans	NYC
6/28/2017	Moseley, Brown	Riverstone, Ridgebury	Ryan, Lancaster	tankers	NYC
6/15/2017	Moseley, Brown, Kim	Resource Capital Funds	Mills, Bhappu	fund and markets	Juneau
5/18/2017	Moseley, Brown, Read	Crescent Point, Miner Partners	various	Asian opportunities	Juneau
6/9/2017	Moseley, Brown, Read	Seaspan, Wells Fargo	various	strategic alternatives	conf call
4/7/2017	Moseley, Kim	Pathway	Ransford	co-investment R	conf call
6/21/2017	Moseley, Kim	Montagu	Stockhuysen, Lawrence	activity update	Juneau
4/7/2017	Moseley, Kim, Brown	Encap	Bauer, Crystal	Fund XI	conf call
6/12/2017	Moseley, Kim, Brown	H.I.G. Capital	Peer	strategic alternatives	conf call
6/20/2017	Moseley, Kim, Brown	Crestline	Bratton	activity update	Juneau
6/21/2017	Moseley, Kim, Brown	Perella Weinberg	Schectman	deal update	conf call
6/19/2017	Moseley, Kim, et al.	Pathway	Chambliss et al.	activity update	Juneau
6/14/2017	Moseley, Read	Cartica	Barger, Quamme	markets and funds	Juneau
6/15/2017	Moseley, Read	Braidy Industries	Bouchard	project finance	conf call
6/27/2017	Mosely, Kim	Landmark	Charles	structured opps	conf call
5/12/2017	Ninkov	Lee Munder	Phil Dever	JO Hambro	Juneau, AK
5/10/2017	O'Day	Wells Fargo	Chris Pocino	Rates and Currency	APFC Office
5/10/2017	O'Day, Skuratovskaya	Wells Fargo	Chris Pocino, Michael Brown, Boris Rjavinski	Relationship visit, US Economy, US Rates	APFC Offices
4/7/2017	Olmsted	Moody's	Alexander Pappas	Moody's Overview	APFC
4/28/2017	Olmsted	Citi	Matt Launspach	broker visit	Juneau
5/2/2017	Olmsted	Capital Group	Michael Bowman	Commercial Paper Discussion	APFC
5/22/2017	Olmsted	Capital Group	Michael Bowman	Cash Portfolio Discussion	APFC
6/7/2017	Olmsted	Capital Group	Vince Ortega	Due Diligence visit	Los Angeles, CA
6/8/2017	Olmsted	OakTree	Jodi Meadow	Due Diligence visit	Los Angeles, CA
6/16/2017	Olmsted	Goldman Sachs	Chad Pollock	broker visit	Juneau
6/27/2017	Olmsted	BlackRock iShares	Andrew Hartman	HYG ETF discussion	APFC
6/29/2017	Olmsted	PineBridge	Joe Fague	HY ETF and Bank Loan discussion	APFC
4/11/2017	Razzaque	Guggenheim Partners	Farhan Sharaff	Strategy Review	conference call
5/9/2017	Razzaque	QMA Associates	Brad Zenz & Steve Courtney	US Value Update and QMA Firm Update	conference call
5/13/2017	Razzaque	Acadian	Phil Dever	Organizational Update	conference call
6/8/2017	Razzaque	Iaenglander	Arnim Holtzer	Introductory Meeting	conference call
6/12/2017	Razzaque	WCM Investments	Duff Daniels, Jon Tringale, Mike Trigg; Sanjay Ayer	Strategy Review	conference call
6/20/2017	Razzaque	WCM Investments	Duff Daniels	Strategy Review	conference call
4/24/2017	Razzaque, Diouf	Acadian	Investment team	Quarterly review	conference call
4/20/2017	Razzaque, Diouf	AGI US Growth	Investment team	Quarterly review	conference call
5/4/2017	Razzaque, Diouf	AQR	Investment team	Quarterly review	conference call
5/8/2017	Razzaque, Diouf	CastleArk	Investment team	Quarterly review	conference call
5/11/2017	Razzaque, Diouf	Macquarie (ex Delaware)	Investment team	Quarterly review	conference call
4/26/2017	Razzaque, Diouf	DSM	Investment team	Quarterly review	conference call
5/1/2017	Razzaque, Diouf	Eagle	Investment team	Quarterly review	conference call
4/27/2017	Razzaque, Diouf	Jennison	Investment team	Quarterly review	conference call
4/12/2017	Razzaque, Diouf	Lee Munder	Investment team	Quarterly review	conference call
4/25/2017	Razzaque, Diouf	LSV	Investment team	Quarterly review	conference call
5/3/2017	Razzaque, Diouf	Pzena	Investment team	Quarterly review	conference call
4/27/2017	Razzaque, Diouf	Schroders	Investment team	Quarterly review	conference call
5/10/2017	Razzaque, Diouf	SKBA	Investment team	Quarterly review	conference call
5/5/2017	Razzaque, Diouf	SSgA (ex GE) US Growth	Investment team	Quarterly review	conference call
5/5/2017	Razzaque, Diouf	SSgA (exGE) World xUS	Investment team	Quarterly review	conference call
4/26/2017	Razzaque, Diouf	T.Rowe	Investment team	Quarterly review	conference call
4/24/2017	Razzaque, Ninkov	Trustbridge	Investment team	Quarterly review	conference call
4/24/2017	Razzaque, Ninkov	Wisdomtree	Joe Grogan, Jeremy Schwartz	Strategy Review	Juneau, AK
6/12/2017	Razzaque, Ninkov	Baillie Gifford	Hofman Diana, Faraday Joe	Introductory Meeting	conference call
4/20/2017	Razzaque, Ninkov, Diouf	DFA	Investment team	Quarterly review	conference call
4/10/2017	Razzaque, Ninkov, Diouf	Herndon	Investment team	Quarterly review	conference call
5/1/2017	Razzaque, Ninkov, Diouf	Johnston	Investment team	Quarterly review	conference call
4/18/2017	Razzaque, Ninkov, Diouf	JP Morgan EM	Investment team	Quarterly review	conference call
5/9/2017	Razzaque, Ninkov, Diouf	JP Morgan International	Investment team	Quarterly review	conference call
5/1/2017	Razzaque, Ninkov, Diouf	Lazard	Investment team	Quarterly review	conference call
4/11/2017	Razzaque, Ninkov, Diouf	Lyrical	Investment team	Quarterly review	conference call
4/10/2017	Razzaque, Ninkov, Diouf	McKinley	Investment team	Quarterly review	conference call
4/18/2017	Razzaque, Ninkov, Diouf	Mondrian	Investment team	Quarterly review	conference call
4/17/2017	Razzaque, Ninkov, Diouf	RBC	Investment team	Quarterly review	conference call
4/28/2017	Razzaque, Ninkov, Diouf	Wells China	Investment team	Quarterly review	conference call
4/12/2017	Razzaque, Ninkov, Diouf	William Blair	Investment team	Quarterly review	conference call
5/28/2017	Razzaque, Ninkov, Diouf	Richard Bernstein Advisors	Investment team	Strategy Review	conference call
5/23/2017	Razzaque, Ninkov, Diouf	CDAM	Investment team	Strategy Review	conference call
6/5/2017	Razzaque, Ninkov, Diouf	Arrowstreet	Investment team	Strategy Review	conference call
6/9/2017	Razzaque, Ninkov, Diouf	Fiera Capital	Investment team	Strategy Review	conference call

5/9/2017	Razzaque, Read	McKinley	Rog Gilam, Alex Slivka	Strategy Review	conference call
4/5/2017	Read	McKinley	Rob Gillam, Nabyl, Peter Lejre	MEASA Fund	teleconference
4/25/2017	Read	McKinley	Peter Lejre	MEASA Fund	teleconference
4/26/2017-5/04/2017	Read	SEA/California Meetings		Milken Confernece, Apollo, Project Mustang	SEA/LAX
5/18/2017	Read	Crescent Point	Dennis Miner	Asian Private Credit	APFC Offices
5/22/2017	Read	Morgan Stanley	Michael Occi	MEASA Fund	1585 Broadway NYC
5/22/2017	Read	Guggenheim	Farhan Sharaff	Equity Funds	40 W 57th, NYC
5/22/2017	Read	Apollo	Jim Zelter	Private Credit	9 W 57th NYC
5/31/2017	Read	Blackstone	Barry Blattman	Blackstone/Saudi announcement	teleconference
6/6/2017	Read	McKinley	Rob Gillam	MEASA	teleconference
6/7/2017	Read	Ambor Exchange	Richard Sandor	Overnight investment exchange	teleconference
6/8/2017	Read	AGDC	John Tichotsky	AK LNG Project G2G strategy	teleconference
6/21/2017	Read	Crestlines	Doug Bratton,		Rookery Café Juneau
6/26/2017	Read	Deutsche Bank	Michael Keough	Asset Management	Juneau, AK
6/28/2017	Read	McKinley	Rob Gillam	MEASA	teleconference
6/28/2017	Read	BlueOrange	John Fedor		teleconference
4/21/2017	Read, Brimberry	Morgan Stanley	Greg Best		APFC Offices
5/10/2017	Read, Frampton	Crestline	Doug Bratton, Keith Williams	Project Mustang	teleconference
5/15/2017	Read, Frampton		John Hendrix, Mark Gardiner, Doug Bratton, Keith Williams, Ral	Project Mustang	teleconference
6/12/2017	Read, Martinez	Mellon Capital, BNYM	Al Goduti, Dan Smyth	Introductions	APFC Office
6/13/2017	Read, Martinez	BNYM	John Fox, Anna Pencoglu	Securities Lending	APFC Office
6/13/2017	Read, Martinez	BNYM	Darin padur	Global Risk Solutions	APFC Office
6/5/2017	Read, Mertz	Callan	Steven Center	Reporting Discussion, private market valuations	teleconference
6/7/2017	Read, Moseley	Bovalpina		TPG spin out, European mid market PE firm	APFC Offices
6/15/2017	Read, Moseley	Braidy Industries	Craig Bouchard	Mill in South Shore kentucky	APFC Office
5/11/2017	Read, Razzaque		Rob Gillam, Nabyl, Peter	MEASA	teleconference
5/19/2017	Read, Razzaque		Rob Gillam	MEASA?	teleconference
4/18/2017	Skuratovskaya	Capital Group	Michael Bowman, Greg Garrett, Christina Choi	Portfolio Review	teleconference
4/21/2017	Skuratovskaya	Rogge	Sam Hogg, John Makowske, Ranjiv Mann, Melody McDonald, P	Portfolio Review	teleconference
6/15/2017	Skuratovskaya, Ninkov	BCA Research	Christina Song, Ryan Swift	US Economy	APFC Offices

f) Staff Education & Training

ALASKA PERMANENT FUND CORPORATION

	EMPLOYEE	DEPT	TRAINING TYPE*	VENDOR	COURSE TITLE	CLASS HOURS	CITY	ST
1	Laura Achee	Admin	LT	In House	Predicitive Index	2.0	Juneau	AK
2	Shannon McCain	Admin	LT	In House	Predicitive Index	2.0	Juneau	AK
3	Kaitlin Lafavour	Admin	LT	In House	Predicitive Index	2.0	Juneau	AK
4	Janice Hotch	Admin	LT	In House	Predicitive Index	2.0	Juneau	AK
5	Katherine Smith	Finance	OL	BlackRock	Coding Compliance (Classes 1-7)	6.0	Juneau	AK
7	Katherine Smith	Finance	OL	Bloomberg	Bloomberg Market Concepts	8.0	Juneau	AK
8	Katherine Smith	Finance	CS	Spaulding Group	Asset Owner Performance Roundtable	8.0	Seattle	WA
9	Katherine Smith	Finance	CS	Spaulding Group	Performance Measurement Forum	16.0	Seattle	WA
10	Laura Achee	Operations	OTT	Cutter	Collateral Management, Managing Vendors and Service Providers, Reference Data Management Solutions	12.0	Boston	MA
11	Laura Achee	Operations	OL	Cutter	Managing Market Data	1.5	Juneau	AK

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

Communications

SUBJECT: Communications ACTION:

DATE: 9/27/2017 INFORMATION: X

Communications
As part of APFC's overall communication's strategy to fortify our mission, enhance brand awareness and provide a cohesive corporate identity, a logo refresh was developed in conjunction with our communication's consultant, Walsh Sheppard. The revitalized logo now provides a foundation for unified communications elements: graphic standards, presentations, email-signatures, stationary, business cards, social media and reports.

Our apfc.org website is also undergoing a redesign to further reinforce APFC brand cohesion. It is anticipated that the new website will be launched this fall and will convey the mission and vision of APFC in a professional design that aligns with our growing international reputation and is informative for our Alaskan stakeholders.

The brand overhaul has been implemented to address APFC's identified brand challenges: 1) APFC is often misidentified as the Alaska Permanent Fund Dividend Division; 2) APFC is accountable to diverse audiences, yet needs a formidable and uniform brand to succeed in managing and growing the Fund, and 3) the APFC brand must resonate with stakeholders and fortify APFC's mission.

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

June 2017
Interview with Andrew Kitchenmann, KTOO and Alaska Public Media
"Permanent Fund Corp. shuffles investments while waiting on Legislature's tab"

Interview with Liz Raines, KTVA
"Government shutdown would cost state hundreds of millions"

July 2017
Roundtable Discussion at the Pacific Pension & Investment Meeting in Toronto, Canada

August 2017
Interview with Andrew Kitchenmann, KTOO and Alaska Public Media
"Permanent Fund Corp. headquarters to undergo $4 million renovation"

Interview with Andrew Jenson & Elwood Brehmer, Alaska Journal of Commerce
"Rodell reflects on Fund at $60B milestone"

Financial Report

APFC ALASKA PERMANENT FUND CORPORATION

Financial Report
June 30, 2017

Fiscal Year 2017 Net Assets

Balances through June 30, 2017 *(in millions)*

Total assets	$60,509.3
Less liabilities	($724.2)
Net assets	$59,785.1
Fund Balances:	
Nonspendable	
Permanent Fund corpus—contributions and appropriations	$39,814.3
Not in spendable form—unrealized appreciation on invested assets	$7,155.3
Total nonspendable fund balance	$46,969.6
Committed	
Current FY dividend	$ -
Current FY inflation proofing	$ -
Current FY AK Capital Income Fund	$ -
Committed fund balance	$ -
Assigned for future appropriations	
Realized earnings	$10,863.2
Unrealized appreciation on invested assets	$1,952.3
Total assigned fund balance	$12,815.5
Total fund balances	$59,785.1

Fiscal Year 2017 Income

For the twelve months ending June 30, 2017 *(in millions)*

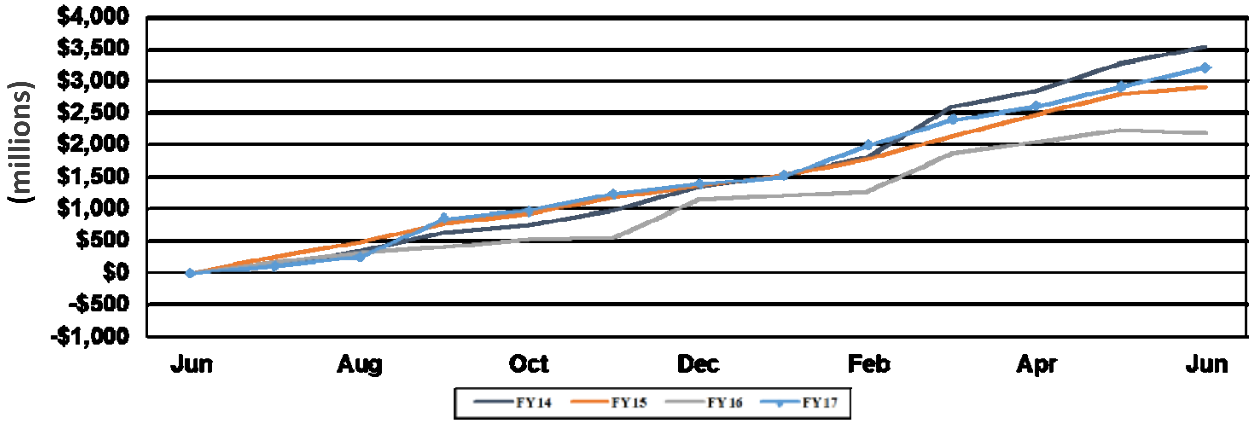
Statutory (Realized) Net Income

Interest, dividends, real estate, and other income	$1,254.1
Realized gains on the sale of invested assets	$2,115.0
Less operating expenses/legislative appropriations	($129.8)
Alaska Capital Income Fund committed realized earnings	($25.1)
Statutory net income	$3,214.2

GAAP (Accounting) Net Income

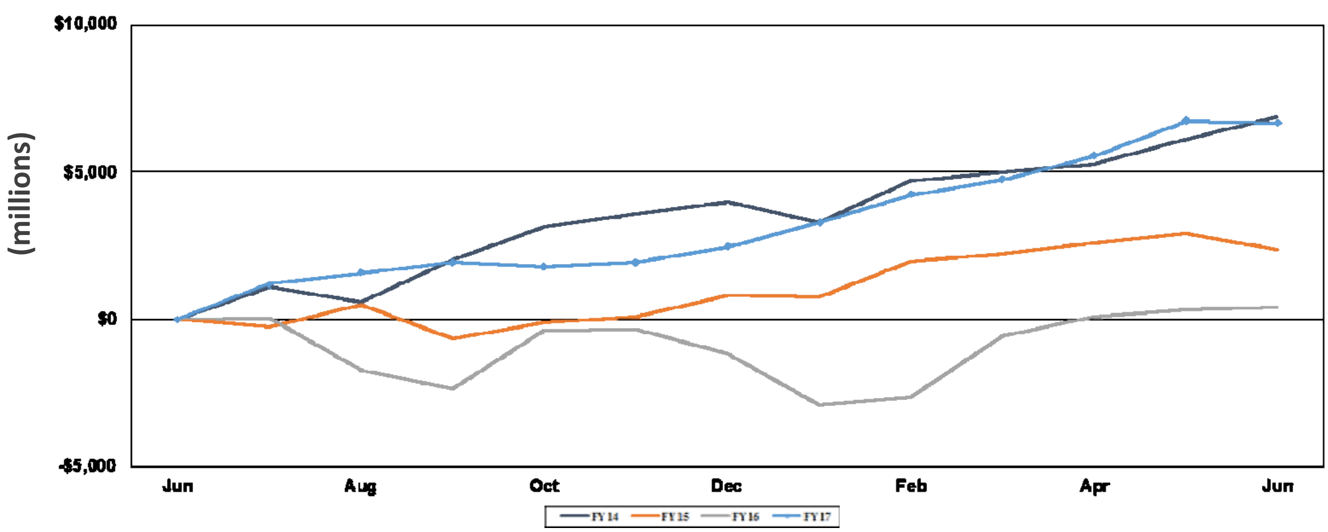
Statutory net income	$3,214.2
Unrealized gains on invested assets	$3,436.3
Alaska Capital Income Fund committed realized earnings	$25.1
Accounting net income	$6,675.6

Statutory Net Income, Fiscal Years 2014 - 2017



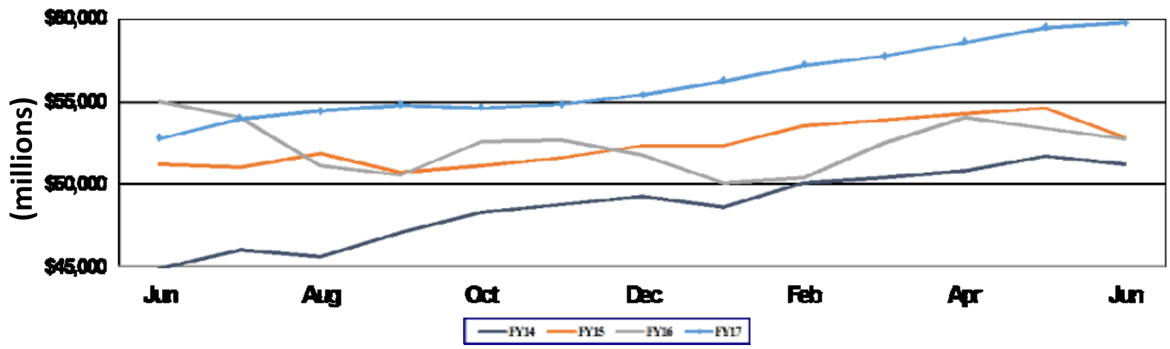
- Comprised of receipts from interest on fixed income, real estate rentals, stock dividends, and all realized gains and losses on the sales of invested assets, less AK Capital Income Fund committed amounts and operating expenses.
- FY14 statutory net income was $3,530.9 million.
- FY15 statutory net income was $2,907.3 million.
- FY16 statutory net income was $2,198.2 million.
- FY17 statutory net income was $3,214.27 million.

GAAP Accounting Net Income (Loss), Fiscal Years 2014 - 2017



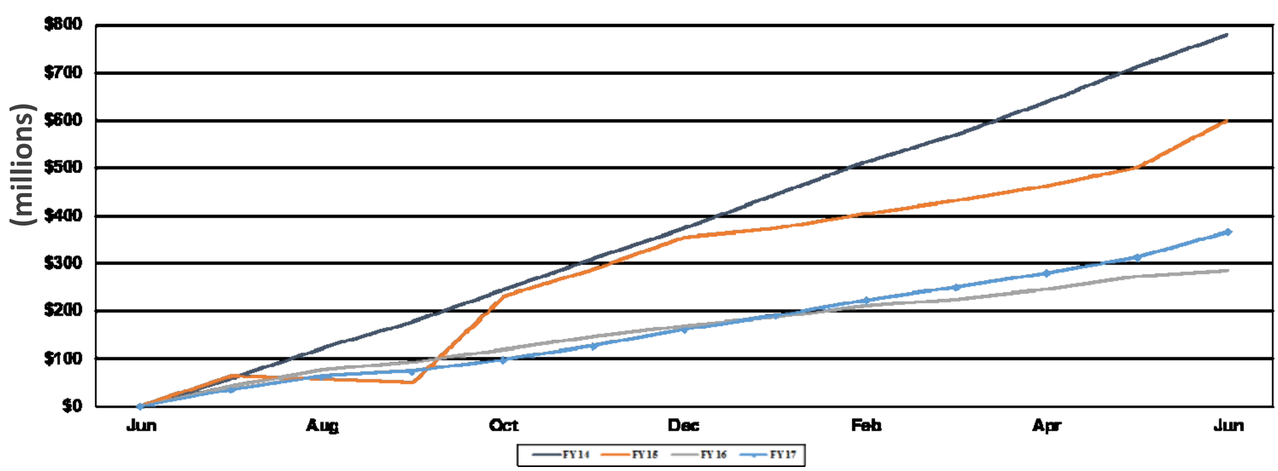
- Accounting net income is the same as statutory net income, except it includes unrealized gains and losses.
- Accounting net income for FY14 was $6.8 billion.
- Accounting net income for FY15 was $2.4 billion.
- Accounting net income for FY16 was $398.5 million.
- Accounting net income for FY17 was $6.7 billion.

Market Value of Fund Net Assets, Fiscal Years 2014 - 2017



- FY14 Fund net assets as of June 2014 were $51.2 billion, an increase of $6.3 billion over the FY13 ending balance.
- 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 FY17 ending balance.

Dedicated Mineral Revenues, Fiscal Years 2014 - 2017



- FY14 mineral revenue was $779.5 million.
- FY15 mineral revenue was $600 million.
- FY16 mineral revenue was $284.5 million.
- FY17 mineral revenue was $364.9 million.

Balance Sheets

Unaudited **(millions of dollars)**		**June 30, 2017**	June 30, 2016
Assets			
Cash and temporary investments	$	**2,653.5**	2,213.1
Receivables, prepaid expenses and other assets		**544.8**	456.5
Investments:			
Marketable debt securities		**10,114.6**	9,800.1
Preferred and common stock		**25,354.4**	20,938.2
Real estate		**6,886.8**	7,048.2
Absolute return		**4,567.0**	5,495.9
Public-private credit		**1,111.8**	1,080.4
Private equity		**6,818.1**	5,531.4
Infrastructure		**2,458.3**	1,760.7
Total investments		**57,311.0**	51,654.9
TOTAL ASSETS	$	**60,509.3**	54,324.5
Liabilities			
Accounts payable	$	**699.1**	841.0
Income distributable to the State of Alaska		**25.1**	713.8
TOTAL LIABILITIES		**724.2**	1,554.8
Fund Balances			
Nonspendable:			
Permanent Fund corpus - contributions and appropriations		**39,814.3**	39,449.4
Not in spendable form - unrealized appreciation on invested assets		**7,155.3**	4,750.3
Total nonspendable		**46,969.6**	44,199.7
Committed:			
Current FY dividend		**0.0**	0.0
Current FY inflation proofing		**0.0**	0.0
Current FY AK Capital Income Fund		**0.0**	0.0
Total committed		**0.0**	0.0
Assigned for future appropriations:			
Realized earnings		**10,863.2**	7,649.0
Unrealized appreciation on invested assets		**1,952.3**	921.0
Total assigned		**12,815.5**	8,570.0
TOTAL FUND BALANCES		**59,785.1**	**52,769.7**
TOTAL LIABILITIES AND FUND BALANCES	$	**60,509.3**	**54,324.5**

ALASKA PERMANENT FUND

Statements of Revenues, Expenditures and Changes in Fund Balances

Unaudited (millions of dollars)		Month ended June 30, 2017	Twelve months ended June 30, 2017	Fiscal year-end audited June 30, 2016
Revenues				
Interest	$	**29.1**	**310.8**	306.8
Dividends		**76.0**	**563.0**	526.5
Real estate and other income		**30.4**	**380.3**	361.0
Total interest, dividends, real estate and other income		**135.5**	**1,254.1**	1,194.3
Net increase (decrease) in the fair value of investments:				
Marketable debt securities		**(28.8)**	**(62.5)**	376.6
Preferred and common stock		**116.8**	**4,125.6**	(1,314.9)
Real estate		**(86.7)**	**102.6**	534.7
Absolute return		**(1.7)**	**351.8**	(57.3)
Public-private credit		**15.7**	**85.3**	(33.1)
Private equity		**123.8**	**1,056.6**	(35.0)
Infrastructure		**14.4**	**259.2**	274.8
Emerging markets total opportunities		**0.0**	**0.0**	15.0
Derivative Instruments		**(8.3)**	**69.1**	(27.7)
Currency		**(5.4)**	**(436.4)**	(415.0)
Total net increase (decrease) in investments		**139.8**	**5,551.3**	(681.9)
TOTAL REVENUES		**275.3**	**6,805.4**	512.3
Expenditures				
Operating expenditures		**(10.2)**	**(121.2)**	(105.3)
Other legislative appropriations		**0.0**	**(8.6)**	(8.5)
TOTAL EXPENDITURES		**(10.2)**	**(129.8)**	(113.8)
Excess (deficiency) of revenue over expenditures	$	**265.1**	**6,675.6**	398.5
Other Financing Sources (Uses)				
Transfers in		**51.3**	**364.9**	284.5
Transfers out		**(25.1)**	**(25.1)**	(713.8)
NET CHANGE IN FUND BALANCES		**291.3**	**7,015.4**	(30.8)
Fund Balances				
Beginning of period		**59,493.8**	**52,769.7**	52,800.5
End of period	**$**	**59,785.1**	**59,785.1**	52,769.7

Statutory Income Calculation				
Excess (deficiency) of revenues over (under) expenditures		**265.1**	**6,675.6**	398.5
Adjustments to bring net income to statutory net income:				
Unrealized (gains) losses		**40.7**	**(3,436.3)**	1,817.8
Alaska Capital Income Fund realized income		**(27.4)**	**(25.1)**	(18.1)
STATUTORY NET INCOME	$	**278.4**	**3,214.2**	2,198.2

ALASKA PERMANENT FUND
FUND FINANCIAL HISTORY & PROJECTIONS
as of June 30, 2017

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

	Nonspendable Fund Balance - Principal								Assigned Fund Balance											TOTAL FUND
						Unrealized Gain (Loss)					Distributions of Statutory Net Income				Unrealized Gain (Loss)					
FY	FY-Begin Contrib. Balance	Appro-priations [1]	Dedicated [2] State Revenues	Inflation Proofing	FY-End Balance Contributions	Net Change	FY-End Balance	FY-End Non-spendable Balance	Acct. Net Income [3]	Statutory Net Income [3]	Dividends	Inflation Proofing/Other	Gen. Fund / Other [4]	FY-End Balance Realized	Net Change	FY-End Balance [5]	Net Assigned Change	FY-End Assigned Balance	FY	FY-End Balance
77-07	0	7,039	9,692	10,766	27,497	6,198	6,198	33,695	39,096	34,618	15,359	14,506 [8]	388	4,132	0	0	(1,505)	4,132	77-07	37,827
08	27,497	0	844	808	29,149	(3,886)	2,064	31,213	(1,372)	2,938	1,293	808	33	4,969	352	352	1,189	5,321	08	36,534
09	29,149	0	651	1,144	30,944	(3,513)	(1,449)	29,495	(6,394)	(2,509)	875	1,144	0 [8]	441	(373)	(21)	(4,901)	420	09	29,915
10	30,944	0	679	0	31,624	1,869	421	32,045	3,517	1,590	858	0 [7]	0 [8]	1,194	37	16	790	1,210	10	33,255
11	31,624	0	887	533 [7]	33,044	4,367	4,788	37,832	6,812	2,143	801	533	13 [8]	2,016	276	292	1,098	2,308	11	40,140
12	33,044	0	915	1,073	35,033	(1,568)	3,220	38,252	(100)	1,568	605	1,073	17	1,905	(117)	175	(227)	2,081	12	40,333
13	35,033	0	840	742	36,615	964	4,184	40,799	4,314	2,928	604	742	30	3,487	392	567	1,974	4,054	13	44,853
14	36,615	0	779	546	37,941	2,878	7,062	45,003	6,848	3,531	1,235	546	32	5,237	408	975	2,158	6,211	14	51,214
15	37,941	0	600	624	39,165	(589)	6,473	45,638	2,384	2,907	1,373	624	24	6,147	41	1,016	951	7,162	15	52,800
16	39,165	0	284	0 [7]	39,449	(1,722)	4,751	44,199	399	2,198	696 [9]	0 [7]	18	7,649	(95)	921	1,407	8,570	16	52,769
17	39,449 [6]	0	365	0 [7]	39,814	2,405	7,156	46,970	6,676	3,214	0	0 [7]	25	10,863	1,031	1,952	4,245	12,815	17	59,785
18	39,814	0	321	903	41,038	350	7,506	48,543	4,036	3,584	1,621	903	26	11,924	102	2,054	1,162	13,977	18	62,521
19	41,038	0	341	931	42,310	360	7,866	50,176	4,224	3,752	1,644	931	26	13,100	111	2,165	1,288	15,266	19	65,441
20	42,310	0	350	960	43,619	371	8,237	51,856	4,423	3,931	1,751	960	26	14,320	122	2,287	1,342	16,607	20	68,463
21	43,619	0	363	990	44,972	382	8,619	53,591	4,630	4,116	1,953	990	26	15,494	132	2,418	1,305	17,912	21	71,503
22	44,972	0	366	1,020	46,358	394	9,012	55,371	4,837	4,302	2,067	1,020	26	16,708	142	2,560	1,356	19,268	22	74,639
23	46,358	0	369	1,051	47,779	405	9,418	57,196	5,051	4,493	2,162	1,051	26	17,988	153	2,713	1,433	20,701	23	77,897
24	47,779	0	370	1,083	49,232	417	9,835	59,066	5,273	4,692	2,261	1,083	26	19,336	164	2,877	1,512	22,213	24	81,279
25	49,232	0	379	1,116	50,727	429	10,264	60,991	5,504	4,899	2,363	1,116	26	20,757	176	3,052	1,596	23,809	25	84,800
26	50,727	0	380	1,150	52,257	442	10,706	62,963	5,745	5,115	2,468	1,150	26	22,253	188	3,240	1,685	25,494	26	88,456
27	52,257	0	384	1,184	53,825	455	11,160	64,986	5,994	5,338	2,577	1,184	26	23,830	201	3,442	1,778	27,272	27	92,258
Cumulative Totals Projfor 2018-2027		0	3,623	10,389		4,005			49,718	44,223	20,867	10,389	265		1,490		14,457			

Preliminary Return Calculations for FY 2016

Assumptions:	Total Return	- Inflation	= Total Real Return	Statutory Return
FY 2017	12.57%	1.26%	11.31%	5.91%
FY 2018-2027	6.95%	2.25%	4.70%	6.24%

Notes related to financial history and projections FY1977 - FY2026:

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

(2) Dedicated State Revenues in future fiscal years are based on the Spring 2017 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, less any earnings/losses of the Alaska Capital Income Fund.

(4) FY05 and forward, Amerada Hess, et al. settlement earnings are transferred to Alaska Capital Income Fund per AS 37.13.145(d). FY09 incurred realized losses. FY09 losses of $33 million are net with FY10 gains of $21 million and FY11 gains of $12 million. Excess earnings transferred to the AK Capital Income Fund again in FY11.

(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) FY17 and earlier values are actual. Future amounts are based on 2016 Callan capital market assumptions and median expected returns. Actual results will vary.

(7) FY10 did not incur inflation proofing as there was a negative inflation calculation. In FY16 and FY17 inflation proofing was not appropriated.

(8) FY77-07 includes special appropriations to principal of $3.7 billion.

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

Unaudited Income as of June 30, 2017

FY17 Statutory net income		
Interest, dividends, real estate & other income	$	1,254.1
Realized gains on the sale of invested assets		2,115.0
Less operating exp / Legis. appropriations		(129.8)
Less AK Capital Income Fund realized earnings		(25.1)
Statutory net income	$	3,214.2

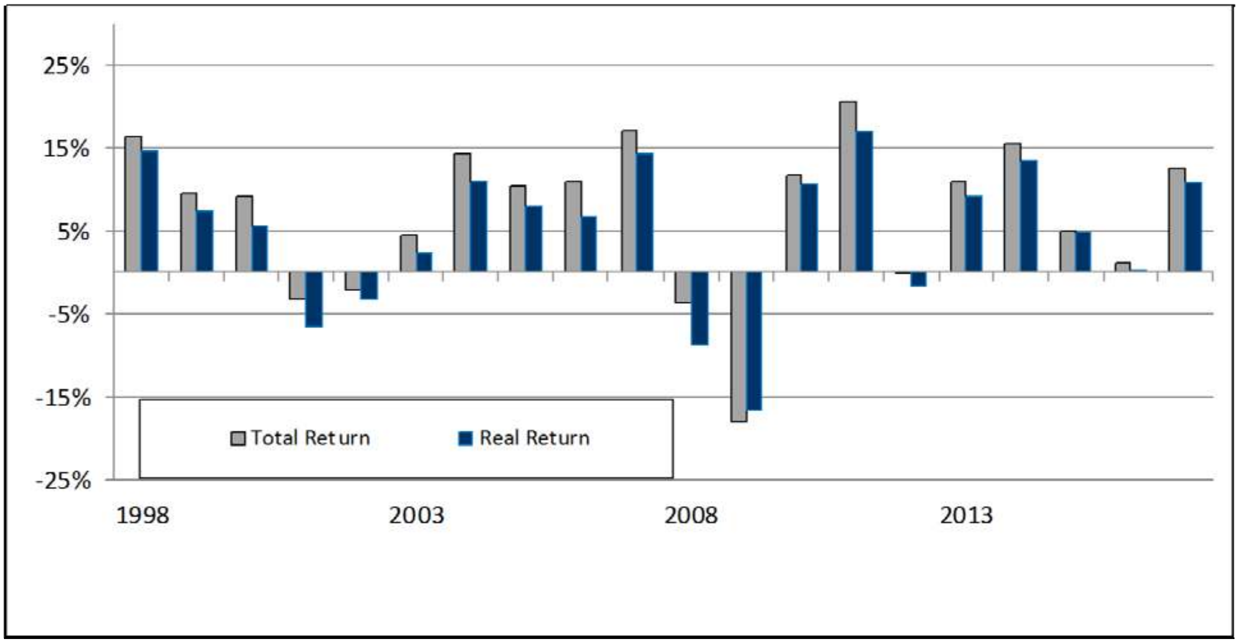
FY17 Accounting (GAAP) net income		
Statutory net income	$	3,214.2
Unrealized gains on invested assets		3,436.3
AK Capital Income Fund committed realized earnings		25.1
GAAP (accounting) net income	$	6,675.6

PERFORMANCE SUMMARY (preliminary as of June 30, 2017)	Current Month	Last 3 Months	Fiscal Y-T-D	Calendar Y-T-D	Last 12 Months	Last 3 Years	Last 5 Years
PUBLIC EQUITIES	0.75%	4.38%		11.98%			
FIXED INCOME PLUS	0.07%	1.95%		3.69%			
PRIVATE EQUITY AND GROWTH OPPORTUNITIES	N/A	N/A		N/A			
REAL ESTATE	N/A	N/A	4.45%	N/A	4.45%	8.73%	9.85%
INFRSTRUCTURE/PRIVATE CREDIT/INCOME OPPS	N/A	N/A		N/A			
ABSOLUTE RETURN	N/A	0.82%	7.22%	3.16%	7.22%	1.89%	3.61%
ASSET ALLOCATION	N/A	0.14%		1.44%			
TOTAL FUND	0.64%	2.99%	12.57%	7.48%	12.57%	6.18%	8.94%
Total Fund Return Objective	0.49%	1.68%	6.63%	3.89%	6.63%	5.92%	6.32%

Note related to the performance summary:

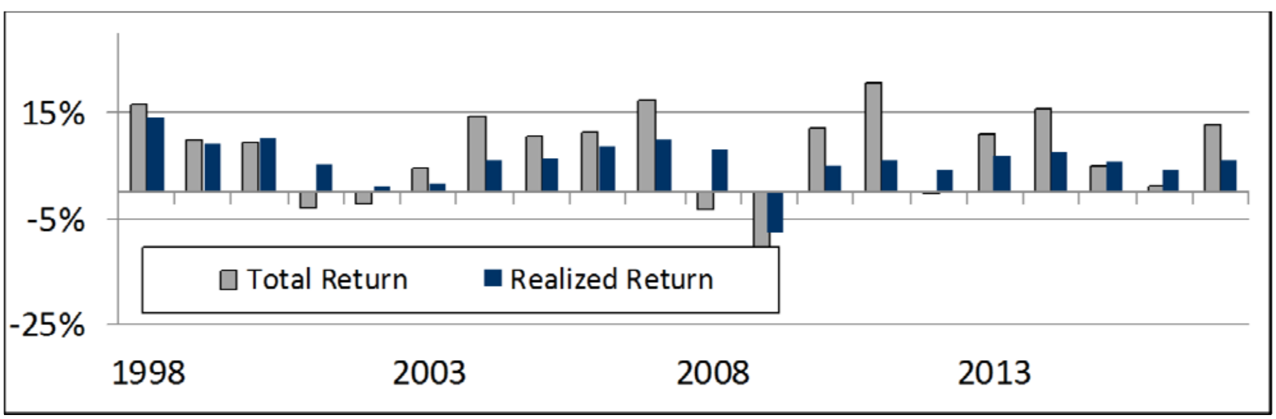
Effective October 1, 2016, the Board of Trustees changed the target asset allocation of the Fund. Historical returns for the new asset classes will be reported over time.

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%

Cash Flow

ALASKA PERMANENT FUND CORPORATION

Board of Trustees - APFC Cash Transfers - April 1 to June 30, 2017

Type of Transfer	April	May	June	Total
ADMINISTRATIVE TOTAL	(22,918,987)	(33,245,723)	(24,862,530)	(81,027,239)
PUBLIC EQUITIES TOTAL	-	92,696	(1,188,024,712)	(1,187,932,017)
FIXED INCOME PLUS TOTAL	1,131,960	508,066	(200,265,326)	(198,625,300)
PRIVATE EQUITY & GROWTH OPPORTUNITIES TOTAL	(31,703,821)	(19,417,755)	(26,122,383)	(77,243,960)
REAL ESTATE TOTAL	7,768,533	38,291,841	16,859,380	62,919,755
INFR., PRIVATE CREDIT & INCOME OPPORTUNITIES TOTAL	3,076,659	(1,745,297)	(37,440,352)	(36,108,990)
ABSOLUTE RETURN TOTAL	34,898,537	139,588,516	(118,009,709)	56,477,343
ASSET ALLOCATION TOTAL	-	-	(1,000,000,000)	(1,000,000,000)
Total value of cash/stock transfers	**(7,747,118)**	**124,072,343**	**(2,577,865,633)**	**(2,461,540,408)**

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

APFC Cash Transfers - April 2017

Date	Type of Transfer	Amount	Source	Destination
	ADMINISTRATIVE SUBTOTAL	**(22,918,987)**		
Various	Transfer in - Mineral revenue	**24,334,906**	Department of Natural Resources	Internal Cash account
4/4/2017	Transfer in - AIM STIF Interest	**1,019,621**	Bank of NY Mellon	Internal Cash account
4/21/2017	Transfer in - Commission Recapture proceeds	**53,625**	Bank of NY Mellon	Internal Cash account
4/13/2017	Transfer in - Securities Lending Income	**1,569,629**	Bank of NY Mellon	Internal Cash account
Various	Transfer in - Class Actions	**962,609**	Class action proceeds	Internal Cash account
Various	Transfer out - Corporate Expenses	**(5,021,403)**	Internal Cash account	FNBA, Department of Revenue
	FIXED INCOME PLUS SUBTOTAL	**1,131,960**		
	FIXED INCOME PLUS CASH			
Various	**APF Fixed Income Plus Cash account increase**	**(899,767)**	Internal Cash account	APF Fixed Income Plus Cash Account
	US FIXED INCOME AGGREGATE			
Various	**APF Fixed Income - Aggregate account increase**	**(451,641)**	Internal Cash account	APF Fixed Income - Aggregate Account
	GLOBAL HIGH YIELD			
Various	**APF High Yield account decrease**	**899,767**	APF High Yield Account	Internal Cash account
	LISTED INFRASTRUCTURE			
4/5/2017	**SSgA Listed Infrastructure account increase**	**(125,000,000)**	Internal Cash account	SSgA Listed Infrastructure Account
Various	**Wellington Listed Infrastructure account decrease**	**126,583,601**	Wellington Listed Infrastructure Account	Internal Cash account
	PRIVATE EQUITY & GROWTH OPPORTUNITIES SUBTOTAL	**(31,703,821)**		
	PRIVATE EQUITY			
Various	**Private Equity distributions**	**17,266,694**	Private Equity	Internal Cash account
Various	**Private Equity capital calls**	**(48,730,134)**	Internal Cash account	Private Equity
	GROWTH OPPORTUNITIES			
Various	**Growth Opportunities distributions**	**5,511,976**	Growth Opportunities	Internal Cash account
Various	**Growth Opportunities capital calls**	**(5,752,357)**	Internal Cash account	Growth Opportunities
	REAL ESTATE SUBTOTAL	**7,768,533**		
Various	**Real Estate distributions**	**8,983,828**	Real Estate	Internal Cash account
Various	**Real Estate capital calls**	**(1,215,295)**	Internal Cash account	Real Estate
	INFR., PRIVATE CREDIT & INCOME OPPORTUNITIES SUBTOTAL	**3,076,659**		
	INFRASTRUCTURE			
Various	**Infrastructure capital calls**	**(909,173)**	Internal Cash account	Infrastructure
	PUBLIC/PRIVATE CREDIT			
Various	**Public/Private Credit distributions**	**9,686,345**	Public/Private Credit	Internal Cash account
Various	**Public/Private Credit capital calls**	**(5,700,513)**	Internal Cash account	Public/Private Credit
	ABSOLUTE RETURN SUBTOTAL	**34,898,537**		
Various	**Absolute Return distributions**	**39,350,904**	Absolute Return	Internal Cash account
Various	**Absolute Return capital calls**	**(4,452,367)**	Internal Cash account	Absolute Return
	Total value of cash/stock transfers	**(7,747,118)**		

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

APFC Cash Transfers - May 2017

Date	Type of Transfer	Amount	Source	Destination
	ADMINISTRATIVE SUBTOTAL	(33,245,723)		
Various	Transfer in - Mineral revenue	46,154,574	Department of Natural Resources	Internal Cash account
5/2/2017	Transfer in - AIM STIF Interest	1,344,371	Bank of NY Mellon	Internal Cash account
5/18/2017	Transfer in - Commission Recapture proceeds	22,760	Bank of NY Mellon	Internal Cash account
Various	Transfer in - Securities Lending Income	1,685,130	Bank of NY Mellon	Internal Cash account
Various	Transfer in - Class Actions	2,444,304	Class action proceeds	Internal Cash account
Various	Transfer out - Corporate Expenses	(18,405,417)	Internal Cash account	FNBA, Department of Revenue
	PUBLIC EQUITIES SUBTOTAL	92,696		
	DOMESTIC EQUITIES			
5/30/2017	**In House SPDR Yield account decrease**	29,127	In House SPDR Yield Account	Internal Cash account
5/30/2017	**In House SPDR Momentum account decrease**	32,542	In House SPDR Momentum Account	Internal Cash account
5/31/2017	**In House SPDR Low Vol account decrease**	31,027	In House SPDR Low Vol Account	Internal Cash account
	FIXED INCOME PLUS SUBTOTAL	508,066		
	FIXED INCOME PLUS CASH			
Various	**APF Fixed Income Plus Cash account increase**	(838,660)	Internal Cash account	APF Fixed Income Plus Cash Account
	US FIXED INCOME AGGREGATE			
Various	**APF Fixed Income - Aggregate account decrease**	424,471	APF Fixed Income - Aggregate Account	Internal Cash account
	GLOBAL HIGH YIELD			
Various	**APF High Yield account decrease**	838,660	APF High Yield Account	Internal Cash account
	REITS			
5/10/2017	**American Homes 4 Rent account decrease**	83,595	American Homes 4 Rent Account	Internal Cash account
	PRIVATE EQUITY & GROWTH OPPORTUNITIES SUBTOTAL	(19,417,755)		
	PRIVATE EQUITY			
Various	**Private Equity distributions**	48,603,721	Private Equity	Internal Cash account
Various	**Private Equity capital calls**	(16,999,910)	Internal Cash account	Private Equity
	GROWTH OPPORTUNITIES			
Various	**Growth Opportunities capital calls**	(51,021,566)	Internal Cash account	Growth Opportunities
	REAL ESTATE SUBTOTAL	38,291,841		
Various	**Real Estate distributions**	38,607,629	Real Estate	Internal Cash account
Various	**Real Estate capital calls**	(315,787)	Internal Cash account	Real Estate
	INFR., PRIVATE CREDIT & INCOME OPPORTUNITIES SUBTOTAL	(1,745,297)		
	INFRASTRUCTURE			
Various	**Infrastructure distributions**	10,343,379	Infrastructure	Internal Cash account
Various	**Infrastructure capital calls**	(26,928,075)	Internal Cash account	Infrastructure
	PUBLIC/PRIVATE CREDIT			
Various	**Public/Private Credit distributions**	21,158,112	Public/Private Credit	Internal Cash account
Various	**Public/Private Credit capital calls**	(7,118,713)	Internal Cash account	Public/Private Credit
	INCOME OPPORTUNITIES			
Various	**American Homes 4 Rent II distributions**	800,000	American Homes 4 Rent II	Internal Cash account
	ABSOLUTE RETURN SUBTOTAL	139,588,516		
Various	**Absolute Return distributions**	140,937,110	Absolute Return	Internal Cash account
Various	**Absolute Return capital calls**	(1,348,594)	Internal Cash account	Absolute Return
	Total value of cash/stock transfers	124,072,343		

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

APFC Cash Transfers - June 2017

Date	Type of Transfer	Amount	Source	Destination
	ADMINISTRATIVE SUBTOTAL	**(24,862,530)**		
Various	Transfer in - Mineral revenue	**25,004,434**	Department of Natural Resources	Internal Cash account
	Transfer in - AIM STIF Interest	**1,710,840**	Bank of NY Mellon	Internal Cash account
	Transfer in - Commission Recapture proceeds	**43,570**	Bank of NY Mellon	Internal Cash account
	Transfer in - Securities Lending Income	**1,781,804**	Bank of NY Mellon	Internal Cash account
Various	Transfer in - Class Actions	**661,050**	Class action proceeds	Internal Cash account
Various	Transfer out - Corporate Expenses	**(4,339,169)**	Internal Cash account	FNBA, Department of Revenue
	PUBLIC EQUITIES SUBTOTAL	**(1,188,024,712)**		
	GLOBAL EQUITIES			
Various	**APF Tactical Tilts account increase**	**(1,194,201,185)**	Internal Cash account	APF Tactical Tilts Account
	DOMESTIC EQUITIES			
Various	**APF SPDR Yield account decrease**	**2,848,320**	APF SPDR Yield Account	Internal Cash account
Various	**APF SPDR Momentum account decrease**	**1,589,206**	APF SPDR Momentum Account	Internal Cash account
Various	**APF SPDR Low Vol account decrease**	**1,731,913**	APF SPDR Low Vol Account	Internal Cash account
	FIXED INCOME PLUS SUBTOTAL	**(200,265,326)**		
	FIXED INCOME PLUS CASH			
Various	**APF Fixed Income Plus Cash account increase**	**(50,939,756)**	Internal Cash account	APF Fixed Income Plus Cash Account
	US FIXED INCOME AGGREGATE			
Various	**APF Fixed Income - Aggregate account increase**	**(120,265,326)**	Internal Cash account	APF Fixed Income - Aggregate Account
	GLOBAL HIGH YIELD			
Various	**APF High Yield account decrease**	**939,756**	APF High Yield Account	Internal Cash account
	REITS			
6/29/2017	**SSGA REITs account increase**	**(80,000,000)**	Internal Cash account	SSGA REITs Account
	LISTED INFRASTRUCTURE			
6/7/2017	**SSGA Listed Infr account decrease**	**50,000,000**	SSGA Listed Infr Account	Internal Cash account
	PRIVATE EQUITY & GROWTH OPPORTUNITIES SUBTOTAL	**(26,122,383)**		
	PRIVATE EQUITY			
Various	**Private Equity distributions**	**69,383,415**	Private Equity	Internal Cash account
Various	**Private Equity capital calls**	**(29,508,058)**	Internal Cash account	Private Equity
	GROWTH OPPORTUNITIES			
Various	**Growth Opportunities distributions**	**18,180,912**	Growth Opportunities	Internal Cash account
Various	**Growth Opportunities capital calls**	**(84,178,652)**	Internal Cash account	Growth Opportunities
	REAL ESTATE SUBTOTAL	**16,859,380**		
Various	**Real Estate distributions**	**18,564,525**	Real Estate	Internal Cash account
Various	**Real Estate capital calls**	**(1,705,145)**	Internal Cash account	Real Estate
	INFR., PRIVATE CREDIT & INCOME OPPORTUNITIES SUBTOTAL	**(37,440,352)**		
	INFRASTRUCTURE			
Various	**Infrastructure distributions**	**29,298,334**	Infrastructure	Internal Cash account
Various	**Infrastructure capital calls**	**(59,083,510)**	Internal Cash account	Infrastructure
	PUBLIC/PRIVATE CREDIT			
Various	**Public/Private Credit distributions**	**9,495,653**	Public/Private Credit	Internal Cash account
Various	**Public/Private Credit capital calls**	**(14,663,124)**	Internal Cash account	Public/Private Credit
	INCOME OPPORTUNITIES			
Various	**Athyrium III capital calls**	**(2,487,705)**	Internal Cash account	Athyrium III
	ABSOLUTE RETURN SUBTOTAL	**(118,009,709)**		
Various	**Absolute Return distributions**	**30,102,257**	Absolute Return	Internal Cash account
Various	**Absolute Return capital calls**	**(148,111,966)**	Internal Cash account	Absolute Return
	ASSET ALLOCATION SUBTOTAL	**(1,000,000,000)**		
	APF FI Liquidity			
6/30/2017	**APF FI Liquidity account increase**	**(1,000,000,000)**	Internal Cash account	APF FI Liquidity
	Total value of cash/stock transfers	**(2,577,865,633)**		

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 - June 30, 2017

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 6/30/2017*	(A) 1 Month	(B) 3 Month	(C) CYTD	(D) FYTD	(E) 1 Year	(F) 3 Years	(G) 5 Years
			Returns as of 6/30/2017						
1	**TOTAL FUND**	**60,298,743,539**	**0.64%**	**2.99%**	**7.48%**	**12.57%**	**12.57%**	**6.18%**	**8.94%**
2	Passive Index Benchmark[1]		0.35%	3.27%	8.09%	10.26%	10.26%	3.37%	7.10%
3	Performance Benchmark[2]		0.32%	2.62%	6.44%	10.25%	10.25%	4.47%	7.96%
4	Total Fund Return Objective[3]		0.49%	1.68%	3.89%	6.63%	6.63%	5.92%	6.32%
5	**PUBLIC EQUITIES**	**26,116,329,165**	**0.75%**	**4.38%**	**11.98%**				
6	MSCI ACWI IMI		0.59%	4.25%	11.32%				
7	**INTERNATIONAL EQUITIES**	**9,624,443,260**	**0.63%**	**6.16%**	**15.96%**	**22.57%**	**22.57%**	**1.73%**	**7.29%**
8	MSCI ACWI IMI EX-US		0.33%	5.85%	14.30%	20.43%	20.43%	1.14%	7.58%
9	**GLOBAL EQUITIES**	**9,353,673,359**	**0.30%**	**3.72%**	**10.57%**	**18.77%**	**18.77%**	**4.89%**	**11.54%**
10	MSCI ACWI IMI		0.59%	4.25%	11.32%	19.01%	19.01%	4.87%	10.74%
11	**DOMESTIC EQUITIES**	**7,138,212,545**	**1.42%**	**2.84%**	**8.56%**	**20.08%**	**20.08%**	**8.74%**	**14.85%**
12	RUSSELL 3000 INDEX		0.90%	3.02%	8.93%	18.51%	18.51%	9.10%	14.59%
13	**FIXED INCOME PLUS**	**11,719,229,810**	**0.07%**	**1.95%**	**3.69%**				
14	PUBLIC INCOME BENCHMARK[4]		0.06%	1.83%	3.38%				
15	**FIXED INCOME PLUS CASH**	**448,050,442**	**0.11%**	**0.28%**	**0.42%**				
16	90 DAY T-BILLS		0.08%	0.20%	0.31%				
17	**US FIXED INCOME AGGREGATE**	**3,268,288,235**	**-0.08%**	**1.45%**	**2.30%**	**0.62%**	**0.62%**	**2.62%**	
18	BC AGGREGATE		-0.10%	1.45%	2.27%	-0.31%	-0.31%	2.48%	
19	**US INVESTMENT GRADE CORPORATE**	**3,114,103,711**	**0.39%**	**2.72%**	**3.96%**	**3.29%**	**3.29%**	**4.31%**	**4.60%**
20	BC CORPORATE		0.31%	2.54%	3.80%	2.28%	2.28%	3.61%	3.96%
21	**NON US FIXED INCOME**	**572,698,611**	**-0.33%**	**0.52%**	**0.65%**	**-1.57%**	**-1.57%**	**3.66%**	**3.63%**
22	BC GLOBAL AGG EX-US		-0.42%	0.54%	0.35%	-1.71%	-1.71%	3.93%	3.99%
23	**GLOBAL HIGH YIELD**	**1,143,639,256**	**-0.25%**	**1.75%**	**4.17%**	**10.80%**	**10.80%**	**3.88%**	**6.26%**
24	BC US HIGH YIELD 2% ISSUER CAP		0.14%	2.17%	4.92%	12.69%	12.69%	4.50%	6.90%
25	**EMERGING MARKET DEBT**	**634,997,403**	**0.19%**	**2.46%**	**7.09%**	**7.15%**	**7.15%**	**0.95%**	**3.05%**
26	BC EMD HARD CURRENCY AGG		0.00%	2.50%	5.82%	5.76%	5.76%	3.50%	5.03%
27	**TIPS**	**720,454,840**	**-0.87%**	**-0.31%**	**0.95%**	**-0.62%**	**-0.62%**	**0.50%**	**0.31%**
28	BC US TIPS		-0.95%	-0.40%	0.85%	-0.63%	-0.63%	0.63%	0.27%
29	**REITS**	**1,237,859,867**	**1.20%**	**2.09%**	**3.70%**	**1.54%**	**1.54%**	**6.51%**	**8.73%**
30	S&P GLOBAL REIT		0.92%	1.67%	3.14%	-2.35%	-2.35%	4.55%	7.57%
31	**LISTED INFRASTRUCTURE**	**579,137,444**	**-1.01%**	**5.39%**	**14.45%**				
32	S&P GLOBAL LISTED INFRASTRUCTURE		-0.16%	5.63%	13.82%				
33	**PRIVATE EQUITY AND GROWTH OPPORTUNITIES**	**6,988,360,183**	**N/A**	**N/A**	**N/A**				
34	**PRIVATE EQUITY**	**4,164,323,542**	**N/A**	**N/A**	**N/A**	**20.98%**	**20.98%**	**17.22%**	**18.20%**
35	PRIVATE EQUITY CUSTOM BENCHMARK[6]		N/A	N/A	N/A	6.13%	6.13%	1.88%	9.67%
36	**GROWTH OPPORTUNITIES**	**2,824,036,640**	**N/A**	**N/A**	**N/A**				
37	CAMBRIDGE PRIVATE EQUITY		N/A	N/A	N/A				
38	**REAL ESTATE****	**5,558,041,523**	**N/A**	**N/A**	**N/A**	**4.45%**	**4.45%**	**8.73%**	**9.85%**
39	NCREIF TOTAL INDEX		N/A	N/A	N/A	6.97%	6.97%	10.17%	10.49%
40	**INFRASTRUCTURE, PRIVATE CREDIT AND INCOME OPPORTUNITIES**	**3,201,615,372**	**N/A**	**N/A**	**N/A**				
41	INFRASTRUCTURE, PRIVATE CREDIT AND INCOME OPPORTUNITIES[4]		N/A	N/A	N/A				
42	**INFRASTRUCTURE**	**1,916,015,412**	**N/A**	**N/A**	**N/A**	**8.55%**	**8.55%**	**14.50%**	**13.55%**
43	**PUBLIC/PRIVATE CREDIT**	**1,121,165,637**	**N/A**	**N/A**	**N/A**	**9.59%**	**9.59%**	**5.70%**	**7.88%**
44	**INCOME OPPORTUNITIES**	**164,434,322**	**N/A**	**N/A**	**N/A**	**9.52%**	**9.52%**		
45	**ABSOLUTE RETURN**	**2,206,209,479**	**N/A**	**0.82%**	**3.16%**	**7.22%**	**7.22%**	**1.89%**	**3.61%**
46	ABSOLUTE RETURN BENCHMARK[7]		N/A	1.04%	3.58%	6.21%	6.21%	5.90%	5.62%
47	**ASSET ALLOCATION**	**4,508,958,007**	**N/A**	**0.14%**	**1.44%**				
48	**APF FI LIQUIDITY**	**998,343,260**							
49	**CASH**	**1,111,389,874**	**0.07%**	**0.30%**	**0.36%**	**0.48%**	**0.48%**	**0.19%**	**0.12%**
50	90 DAY T-BILLS		0.08%	0.20%	0.31%	0.49%	0.49%	0.23%	0.17%
51	**MULTI-ASSET CLASS**	**2,399,224,873**	**N/A**	**0.00%**	**2.38%**	**7.75%**	**7.75%**	**3.96%**	**5.54%**
52	PERFORMANCE BENCHMARK[2]		N/A	2.62%	6.44%	10.25%	10.25%	4.47%	7.96%

[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 (42% MSCI ACWI IMI; 11% NCREIF Total Index; 11% Cambridge Private Equity; 6% BC US Corporate; 6% BC Aggregate; 5% HFRI Total HFOF Universe; 4% BC US High Yield 2% Issuer Cap; 3% 90 Day T-Bills; 3% FTSE Developed Core Infrastructure TRI; 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 9/30/2016 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; 40% BC US High Yield 2% Issuer Cap) from 9/30/2016 to date.

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

* All reported market values represent total fund holdings, which consists of 99.16% APF and 0.84% AMH, and includes estimates when final valuations are unavailable due to timing.

** Real Estate returns include REITs prior to 9/30/2016.

			(A)	(B)	(C)	(D)	(E)	(F)	(G)
		Market Values as of 6/30/2017	Returns as of 6/30/2017						
			1 Month	3 Month	CYTD	FYTD	1 Year	3 Years	5 Years
53	**PUBLIC EQUITIES**	**26,116,329,165**	**0.75%**	**4.38%**	**11.98%**				
54	MSCI ACWI IMI		0.59%	4.25%	11.32%				
55	**INTERNATIONAL EQUITIES**	**9,624,443,260**	**0.63%**	**6.16%**	**15.96%**	**22.57%**	**22.57%**	**1.73%**	**7.29%**
56	MSCI ACWI IMI EX-US		0.33%	5.85%	14.30%	20.43%	20.43%	1.14%	7.58%
57	**Macquarie Investment Management Emerging Markets**	**279,837,578**	**0.37%**	**7.39%**	**22.67%**	**30.79%**	**30.79%**	**1.53%**	
58	**JP Morgan Emerging Markets**	**480,826,072**	**1.13%**	**6.68%**	**19.59%**	**23.27%**	**23.27%**	**3.80%**	
59	**Lee Munder Emerging Markets**	**156,834,001**	**2.19%**	**7.74%**	**20.14%**	**26.01%**	**26.01%**	**1.22%**	
60	**Mondrian Investment Partners**	**566,157,643**	**0.06%**	**4.19%**	**16.01%**	**16.72%**	**16.72%**	**-0.49%**	**3.27%**
61	**SSgA MSCI Emerging Markets**	**237,795,943**	**1.77%**	**6.22%**	**18.33%**	**23.18%**	**23.18%**	**1.24%**	**4.08%**
62	**William Blair Emerging Markets**	**563,823,877**	**1.33%**	**8.13%**	**20.89%**	**19.46%**	**19.46%**	**2.31%**	
63	MSCI Emerging Markets Index		1.01%	6.27%	18.43%	23.75%	23.75%	1.07%	3.96%
64	**DFA Emerging Markets Value**	**520,709,678**	**0.32%**	**2.65%**	**15.81%**	**25.81%**	**25.81%**		
65	MSCI Emerging Markets Value Index		0.10%	3.17%	13.65%	21.57%	21.57%		
66	**DFA Emerging Markets Small Cap**	**183,427,215**	**0.88%**	**2.24%**	**16.63%**	**19.87%**	**19.87%**		
67	MSCI Emerging Markets Small Cap Index		0.78%	2.63%	15.99%	17.03%	17.03%		
68	**Trustbridge Emerging Markets**	**128,216,852**	**2.66%**	**10.85%**	**31.99%**	**39.89%**	**39.89%**		
69	**Wells Capital**	**59,966,729**	**5.42%**	**11.51%**	**25.41%**				
70	MSCI China Index ND		2.30%	10.57%	24.86%	32.19%	32.19%		
71	**Mellon MSCI World ex-USA**	**1,340,722,044**	**0.12%**	**5.85%**	**13.11%**	**19.85%**	**19.85%**	**1.00%**	**8.46%**
72	**DFA International Large Cap**	**859,872,807**	**0.63%**	**5.90%**	**12.76%**	**23.00%**	**23.00%**	**0.72%**	**8.77%**
73	Int'l Passive/Quasi-Passive Custom Benchmark[1]		0.09%	5.63%	12.82%	19.49%	19.49%	0.67%	8.15%
74	**DFA International Small Cap Value**	**393,629,410**	**1.43%**	**6.35%**	**14.44%**	**30.22%**	**30.22%**	**4.91%**	**14.23%**
75	MSCI World ex-USA Small Cap Value Index		0.96%	6.44%	13.69%	23.52%	23.52%	2.76%	11.48%
76	**DFA International Small Company**	**388,050,196**	**0.72%**	**7.66%**	**16.35%**	**24.83%**	**24.83%**	**4.98%**	**12.52%**
77	**SSgA International Developed Small Cap Index**	**375,904,048**	**0.43%**	**7.54%**	**15.75%**	**21.54%**	**21.54%**	**4.39%**	**11.76%**
78	MSCI World ex-USA Small Cap Index		0.32%	7.28%	15.45%	21.26%	21.26%	4.02%	11.43%
79	**Acadian Asset Mgmt**	**778,599,032**	**1.03%**	**5.30%**	**14.87%**	**17.98%**	**17.98%**	**3.58%**	**8.59%**
80	MSCI Custom Benchmark[2]		0.68%	4.36%	10.27%	24.24%	24.24%	1.19%	8.48%
81	**LSV International Large Cap**	**522,593,768**	**0.51%**	**5.68%**	**14.02%**	**29.49%**	**29.49%**		
82	**Schroders International Large Cap**	**571,078,453**	**0.84%**	**4.86%**	**13.25%**	**21.81%**	**21.81%**		
83	MSCI All Country World ex-USA Value Index		0.55%	4.08%	11.03%	23.62%	23.62%		
84	**SSgA International**	**257,232,231**	**0.10%**	**5.97%**	**11.81%**	**17.91%**	**17.91%**	**0.89%**	**7.48%**
85	MSCI World ex-USA/MSCI EAFE[3]		0.09%	5.63%	12.82%	19.49%	19.49%	0.67%	8.15%
86	**Johnston International Large Cap**	**371,638,336**	**0.93%**	**8.72%**	**21.53%**	**27.64%**	**27.64%**		
87	**JP Morgan International Large Cap**	**587,527,348**	**-1.13%**	**8.20%**	**18.31%**	**21.69%**	**21.69%**		
88	MSCI World ex-USA Growth Index		-0.49%	6.98%	15.57%	14.90%	14.90%		
89	**GLOBAL EQUITIES**	**9,353,673,359**	**0.30%**	**3.72%**	**10.57%**	**18.77%**	**18.77%**	**4.89%**	**11.54%**
90	MSCI ACWI IMI		0.59%	4.25%	11.32%	19.01%	19.01%	4.87%	10.74%
91	**AQR Global Equity**	**1,607,773,922**	**0.04%**	**4.36%**	**11.51%**	**21.51%**	**21.51%**	**6.61%**	**13.63%**
92	**SSgA MSCI World**	**163,362,926**	**0.44%**	**4.25%**	**10.97%**	**18.73%**	**18.73%**	**5.72%**	
93	MSCI World Index		0.38%	4.03%	10.66%	18.20%	18.20%	5.24%	11.38%
94	**SSgA Russell Fundamental Developed Lrg Co**	**1,456,732,106**	**0.31%**	**2.88%**	**8.03%**	**17.71%**	**17.71%**	**4.15%**	**11.95%**
95	Russell Fundamental Dvlpd Lrg Co Index		0.31%	2.80%	7.93%	18.03%	18.03%	4.25%	12.13%
96	**Lazard Asset Management[4]**	**2,041,965,164**	**-0.14%**	**3.75%**	**10.10%**	**16.15%**	**16.15%**	**5.00%**	**11.29%**
97	**McKinley Capital Management**	**789,151,363**	**-0.07%**	**4.73%**	**14.05%**	**20.47%**	**20.47%**	**5.58%**	**12.14%**
98	MSCI All-Country World Index		0.45%	4.27%	11.48%	18.78%	18.78%	4.82%	10.54%
99	**APF Tactical Tilts**	**3,144,736,481**	**1.42%**	**3.61%**	**11.11%**	**21.53%**	**21.53%**		
100	**SSGA MSCI ACWI IMI**	**149,951,397**	**0.59%**	**4.44%**	**11.45%**	**19.20%**	**19.20%**		
101	MSCI All-Country World IMI		0.59%	4.25%	11.32%	19.01%	19.01%		
102	**DOMESTIC EQUITIES**	**7,138,212,545**	**1.42%**	**2.84%**	**8.56%**	**20.08%**	**20.08%**	**8.74%**	**14.85%**
103	RUSSELL 3000 INDEX		0.90%	3.02%	8.93%	18.51%	18.51%	9.10%	14.59%
104	**Mellon S&P 500**	**164,083,752**	**0.62%**	**3.10%**	**9.35%**	**17.93%**	**17.93%**	**9.54%**	**14.57%**
105	S&P 500 Index		0.62%	3.09%	9.34%	17.90%	17.90%	9.61%	14.63%
106	**Mellon FTSE RAFI US Large Cap**	**320,318,351**	**1.17%**	**1.36%**	**4.72%**	**16.91%**	**16.91%**	**7.88%**	**14.81%**
107	FTSE RAFI US 1000 Index		1.17%	1.37%	4.69%	16.92%	16.92%	8.01%	14.89%
108	**AGI - Large Cap**	**759,617,226**	**-0.20%**	**4.69%**	**13.42%**	**19.18%**	**19.18%**	**10.50%**	**15.56%**
109	**SSgA Large Cap**	**420,422,512**	**1.58%**	**4.76%**	**16.94%**	**24.30%**	**24.30%**	**11.37%**	**16.33%**
110	**DSM - Large Cap**	**421,265,383**	**1.87%**	**10.41%**	**22.66%**	**27.75%**	**27.75%**	**12.72%**	
111	**CastleArk - Large Cap**	**333,194,978**	**0.09%**	**4.45%**	**13.88%**	**19.61%**	**19.61%**	**10.26%**	
112	**APF SPDR Yield**	**391,639,241**	**1.52%**	**0.37%**	**5.16%**	**16.58%**	**16.58%**		
113	**APF SPDR Momentum**	**388,323,998**	**0.48%**	**1.56%**	**7.47%**	**15.29%**	**15.29%**		
114	**APF SPDR Low Vol**	**395,983,636**	**1.27%**	**1.95%**	**8.12%**	**14.60%**	**14.60%**		
115	Russell 1000 Growth Index		-0.26%	4.67%	14.00%	20.42%	20.42%	11.11%	15.30%
116	Russell 1000 Index		0.70%	3.06%	9.27%	18.03%	18.03%	9.26%	14.67%
117	**Herndon**	**353,125,902**	**1.26%**	**1.90%**	**8.01%**	**20.48%**	**20.48%**	**2.83%**	
118	**Lyrical**	**594,651,421**	**2.56%**	**2.10%**	**8.64%**	**26.51%**	**26.51%**	**7.32%**	
119	**SKBA**	**313,344,026**	**1.89%**	**1.35%**	**3.65%**	**15.94%**	**15.94%**	**6.72%**	
120	**LSV**	**647,586,402**	**2.66%**	**0.82%**	**3.31%**	**20.18%**	**20.18%**		
121	Russell 1000 Value Index		1.63%	1.34%	4.66%	15.53%	15.53%	7.36%	
122	**Mellon S&P 400**	**159,234,478**	**1.62%**	**1.97%**	**5.98%**	**18.56%**	**18.56%**	**8.56%**	**14.95%**
123	S&P 400 Index		1.62%	1.97%	5.99%	18.57%	18.57%	8.53%	14.92%
124	**Jennison Associates LLC**	**270,777,790**	**1.63%**	**3.83%**	**9.91%**	**21.75%**	**21.75%**	**7.24%**	**14.60%**
125	Russell 2000 Index		3.46%	2.46%	4.99%	24.60%	24.60%	7.36%	13.70%
126	**RBC Asset Mgmt**	**254,912,508**	**1.90%**	**3.81%**	**3.90%**	**16.34%**	**16.34%**	**8.25%**	**13.98%**
127	**Eagle Asset Mgmt**	**271,124,379**	**1.75%**	**4.14%**	**13.37%**	**23.47%**	**23.47%**	**9.53%**	**15.28%**
128	Russell 2000 Growth Index		3.44%	4.39%	9.97%	24.40%	24.40%	7.64%	13.98%
129	Russell 2000 Index		3.46%	2.46%	4.99%	24.60%	24.60%	7.36%	13.70%
130	**T Rowe Price**	**268,400,322**	**2.16%**	**1.63%**	**1.99%**	**24.23%**	**24.23%**	**8.26%**	**14.00%**
131	**Pzena Investment Mgmt**	**278,043,072**	**2.06%**	**-1.35%**	**-2.84%**	**27.42%**	**27.42%**	**10.20%**	**16.86%**
132	Russell 2000 Value Index		3.50%	0.67%	0.54%	24.86%	24.86%	7.02%	13.39%
133	Russell 2000 Index		3.46%	2.46%	4.99%	24.60%	24.60%	7.36%	13.70%

		Market Values as of 6/30/2017	Returns as of 6/30/2017						
134	**AGI Structured Alpha**	**132,163,169**			**10.25%**	**20.35%**	**20.35%**		
135	S&P 500 Index				9.34%	17.90%	17.90%		

[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.

			(A)	(B)	(C)	(D)	(E)	(F)	(G)	
		Market Values as of 6/30/2017	Returns as of 6/30/2017							
			1 Month	3 Month	CYTD	FYTD	1 Year	3 Years	5 Years	
136	**FIXED INCOME PLUS**	**11,719,229,810**	**0.07%**	**1.95%**	**3.69%**					
137	PUBLIC INCOME BENCHMARK		0.06%	1.83%	3.38%					
138	**FIXED INCOME PLUS CASH**	**448,050,442**	**0.11%**	**0.28%**	**0.42%**					
139	90 DAY T-BILLS		0.08%	0.20%	0.31%					
140	**APF Fixed Income Plus Cash**	**448,050,442**	**0.11%**	**0.28%**	**0.42%**					
141	**US FIXED INCOME AGGREGATE**	**3,268,288,235**	**-0.08%**	**1.45%**	**2.30%**	**0.62%**	**0.62%**	**2.62%**		
142	BC AGGREGATE		-0.10%	1.45%	2.27%	-0.31%	-0.31%	2.48%		
143	**APF Fixed Income - Aggregate**	**3,268,288,235**	**-0.08%**	**1.45%**	**2.30%**	**0.62%**	**0.62%**	**2.62%**		
144	**US INVESTMENT GRADE CORPORATE**	**3,114,103,711**	**0.39%**	**2.72%**	**3.96%**	**3.29%**	**3.29%**	**4.31%**	**4.60%**	
145	BC CORPORATE		0.31%	2.54%	3.80%	2.28%	2.28%	3.61%	3.96%	
146	**APF Corporate Bonds**	**3,114,103,711**	**0.39%**	**2.72%**	**3.96%**	**3.29%**	**3.29%**	**4.31%**	**4.60%**	
147	**NON US FIXED INCOME**	**572,698,611**	**-0.33%**	**0.52%**	**0.65%**	**-1.57%**	**-1.57%**	**3.66%**	**3.63%**	
148	BC GLOBAL AGG EX-US		-0.42%	0.54%	0.35%	-1.71%	-1.71%	3.93%	3.99%	
149	**Rogge Global Partners**	**341,030,346**	**-0.31%**	**0.56%**	**0.61%**	**-1.51%**	**-1.51%**	**3.75%**	**3.64%**	
150	**APF Global Government Bonds**	**231,668,265**	**-0.37%**	**0.46%**	**0.70%**	**-1.64%**	**-1.64%**	**3.52%**		
151	**GLOBAL HIGH YIELD**	**1,143,639,256**	**-0.25%**	**1.75%**	**4.17%**	**10.80%**	**10.80%**	**3.88%**	**6.26%**	
152	BC US HIGH YIELD 2% ISSUER CAP		0.14%	2.17%	4.92%	12.69%	12.69%	4.50%	6.90%	
153	**Oaktree High Yield**	**572,489,029**	**0.00%**	**2.31%**	**4.29%**	**10.28%**	**10.28%**	**3.43%**	**5.77%**	
153	**Capital Guardian High Yield**	**388,479,567**	**-0.84%**	**0.72%**	**3.92%**	**12.44%**	**12.44%**	**5.28%**	**7.62%**	
154	**APF High Yield**	**182,444,208**	**0.22%**	**2.19%**						
155	BC US High Yield 2% Issuer Cap Index		0.14%	2.17%	4.92%	12.69%	12.69%	4.50%	6.90%	
156	HY Fixed Income Custom Blend[1]		0.14%	2.17%	4.92%	12.58%	12.58%	4.84%	7.44%	
157	**EMERGING MARKET DEBT**	**634,997,403**	**0.19%**	**2.46%**	**7.09%**	**7.15%**	**7.15%**	**0.95%**	**3.05%**	
158	BC EMD HARD CURRENCY AGG		0.00%	2.50%	5.82%	5.76%	5.76%	3.50%	5.03%	
159	**Capital Guardian HY Emerging Markets Gov't**	**634,997,403**	**0.19%**	**2.46%**	**7.09%**	**7.15%**	**7.15%**	**0.95%**	**3.05%**	
160	HY Emerging Markets Benchmark[2]		0.10%	2.92%	8.27%	6.00%	6.00%	0.92%	2.28%	
161	**TIPS**	**720,454,840**	**-0.87%**	**-0.31%**	**0.95%**	**-0.62%**	**-0.62%**	**0.50%**	**0.31%**	
162	BC US TIPS		-0.95%	-0.40%	0.85%	-0.63%	-0.63%	0.63%	0.27%	
163	**APF TIPS**	**620,834,572**	**-0.88%**	**-0.31%**	**0.98%**	**-0.48%**	**-0.48%**	**0.70%**	**0.35%**	
164	BC U.S. TIPS		-0.95%	-0.40%	0.85%	-0.63%	-0.63%	0.63%	0.27%	
165	**Alaska Permanent Capital Mgmt**	**99,620,269**	**-0.80%**	**-0.33%**	**0.72%**	**-0.46%**	**-0.46%**	**0.40%**	**0.33%**	
166	BC U.S. TIPS 1-10 Year Index		-0.79%	-0.40%	0.65%	-0.26%	-0.26%	0.35%	0.26%	
167	**REITS**	**1,237,859,867**	**1.20%**	**2.09%**	**3.70%**	**1.54%**	**1.54%**	**6.51%**	**8.73%**	
168	S&P GLOBAL REIT		0.92%	1.67%	3.14%	-2.35%	-2.35%	4.55%	7.57%	
169	**AEW Global RE Securities**	**498,154,202**	**1.47%**	**3.08%**	**4.02%**	**-0.50%**	**-0.50%**	**6.37%**	**9.41%**	
170	**American Homes 4 Rent[3]**	**37,818,242**	**0.67%**	**-6.76%**	**1.73%**	**5.44%**	**5.44%**	**7.58%**		**Net**
171	MSCI US REIT Index		2.13%	1.65%	2.66%	-1.82%	-1.82%	8.19%	9.38%	
172	REIT Benchmark[4]		1.08%	2.48%	3.86%	-1.37%	-1.37%	5.65%	8.87%	
173	**SSGA REITS**	**701,887,423**	**1.02%**	**1.91%**	**3.57%**					
174	S&P GLOBAL REIT		0.92%	1.67%	3.14%					
175	**LISTED INFRASTRUCTURE**	**579,137,444**	**-1.01%**	**5.39%**	**14.45%**					
176	S&P GLOBAL LISTED INFRASTRUCTURE		-0.16%	5.63%	13.82%					
177	**Lazard Listed Infrastructure**	**181,990,126**	**-2.67%**	**5.78%**	**17.58%**	**27.09%**	**27.09%**	**14.34%**		
178	FTSE Core Developed Infrastructure (Hedged)		-1.59%	3.48%	9.36%	10.65%	10.65%	8.75%		
179	**Cohen & Steers Listed Infrastructure**	**132,876,978**	**-0.82%**	**4.41%**	**12.46%**	**10.26%**	**10.26%**	**4.49%**		
180	FTSE Core Developed Infrastructure Custom		-0.85%	4.16%	11.33%	9.91%	9.91%	5.23%		
181	**Wellington Listed Infrastructure**	**230,686**	**0.00%**	**0.00%**	**0.00%**	**0.00%**	**0.00%**	**0.00%**		
182	FTSE Core Developed Infrastructure TRI		-1.05%	4.30%	11.03%	9.58%	9.58%	5.55%		
183	**SSGA Listed Infrastructure**	**264,039,654**	**0.04%**	**5.79%**	**14.23%**					
184	S&P GLOBAL LISTED INFRASTRUCTURE		-0.16%	5.63%	13.82%					

[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 Diversified.

[3] American Homes 4 Rent become a REIT 7/31/2013.

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

		Market Values as of 6/30/2017	(A)	(B)	(C) CYTD	(D) FYTD	(E) 1 Year	(F) 3 Years	(G) 5 Years	
					Returns as of 6/30/2017					
185	**PRIVATE EQUITY AND GROWTH OPPORTUNITIES**	**6,988,360,183**			**N/A**					
186	CAMBRIDGE PRIVATE EQUITY				N/A					
187	**PRIVATE EQUITY**	**4,164,323,542**			**N/A**	**20.98%**	**20.98%**	**17.22%**	**18.20%**	
188	PRIVATE EQUITY CUSTOM BENCHMARK				N/A	6.13%	6.13%	1.88%	9.67%	
189	**Staff Direct**	**502,092,917**			**N/A**	**24.03%**	**24.03%**	**18.10%**		**Various**
190	**Rapid Partners LP**	**84,270,712**			**N/A**	**4.35%**	**4.35%**			**Net**
191	**Kelso Hammer LP**	**28,548,763**			**N/A**	**11.00%**	**11.00%**			**Gross**
192	**HV Legacy**	**1,266,243,929**			**N/A**	**22.89%**	**22.89%**	**20.33%**	**19.05%**	**Net**
193	**Pathway Capital Management**	**2,160,625,650**			**N/A**	**21.17%**	**21.17%**	**15.29%**	**17.18%**	**Net**
194	**BlackRock Co-investment Funds**	**122,541,571**			**N/A**	**4.42%**	**4.42%**			**Net**
195	**GROWTH OPPORTUNITIES**	**2,824,036,640**			**N/A**					**Net**
196	CAMBRIDGE PRIVATE EQUITY				N/A					
197	**REAL ESTATE**	**5,558,041,523**			**N/A**	**4.45%**	**4.45%**	**8.73%**	**9.85%**	
198	NCREIF TOTAL INDEX				N/A	6.97%	6.97%	10.17%	10.49%	
199	**LaSalle Investment Mgmt**				**N/A**	**1.74%**	**1.74%**	**6.58%**	**8.83%**	**Net**
200	**L&B Realty Advisors**	**2,149,254,450**			**N/A**	**7.27%**	**7.27%**	**12.78%**	**12.64%**	**Net**
201	**Simpson Housing (SHLP) REOC**	**1,366,137,672**			**N/A**	**6.18%**	**6.18%**	**11.95%**	**12.23%**	**Net**
202	**Sentinel Real Estate**	**1,163,181,411**			**N/A**	**-4.48%**	**-4.48%**	**5.21%**	**6.32%**	**Net**
203	**Lincoln Industrial**	**78,160,069**			**N/A**	**17.58%**	**17.58%**			**Net**
204	**CS Capital**	**414,564,011**			**N/A**	**15.39%**	**15.39%**			**Net**
205	**LaSalle Investment Mgmt-United Kingdom**	**226,460,723**			**N/A**	**-24.05%**	**-24.05%**	**-17.43%**		**Net**
206	**CB Richard Ellis - Europe**	**160,283,188**			**N/A**	**25.14%**	**25.14%**			**Net**
207	**INFRASTRUCTURE, PRIVATE CREDIT AND INCOME OPPORTUNITIES**	**3,201,615,372**			**N/A**					
208	INFRASTRUCTURE, PRIVATE CREDIT AND INCOME OPPORTUNITIES				N/A					
209	**INFRASTRUCTURE**	**1,916,015,412**			**N/A**	**8.55%**	**8.55%**	**14.50%**	**13.55%**	**Net**
210	FTSE DEVELOPED CORE INFRASTRUCTURE TRI				N/A	9.58%	9.58%	5.55%	10.67%	
226	**PUBLIC/PRIVATE CREDIT**	**1,121,165,637**			**N/A**	**9.59%**	**9.59%**	**5.70%**	**7.88%**	**Net**
227	BC US HIGH YIELD 2% ISSUER CAP				N/A	12.69%	12.69%	4.50%	6.90%	
228	**INCOME OPPORTUNITIES**	**164,434,322**			**N/A**	**9.52%**	**9.52%**	**7.85%**		
229	**American Homes 4 Rent II**	**164,434,322**			**4.44%**	**9.29%**	**9.29%**			**Net**
230	**ABSOLUTE RETURN**	**2,206,209,479**			**3.16%**	**7.22%**	**7.22%**	**1.89%**	**3.61%**	**Net**
231	ABSOLUTE RETURN BENCHMARK				3.58%	6.21%	6.21%	5.90%	5.62%	
232	**ASSET ALLOCATION**	**4,508,958,007**			**N/A**					
233	**APF FI LIQUIDITY**	**998,343,260**								
234	**CASH**	**1,111,389,874**			**0.36%**	**0.48%**	**0.48%**	**0.19%**	**0.12%**	
235	90 DAY T-BILLS				0.31%	0.49%	0.49%	0.23%	0.17%	
236	**APF Internal Cash**	**1,111,389,874**			**0.36%**	**0.48%**	**0.48%**	**0.19%**	**0.12%**	
237	**MULTI-ASSET CLASS**	**2,399,224,873**			**2.38%**	**7.75%**	**7.75%**	**3.96%**	**5.54%**	
238	PERFORMANCE BENCHMARK				6.44%	10.25%	10.25%	4.47%	7.96%	

Strategic and Tactical Moves

Board Report on Tactical and Strategic Manager Actions

4/1/2017 through 6/30/2017

Tactical Changes Implemented:

Fixed Income N/A

Private Equity and Growth Opportunities

New fund commitments closed during quarter ended 6/30/2017:

- Encap XI: $50 million
- NEA 16: $25 million
- Vista Endeavor I: $40 million
- Chequers IV: $25 million

New direct investments closed in quarter ended 6/30/2017:

- Rubrik, Inc.: $25 million

Infrastructure, Private Credit, Income Opportunities N/A

Public Equity

- June 28th equitized $400 million excess cash (from the Cash account) into Public Equities as follows:
  - VEA US, Vanguard FTSE Developed Markets: $140 million
  - VOO US, Vanguard S&P500: $210 million
  - VWO US, Vanguard FTSE EM:$ 50 million

- June 26th to 28th invested $800 million as follows:
  - US Large Cap:
    - $225 million invested in Vanguard S&P 500 Index ETF (VOO)
    - $100 million invested in IShares Russell 2000 ETF
    - $50 million invested in S&P Select Financials ETF (XLF)
    - $25 million invested in S&P Select Energy ETF (XLE)
  - Non US Developed:
    - $300 million invested in Vanguard FTSE Non US Developed Markets Index ETF (VEA)

- Emerging Markets:
  - $100 million invested in Vanguard Emerging Markets ETS (VWO)

Absolute Return N/A

Real Estate N/A

Asset Allocation

- 6/29/17-$1,000,000,000 tactical exposure to liquid fixed income of excess cash

Strategic Changes Implemented:

Fixed Income Plus

- 6/27/17-$200mm contribution to Fixed Income Plus
- 4/4/17-$125mm contribution to SSGA Listed Infrastructure
- Proceeds from Wellington termination the previous quarter.

Infrastructure, Private Credit, Income Opportunities

- Committed $80 million to Meridiam Infrastructure North America Fund III, L.P.
- Committed $25 million to Athyrium Opportunities Fund III, L.P.
- Committed $125 million to Audax Direct Lending Solutions Fund, L.P.

Private Equity and Growth Opportunities N/A

Public Equity

- 6/27/17-$800mm contribution to public equities

Absolute Return

- Invested $150 million to Field Street
- Committed $150 million to Elliott Associates, L.P.
- Invested $100 million in Element Capital
- Redeemed $101 million from Kynikos Capital Partners LP
- Redeemed $107 million from Kynikos Global Capital Partners LP
- Invested $150 million in Field Street Partners, LP

- Redeemed $150 million from Bridgewater Optimal Portfolio, LLC

Real Estate N/A

Asset Allocation N/A

Investment Management Fee Report

APFC ALASKA PERMANENT FUND CORPORATION

Quarterly Investment Management Fees

	Quarter Ended 6/30/2017	3/31/2017	12/31/2016	9/30/2016	YTD FY2017	Quarter Ended 6/30/2016	3/31/2016	12/31/2015	9/30/2015	YTD FY 2016
Transition Management [(a)]	-	-	-	-	-	-	403,000	1,062,000	-	1,465,000
Non-Domestic Equity & FI Managers	546,000	564,000	540,000	744,000	2,394,000	1,077,000	991,000	874,000	903,000	3,845,000
Real Estate Advisors [(b)(f)(h)]	9,731,000	5,580,000	4,723,000	3,282,000	23,316,000	7,186,000	5,183,000	6,396,000	(962,000)	17,803,000
Abs. Return, Mezz. & Distressed Debt [(c)(d)]	5,018,000	5,339,000	8,117,000	7,105,000	25,579,000	9,677,000	8,150,000	7,555,000	5,824,000	31,206,000
Infrastructure	6,425,000	5,610,000	7,899,000	6,506,000	26,440,000	5,488,000	4,604,000	4,355,000	4,006,000	18,453,000
Public Equity [(g)]	685,000	163,000	366,000	257,000	1,471,000	175,000	162,000	-	-	337,000
Private Equity [(e)(h)]	39,326,000	7,688,000	12,098,000	9,313,000	68,425,000	6,402,000	5,755,000	5,253,000	2,434,000	19,844,000
Fees Funded by Investments	**61,731,000**	**24,944,000**	**33,743,000**	**27,207,000**	**147,625,000**	**30,005,000**	**25,248,000**	**25,495,000**	**12,205,000**	**92,953,000**
Fees Funded by Appropriation	**24,467,000**	**32,815,000**	**22,825,000**	**22,756,000**	**102,863,000**	**22,894,000**	**23,679,000**	**21,984,000**	**21,597,000**	**90,154,000**
APFC Corporate Expenses	**6,465,000**	**4,568,000**	**4,154,000**	**4,229,000**	**19,416,000**	**5,462,000**	**3,464,000**	**3,538,000**	**3,555,000**	**16,019,000**
TOTAL Investment Management Fees	**92,663,000**	**62,327,000**	**60,722,000**	**54,192,000**	**269,904,000**	**58,361,000**	**52,391,000**	**51,017,000**	**37,357,000**	199,126,000
Assets Under Management	**60,286,353,000**	**58,245,649,000**	**55,859,408,000**	**55,239,923,000**	**60,286,353,000**	**53,214,867,000**	**52,926,338,000**	**52,244,640,000**	**50,987,494,000**	**53,214,867,000**

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, due to improved reporting, estimates of management fees for private equity and real estate investments accessed through external managers are included.

Chief Investment Officer's Report

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

SUBJECT: Chief Executive Officer's Reports ACTION: ____

DATE: September 27, 2017 INFORMATION: X

STATUS:

The Chief Investment Officer Russell Read will transmit his report of the fund performance and positioning by speech for the period covering April 1 through June 30, 2017.

Report of Annual Audit – KPMG Memo

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

ALASKA PERMANENT FUND CORPORATION

SUBJECT:	Report of Annual Audit	ACTION:	X
DATE:	September 27, 2017	INFORMATION:	

BACKGROUND:

The corporate governance manual requires the Board of Trustees to approve the annual audited financial statements.

STATUS:

The financial audit for fiscal year 2017 was completed by KPMG with a report date of September 8th. The results of the audit and a recap of the year-end financial statements were presented to the Audit Committee on September 7th.

Beth Stuart, the engagement partner from KPMG, will present a summary of the audit results. A copy of her presentation is included here.

RECOMMENDATION:

Staff is requesting board approval of the audited financial statements.

a) Annual Audit – KPMG Presentation

Alaska Permanent Fund

Audit results

Financial statements for the year ended June 30, 2017

September 27, 2017

Introduction

To the Board of Trustees of the Alaska Permanent Fund Corporation

We are pleased to have the opportunity to meet with you on September 27, 2017 to discuss the results of our audit of the financial statements the Alaska Permanent Fund (the Fund) as of and for the year ended June 30, 2017.

We are providing this report in advance of our meeting to enable you to consider our findings and hence enhance the quality of our discussions. This report should be read in conjunction with our audit plan, presented May 16, 2017. We will be pleased to elaborate on the matters covered in this report when we meet.

Our audit is complete. There have been no significant changes to our audit plan and strategy.

We have signed our unmodified audit opinion on the Fund's financial statements on September 8, 2017.

Contents

Our audit findings

Significant Findings

These are the significant audit areas we will cover.

Audit area

Management override of controls

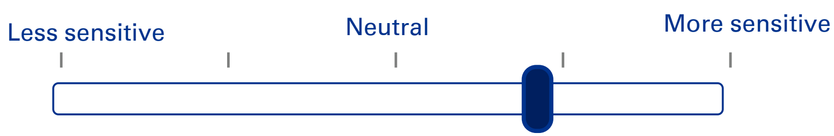
Valuation of alternative investments

Valuation of real estate investments

Outstanding matters

– None

Accounting judgments related to estimates



In general, the sensitivity of accounting judgments with the Fund financial statements is consistent with previous years, and relates to the valuation of private investments.

Significant findings

Skepticism D&A Challenge

1 Management override of controls

Management is in a unique position to perpetrate fraud because of its ability to manipulate accounting records and prepare fraudulent financial statements by overriding controls that appear to be operating correctly.

Significant risk of fraud

The risk

— Management is in a unique position to perpetrate fraud because of management's ability to manipulate accounting records and prepare fraudulent financial statements by overriding controls that otherwise appear to be operating effectively. Although the level of risk of management override of controls will vary from entity to entity, the risk nevertheless is present in all entities.

Our response

Internal controls

— Assessed management's design and implementation of controls over journal entries and post-closing adjustments

— Assessed management's design and implementation of the Controller review of accounting estimates for evidence of management bias

Substantive procedures

— Assess the appropriateness of changes compared to the prior year to the methods and underlying assumptions used to prepare accounting estimates.

— Make inquiries of Alaska Permanent Fund Corporation (APFC) staff throughout our audit procedures

— Test journal entries throughout the year under audit and all post closing journal entries to ensure entries are properly supported and approved

KPMG

2 Valuation of alternative investments

Other significant audit matter

Management process used to develop significant accounting estimate

- Management estimates fair value based on audited financial statements and periodic manager statements
- There have been no changes to this estimation process from the prior year.

Internal controls

- Evaluated the design and implementation of the following internal controls:
- The Board of Trustees performs an in-depth review of APFC's investment performance.
- Reconciliation of BNYM and the general ledger
- Management performs a review of year end audits received for the investments

Substantive procedures

- Confirmed investment market value and ownership percentage with external fund managers (selected on a sample basis).
  - For investments confirmed, agreed the recorded investment market value to capital statements provided by external fund managers.
- Obtained and reviewed audited financial statements of investments (selected on a sample basis).
  - Performed an overall analysis of the reputability of the auditors of the underlying investments, and reviewed the audit opinion.
  - Recalculated the fund's Net Asset Value utilizing the audited financial statements and the Fund's ownership percentage.
  - Performed a hindsight market value analysis by comparing the recalculated NAV from audited financial statements to market value recorded by the Fund as of the investment balance sheet date.
- Obtained a roll-forward of the Fund's market value from the audited financial statement date, and vouched fund contributions and distributions.
- Evaluated unrealized gain/loss from the audited financial statement date to the lag date for reasonableness by inquiring of management and reviewing management's detailed analysis of changes in fair value of investments.
- Performed benchmarking analysis comparing year to date returns to market performance benchmarks.

Findings

- No exceptions were identified in our testing.
- The effect of the lag period for the Fund's investments are included on the schedule of unadjusted audit differences as necessary.

Skepticism D&A Specialists Challenge

3 Valuation of real estate investments

Other significant audit matter

Management process used to develop significant accounting estimate

- Management estimates fair value based on appraisals.
- There have been no changes in this estimation process from the prior year.

Substantive procedures

- Obtained a detail of acquisitions and sales of real estate during FY17 and vouched to supporting documentation and cash transfers.
- Reviewed the APFC's policy on evaluating real estate properties for impairment and perform an impairment analysis of the holdings using that policy.
- For a sample of holdings, obtain the independent appraisal reports and agreed the information contained within to the holding details.
  - Assessed the reasonableness of the qualifications of each third party appraiser that is used by the APFC.
- Sent confirmations for 100% of the direct real estate investments held by APFC
- Perform a roll-forward for Fund's direct owned real estate portfolio including unrealized gains and losses.

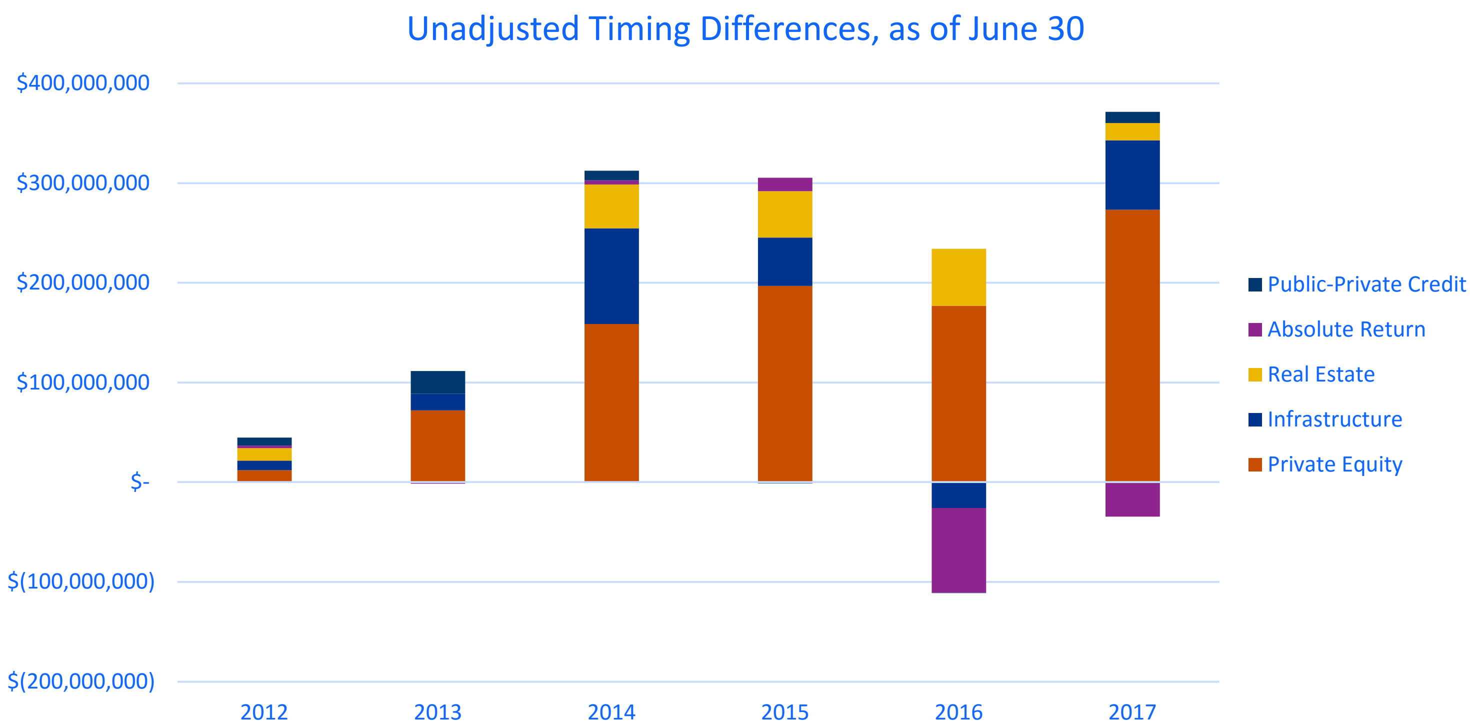
Findings

- No exceptions were identified in our testing.

Significant accounting practices

Significant accounting policies and practices	Results of evaluation and conclusions about the qualitative aspects
The Fund's policies are consistent with prior years and policies disclosed in Note 2 to the financial statements	We did not identify indication of significant elements of management bias. Selected accounting policies and practices are reasonable.

Audit misstatements - Uncorrected



We did not identify any omissions in financial statement presentation and disclosure.

Internal control over financial reporting

Material weaknesses

Description	Identified by	Status
None identified		

Significant deficiencies

Description	Identified by	Status
None identified		

Summary of fees

Understanding

	2016	2017
Audit	$ 133,000	$ 139,000
Agreed upon procedures	$ 8,495	-
All other services (Legislative assessment project)	$ 150,000	-

Independence

Independent View

Nonaudit services or other relationships that may reasonably be thought to bear on independence include:

— Financial statement preparation assistance

In our professional judgment, we are independent with respect to the Alaska Permanent Fund, as that term is defined by the professional standards.

Required communications and other matters

Reporting

Type	Response
Related parties	No matters to report.
Illegal acts or fraud	No actual or suspected fraud involving Fund management, employees with significant roles in internal control, or where fraud results in a material misstatement in the financial statements were identified during the audit.
Noncompliance with laws and regulations	None noted.
Modifications to auditor's report	None.
Subsequent events	None noted.

Type	Response
Other information	We will review the annual report for consistency with the audited financial statements.
Significant difficulties encountered during the audit	No matters to report.
Disagreements with management or scope limitations	No matters to report.
Management's consultation with other accountants	No matters to report.
Significant issues discussed, or subject to correspondence with, management	No matters to report.
Difficult or contentious matters for which the auditors consulted	No matters to report.
Material Written Communications between KPMG and Management	Management representation letter, including summary of uncorrected misstatement to be distributed under separate cover.

In depth insights. In time to matter.

ACI programs

— Audit Committee Roundtable Series
  – Approximately 25 cities each Spring/Fall
— Quarterly Audit Committee Webcast
  – A quarterly Webcast providing updates and insights into issues affecting Audit Committee/board oversight—from key accounting and regulatory changes to developments in risk oversight
— 13th Annual Audit Committee Issues Conference

ACI-sponsored programs

— NYSE Governance Services
  – Annual Boardroom Summit
— NACD Annual Conference
— NACD Master Classes

Suggested publications (available for download at www.kpmg.com/aci)

— Directors Quarterly
— Global Boardroom Insights
— On the 2017 Audit Committee and Board Agendas
— Global Audit Committee Survey

Resources

— ACI Web site: www.kpmg-institutes.com/institutes/aci.html
— ACI mailbox: auditcommittee@kpmg.com
— ACI hotline: 1-877-KPMG-AC1 (576-4224)

kpmg.com/socialmedia

Risk Dashboard - Portfolio Overview Risk Memo

APFC ALASKA PERMANENT FUND CORPORATION

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

SUBJECT: Risk Measurement, Management, and Efficiency ACTION: ____

DATE: September 27, 2017 INFORMATION: X

BACKGROUND:

The Risk and Performance Dashboard provides a snapshot of the asset allocation and a framework with statistics for measuring risks according to modern portfolio theory.

STATUS:

At this meeting staff will present some of the key measures of the Risk and Performance of the Fund. The graphical presentation of the Corporation's key risk measures include statistics that measure dollar allocation risk, specific risks, performance reporting, absolute risk, total risk, contribution to risk, tracking error, risk scenarios, stress tests, and value at risk. All these measures are set in the Investment Policy Manual as risk guidelines that staff must monitor.

a)Presentation: Risk Dashboard

ALASKA PERMANENT FUND CORPORATION

Portfolio Overview
Risk and Asset Allocation

Valeria Martinez

September 27, 2017

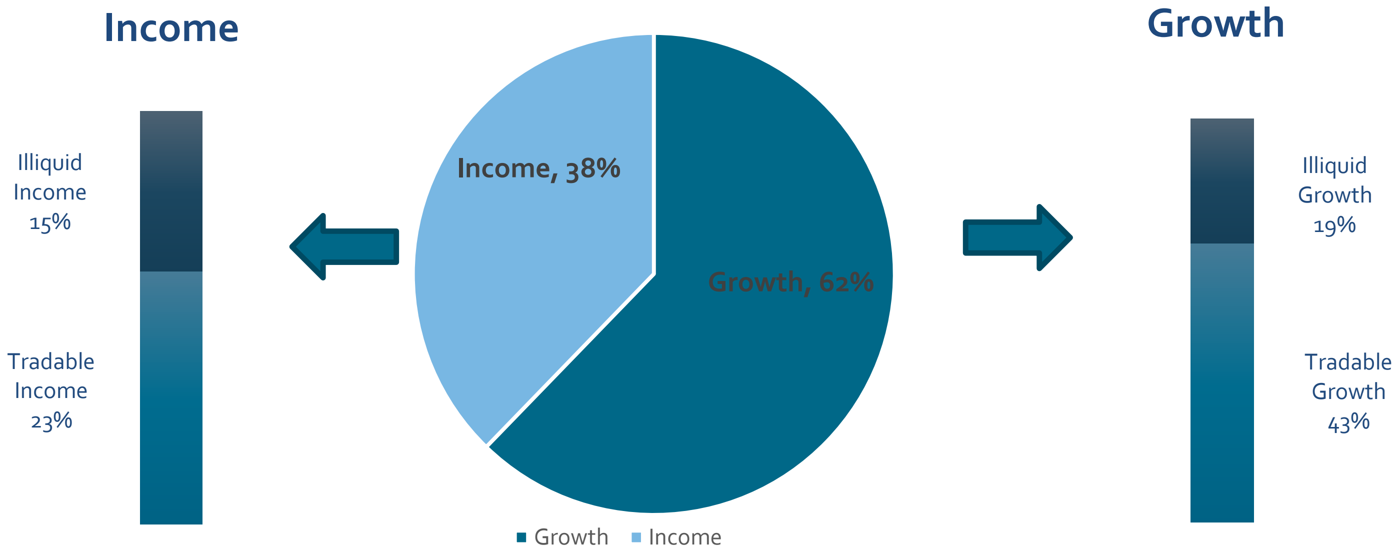
Overview

- Dollar Allocation
- Risk Management
- Liquidity Risk
- Performance


Dollar Allocation

Asset Allocation by Objective

as of 06/30/2017



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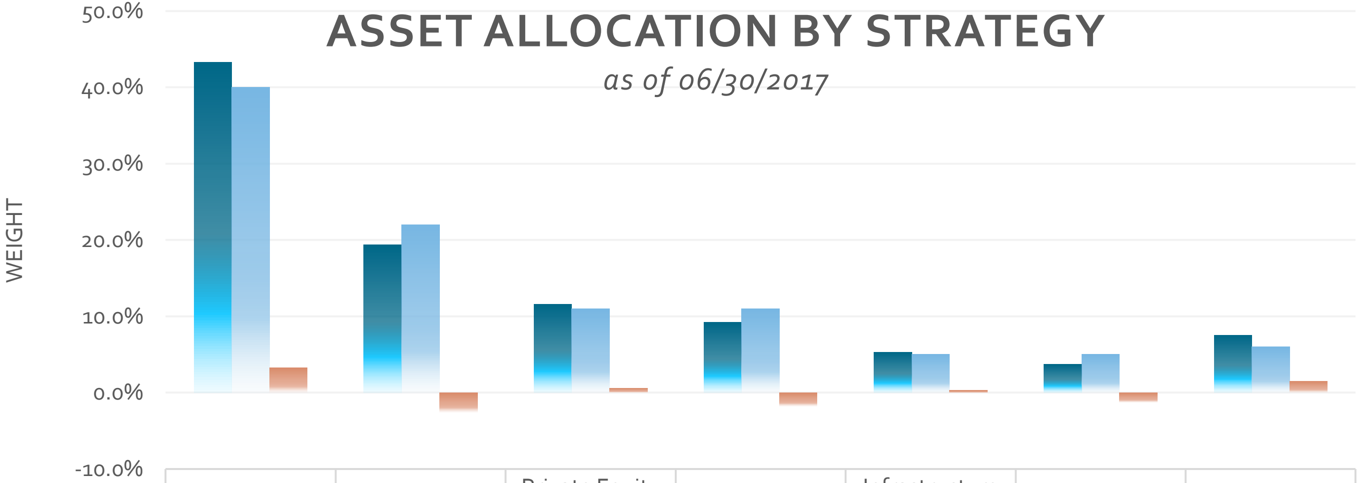
Asset Allocation by Strategy

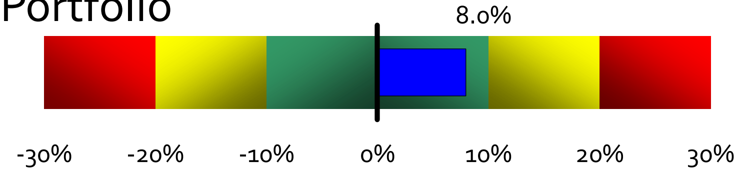


	Public Equities	Fixed Income Plus	Private Equity & Special Growth	Real Estate	Infrastructure & Special Income	Absolute Return	Asset Allocation
Actual	43.3%	19.4%	11.6%	9.2%	5.3%	3.7%	7.5%
Target	40.0%	22.0%	11.0%	11.0%	5.0%	5.0%	6.0%
Difference	3.30%	-2.60%	0.60%	-1.80%	0.30%	-1.30%	1.50%

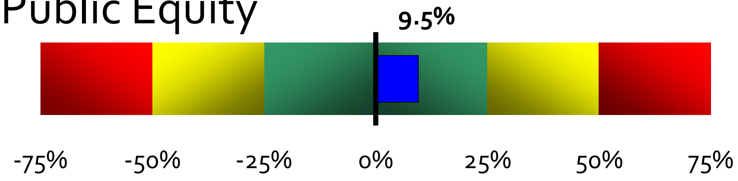

Risk Management

VaR & TE *as of 06/30/2017*

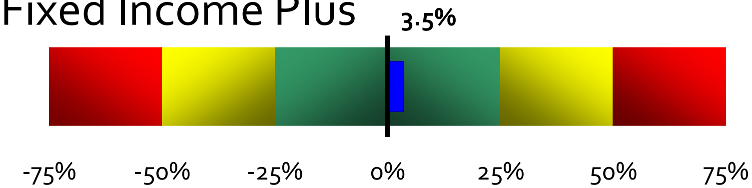
Portfolio



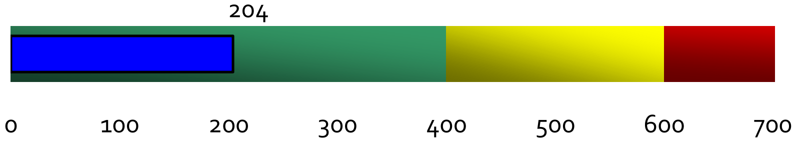
Public Equity



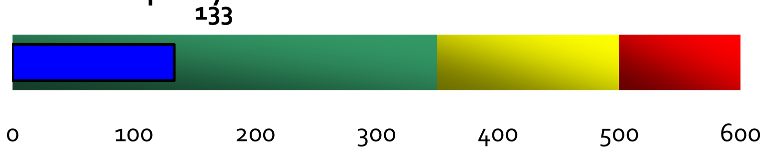
Fixed Income Plus



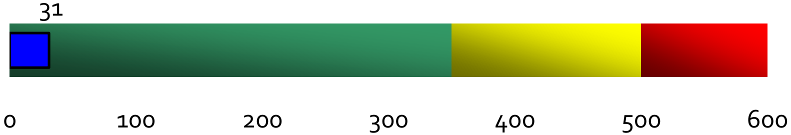
Portfolio



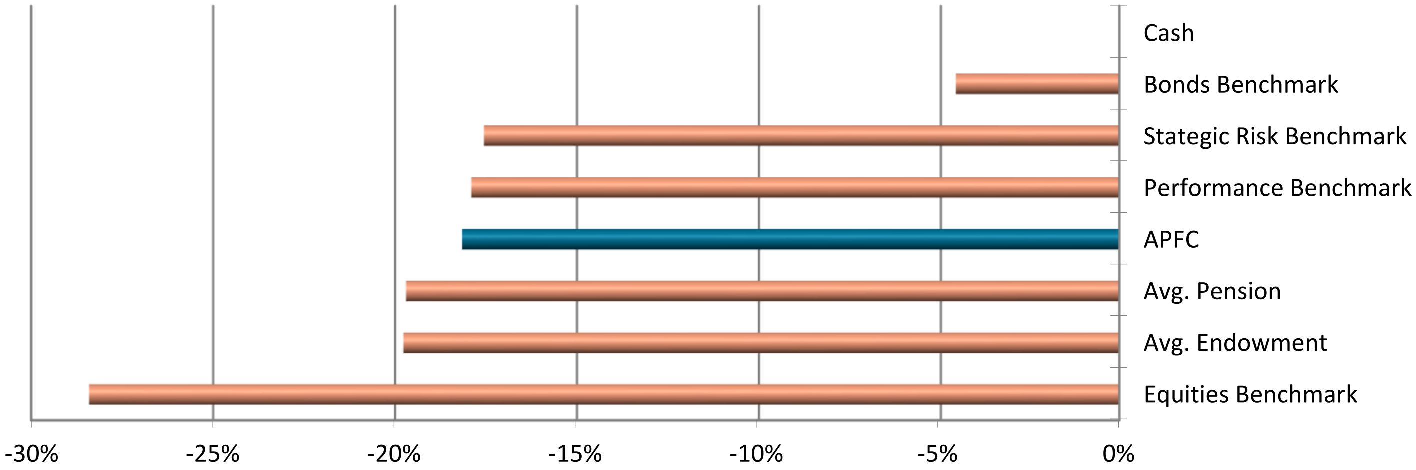
Public Equity



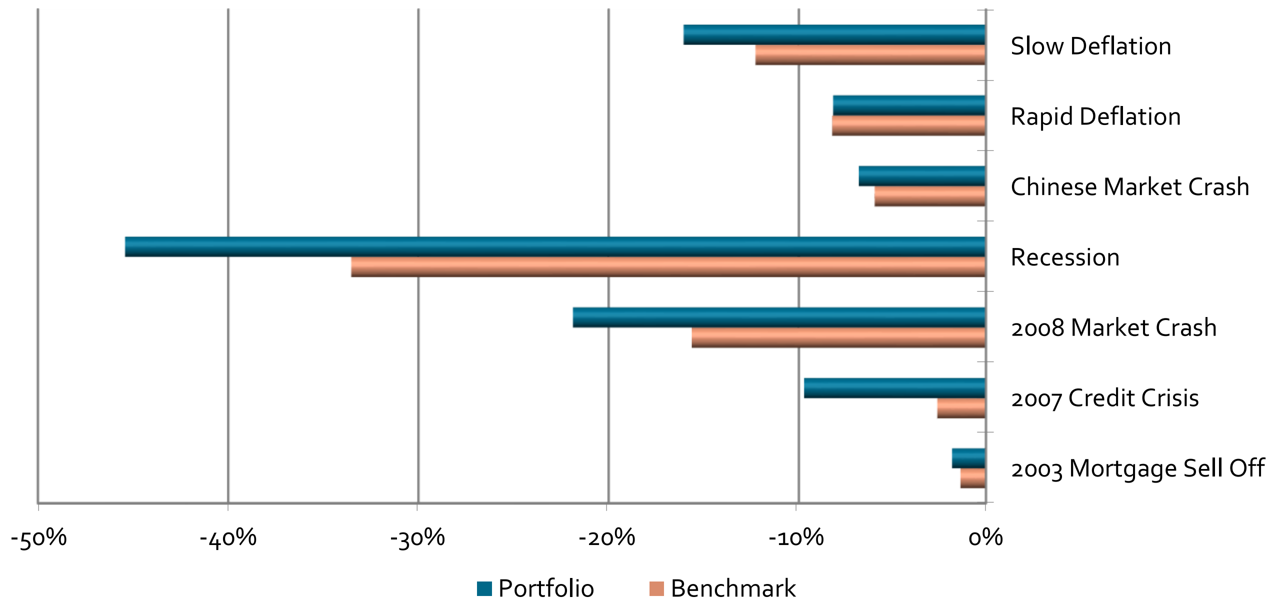
Fixed Income Plus



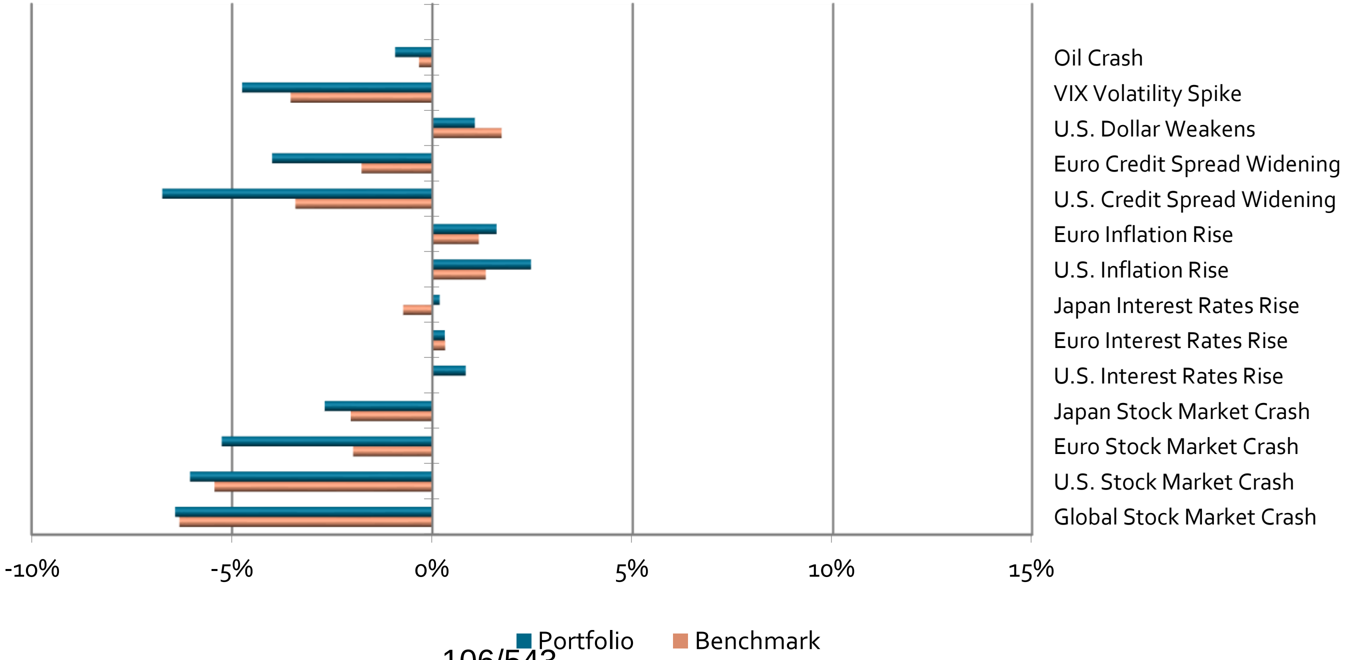
Absolute Risk, VaR *as of 06/30/2017*



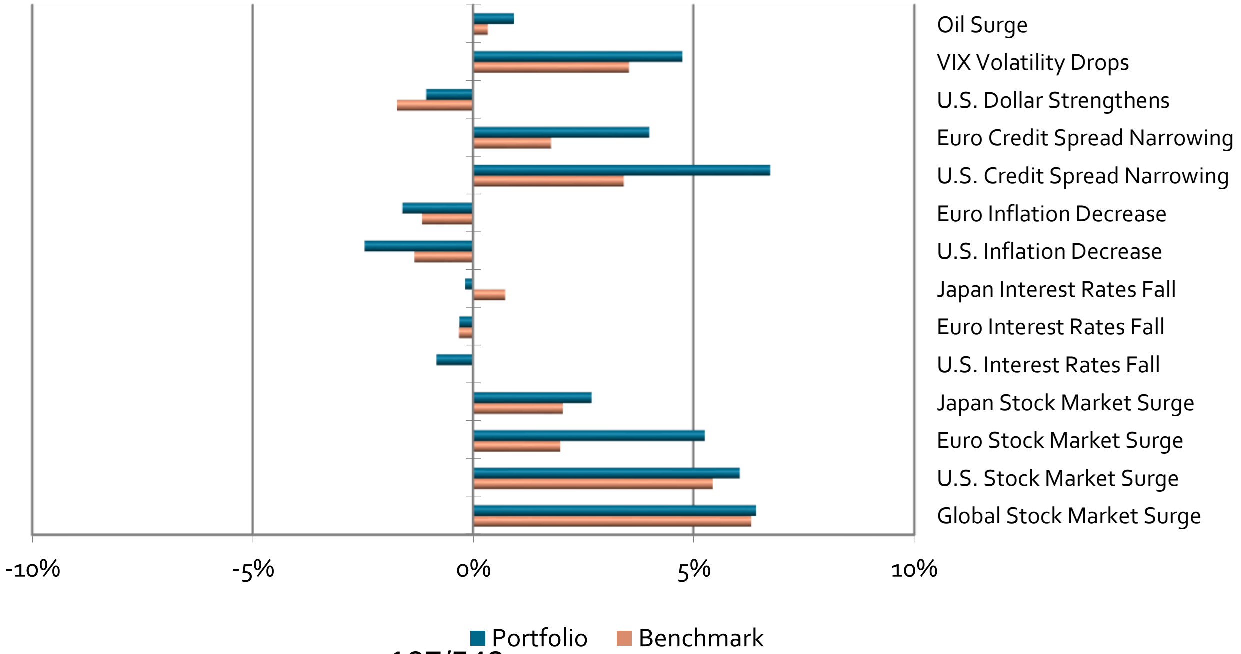
Tail Risk: Scenarios *as of 06/30/2017*



Tail Risk: Stress Test *as of 06/30/2017*



Tail Risk: Stress Test *as of 06/30/2017*



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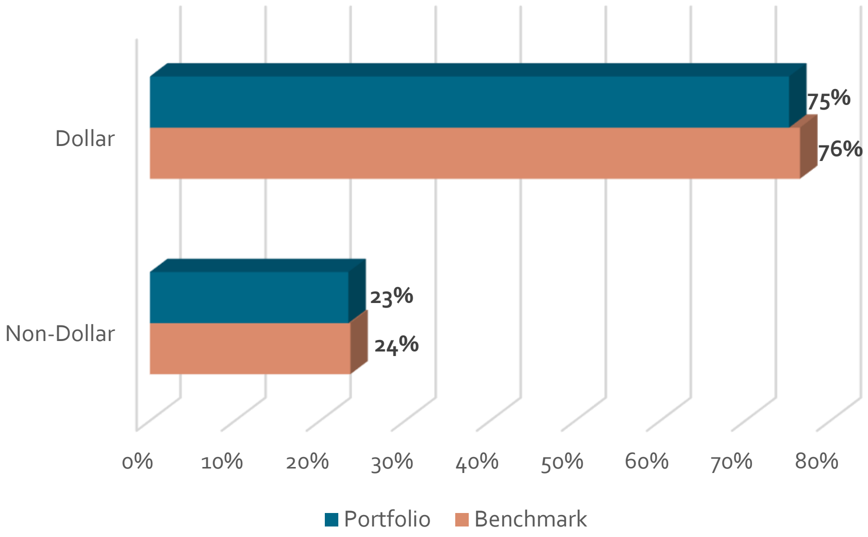
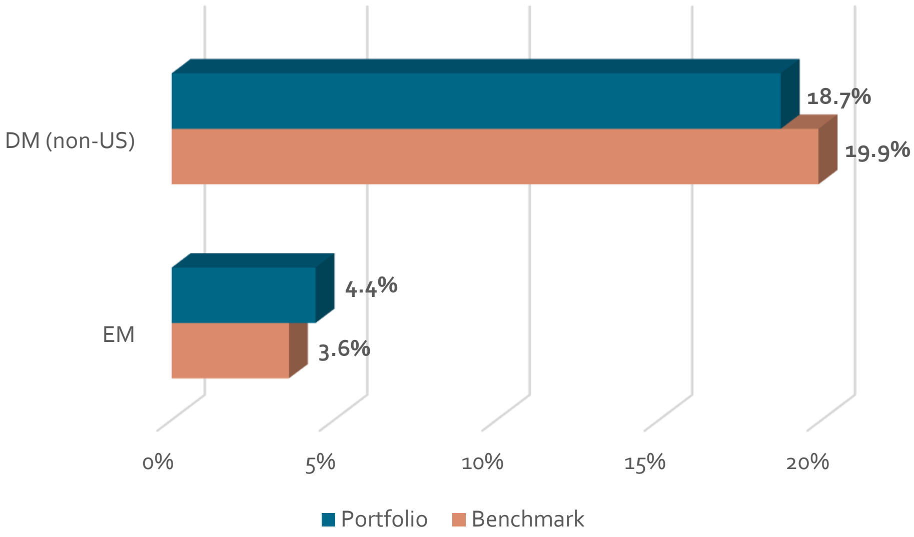
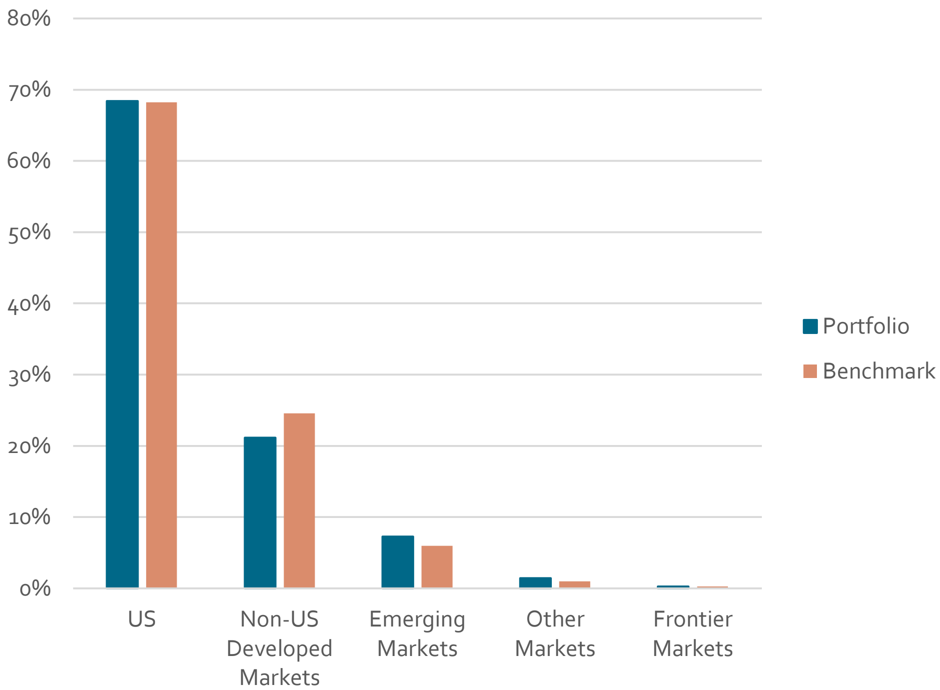
Currency Risk *as of 06/30/2017*



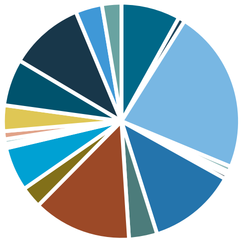


Geographic Risk *as of 06/30/2017*



Geographic Risk *as of 06/30/2017*

Emerging Market Country Exposure

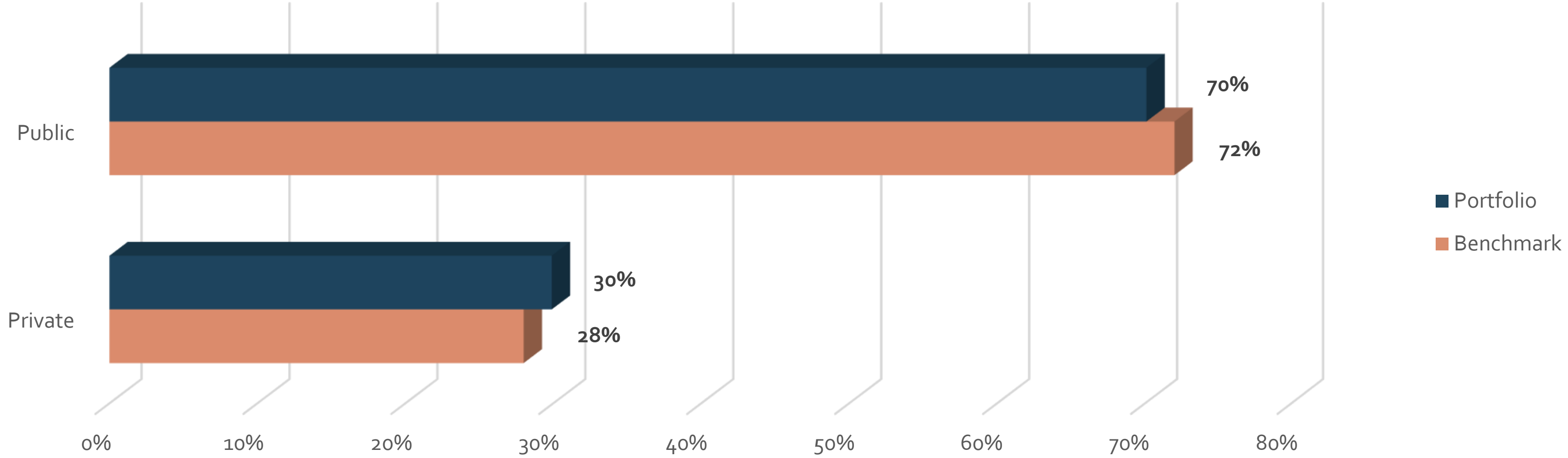


- Brazil
- Chile
- China
- Colombia
- Czech Republic
- Egypt
- Greece
- Hungary
- India
- Indonesia
- Korea (South), Republic of
- Malaysia
- Mexico
- Pakistan
- Peru
- Philippines
- Poland
- Russian Federation
- South Africa
- Taiwan (Republic of China)
- Thailand
- Turkey

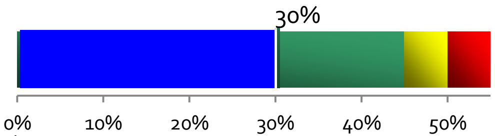
Country Name	Exposure ($ millions)
China	897,840
Korea (South)	539,916
India	484,421
Taiwan (Republic of China)	408,722
Brazil	324,393
South Africa	256,377


Liquidity Risk

Public vs. Private *as of 06/30/2017*



Private Investment Limits



Public: 144A and securities registered and/or traded on an exchange.
Private: unregistered securities that do not trade on an exchange. The price is set through negotiation between the buyer and the seller/issuer (Private Equity, Real Estate, Infrastructure, Hedge Funds, Private credit).
Source: Bank of New York Mellon

Capital Committed to Private Investments *as of 06/30/2017*

Investments	APFC Allocation	Committed to Managers	Total Drawn	Total Undrawn	Forecast 1 Year
Private Equity & Growth Opportunities	$6,647	$12,155	$8,157	$3,998	$1,050
Infrastructure, Private Credit & Income Opportunities	$3,626	$5,275	$3,603	$1,931	$500
Total	$10,273	$17,430	$11,760	$5,929	$1,550

Future Commitments Limits

Source: Managers, data provided does not include the Crestline Public/Private Credit Strategy
Total Undrawn amount represents unfunded commitment - may include returned capital. Special Opportunities Allocation/Commitment does not include Venture Capital

Performance

Performance *as of 06/30/2017*

	Last Quarter	Last Year	Last 3 Years	Last 5 Years
Fund	2.99%	12.57%	6.18%	8.94%
Performance Benchmark	2.62%	10.25%	4.47%	7.96%
Passive Benchmark	3.27%	10.26%	3.37%	7.10%
CPI+5%	1.68%	6.63%	5.92%	6.32%

Performance Benchmark as of 06/30/2017: 41.7% MSCI ACWI IMI, 11.5% NCREIF Total Index, 11.5% Cambridge PE Index, 5.7% Blmbg Aggregate, 5.7% Blmbg Corporate, 5.2% HFRI Fund Weighted Compos, 4.4% Blmbg HY 2% Iss Cap, 3.2% 3-month Treasury Bill, 3.1% FTSE Dev Core Infra Idx, 2.3% Blmbg Glob Treas ex US H, 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.

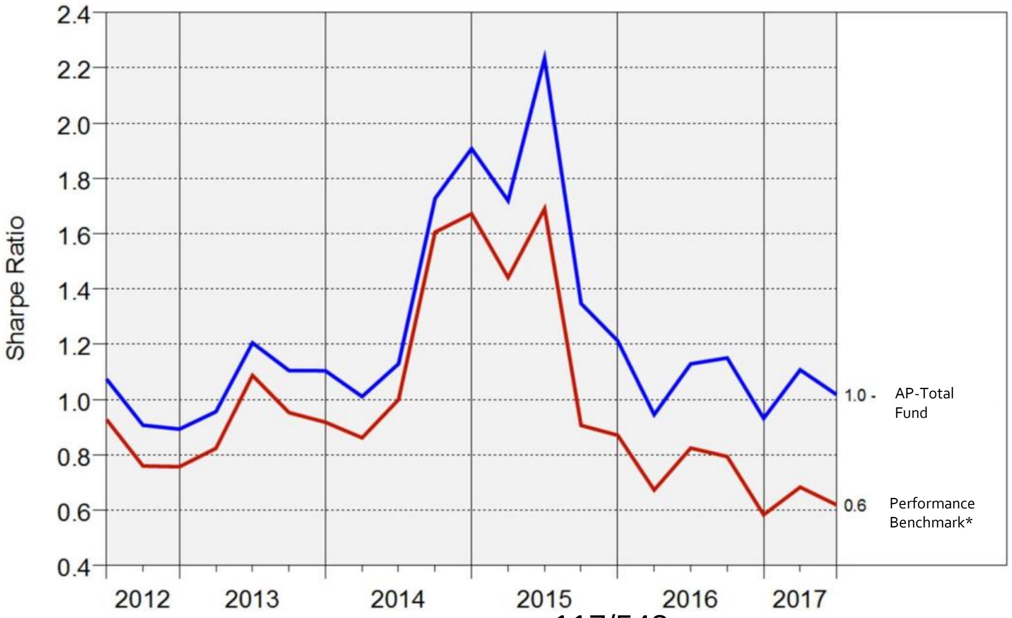
Passive Index Benchmark as of 6/30/2010: 60% MSCI ACWI IMI/ 30% BC Global Agg/10% MS US REITs;
through 6/30/13: 60% MSCI ACWI IMI/ 30% BC Global Agg,/5% MS US REITs/ 5% 3 month T-bills;
and 60% MSCI ACWI IMI, 20% BC Global Agg, 10% FTSE EPRA/NAREIT Rental and 10% US TIPS thereafter.

Fund vs. Risk Benchmark *as of 06/30/2017*

3 months ending 06/17	Portfolio Weight	Portfolio Return	Benchmark Weight	Benchmark Return	Relative Contribution
Public Equities	41%	4.38%	40%	4.25%	0.10%
Fixed Income Plus	19%	1.95%	22%	1.83%	-0.03%
Private Equity and Growth	10%	-0.50%	11%	1.75%	-0.24%
Real Estate	5%	1.64%	5%	3.45%	-0.09%
Infrastructure, Private Credit and Income Opportunities	4%	0.82%	5%	1.04%	0.02%
Absolute Return	11%	6.62%	11%	0.00%	0.73%
Asset Allocation	10%	0.14%	6%	1.81%	-0.09%

Efficiency

Rolling 36 Month Sharpe Ratio
for 5 Years Ended June 30, 2017



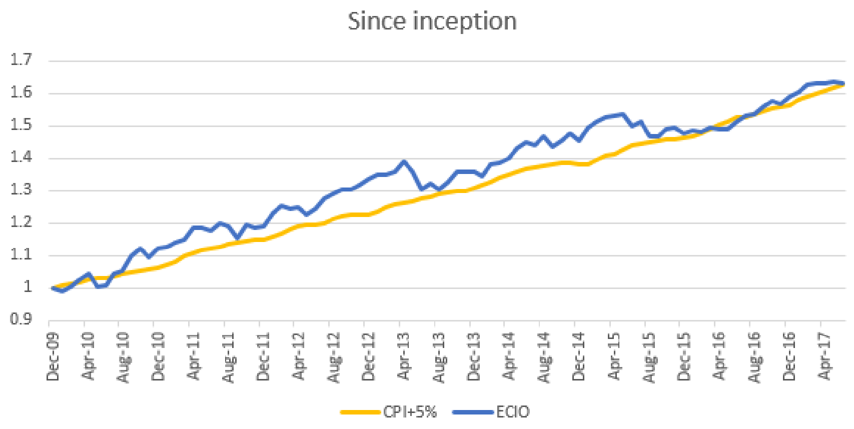
***Performance Benchmark as of 06/30/2017:** 41.7% MSCI ACWI IMI, 11.5% NCREIF Total Index, 11.5% Cambridge PE Index, 5.7% Blmbg Aggregate, 5.7% Blmbg Corporate, 5.2% HFRI Fund Weighted Compos, 4.4% Blmbg HY 2% Iss Cap, 3.2% 3-month Treasury Bill, 3.1% FTSE Dev Core Infra Idx, 2.3% Blmbg Glob Treas ex US H, 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.


Asset Allocation
Portfolio Update

Asset Allocation Portfolio

Portfolio Performance

($ in millions)	6/30/2017 NAV	1 QTR Return	1 Year Return	3 Year Return	5 Year Return
Internal Liquidity					
Cash and Liquid securities	2,110	0.30%	0.48%	0.19%	0.12%
Total - Liquidity	**2,110**	**0.30%**	**0.48%**	**0.19%**	**0.12%**
ECIO's					
AQR	818	-0.64%	6.11%	6.52%	7.61%
Bridgewater	795	-1.56%	8.96%	3.11%	5.26%
Goldman Sachs	786	2.20%	8.07%	2.21%	5.31%
Total - ECIO's	**2,399**	**0.00%**	**7.75%**	**3.96%**	**5.54%**
Total - Overall	**4,509**	**0.14%**			



Asset Allocation Portfolio

- ## Liquidity
  - *3.5% Current Allocation*

- APFC's cash reserve had been higher than in previous quarters as we anticipated a higher obligation at the end of the FY.
- The cash account is used to receive any proceeds from and fund needs from all asset classes and operation activities
- Given the level of cash, at the beginning of the year we purchased short term T-bills in a ladder in a attempt to earn higher yield than investing in overnight money market fund.
- During this quarter, we opened a liquid fixed income account to hold liquid fixed income securities other than 3-month T-bills with the improving cash yields.
- Upon approval by the Board, Staff will be implementing a liquidity overlay program to synthetically give market exposure to excess cash

- ## Asset Allocation
  - *4% Current Allocation*

- Reviewing the agreements with the managers to update mandates, asset allocation, benchmark, and risk.
- <u>Targeting growth in NAV for the Fund:</u> net returns of CPI + 500 bps, with exposures to managers with different approaches that can diversify this portfolio and Sharpe Ratio over 0.5

Callan APFC Performance Review Memo

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

SUBJECT:	Callan Associates, Inc. APFC Performance Review	ACTION	________
DATE:	September 27, 2017	INFORMATION:	X

BACKGROUND / STATUS:
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 Steven Center will be the presenters at this meeting.

a) Callan APFC Performance Presentation

Callan

September 27, 2017

Alaska Permanent Fund Corporation

APFC

2nd Quarter 2017
Performance Review

Greg Allen
CEO, President and Chief Research Officer

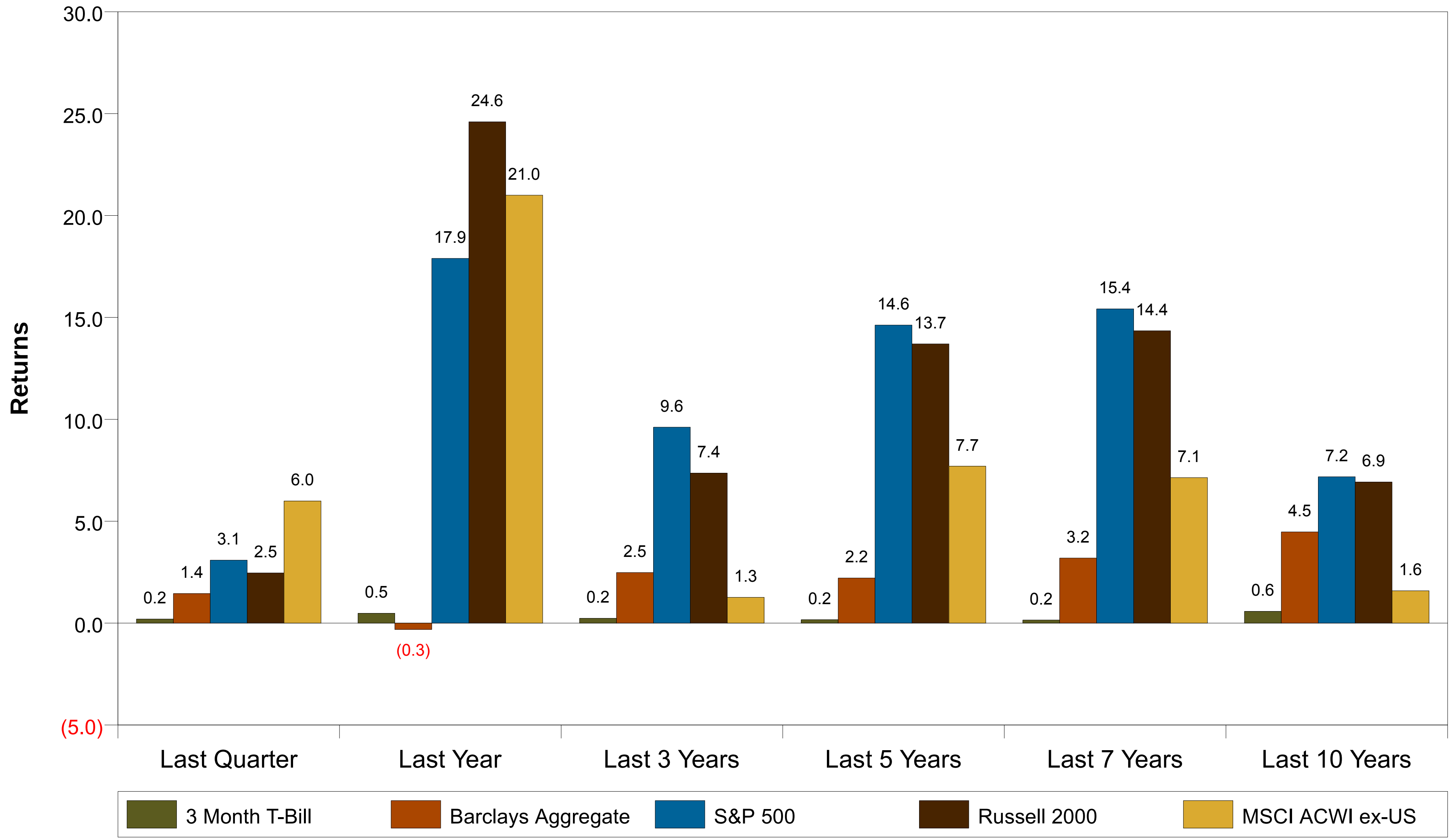
Steven Center, CFA
Senior Vice President

Agenda

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

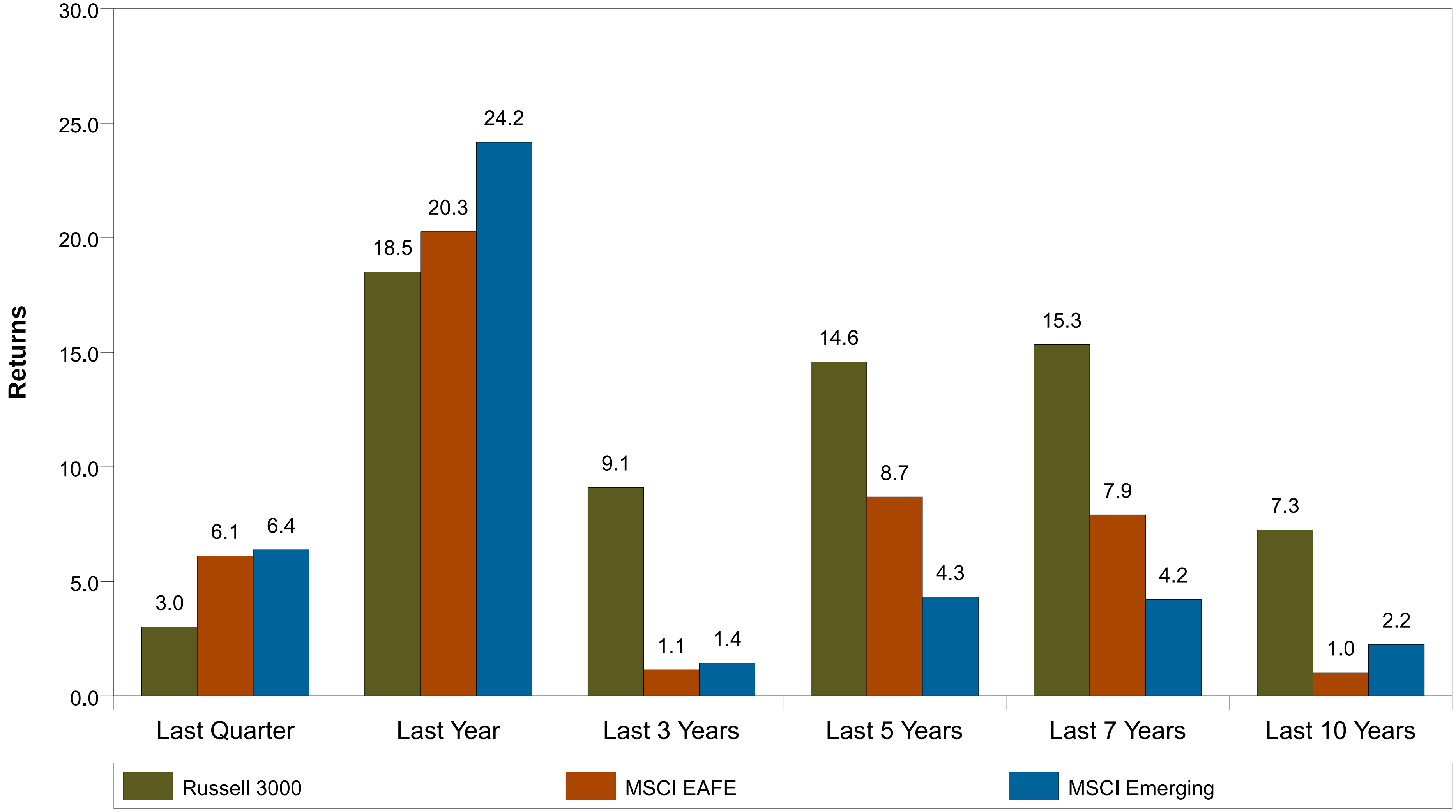
Broad Capital Market Performance

Periods Ended June 30, 2017



Public Equity Capital Market Performance

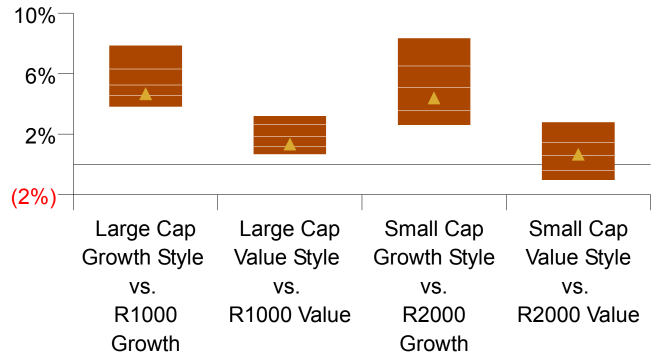
Periods Ended June 30, 2017



U.S. Equity

Second Quarter 2017

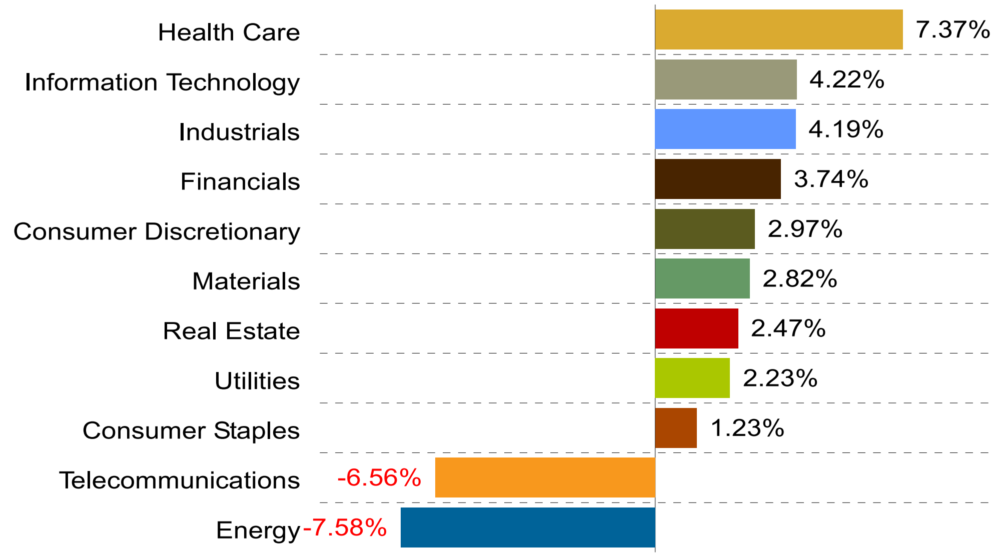
Callan Style Group Quarterly Returns



	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	7.85	3.18	8.33	2.78
25th Percentile	6.31	2.64	6.51	1.47
Median	5.25	1.85	5.09	0.62
75th Percentile	4.58	1.18	3.55	-0.38
90th Percentile	3.84	0.70	2.63	-1.01
Benchmark ▲	4.67	1.34	4.39	0.67

Sources: Callan, Russell Investment Group

Economic Sector Quarterly Returns (Russell 3000)



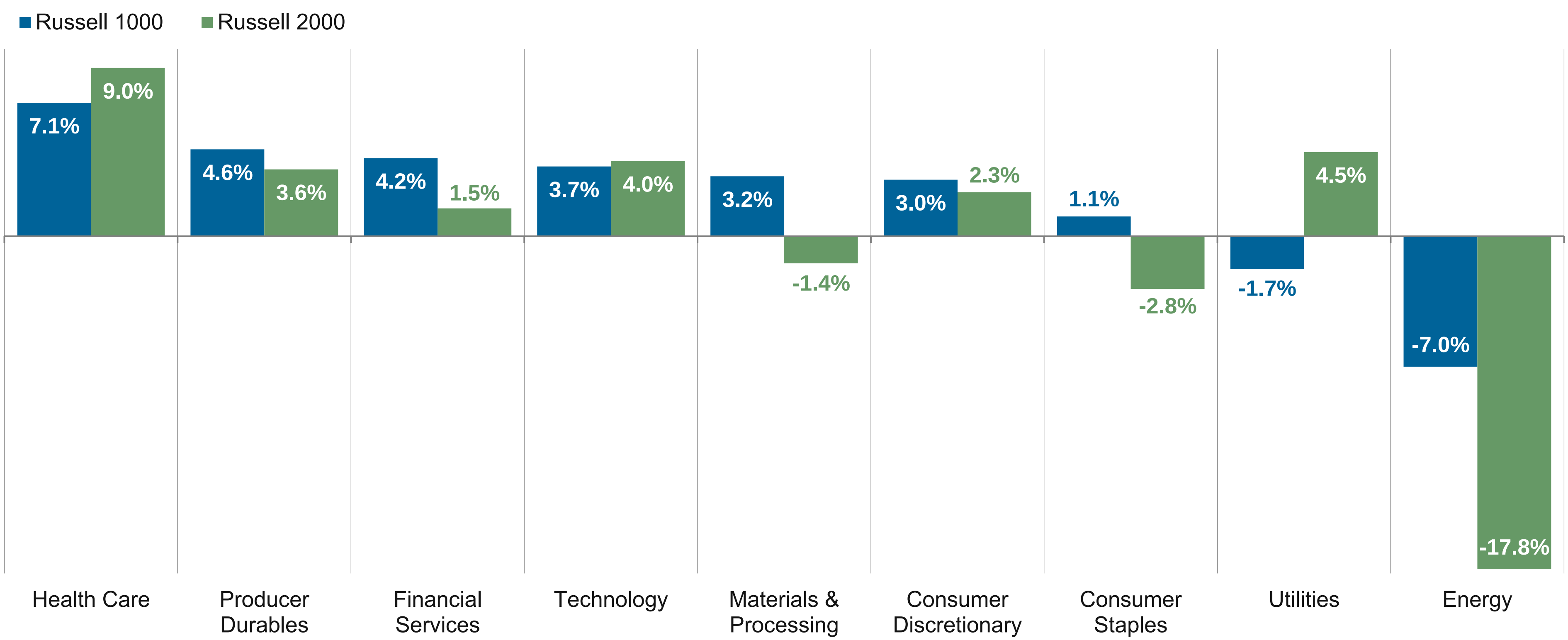
Source: Russell Investment Group

- U.S. stocks continued to inch higher during the second quarter, despite an increase in interest rates and turbulent events in the news, including disruptions within the Trump administration and terrorist attacks in the U.K.
- The Russell 3000 Index shrugged off a volatile macro backdrop and ended the quarter up 3.0%. In a repeat of last quarter – large cap stocks outperformed smaller caps (Russell 1000: +3.1%; Russell 2000: +2.5%) and growth led value across market capitalizations. The dispersion in style returns was generally uniform, as growth outpaced value by 3.3% in large caps (R1G: +4.7%; R1V: +1.3%) and by 3.7% in small caps (R2G: +4.4%, R2V: +0.7%).
- Sector performance reflected broadened investor sentiment. Top performers included Health Care (+7.4%), which rallied on prospect of change to the Affordable Care Act; Technology (+4.2%), got a boost from the strong-performing “FAAMG” stocks; and Industrials (+4.2%), which benefitted from declining commodity prices. Meanwhile, Telecom (-6.6%) and Energy (-7.6%) lagged; former weakened by stiff competition and latter hurt by falling oil prices and oversupply.

U.S. Equity

Economic Sector Quarterly Performance

Quarter ended June 30, 2017

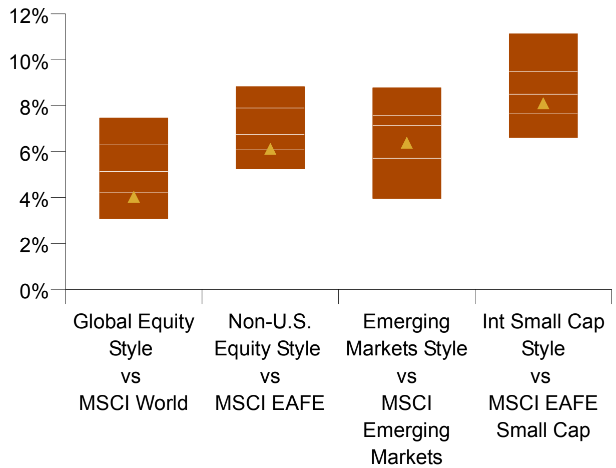


Source: Russell Investment Group

Non-U.S. Equity

Second Quarter 2017

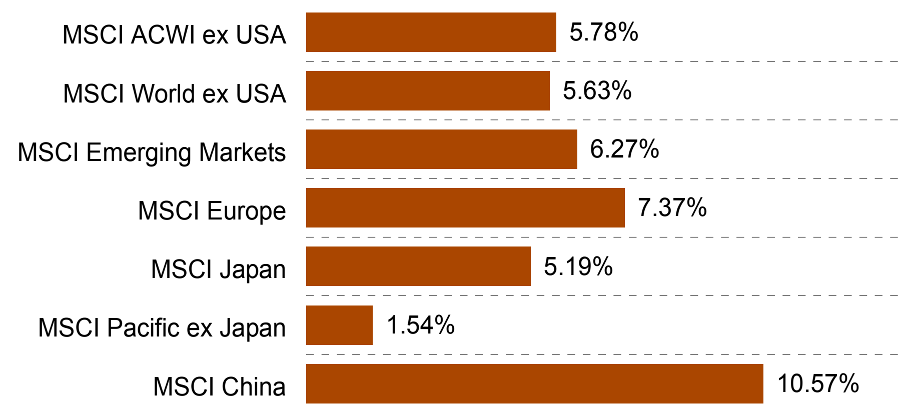
Callan Style Group Quarterly Returns



	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	7.46	8.83	8.78	11.13
25th Percentile	6.30	7.90	7.57	9.49
Median	5.13	6.75	7.14	8.50
75th Percentile	4.21	6.07	5.70	7.65
90th Percentile	3.08	5.26	3.96	6.61
Benchmark ▲	4.03	6.12	6.38	8.10

Sources: Callan, MSCI

Regional Quarterly Performance (U.S. Dollar)



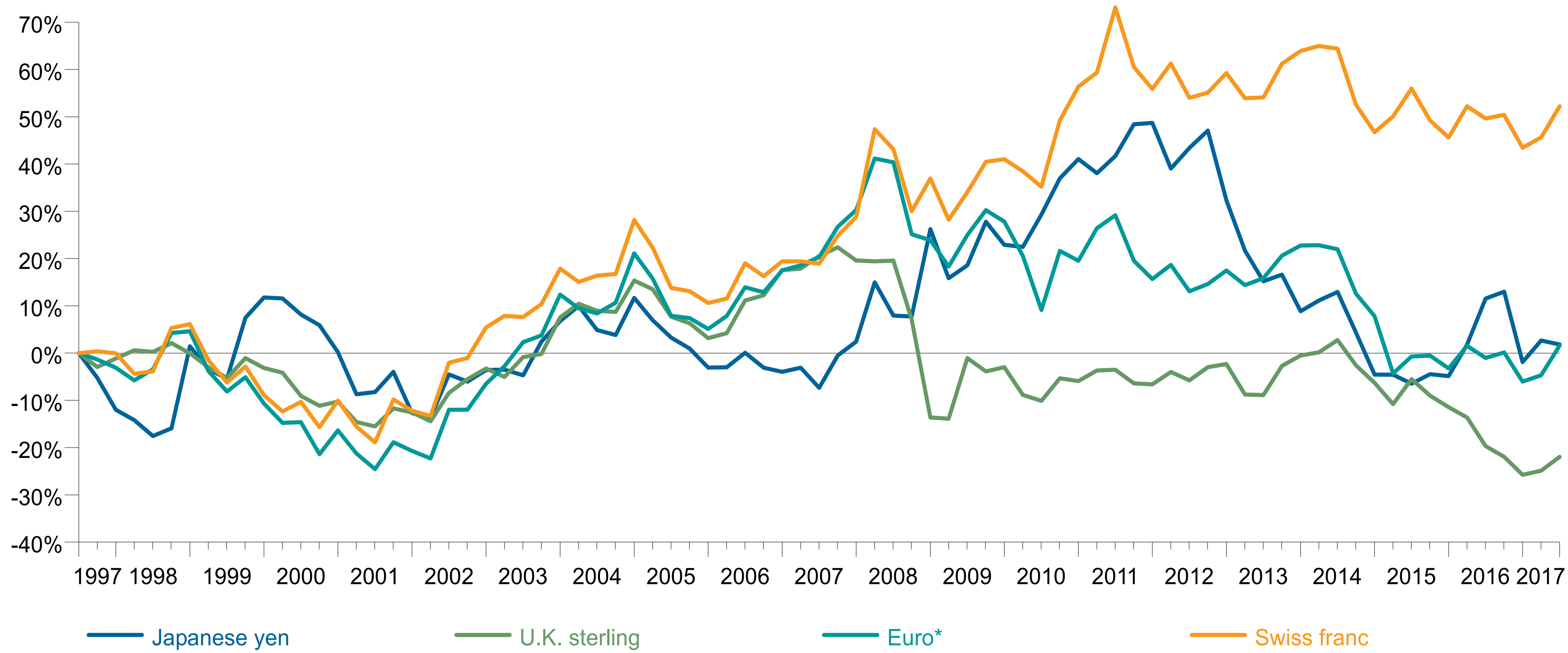
Source: MSCI

- Non-U.S. developed equity outperformed U.S. for the second consecutive quarter, fueled by economic recovery in Europe and market-friendly outcomes in European elections.
- The U.S. dollar lost 7% versus the euro and 5% versus a broad basket of currencies. This weakness helped overseas returns for U.S. investors. The MSCI ACWI ex USA jumped 5.8% for the quarter.
- Regionally, gains were broad-based. Emerging Markets were propelled by Technology companies in China, South Korea, and Taiwan. Meanwhile, Europe topped performance, on the back of hawkish comments from ECB coupled with improving European economic indicators.

Non-U.S. Equity

Currencies

Major Currencies' Cumulative Returns (vs. U.S. Dollar)



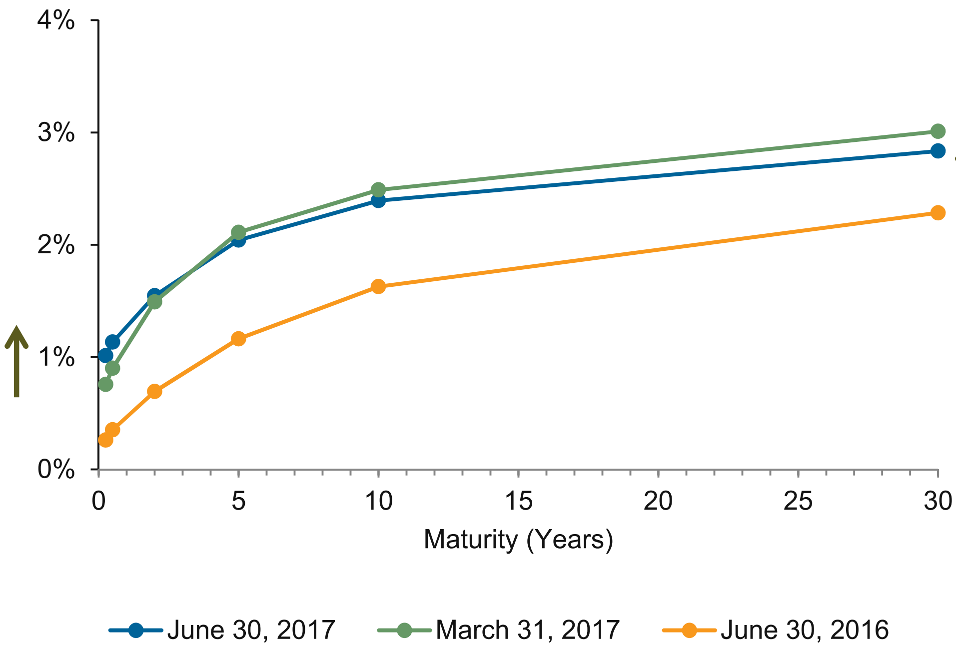
- The U.S. dollar pulled back for the second consecutive quarter in 2017.
- However, the relative strength of the U.S. dollar has been a headwind for non-U.S. investments over the last five years.

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

Fixed Income

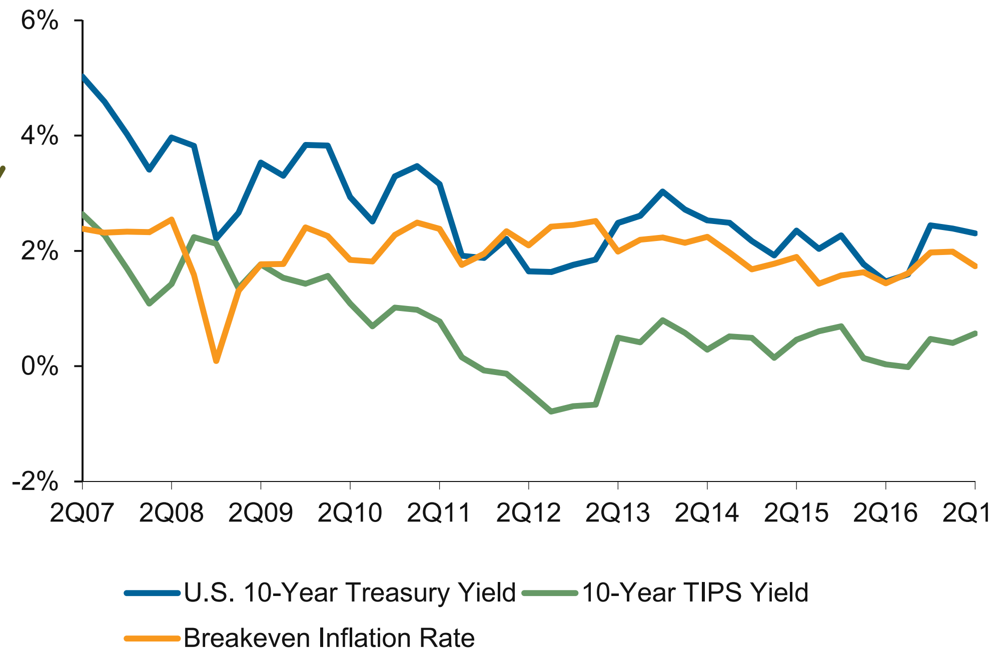
Second Quarter 2017

U.S. Treasury Yield Curves



Source: Bloomberg

Historical 10-Year Yields



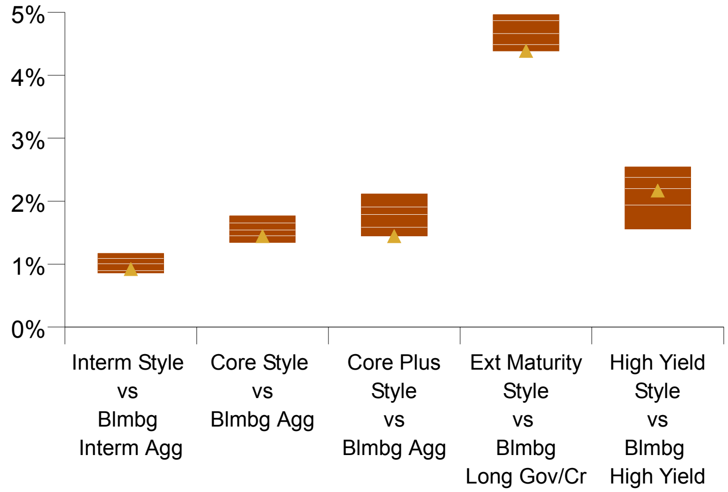
Source: Bloomberg

- The Fed, viewing inflation weakness as temporary, raised rates by 25 basis points to a range of 1.00-1.25%, in line with expectations. The June hike marked the third consecutive quarter with a 25 basis point increase; one additional hike is anticipated before year end.
- The treasury yield curve flattened during the quarter, as short-term treasuries rose, consistent with the Fed hike, while longer-term issues fell.
- The 10-year U.S. Treasury yield closed the quarter at 2.31%, down from 2.40% as of 3/31, though it hit a 2017 low of 2.12% earlier in June. The 2-year U.S. Treasury yield climbed 11 bps to close at 1.38%. The 10-year breakeven spread (difference between nominal and real yields) ended the quarter at 1.73%, down from 1.97% in prior quarter.

Fixed Income

Second Quarter 2017

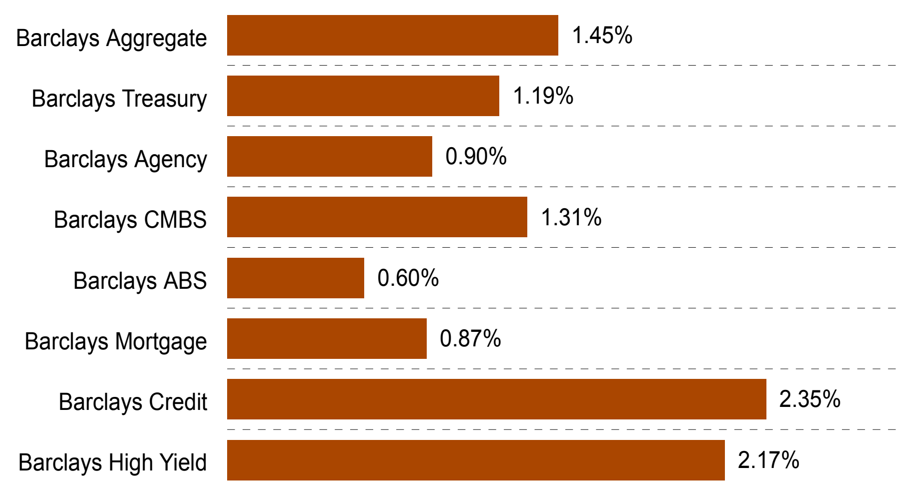
Callan Style Group Quarterly Returns



10th Percentile	1.17	1.77	2.12	4.97	2.54
25th Percentile	1.09	1.66	1.91	4.87	2.38
Median	1.01	1.54	1.79	4.66	2.20
75th Percentile	0.90	1.45	1.58	4.49	1.94
90th Percentile	0.86	1.35	1.45	4.39	1.56
Benchmark ▲	0.92	1.45	1.45	4.39	2.17

Sources: Bloomberg Barclays, Callan

Absolute Returns for Quarter ended June 30, 2017



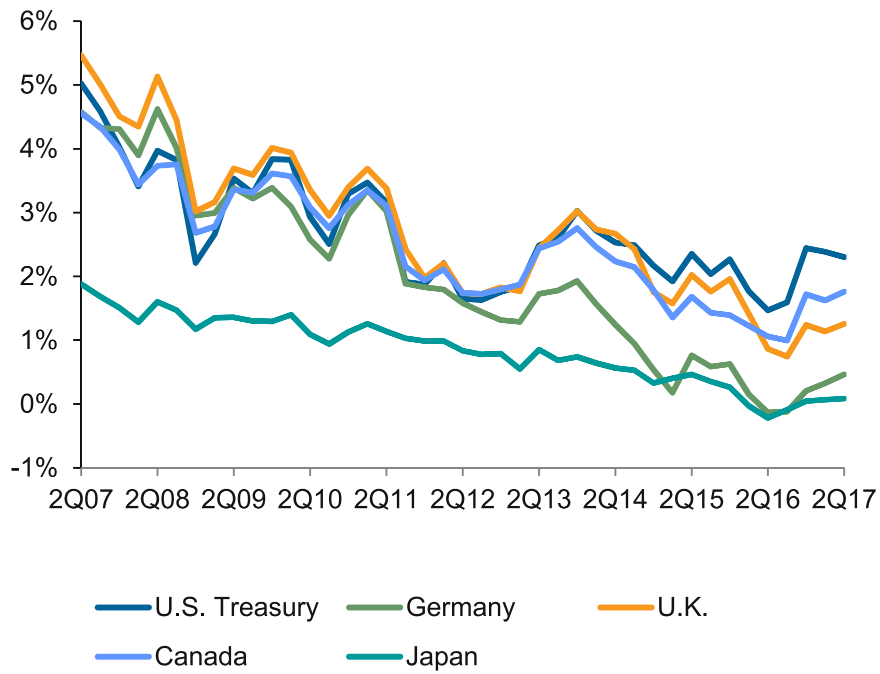
Source: Barclays

- The broad bond market, as measured by the Bloomberg Barclays U.S. Aggregate Bond Index, returned +1.5%.
- Low interest rates continued to be a catalyst pushing investors out the risk spectrum in search of yields that are higher than what is available for like-duration government bonds. On the heels of strong demand, investment grade corporate bonds (+2.4%) performed the best in the second quarter.
- The Bloomberg Barclays High Yield Corporate Index increased 2.2%. Default expectations are low across most sectors, providing some comfort to investors. Energy was the only high yield sector to decline (-0.7%).

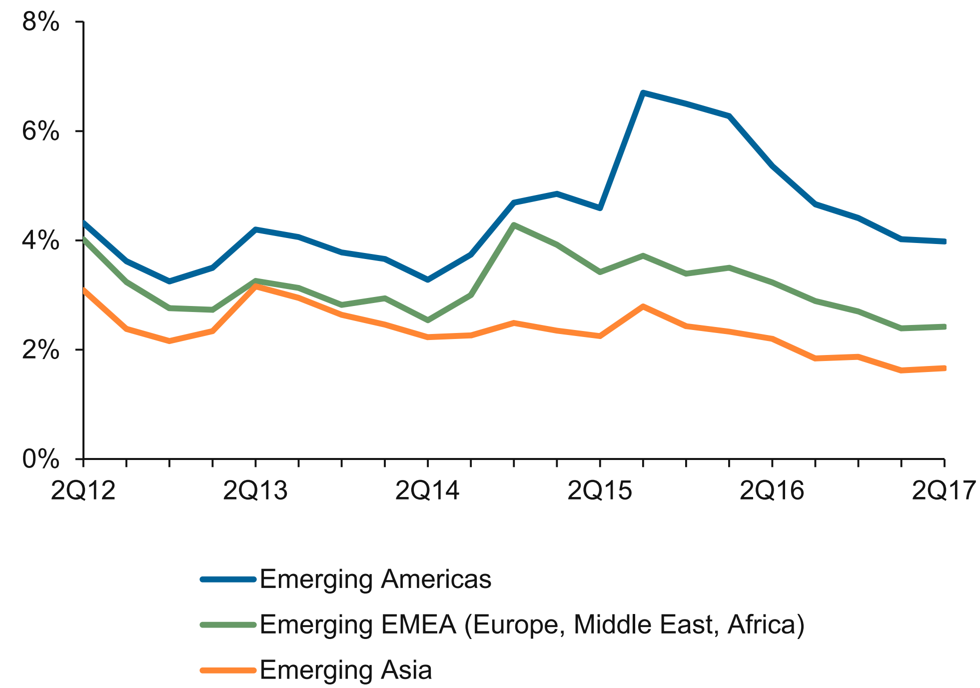
Fixed Income

Global Yields

10-Year Global Government Bond Yields



Emerging Spreads Over Developed



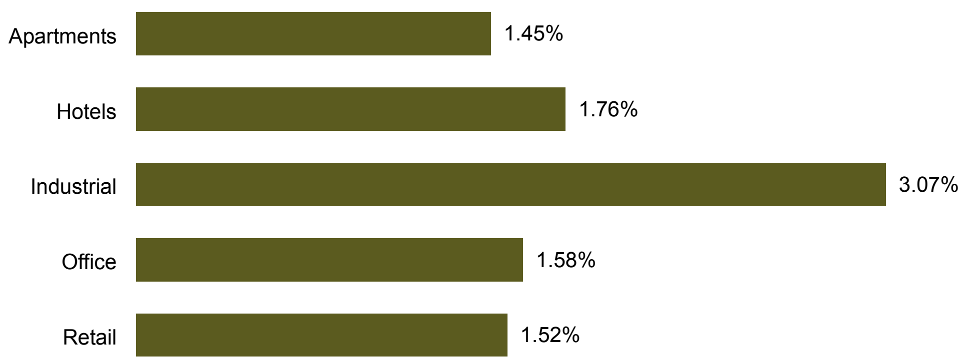
Sources: Bloomberg Barclays, Citigroup

- A weaker U.S. dollar helped unhedged non-U.S. bonds (Bloomberg Global Agg ex-US: +3.5%) and hindered hedged bonds (+0.6%).
- The quarter closed with an upbeat assessment of the euro zone's recovery from the president of the ECB, Mario Draghi, fueling speculation that the tapering of ECB asset purchases may be on the horizon. This change in tone spooked investors and sent global yields higher.
- The demand for yield drove returns in emerging market debt (JPM EMBI $: +2.2%). The weaker U.S. dollar and relatively higher local yields pushed EM local debt returns higher, continuing the post-election rebound (JPM EMBI Local: +3.6%).

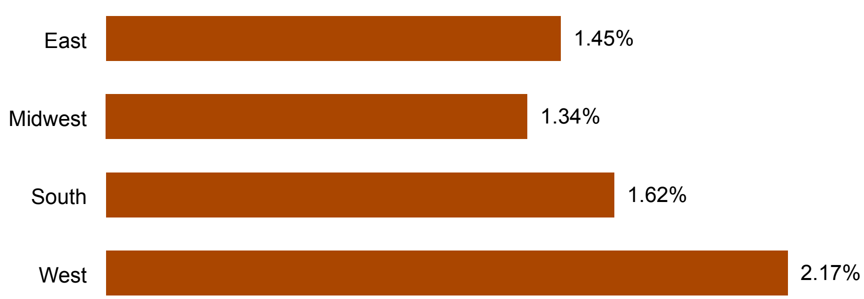
Real Estate

Second Quarter 2017

NCREIF All Equity Sector Returns By Property Type

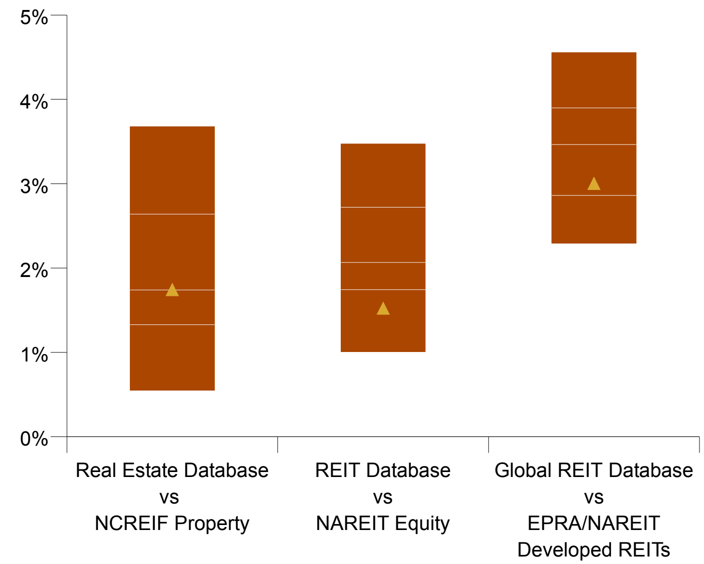


NCREIF All Equity Sector Returns By Region



Sources: Callan, NAREIT, NCREIF, The FTSE Group

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	3.68	3.47	4.56
25th Percentile	2.64	2.72	3.90
Median	1.74	2.07	3.46
75th Percentile	1.33	1.74	2.86
90th Percentile	0.55	1.01	2.30
Benchmark ▲	1.75	1.52	3.01

- The NCREIF Property Index advanced 1.8% (Income: +1.2%; Appreciation: +0.60%). This marked the 34th consecutive quarter of positive returns for the Index. Appreciation return increased from the previous quarter, the first such gain since the first quarter of 2015.
- All sectors posted gains. Industrial sector performed the best for the fifth quarter in a row. Regionally, all areas added value. The West region was the strongest performer for the third successive quarter.
- Global REITs (FTSE EPRA/NAREIT Developed REIT Index, USD) bested their U.S. counterparts, rising 3.0%. U.S. REITs (FTSE NAREIT Equity REITs Index) gained 1.5%. Flat April and poor showing in May weighted down U.S. REITs.

Hedge Funds

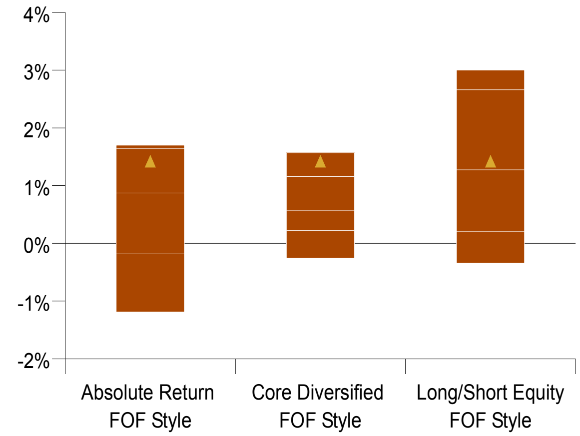
Second Quarter 2017

Style Median and Index Returns* for Periods ended June 30, 2017

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	0.94	3.26	8.12	1.78	5.39	2.90	4.88
CS Hedge Fund	0.76	2.85	5.84	1.54	4.47	3.18	5.84
Credit Suisse Subindices							
Equity Market Neutral	0.36	2.50	1.38	-0.40	1.89	-3.18	0.42
Convertible Arbitrage	0.21	2.46	6.82	1.90	3.53	3.42	4.67
Fixed Income Arbitrage	1.62	3.97	8.66	3.26	4.62	3.44	4.11
Multi-Strategy	2.29	5.11	9.05	5.53	7.41	4.88	7.02
Distressed	1.64	3.90	10.58	0.28	5.90	3.45	7.25
Risk Arbitrage	2.73	3.97	7.19	1.89	3.18	3.23	3.95
Event Driven Multi-Strategy	0.76	3.67	8.73	-2.05	4.09	2.83	6.30
Long/Short Equity	3.06	6.62	8.40	2.97	7.00	3.73	6.49
Global Macro	-1.77	-1.54	3.58	1.43	2.79	4.85	7.47
Managed Futures	-3.40	-4.38	-12.70	1.26	0.06	1.49	4.07
Emerging Markets	2.67	7.05	11.25	4.30	5.91	3.47	8.10

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

Callan Style Group Quarterly Returns



	Absolute Return FOF Style	Core Diversified FOF Style	Long/Short Equity FOF Style
10th Percentile	1.70	1.57	3.00
25th Percentile	1.65	1.16	2.66
Median	0.87	0.57	1.28
75th Percentile	-0.18	0.22	0.20
90th Percentile	-1.18	-0.26	-0.34
T-Bills + 5% ▲	1.42	1.42	1.42

Sources: Callan, Merrill Lynch

- The quarter's market conditions provided a friendly setting for hedge funds seeking alternative risks. Illustrating raw hedge fund performance without implementation costs, but net of underlying hedge fund fees, the Credit Suisse Hedge Fund Index (CS HFI) rose 0.8%. As a live hedge fund portfolio, net of all fees and expenses, the median manager in the Callan Hedge Fund-of-Funds Database advanced 0.9%.
- Within CS HFI, *Long-Short Equity* (+3.1%) repeated as the best-performing strategy for the second straight quarter. In last place, *Managed Futures* lost 3.4% and Global Macro (-1.8%) struggled as top-down themes reversed.
- Within Callan's Hedge FoF Database, the median *Long/Short Equity FoF* (+1.3%) outpaced *Absolute Return FoF* (+0.9%). With diversifying exposures to both non-directional and directional styles, the *Core Diversified FoF* gained 0.6%.

Private Equity

Second Quarter 2017

- Broad private equity returns lag those of public equities in the short- and intermediate-term. However, longer-term performance (periods of last 10-years and greater) has added value relative to public markets.
- New private equity partnership commitments totaled $85.5 billion in the 2nd quarter, with 319 new partnerships formed, according to *Private Equity Analyst*. The number of funds increased 3% from 310 in the first quarter, and the dollar volume rose 7% from $80.0 billion.
- Apollo IX raised the most capital in the quarter, $24.6 billion for the final close—the largest buyout fund ever raised.
- Buyouts (73%) continue to lead the majority of new capital allocation.

Funds Closed January 1 to June 30, 2017

Strategy	No. of Funds	Amount ($mm)	Percent
Venture Capital	282	16,421	10%
Buyouts	220	120,352	73%
Subordinated Debt	26	7,326	4%
Distressed Debt	13	7,189	4%
Secondary and Other	23	5,249	3%
Fund-of-Funds	65	8,945	5%
Totals	**629**	**165,481**	**100%**

Private Equity Performance Database (%) (Pooled Horizon IRRs through March 31, 2017*)

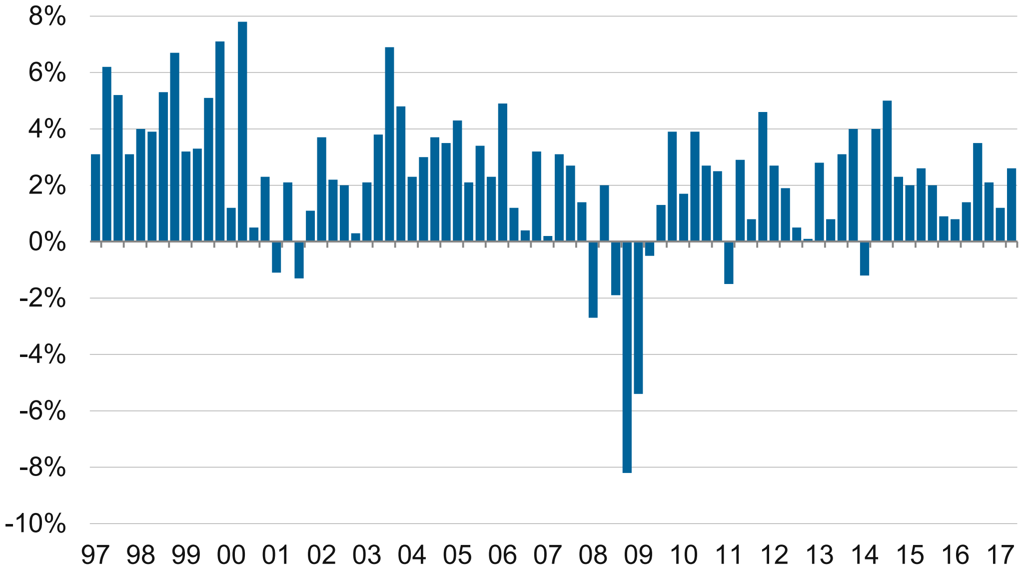
Strategy	3 Months	Year	3 Years	5 Years	10 Years	15 Years	20 Years
All Venture	3.2	6.8	12.3	14.4	9.7	7.7	21.2
Growth Equity	4.2	12.0	9.7	11.5	10.3	11.4	13.6
All Buyouts	4.3	14.6	10.3	12.8	9.2	13.5	12.6
Mezzanine	2.8	9.5	8.1	9.7	8.8	9.5	9.1
Distressed	3.4	14.7	6.8	10.6	9.3	10.8	10.7
All Private Equity	**4.0**	**12.6**	**10.1**	**12.5**	**9.4**	**11.7**	**13.2**
S&P 500	6.1	17.2	10.4	13.3	7.5	7.1	7.9

* Latest quarterly data available. Private equity returns are net of fees.
Sources: Private Equity Analyst, Standard & Poor's, Thomson/Cambridge

U.S. Economy

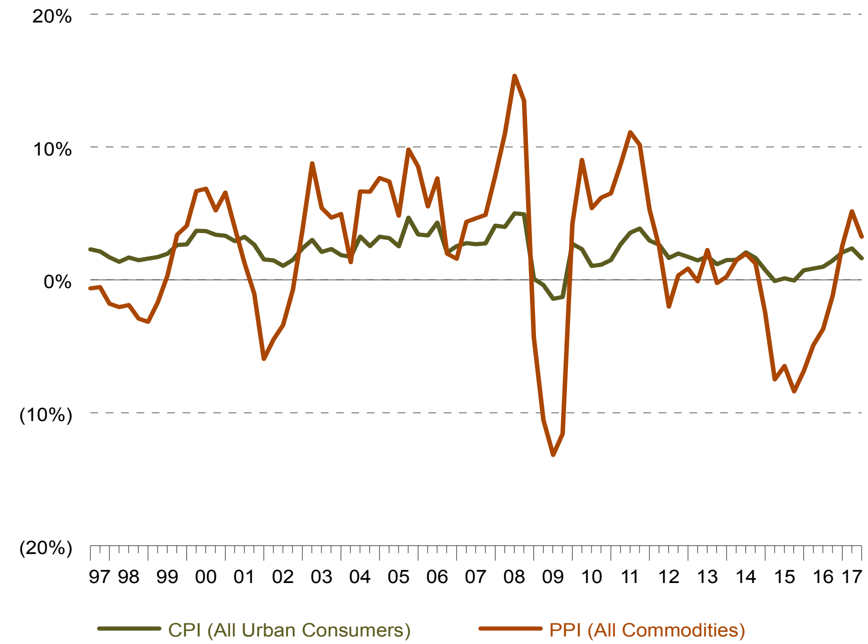
Second Quarter 2017

Quarterly Real GDP Growth (20 Years)



Source: Bureau of Economic Analysis

Inflation Year-Over-Year



Source: Bureau of Labor Statistics

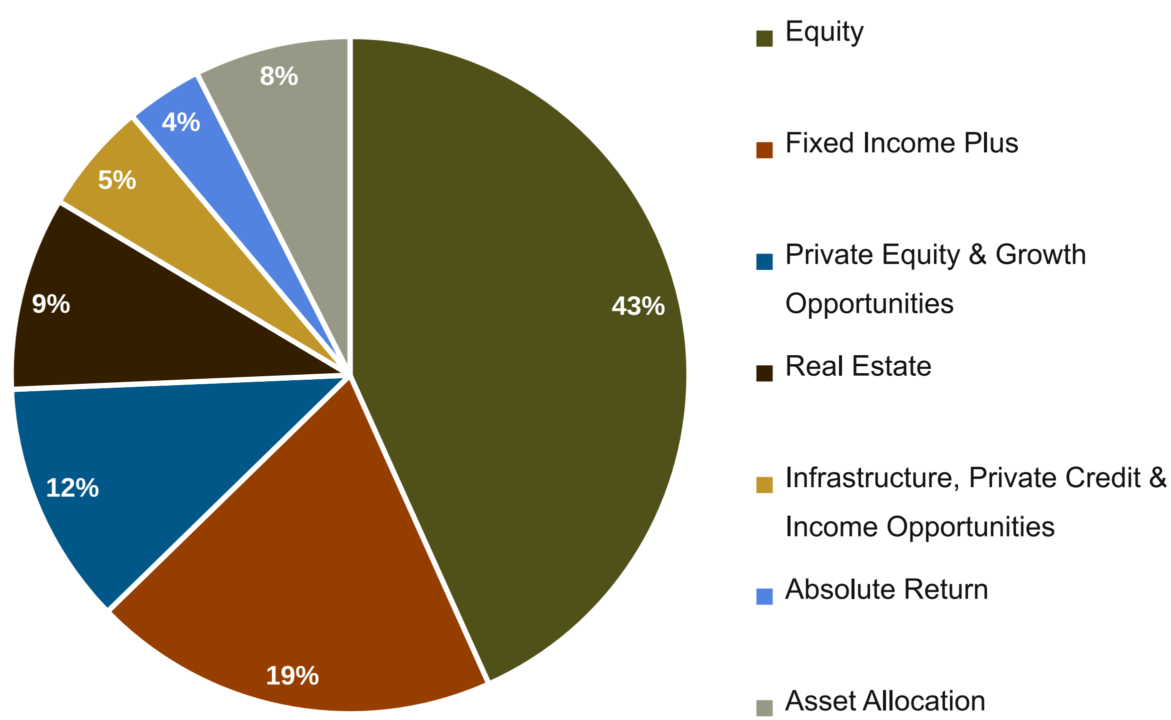
Labor Force Statistics from the Current Population Survey				
2017 (Seasonally Adj.)	**March**	**April**	**May**	**June**
Employment Level (thousands)	153,000	153,156	152,923	153,168
Unemployment Level (thousands)	7,202	7,056	6,861	6,977
Civilian Labor Force Level (thousands)	160,201	160,213	159,784	160,145
Unemployment Rate	4.5%	4.4%	4.3%	4.4%
Labor Force Participation Rate	63.0%	62.9%	62.7%	62.8%

Total Fund
Asset Allocation and Performance

Total Fund Asset Allocation

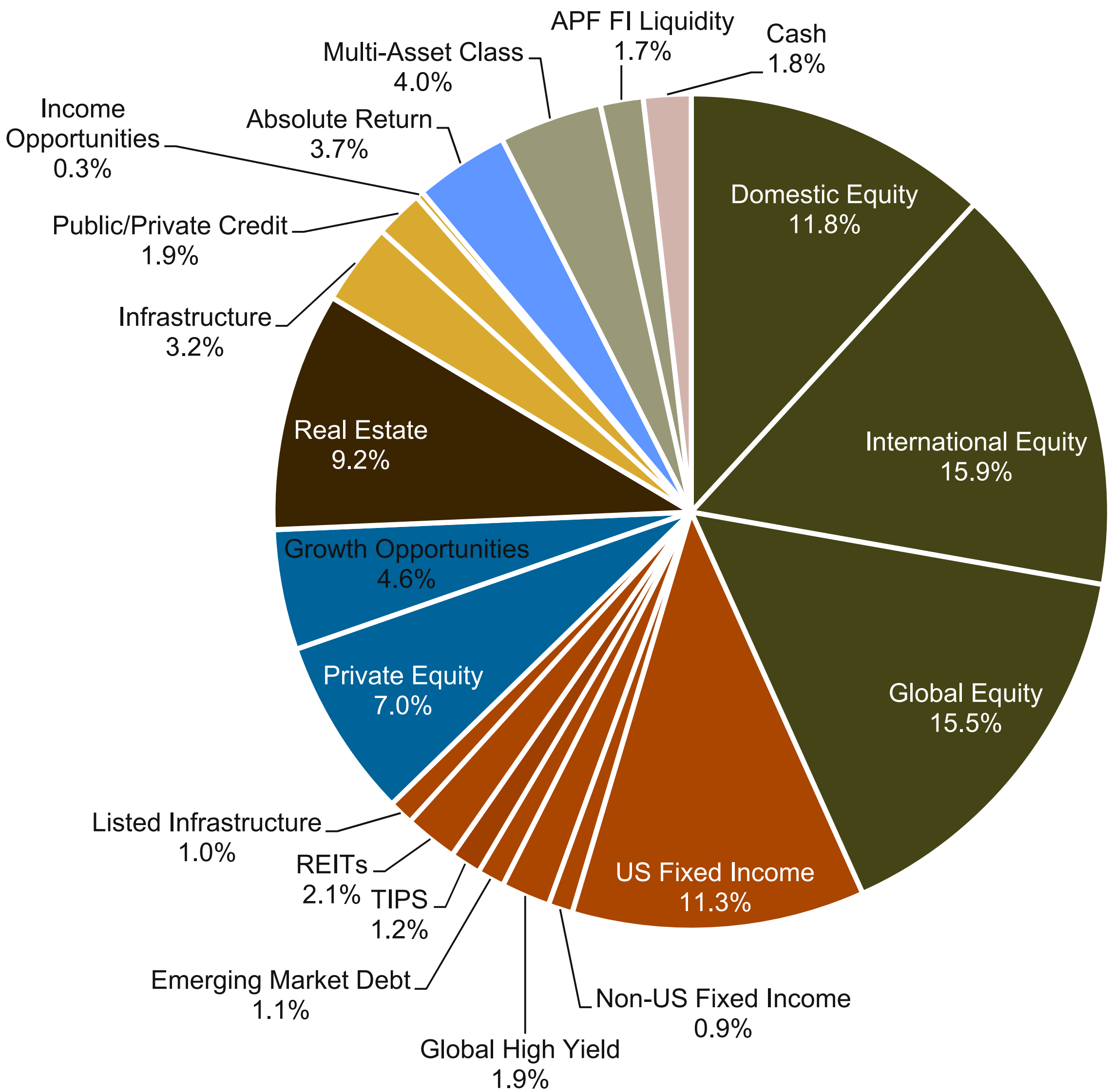
As of June 30, 2017

- 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 43% to public equity, 19% to fixed income, and 38% to alternative investments.
- Compared to allocations in the 1st quarter, this reflects no change in fixed income, an increase in public equity, and a corresponding decrease in alternative investments.
- Alternatives includes private equity, growth opportunities, real estate, infrastructure, private credit, income opportunities, absolute return, and asset allocation.



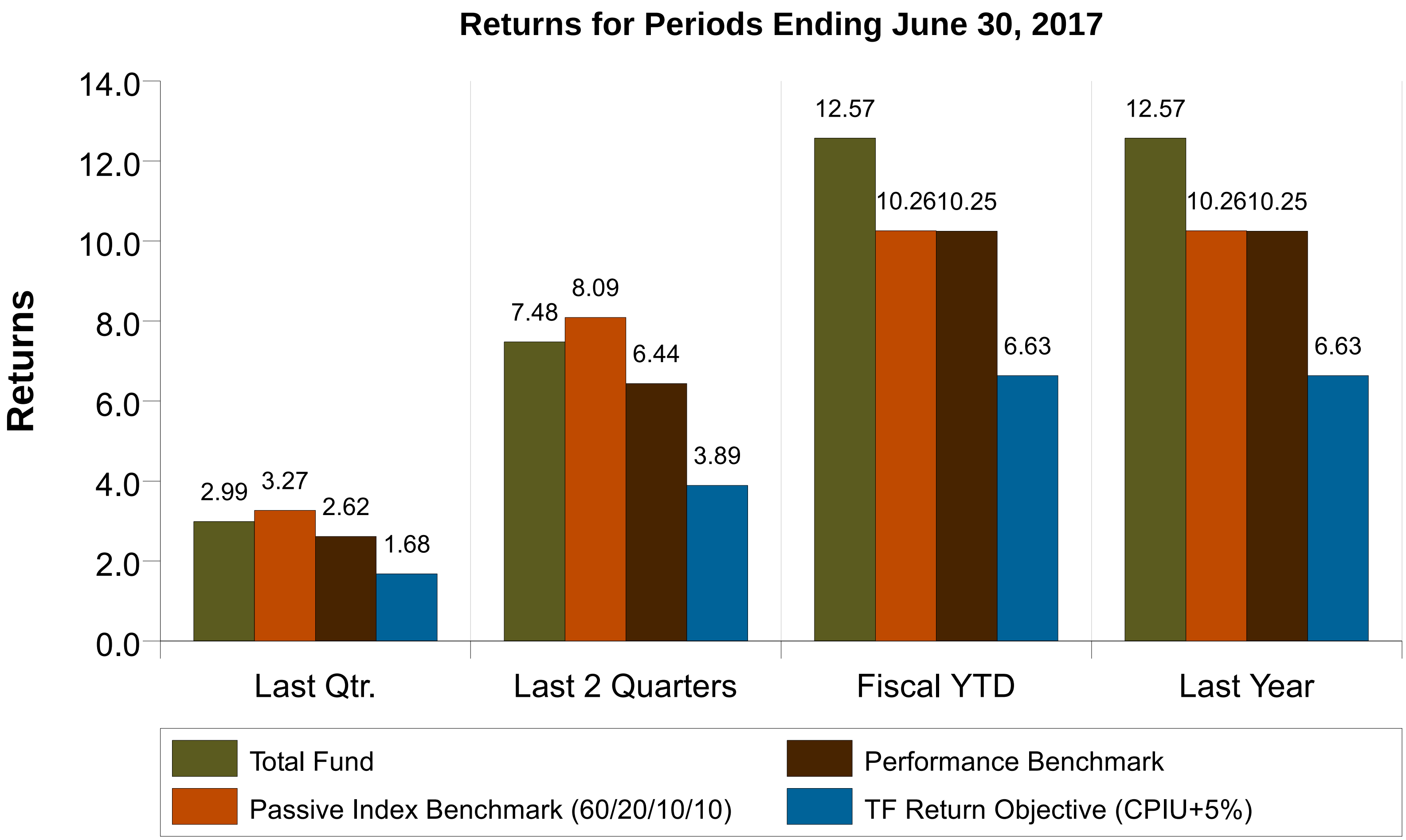
Total Fund Asset Allocation

As of June 30, 2017



APFC Total Fund Cumulative Returns

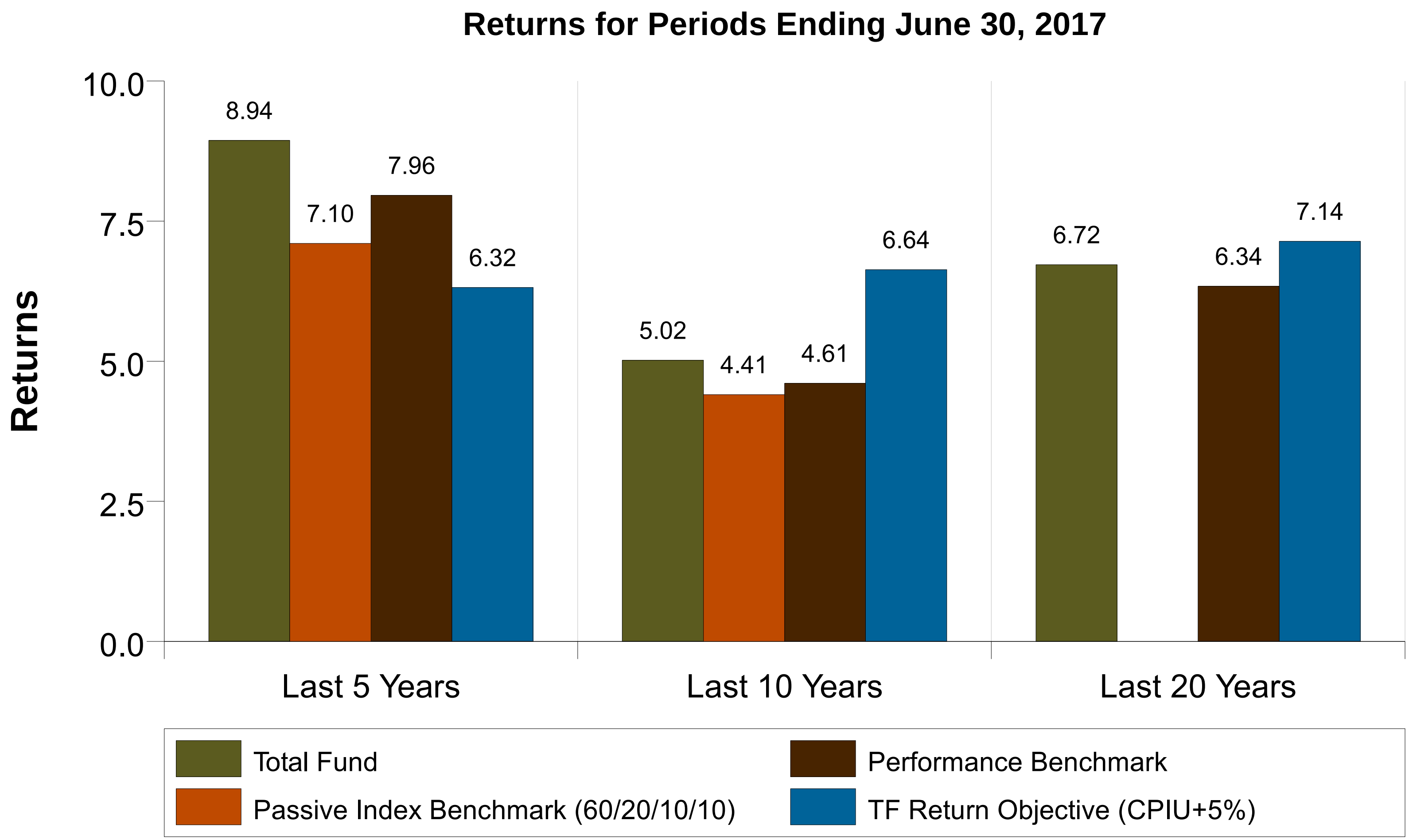
Total Fund versus Total Fund Targets



- Current Total Fund Target (Performance Benchmark) = 41.7% MSCI ACWI IMI, 11.5% NCREIF Total Index, 11.5% Cambridge Private Equity Index, 5.7% Bloomberg Aggregate, 5.7% Bloomberg Corporate, 5.2% HFRI Fund Weighted Composite, 3.1% FTSE Developed Core Infrastructure, 2.3% Bloomberg Global ex-US Treasury Hedged, 4.4% Bloomberg US HY Corporate 2% Cap, 2.3% S&P Global REIT (Net), 3.2% 3-month Treasury Bill, 1.1% Bloomberg Emerging Markets Bond, 1.1% Bloomberg US TIPS, and 1.1% S&P Global Infrastructure Net (rounded to nearest tenth)

APFC Total Fund Cumulative Returns

Total Fund versus Total Fund Targets



- Current Total Fund Target (Performance Benchmark) = 41.7% MSCI ACWI IMI, 11.5% NCREIF Total Index, 11.5% Cambridge Private Equity Index, 5.7% Bloomberg Aggregate, 5.7% Bloomberg Corporate, 5.2% HFRI Fund Weighted Composite, 3.1% FTSE Developed Core Infrastructure, 2.3% Bloomberg Global ex-US Treasury Hedged, 4.4% Bloomberg US HY Corporate 2% Cap, 2.3% S&P Global REIT (Net), 3.2% 3-month Treasury Bill, 1.1% Bloomberg Emerging Markets Bond, 1.1% Bloomberg US TIPS, and 1.1% S&P Global Infrastructure Net (rounded to nearest tenth)

APFC Total Fund Attribution

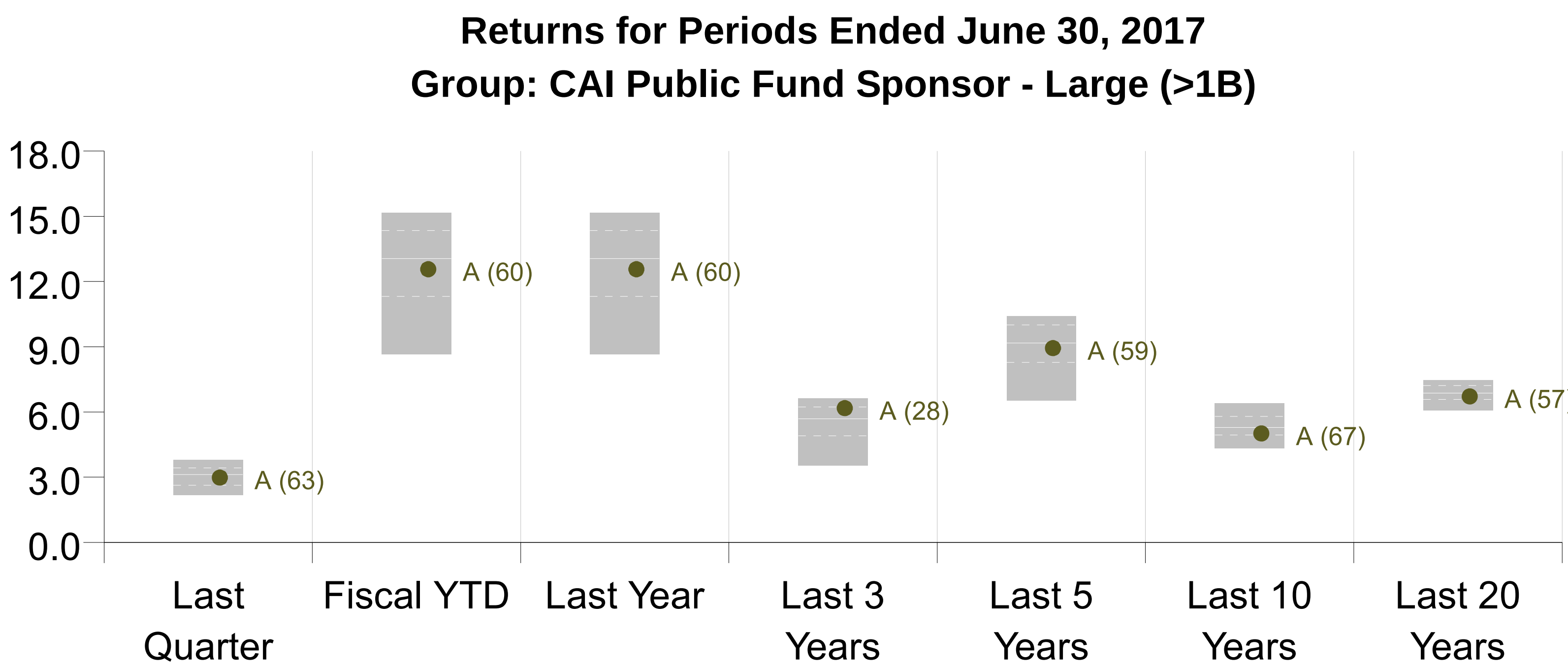
For One Quarter Ended June 30, 2017

Relative Attribution Effects for Quarter ended June 30, 2017

Asset Class	Effective Actual Weight	Effective Target Weight	Actual Return	Target Return	Manager Effect	Asset Allocation	Total Relative Return
Public Equities	41%	40%	4.38%	4.25%	0.05%	0.01%	0.07%
Fixed Income Plus	19%	22%	1.95%	1.83%	0.02%	0.02%	0.04%
Real Estate	10%	11%	(0.50%)	1.75%	(0.21%)	0.01%	(0.20%)
Priv Credit/Infra/Income	5%	5%	1.64%	3.45%	(0.09%)	0.00%	(0.09%)
Absolute Return	4%	5%	0.82%	1.04%	(0.01%)	0.02%	0.01%
Private Equity & Growth	11%	11%	6.62%	0.00%	0.73%	(0.01%)	0.72%
Asset Allocation	10%	6%	0.14%	1.81%	(0.16%)	(0.03%)	(0.19%)
Total			**2.99% =**	**2.62%** x	**0.33%** x	**0.03%**	**0.36%**

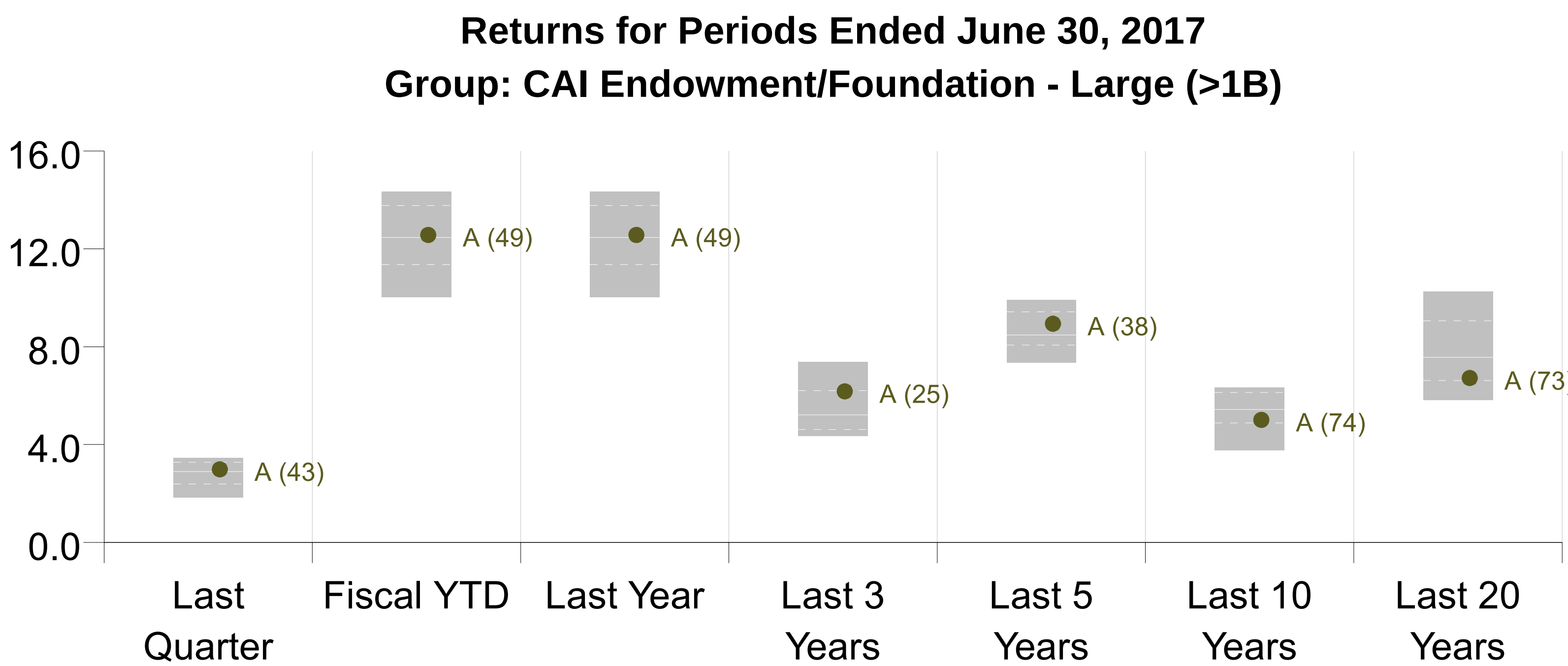
- The Total Fund outperformed the Performance Benchmark by 0.4% during the quarter.
- Manager performance within Private Equity & Growth Opportunities was beneficial, and offset manager performance within Real Estate, Infrastructure, Private Credit & Income Opportunities, and Asset Allocation which detracted.
- In aggregate, active management added 33 basis points to the relative performance, while deviations from the Policy Target contributed 3 basis points.

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



	Last Quarter	Fiscal YTD	Last Year	Last 3 Years	Last 5 Years	Last 10 Years	Last 20 Years
10th Percentile	3.81	15.17	15.17	6.62	10.41	6.41	7.47
25th Percentile	3.43	14.34	14.34	6.24	10.01	5.80	7.21
Median	3.13	13.06	13.06	5.70	9.17	5.29	6.86
75th Percentile	2.63	11.33	11.33	4.91	8.28	4.94	6.58
90th Percentile	2.17	8.67	8.67	3.54	6.54	4.35	6.08
Member Count	69	66	66	64	62	60	46
Total Fund ● A	2.99	12.57	12.57	6.18	8.94	5.02	6.72

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

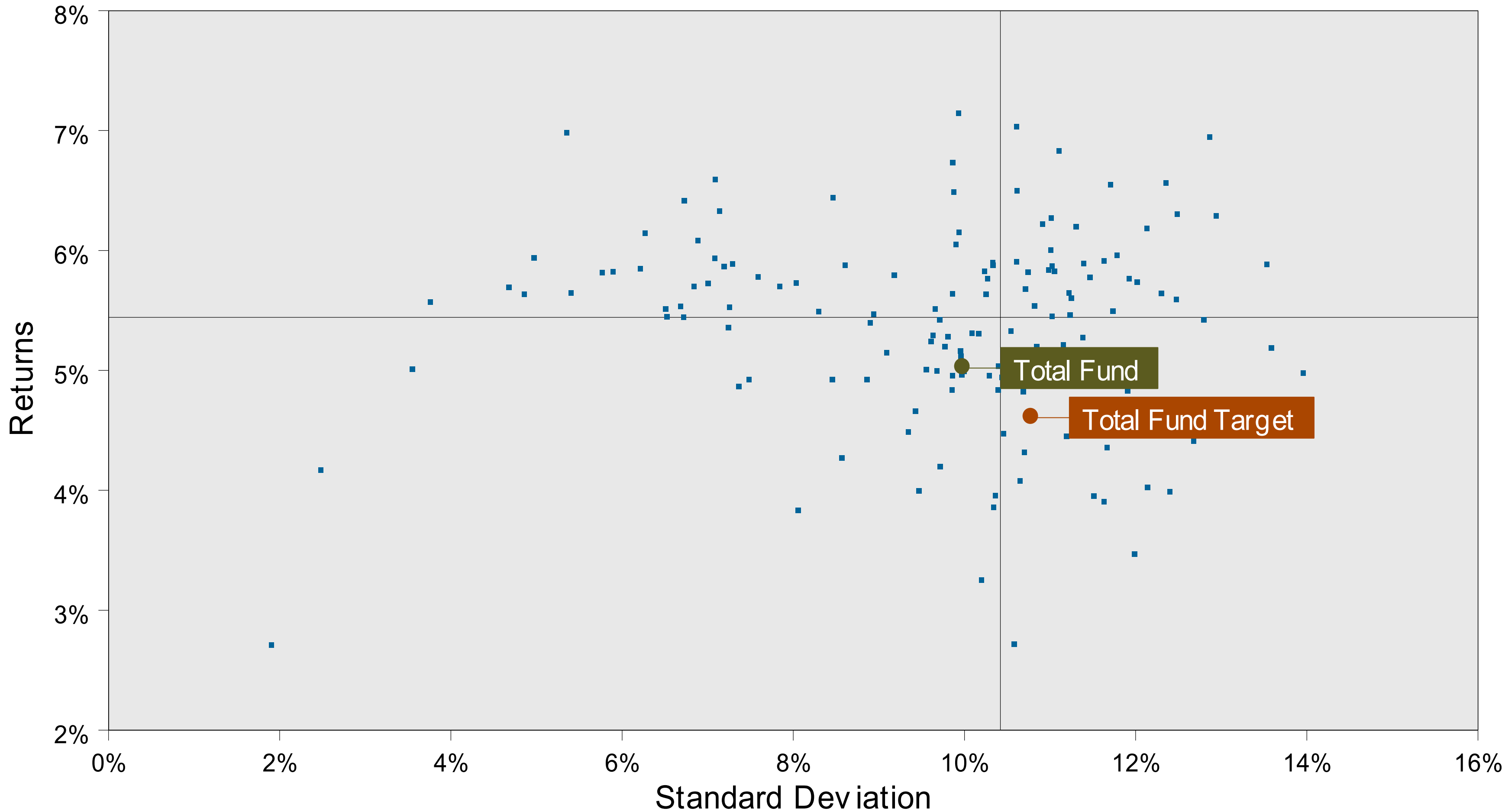


	Last Quarter	Fiscal YTD	Last Year	Last 3 Years	Last 5 Years	Last 10 Years	Last 20 Years
10th Percentile	3.46	14.36	14.36	7.38	9.92	6.33	10.26
25th Percentile	3.28	13.78	13.78	6.21	9.43	6.14	9.07
Median	2.90	12.47	12.47	5.22	8.49	5.44	7.57
75th Percentile	2.39	11.36	11.36	4.62	8.07	4.89	6.62
90th Percentile	1.83	10.03	10.03	4.36	7.35	3.78	5.83
Member Count	39	39	39	39	39	38	23
Total Fund ● A	2.99	12.57	12.57	6.18	8.94	5.02	6.72

APFC Total Fund Return versus Standard Deviation

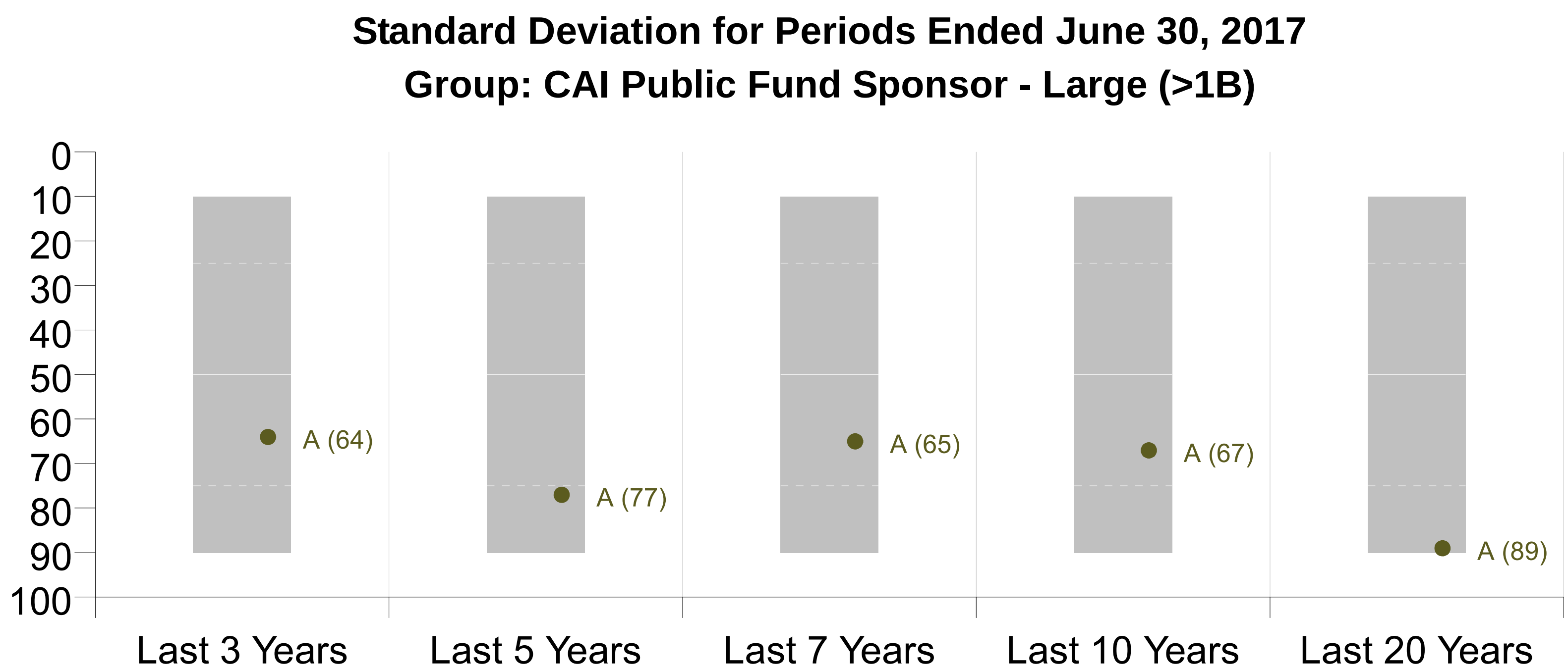
Relative to Callan's Public Fund Database

Ten Year Annualized Risk vs Return



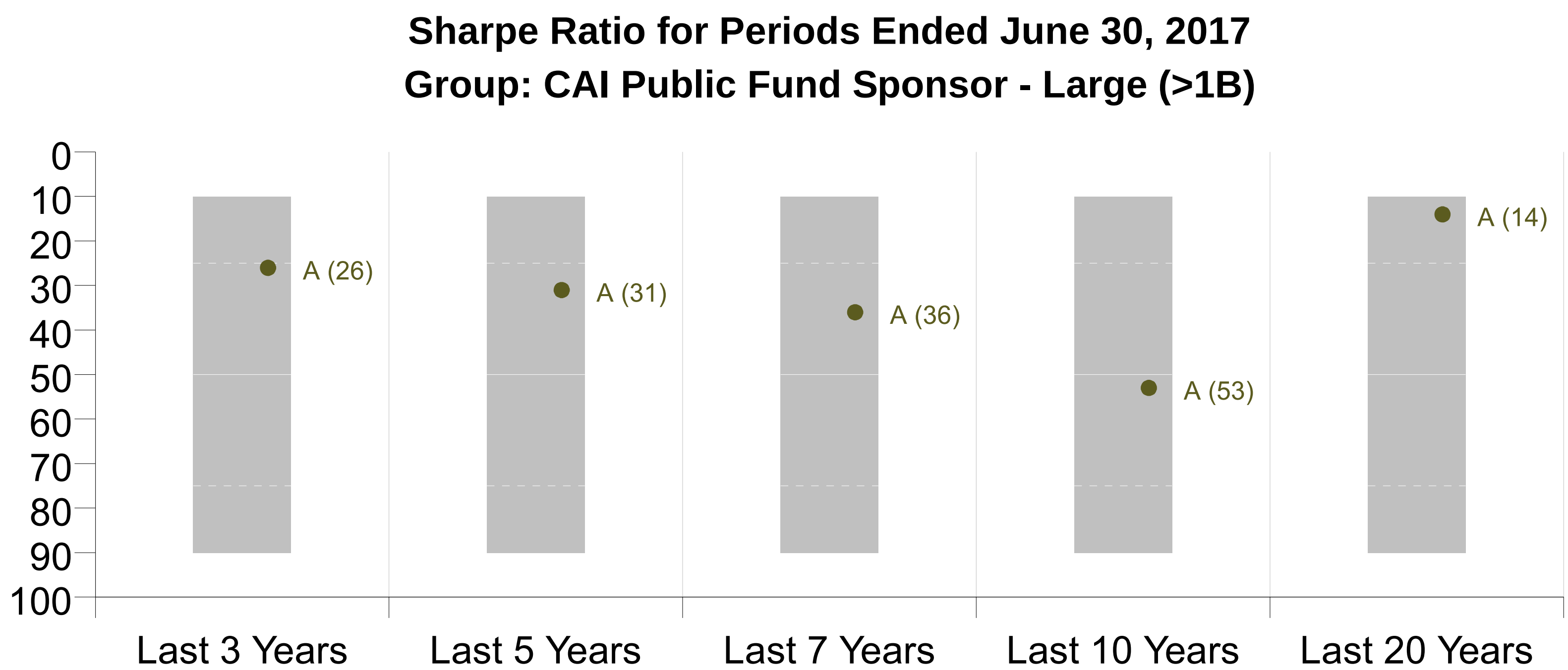
Squares represent membership of the CAI Public Fund Sponsor Database

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



	Last 3 Years	Last 5 Years	Last 7 Years	Last 10 Years	Last 20 Years
10th Percentile	6.17	6.01	8.92	12.01	11.45
25th Percentile	5.69	5.49	7.99	11.35	11.07
Median	5.12	5.16	7.21	10.60	10.57
75th Percentile	4.79	4.70	6.48	9.84	9.79
90th Percentile	4.07	4.04	6.09	8.68	9.18
Member Count	64	62	62	60	46
Total Fund ● A	4.90	4.61	6.84	9.99	9.19

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



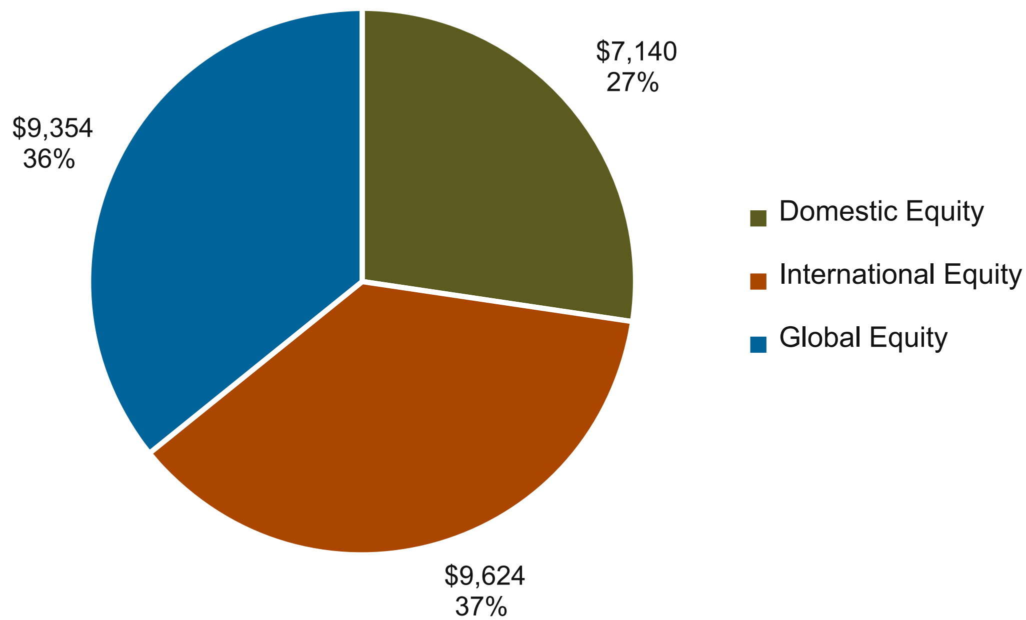
	Last 3 Years	Last 5 Years	Last 7 Years	Last 10 Years	Last 20 Years
10th Percentile	1.42	2.14	1.50	0.60	0.52
25th Percentile	1.23	1.95	1.40	0.50	0.48
Median	1.03	1.75	1.28	0.45	0.44
75th Percentile	0.88	1.54	1.17	0.41	0.41
90th Percentile	0.62	1.24	1.09	0.36	0.38
Member Count	64	62	62	60	46
Total Fund ● A	1.22	1.90	1.32	0.44	0.50

Asset Classes
Structure and Performance

APFC Public Market Equity Structure

As of June 30, 2017

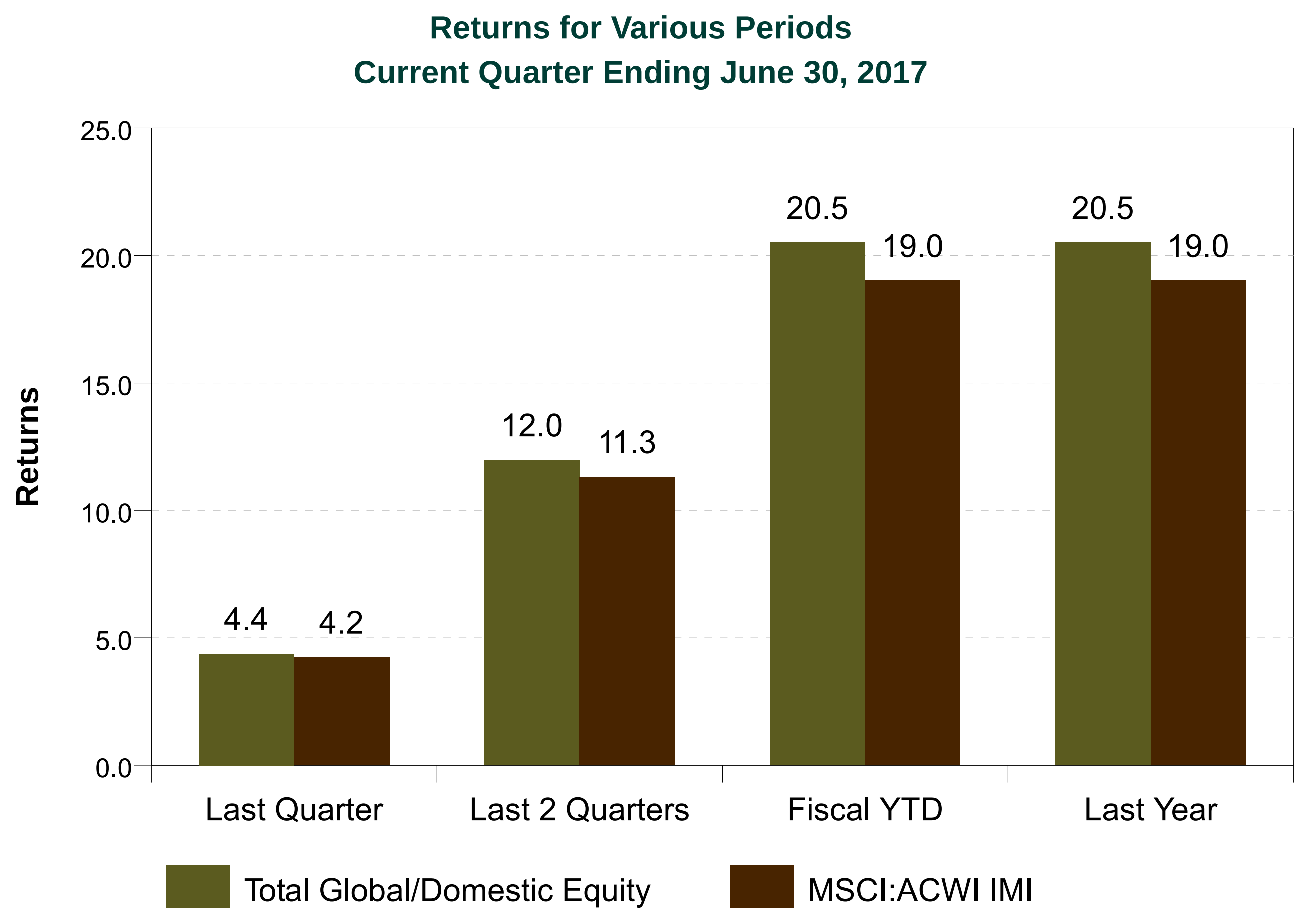
- APFC public equity portfolio has a weighting of roughly 47% in US equity, and 53% in non-US equity.
- The MSCI ACWI IMI benchmark has a weighting of roughly 52% in US equity, and 48% in non-US equity.
- The median allocation to US equity across public equity portfolios in Callan's Large Public Fund 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 Performance vs. MSCI ACWI-IMI

Periods Ended June 30, 2017

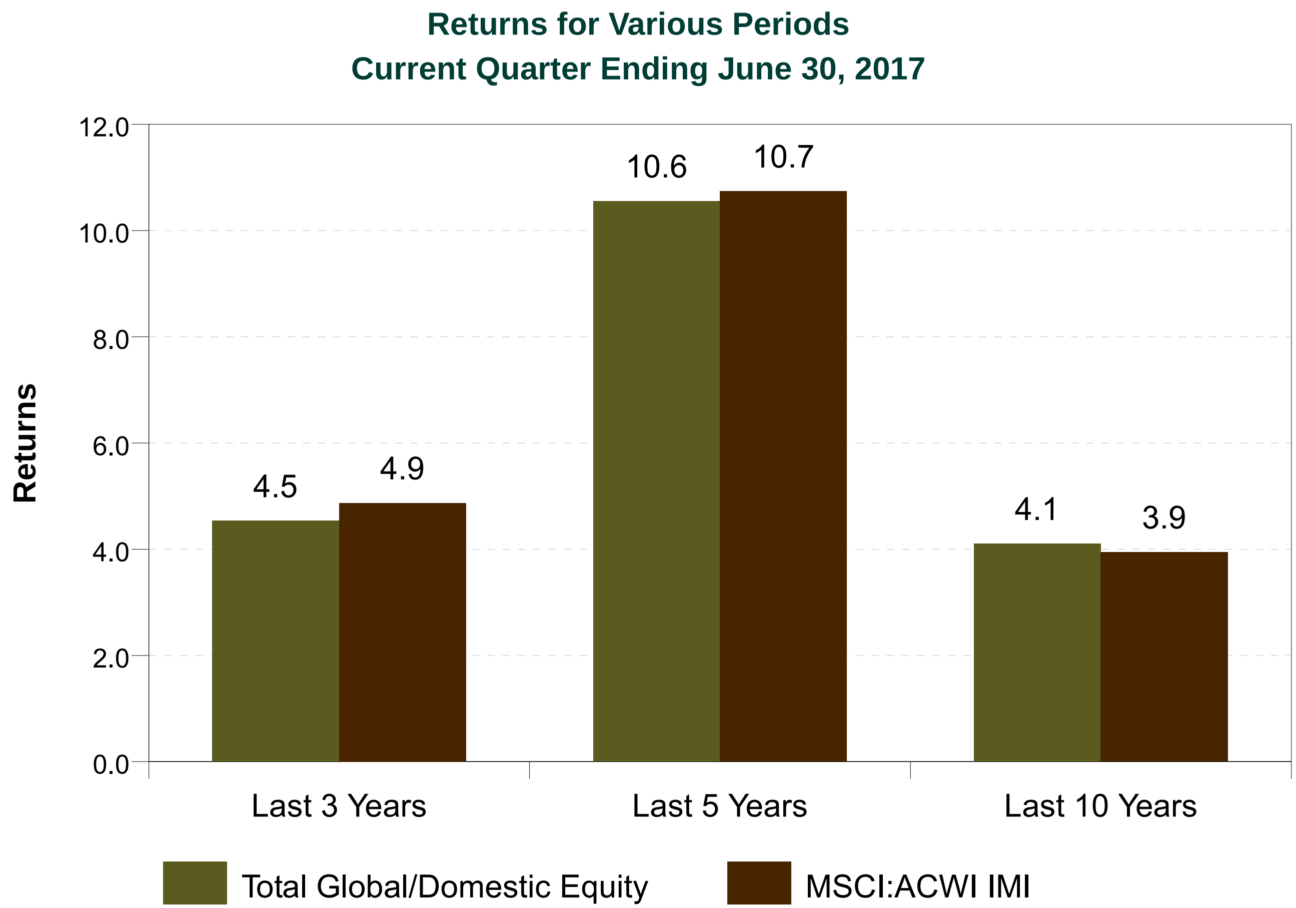
- The total public equity portfolio had a slight lead over the MSCI ACWI IMI index in the second quarter.
- The portfolio is solidly ahead of the benchmark YTD and FYTD.
- Much of this outperformance is primarily attributable to the portfolio's overweight exposure to non-US equity, including emerging markets, along with strong absolute performance from US managers.



APFC Public Equities Performance vs. MSCI ACWI-IMI

Periods Ended June 30, 2017

- The total public equity portfolio closely tracks the benchmark over intermediate- and long-term periods shown on the chart.
- Overall, the public equity portfolio is well diversified across regions, countries, and underlying strategies.
- It should be expected to track the index over time.

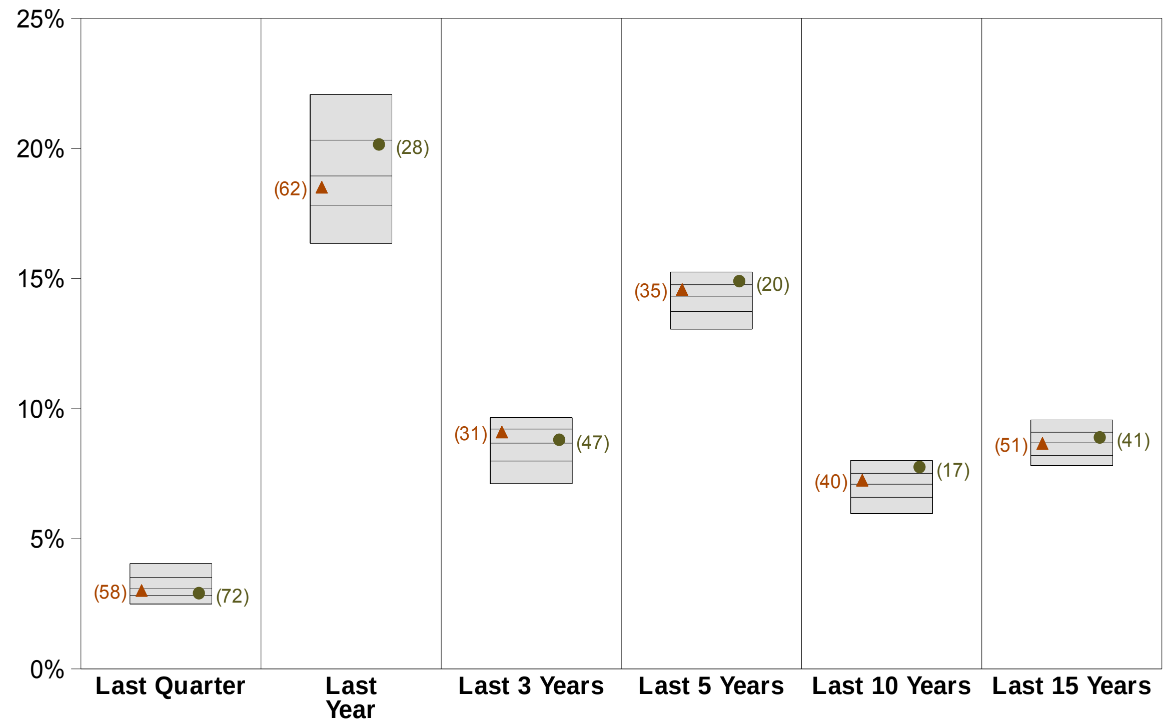


APFC US Equity Performance vs. Fund Sponsor US Equity

Periods Ended June 30, 2017

- 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, except current quarter.
- US equity portfolio returned +2.9% in the 2nd quarter of 2017.
- Longer-term performance exceeds the benchmark.

Performance vs Fund Spnsr- Domestic Equity (Gross)

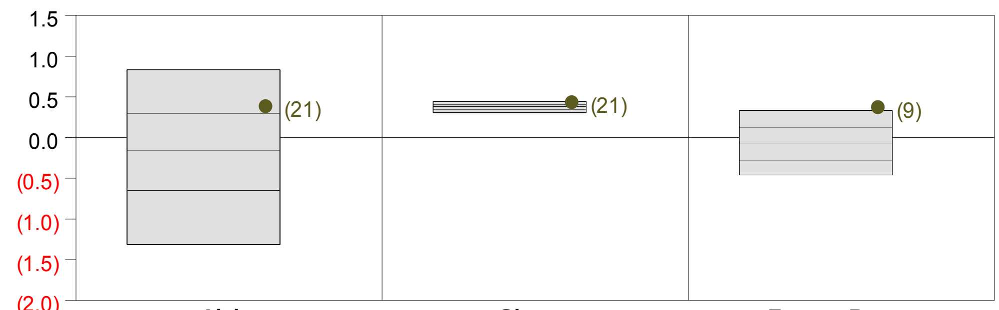


	Last Quarter	Last Year	Last 3 Years	Last 5 Years	Last 10 Years	Last 15 Years
10th Percentile	4.05	22.07	9.65	15.25	8.00	9.56
25th Percentile	3.51	20.32	9.21	14.77	7.51	9.09
Median	3.08	18.94	8.67	14.32	7.10	8.68
75th Percentile	2.82	17.81	7.99	13.73	6.59	8.20
90th Percentile	2.49	16.36	7.11	13.06	5.96	7.80
Total Domestic Equity ●	2.85	20.10	8.75	14.85	7.70	8.84
Russell 3000 Index ▲	3.02	18.51	9.10	14.58	7.26	8.66

APFC US Equity Portfolio Risk Adjusted Return Rankings

- Universe comprised of total domestic equity portfolios of large institutional investors in Callan's Fund Sponsor 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).

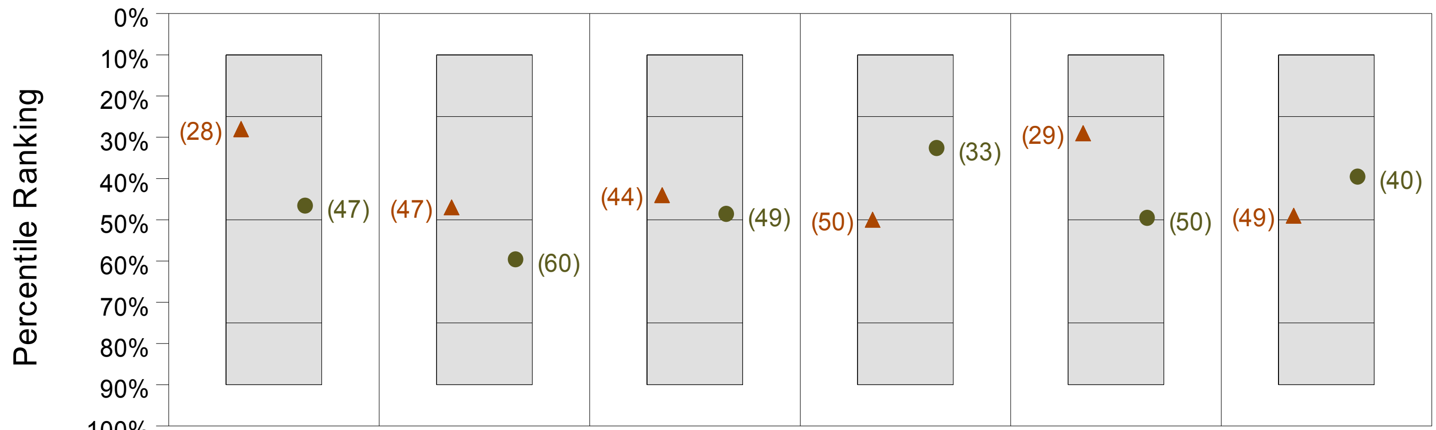
Risk Adjusted Return Measures vs Russell 3000 Index
Rankings Against Fund Sponsor Domestic Equity
Ten Years Ended June 30, 2017



	Alpha	Sharpe Ratio	Excess Return Ratio
10th Percentile	0.83	0.44	0.33
25th Percentile	0.30	0.41	0.13
Median	(0.15)	0.38	(0.07)
75th Percentile	(0.65)	0.35	(0.28)
90th Percentile	(1.32)	0.31	(0.46)
Total Domestic Equity ●	0.36	0.41	0.35

APFC US Equity Portfolio Characteristics Rankings

Portfolio Characteristics Percentile Rankings
Rankings Against Total Domestic Equity Database
as of June 30, 2017



	Weighted Median Market Cap	Price/Fore-casted Earnings	Price/Book	Forecasted Earnings Growth	Dividend Yield	MSCI Combined Z-Score
10th Percentile	87.36	25.56	4.65	17.97	2.46	0.85
25th Percentile	65.48	21.13	3.56	15.42	1.97	0.49
Median	13.95	18.24	2.67	12.71	1.46	(0.02)
75th Percentile	3.08	16.34	2.11	10.70	0.96	(0.34)
90th Percentile	1.77	14.92	1.80	8.94	0.62	(0.64)
Total Domestic Equity ●	21.96	17.51	2.71	14.33	1.47	0.11
Russell 3000 Index ▲	60.20	18.44	2.82	12.73	1.90	(0.01)

- US equity portfolio has a slight growth bias relative to both the index and the universe of institutional equity portfolios. The portfolio also has a small capitalization bias relative to the index.
- Portfolio’s growth tilt benefitted performance, while the small capitalization bias detracted from performance during the second quarter.

Capitalization and Style Allocation: US Equity

As of June 30, 2017

- Highlighted cells indicate largest biases relative to the Russell 3000 index.
- The overweight to growth had a positive impact during the quarter and fiscal year, as growth stocks outperformed value stocks across market capitalizations.
- On the other hand, the small-cap overweight detracted, as smaller companies once again trailed larger companies.
- Small and mid cap over-weights relative to the index are common in actively managed US equity portfolios.
- The overweight to growth is less common. Over the quarter, growth exposure notched down from 38.9% while value exposure decreased from 33.5%.

Style Exposure Matrix
Holdings as of June 30, 2017

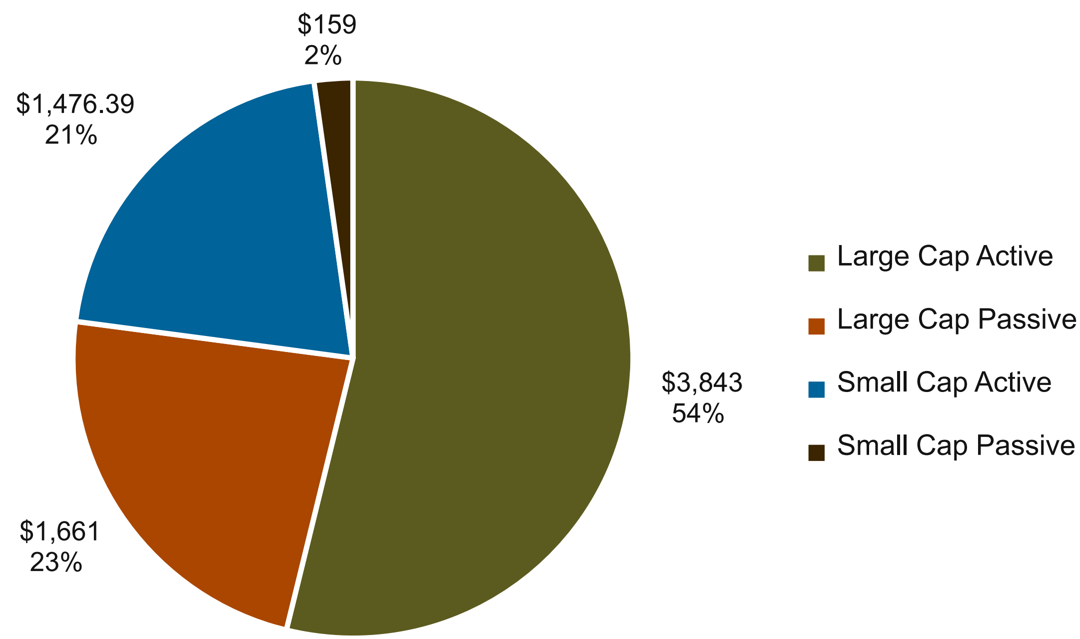
	Value	Core	Growth	Total
Large	18.2% (106) 27.6% (104)	14.4% (102) 21.9% (98)	23.5% (112) 25.4% (104)	**56.1% (320)** **74.8% (306)**
Mid	7.5% (176) 4.9% (175)	8.4% (225) 6.7% (237)	8.2% (165) 5.5% (206)	**24.2% (566)** **17.2% (618)**
Small	4.9% (184) 2.1% (344)	7.1% (219) 2.9% (490)	6.7% (143) 2.2% (398)	18.7% (546) 7.2% (1232)
Micro	0.4% (17) 0.3% (281)	0.4% (25) 0.3% (347)	0.2% (9) 0.2% (199)	**1.0% (51)** **0.9% (827)**
Total	**31.0% (483)** **34.9% (904)**	**30.3% (571)** **31.8% (1172)**	38.6% (429) 33.3% (907)	**100.0% (1483)** **100.0% (2983)**

APFC Portfolio **Russell 3000 Index**

APFC US Equity Structure

As of June 30, 2017

- US equity portfolio is roughly 75% actively managed and 25% passive (or quasi-passive).
- Structure has a slight overweight to small cap with 23% of portfolio allocated to dedicated small cap strategies.
- Roughly 70% of the large cap allocation is actively managed while 91% of the small cap allocation is actively managed.

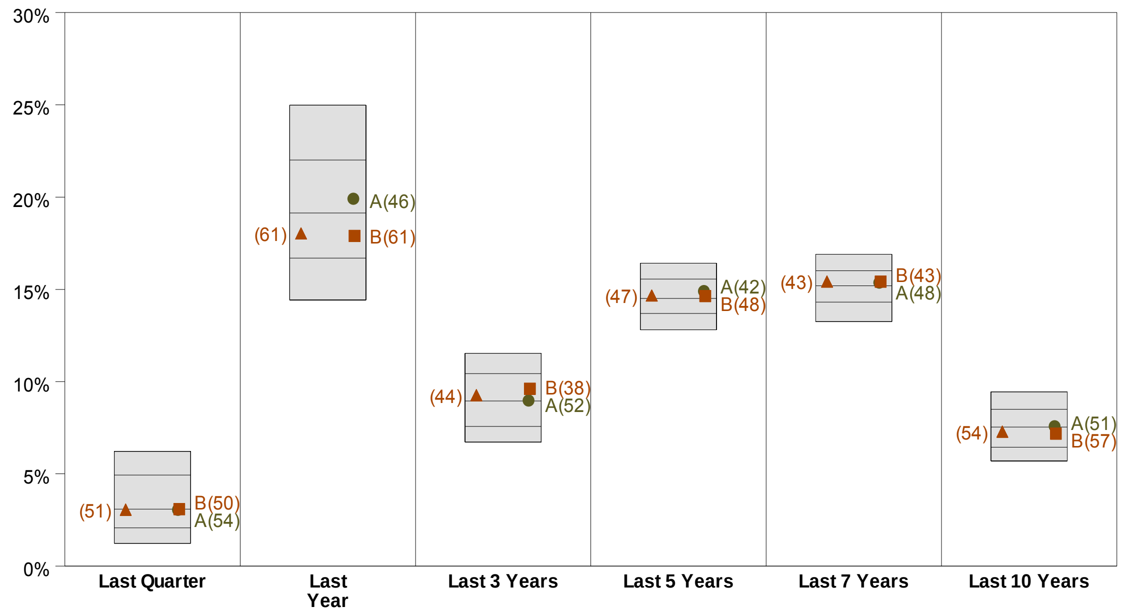


APFC Large Cap Equity Relative to Large Cap Universe

Periods Ended June 30, 2017

- APFC large cap portfolio ranks near or above the median within the large cap universe over time.
- Large cap portfolio is roughly in-line with the benchmark in the intermediate- and long-term.
- Large cap portfolio has a growth style bias and a small cap size bias relative to the index.
- Large Cap Equity Composite was in-line with the Index in the 2nd quarter. Returns were lifted by large cap growth performance, which bested large cap value by over 3%. However, small cap stocks weighted on portfolio results as they trailed large cap stocks by 0.6%.

Performance vs CAI Large Capitalization (Gross)



	Last Quarter	Last Year	Last 3 Years	Last 5 Years	Last 7 Years	Last 10 Years
10th Percentile	6.22	24.98	11.53	16.42	16.90	9.44
25th Percentile	4.94	22.01	10.43	15.56	16.01	8.50
Median	3.09	19.14	8.95	14.52	15.19	7.54
75th Percentile	2.07	16.69	7.57	13.69	14.31	6.44
90th Percentile	1.23	14.43	6.72	12.81	13.26	5.70
Large Cap Equity Composite ● A	2.98	19.83	8.90	14.83	15.29	7.50
Standard & Poor's 500 ■ B	3.09	17.90	9.61	14.63	15.41	7.18
Russell 1000 Index ▲	3.06	18.03	9.26	14.67	15.43	7.29

Capitalization and Style Allocation: Large Cap Equity

As of June 30, 2017

- Highlighted cells indicate largest biases relative to the Russell 1000 index.
- The large cap portfolio has a slight small cap tilt relative to the benchmark in the dimension of capitalization.

Style Exposure Matrix
Holdings as of June 30, 2017

	Value	Core	Growth	Total
Large	24.4% (106) 29.9% (104)	19.2% (102) 23.7% (98)	31.3% (111) 27.5% (104)	**75.0% (319)** **81.0% (306)**
Mid	7.6% (171) 5.1% (163)	8.0% (210) 7.0% (220)	6.2% (112) 5.5% (175)	**21.8% (493)** **17.7% (558)**
Small	1.2% (123) 0.6% (50)	1.4% (99) 0.4% (39)	0.5% (23) 0.3% (33)	**3.2% (245)** **1.4% (122)**
Micro	0.0% (8) 0.0% (0)	0.0% (5) 0.0% (0)	0.0% (0) 0.0% (0)	**0.0% (13)** **0.0% (0)**
Total	**33.3% (408)** **35.6% (317)**	**28.6% (416)** **31.1% (357)**	**38.1% (246)** **33.3% (312)**	**100.0% (1070)** **100.0% (986)**

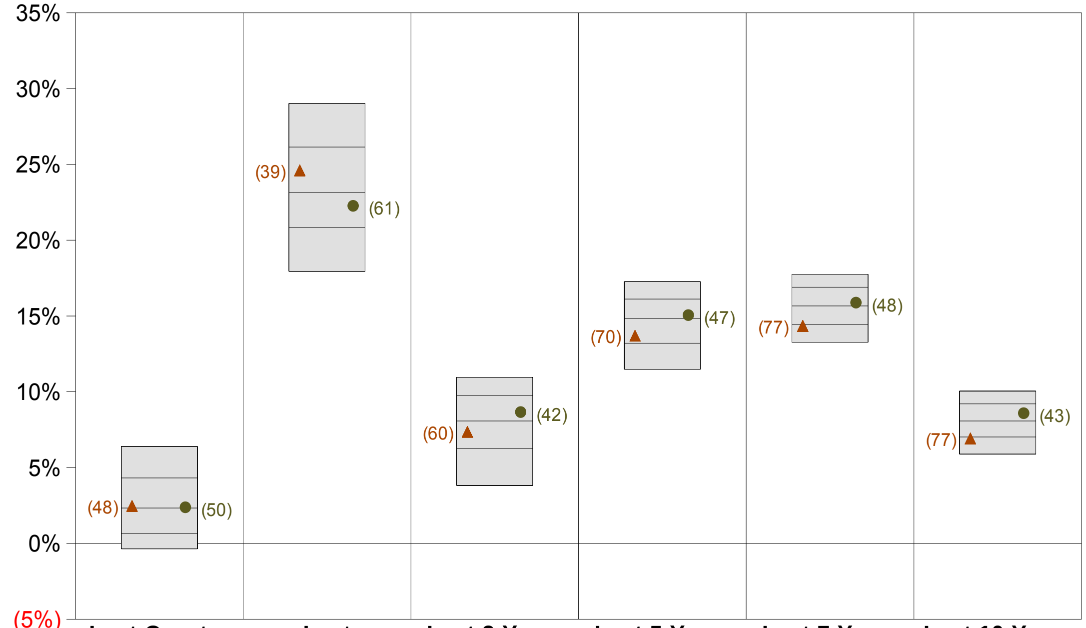
APFC Portfolio **Russell 1000 Index**

APFC Small Cap Equity Relative to Small Cap Universe

Periods Ended June 30, 2017

- APFC small cap portfolio is at or ahead of the small cap universe median over all time periods, except trailing year.
- 2nd quarter results slightly trail the index, however, performance for periods of three years and greater is ahead of the benchmark. Trailing year performance lags, but is strong in absolute sense.
- 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 overtook value during the quarter. Portfolio's small cap nature detracted, as small companies lagged mid companies.

Performance vs CAI Small Capitalization (Gross)



	Last Quarter	Last Year	Last 3 Years	Last 5 Years	Last 7 Years	Last 10 Years
10th Percentile	6.40	29.03	10.96	17.27	17.76	10.04
25th Percentile	4.32	26.14	9.75	16.11	16.90	9.20
Median	2.33	23.16	8.07	14.83	15.67	8.07
75th Percentile	0.66	20.83	6.27	13.21	14.45	7.02
90th Percentile	(0.37)	17.94	3.82	11.49	13.26	5.88
Small Cap Equity Composite ●	2.29	22.18	8.58	14.98	15.80	8.50
Russell 2000 Index ▲	2.46	24.60	7.36	13.70	14.35	6.92

Capitalization and Style Allocation Small Cap Equity

As of June 30, 2017

- The APFC small cap equity portfolio has a higher market cap than that of the Russell 2000 Index. This is primarily due to greater mid cap exposure versus the benchmark.
- The portfolio tends to be more growth oriented than the Index, which is relatively in-line with actively managed small cap products.

Style Exposure Matrix
Holdings as of June 30, 2017

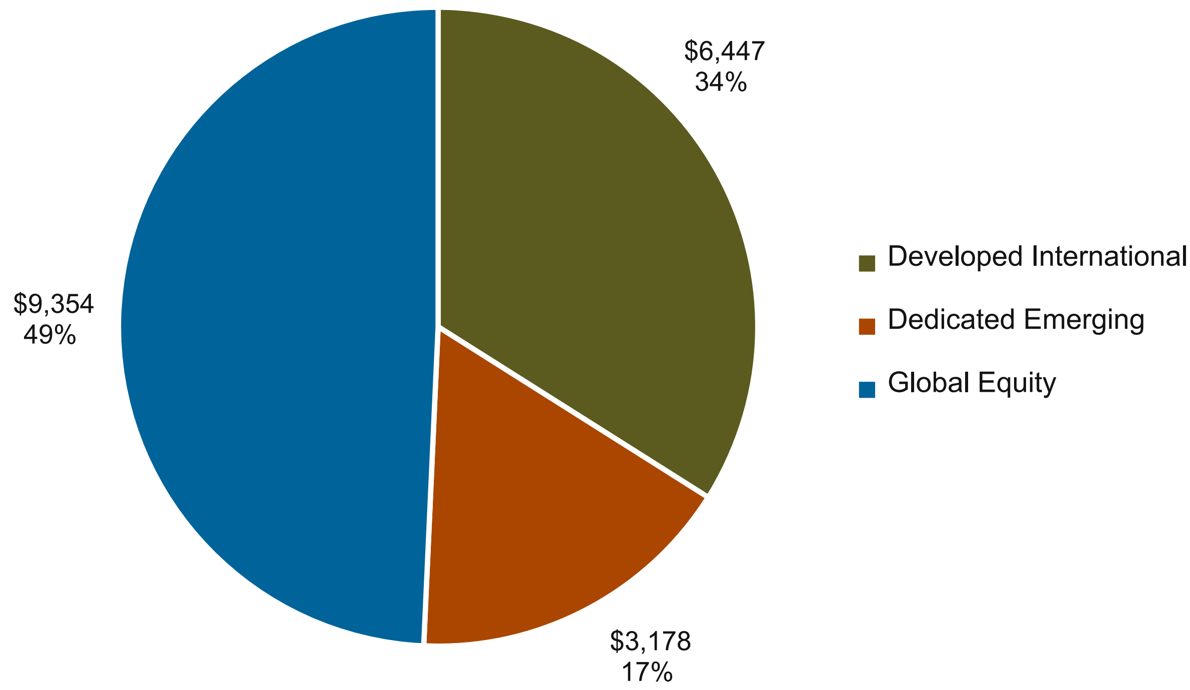
	Value	Core	Growth	Total
Large	0.0% (0) 0.0% (0)	0.0% (0) 0.0% (0)	0.4% (1) 0.0% (0)	**0.4% (1)** **0.0% (0)**
Mid	7.3% (70) 2.4% (12)	9.8% (100) 3.2% (17)	14.2% (89) 5.6% (31)	31.3% (259) 11.3% (60)
Small	15.7% (126) 20.1% (294)	23.9% (176) 32.6% (451)	24.9% (133) 24.7% (365)	**64.5% (435)** **77.4% (1110)**
Micro	1.3% (10) 3.8% (281)	1.7% (20) 4.5% (347)	0.8% (9) 3.0% (199)	**3.8% (39)** **11.3% (827)**
Total	**24.3% (206)** **26.3% (587)**	**35.4% (296)** **40.3% (815)**	40.3% (232) 33.3% (595)	**100.0% (734)** **100.0% (1997)**

APFC Portfolio **Russell 2000 Index**

APFC Non-US Equity Structure

As of June 30, 2017

- 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.

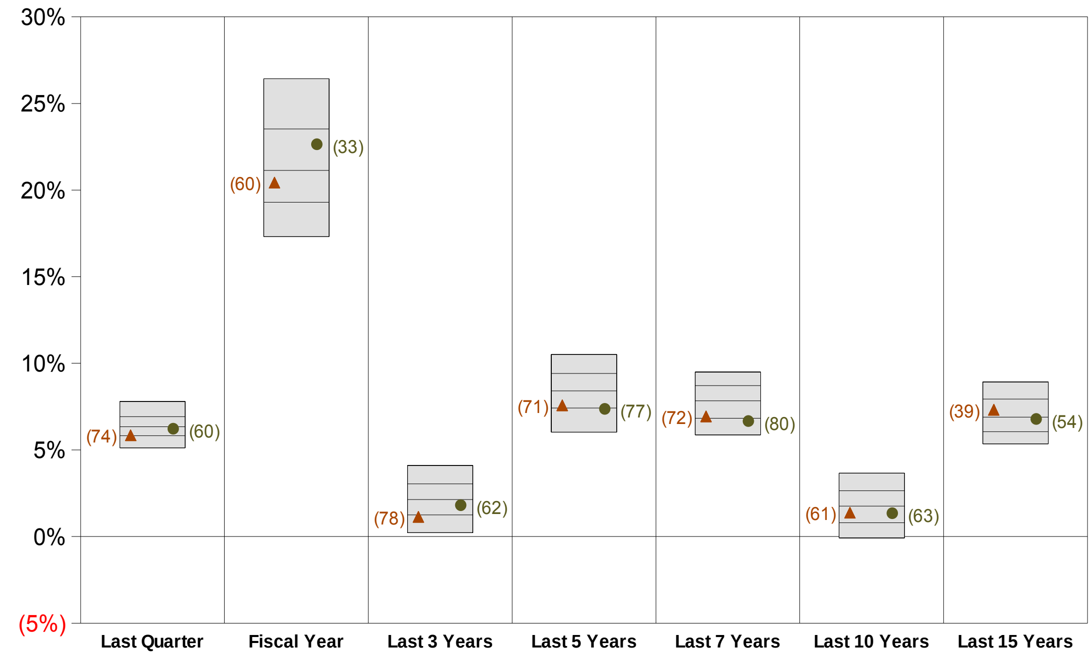


APFC International Equity Relative to Fund Sponsor Universe

Periods Ended June 30, 2017

- During the quarter, a weak US dollar, bright news out of Europe, and Emerging Markets rally, propelled overseas returns for US investors. As a result, APFC international equity portfolio topped its target. Longer-term returns sit behind the benchmark, but the gap is narrowing.
- Relative to other fund sponsor international equity portfolios, performance mostly sits below median over time.
- In the intermediate-term developed markets have outperformed emerging markets. However, emerging equities have done better recently and over the last 10- and 15-years.
- This has had a positive impact on portfolio's short- and long- term returns, and a negative impact on portfolio's intermediate-term returns.

Performance vs Fund Spnsr- International Equity (Gross)



	Last Quarter	Fiscal Year	Last 3 Years	Last 5 Years	Last 7 Years	Last 10 Years	Last 15 Years
10th Percentile	7.80	26.43	4.10	10.51	9.50	3.67	8.92
25th Percentile	6.92	23.53	3.04	9.42	8.71	2.64	7.93
Median	6.33	21.13	2.14	8.40	7.83	1.76	6.89
75th Percentile	5.82	19.30	1.25	7.42	6.83	0.79	6.06
90th Percentile	5.12	17.31	0.23	6.02	5.87	(0.08)	5.35
International Equity Composite ●	6.16	22.57	1.73	7.29	6.59	1.28	6.71
MSCI ACWI ex US IMI ▲	5.85	20.43	1.14	7.58	6.94	1.38	7.32

Region and Style Allocation International Equity

As of June 30, 2017

- The APFC portfolio has a meaningful overweight to Emerging Markets (38% vs 24%).
- The portfolio is underweight Europe (33% vs 43%) and Pacific/Asia (23% vs 26%), and is roughly comparable to the Index's N. America allocation.
- During the quarter, APFC international equity portfolio benefitted from broad-based regional gains, particularly from the notable overweight to Emerging Markets, which rallied, and offset the negative impact of lower-than-index allocation to Europe/Mid East, as this region was the top performer in the quarter.

Style Exposure Matrix
Holdings as of June 30, 2017

	Value	Core	Growth	Total
Europe/ Mid East	10.9% (646) 13.8% (446)	11.1% (692) 13.6% (518)	11.3% (651) 15.7% (526)	33.3% (1989) 43.1% (1490)
N. America	1.9% (147) 1.7% (91)	2.8% (177) 3.2% (133)	1.4% (113) 1.9% (92)	6.1% (437) 6.8% (316)
Pacific	7.7% (1110) 8.9% (567)	7.7% (880) 8.4% (589)	7.6% (741) 8.8% (534)	23.0% (2731) 26.1% (1690)
Emerging/ FM	14.4% (1435) 8.0% (928)	11.4% (1130) 7.1% (866)	11.8% (869) 8.8% (879)	37.6% (3434) 23.9% (2673)
Total	34.8% (3338) 32.4% (2032)	33.1% (2879) 32.4% (2106)	32.1% (2374) 35.2% (2031)	100.0% (8591) 100.0% (6169)

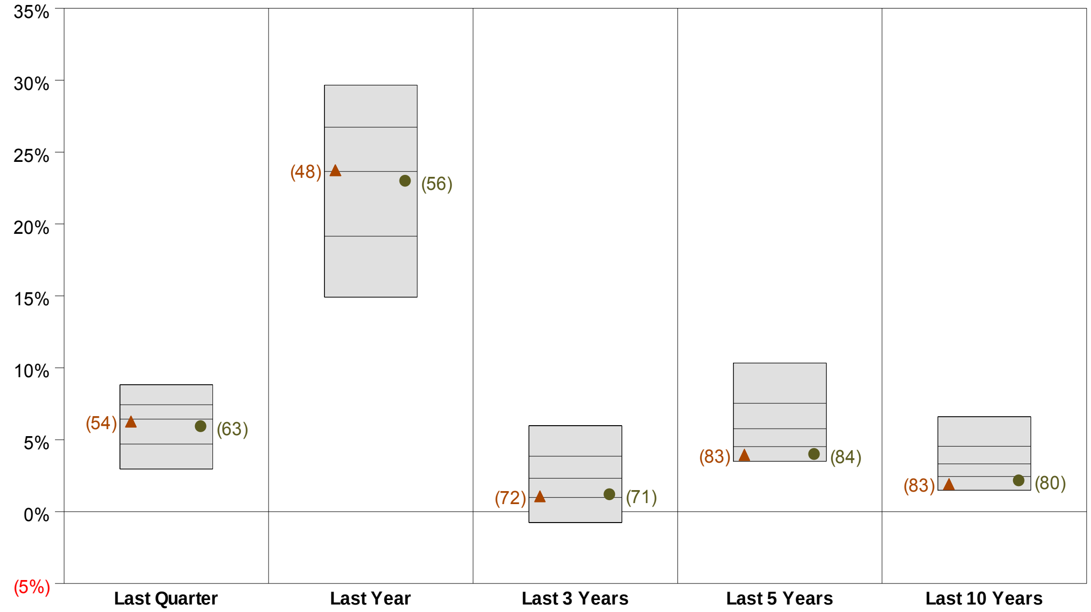
APFC Portfolio | MSCI ACWI ex-US Index

APFC Emerging Markets Equity Relative to EM Universe

Periods Ended June 30, 2017

- APFC emerging markets equity portfolio added value during the quarter (+5.9%) but underperformed the index.
- Nonetheless, composite's trailing year return is impressive in absolute terms, up nearly 23%.
- The portfolio underperforms the median actively managed portfolio over all time periods measured.
- Performance of the asset class was a positive contributor to total fund performance over the 10 year period.
- Recent strength in the asset class has resulted in near-term performance improvement for APFC's overall global equity exposure.

Performance vs Emerging Markets Equity DB (Gross)



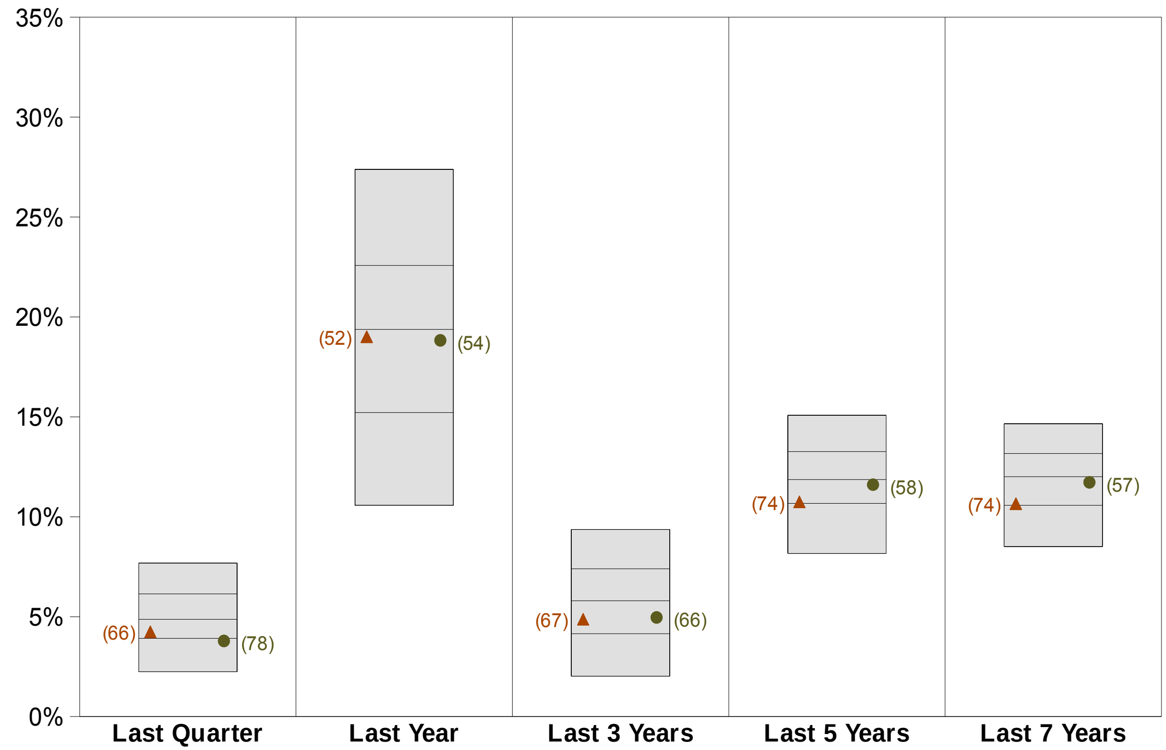
	Last Quarter	Last Year	Last 3 Years	Last 5 Years	Last 10 Years
10th Percentile	8.82	29.66	5.98	10.33	6.60
25th Percentile	7.43	26.73	3.86	7.54	4.54
Median	6.43	23.65	2.32	5.77	3.32
75th Percentile	4.70	19.15	0.99	4.52	2.44
90th Percentile	2.97	14.92	(0.76)	3.50	1.49
Emerging Markets Composite ●	5.86	22.92	1.12	3.91	2.09
MSCI EM ▲	6.27	23.75	1.07	3.96	1.92

APFC Global Equity Relative to Global Universe

Periods Ended June 30, 2017

- APFC global equity portfolio ranks in the third quartile when compared to other global equity managers.
- Portfolio's 2nd quarter performance was 0.5% behind the index.
- Trailing one year performance is roughly comparable to the benchmark and is strong in an absolute sense.
- Performance for longer time periods shown solidly exceeds the benchmark.

Performance vs Global Equity Database (Gross)

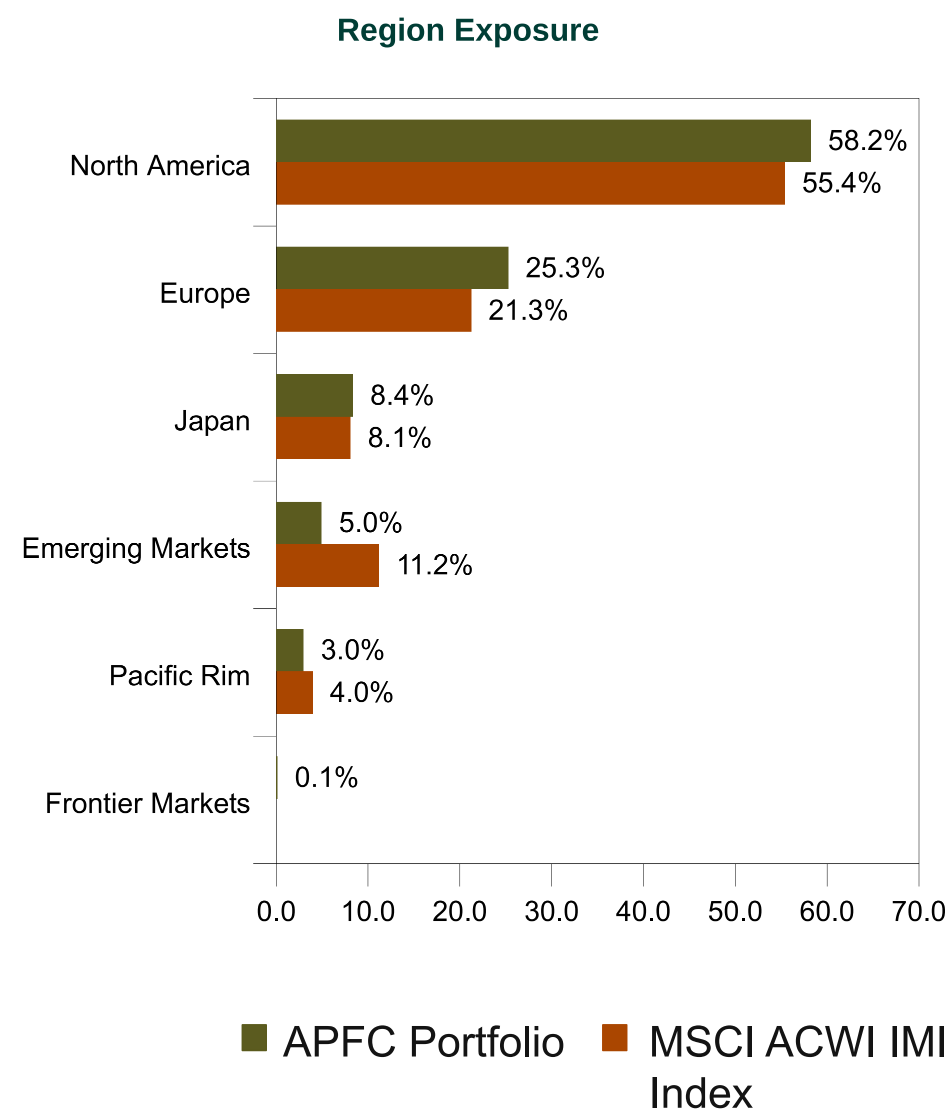


	Last Quarter	Last Year	Last 3 Years	Last 5 Years	Last 7 Years
10th Percentile	7.69	27.39	9.37	15.07	14.65
25th Percentile	6.14	22.58	7.40	13.26	13.17
Median	4.86	19.38	5.80	11.86	12.00
75th Percentile	3.91	15.21	4.15	10.67	10.58
90th Percentile	2.25	10.57	2.02	8.17	8.51
Global Equity ●	3.72	18.77	4.89	11.54	11.65
MSCI ACWI IMI ▲	4.25	19.01	4.87	10.74	10.65

APFC Global Equity Portfolio Region Exposure

As of June 30, 2017

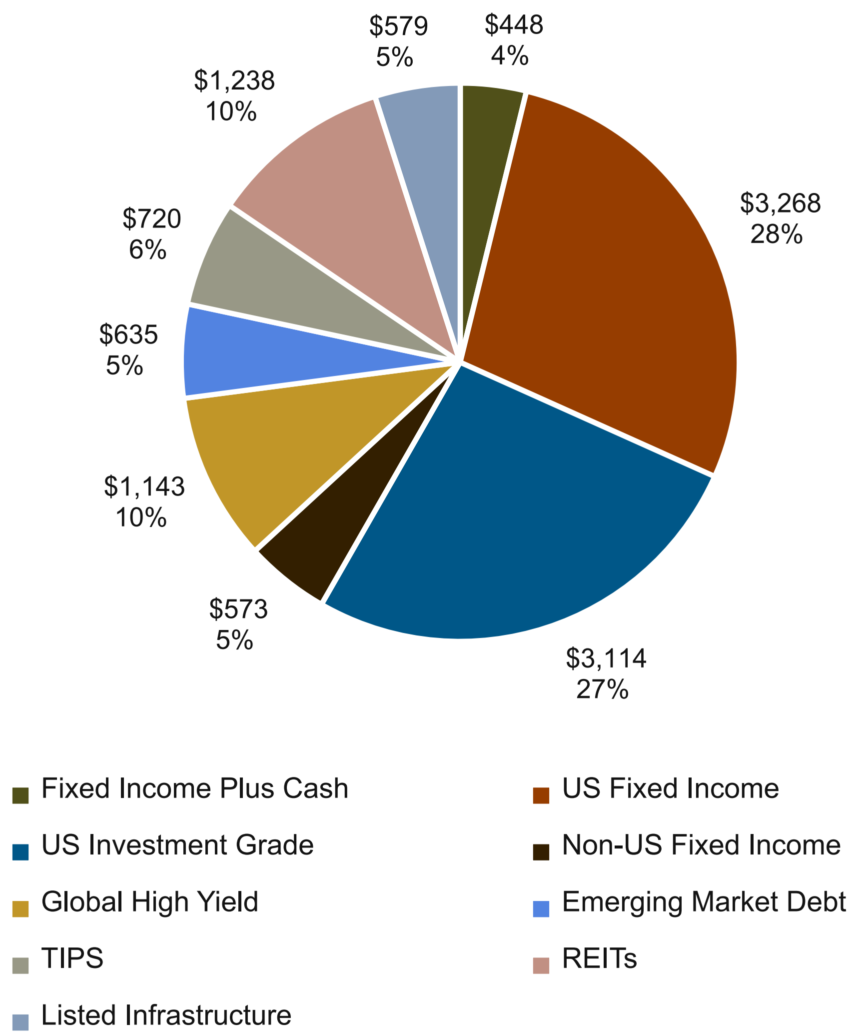
- The APFC global equity portfolio has an underweight to Emerging Markets and the Pacific Rim relative to its benchmark.
- The portfolio has a corresponding relative overweight to North America and Europe. Allocation to Japan is approximately in-line with the index.
- This positioning weighted on relative performance of the global equity portfolio. Mainly the decision to over allocate to North America at the expense of Emerging Markets. The portfolio missed the EM rally (2nd best performing region in the quarter) and was held back due to US Equities trailing Non-US Equity markets.



APFC Fixed Income Plus Structure

As of June 30, 2017

- 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.

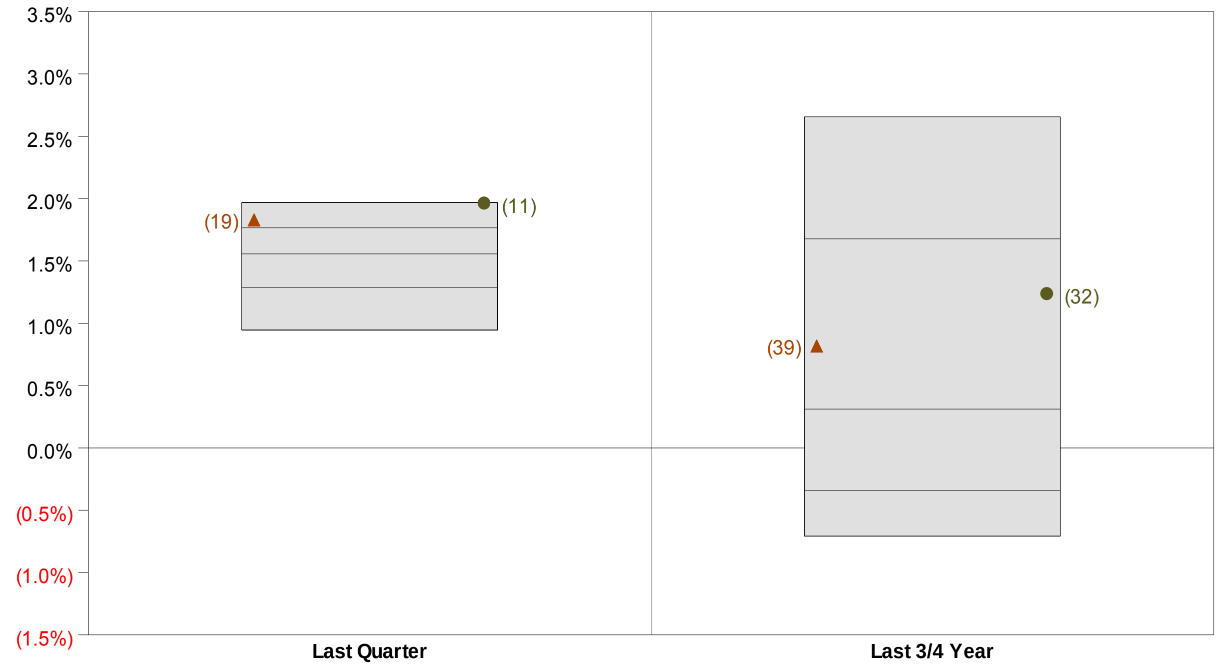


Fixed Income Plus Relative to Public Fixed Income Funds

Periods Ended June 30, 2017

- During the quarter, and since inception, APFC fixed income plus portfolio has performed better than both its benchmark and peers.
- This composite is relatively new (beginning October 1, 2016). “Plus” portion includes Non-US Fixed Income, Global High Yield, EMD, TIPS, REITs and Listed Infrastructure.

Performance vs Pub Pln- Domestic Fixed (Gross)



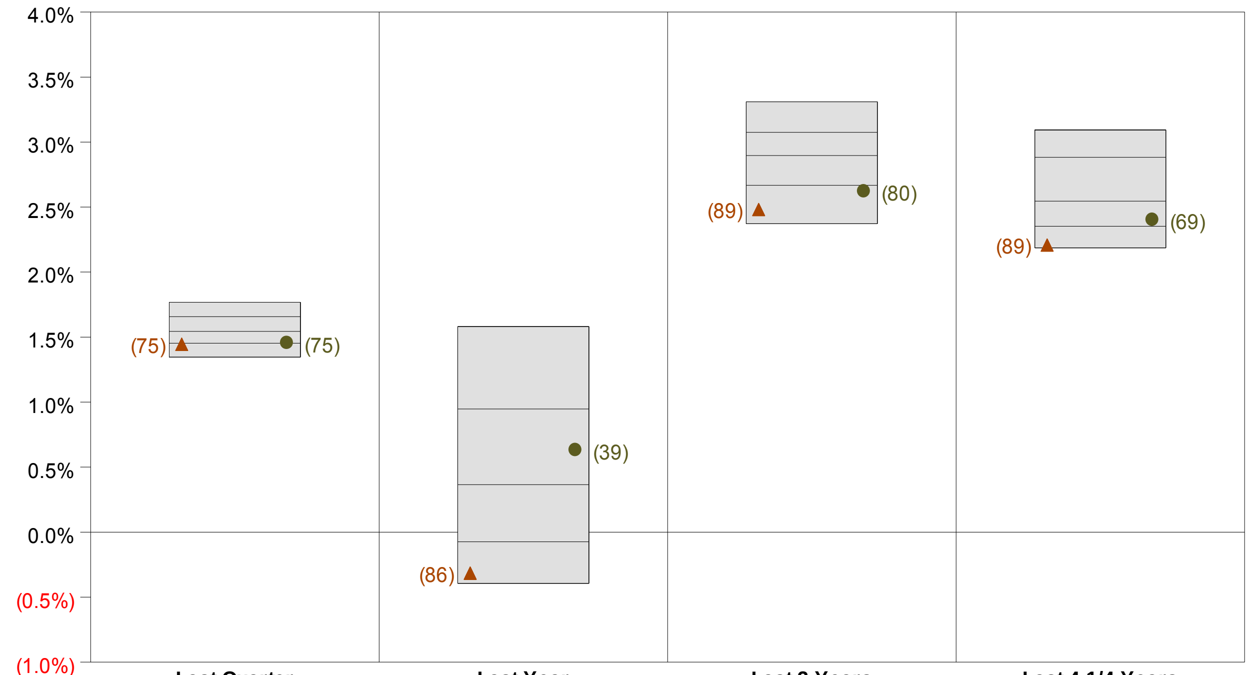
	Last Quarter	Last 3/4 Year
10th Percentile	1.97	2.66
25th Percentile	1.77	1.68
Median	1.56	0.31
75th Percentile	1.29	(0.34)
90th Percentile	0.95	(0.71)
Fixed Income Plus ●	1.95	1.23
Fixed Income Plus Benchmark ▲	1.83	0.82

US Fixed Income Relative to Core Bond Funds

Periods Ended June 30, 2017

- APFC US fixed income portfolio was on par with the benchmark during the quarter and leads the benchmark over all other time periods measured.
- At the same time, the portfolio ranks in the bottom half among other core bond portfolios, for most time periods shown.

Performance vs CAI Core Bond Fixed Income (Gross)



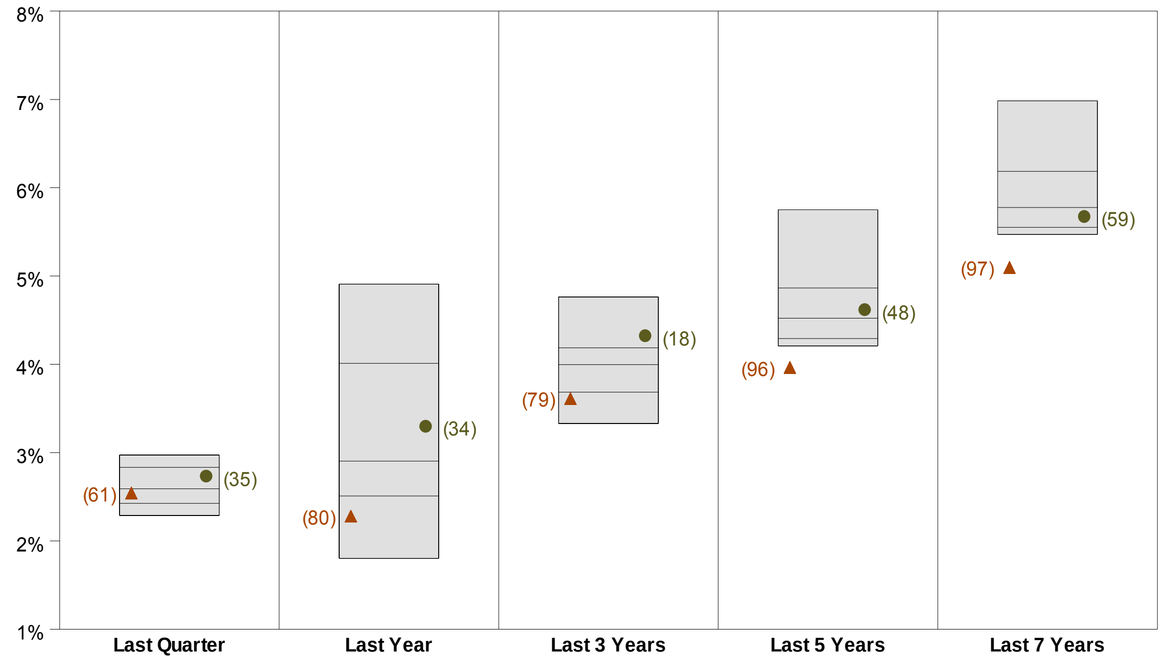
	Last Quarter	Last Year	Last 3 Years	Last 4-1/4 Years
10th Percentile	1.77	1.58	3.31	3.09
25th Percentile	1.66	0.95	3.07	2.88
Median	1.54	0.37	2.90	2.55
75th Percentile	1.45	(0.07)	2.67	2.35
90th Percentile	1.35	(0.39)	2.37	2.19
US Fixed Income Aggregate ●	1.45	0.62	2.62	2.40
Blmbg Aggregate ▲	1.45	(0.31)	2.48	2.21

US Investment Grade Relative to Investment Grade Funds

Periods Ended June 30, 2017

- During the recent quarter, APFC US investment grade portfolio added value over its index.
- The portfolio has a comfortable lead over the benchmark for all other time periods shown.
- The Investment Grade composite ranks above or near peer median over all time periods on the chart.

Performance vs CAI Investment Grade Credit Fixed Income (Gross)



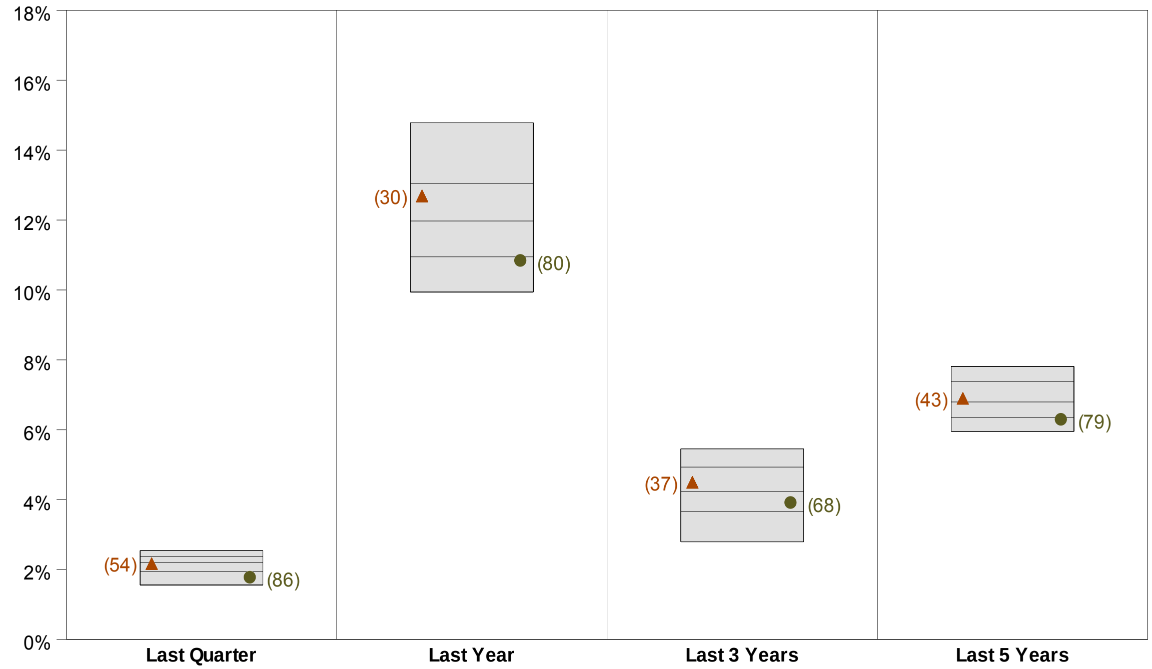
	Last Quarter	Last Year	Last 3 Years	Last 5 Years	Last 7 Years
10th Percentile	2.97	4.91	4.76	5.75	6.99
25th Percentile	2.83	4.01	4.19	4.86	6.19
Median	2.59	2.90	4.00	4.52	5.78
75th Percentile	2.42	2.51	3.68	4.29	5.55
90th Percentile	2.29	1.80	3.33	4.21	5.47
US Invest Grade Corp Bonds ●	2.72	3.29	4.31	4.60	5.66
Blmbg Corporate ▲	2.54	2.28	3.61	3.96	5.10

Global High Yield Relative to High Yield Funds

Periods Ended June 30, 2017

- APFC global high yield portfolio has fallen below its index and when compared to peers, for all time periods measured.
- This composite includes allocations to Oaktree, Capital Guardian, and an iShares ETF.

Performance vs CAI High Yield Fixed Income (Gross)



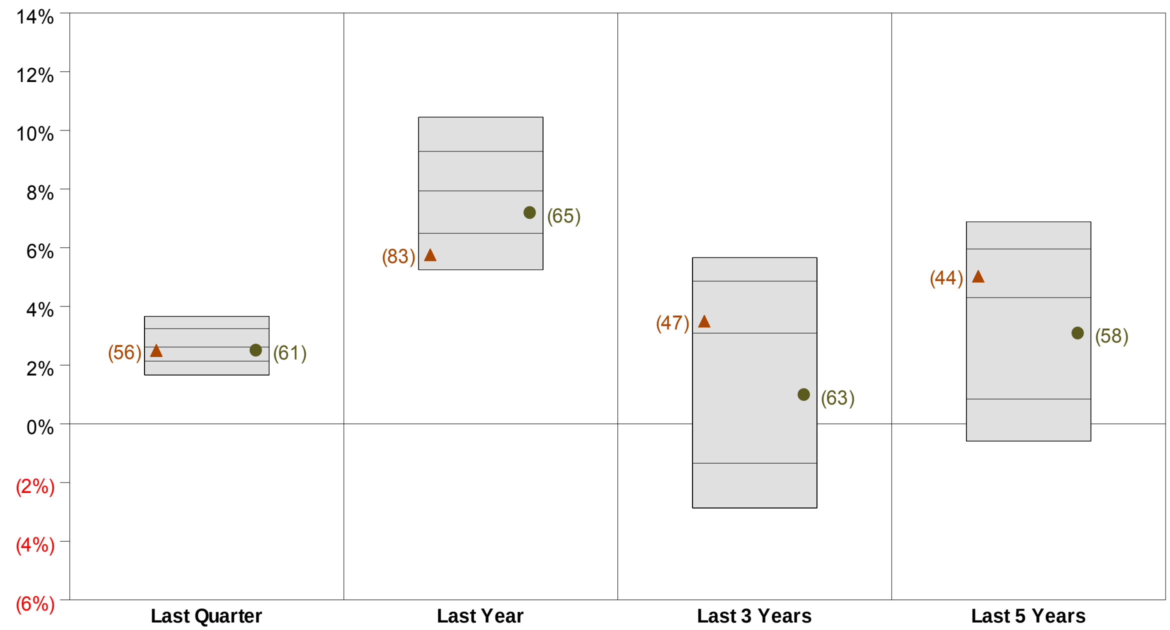
	Last Quarter	Last Year	Last 3 Years	Last 5 Years
10th Percentile	2.54	14.78	5.46	7.81
25th Percentile	2.38	13.04	4.93	7.39
Median	2.20	11.98	4.23	6.80
75th Percentile	1.94	10.95	3.67	6.35
90th Percentile	1.56	9.94	2.80	5.95
Global High Yield ●	1.75	10.80	3.88	6.26
Blmbg HY 2% Iss Cap ▲	2.17	12.69	4.50	6.90

Emerging Market Debt Relative to EMD Funds

Periods Ended June 30, 2017

- APFC emerging market debt portfolio was comparable to its benchmark in the 2nd quarter.
- Trailing year performance is strong in absolute and relative sense.
- However, the EMD portfolio has fallen behind the index for the last 3- and 5-years.
- Additionally, the composite trails the median portfolio in Callan's EMD database for all time periods measured.

Performance vs Emerging Debt Database (Gross)



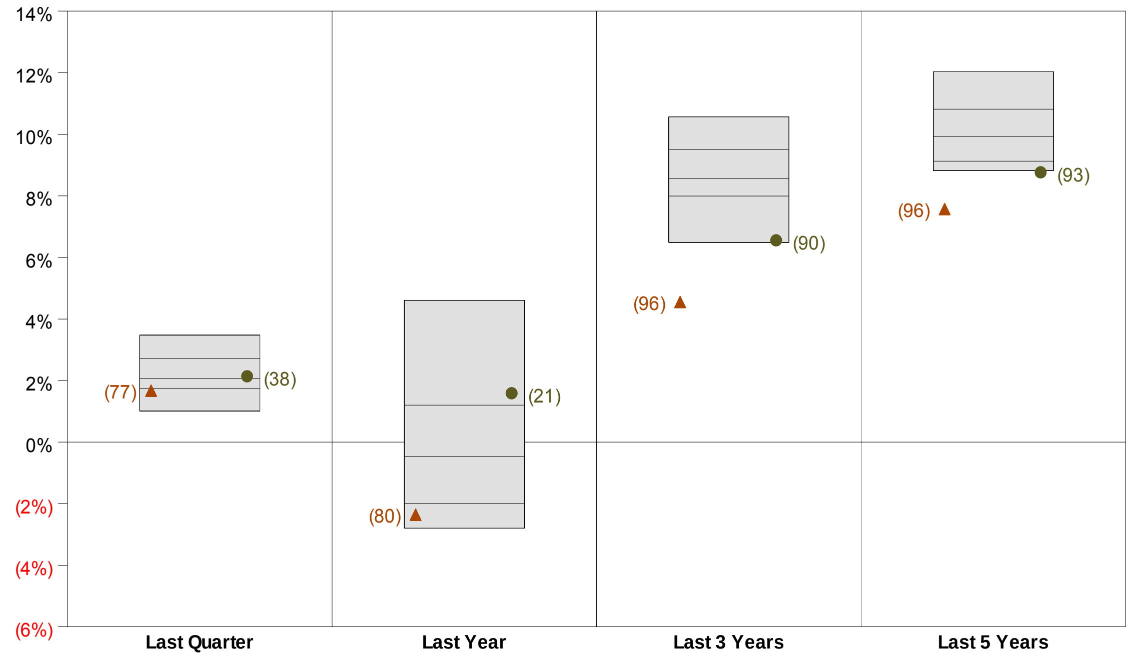
	Last Quarter	Last Year	Last 3 Years	Last 5 Years
10th Percentile	3.66	10.45	5.66	6.88
25th Percentile	3.24	9.28	4.86	5.96
Median	2.62	7.94	3.09	4.30
75th Percentile	2.14	6.49	(1.35)	0.84
90th Percentile	1.66	5.25	(2.87)	(0.59)
Emerging Market Debt ●	2.46	7.15	0.95	3.05
Blmbg EM Hard Curr Agg ▲	2.50	5.76	3.50	5.03

REITs Performance Relative to Callan's REITs database

Periods Ended June 30, 2017

- APFC REITs portfolio has done well versus its benchmark over all time periods shown.
- Furthermore, the portfolio provided protection against the fall of the index for the fiscal year.
- Although the REITs portfolio ranks in the bottom decile for the last 3- and 5-years, recent outperformance has drastically improved short-term rankings.
- REITs allocation includes AEW Global, SSGA, and American Homes 4 Rent.

Performance vs CAI Real Estate REIT (Gross)



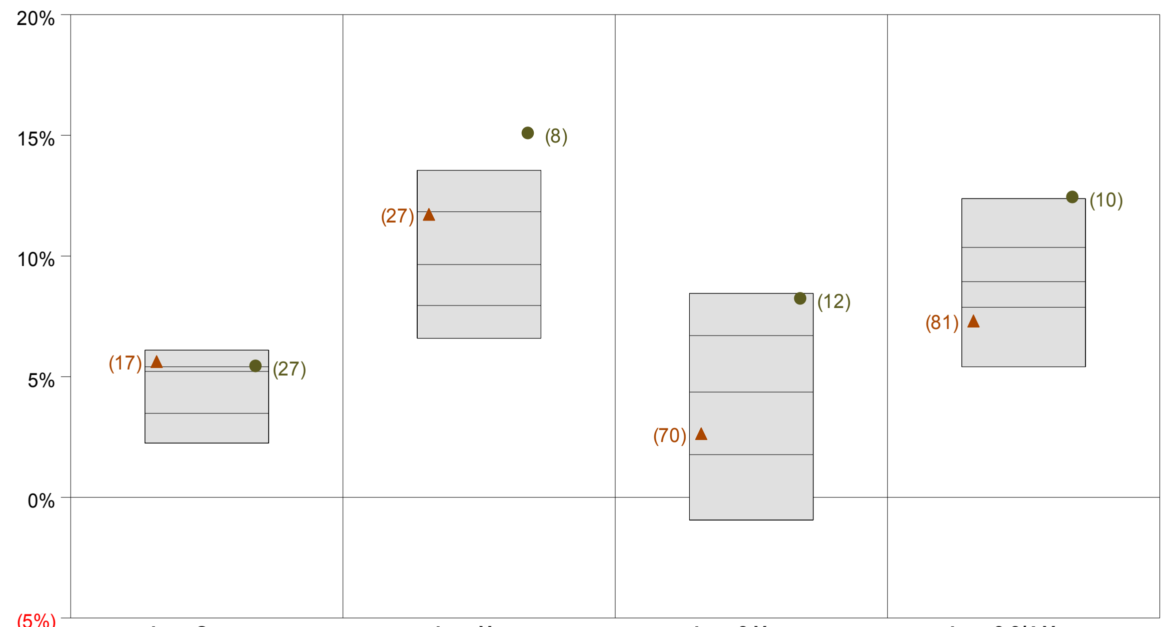
	Last Quarter	Last Year	Last 3 Years	Last 5 Years
10th Percentile	3.47	4.61	10.56	12.03
25th Percentile	2.72	1.20	9.50	10.81
Median	2.07	(0.47)	8.56	9.92
75th Percentile	1.74	(2.00)	7.99	9.13
90th Percentile	1.01	(2.79)	6.49	8.82
REITs ●	2.09	1.54	6.51	8.73
S&P Global REIT ▲	1.67	(2.35)	4.55	7.57

Listed Infrastructure Relative to Listed Infrastructure Funds

Periods Ended June 30, 2017

- APFC listed infrastructure portfolio has performed well relative to both its index and the Publicly Listed Infrastructure peer group over time periods of one year and greater.
- Although the portfolio was just shy of the index during the quarter, the composite landed in the top third among peers.
- Since Inception (3.75 years ago), the portfolio has outperformed its benchmark by 5%.
- Listed Infrastructure composite includes Lazard, Cohen & Steers, Wellington, and SSGA.

Performance vs CAI Publicly Listed Infrastructure (Gross)

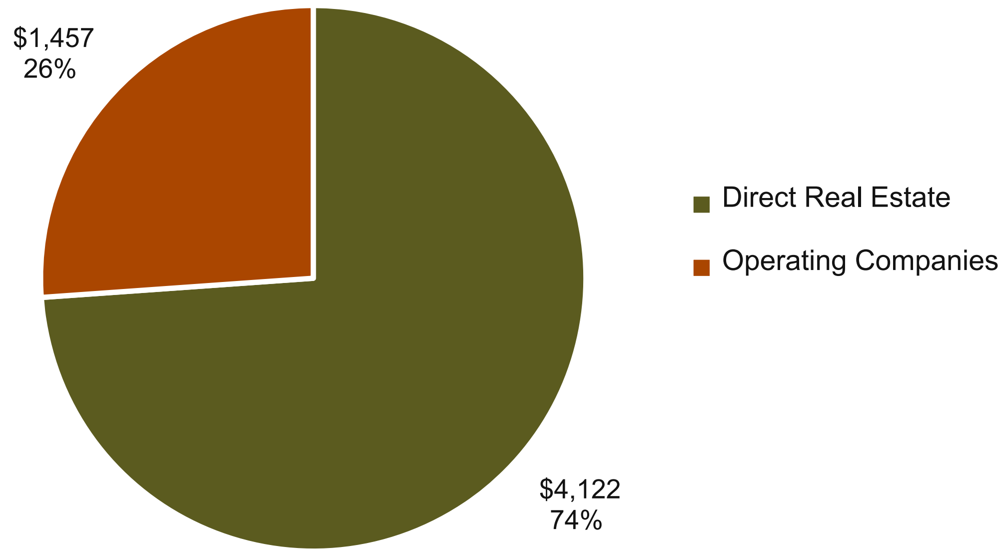


		Last Quarter	Last Year	Last 3 Years	Last 3-3/4 Years
10th Percentile		6.10	13.55	8.45	12.37
25th Percentile		5.41	11.83	6.70	10.35
Median		5.22	9.65	4.36	8.94
75th Percentile		3.48	7.95	1.77	7.88
90th Percentile		2.24	6.59	(0.94)	5.40
Listed Infrastructure	●	5.39	15.03	8.19	12.39
S&P Global Infrastructure	▲	5.63	11.73	2.64	7.31

APFC Real Estate Structure

As of June 30, 2017

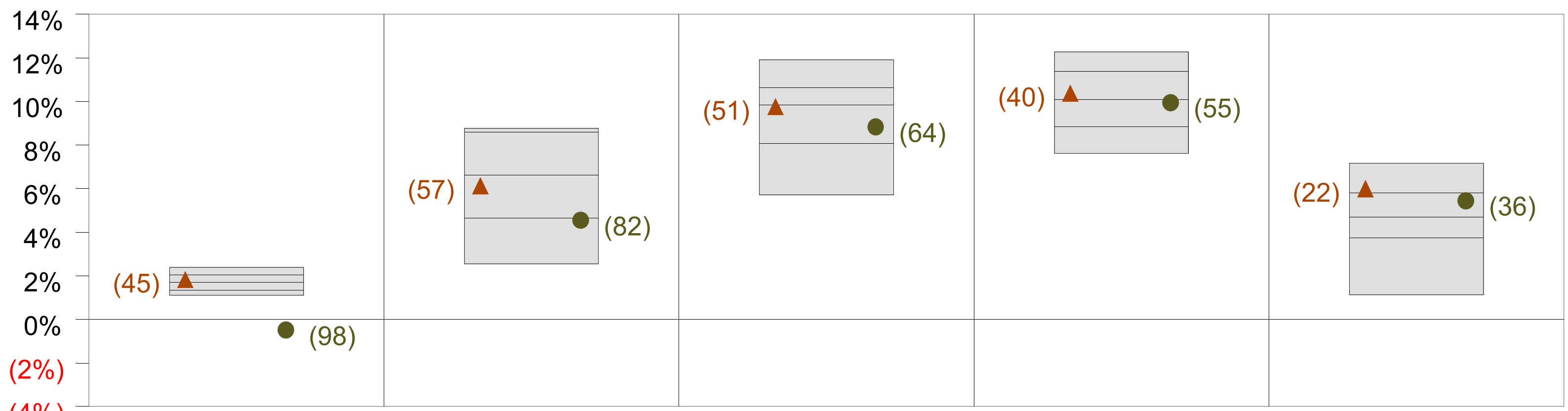
- 74% of the structure is invested in direct real estate portfolio. 9% of this allocation is invested internationally (CBRE Europe and LaSalle UK).
- 24% of the structure is invested in real estate operating companies (Simpson and Lincoln).



Real Estate Relative to Callan's Total Real Estate Database

Periods Ended June 30, 2017

Performance vs Pub Pln- Real Estate (Gross)



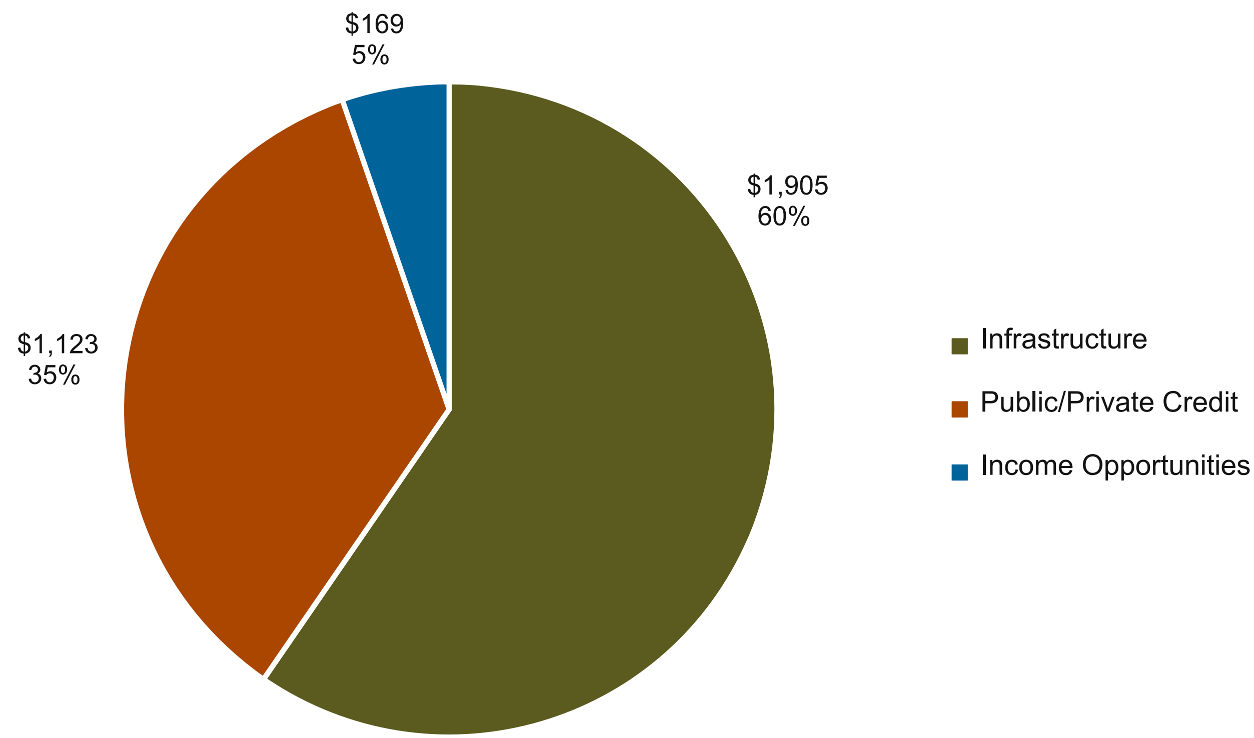
	Last Quarter	Fiscal Year	Last 3 Years	Last 5 Years	Last 10 Years
10th Percentile	2.39	8.76	11.91	12.27	7.16
25th Percentile	2.04	8.58	10.63	11.38	5.81
Median	1.71	6.63	9.84	10.07	4.70
75th Percentile	1.33	4.66	8.07	8.81	3.75
90th Percentile	1.11	2.54	5.71	7.61	1.11
APFC Real Estate ●	(0.58)	4.45	8.73	9.85	5.35
APFC Target ▲	1.82	6.82	10.19	10.52	6.17

- Real estate portfolio performance is shown net of fees for all investments.
- APFC Real Estate trails its target for all time periods measured on the chart.
- Relative to the peer group, the portfolio ranks below median in the short-term, near median in the intermediate-term, and favorably in the long run.

APFC Infrastructure, Private Credit & Income Opp. Structure

As of June 30, 2017

- 60% of the structure is invested in infrastructure funds, which includes a diversified portfolio of infrastructure, timber, energy, and power assets.
- 35% of the structure is invested in public/private credit mandates including mezzanine debt, opportunistic credit, and direct lending strategies.
- 5% of the structure is invested in income opportunities, which is made up of American Homes 4 Rent II fund.

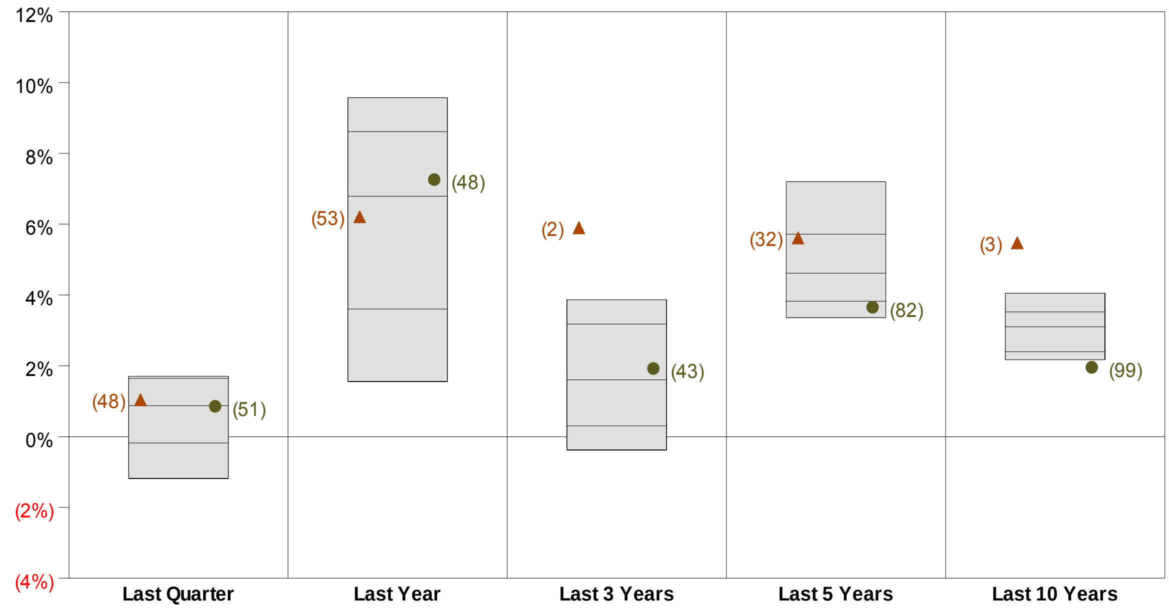


Absolute Return Portfolio Relative to HFOF Universe

Periods Ended June 30, 2017

- The portfolio is ahead of its custom benchmark for the trailing year, and behind for the rest of the time periods.
- Absolute Return composite is around median relative to Callan HFOF universe for recent time periods and is below median for the longer time periods shown on the chart.

Performance vs CAI Absolute Return Hedge Fund of Funds (Net)

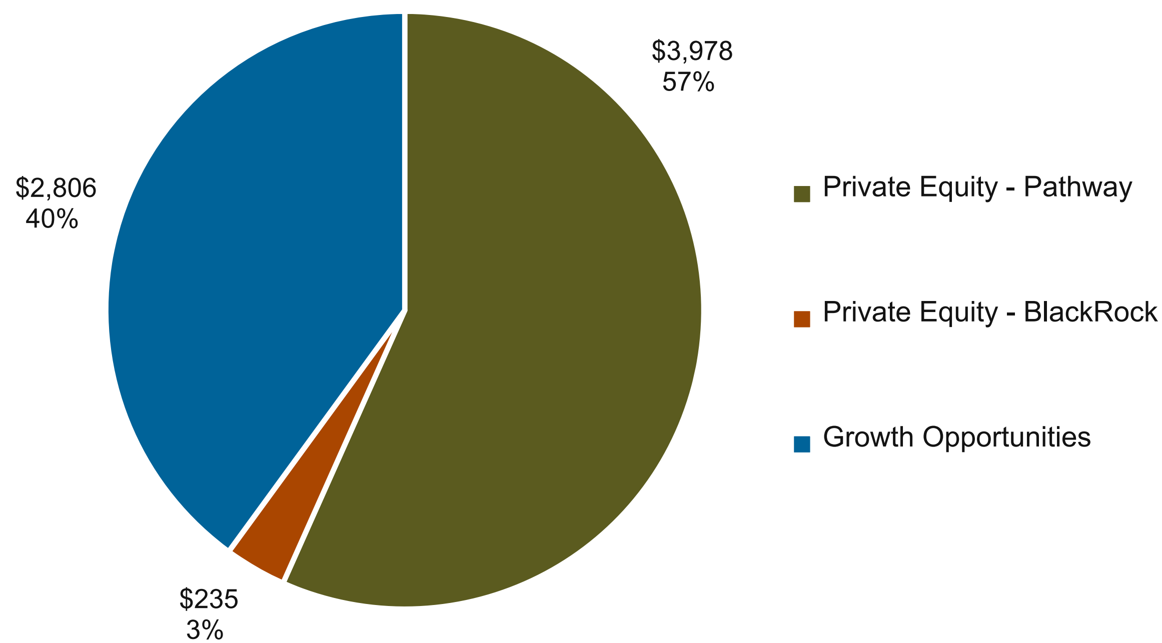


	Last Quarter	Last Year	Last 3 Years	Last 5 Years	Last 10 Years
10th Percentile	1.70	9.57	3.87	7.20	4.05
25th Percentile	1.65	8.61	3.18	5.72	3.52
Median	0.87	6.79	1.60	4.62	3.10
75th Percentile	(0.18)	3.60	0.31	3.82	2.40
90th Percentile	(1.18)	1.56	(0.38)	3.36	2.17
Absolute Return ●	0.82	7.22	1.89	3.61	1.92
Absolute Return Benchmark ▲	1.04	6.21	5.90	5.61	5.47

APFC Private Equity and Growth Opportunities Structure

As of June 30, 2017

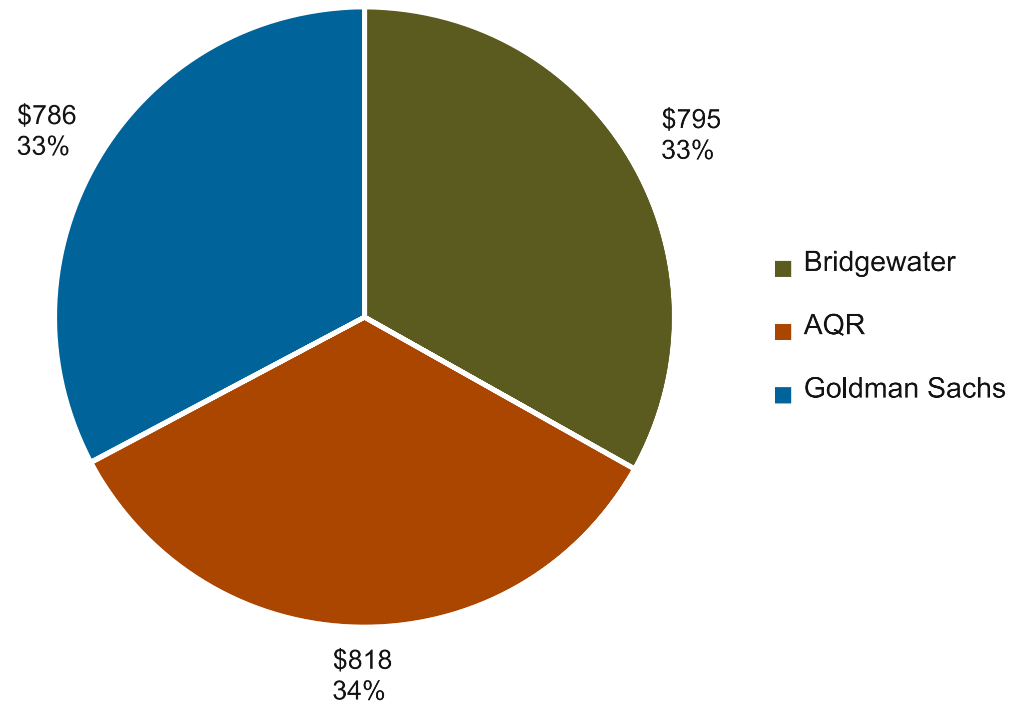
- 60% of the structure is invested in private equity.
- The legacy HarbourVest investments have been transferred to Pathway for oversight management.
- The Pathway portfolio also includes direct investments overseen by Pathway.
- 40% of the structure is invested in growth opportunities.



APFC Multi-Asset Class Structure

As of June 30, 2017

- Roughly $2.4 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-Asset Class Performance

Periods Ended June 30, 2017

	Returns for Periods Ended June 30, 2017				
	Last Quarter	**Last Year**	**Last 3 Years**	**Last 5 Years**	**Last 7 1/4 Years**
AQR	(0.64)	6.11	6.52	7.61	9.10
Bridgewater	(1.56)	8.96	3.10	5.31	9.49
Goldman Sachs	2.34	8.27	2.35	5.53	6.26
Multi-Asset Class Composite	**0.00**	**7.75**	**3.96**	**5.54**	**6.55**
TF Ret Objective (CPIU+5%)	1.68	6.63	5.92	6.32	6.65
Performance Benchmark	2.62	10.25	4.47	7.96	7.30
Passive Index (60/20/10/10)	3.27	10.26	3.37	7.10	6.48
Total Fund	**2.99**	**12.57**	**6.18**	**8.94**	**8.09**

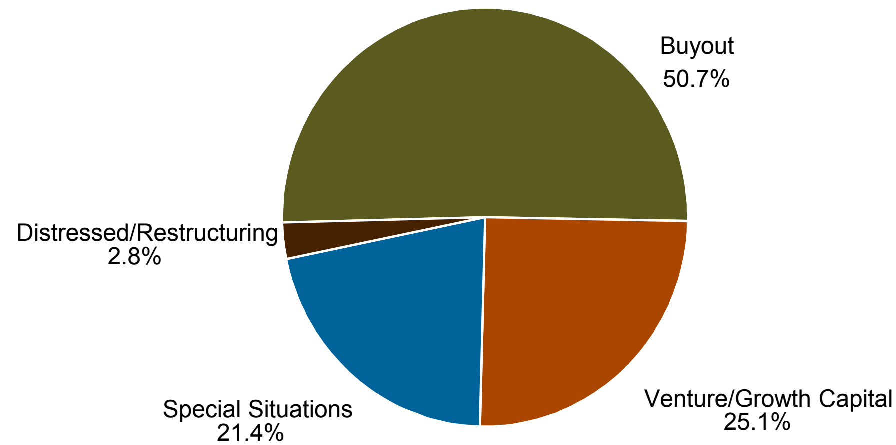
- With the exception of the most recent quarter, and trailing three years, the multi-asset class portfolio adds has kept pace or added incremental value relative to a 5% real target over all other time periods. However, the composite trails the Total Fund and the Performance Benchmark, and has mixed results versus the Passive Index
- Recent improvement in performance has dramatically strengthened long-term returns for the program, however the multi-asset class program still trails the total fund since inception. Since Inception, Bridgewater has contributed the most, followed by AQR, with Goldman contributes the least.
- Long-term underperformance relative to the total fund is explained by a number of factors, but primarily can be attributed to a lack of US equity exposure, an overweight to emerging markets, and levered exposure to fixed income. Additionally, the Multi-Asset Class composite includes terminated managers PIMCO and GMO.

Private Equity Portfolio Positioning

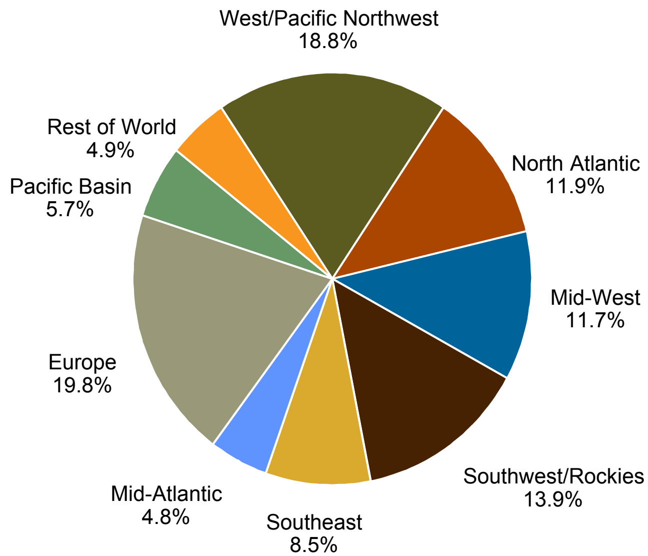
As of March 31, 2017

- APFC's Total Private Equity Portfolio is well-diversified by strategy, geography, and industry.
- All key strategy 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 the software/ internet allocation.

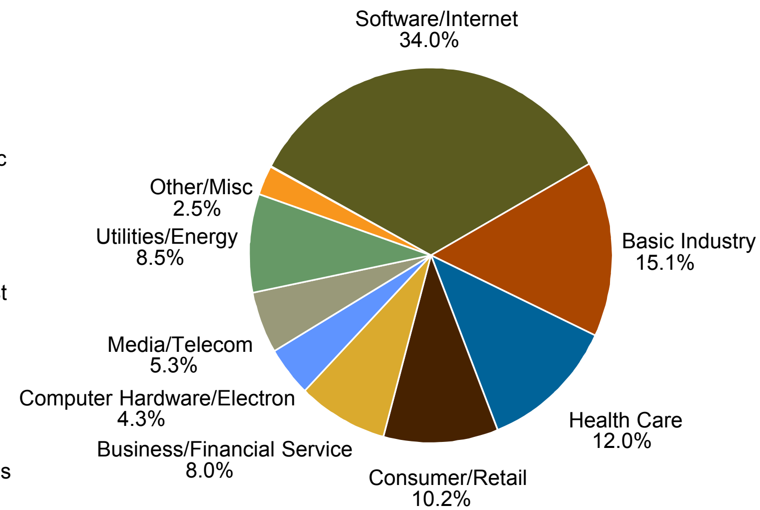
Portfolio Diversification by NAV



Geographic Diversification by NAV



Industry Diversification by NAV



Closing Remarks

- Total Fund ended the second quarter of 2017 with $60.3 billion in assets, gaining 3% for the quarter. For the fiscal year, the fund was up 12.6%. This trailing year performance puts the Total Fund in the third quartile relative to other large public funds and just above median versus other large endowments/foundations.
- Total Fund leads 2 of the 3 targets for the quarter, ahead of the Performance Benchmark and CPIU+5%, but behind the Passive Index Benchmark. However, for the trailing year, 3- and 5-years, the Fund easily surpasses all 3 tracked targets.
- Over longer periods, the total Fund is firmly ahead of the 5% real 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.
- The equity portfolio outperformed during the quarter. Within Domestic Equities, the growth tilt benefitted performance, but was offset by the small cap bias which weighted on returns. Within International Equities, an overweight to the rallying emerging markets helped returns. Intermediate- and longer-term performance of the equity portfolio closely tracks the index.
- The fixed income plus portfolio provided small gains over its respective benchmark. The top performer Listed Infrastructure was offset by bottom two performers, TIPS and Non-US Fixed Income.
- The alternatives portfolios' performance was beneficial in three of the five allocations. Private Equity & Growth Opportunities (+6.6%), Infrastructure, Private Credit & Income Opportunities (+1.6%), and Absolute Return (+0.8%), added the most value to overall performance, while Real Estate (-0.6% gross) and Asset Allocation (+0.1%) fell behind.
- Second quarter Total Fund return was strong and provided solid gains. Prudent asset allocation with appropriate levels of diversification and a long-term perspective remain Callan's recommended course.

Asset Class Updates Memo: Fixed Income Plus

APFC ALASKA PERMANENT FUND CORPORATION

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907.796.1500 | apfc.org

SUBJECT:	APFC Fixed Income Asset Class Update	ACTION:	____
DATE:	September 27, 2017	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.

a) Presentation: Fixed Income Plus

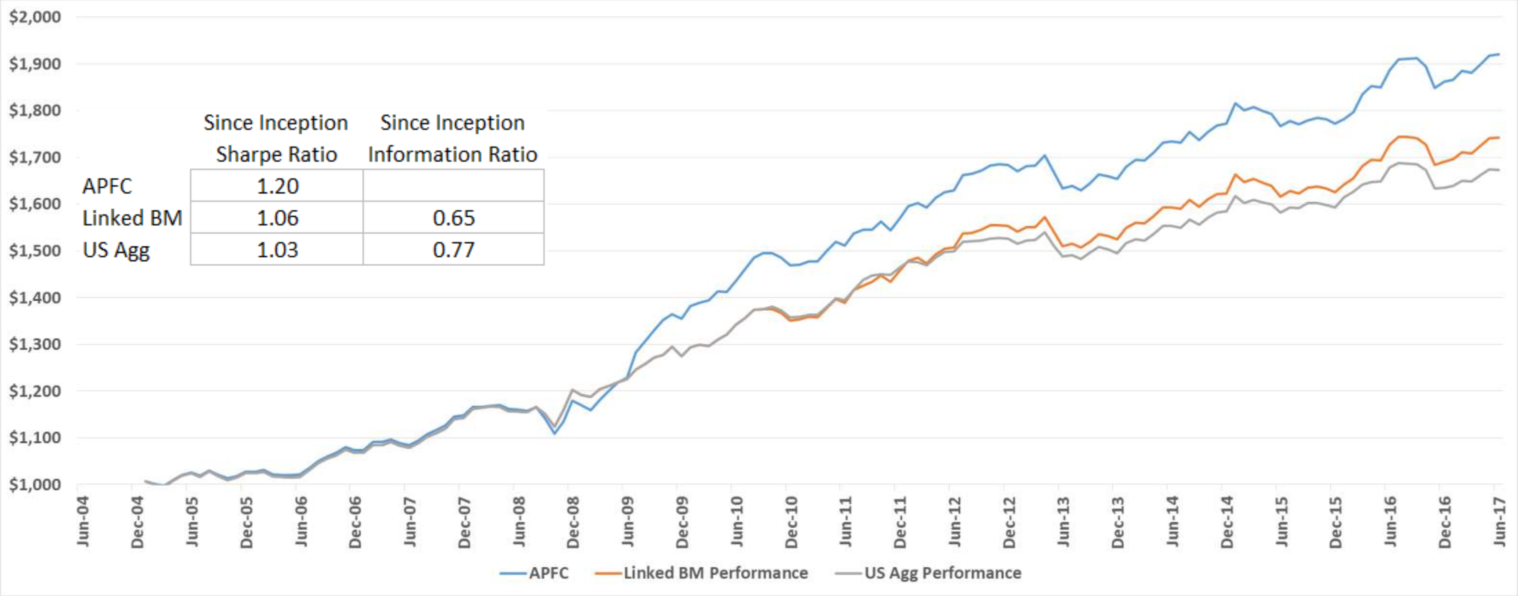
APFC ALASKA PERMANENT FUND CORPORATION

APFC Fixed Income Plus Portfolio

September 27, 2017

Active Management Value Added

Dollars added over linked benchmark: **$410,000,000**



	Since Inception Sharpe Ratio	Since Inception Information Ratio
APFC	1.20	
Linked BM	1.06	0.65
US Agg	1.03	0.77

Internal Fixed Income Performance

Barclays Aggregate Portfolio ($3,268mm)

- Neutral duration
- Overweight spread product and TIPS

Corporate Bond Portfolio ($3,114mm)

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

TIPS Portfolio ($621mm)

- Neutral duration
- Concentrated security selection due to Relative Value dislocation

Global Government Bond Portfolio ($231mm)

- Underweight Eurozone and Japan vs Mexico, Scandinavia and Asia-Pacific
- Maintain underweight to France vs. Germany, Italy and Spain

	QTD (%)	1Yr (%)	3Yr (%)	5Yr(%)
Portfolio	1.45%	0.62%	2.62%	n/a
Index	1.45%	-0.31%	2.48%	n/a
Portfolio	2.72%	3.29%	4.31%	4.60%
Index	2.54%	2.28%	3.61%	3.96%
Portfolio	-0.31%	-0.48%	0.70%	0.35%
Index*	-0.40%	-0.63%	0.63%	0.27%
Portfolio	0.46%	-1.64%	3.52%	n/a
Index	0.54%	-1.71%	3.93%	n/a

*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 Aggregate Portfolio

Performance

	Latest Quarter	YTD	One Year	Three Year
Portfolio	1.45%	2.27%	0.62%	2.62%
Index	1.45%	2.30%	-0.31%	2.48%

Quarterly Attribution

	Duration/ Curve	Asset Allocation	Security Selection	Other
Portfolio	-10	+6	+3	+1

Predicted Tracking Error

Total Tracking Error	Curve	Sector Spread	Idiosyncratic	Other
31 bps	17%	66%	18%	0%

Index Comparison

	Portfolio	Index
Duration	6.3	6.0
Yield	2.7	2.6
Spread	52	41
Rating	Aa1	Aa2

Composition

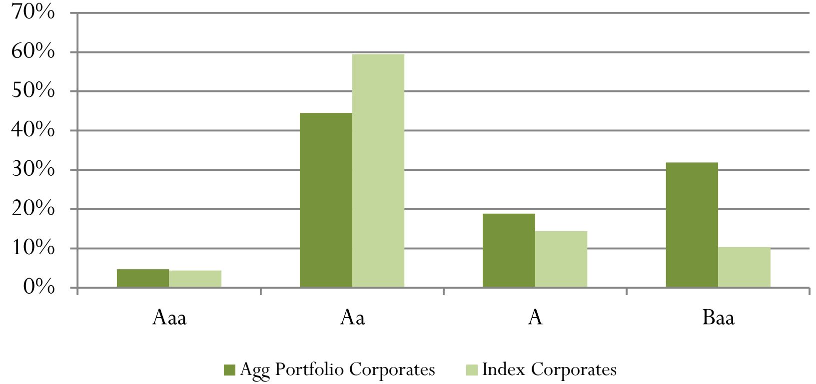
- $3.268 Billion
- Investment Grade Bonds
- Barclays' US Aggregate Index
- Duration based on interest rate forecast
- Internal Fixed Income Team's Best Ideas
- Primary PM: Jim Parise, Chris Cummins, Masha Skuratovskaya

Performance as of 6/30/2017

Internal Fixed Income Aggregate Portfolio

Sector	MV ($mil)	% of Portfolio	% of Index
Total Portfolio	$3,268	100%	100%
Treasury	$1,036	31.7%	37.0%
Government-Related	$174	5.3%	7.3%
Corporate	$943	28.9%	25.3%
MBS	$799	24.5%	28.1%
ABS	$83	2.5%	0.5%
CMBS	$119	3.7%	1.8%
Others	$14	0.4%	0.0%
Cash	$92	2.8%	0.0%

Portfolio Credit Quality vs. Index



	Portfolio	Index	Over/Under Weight
Duration	6.3	6.0	+0.3

Internal Corporate Bonds

Performance

	Latest Quarter	YTD	One Year	Three Year	Five Year
Portfolio	2.72%	3.29%	3.29%	4.31%	4.60%
Index	2.54%	3.28%	2.28%	3.61%	3.96%

Quarterly Attribution

	Duration/ Curve	Asset Allocation	Security Selection	Other
Portfolio	-8	-3	26	3

Predicted Tracking Error

Total Tracking Error	Curve	Sector Spread	Idiosyncratic	Other
58 bps	0%	61%	39%	0%

Index Comparison

	Portfolio	Index
Duration	7.5	7.4
Yield	3.4	3.2
Spread	118	108
Rating	A3	A3

Composition

- $3.114 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	-0.31%	0.98%	-0.48%	0.70%	0.35%
Index	-0.40%	0.85%	-0.63%	0.63%	0.27%

Quarterly Attribution

	Duration/ Curve	Asset Allocation	Security Selection	Other
Portfolio	4	1	6	-1

Predicted Tracking Error

Total Tracking Error	Curve	Sector Spread	Idiosyncratic	Other
30 bps	14%	0%	84%	2%

Index Comparison

	Portfolio	Index
Duration	7.9	7.8
Yield	2.3	2.3

Composition

- $621 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

Performance as of 6/30/2017

*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	0.46%	0.70%	-1.64%	3.52%
Index	0.54%	0.35%	-1.71%	3.93%

Quarterly Attribution

	FX Hedging	Country Allocation	Duration / Curve	Asset Allocation	Security Selection
Portfolio	-10	4	2	-1	-4

Predicted Tracking Error

Total Tracking Error	Curve	Sector Spread	Idiosyncratic	Other
49 bps	83%	4%	13%	0%

Index Comparison

	Portfolio	Index
Duration	8.4	8.8
Yield	0.7	0.4
Rating	Aa3-	A1

Composition

- $231 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. Local Duration and Curve positions reflect forecast for a given market. Overall portfolio risk reflects a combination of those views, rather than an overriding global rates outlook.
- 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	25.0%	2,825,000	27.9%	3,268,000	-0.03%	0.01%	-0.02%
US Corporates	25.0%	2,825,000	26.6%	3,114,000	0.00%	0.04%	0.04%
High Yield	10.0%	1,130,000	9.8%	1,145,000	0.00%	-0.07%	-0.08%
REITs	10.0%	1,130,000	10.6%	1,238,000	0.00%	0.06%	0.06%
Non-US Rates	10.0%	1,130,000	4.9%	573,000	0.13%	0.02%	0.15%
TIPS	5.0%	565,000	6.1%	720,000	-0.03%	0.01%	-0.02%
Emerging Market	5.0%	565,000	5.4%	635,000	0.02%	0.08%	0.10%
Listed Infrastructure	5.0%	565,000	4.9%	579,000	-0.02%	0.03%	0.01%
Total Cash	5.0%	565,000	3.8%	448,000	0.05%	0.00%	0.05%
Total	100.0%		100.0%		0.13%	0.18%	0.31%

External Fixed Income Manager Review

High Yield

Oaktree HY ($572mm)

- Performance generally in-line with industry, credit selection balanced. European allocation had minimal impact during the period

Capital Guardian HY ($388mm)

- Trailed benchmark, overweight commodity sectors and B-rated credits, both of which underperformed

Global/ Emerging Markets

Capital Guardian HY EM ($635mm)

- Added to open EM FX exposure via Brazil
- Overweight front-end exposure in Nigeria, Ghana, Egypt and Turkey for carry

Rogge Global Partners ($341mm)

- Underweight Japan and UK vs Mexico
- Curve steepener in Germany; overall short duration bias

TIPS

Alaska Permanent Capital Mgmt. ($100mm)

- Initiate underweight in 2yr sector vs 5yrs
- Reduced underweight in 10yr sector

	QTD (%)	1Yr (%)	3Yr (%)	5Yr(%)
Portfolio	2.31%	10.28%	3.43%	5.77%
Index	2.17%	12.69%	4.50%	6.90%
Portfolio	0.72%	12.44%	5.28%	7.62%
Index	2.17%	12.69%	4.50%	6.90%
Portfolio	2.46%	7.15%	0.95%	3.05%
Index	2.50%	5.76%	3.50%	5.03%
Portfolio	0.56%	-1.51%	3.75%	3.64%
Index	0.54%	1.71%	3.93%	3.99%
Portfolio	-0.33%	-0.46%	0.40%	0.33%
Index*	-0.40%	-0.26%	0.35%	0.26%

Performance as of 6/30/2017

*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.

External Fixed Income Manager Review

REITS

AEW Global REIT ($498mm)

- Move to overweight position in Europe
- Continue to benefit from overweight to industrial sector
- Increased exposure to medical office through HTA purchase

	QTD (%)	1Yr (%)	3Yr (%)	5Yr(%)
Portfolio	3.08%	-0.50%	6.37%	9.41%
Index	1.67%	-2.35%	4.55%	7.57%

American Homes 4 Rent ($38mm)

- Publicly traded REIT back by single family home rental properties

	QTD (%)	1Yr (%)	3Yr (%)	5Yr(%)
Portfolio	-6.76%	5.44%	7.58%	n/a
Index	1.67%	-2.35%	4.55%	n/a

SSGA Global REITS ($701mm)

- Passive REIT portfolio

	QTD (%)	1Yr (%)	3Yr (%)	5Yr(%)
Portfolio	1.91%	n/a	n/a	n/a
Index	1.67%	n/a	n/a	n/a

External Fixed Income Manager Review

Listed Infrastructure

Lazard Listed Infrastructure ($182mm)

- Positive performance was mainly driven by European toll roads & airports and US rail infrastructure.

	QTD (%)	1Yr (%)	3Yr (%)	5Yr(%)
Portfolio	5.78%	27.09%	14.34%	n/a
Index	5.63%	11.73%	2.64%	n/a

Cohen & Steers Listed Infrastructure ($132mm)

- Portfolio has benefitted from security selection among electric utilities.

Portfolio	4.41%	10.26%	4.49%	n/a
Index	4.16%	9.91%	5.23%	n/a

SSGA Listed Infrastructure ($264mm)

- Passive portfolio used to adjust weighting

Portfolio	5.79%	n/a	n/a	n/a
Index	3.48%	n/a	n/a	n/a

Asset Class Updates Memo: Public Equities

APFC ALASKA PERMANENT FUND CORPORATION
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SUBJECT: APFC Public Equities Asset Class Update ACTION: ______

DATE: September 27, 2017 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

ALASKA PERMANENT FUND CORPORATION

Public Equities

Portfolio Update

Fawad Razzaque

September 27, 2017

Public Equities – Performance Drivers

What Drove Equity Market Returns in FY 17?

- **First Half FY 17 (Macro Driven)**
  - Rebound in Global Macroeconomic Indicators
  - Rise in Inflation Expectations (Rise in Bond yields and Yield Curves Steepened)
  - US Dollar Strengthened
  - Concerns over Chinese Growth Mitigated
  - Outperformance of US, Value, and Small Cap Stocks

- **Second Half FY 17 (Micro Driven as Macro Factors Reversed Course)**
  - Resurgence in Global Corporate Earnings Supported by Revenue Growth
  - Friendly Inflation/Interest Rate Environment (Decline in Bond Yields and Yield Curves Flattened)
  - US Dollar Weakened
  - Continued Stabilization in China Growth Indicators
  - Outperformance of International, Growth, and Large cap Stocks

Public Equities - Performance

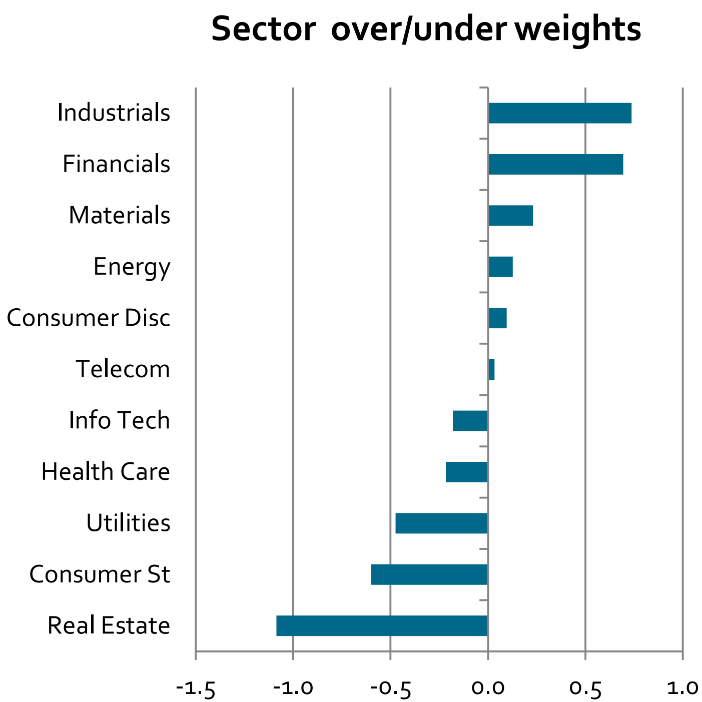
June 30, 2017

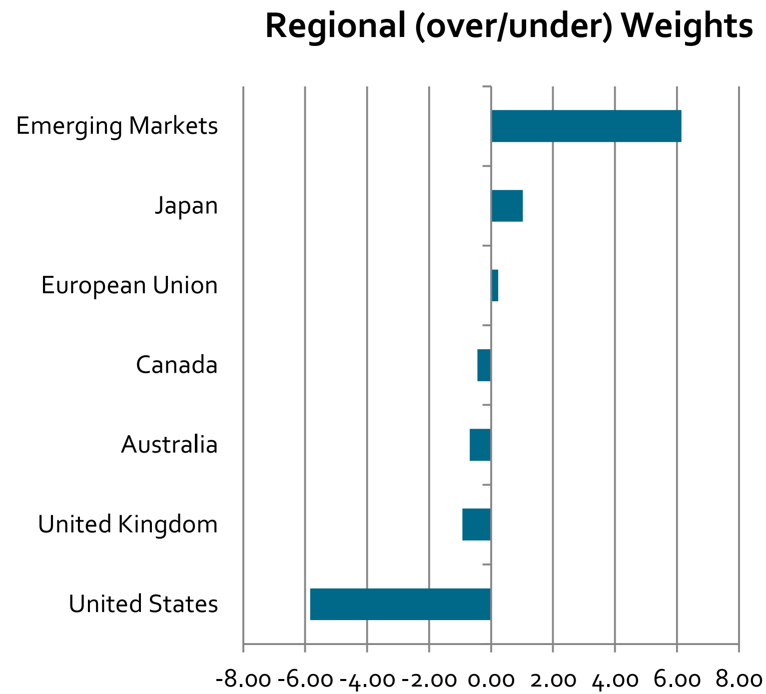
APFC Public Equity	FY 2017 (%)	FY Q4 2017 (%)
Public Equities	**20.52**	**4.38**
MSCI ACWI IMI	*19.01*	*4.25*
Excess Returns (bps)	**+151**	**+13**
Domestic Equities	***20.08***	
Russell 3000 Index	*18.51*	
Excess Ret.	***+157***	
International Equities	***22.57***	
MSCI ACWI IMI ex-US	*20.53*	
Excess Ret.	***+204***	
Global Equities	***18.77***	
MSCI ACWI IMI	*19.01*	
Excess Ret.	***-24***	

Public Equities - Allocation

June 30, 2017

Regions and Sectors





Public Equities – Performance

What Drove Relative Returns?

- **Fund Managers +**
  - Success Rate: **56%**
  - Skew: Positive Factor as outperformers outperformed by **201** bps while underperformers underperformed by **94** bps
- **Asset Allocation +**
  - Positive Contributors: Overweight Emerging Markets
    Underweight US Equities
  - Detractors: Overweight Value/Cyclical sectors & US Small Cap Equities
- **Internal Equity Management +**
  - Positive Contributors: Overweight International Equities

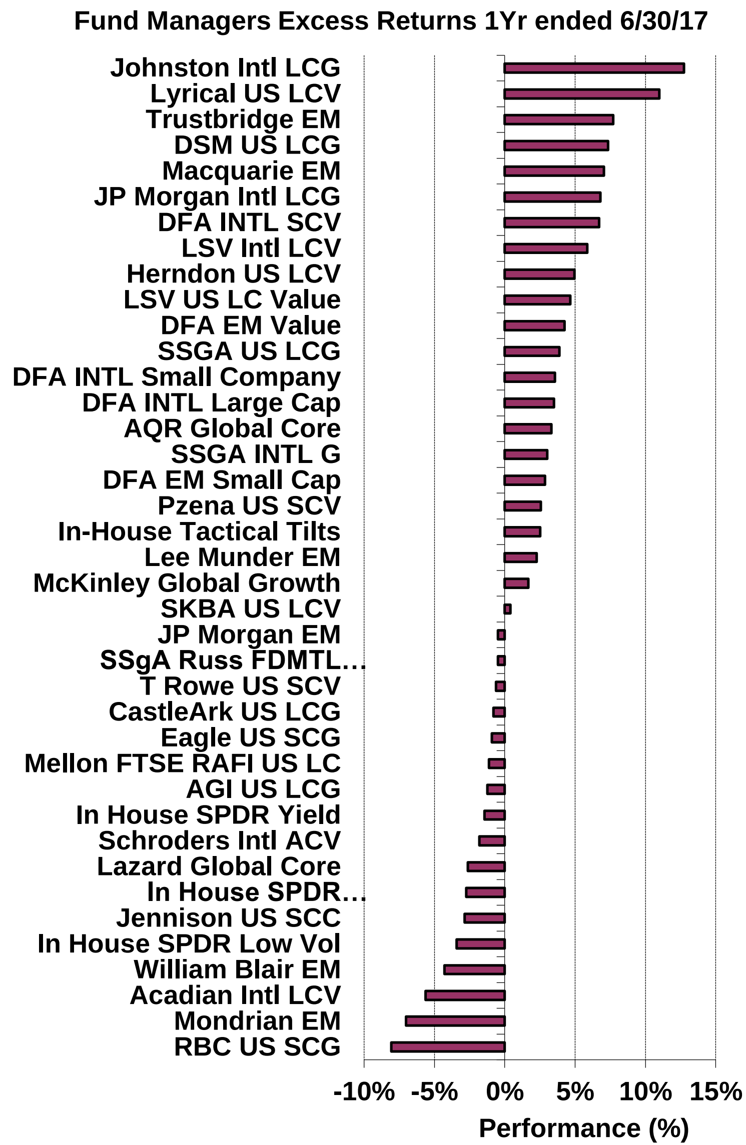
Public Equities - Performance

June 30, 2017

APFC Allocation	FY 2017 (%)	FY Q1 17 (%)	FY Q2 17 (%)	FY Q3 17 (%)	FY Q4 17 (%)
Public Equities	**20.52**	6.57	0.97	7.28	4.38
MSCI ACWI IMI	***19.01***	*5.57*	*1.27*	*6.79*	*4.25*
Excess Returns (bps)	**+151**	+100	-0.30	+49	+13
Breakdown of Excess Returns (Approx.)					
Fund Manager (bps)	***+107***				
Asset Allocation (bps)	***+44***				
Regional (overweight EM & underweight US)	**+**				
Style, Size, and Sector tilts	**-**				
In-house Tactical Tilts (bps)	**+**				

Performance – Fund Managers (FY 2017)

Success Rate: 56% Outperformed



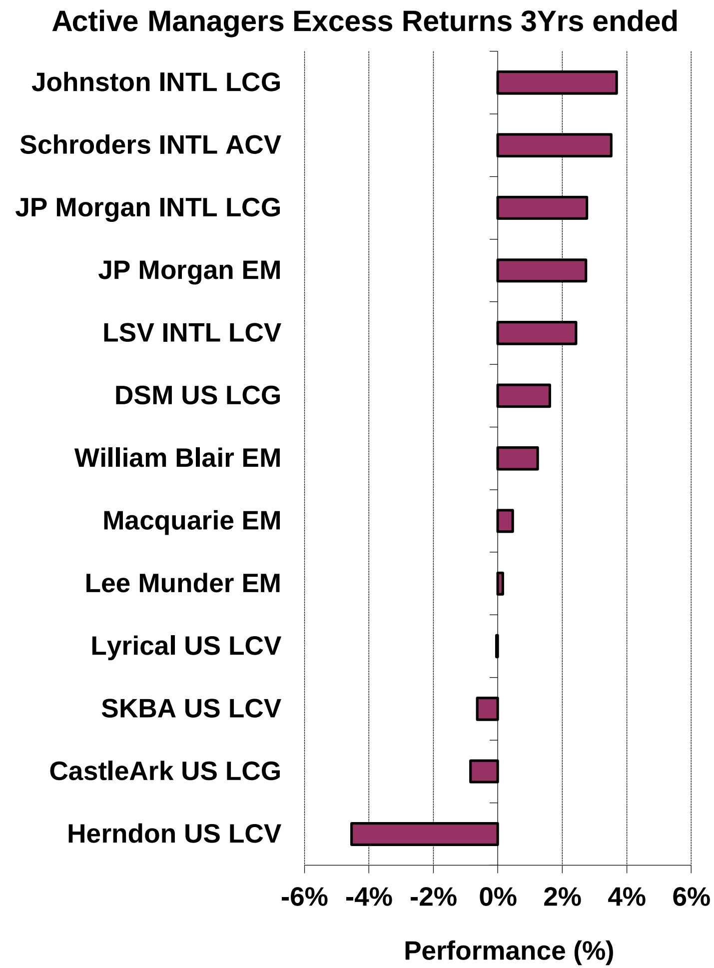
Performance – Positive Skew in Fund Manager Excess Returns (FY 2017)

Fund Managers	Assets	Attribution
Lyrical US LCV	2.38%	0.26%
AQR Global C	6.45%	0.21%
Johnston INTL LC	1.49%	0.19%
JP Morgan INTL LC	2.36%	0.16%
DSM LCG	1.69%	0.12%
LSV INTL LCV	2.10%	0.12%
DFA INTL LC	3.45%	0.12%
LSV US LCV	2.60%	0.12%
DFA INTL SCV	1.58%	0.11%
DFA EMV	2.09%	0.09%
Macquarie EM	1.12%	0.08%
Herndon US LCV	1.42%	0.07%
SSgA Large Cap	1.69%	0.07%
DFA INTL SC	1.56%	0.06%
McKinley Global G	3.16%	0.05%
Trustbridge EM	0.51%	0.04%
SSgA INTL	1.03%	0.03%
Pzena US SCV	1.11%	0.03%
DFA EM SC	0.74%	0.02%
Mellon MSCI W-ex US	5.38%	0.02%
In House SPDR Yield	1.57%	0.02%
Lee Munder EM	0.63%	0.01%
SKBA US LCV	1.26%	0.01%

Fund Managers	Assets	Attribution
SSgA INTL SC	1.51%	0.00%
SSgA MSCI World	0.66%	0.00%
SSGA MSCI ACWI IMI	0.60%	0.00%
Mellon S&P 500	0.66%	0.00%
Mellon S&P 400	0.64%	0.00%
SPDR Momentum	1.56%	0.00%
SSgA MSCI EM	0.95%	-0.01%
T Rowe Price US SCV	1.08%	-0.01%
JP Morgan EM	1.93%	-0.01%
Eagle US SCG	1.09%	-0.01%
CastleArk US LCG	1.34%	-0.01%
Mellon FTSE RAFI US LCV	1.28%	-0.01%
SPDR Low Vol	1.59%	-0.01%
SSgA Russell Dvlp LC	5.84%	-0.03%
Jennison US SCC	1.09%	-0.03%
AGI US LCG	3.05%	-0.04%
Schroders INTL LC	2.29%	-0.04%
RBC US SCG	1.02%	-0.08%
William Blair EM	2.26%	-0.10%
Mondrian EM	2.27%	-0.16%
Acadian INTL LC	3.12%	-0.18%
Lazard Global C	8.19%	-0.22%
Total		**1.07%**

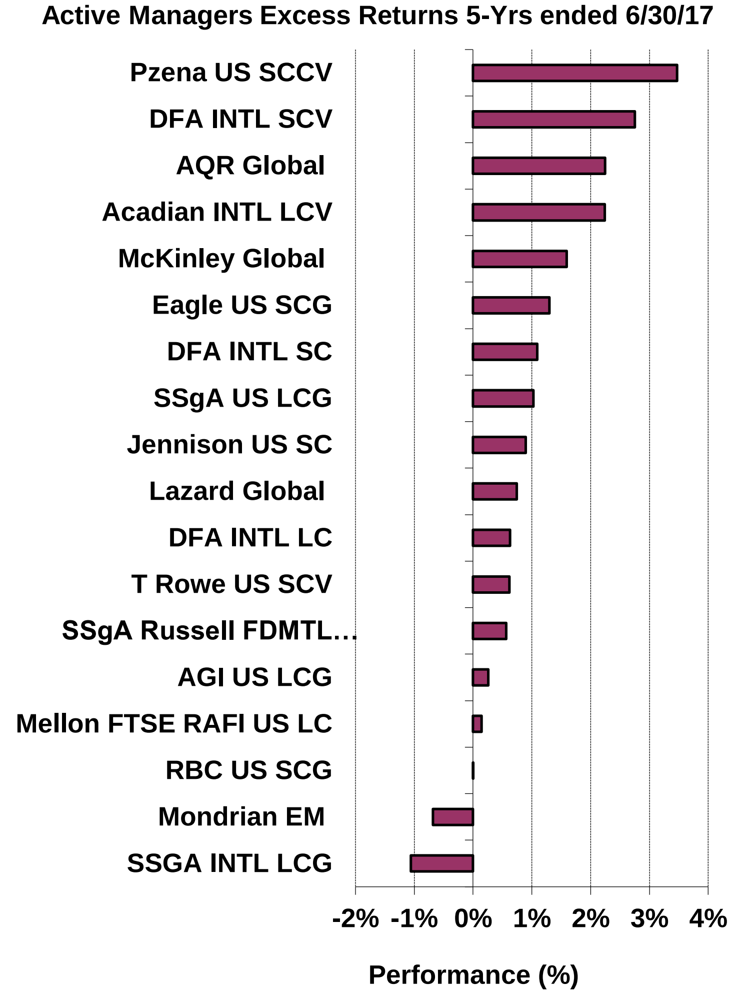
Fund Manager Selection – Excess Returns (3 Years)

Fund Managers with 3 yrs of Fund history	Mgr Ret. (%)	Index (%)	+/- (%)
Johnston INTL LCG	7.21%	3.52%	3.69
Schroders INTL ACV	3.41%	-0.11%	3.52
JP Morgan INTL LCG	6.28%	3.52%	2.76
JP Morgan EM	3.80%	1.07%	2.73
LSV INTL LCV	2.32%	-0.11%	2.43
DSM US LCG	12.72%	11.11%	1.62
William Blair EM	2.31%	1.07%	1.24
Macquarie EM	1.53%	1.07%	0.46
Lee Munder EM	1.22%	1.07%	0.15
Lyrical US LCV	7.32%	7.36%	-0.04
SKBA US LCV	6.72%	7.36%	-0.64
CastleArk US LCG	10.26%	11.11%	-0.85
Herndon US LCV	2.83%	7.36%	-4.54



Fund Manager Selection – Excess Returns (5 Years)

Fund Managers with 5 yrs of Fund history	Mgr Ret. (%)	Index (%)	+/- (%)
Pzena US SCCV	16.86%	13.39%	3.47%
DFA INTL SCV	14.23%	11.48%	2.75%
AQR Global	13.63%	11.38%	2.24%
Acadian INTL LCV	8.59%	6.35%	2.24%
McKinley Global	12.14%	10.54%	1.60%
Eagle US SCG	15.28%	13.98%	1.30%
DFA INTL SC	12.52%	11.43%	1.09%
SSgA US LCG	16.33%	15.30%	1.03%
Jennison US SC	14.60%	13.70%	0.90%
Lazard Global	11.29%	10.54%	0.74%
DFA INTL LC	8.77%	8.15%	0.63%
T Rowe US SCV	14.00%	13.39%	0.62%
SSgA Russell FDMTL DVLP LC	11.95%	11.38%	0.56%
AGI US LCG	15.56%	15.30%	0.26%
Mellon FTSE RAFI US LC	14.81%	14.67%	0.15%
RBC US SCG	13.98%	13.98%	0.00%
Mondrian EM	3.27%	3.96%	-0.68%
SSGA INTL LCG	7.48%	8.54%	-1.06%
Cap Group EM	*		
GMO Global Core	*		

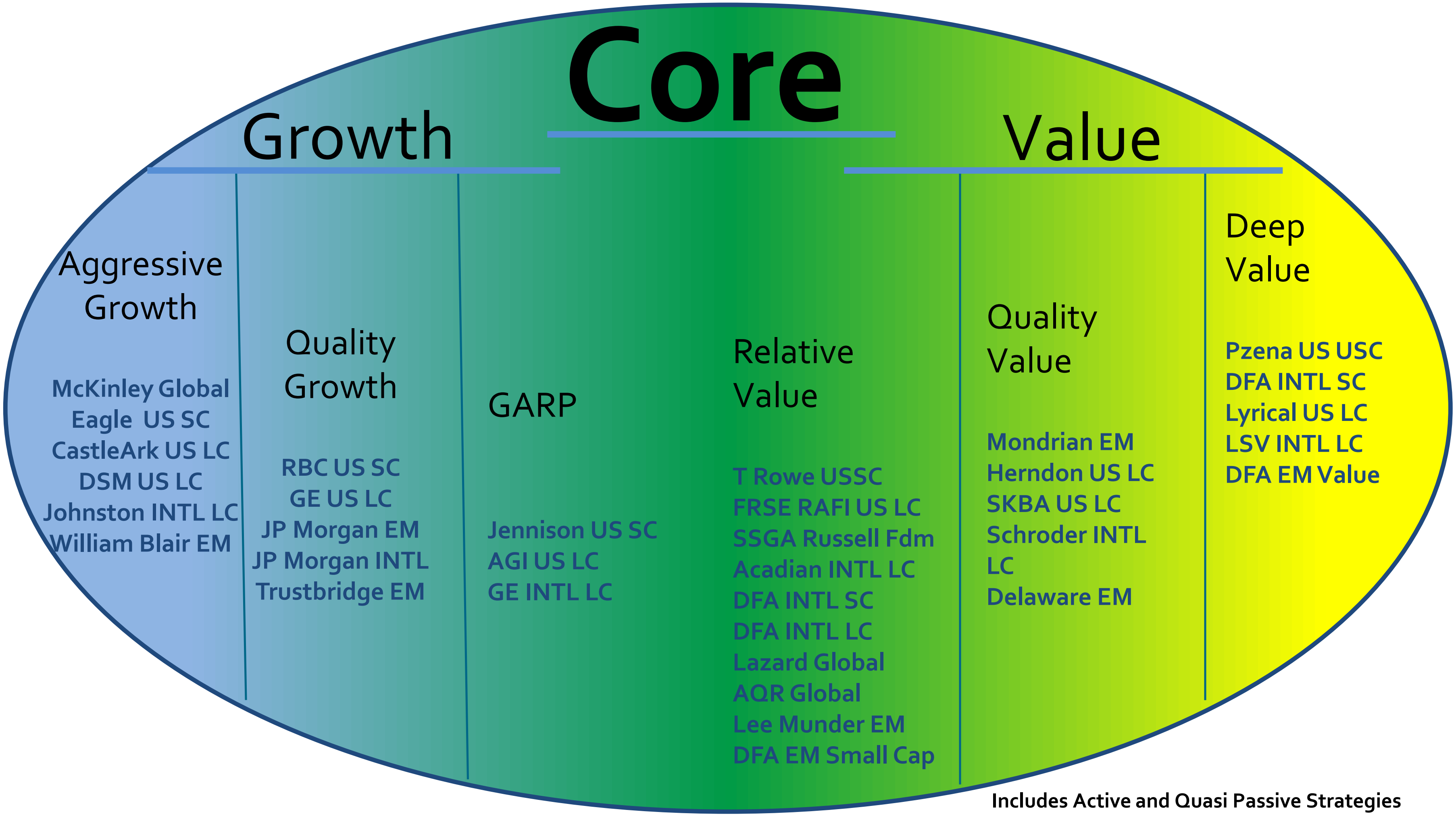


APFC Fund Managers: 75% Outperformed

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

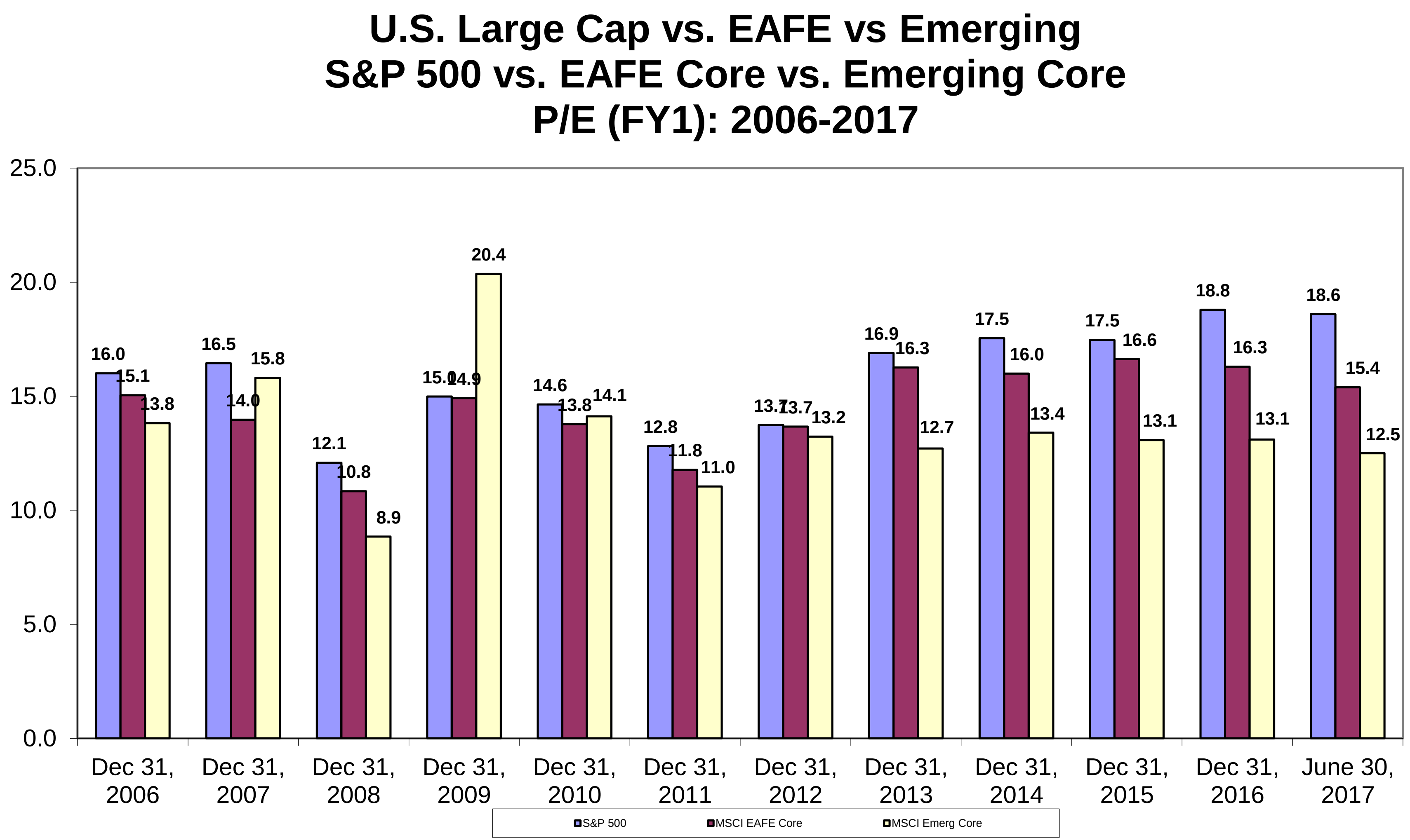
Diverse Sources of Excess Returns

June 30, 2017



Includes Active and Quasi Passive Strategies

Public Equities – Valuation



FY 2017 Performance – Global Equity Managers

Global Equity Managers		Assets (mil)	FY 17 (%)	Benchmark (%)	Excess (bps)
In-House Tactical Tilts	**(MSCI ACWI IMI)**	**$3,145***	**21.53**	**19.01**	**+252**
AQR Global	(MSCI World)	$1,608	21.51	18.20	+331
McKinley Global	(MSCI ACWI)	$789	20.47	18.78	+169
SSGA Russell Fundamental	(MSCI World)	$1,457	17.71	18.20	-49
Lazard Global	(MSCI ACWI)	$2,042	16.15	18.78	-263
Total		**$9,354**			

*$500 million added on Dec 23
*$600 million added on March 3rd
*$1.2 billion added on June 26-28th

In-House Tactical Tilt – Positions as of 06/30/2017

In-House Tactical Tilts	$3,145 mil	(%)
Vanguard FTSE Developed Markets (VEA)	439	14.0%
Vanguard S&P 500 (VOO)	433	13.8%
Wisdom Tree Europe Hedged (HEDJ)	406	12.9%
Wisdom Tree Japan Hedged (DXJ)	342	10.9%
US Health Care Select SPDR (XLV)	257	8.2%
Ishares MSCI Mexico	215	6.8%
US Consumer Staples Select SPDR (XLP)	200	6.4%
Ishares MSCI Eurozone (EZU)	165	5.2%
Vanguard FTSE Emerging Markets (VWO)	152	4.8%
US Energy Sector Select SPDR (XLE)	116	3.7%
Ishares Nasdaq Biotechnology (IBB)	105	3.4%
Ishares Russell 2000 Index (IWM)	100	3.2%
Ishares Russell 2000 Value (IWM)	98	3.1%
US Financial Select SPDR (XLF)	51	1.6%
US Utilities Select SPDR (XLU)	50	1.6%

Allocation	%	+/-
US	44.9	-6.1
Non US DM	43.0	+5.0
EM	11.7	+0.7

Public Equities - Positioning

June 30, 2017

APFC Public Equity Allocation:

- Overweight to Emerging Markets and an underweight to US Equities (Valuation) – **Strategic/Tactical**
- Modest tilt in favor of Japan and Europe Equities, hedged for the respective currency risks - **Tactical**
- Modest tilt towards Value and economically sensitive sectors – **Tactical**

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

- – Weakness in China Growth (Post the National People's Congress)
- – Renewed Strength in US Dollar
- – Corporate Earnings fail to support current valuations
- – Geopolitical Risks – North Korea/US China Relations

Public Equities – Key Macro Factors to Watch

June 30, 2017

China Bear Case:

- Credit bubble will ultimately burst, it is inevitable, and perhaps imminent may be after the National People's Congress

China Base Case:

- Slow protracted transition, but little risk of hard landing

Watch:

- China Macroeconomic Data and Market Reaction
- US Dollar
- Bond Yields and the Shape of the Yield Curve
- Inflation Data (Likely to surprise on the upside)

Public Equities – Key Macro Factors to Watch

US 10 Year Yield - US Yields significantly increased during the first half of FY 1, portending higher growth and rising inflation expectations – expectations cooled in the second half of FY 17

Public Equities – Key Macro Factors to Watch

Yield Curve: 10Yrs – 2Yrs

Public Equities – Key Macro Factors to Watch

US DOLLAR

Best in Class - Public Equities

- Asset Allocation+manager selection are the principal drivers of future performance
- Internal management expected to play an increasingly important role over time
- Asset Allocation
  - Periodic assessment of the asset allocation relative to the benchmark MSCI ACWI IMI
    - Decisions made along major factors (geography, style, market cap, sectors)
- External Manager Selection
  - Generate net-of-fee positive active returns through skilled manager selection. Manager research process enhances the probability that managers will meet return expectations
  - Selective use of long-only activist strategies to enhance returns in relatively efficient areas of Global equity segments, such as Developed Markets, but including activist strategies
  - Evaluate and secure compelling long-short equity managers if their market beta exceeds 0.5
- Internal Management
  - Selective use of internal management on a case-by-case basis where off-the-shelf manager/product solutions are either costly or unavailable
  - Opportunistic – taking advantage of market dislocations
  - Exploiting niche areas of Global Equity, specific industry/sector, specific set of stocks in emerging/frontier markets

Asset Class Updates Memo: Real Estate

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

SUBJECT: APFC Real Estate Asset Class Update ACTION: ____

DATE: September 27, 2017 INFORMATION: X

BACKGROUND:

The Real Estate presentation provides information on the Real Estate Portfolio.

STATUS:

At this meeting staff will present some of the key elements of the Real Estate Portfolio including Investment and Target Allocation and Performance at the Advisor and Property Type Level. Actual portfolio development exposure and debt levels will also be compared to Policy Limits. All Policy guidelines are identified in the Investment Policy Manual and Real Estate Strategic Plan.

Staff will also provide an update on pending dispositions and acquisitions.

a) Presentation: Real Estate

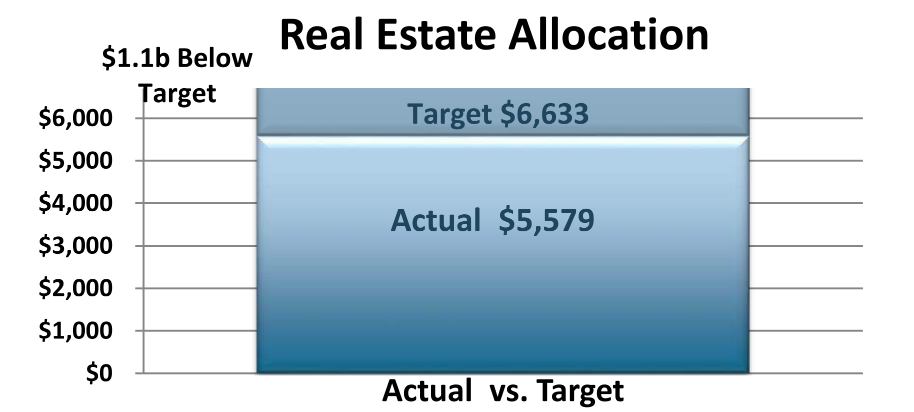
APFC ALASKA PERMANENT FUND CORPORATION

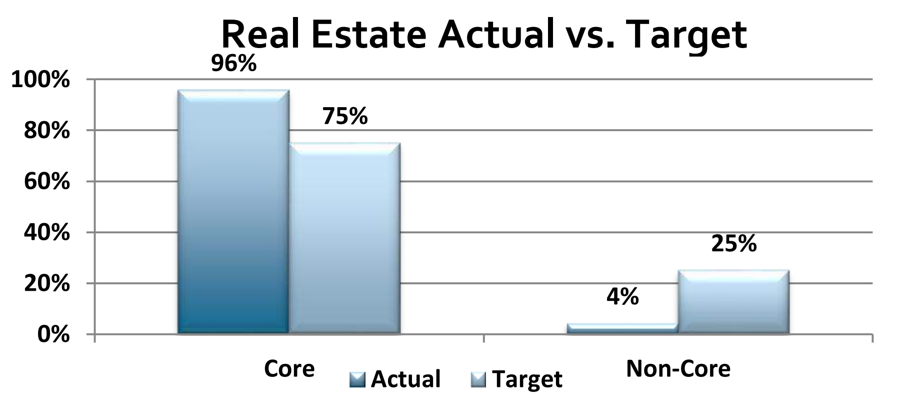
REAL ESTATE
BOARD of TRUSTEE PRESENTATION

September 27, 2017

Real Estate Invested vs. Target Allocation
June 30, 2017

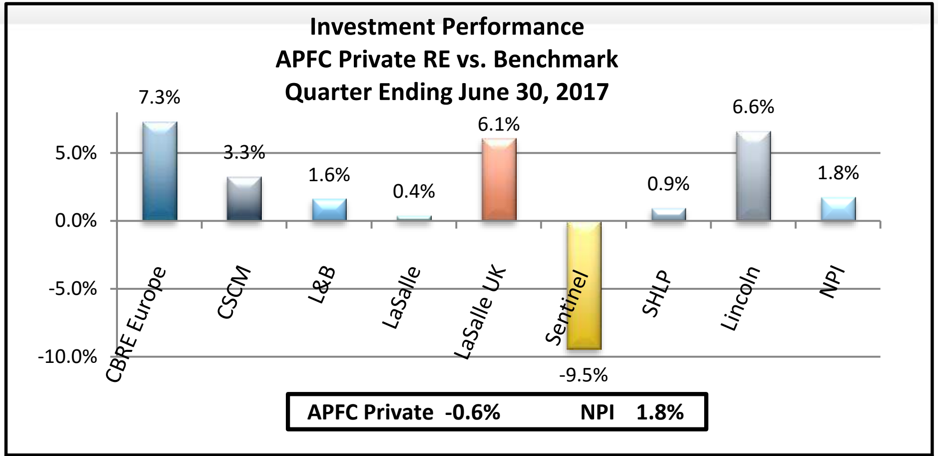
June 30, 2017	% Invested	Market Value ($mm)	% of Portfolio	2017 Tactical Plan Target
Core		$5,345	96%	75%
Non-Core		$234	4%	25%
Total Real Estate Portfolio	**9.3%**	**$5,579**	**100%**	**100%**
Real Estate Allocation	**11.0%**	**$6,633**		

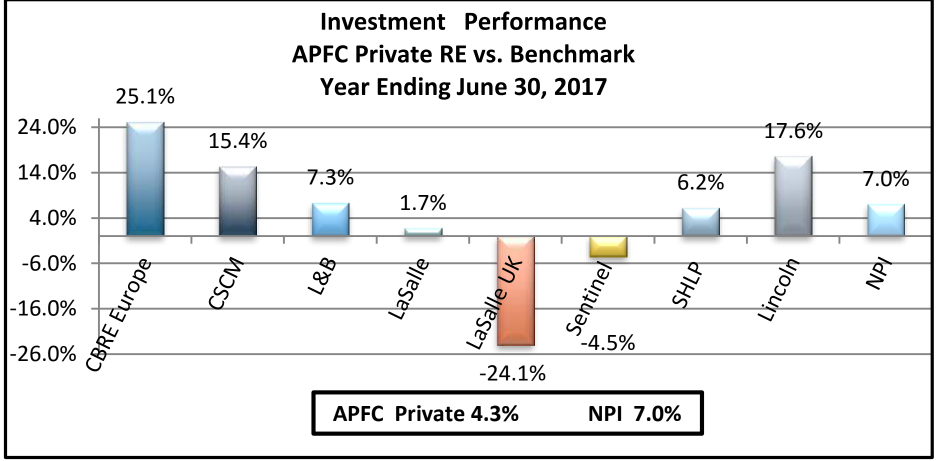




Private Real Estate Portfolio

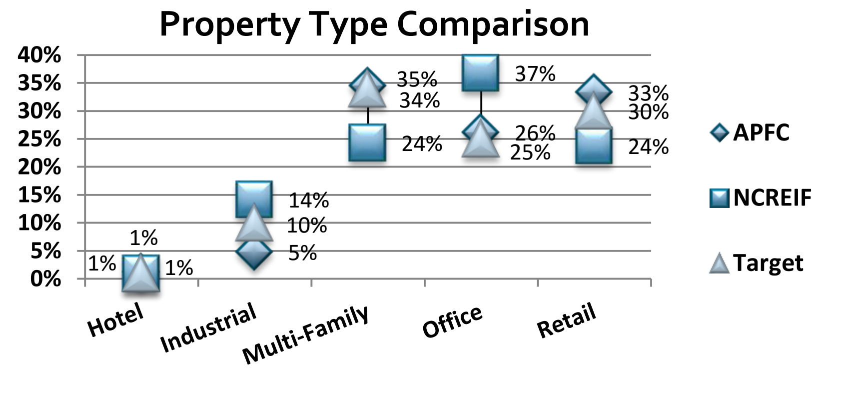
June 30, 2017			Performance	
Manager	Net Asset Value	% of Total	2Q	1 Year
CBRE Europe	$160	3%	7.3%	25.1%
CSCM	$415	7%	3.3%	15.4%
L&B	$2,149	39%	1.6%	7.3%
LaSalle	$6	0%	0.4%	1.7%
LaSalle UK	$227	4%	6.1%	-24.1%
Sentinel	$1,165	21%	-9.5%	-4.5%
SHLP	$1,379	25%	0.9%	6.2%
Lincoln	$78	1%	6.6%	17.6%
Total:	**$5,579**	**100%**	**-0.6%**	**4.3%**
NCREIF Property Index			***1.8%***	***7.0%***
Out/(Under) Performance			***-2.4%***	***-2.7%***
Total RE (includes REITS for partial year)				**4.5%**
APFC Target				**6.8%**

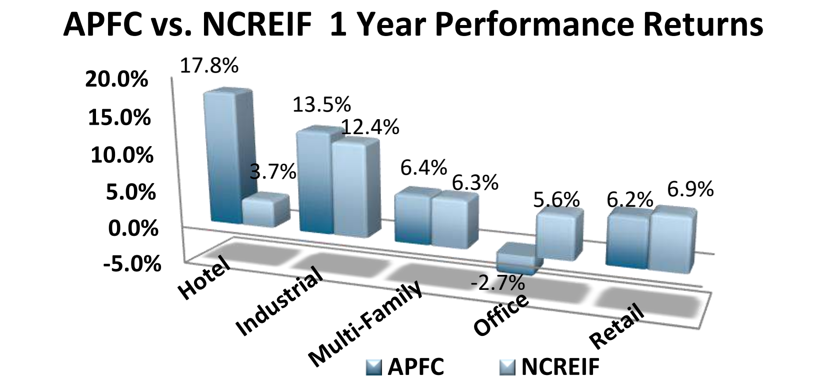




Portfolio Composition by Property Type

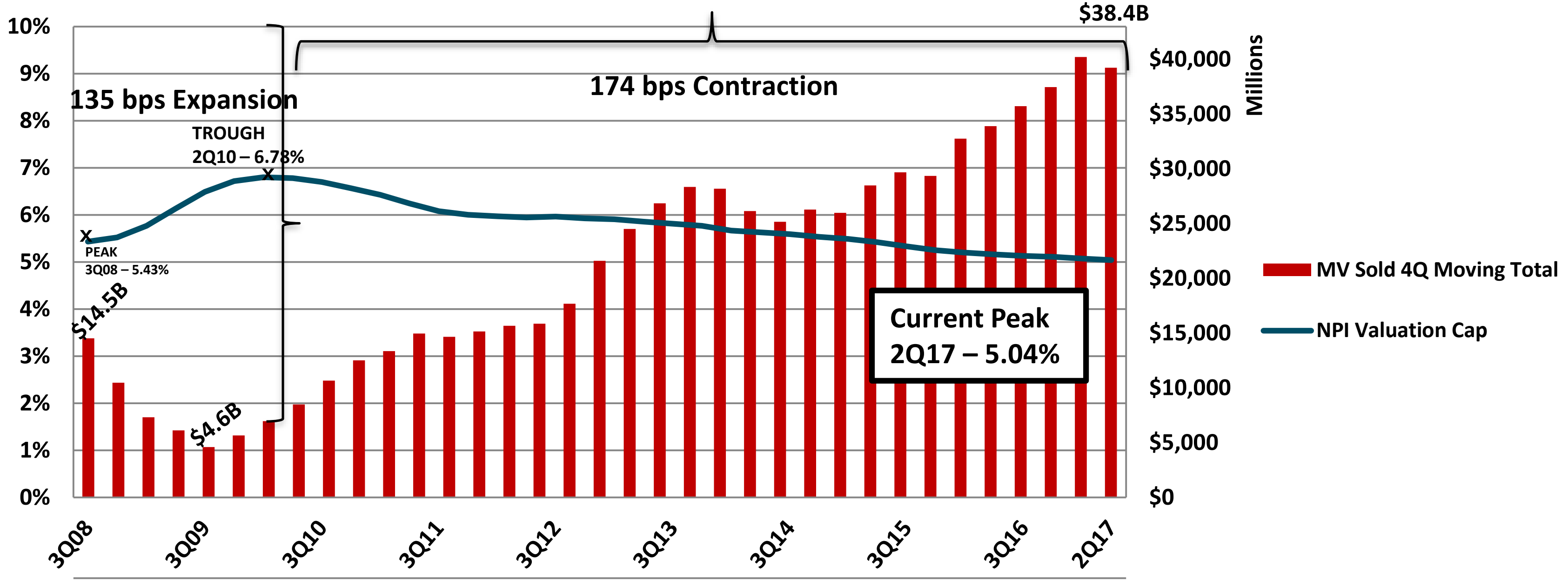
Property Type	No. of Props	June 2017 Market Value ($mm)	% of Portfolio	NCREIF % of Portfolio June 2017	2017 Tactical Plan Target	1 Year Performance		3 Year Performance	
						APFC	NCREIF	APFC	NCREIF
Hotel	1	$68	1%	1%	1%	17.8%	3.7%	NA	8.9%
Industrial	16	$268	5%	14%	10%	13.5%	12.4%	11.2%	13.5%
Multi-Family	9 *	$1,924	35%	24%	34%	6.4%	6.3%	11.6%	9.2%
Office	14	$1,460	26%	37%	25%	-2.7%	5.6%	4.4%	9.2%
Retail	16	$1,859	33%	24%	30%	6.2%	6.9%	10.1%	10.8%
Total:	**56**	**$5,579**	**100%**	**100%**	**100%**	**4.3%**	**7.0%**	**9.0%**	**10.2%**





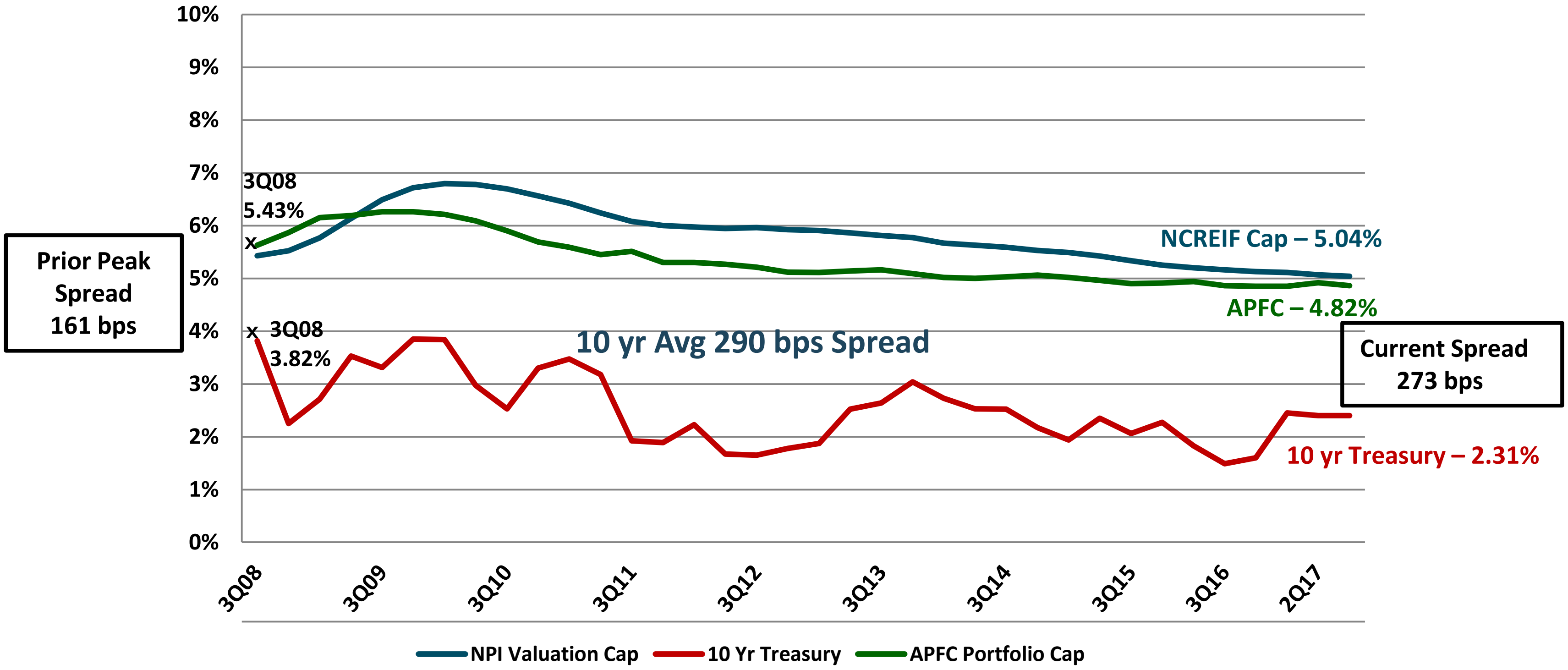
* SHLP included in multi-family as one property (actual # Simpson properties 71)

NCREIF – NPI
Transaction Volume vs Valuation Cap



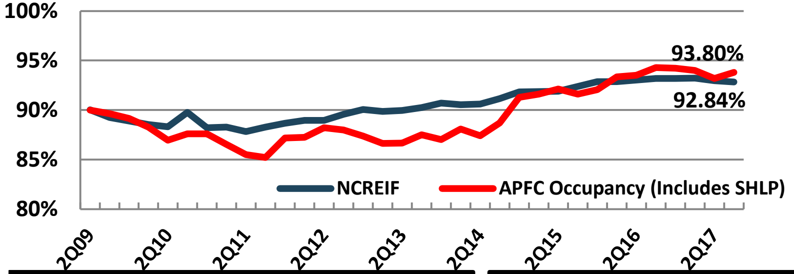
Source: NCREIF

NCREIF – NPI
Valuation Cap vs 10-yr Treasury



Source: NCREIF, 10-yr Treasury Rate Table

APFC vs NCREIF NPI Occupancy by Quarter



RETAIL:

APFC: 92.74%	NCREIF: 92.69%

•Retail continues to experience industry consolidation with an estimated 8,000 store closures expected this year, outpacing the closures in 2016.
•Food and Beverage remains the major growth driver in Retail as consumers are putting a higher value on dining experiences.
•Dollar Store continue to have significant expansion plans -- However, this category may start facing saturation issues due to 7,000 new store openings over that past five years – that equates to four dollar stores opening per day in the US.

OFFICE:

APFC: 93.24%	NCREIF: 87.69%

•Vacancy rose for a third consecutive quarter ending at 14.8% as completions continue to outpace absorption – 11.7 MSF was delivered in 2Q17 compared to 9.9 MSF of absorption. (JLL)
•Growth is expected to remain muted as tenants relocate to new supply and give back second generation space.
•Asking rents continued to grow in the second quarter – rising by .8% on a quarterly basis and 3.2% over the year.

MULTIFAMILY:

APFC: 93.93%	NCREIF: 93.76%

•National vacancy rate rose 10 bps to end the quarter at 4.4%, marking the third consecutive quarter of vacancy increase. (REIS)
•Demand remains strong, but supply growth is expected to offset demand this year, leading to higher vacancies.
•Construction will likely peak in 2017 with over 350k units being delivered – nearly half of this total will be delivered in 10 markets.

INDUSTRIAL:

APFC: 95.29%	NCREIF: 95.59%

•The Industrial sector continues to benefit from growth in trade and e-commerce that provided another steady quarter of strong absorption.
•Demand has exceeded supply for 29 quarters resulting in historic lows with vacancy falling another 20 bps to 5.3% -- a full 300 bps below the 10-year historical average. (C&W)
•This healthy demand drove rents to another high for the cycle, with asking rents for all product types increasing 4.6% in the second quarter.

Source: NCREIF, C&W, Marcus & Millichap, REIS, JLL

Current Initiatives in Process (Update)

- **Debt Manager Search**
  - Finalist identified, contract negotiations underway.
- **"Build-to-Core"**
  - Pursuing development of 3-4 existing parcels.
  - Engaged in discussions with a large, national RE development company.
  - Potential to expand relationship in the UK.
- **Industrial Opportunities**
  - Target portfolio or company acquisition.
  - Particular emphasis on "last mile" distribution.
- **Real Estate Consultant Search**
  - Program Strategy (Review, Planning & Implementation)
  - Valuations/appraisals.
  - RE information systems oversight
- **Other Markets**
  - Continue to expand outside U.S.

Debt Overview

Exposure Report Summary as of June 30, 2017

	Exposure				Disclosure Report		
	Equity Exposure		Tactical Limit	Over/ (Under)	Debt Disclosure	Total Investment Disclosure	
(Millions)	Actual $	Actual %	%	%	Outstanding Balance	Actual $	Actual %
Predevelopment	63	0.9%	*Set at Total Non-Core Level*		0	63	0.8%
Construction	10	0.1%			0	10	0.1%
Lease-Up	161	2.4%			167	328	4.0%
Redevelopment /Repositioning	0	0.0%			0	0	0.0%
Total Non Core Exposure	234	3.4%	25.0%	-21.6%	167	401	4.9%
Stabilized	5,345	80.6%	n/a	n/a	2,363	7,708	95.1%
Total	5,579				**2,530**	**8,109**	**100%**
Real Estate Allocation	**6,633**	**11%**					

% Leverage of Private Real Estate (Loan to Value) 31.2%

% Leverage of Real Estate Allocation (Loan to Value) 27.6%

Policy limit: 40%

Debt Maturities

	2017 (mm)	2018 (mm)	2019 (mm)	2020 (mm)	2021+ (mm)	Totals (mm)
Multi-Family	$123.7	$141.9	$274.4	$101.8	$335.1	$976.9
Retail	$0.0	$0.0	$20.8	$21.8	$962.0	$1,004.6
Office	$0.0	$0.0	$0.0	$0.0	$456.1	$456.1
Industrial	$0.0	$2.9	$6.5	$0.0	$83.2	$92.6
Total Debt:	**$123.7**	**$144.8**	**$301.7**	**$123.6**	**$1,836.4**	**$2,530.2**
% of Total Debt	4.9%	5.7%	11.9%	4.9%	72.6%	100%
Weighted Average Interest Rate	3.1%	2.5%	3.9%	3.3%	**4.1%**	**3.9%**

FY 2017 Transactions

Acquisitions:

The Glades Shopping Centre: 480,585 sf regional shopping center located in Bromley, London closed on 12/15/2016.

Dispositions:

Sold 3 properties for total proceeds of $343m:

100 Pine Street, San Francisco, CA: 402,534 sf Office closed 2/09/17.
Atria West, Los Angeles, CA: 178,595 sf Office closed 1/11/17.
Eastpoint I, Dallas, TX: 419,626 sf Industrial closed 5/08/17.

Update

- Transaction volume reported by NCREIF totaled $7.7 billion in the second quarter 2017 with 150 properties sold, down from $9.0 billion for 164 properties during the same quarter a year ago.

- Occupancy for NCREIF-tracked properties rose to a 16-year high, at 93.3%. Despite a small drop over the year, multi-family properties led quarterly occupancy gains with a 60 basis point increase to 94.1%. Industrial still has the highest occupancy rate, at 95.9%. Industrial also leads property performance with total returns this quarter of 3.07%

- Foreign capital remains active making up 11% of total volume in first half of year. Asian outbound real estate investments almost doubled in the first half of 2017 with Chinese investors leading the way. However, new regulatory controls imposed by Chinese authorities is creating uncertainty on future capital flow.

- NCREIF valuation caps remained fairly flat for the quarter. By property type, only retail saw quarterly cap rate compression with a 12 bps decline. Office had a 13 bps increase, while apartment and industrial edged up by a few bps each.

Asset Class Updates Memo: Private Equity & Special Growth Opportunities

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

SUBJECT:	APFC Private Equity & Growth Opportunities Asset Class Update	ACTION:	______
DATE:	September 27, 2017	INFORMATION:	X

BACKGROUND:

The Private Equity and Special Growth 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 Growth 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 Growth Opportunities

APFC ALASKA PERMANENT FUND CORPORATION

Private Equity and Special Opportunities

Portfolio Update | Steve Moseley

Executive Summary

Portfolio continues to generate strong risk-adjusted returns, contributing uncorrelated alpha to overall portfolio

Portfolio Summary

($mm, 31-Mar-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	$4,099	7.0%	17.7%	14.5%	12.4%	$2,493
Special Opportunities	$2,505	4.3%	**14.4%**	32.6%	28.6%	$1,125
Combined Portfolio	**$6,604**	**11.3%**	**16.5%**	**19.2%**	**14.3%**	**$3,618**
Public Benchmark[1]			15.9%	6.5%	8.1%	$1,632
Excess Return			**0.6%**	**12.7%**	**6.2%**	**$1,986**
Memo: Excluding Juno						
Special Opportunities			**38.8%**	18.2%	15.7%	$545
Combined Portfolio			**24.0%**	**15.4%**	**12.8%**	**$3,038**

Program Summary

($mm, 31-Mar-17) Program	Commitments FY 2017[2]	Commitments Total	Inception Net IRR
Pathway + HarbourVest	$412	$6,118	12.1%
APFC PE	$604	$1,946	20.3%
APFC SpecOpps	$320	$3,628	28.6%
Combined Portfolio	**$1,336**	**$11,692**	**14.3%**

Tactical Summary

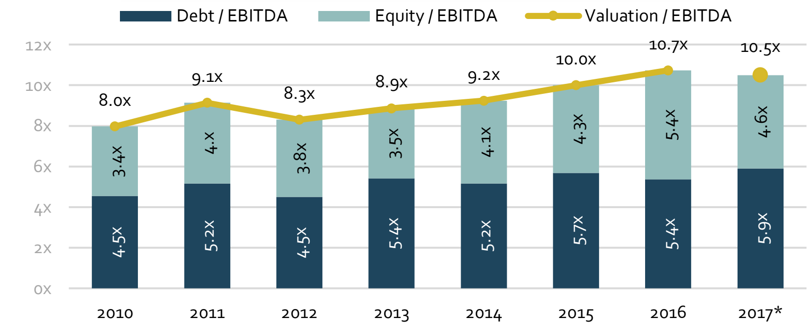
($mm, 31-Mar-17) Investment Activity	Investment Activity FY2017[2]	Investment Activity Total	Investment Activity Average	Since Inception Net Returns IRR	Since Inception Net Returns Multiple	Since Inception Net Returns Gain	Comments
Fund Commitments	$1,157	$10,770	$39	**11.9%**	1.4x	$2,631	• Private equity program launched in 2004
Direct/Co-invest	$180	$921	$48	**71.4%**	2.2x	$987	• Staff-led program, launched in 2014; minimal fees

Source: Pathway Capital Management and Burgiss as of 31-Mar-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 June 30, 2017.

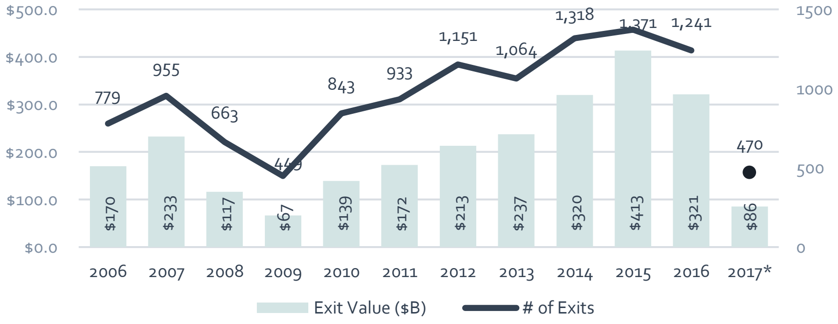
Private Equity Market Update

Purchase price multiples and fundraising velocity warrant caution.

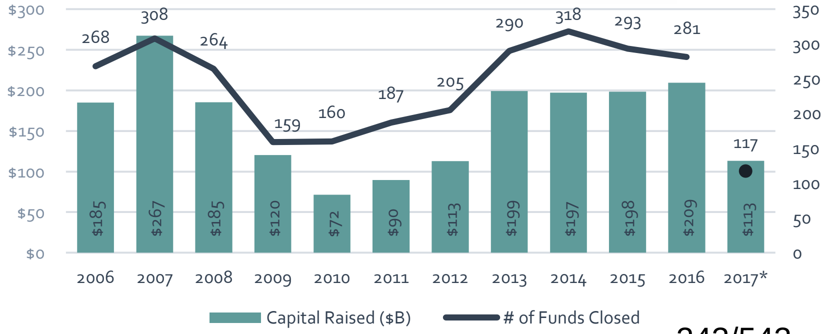
M&A multiples continues to maintain its recent highs…



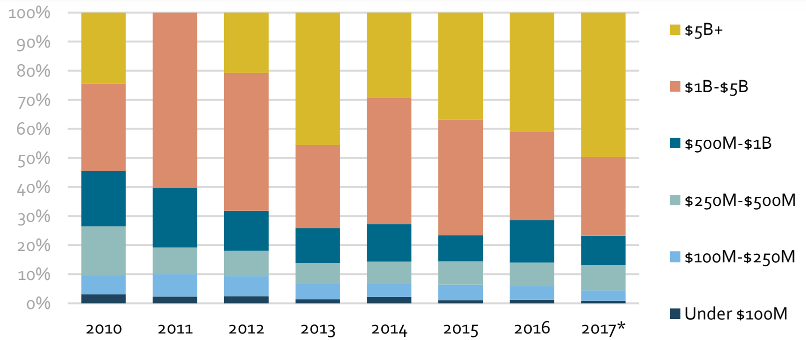
…although exit activity has decelerated in the first half of 2017.



Fundraising was strong in the first half of 2017…



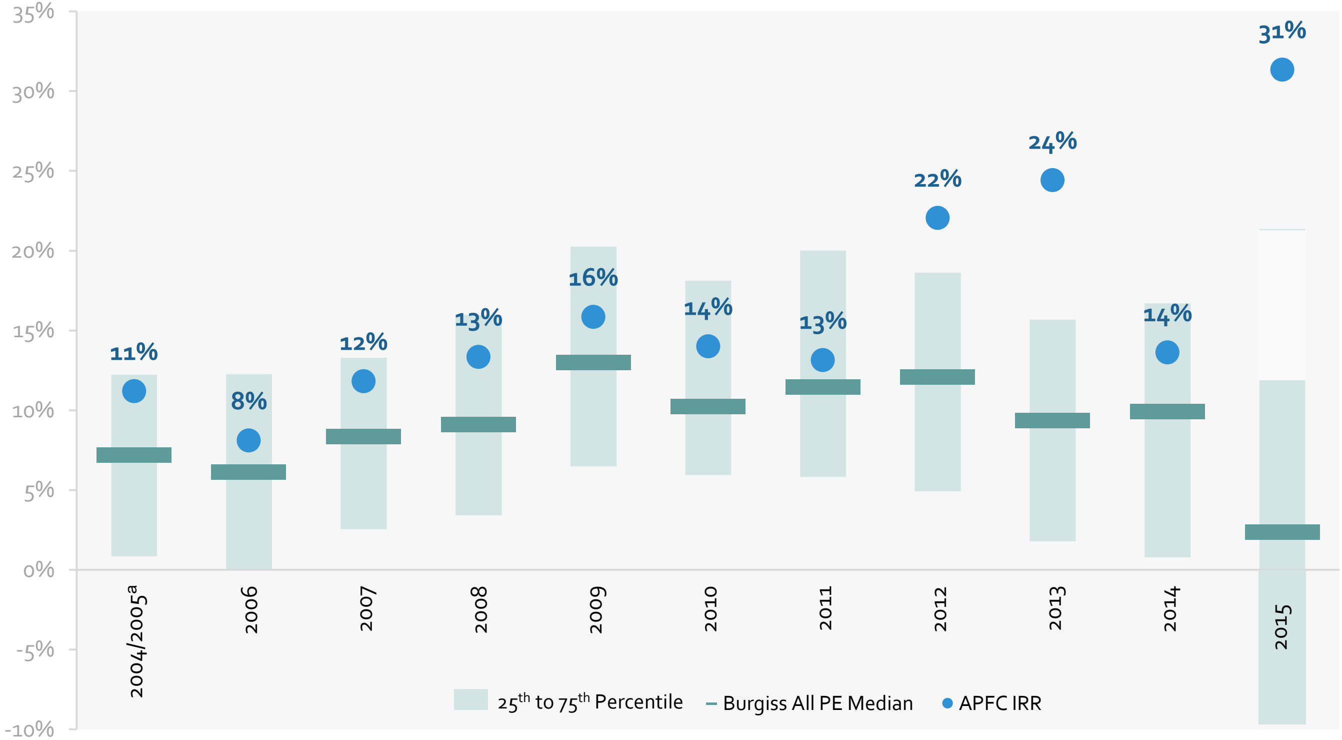
• *…with large cap PE firms raising a disproportionate share of the capital*

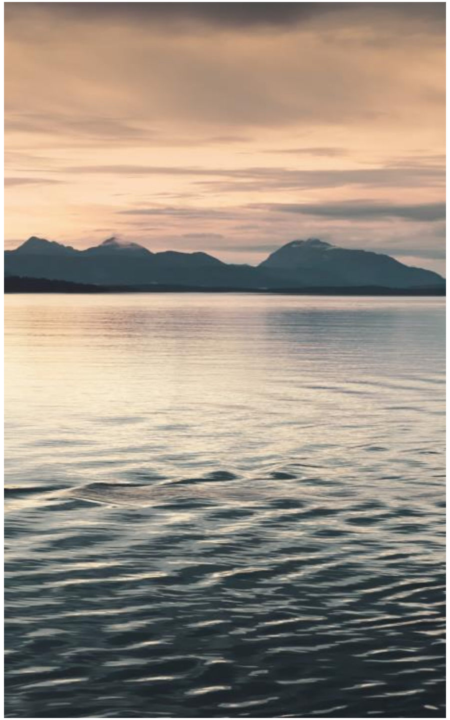


Source: Pitchbook as of Q2 2017.
* As of June 30, 2017.

Vintage Year Performance

APFC has outperformed the median private equity benchmark every year since inception in 2004

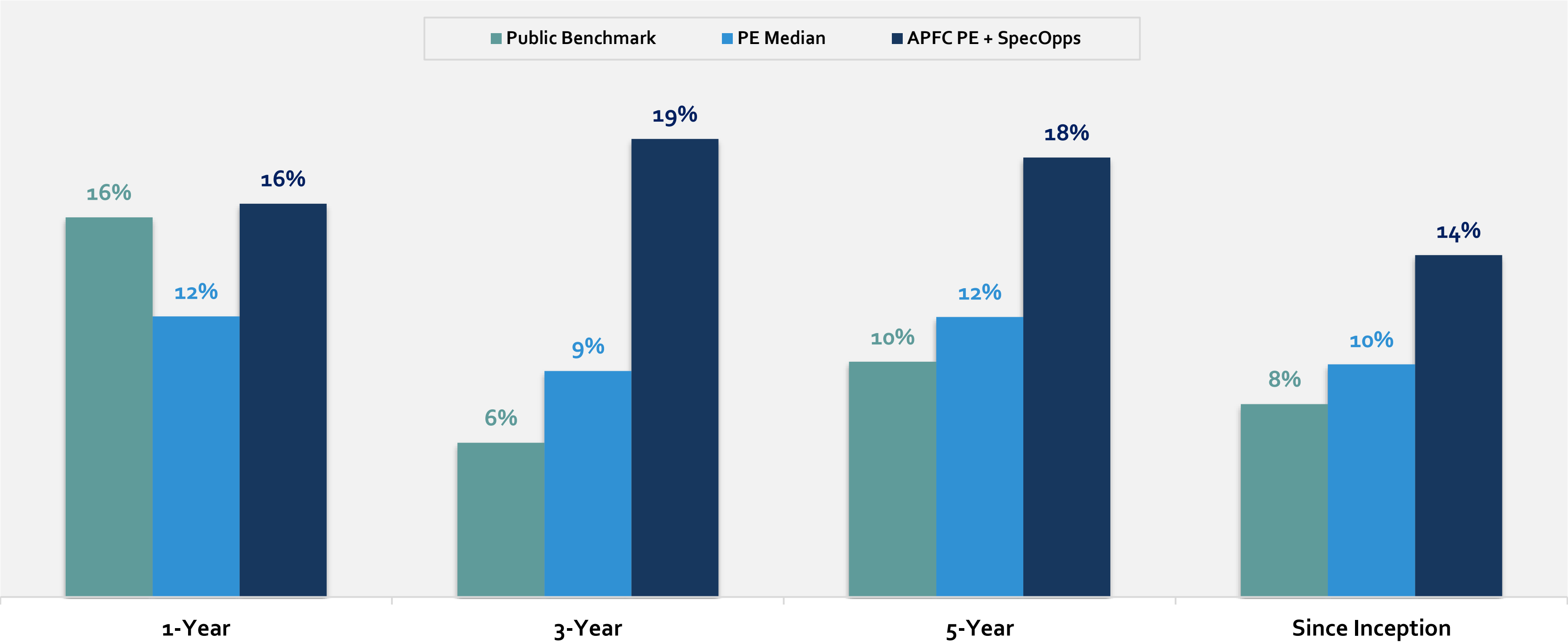




Source: Pathway Capital Management and Burgiss as of 31-Mar-2017.
Note: All returns net of management fees and carry. Returns may differ slightly from Callan's time-weighted returns due to reporting lag and methodology.
a) Represents weighted average benchmark, based on APFC fund commitments for each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

Portfolio Performance

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



Source: Pathway Capital Management and Burgiss as of 31-Mar-2017.

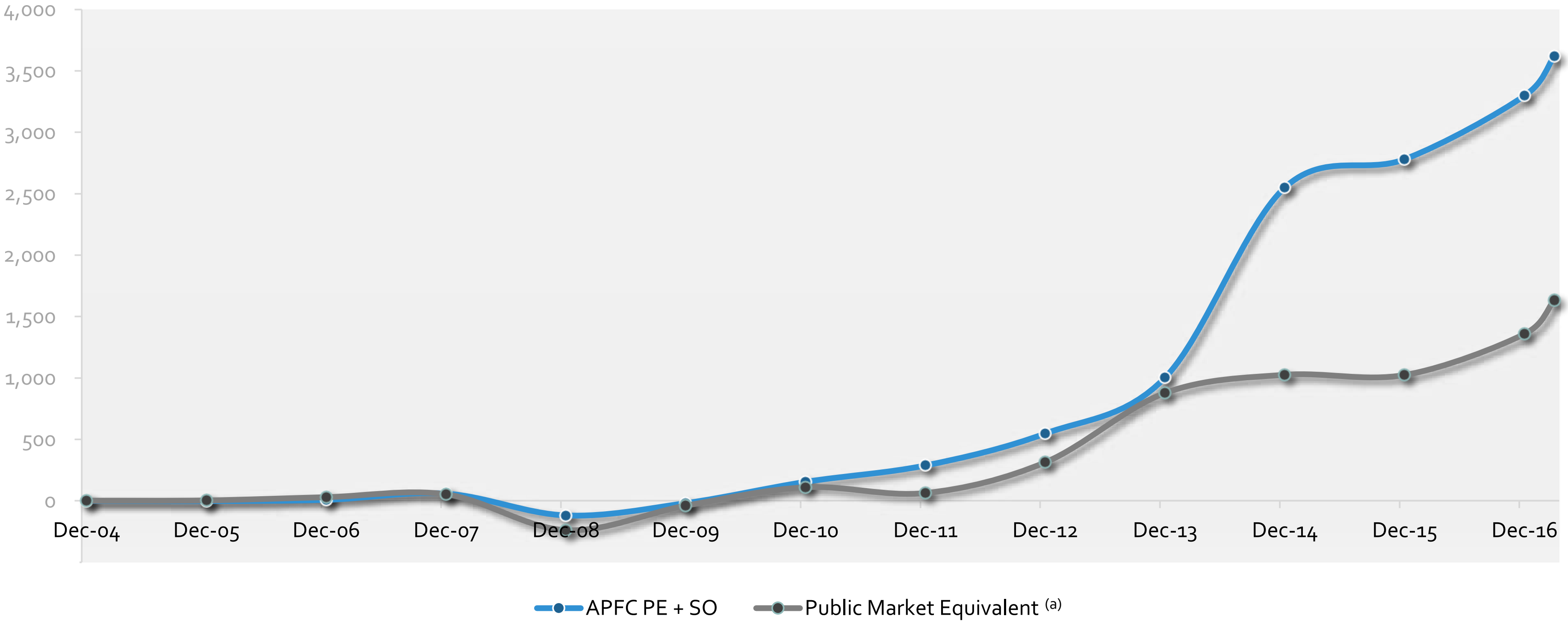
Note: All returns net of management fees and carry. Returns may differ slightly from Callan due to timing and methodology.

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 Burgiss Private iQ global all PE return benchmark for 2004- through 2017 vintages, as of March 31, 2017, produced using Burgiss data.

Private Equity Value-added

PE portfolio has outperformed public benchmark, generating an <u>incremental</u> $2.0 billion of gains to APF since inception



Sources: Pathway Capital Management and Burgiss as of 31-Mar-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).

Activity Recap

Portfolio continues to achieve return and diversification objectives; only early evidence of progress on key strategic and operational initiatives

FY'17 Highlights

- **Risk**
  - Reduced targeted concentrations and harvested gains
  - In process to selectively monetize certain non-core assets
- **Return**
  - 1-yr, 3-yr, and 5-yr net returns of 17%, 19%, and 18%, respectively
  - Exceeded PE industry and public market equivalent benchmarks
  - Cum. incremental gain of $2.0 billion above public benchmark[1]
  - Direct and co-investments sourced by APFC staff have now generated 71% net returns since inception in 2014
- **Flows**
  - Committed $1.3 billion to PE and SpecOpps investments
  - Distributed $2.2 billion back to APF
- **Organizational management**
  - Team size limits potential and increases cost
    - Smaller team → greater costs (and vice versa)

FY'18 Priorities

- **Manage HR 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 EM opportunity
- **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: Pathway Capital Management and Burgiss as of 31-Mar-2017, unless otherwise specified.
Note: All returns net of management fees and carry. Returns may differ slightly from Callan due to timing and methodology.
(1) PE Median represents the Burgiss Private iQ global all private equity return benchmark for 2004- through 2017- vintage funds, as of March 31, 2017, as produced using Burgiss 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).

Asset Class Updates Memo: Private Income and Absolute Return

APFC ALASKA PERMANENT FUND CORPORATION

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

SUBJECT: APFC Private Income & Absolute Return Asset Class Update

ACTION: ______

DATE: September 27, 2017

INFORMATION: X

BACKGROUND:

The Private Income & Absolute Return presentation provides information on the Private Income (Infrastructure, Private Credit, and Income Special Opportunities) and Absolute Return / Hedge Funds portfolios.

STATUS:

At this meeting Staff will present information on recent investment performance, market updates and strategic initiatives in both the Private Income and Absolute Returns areas. Staff will also provide updates on recent new investment activity in these areas.

a)Presentation: Private Income and Absolute Return

APFC ALASKA PERMANENT FUND CORPORATION

Private Income, Special Opportunities and Absolute Return

September 27-28, 2017

Summary Performance

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

Note: most FYTD private returns are through 3/31/17 marks and therefore reflect nine months of returns vs. twelve months for FYTD benchmarks

	NAV @	% of	Fiscal Year To Date		3 Year Returns		5 Year Returns		
($ in millions)	**6/30/17**	**APFC**	**APFC**	**Benchmark**	**APFC**	**Benchmark**	**APFC**	**Benchmark**	
Private Income									
Infra/Real Assets	$1,905	3.2%	8.55%	9.58%	14.50%	5.55%	13.55%	10.67%	(1)
Private Credit	$1,123	1.9%	9.59%	12.69%	5.70%	4.50%	7.88%	6.90%	(2)
Special Opportunities	$169	0.3%	9.52%	10.89%	7.85%	5.20%			(3)
Total Private Income	**$3,198**	**5.3%**	**8.96%**	**10.74%**	**11.06%**	**5.16%**	**11.45%**	**9.27%**	(4)
Absolute Return									
Hedge Funds	$2,057 (5)	3.4%	7.22%	6.63%	1.89%	5.92%	3.61%	6.32%	(6)
Total	**$5,255**	**8.7%**							

(1) Benchmark reflects FTSE Infrastructure Index.
(2) Benchmark reflects BC US High Yield Index.
(3) Benchmark reflects 60% FTSE Infrastructure Index + 40% BC US High Yield Index.
(4) Total Private Income Composite Returns calculated by asset weighting the constituent returns.
(5) NAV excludes $150,000,000 cash transfer for an investment made ahead of the July 1, 2017 settlement date.
(6) Benchmark reflects CPI + 500 bps.

Absolute Return

Performance Snapshot

- Performance
  - FY 2017 return of 8.14% exceeds target return of CPI + 500 bps
  - New direct commitments are meeting and exceeding expectations
- Completed and Pending Redemptions
  - Received ~$12mm from escrow account of previously exited equity manager, fully completing the redemption process
  - Completely exited two funds from a large equity net-long manager, receiving $187mm in distributions, with $21mm held in escrow
  - Initiated a $150 mm (~50%) redemption process from previously over-weighted, beta-exposed manager
- Direct Fund Commitments
  - $100mm to NY-based, global-macro fund completed April 1
  - $150mm commitment to NY-based, event-driven / multi-strategy fund completed May 1
  - $160mm commitment planned for Europe-based systematic macro manager for Q1 2018
  - $150mm commitment planned for NY-based fixed income relative value manager for Q1 2018
  - In process of due diligence on a pipeline of new manager relationships

Portfolio Performance

($ in millions)	6/30/2017 NAV	Since Inception IRR	FY 2017 Return	Q4 2017 Return
Fund-of-Funds				
Crestline	$430	3.7%	14.8%	2.0%
Mariner	$282	(1.5%)	8.0%	0.2%
Lazard	$27	3.1%	11.8%	(1.1%)
Total - Fund-of-Funds	**$740**	**3.1%**	**11.9%**	**1.1%**
Direct Program				
New Directs	$730	6.4%	6.4%	0.9%
Legacy Directs	$586	(0.1%)	2.8%	0.9%
Total - Direct Program	**$1,317**	**1.2%**	**4.1%**	**0.9%**
Total - Overall	*$2,057*	*3.0%*	*8.1%*	*1.0%*

Source: APFC Finance data and Investment Staff calculations.

New Direct Initiative Performance

NAV Weighted Monthly Returns

	Current NAV	Q1 '16	Q2 '16	Q3 '16	Q4 '16	Q1 '17	Q2 '17	CY 2016	FY 2017	CY 2017
New Directs	$623.6			1.92%	1.31%	2.40%	1.14%	3.26%	6.94%	3.57%
Legacy Directs	$585.3	(9.53%)	0.84%	0.44%	0.71%	3.25%	0.24%	(7.72%)	4.69%	3.49%

NAV Weighted Monthly Alpha (per Albourne)

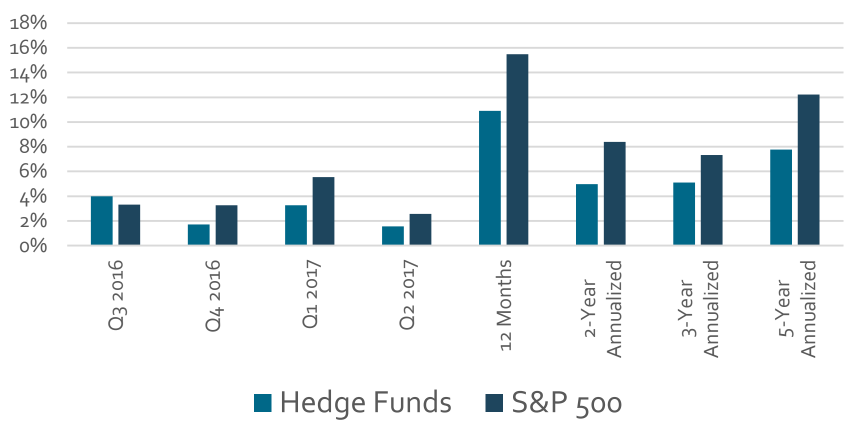
	Current NAV	Q1 '16	Q2 '16	Q3 '16	Q4 '16	Q1 '17	Q2 '17	CY 2016	FY 2017	CY 2017
New Directs	$623.6			2.10%	0.53%	0.84%	1.08%	2.64%	4.62%	1.93%
Legacy Directs	$585.3	(11.08%)	1.05%	(1.27%)	0.06%	1.17%	0.75%	(11.24%)	0.70%	1.93%

Legacy direct investments buoyed by higher beta, while the "new directs" are predominantly alpha return streams

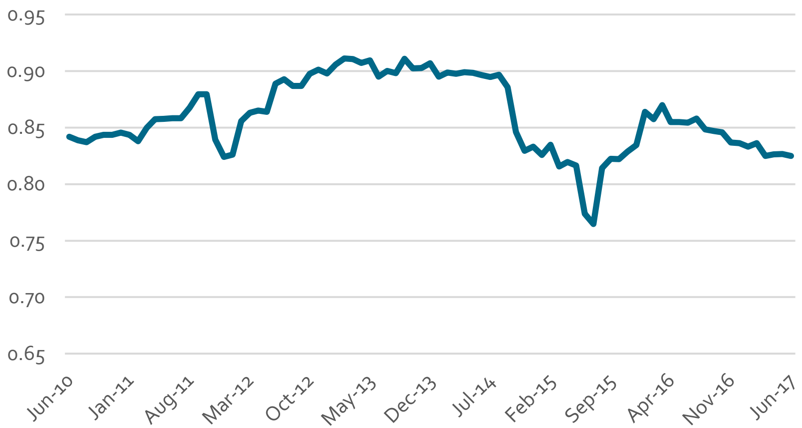
Note: Alpha calculated as NAV weighted return less Albourne calculated systematic beta

Market Update

Hedge Fund Performance vs. S&P 500



Hedge Fund Correlation to S&P 500

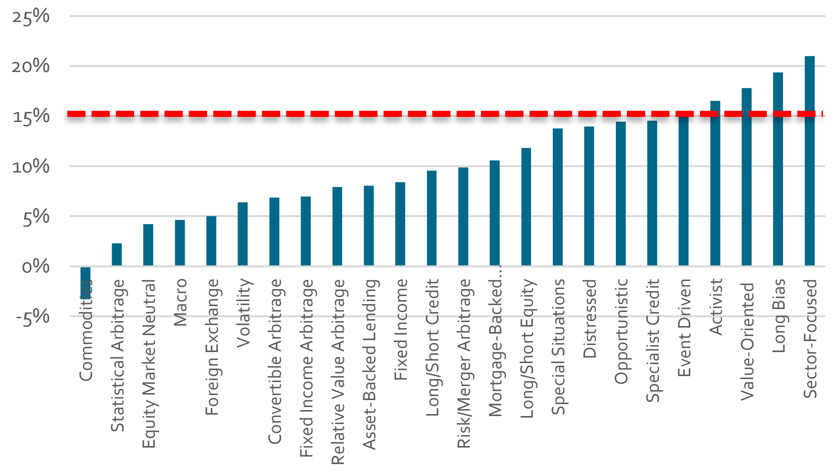


Hedge funds' underperformance relative to equity indices has led to a migration of capital allocation towards passive investing

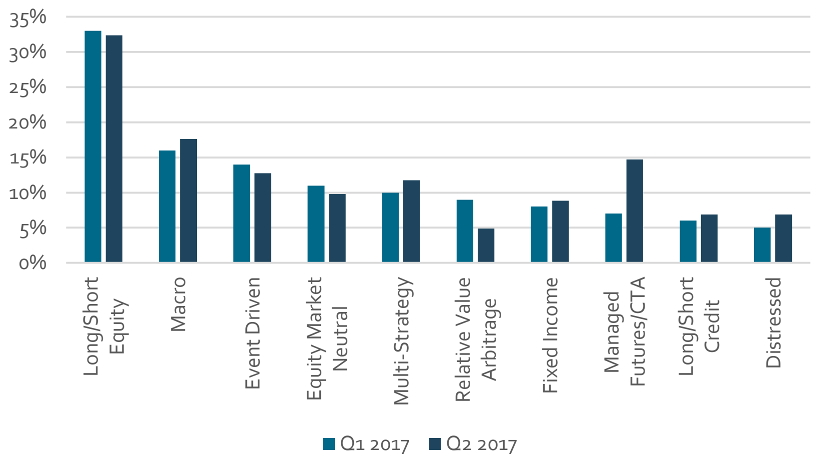
Source: Preqin

Market Update

Hedge Fund Performance by Strategy (TTM)



Strategies Sought by Investors over NTM



On average, only activist, value, long-bias, and sector-focused strategies beat the S&P 500's 15.5% return over the last 12 months

Source: Preqin

Outlook and Initiatives

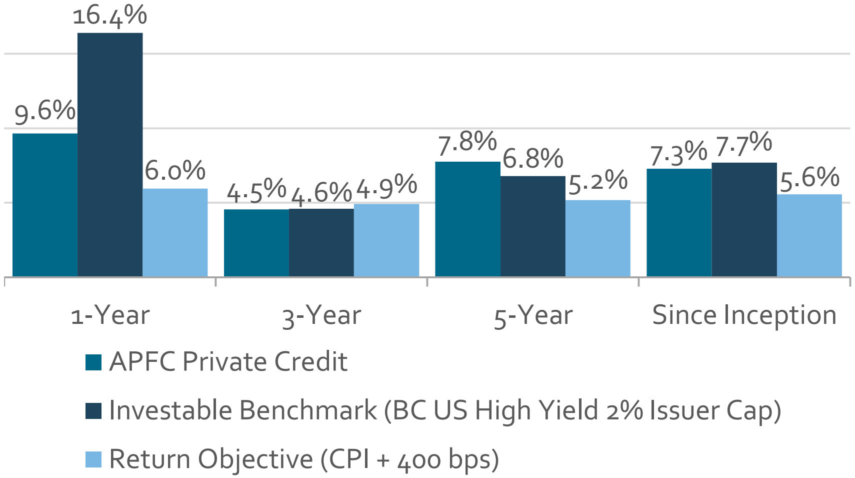
- In FY2017, the APFC investment team made significant progress in its transition to a new direct-investment strategy, targeting low correlation and attractive absolute returns
  - 35% of current $2.1bn portfolio is allocated towards new managers to which APFC investment team has allocated since revamping its investment strategy
  - Staff strongly believes portfolio additions fit our new investment mandate and can provide positive returns regardless of market environment
  - Redemptions from fund-of-fund managers and legacy beta-driven managers continues at better-than-expected pace
- APFC Staff continues to be very selective in choosing new managers with our targeted characteristics:
  - Proven track record of delivering net returns at least above the return objective of CPI + 500 bps
  - Appropriate risk controls (as evidenced by historical drawdowns and volatility)
  - Proven track record of protecting capital during market drawdowns
  - Low correlations to traditional asset classes (especially equity beta)
  - Scoring highly on qualitative and quantitative assessment by APFC Staff and Albourne
- APFC Staff has been opportunistic with new commitments; as opposed to investing capital at a predetermined pace and potentially relaxing our standards, Staff has only selected top quality funds that strongly demonstrate every desired investment characteristic
- Given the APFC's theoretical allocation of 0-10% for hedge funds, Staff is comfortable not investing any additional capital until we have the highest conviction that a manager fits our criteria
- Move away from hedge fund-of-funds will deliver ~$15 million of annual fee savings to the APFC at completion of redemptions

Private Credit & Special Opportunities

Summary Returns: Private Credit

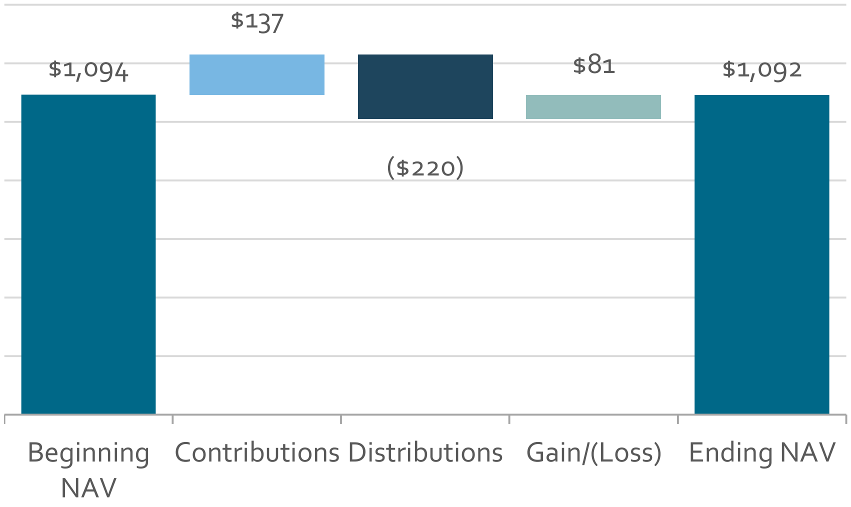
as of March 31 NAV's and Benchmark Values

Performance Compared to Benchmarks



Note: Returns are as of March 31, 2017 NAVs (latest available) 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 period begins June 30, 2007

Last 12 Months NAV Reconciliation



Note: Gain/(Loss) and Ending NAV as of March 31, 2017 (latest available) as calculated by APFC Staff. Contributions and Distributions are for the last 12 months as of June 30, 2017.

Performance Snapshot: Private Credit

- The table summarizes performance for the private credit portfolio as of March 31, 2017
- Last twelve months activity through June 30, 2017 includes:
  - New Commitments: $304 million
  - Capital Calls: $137 million
  - Distributions: $220 million

($ in millions)	Vintage Year	Capital Called	Capital Dist.	Current Value[1]	Net IRR	Multiple-of-Money
Crestline AK Distressed Investments Fund	2007	$429	$490	$0	6.5%	1.1x
Oak Tree VIII (Distressed Debt)	2009	$250	$291	$61	8.7%	1.4x
Oak Tree III (Mezzanine Debt)	2010	$229	$229	$62	9.4%	1.3x
Audax III (Mezzanine Debt)	2010	$223	$157	$123	10.1%	1.3x
AK Credit Opportunities Fund[2]	2011	$716	$353	$652	6.4%	1.4x
Audax IV (Mezzanine Debt)	2015	$6	$1	$5	NM	1.0x
Crestline AK Opportunistic	2015	$112	$20	$98	8.7%	1.1x
APFC Staff Direct	2015	$90	$3	$91	13.7%	1.0x
Clearlake Special Opportunities Fund	*2015*	*$6*	*$0*	*$7*	*24.1%*	*1.2x*
Monroe Capital Private Credit Fund II	*2015*	*$11*	*$1*	*$11*	*10.0%*	*1.1x*
Atalaya Asset Income Fund III	*2016*	*$20*	*$1*	*$20*	*12.7%*	*1.0x*
H.I.G. Whitehorse Direct Lending Fund	*2016*	*$13*	*$1*	*$12*	*9.7%*	*1.0x*
LBC Credit Partners	*2016*	*$28*	*$0*	*$28*	*13.5%*	*1.0x*
TSSP Adjacent Opportunities Partners	*2016*	*$12*	*$0*	*$13*	*11.1%*	*1.0x*
Audax Direct Lending Solutions Fund	*2017*	*$0*	*$0*	*$0*	*NM*	*NM*
Total Private Credit		**$2,055**	**$1,544**	**$1,092**	**7.3%**	**1.3x**
12 months ago		*$1,917*	*$1,300*	*$1,094*	*6.7%*	*1.2x*

(1) Current Value represents latest NAV (as of 3/31/17) adjusted for cash flows through 6/30/17

(2) Formerly Crestline Credit Opportunities, AK Credit Opps was formally redeemed on December 21, 2015. Capital Called represents the $450 million cash contribution on July 1, 2011 in addition to investments contributed from a prior Crestline mandate with NAV of $266 million

FY 2017 Commitments: Private Credit

$50 million
Other Credit / Special Situations

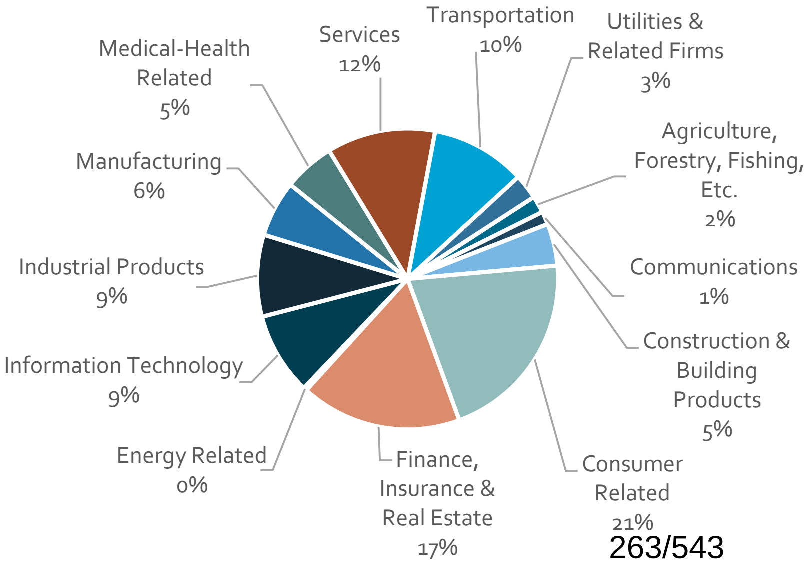
$100 million
Direct Lending

$29 million
Direct Lending / Specialty Finance

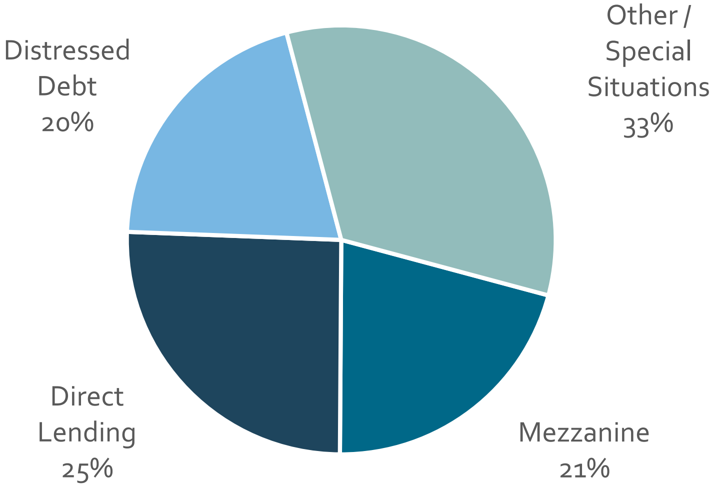
$125 million
Direct Lending

Portfolio Positioning: Private Credit

Industry
as a % of Portfolio Company MV at March 31, 2017



Strategy
Market Value plus Unfunded Commitments



Performance Snapshot: Special Opportunities

Portfolio Performance

($ in millions)	Vintage Year	Capital Called	Capital Dist.	Current Value[1]	Net IRR	Multiple-of-Money
American Homes for Rent II	2013	$161	$30	$166	10.5%	1.2x
Athyrium Opportunities Fund III	2016	$2	$0	$2	NM	1.0x
Total Private Credit		**$164**	**$30**	**$169**	**10.5%**	**1.2x**
12 months ago		*$161*	*$24*	*$165*	*11.7%*	*1.2x*

- The table summarizes performance for the special growth opportunities portfolio as of March 31, 2017
- Last twelve months activity through June 30, 2017 includes:
  - New Commitments: $25 million
  - Capital Calls: $3 million
  - Distributions: $7 million

FY 2017 Commitments

ATHYRIUM

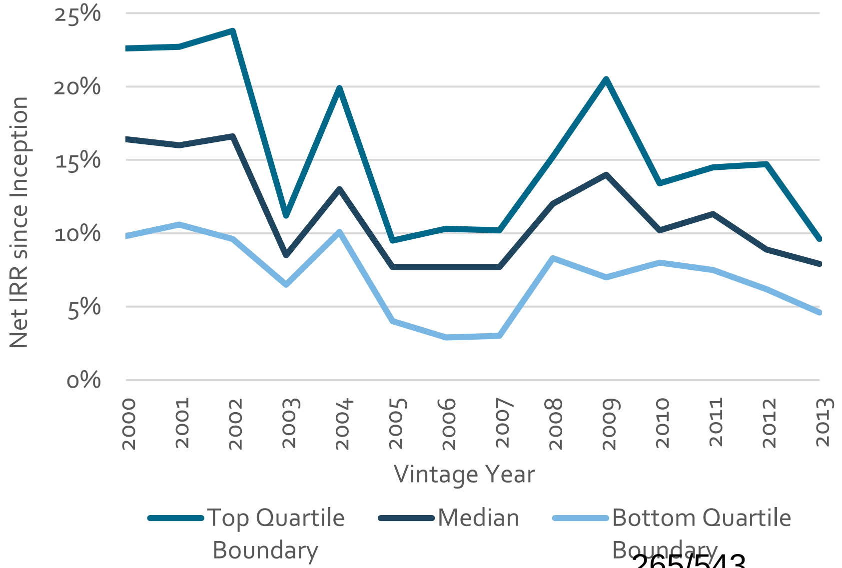
$25 million

Commercial-Stage Healthcare Lending

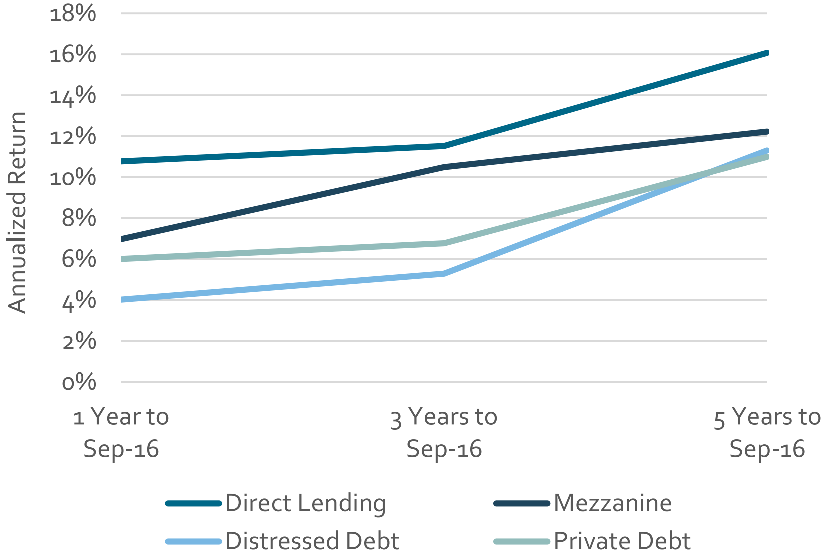
(1) Current Value represents latest NAV (as of 3/31/17) adjusted for cash flows through 6/30/17

Market Update: Private Credit

Median Net IRRs and Quartile Boundaries by Vintage Year



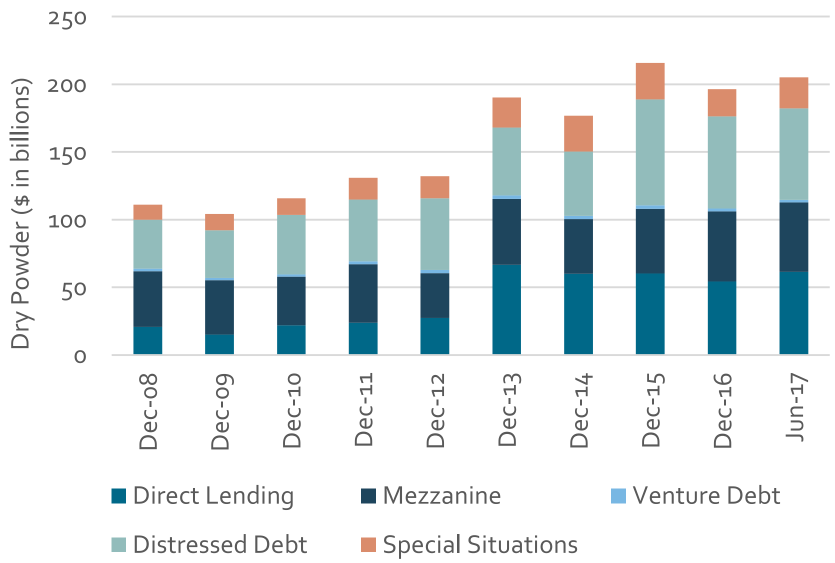
Horizon IRRs by Fund Type



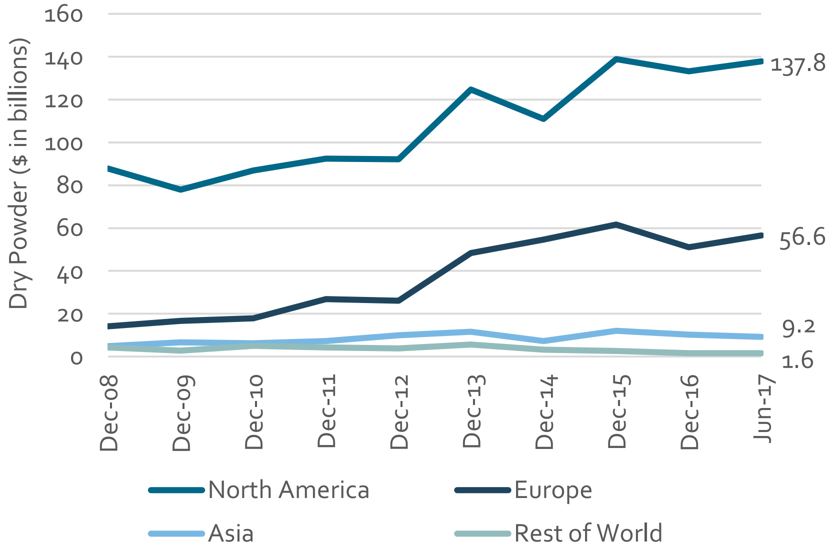
Source: Preqin

Market Update: Private Credit

Dry Powder by Fund



Dry Powder by Primary Geographic Focus



Source: Preqin

Outlook and Initiatives

Outlook

- Private credit has rapidly matured over the last 10 years, with AUM increasing four-fold from $147 billion in 2006 to $606 billion in 2016, driven by healthy supply and demand
- Investors have been drawn to private credit by capital distributions, and returns that have kept pace with private equity; private debt median IRRs for 2008-2010 vintage years of 10.4%, 9.5% and 10.4% compared to 10.7%, 13% and 9.5% for private equity
- Dry powder of $205 billion is near record levels, but the majority remains available for distressed and special situations
- The opportunity set for direct lending remains strong, as the driving factors of refinancings, underlying business growth, continued PE activity and bank retrenchment continue
- While activity levels in private credit have garnered some attention recently, staff remains focused on opportunities that provide downside protection

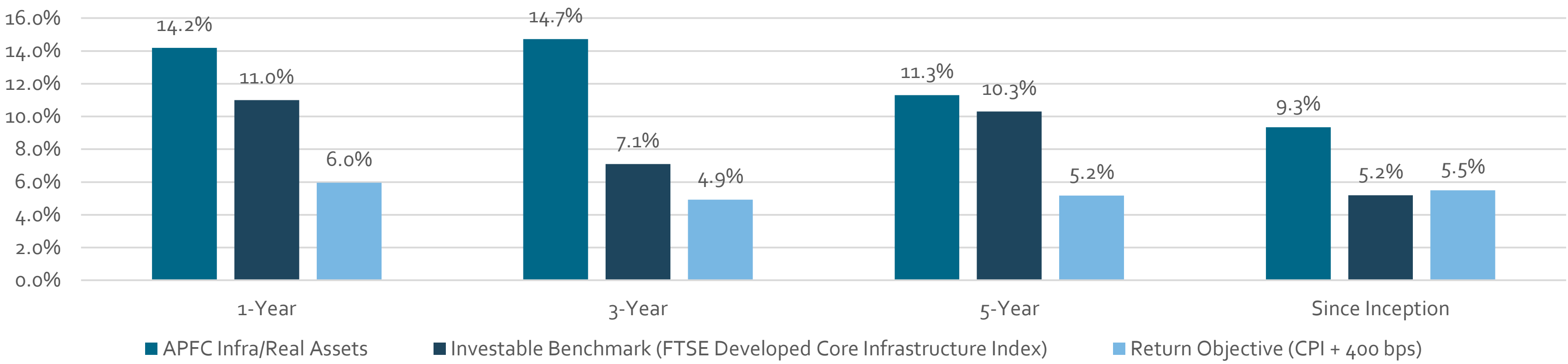
Initiatives

- In FY 2016 the APFC completed the transition away from a manager-of-managers program in private credit
- Annual fee savings of ~$2 million net of minimal incremental staffing costs at APFC
- The APFC Staff Direct portfolio in private credit, while still early in it's deployment, has returned 13.7% since inception, compared to 6.4% for the legacy manager-of-managers program
- Staff is still focused on opportunities where the APFC's capital is structurally protected and well covered by cash flows and asset value (e.g., senior direct lending) and potentially countercyclical strategies (e.g., distressed debt / special situations)
- Staff is considering opportunities globally, but has continued to find a surplus of attractive private credit in North America


Infrastructure &
Other Real Assets

Summary Infrastructure/Real Assets Returns

Significant Outperformance versus Benchmarks (as of March 31 NAV's and Benchmark Values)



Consistent Returns & Downside Protection

- Zero negative return / down quarters since 2012 on Infrastructure & Other Real Assets Portfolio
- Out of ~70 underlying asset / project investments only one realized loss on an underlying investment in the history of the program (zero on investments consummated by current Staff)
- Underlying assets have provided consistent yield profile with minimal correlation to other APFC investments

Performance Snapshot

- Since Inception-IRR (net) at 6/30/17 of 9.3% (vs. 8.6% 12-months ago)
- Last 12 Months New Commitments: $525 million
  - $75 million fund commitment to Actis Energy IV
  - $250 million fund commitment to CIM Infrastructure II
  - $100 million direct co-investment into Gas Natural SA
  - $20 million follow-on investment into container terminal portfolio company Terminal Investments Ltd.
  - $80 million fund commitment to Meridiam North America III

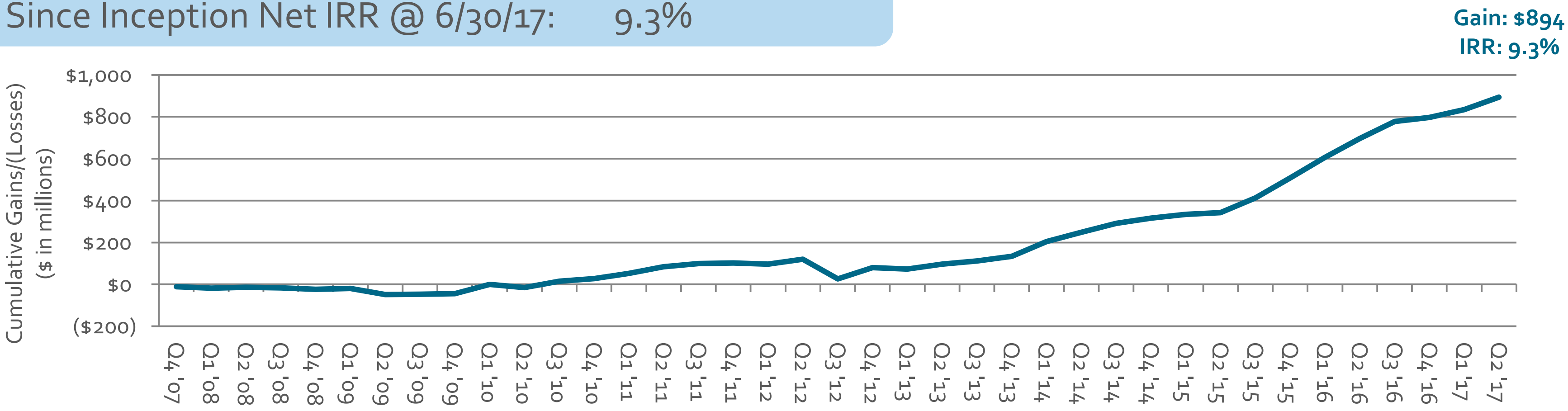
Portfolio Performance

($ in millions)	Vintage Year	Capital Committed	Capital Called	Distributions	Current Value	Net IRR	Multiple-of-Money
Pre-2012 Funds	2007-11	$1,700	$1,563	$1,039	$1,236	8.8%	1.46x
2012 and Newer Funds	2012-17	$1,433	483	119	410	8.0%	1.10x
Total Fund Investments		$3,133	$2,046	$1,158	$1,646	8.7%	1.37x
Direct Investments	2013-17	$251	$210	$2	$246	13.1%	1.19x
Listed Infrastructure	2013	$300	$300	$397	$0	10.6%	1.32x
Total Infra & Other Real Assets		**$3,684**	**$2,555**	**$1,557**	**$1,892**	**9.3%**	**1.35x**
12-Months Ago		*$3,159*	*$2,070*	*$959*	*$1,806*	*8.6%*	*1.34x*
Total (Excl. Citi Infra Investment)		**$3,184**	**$2,110**	**$1,452**	**$1,649**	**14.3%**	**1.47x**

- Last 12 Months Capital Calls: $485 million / Last 12 Months Distributions: $201 million
- Since Inception IRR improves to 14.3% when excluding underperforming Citi Infrastructure investment (first investment for the program and largest investment for the program, done back in 2006 before current Staff managed the program)

Infrastructure/Other Real Assets Performance

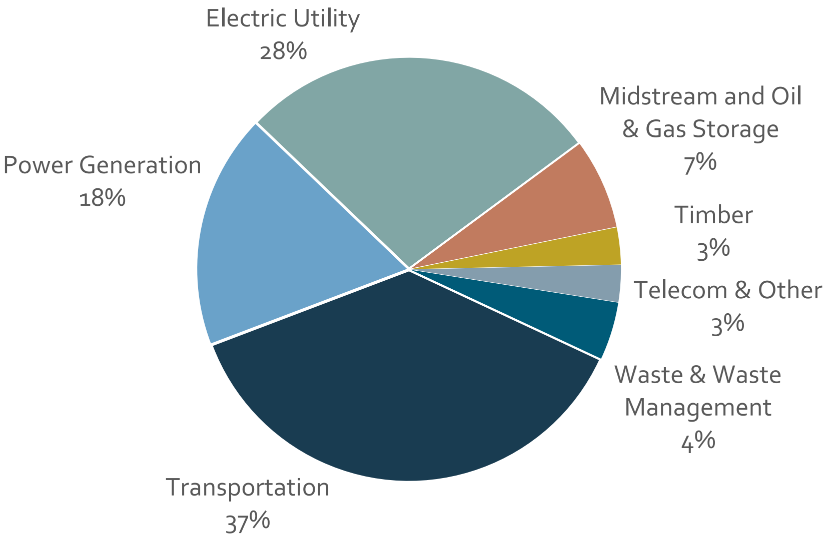
Cumulative Program Gains: $894 million
Since Inception Net IRR @ 6/30/17: 9.3%



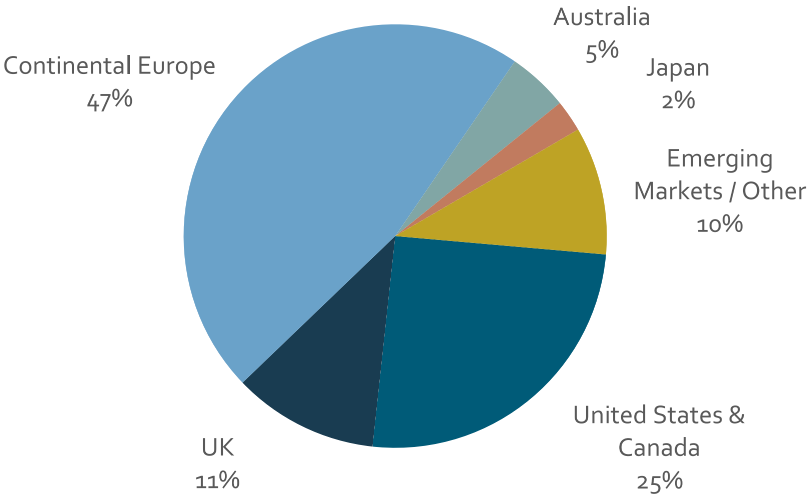
Since Inception Net IRR @ Calendar Year-End: 2.4% 3.7% 6.0% 7.3% 8.8%

Portfolio Positioning

Sector Mix



Geographic Mix

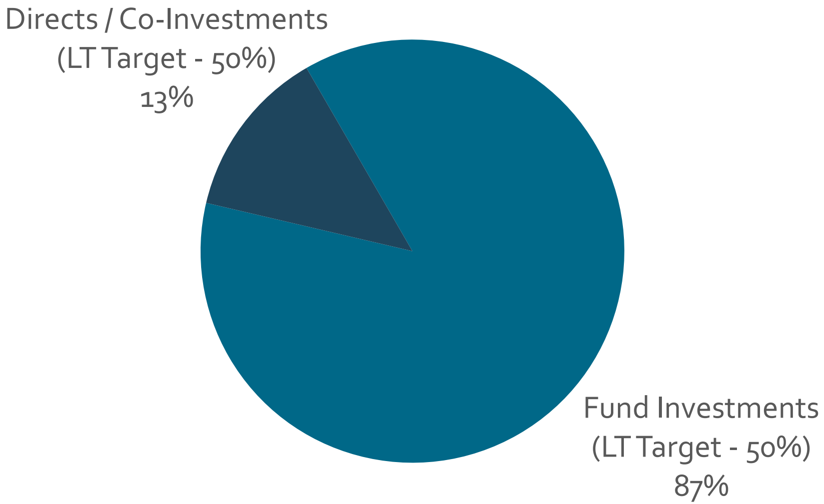


Portfolio Positioning

Key Assets (~75% of Portfolio)

Asset	Sponsor	Sector
1. Gas Natural, SA	GIP & Direct	Utility
2. Redexis Gas	Goldman Sachs	Utility
3. TIL Group	GIP & Direct	Ports
4. Gatwick Airport	GIP	Airport
5. DONG Energy	Goldman Sachs	Power
6. Kelda Holdings	Citigroup	Utility
7. Elenia	Goldman Sachs	Utility
8. Red de Carreteras de Occidente	Goldman Sachs	Toll Road
9. Edinburgh Airport	GIP	Airport
10. Twin Creeks Timber, LLC	Direct	Timber

Direct vs. Fund Investment



Outlook and Initiatives

Outlook

- Expect continued growth in target allocations from pension plans and other institutional investors based on strong asset class returns and hunt for yield in the market
- Trump Infrastructure agenda has failed to materialize thus far; actionable US infrastructure opportunities remain largely private sector derived (in contrast to Europe and Emerging Markets)
- Expect larger institutional investors to continue trend of "going direct", especially for marquee core infrastructure assets
- Increasing interest rates could present a headwind (especially to listed infrastructure/utilities); APFC focused on projects with strong downside protection and return drivers not entirely linked to contracted / interest rate sensitive return streams

Initiatives

- APFC continues to be focused on reducing fee profile and enhancing control through co-investments and direct investments (~50% of recent investments are now directs/co-investments; goal of ~50% invested capital in directs/co-investments will take time to achieve but is on the longer-term list of goals)
- APFC Staff tracking on several compelling direct opportunities, which could make up a meaningful portion of our FY 2018 deployment in the asset class
- On a geographic basis, interested in increasing North American exposures
- Also prioritizing certain targeted high-growth Emerging Markets regions (Continental Europe remains large unintentional overweight in portfolio)

Asset Allocation Memo

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

SUBJECT: Asset Allocation ACTION: _________

DATE: 9/27/2017 INFORMATION: ____X____

BACKGROUND:
The Board's policy with regard to the strategic asset allocation is to optimize expected return versus expected risk over a long term horizon. Nonetheless, it is the Board's practice to formally evaluate its asset allocation policy at least once per year taking into account recommendations from advisors, consultants and staff.

The current policy, adopted in December 2016, based on the Fund's risk framework includes targets for 7 major categories for FY2017 to FY2021. As of June 30, 2017 current category targets are: Public Equities 40%, Fixed Income Plus 22%,, Private Equity and Special Growth 11%, Real Estate 11%, Infrastructure and Special Income 5%, Absolute Return 5% and Asset Allocation Strategies 6%.

There is significant potential for the State of Alaska to pass important new legislation concerning future cash draws from the Permanent Fund Earnings Reserve account beginning in fiscal year 2019. Such legislation has the potential to materially influence both the prevailing asset allocation for the Permanent Fund as well as what constitutes prudent management for the Fund going forward. Staff expects to fully incorporate all implications of legislation for its asset allocation recommendations in the event of a plan is approved or draws commence.

STATUS:
At this board meeting, the general consultant will give their market projections followed by staff update on how these projections reflect into APFC's current target asset allocation.

Given projections of expected risk and return and no legislation passed, consultant and staff are not proposing changes to the asset allocation under this board item.

a) Presentation: Asset Allocation

APFC ALASKA PERMANENT FUND CORPORATION

Asset Allocation Discussion

Capital Market Projections and Asset Allocation Framework

September 2017

Outline

- Discussion of Callan's capital market projections and process
  - Public market projections
  - Private market projections
- Projected returns and standard deviations for current policy

Callan's Capital Market Projection Process

- Annual process to update 10-Year projections
  - Evaluate current environment and economic outlook
  - Examine relations between economy and historical asset class performance
  - Create 10-year risk, return, and correlation projections
  - Test projections for reasonable results
- Cover most broad asset classes and inflation
  - Broad domestic equity and international equity
  - Domestic fixed income and international fixed income
  - Real estate
  - Alternative investments (private equity, infrastructure, hedge funds)
  - Cash
  - Inflation
- Incorporates both advanced quantitative modeling as well as qualitative feedback and expertise of Callan consulting professionals

Projected Return, Standard Deviation, and Yield

Asset Class	Performance Index	Target Weight	1-Year Arithmetic	10-Year Geometric*	Standard Deviation	Projected Yield
Public Equities			**8.50%**	**7.00%**	**18.55%**	**2.60%**
Global Equity	MSCI ACWI - IMI	100.0%	8.50%	7.00%	18.55%	2.60%
Fixed Income Plus			**4.05%**	**4.00%**	**4.95%**	**3.60%**
Money Markets	90-Day T-Bill	5.0%	2.25%	2.25%	0.90%	2.25%
TIPS	Barclays TIPS	5.0%	3.10%	3.00%	5.25%	3.30%
US Fixed Income	Barclays Aggregate	25.0%	3.05%	3.00%	3.75%	3.45%
US Investment Grade Credit	Barclays Credit	25.0%	3.65%	3.55%	5.05%	4.00%
Non-US Fixed Income	Barclays Global Aggregate ex US	10.0%	1.80%	1.40%	9.20%	1.90%
Emerging Market Debt	Barclays EMD Hard Currency Agg	5.0%	4.85%	4.50%	9.60%	4.90%
Global High Yield	Barclays Global High Yield	10.0%	5.20%	4.75%	10.35%	5.40%
Global REITs	S&P Global REIT	10.0%	8.25%	6.40%	20.30%	2.95%
Global Listed Infrastructure	S&P Global Listed Infrastructure	5.0%	6.90%	5.80%	15.90%	3.45%
Private Equity/Growth Opps			**10.60%**	**8.50%**	**22.00%**	**0.00%**
Private Equity	Cambridge Private Equity	100.0%	10.60%	8.50%	22.00%	0.00%
Private Real Estate			**6.70%**	**5.95%**	**13.50%**	**4.75%**
Real Estate	NCREIF Total Index	100.0%	6.70%	5.95%	13.50%	4.75%
Private Infra/Credit/Income Opps			**6.65%**	**5.75%**	**14.50%**	**5.40%**
Private Infrastructure	FTSE Global Listed Infrastructure	60.0%	6.45%	5.70%	13.30%	4.80%
Private Credit	Barclays Global High Yield	40.0%	6.95%	5.75%	17.20%	6.25%
Absolute Return			**5.35%**	**5.05%**	**9.15%**	**0.00%**
Hedge Funds	HFRI Total HFOF Universe	100.0%	5.35%	5.05%	9.15%	0.00%
Asset Allocation			**5.50%**	**5.10%**	**9.60%**	**2.75%**
Cash Equivalents	90-Day T-Bill	33.0%	2.25%	2.25%	0.90%	2.25%
Multi Asset Class/ECIO	APFC Total Fund Target	67.0%	7.10%	6.50%	12.35%	3.00%
Inflation	CPI-U			2.25%	1.50%	

Source: Callan

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	-0.035	**1.000**													
US TIPS	-0.048	0.070	**1.000**												
US Fixed Income	-0.120	0.100	0.600	**1.000**											
US Investment Grade Credit	0.305	-0.081	0.404	0.688	**1.000**										
Non US Fixed Income	0.028	-0.090	0.340	0.510	0.447	**1.000**									
Emerging Market Debt	0.591	-0.070	0.180	0.100	0.254	0.010	**1.000**								
Global High Yield	0.650	-0.110	0.060	0.020	0.373	0.120	0.600	**1.000**							
Global REITS	0.857	-0.072	-0.059	-0.115	0.299	-0.067	0.541	0.598	**1.000**						
Global Listed Infrastructure	0.806	-0.068	-0.056	-0.108	0.265	-0.063	0.508	0.562	0.773	**1.000**					
Private Equity	0.743	-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	0.438	-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	0.803	-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	-0.003	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**

Source: Callan

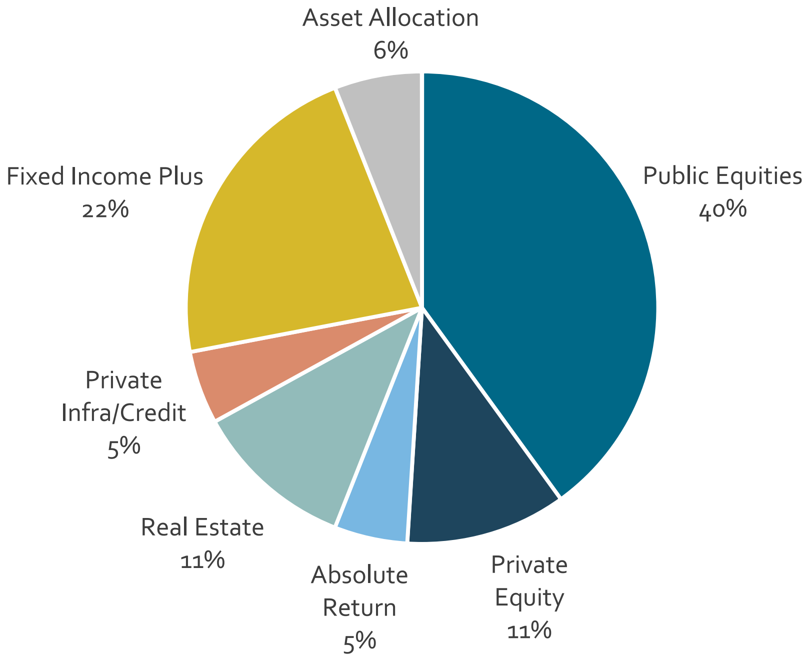
Projections

- 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 overtime
- 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 2017 Target Asset Allocation

- Total Fund target expected 10-year return declined by approximately 45 basis points relative to 2016 projection
- Decrease was primarily due to a decrease in Callan's 10-year outlook for the global equity markets
- This was accompanied by a projected decrease in credit spreads for fixed income markets
- Projected risk remains approximately the same as last year
- Median expected 10-year real return (in excess of inflation) is roughly 4.25%

2017 Total Fund Target

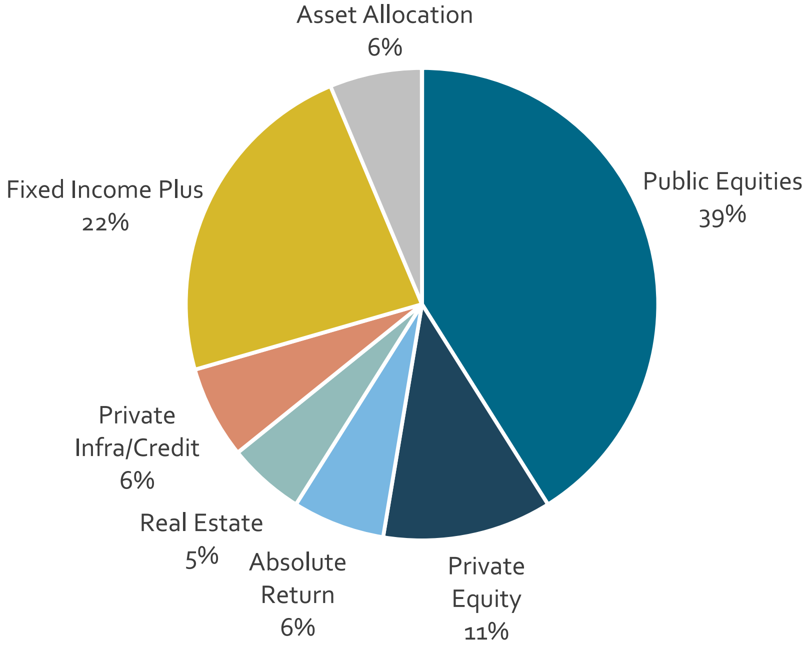


Expected 10-year Geometric Return: 6.52%
Expected Standard Deviation: 12.33%
Expected Inflation: 2.25%

APFC 2018 Target Asset Allocation

- Total Fund target expected 10-year return declines by approximately 2 basis points relative to 2017 target
- Decrease is due to the 1% move from equities to private credit and infrastructure
- Projected standard deviation declines by roughly 14 basis points due to this shift
- Expected real return for this mix is 4.25% annualized
- APFC's experience with private market programs has delivered higher than projected returns over the long term potentially adding 50 basis points to the projected annualized return

2018 Total Fund Target

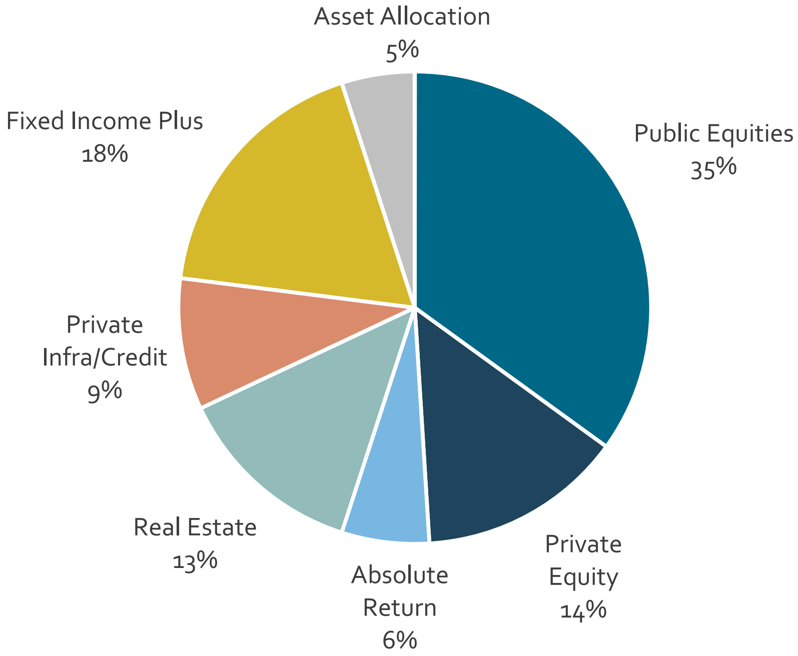


Expected 10-year Geometric Return: 6.50%
Expected Standard Deviation: 12.19%
Expected Inflation: 2.25%

APFC 2021 Target Asset Allocation

- At the end of the 5 year implementation the target will include roughly 40% of the portfolio allocated to illiquid asset classes
- This increases the expected return relative to the current target by roughly 15 basis points, and increases the projected standard deviation by 5 basis points
- Expected real return of this mix is 4.38% annualized
- As indicated previously, APFC's private market programs may potentially add 50 basis points to the projected annualized return

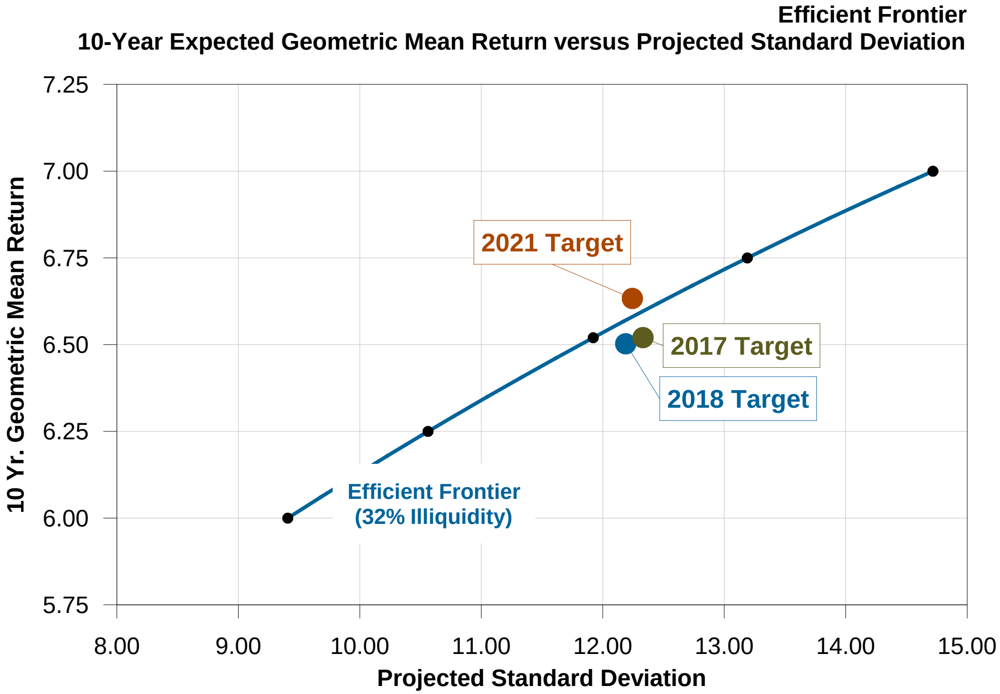
2021 Total Fund Target



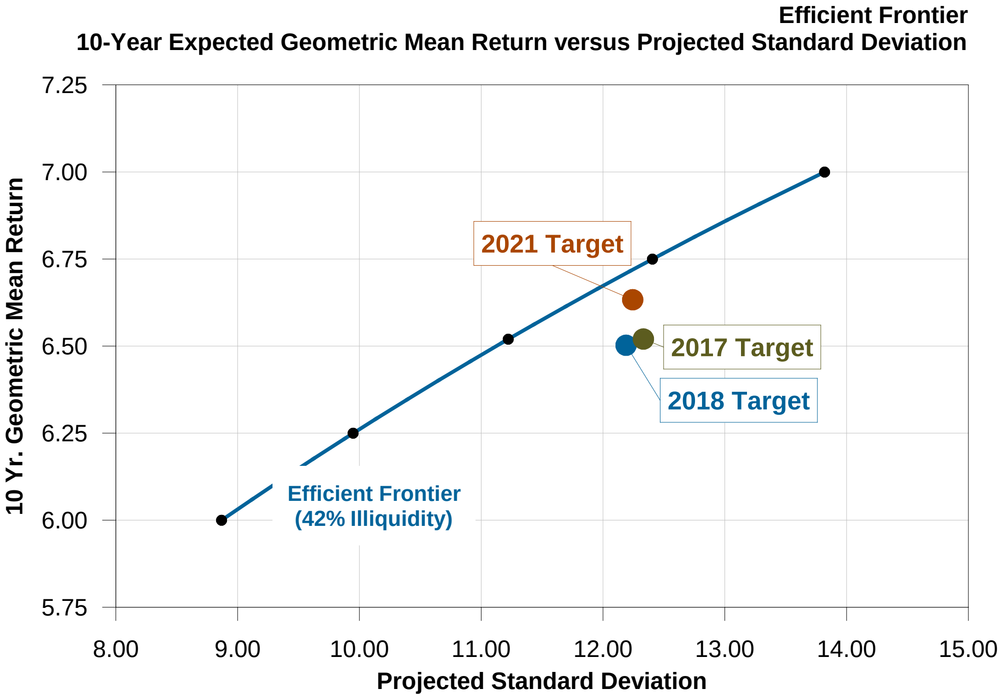
Expected 10-year Geometric Return: 6.63%
Expected Standard Deviation: 12.24%
Expected Inflation: 2.25%

Constrained Efficient Frontier Analysis 32% Private Assets

- This efficient frontier is constrained to limit the allocation to private assets to a total of 32% of portfolio
- The target allocation of roughly 3% to cash equivalents is the primary reason that the 2017 and 2018 target mixes plot below this constrained frontier
- The 2021 target will have 42% allocated to the illiquid categories and thus rests well above this constrained frontier



Constrained Efficient Frontier Analysis 42% Private Assets



- This efficient frontier is constrained to limit the allocation to private assets to a total of 42% of portfolio
- The 2021 target will have 42% allocated to the illiquid categories and thus rests much closer to this constrained frontier
- The target allocation of roughly 3% to cash equivalents remains in the 2021 target (albeit reduced slightly) which is the primary reason that it plots below this constrained frontier

Summary

- Staff is not proposing any changes to allocation approved by the Board in December 2016
- Modification may be made once we have more guidance on legislative decisions in FY2018
- Callan has revised its 10-year outlook which resulted in a decrease in projected returns for global equity markets and credit spread for fixed income markets
- Projected risk remains similar to last year's projections
- Current Fund targets result in a 4.25% annualized real return with a 12.19% expected risk
- Targets for FY2021 increases that return to 4.38% and risk of 12.24%
- APFC's experience with private market programs has delivered higher than projected returns over the long term potentially adding 50 basis points to the projected annualized return

Investment Performance: Metrics and Standards Memo

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

SUBJECT: Performance Metrics & Standards ACTION: X

DATE: September 27, 2017 INFORMATION: ____________

BACKGROUND:

In order to fulfill our Strategic Plan Goal of developing and fully implementing best in class asset class investment capabilities able to produce target long term real returns by the end of FY2021, APFC has taken a comprehensive review of its performance metrics & standards. It is important to the continued success of the fund that we measure and adjust our portfolio as necessary and maintain the ability to recognize shifts in the overall market environment.

STATUS:

We have identified and recommend four areas for discussion, review and affirmation by the APFC Board.

a. Reducing the Fund's long-term investment return benchmark by 0.5% to CPI+4.5%;

b. Introducing a Fund and Asset Class Investment Performance Scorecard;

c. Establishing Real Assets (& Income Opportunities) as a broad investment Category comprised of Real Estate, Infrastructure, Private Credit, and Special Income Opportunities; and

d. Instituting a 1-quarter lag for the reporting of APFC's private market investments beginning with fiscal year 2018.

RECOMMENDATION:

Staff recommends the Board of Trustees:

a. Implement a Fund and Asset Class Investment Performance Scorecard; and

b. Institute a 1-quarter lag for the reporting of APFC's private market investments beginning with fiscal year 2018.

The proposed investment policy under a separate agenda item incorporates the recommended changes in asset classes and the long-term investment benchmark.

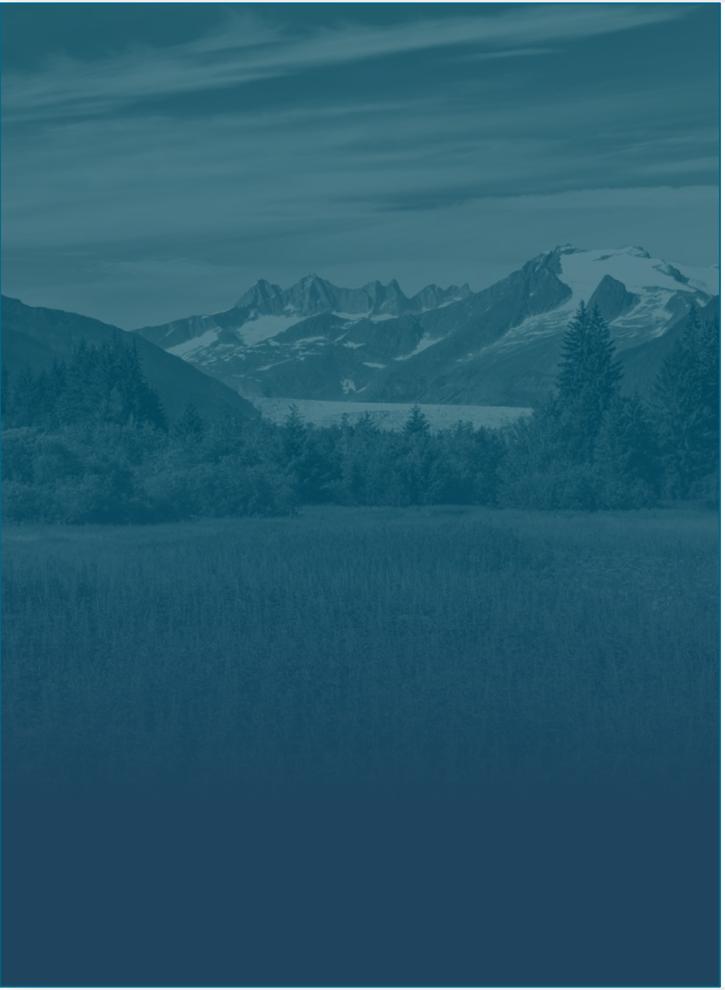
Proposed Motion:
"I move that the Board adopt and Staff begin implementation of an Annual Fund and Asset Class Investment Performance Scorecard along with instituting a 1 quarter lag for reporting of APFC's private market investments, beginning with fiscal year 2018."

a)Investment Performance: Metrics and Standards Presentation

APFC ALASKA PERMANENT FUND CORPORATION

Performance Metrics & Standards

APFC Board Meeting (September 27, 2017)



Discussion Topics on Performance Metrics

I. Adjustment of Long-Term Expected Returns to CPI+4.5% (from CPI+5%)

II. Establishing an APFC Performance Report Card

III. Creation of the Real Assets Category

IV. Introducing a 1-Qtr Lag into APFC's Private Market Investment Performance Calculations beginning with Fiscal Year 2018

- INVESTMENT PERFORMANCE DATA IS ILLUSTRATIVE AND UNAUDITED IN THIS PRESENTATION

I. Adjustment of Long-Term Expected Returns to CPI+4.5% (from CPI+5%)

- Reflects the combination of
  - Exceptional recent returns in global stock markets
  - Persistence of low interest rates globally
  - Shifting of global growth towards emerging markets (with less developed investment opportunities)
- 0.5% (50 bps) reduction recommended by Callan across its client base of institutional investors

- INVESTMENT PERFORMANCE DATA IS ILLUSTRATIVE AND UNAUDITED IN THIS PRESENTATION

APFC Staff Supports Callan's Recommendation

- Reduction of long-term expected returns is a natural result of changes in market conditions and an extraordinary run-up in equity prices
- Change in long-term return expectations will not materially alter APFC's recommended asset allocation and trajectory
- Long-Term Investment efficiency target remains unchanged: Sharpe Ratio= $(\text{Return-}R_f)/\sigma > 0.5$

- INVESTMENT PERFORMANCE DATA IS ILLUSTRATIVE AND UNAUDITED IN THIS PRESENTATION

Changes in Long-Term Return Targets by Asset Class ("Growth" investments affected)

- Public Equities: CPI+5 ¼ %+ ➔ CPI+4 ½ %+ (-75bps)
- Fixed-Income Plus: CPI+2%+ ➔ CPI+2%+
- Private Equity: CPI+7%+ ➔ CPI+6%+ (-100bps)
- Real Assets: CPI+4%+ ➔ CPI+4 ½ %+ (Recommend to increase by 50 bps)
- Absolute Return Funds: CPI+5% ➔ CPI+4 ½ %+ (-50 bps)

- INVESTMENT PERFORMANCE DATA IS ILLUSTRATIVE AND UNAUDITED IN THIS PRESENTATION

Key Implications of Reducing Fund Return Expectation

- Reduces the expected maximum sustainable distribution level by 0.5% but on a higher total asset base than in previous years
- As of year-end Permanent Fund Assets of approximately $60 billion, 4.5% ➔ $2.7 billion
- Relates to an approximate 5.0% (max POMV) distribution when looking at previous 6 years

- INVESTMENT PERFORMANCE DATA IS ILLUSTRATIVE AND UNAUDITED IN THIS PRESENTATION

II. Establishing an APFC Performance Report Card

- Aligns the focus of the investment program with the objectives of the overall Plan
- Provides the incentive structure for aligning the efforts of the APFC staff with Plan success
- Clarifies and focuses APFC's board discussions on the key elements for organizational effectiveness

- INVESTMENT PERFORMANCE DATA IS ILLUSTRATIVE AND UNAUDITED IN THIS PRESENTATION

Three Proposed Standards for APFC's Overall Investment Success

- Long-Term (5-yr): Actuarial Progress (CPI+4.5%⁺) & Investment Efficiency (Sharpe Ratio > 0.5) [Both measures are essential]
- Medium-Term (3-yr): Outperform Peers
- Short-Term (1-yr): Outperform Indexes
- Proposed Report Card: Average %ile of all 3 measures, Plan %ile=(LT %iles + MT %ile + ST %ile) / 3

Alaska Permanent Fund Performance—Overall Percentile Metrics				
	APFC	Benchmark	Spread (stdev)	%ile-Calculation
Long-Term (LT)	5-year Return, Sharpe Ratio	CPI+4.5% & SR>.5	5-yr Peer Vol, .25	Implied %ile (avg)
Medium-Term (MT)	3-year Return	US Public Funds	3-yr Peer Vol	%ile among Peers
Short-Term (ST)	1-yr Return	Index Composite	1-yr Peer Vol	Implied %ile
Composite				AVG(LTs, MT, ST)

- INVESTMENT PERFORMANCE DATA IS ILLUSTRATIVE AND UNAUDITED IN THIS PRESENTATION

Fund 2017 Report Card

- Long-Term (Actuarial, 5-yr): 8.97% (9.3%ile), SR=.65 (27.4%ile)
  - Return versus CPI+5% target (6.32%), 2% σ among peers (=1-normsdist((8.97-6.32)/2)); 5.5%ile if CPI+4 ½ % target
  - Sharpe Ratio versus target of 0.5, σ=0.25
- Medium-Term (3-yr): 6.24% (15%ile versus peers)
- Short-Term (1-yr): 12.75% (10.6%ile)
  - Versus 10.25% performance benchmark, 2% σ
- Report Card as of Fiscal Year-End 2017: 14.7%ile overall
- Connotes top-quartile performance for all 3 investment periods

- INVESTMENT PERFORMANCE DATA IS ILLUSTRATIVE AND UNAUDITED IN THIS PRESENTATION

Success in Each Asset Class Measured by Target Contributions to Overall Fund Success

- Each asset class has long-, medium-, and short-term objectives
- Importance of each time horizon varies by asset class
- Asset class composite returns will need to be computed historically (5-yrs) for all asset classes

- INVESTMENT PERFORMANCE DATA IS ILLUSTRATIVE AND UNAUDITED IN THIS PRESENTATION

Asset Class Decomposition of Fund Targets

Evaluative Standards for APFC Asset Classes/Categories (and % importance)			
	Long-Term (5-yr)	Medium-Term (3-yr)	Short-Term (1-yr)
Public Equities	CPI+4.5%$^+$ & SR>0.5 (20%)	Public Fund Stock Peers (40%)	ACWI-IMI (40%)
Fixed-Income-Plus	CPI+2%$^+$ & SR>0.5 (20%)	Public Fund Fixed-Income Peers (40%)	FI-Plus Index Composite (40%)
Private Equity (& Spec)	CPI+6%$^+$ & SR>1.0 (40%)	Callan PE Index (40%)	Callan PE Index (20%)
Real Assets (real estate, infrastructure, private credit, special income opportunities)	CPI+4.5%$^+$ & SR>1.0 (40%)	Callan Real Asset Indexes (40%)	Callan Real Asset Indexes (20%)
Absolute Return Strats	CPI+4.5%$^+$ & SR>0.5 (1/3)	HFRI FOFs (1/3)	HFRI FOFs (1/3)
eCIOs & Liquid St+Bnd	CPI+4.5%$^+$ & SR>0.5 (1/3)	Public Fund Peers (1/3)	Fund Index Composite (1/3)

- INVESTMENT PERFORMANCE DATA IS ILLUSTRATIVE AND UNAUDITED IN THIS PRESENTATION

Public Equities 2017 Report Card

- Long-Term (5-yr): 10.56% (15.9%ile) & SR=.70 (34.5%ile) (20% weight)
- Versus 6.57% (CPI+5.25%), σ=4%, (11.8%ile if target if CPI+4.5%+)
- Sharpe Ratio versus target of 0.5, σ=0.5
- Medium-Term (3-yr): 4.54%, 56.6%ile vs peers (40% weight)
- Peer proxy: ACWI Return of 4.87%, σ=2%
- Short-Term (1-yr): 20.52%, 22.5%ile (40% weight)
- Versus 19.01% ACWI IMI, σ=2%
- Overall Score for Public Equities: 36.7%ile

- INVESTMENT PERFORMANCE DATA IS ILLUSTRATIVE AND UNAUDITED IN THIS PRESENTATION

Fixed-Income-Plus 2017 Report Card

- Long-Term (5-yr): 4.16% (20.0%ile) & SR=1, (15.9%ile) (20% weight)
- Return versus 3.32% (CPI+2%), σ=1%
- Sharpe Ratio versus target of 0.5, σ=0.5
- Medium-Term (3-yr): 3.12%, 50%ile vs peers (40% weight)
- Short-Term (1-yr): 3.31%, 1.2%ile (40% weight)
- Versus fixed-income-plus composite benchmark 2.18%, σ=0.5%)
- Overall Score for Fixed-Income-Plus: 24.1%ile

- INVESTMENT PERFORMANCE DATA IS ILLUSTRATIVE AND UNAUDITED IN THIS PRESENTATION

Private Equity (& Growth Ops) 2017 Report Card

- Long Term (5-yr): 18.2% (0.7%ile) & SR=2.0 (15.9%ile) (40% weight)
- Return versus 8.32% (CPI+7%), σ=4 (1.0%ile if CPI+6%)
- Sharpe Ratio versus target of 1.0, σ=1.0
- Medium-Term (3-yr): 17.2%, 10%ile vs peers (40% weight)
- Short-Term (1-yr): 18.1%, 14.7%ile (20% weight)
- Versus 16.0% Cambridge PE, σ=2%
- Overall Score for Private Equity: 11.7%ile

Real Estate 2017 Report Card

- Long Term (5-yr): 10.33% (13.0%ile) & SR=1.5 (30.9%ile) (40% weight)
- Return versus 5.82% (CPI+4.5%), σ=4%
- Sharpe Ratio versus target of 1.0, σ=1.0
- Medium Term (3-yr): 9.51%, 62.9%ile vs peers (40% weight)
- Peer Proxy: 10.17% NCREIF, σ=2
- Short Term (1-yr): 6.73%, 54.8%ile (20% weight)
- Versus 6.97% NCREIF, σ=2%
- Overall Score for Real Estate: 44.9%ile

- INVESTMENT PERFORMANCE DATA IS ILLUSTRATIVE AND UNAUDITED IN THIS PRESENTATION

Infrastructure (PrivCredit+Inc Ops) 2017 Report Card

- Long Term (5-yr): 11.29% (9.9%ile) & SR=2.0 (15.9%ile) (40% weight)
- Return versus 5.82% (CPI+4.5%), σ=4%
- Sharpe Ratio versus target of 1.0, σ=1.0
- Medium Term (3-yr): 10.81%, 8.0%ile vs peers (40% weight)
- Peer Proxy: 5.20% Composite Benchmark, σ=4%
- Short-Term (1-yr): 9.02%, 68.0%ile (20% weight)
- Versus 10.89% Composite Benchmark, σ=4%
- Overall Score for Infrastructure Plus: 22.0%ile

- INVESTMENT PERFORMANCE DATA IS ILLUSTRATIVE AND UNAUDITED IN THIS PRESENTATION

Absolute Return Strategies 2017 Report Card

- Long Term (5-yr): 3.61% (90.8%ile) & SR=0.4 (57.9%ile) (1/3 weight)
- Return versus 6.32% (CPI+5%), σ=2%
- Sharpe Ratio versus target of 0.5, σ=0.5
- Medium Term (3-yr): 1.89%, 75%ile vs peers (1/3 weight)
- Short Term (1-yr): 7.22%, 30.7%ile (1/3 weight)
- Versus 6.21% HFRI FOF, σ=2%
- Overall Score for Absolute Returns: 60.0%ile

- INVESTMENT PERFORMANCE DATA IS ILLUSTRATIVE AND UNAUDITED IN THIS PRESENTATION

eCIOs 2017 Report Card

- Long Term (5-yr): 5.55% (65.0%ile) & SR=0.75 (30.9%ile) (1/3 weight)
- Return versus 6.32% (CPI+5%), σ=2%
- Sharpe Ratio versus target of 0.5, σ=0.5
- Medium Term (3-yr): 3.97%, 59.9%ile vs peers (1/3 weight)
- Peer Proxy: HFRI 4.47%, σ=2%
- Short Term (1-yr): 7.78%, 89.2%ile (1/3 weight)
- Versus 10.25% eCIO Benchmark, σ=2%
- Overall Score for eCIO Program: 65.7%ile

- INVESTMENT PERFORMANCE DATA IS ILLUSTRATIVE AND UNAUDITED IN THIS PRESENTATION

2017 Performance Report Card (Constituents) (Investment Returns and Percentiles)

2017 Returns and Percentile Rankings by Asset Class and Overall (with period weights)				
	Long-Term (5-yr)—Actuarial & Investment Efficiency	Medium-Term (3-yr)—Competitive versus Peers	Short-Term (1-yr)—Versus Index Benchmarks	Composite Objectives
Public Equities	10.56%, 10.6%ile & SR=0.7, 34.5%ile (20% weight)	4.54%, 56.6%ile (40% weight)	20.52%, 22.5%ile (40% weight)	**36.7%ile**
Fixed-Income-Plus	4.16%, 20.0%ile & SR=1, 15.9%ile (20% weight)	3.12%, 50%ile (40% weight)	3.31%, 1.2%ile (40% weight)	**24.1%ile**
Private Equity (& Special Growth Opportunities)	18.2%, 0.6%ile & SR=2.0, 15.9%ile (40% weight)	17.2%, 10%ile (40% weight)	18.1%, 14.7%ile (20% weight)	**11.7%ile**
Real Estate	10.33%, 13.0%ile & SR=1.5, 30.9%ile (40% weight)	9.51%, 62.9%ile (40% weight)	6.73%, 54.8%ile (20% weight)	**44.9%ile**
Infrastructure (& Private Credit, Special Income Opportunities)	11.29%, 9.9%ile & SR=2.0, 15.9%ile (40% weight)	10.81%, 8.0%ile (40% weight)	9.02%, 68.0%ile (20% weight)	**22.0%ile**
Absolute Return Strategies	3.61%, 90.8%ile & SR=0.4, 57.9%ile (1/3 weight)	1.89%, 75%ile (1/3 weight)	7.22%, 30.7%ile (1/3 weight)	**60.0%ile**
eCIOs	5.55%, 65.0%ile & SR=0.75, 30.9%ile (1/3 weight)	3.97%, 59.9%ile (1/3 weight)	7.78%, 89.2%ile (1/3 weight)	**65.7%ile**
Total Fund	8.97%, 9.3%ile & SR=0.65, 27.4%ile (1/3 weight)	6.24%, 15%ile (1/3 weight)	12.75%, 10.6%ile (1/3 weight)	**14.7%ile**

- INVESTMENT PERFORMANCE DATA IS ILLUSTRATIVE AND UNAUDITED IN THIS PRESENTATION

III. Creation of the Real Assets Category

- What is it comprised of?
- Real Estate, infrastructure, Private Credit, Special Income Opportunities
- Category Benchmark: 50% real estate (NCREIF) + 50% infrastructure (FTSE Infrastructure)
- Why establish a category? (comprising some 19%+ of the Fund)
- Allow and encourage allocations between the components according to prevailing opportunities (all with the same illiquid income objectives)
- Facilitates the comparison between real assets and fixed-income (illiquidity premium)
- Has become the best practice standard at major peers (e.g. CalPERS, ARM Board)
- What are the practical implications?
- Revise green/yellow/red allocation zones and future targets to pertain to the real assets category overall rather than its specific components (policy change)
- CIO oversees the category; No change in APFC staff reporting relationships

- INVESTMENT PERFORMANCE DATA IS ILLUSTRATIVE AND UNAUDITED IN THIS PRESENTATION

IV. Introducing a 1-Qtr Lag into APFC's Private Market Investment Performance Calculations

- Problem: Current private market performance data is delayed up to 90-days past each quarter-end. Key implication is that overall fund returns and specifically many private market investment returns are underestimated each fiscal year (tens of bps).
- Proposed Solution: Beginning with Fiscal Year 2018, APFC will be pursuing investment performance reporting with Callan which will incorporate a 1-quarter performance lag for all private market investments (i.e., private equity, real estate, infrastructure, private credit, and special income and growth opportunities)
- Investment performance for 1-, 3-, and 5-year periods will reflect full performance periods for all asset classes with private market assets lagged by 1-quarter (i.e., 3-months), ensuring comparability to peers
- Investment performance will be recalculated for previous fiscal years, incorporating the lagged performance data for private market assets

- INVESTMENT PERFORMANCE DATA IS ILLUSTRATIVE AND UNAUDITED IN THIS PRESENTATION

Which Asset Class Accounts/Composites Will Be Lagged?

In order to maintain reporting consistency, all of the accounts included within the following composites will be impacted by the one-quarter lag, regardless of reporting frequency:

- Private Equity & Growth Opportunities
- Real Estate
- Infrastructure, Private Credit, and Income Opportunities
  – Including the new "Real Assets" composite, which will include both Real Estate and Infrastructure, Private Credit, and Income Opportunities

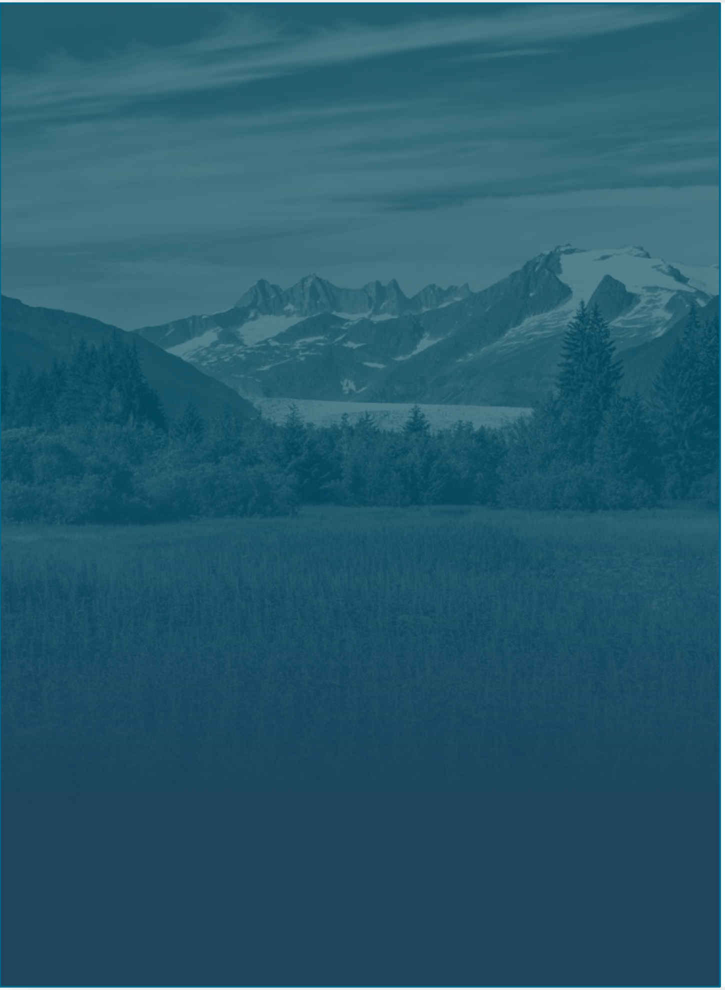
Additionally, benchmarks for these accounts and composites will also be lagged by one quarter for consistency, including the impact on the Total Fund benchmark.

- INVESTMENT PERFORMANCE DATA IS ILLUSTRATIVE AND UNAUDITED IN THIS PRESENTATION

Impact on One-Quarter Lag on Private Composites

	Fiscal Years					*Trailing Periods*				
Composite	***FY 2017***	***FY 2016***	***FY 2015***	***FY 2014***	***FY 2013***	***1 Year***	***3 Years***	***5 Years***	***7 Years***	***10 Years***
Real Estate	4.45%	12.04%	9.84%	12.36%	10.75%	4.45%	8.73%	9.85%	10.91%	5.35%
Real Estate (Lagged)	*10.03%*	*9.89%*	*11.45%*	*10.84%*	*10.30%*	*10.03%*	*10.45%*	*10.50%*	*11.24%*	*5.63%*
Private Equity	20.98%	14.32%	16.46%	24.26%	15.27%	20.98%	17.22%	18.20%	17.37%	12.17%
Private Equity (Lagged)	*14.82%*	*18.57%*	*15.68%*	*24.38%*	*15.53%*	*14.82%*	*16.35%*	*17.75%*	*17.08%*	*11.95%*
Growth Opps	14.13%					14.13%				
Growth Opps (Lagged)	*11.94%*					*11.94%*				
Infr/Priv Cred/Income Opps	9.95%					9.95%				
Infr/Priv Cred/Income Opps (Lagged)	*12.48%*					*12.48%*				
Private Infrastructure	8.55%	23.82%	11.68%	14.03%	10.29%	8.55%	14.50%	13.55%	10.06%	
Private Infrastructure (Lagged)	*14.12%*	*26.61%*	*7.56%*	*10.48%*	*-2.37%*	*14.12%*	*15.83%*	*10.88%*	*10.28%*	
Pub/Priv Credit	9.59%	2.67%	4.96%	11.83%	10.65%	9.59%	5.70%	7.88%	7.65%	6.61%
Pub/Priv Credit (Lagged)	*9.01%*	*1.75%*	*6.49%*	*10.16%*	*10.83%*	*9.01%*	*5.71%*	*7.60%*	*7.85%*	*6.31%*
Income Opps	9.52%	15.94%	-1.20%			9.52%	7.85%			
Income Opps (Lagged)	*8.56%*	*13.49%*	*-2.47%*			*8.56%*	*6.31%*			

- INVESTMENT PERFORMANCE DATA IS ILLUSTRATIVE AND UNAUDITED IN THIS PRESENTATION



Advantages of Instituting a Performance Lag for Private Market Investments

- Allows complete information to be incorporated on private market investments after each quarter-end (compared to the current delays and incompleteness we currently encounter)
- Adheres to the "best practice standard" of our largest and most sophisticated peers (e.g., CalPERS, CPPIB) who also report their official fiscal year results and interim results within 1-month of fiscal-year-end and quarter-end
- Employing a 1-qtr performance lag becomes increasingly compelling as the scale, geography, and scope of APFC's private markets programs reach critical mass
- Caveat: Introduces a non-comparability between the performance quarters of public market assets (stocks, bonds) and private market assets—Note that this non-comparability is subtle given the natural lags that are already inherent in private market investment performance

- INVESTMENT PERFORMANCE DATA IS ILLUSTRATIVE AND UNAUDITED IN THIS PRESENTATION

Topic Recap

- Callan recommends and APFC staff supports the reduction of the Fund's long-term return targets by 0.5% (50 bps) to CPI+4.5%
- Instituting a Fund and asset class report cards will provide a critical and relevant context for evaluating the effectiveness of APFC's investment programs
- Establishing "Real Assets" as an investment category comprising real estate, infrastructure, private credit, and special income opportunities will provide highly beneficial flexibility to allocate in among the most attractive prevailing opportunities among these categories
- Introducing a 1-quarter investment performance lag on private market assets will take effect beginning during fiscal year 2018, following the best practices of the largest and most sophisticated investment plans as they expand the scope and complexity of their private market investment programs

- INVESTMENT PERFORMANCE DATA IS ILLUSTRATIVE AND UNAUDITED IN THIS PRESENTATION

Strategic Plan and Investment Policy Memo

APFC ALASKA PERMANENT FUND CORPORATION
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907.796.1500 | apfc.org

SUBJECT: APFC Strategic Plan FY17-FY21 ACTION:

DATE: September 27, 2017 INFORMATION: X

BACKGROUND

In order to fulfill the guidelines set forth in our Governance Manual and to better serve the people of Alaska, APFC undertakes a comprehensive review of our Strategic Plan every three to five years. APFC's 5 Year Strategic Plan for FY17-FY21 was reviewed and approved by the Board of Trustees during the Annual Meeting in 2016.

The plan identifies four strategic priorities:

- (i) gain greater control over resource allocations;
- (ii) optimize APFC's operational processes and use of financial networks and resources;
- (iii) develop best-in-class investment management capabilities and partnerships; and
- (iv) enhance talent and staff across APFC.

Each priority is accompanied by measurable goals, objectives and strategies. Timeframes and lead responsibility are assigned for each. This provides a structure with clear measures of success and accountability.

STATUS

During the course of FY2017, APFC achieved many of the goals that had been set on each of the strategic priorities. A summary of the benchmarks met are in the attached chart.

a) Strategic Plan Review FY17-FY21 Update

5 Year Strategic Plan for FY17-FY21
September 2017 Status Update

Goal	Strategy	Recommendation
1. Gain legislative approval for direct internal control of resource allocations by FY21	• Secure trustees' support for moving budget to language section by September 2016 • Secure OMB support and approval for moving budget to language section by December 2016 (contingent on S1) • Secure LB&A support and approval for moving budget to language section by January 2017 (contingent on S1 & S2)	• The trustees supported and submitted its FY18 request in language format to OMB. OMB did not support the effort however and kept the language as traditionally submitted. • The strategy of moving our budget into the language section continues to be a priority and we will keep making an effort to adjust our budget.
2. Implement a trade order management system by December 2017		• We successfully selected and implemented Blackrock Aladdin as our new trade order management system, effective July 2017, 6 months ahead of schedule.
3. Implement a central, networked data management solution by July 2018	• Secure a consultant by December 2016 • Select and purchase a solution by September 2017 • Install and implement the data management solution by July 2018	• This project has been delayed indefinitely for two primary reasons – the cost and complexity of implementation and the ability to recruit a team to operate the solution. We are currently reviewing other options.
4. Develop and fully implement best in class asset allocation and asset class investment capabilities to produce target long term solutions of CPI+5% by FY2020 Asset Allocation	• Design and receive Board approval for strategic allocation at Sept 2016 meeting • Develop and implement tool for measuring risk efficiency by Dec 2016 • Design and implement tactical framework including currency risk by June 2017	• Board approved, strategic asset allocation for the next 5 fiscal years at September, 2016 meeting. • Staff developed tool to measure risk efficiency (sharpe) for each asset class. Implementation is being worked out with new risk system and general consultant. • The Board approved Staff recommendation of a dedicated active currency management program

	• Establish a liquidity facility by December 2016	in May, 2017. General Consultant and staff selected a manager with official mandate starting September 1, 2017. • Given statutory constraints, securing a liquidity facility proved complicated. Staff explored new alternatives (repo, liquidity manager). At the May meeting, the Board reviewed liquidity management best practices and Staff and general consultant will propose a recommendation at the September 2017 meeting.
Public Equities	• Value-Added Manager Selection – Deliver an average 10-20bps (net-of-fees) annually relative to the MSCI-ACWI-IMI benchmark through manager selection by the end of FY2020 (POC: Director of Global Equities) • Value-Added Sector and Country Selection – Deliver an average 10-25bps (net-of-fees) annually relative to the MSCI-ACWI-IMI benchmark through sector and country allocations by the end of FY2020 (POC: Director of Global Equities) • Value-Added Internal Management – Deliver an average 5-20bps (net-of-fees) annually relative to the MSCI-ACWI-IMI benchmark through internal management and security selection by the end of FY2020 (POC: Director of Global Equities)	• As per the Strategic Plan, the cornerstone of best-in-class public equities capabilities rests on skilled external manager selection, asset allocation, and internal management of equities • External Manager Selection: To ensure that our external public equity managers meet our long term excess return expectations, ongoing efforts are in place to enhance external manager capabilities in the long-only, activist, and L/S space and to control for single manager risk. Pushing the envelope on incentive fee for external managers for better alignment of interests • Asset Allocation: The tactical framework for public equities allocation has been in place and continues to be improved upon • Internal Management: Exploiting specific/niche opportunities for 10-20% of Public Equities allocation. Currently, in the process of exploring

		(with respects to operations, execution, and risk management) whether to build in-house or outsource implementation to external trading platforms
Fixed Income	• Secure approval for new tradeable income team at Sept 2016 board mtg • Develop a value-added strategy across and within tradable income sectors by the end of FY2017	• Approval for Fixed Income Plus was given Sept 2016.

Private Equity and Special Opportunities	• Complete actionable business plan by January 2017 which details the most effective means to access international opportunities
	• Outline and implement plan for increasing potential PE & Special Growth "pacing rate" by 10-25% by the December 2016 Board Meeting
	• Secure formal investment coordination arrangement with the PE team of one or more major endowment, sovereign wealth or public investment funds in order to capture enhanced deal flow and sector opportunities by the end of FY2020
		• Explored core strategic relationships with FoFs and centralized global / regional GPs.
		  ▪ Determined FoF not the optimal route
		• Continued to explore regional GP route; being highly selective and ensuring we get the appropriate relationship leverage.
		  ▪ Making targeted LP commitments in certain markets with advisory board representation where appropriate.
		  ▪ Considering one large global GP as potential strategic relationship across multiple emerging and frontier growth markets.
		• Continuing to develop int'l pipeline from existing global bulge bracket GPs and certain regional leaders.
		• Developed plan to increase pacing by 10-25% without compromising quality, risk management, or returns.

Continued – **Private Equity and Special Opportunities**		▪ Implementation on hold; target allocation decreased from 17% to 14% in Fy'20 so accelerated deployment not advisable unless and until target is increased. • Established, joined, or currently considering participation in multiple promising dialogues and organizations which together appear likely to lead to rewarding collaborations. These activities include: ▪ Moseley joined boards of ILPA (Institutional Limited Partners Association) and AIF (Alternative Investments Forum). ▪ Considering joining IIR (Institutional Investors Roundtable), a forum for collaboration and deal sharing among targeted, long-term institutional investors. ▪ Spearheading first large-scale GP seeding collaboration across three leading asset owners and three continents; closing expected in October 2017. • Establishing peer-to-peer connectivity with the principal investment teams across global sovereign pensions, sovereign wealth funds, and domestic limited partners through conferences, meetings, benchmarking, and shared deal flow.

Real Estate	• Expand the scope of investible real estate assets and increase Fund exposure to non-US real estate by gaining access to/securing two or more project opportunities annually (on average) beginning with FY2017	• A non-domestic acquisition was completed with the purchase of The Glades, a London retail mall. Staff is currently evaluating multifamily investments in the U.K. and has identified a potential operating partner. • We evaluated industrial deals in Australia (looking to benefit from "China effect") but it became apparent pricing is not dissimilar to US at this time, offering no compensation for extra country and currency risk. • German industrial and retail deals were evaluated but trading at low 3-4% caps (not meeting our CPI +4% requirement). Spanish deals available but we are comfortable with our Iberian exposure at this time.
	• Update policies and procedures with adjustments to debt levels, property types, geographies, and life cycles by the September 2016 Board Meeting	• Completed policy changes in Sept 2016 and looking to expand with additional modifications to debt levels and non-US development in September 2017.
	• Evaluate and consider expanding the use of operating companies for targeted property types and form a recommendation by the end of FY 2017	• Evaluated legal and tax efficient structures for ownership of operating company investments with Davis Wright Tremaine. Targeting industrial product for formal recommendation in FY 2018.

Private Income/Infrastructure and Hedge Funds	• Secure Board approval at the September 2016 Board meeting for a Hedge Fund allocation of 0-10% of the Fund which delivers CPI+5% and a correlation to the overall Fund of 0.5 or less in 3-5 years • Identify and invest in 15-20 high conviction direct funds delivering CPI+5% with a correlation to the overall Fund of 0.5 or less and a Sharpe Ratio of at least 0.5 by December 2018 • Create and implement a rigorous evaluation process of direct manager relationships which requires a methodical addition and removal of direct funds where appropriate by December 2016 • Secure Board approval for long-term benchmark change to CPI+4.5% by the September 2016 Board Meeting • Outline and secure approval for a plan which increases potential Infrastructure & Special Income "pacing rate" by 10-25% by the December 2016 Board Meeting • Secure formal investment coordination arrangement with the Infrastructure team of one or more major endowment, sovereign wealth or public investment funds in order to capture enhanced deal flow and sector opportunities by the end of FY2020	• New Hedge Fund allocation (target 5%, Green Zone 3-10%) created with CPI+5% target return objective with <0.5 correlation (in fact we are targeting zero correlation in practice) • Eight new direct hedge fund investments have been funded since creation of the mandate; all of which historically have delivered these returns. Since inception of APFC's relationship, as a group, they have continued to deliver on these objectives. • Completed. Process was designed to leverage internal APFC Alternatives team supplemented by Albourne assistance. • Private Income (Infrastructure, Private Credit, Special Income Opportunities) FY 2018 pacing is on target to deploy $1 billion through a mix of fund investments, co-investments, and direct investments. This represents an increase from the $700-750 million pacing the prior two fiscal years and is targeted to result in a ~9% allocation to Private Income by 2021 (up from ~5% currently). • APFC Infrastructure team has increased its level of coordination with its "best in class" peers around opportunities in the market. While a formal investment coordination arrangement is not in place, we expect to be able to achieve this goal by FY2020.

5. Implement a competitive incentive compensation program for FY19	• Formulate a competitive incentive compensation plan for staff by Sep 2016. • Present competitive incentive compensation plan to Trustees by Dec 2016. • Secure OMB support and approval for the incentive compensation plan by Sep 2017 • Secure LB&A support and approval for the incentive compensation plan by Jan 2018 • S5: Implement and administer performance assessment for incentive awards by Oct 2019. (POC: HR)	• The Board considered an incentive compensation plan to be included in the FY18 budget submittal and determined more information was needed. McLagan is currently in the process of preparing a detailed compensation study for APFC. Once that report is ready we will work with the Board to further refine recommendations for a new compensation program.

RECOMMENDATION:
The plan should be revisited annually to determine progress and make any changes that may become necessary.

b) Strategic Plan Review FY17-FY21 Worksheet

ALASKA PERMANENT FUND CORPORATION
FY17 - FY21 STRATEGIC PLAN WORKSHEET

PURPOSE/MISSION

To manage and invest the assets of the permanent fund and other funds designated by law

VISION

To deliver sustained, compelling investment returns as the United States' leading sovereign endowment manager, benefitting all current and future generations of Alaskans.

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. We are energized by the challenges and rewards of serving Alaskans.*

CLIENTS/CUSTOMERS

(ordered according to the degree to which each directly depend upon APFC's activities and support)

- Governor and Legislature
- Investment Partners
- Mental Health Trust Authority

Expectations

- The principal of the Permanent Fund will always be protected
- The fund will achieve CPI +5% long-term returns with adequate liquidity
- We are on the leading edge of investments and investment strategies
- We will perform in accordance with established statutes and regulations
- We will fulfill all commitments and obligations
- We attract and retain top talent at APFC
- Proprietary information is always confidential and well protected
- We will invest in attractive Alaskan opportunities

STAKEHOLDERS

(ordered according to the degree to which stakeholders, other than direct clients/customers, are impacted by or vested in APFC's success or failure)

- State Government (general)
- All Alaskans
- Investment Managers

Expectations

- Earnings of the Permanent Fund goes to the Dividend
- We are on the leading edge of investments and investment strategies
- We will fulfill all commitments and obligations
- We will do our jobs professionally

STRENGTHS

(ordered according to the degree of each significant strength's importance and impact on actions projected during this plan)

- Trustees' confidence and trust in the organization
- Dedicated, talented, and passionate staff
- Proclivity to be nimble and flexible
- The work environment and culture within APFC
- Propensity to act with a long-term investment horizon
- Proven record of sustained success despite limited resources
- Knowledgeable, expert trustees
- Compelling public purpose
- Location (AK)

ALASKA PERMANENT FUND CORPORATION
FY17 - FY21 STRATEGIC PLAN WORKSHEET

WEAKNESSES

(ordered according to the degree of each significant weakness' impact on actions projected during this plan)

- Lack of trust, confidence, and communication between stovepiped groups
- Vulnerabilities of being a government cost center
- A fear of deviating significantly from entrenched institutional practices (inertia)
- A fear of external consequences and negative reactions to decisions and actions
- Impact of location (AK) on recruiting and accessing market opportunities
- Lack of an incentive compensation plan

OPPORTUNITIES

(ordered according to their potential emergence and impact on APFC goals during the period covered by this plan)

- Changing political directions, expectations, and requirements
- Increasing unique access to growing global investment opportunities and partnerships
- Potential to add greater value through increased internally managed investments
- Market demand for large scale and long-term investors
- Shifting Alaskan economy

THREATS

(ordered according to their potential emergence and impact on APFC goals during the period covered by this plan)

- Changing political directions, expectations, and requirements
- Decreased support for resources and budget for operations
- Increased cyberattacks and threats to digital networks
- Lower expected returns and higher risks for public markets
- Increased competition for alternative investments
- Shrinking pool of qualified applicants and challenge of retaining experienced employees
- Shifting Alaskan economy

STRATEGIC PRIORITIES

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

KEY ASSUMPTIONS

- There will be no changes to the executive team
- We are an independent entity

ALASKA PERMANENT FUND CORPORATION
FY17 - FY21 STRATEGIC PLAN WORKSHEET

Goal	Objectives	Strategies
Goal	**Objectives**	**Strategies**
1. (P1) Gain legislative approval for direct internal control of resource allocations by FY21.	(G1,P1) Obj 1: By FY19, the budget appropriation is moved under the language section.	(O1,G1,P1) S1: Secure trustees' support for moving budget to language section by Sep 2016. (POC: CEO) (O1,G1,P1) S2: Secure OMB support and approval for moving budget to language section by Dec 2016 (contingent on success of S1). (POC: CEO) (O1,G1,P1) S3: Secure LB&A support and approval for moving budget to language section by Jan 2017 (contingent on success of S1). (POC: LL)
	(G1,P1) Obj 2: By FY19, the budget is a single appropriation without allocation in basis points on assets under management.	(O2,G1,P1) S1: Secure trustees' support for budget being made a single appropriation without allocation in basis points by Sep 2017. (POC: CEO) (O2,G1,P1) S2: Secure OMB support and approval for budget being made a single appropriation without allocation in basis points by Dec 2017. (POC: CEO) (O2,G1,P1) S3: Secure LB&A support and approval for budget being made a single appropriation without allocation in basis points by Jan 2018. (POC: LL)
	(G1,P1) Obj 3: By FY20, identify and propose a solution enabling APFC to receive its budget directly.	(O3,G1,P1) S1: Identify and propose a solution enabling APFC to receive its budget directly by Aug 2018. (POC: Legal Dept)

Goal	**Objectives**	**Strategies**
2. (P2) Implement a trade order management system by Dec 2017.	(G2,P2) Obj 1: Secure a consultant to assist in the selection and implementation process of the trade order management system by Sep 2016.	(O1,G2,P2) S1: Identify and hire a consultant to assist in the selection and implementation of the trade order management system or upgrade by Sep 2016. (POC: DoO)
	(G2,P2) Obj 2: Select a trade order management system by Mar 2017.	(O2,G2,P2) S1: Select and purchase a trade order management system or upgrade for APFC by Mar 2017 (POC: DoO)
	(G2,P2) Obj 3: Implement new trade order system by Dec 2017.	(O3,G2,P2) S1: Install and implement the new trade order system or upgrade by Dec 2017. (POC: DoO)

Goal	Objectives	Strategies
3. (P2) Implement a central, networked data management solution by Jul 2018.	(G3,P2) Obj 1: Secure a consultant to assist in the selection and implementation of a central, networked data management solution by Dec 2016.	(O1,G3,P2) S1: Identify and hire a consultant to assist in the selection and implementation of a central, networked data management solution by Dec 2016. (POC: DoO)
	(G3,P2) Obj 2: Select a central, networked data management solution by Sep 2017.	(O2,G3,P2) S1: Select and purchase, if required, a central, networked data management solution for APFC by Sep 2017 (POC: DoO)
	(G3,P2) Obj 3: Implement the selected central, networked data management solution by Jul 2018.	(O3,G3,P2) S1: Install and implement the central, networked data management solution by Jul 2018. (POC: DoO)

Goal	Objectives	Strategies
4. (P3) Develop and fully implement best-in-class asset allocation and asset class investment capabilities able to produce target long-term returns of at least CPI+5% by the end of FY2020.	(G4,P3) Obj 1: Implement best-in-class Asset Allocation & Risk Management by end of FY2020.	(O1,G4,P3) S1: Design and receive Board approval for strategic allocation which targets CPI+5% over 5-10 years at the September 2016 Board meeting (POC: CIO)
		(O1,G4,P3) S2: Develop and implement a tool for measuring investment risk efficiency (Sharpe Ratios) for the Fund and asset classes against targets to identify areas for adjustment within asset class strategies by calendar year-end 2016 (POC: Director of Risk & Asset Allocation)
		(O1,G4,P3) S3: Design and implement APFC's tactical asset allocation framework and capabilities, including currency risk management, by June 2017 (POC: Director of Risk & Asset Allocation)
	(G4,P3) Obj 2: Implement best-in-class Global Equities program with a total value-added versus the MSCI ACWI IMI benchmark of 50bps annually (equating to a long-term Sharpe Ratio of at least 0.33 and CPI+5%) by the end of FY2020	(O2,G4,P3) S1: Value-Added Manager Selection—Deliver an average10-20bps (net-of-fees) annually relative to the MSCI-ACWI-IMI benchmark through manager selection by the end of FY 2020 (POC: Director of Global Equities)
		(O2,G4,P3) S2: Value-Added Sector and Country Selection—Deliver an average 10-25bps (net-of-fees) annually relative to the MSCI-ACWI-IMI benchmark through sector and country allocations by the end of FY2020 (POC: Director of Global Equities)
		(O2,G4,P3) S3: Value-Added Internal Management—Deliver an average 5-20 bps (net-of-fees) annually relative to the MSCI-ACWI-IMI benchmark through

		internal management and security selection by the end of FY2020 (POC: Director of Global Equities)
	(G4,P3) Obj 3: Implement best-in-class Tradable Income program with a target average value-added of 25bps annually compared with the new Tradable Income composite benchmark (equating to a long-term Sharpe Ratio of 0.33 and CPI+2%) by the end of FY2020.	(O3,G4,P3) S1: Secure approval for new Tradable Income team name and benchmark at the September 2016 Board Meeting (POC: CIO)
		(O3,G4,P3) S2: Establish a "Liquidity Facility" of between $500 million - $1 billion able to provide two months of normal investment funding in order to allow the Fund to operate on a fully-invested basis by December 2016 (POC: Director of Tradable Income)
		(O3,G4,P3) S3: Develop a value-added strategy across and within tradable income sectors by the end of FY2017 (POC: Director of Tradable Income)
	(G4,P3) Obj 4: Implement best-in-class Private Equity & Special Growth program with a target long-term return of CPI+7% and a Sharpe Ratio of 1.0 by the end of FY2020.	(O4,G4,P3) S1: Complete actionable business plan by January 2017 which details the most effective means to access international opportunities (POC: Director of PE & Special Growth)
		(O4,G4,P3) S2: Outline and implement plan for increasing potential PE & Special Growth "pacing rate" by 10-25% by the December 2016 Board Meeting (POC: Director of PE & Special Growth)
		(O4,G4,P3) S3: Secure formal investment coordination arrangement with the PE team of one or more major endowment, sovereign wealth or public investment funds in order to capture enhanced deal flow and sector opportunities by the end of FY2020 (POC: Director of PE & Special Growth)
	(G4,P3) Obj 5: Implement best-in-class Real Estate program with a target long-term return of CPI+4.5% and a Sharpe Ratio of 1.0 by the end of FY2020.	(O5,G4,P3) S1: Expand the scope of investible real estate assets and increase Fund exposure to non-US real estate by gaining access to/securing two or more project opportunities annually (on average) beginning with FY2017 (POC: Director of Real Estate)
		(O5,G4,P3) S2: Update policies and procedures with adjustments to debt levels, property types, geographies, and life cycles by the September 2016 Board Meeting (POC: Director of Real Estate)
		(O5,G4,P3) S3: Evaluate and consider expanding the use of operating companies for targeted property types and form a recommendation by the end of FY 2017 (POC: Director of Real Estate)

	(G4,P3) Obj 6: Implement best-in-class Hedge Funds program with a target long-term return of CPI+5% and a Sharpe Ratio of 0.5 by the end of FY2020.	(O6,G4,P3) S1: Secure Board approval at the September 2016 Board meeting for a Hedge Fund allocation of 0-10% of the Fund which delivers CPI+5% and a correlation to the overall Fund of 0.5 or less within 3-5 years (POC: Director of Infrastructure & Special Income)
		(O6,G4,P3) S2: Identify and invest in 15-20 high conviction direct funds delivering CPI+5% with a correlation to the overall Fund of 0.5 or less and a Sharpe Ratio of at least 0.5 by December 2018 (POC: Director of Infrastructure & Special Income)
		(O6,G4,P3) S3: Create and implement a rigorous evaluation process of direct manager relationships which requires a methodical addition and removal of direct funds where appropriate by December 2016 (POC: Director of Infrastructure & Special Income)
	(G4,P3) Obj 7: Implement best-in-class Infrastructure & Special Income program with a target long-term return of CPI+4.5% and a Sharpe Ratio of 1.0 by the end of FY2020.	(O7,G4,P3) S1: Secure Board approval for long-term benchmark change to CPI+4.5% by the September 2016 Board Meeting (POC: Director of Infrastructure & Special Income)
		(O7,G4,P2) S2: Outline and secure approval for a plan which increases potential Infrastructure & Special Income "pacing rate" by 10-25% by the December 2016 Board Meeting (POC: Director of Infrastructure & Special Income)
		(O7,G4,P2) S3: Secure formal investment coordination arrangement with the Infrastructure team of one or more major endowment, sovereign wealth or public investment funds in order to capture enhanced deal flow and sector opportunities by the end of FY2020 (POC: Director of Infrastructure & Special Income)

ALASKA PERMANENT FUND CORPORATION
FY17 - FY21 STRATEGIC PLAN WORKSHEET

Goal	Objectives	Strategies
5. (P4) Implement a competitive incentive compensation program for FY19 by Oct 2019.	(G5,P4) Obj 1: Gain Trustee approval for incentive compensation plan for staff by Dec 2016.	(O1,G5,P4) S1: Formulate a competitive incentive compensation plan for staff by Sep 2016. (POC: HR) (O1,G5,P4) S2: Present competitive incentive compensation plan to Trustees by Dec 2016. (POC: CEO)
	(G5,P4) Obj 2: Gain administration's support for appropriation supporting the incentive compensation plan's inclusion in the FY19 budget by Sep 2017.	(O2,G5,P4) S1: Secure OMB support and approval for the incentive compensation plan by Sep 2017 (POC: CEO)
	(G5,P4) Obj 3: Gain legislative support for appropriation implementing incentive compensation plan by May 2018.	(O3,G5,P4) S1: Secure LB&A support and approval for the incentive compensation plan by Jan 2018 (POC: LL)
	(G5,P4) Obj 4: Implement approved competitive incentive compensation program for FY19 by Oct 2019.	(O4,G5,P4) S1: Implement and administer performance assessment for incentive awards by Oct 2019. (POC: HR)

c) Investment Policy Memo

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

SUBJECT: Investment Policy ACTION: ______X________

DATE: 9/27/2017 INFORMATION: _______________

BACKGROUND:
Consistent with program changes approved by the Board, APFC staff recommends minor changes and consequential updates to the Investment Policy.

STATUS:

The following are updates proposed to the Investment Policy:

1. Section 3.9 Liquidity: Update Philosophy to reflect investment practices
2. Section 5.1 Return: Replace Real Return Objective with defined rate of CPI + 4.5%.
3. Section 7 Risk Tolerance: Replace Real Return Goal with defined rate of CPI + 4.5%.
4. Section 9 Policy Asset Allocation: Collapse Real Estate and Private Credit/Infrastructure/Income Opportunities Asset Classes into Real Assets Asset Class and update Allocation Overview for years 2017-2022.
5. Section 9.1 Adjust long-term return goal for Tradable Growth per new projections
6. Section 9.2 Adjust long-term return goal for Illiquid Growth and Benchmark
7. Section 9.3 Adjust long-term return goal for Tradable Income per new projections, eliminate Curve Risk from Table 9.3.1 due to redundancy and clarify benchmark.
8. Section 9.4 Illiquid Income:
    a. Update Purpose to clarify the inclusion of newly created Real Assets category per (4) above.
    b. Update Long-Term Return Goal of GPI + 450 basis points.
    c. Replace benchmark with consolidated benchmarks and new weights.
9. Section 10.2 Absolute Dollar Limits: Consolidate Real Assets Allocation in Table 10.2.1 per (4) above.
10. Section 10.3 Relative Risk Limits: Update Performance Benchmarks (Table 10.3.1.1) to reflect changes as a result of consolidating Real Assets Benchmarks.

11. Section 10.6 Risk Monitoring: Update Risk Factors to include Currency Risk in Table 10.6.1.
12. Section 10.7 Performance Management: Update Table 10.7.1 to reflect established Performance Report Card.
13. Section 12 Liquidity & Asset Allocation Strategies Guidelines:
    a. Creation of Section 12 to account for Liquidity and Asset Allocation Strategies guidelines which includes Liquidity Management, Currency Management and ECIO Mandate
14. Section 14.1.3 Portfolio Rebalancing and Mandate Modification: Consolidation of points (3) and (4) regarding passive and quasi-passive equity portfolio mandates.
15. Section 16.1 Authorized Investments: Elimination of qualifier within point (2c) limiting investments to the United States to account for global nature of real estate investments
16. Section 18.1 Portfolio Management: Replace Real Return Objective with defined rate of CPI + 4.5%.
17. Addendum re Internal Investment Managers: Addition of Investment Portfolio Managers.
18. General updates to vendor benchmark names.

RECOMMENDATION:

Staff recommends that the Board of Trustees approve the changes to the Investment Policy, as presented, resulting from previously approved programs and changes to APFC's strategic plan to be effective January 1st, 2018.

d) APFC Investment Policy Redline

INVESTMENT POLICY

~~2016 December 6~~Last Amended September 27th, 2017

~~**Alaska Permanent Fund Corporation**~~

~~INVESTMENT POLICY~~

~~Last Amended December September 276, 20176~~

Table of Contents

1 Preamble (adopted May 27, 2010)

Alaska Statutes ("AS") Title 37 Chapter 13. Alaska Permanent Fund Corporation ("APFC" or "Corporation").

Article 01. Alaska Permanent Fund ("Fund")

Section 37.13.020. Findings.

The people of the state, by constitutional amendment, have required the placement of at least 25 percent of all mineral lease rentals, royalties, royalty sale proceeds, and federal mineral revenue sharing payments and bonuses received by the state into a permanent fund. The legislature finds with respect to the fund that

(1) the fund should provide a means of conserving a portion of the state's revenue from mineral resources to benefit all generations of Alaskans;

(2) the fund's goal should be to maintain safety of principal while maximizing total return;

(3) the fund should be used as a savings device managed to allow the maximum use of disposable income from the fund for purposes designated by law.

2 Purpose (Amended September 27, 2016)

The purpose of the Alaska Permanent Fund Corporation is to manage and invest the assets of the Permanent Fund and other funds designated by law. The Corporation's policies are set by the Board of Trustees ("Board"), which also appoints and removes its Executive Director.

The purpose of this statement of investment policy is to set out in a comprehensive way the Board's policies and practices that deal with the Board's investment-related functions. The statement of investment policy is not, however, intended to be a static, one-time document. The Board intends that the statement of investment policy be kept current and updated as the Board modifies or adds to its investment-related policies and practices.

These policies will be considered in their entirety on at least a bi-annual basis. Policies may be modified at any time by Board action (so long as such action is approved by roll call vote), even if this document is not immediately amended to reflect Board changes. In these circumstances, changes will be noted in Board meeting minutes, copies of which will be highlighted with relevant sections and filed in the same electronic folder as this document.

The policies addressed herein shall be interpreted and applied in a manner consistent with AS 37.13.120(a), which provides, in part, as follows:

> *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.*

3 Philosophy (Amended September 27, 2017~~6~~)

3.1 Asset Allocation

The Board believes…

"that asset allocation is a fiduciary responsibility, which is a basic duty of the Board. To meet the long-term real, i.e. inflation-adjusted, return objective, the portfolio should be built on a diversified global basis."

3.2 Risk Tolerance

The Board believes…

"that global equity-oriented investments will produce long-term returns that can outweigh the short-term and medium-term risks to the portfolio. The Board believes the markets will exhibit volatility. A temporary loss of capital may occur in the future, but the long-term nature of the Fund allows it to weather such occurrences."

3.3 Time Horizon

The Board believes…

"that to preserve purchasing power and to provide benefits to the current and future generations the portfolio should have an asset allocation built on a long-term investment horizon."

3.4 Preservation of Capital

The Board believes…

"that it is important to limit loss of capital in down markets, as large negative underperformance mathematically reduces the probability of meeting the long-term real return objective."

3.5 Rebalancing

The Board believes…

"that rebalancing the portfolio should enhance returns and control risk over the long-term."

3.6 Diversification

The Board believes…

"that diversification of asset class, sub-asset class, risk and manager are the primary techniques available to institutional investors for maximizing the potential return per unit of risk when investing to produce returns higher than cash."

3.7 Sources of Return

The Board believes…

"that compelling risk-adjusted Fund returns can be achieved through a combination of (1) efficient Fund design (strategic asset allocation), (2) effective tactical asset allocation, and (3) value-added performance within each asset class."

3.8 Internal Asset Management

The Board believes…

"that in cases where internal management has the capability to produce competitive returns, internal asset management can benefit the Fund through lower fees, greater transparency and increased market awareness."

3.9 Liquidity

The Board believes…

"that the Fund ~~has manageable demands in terms of liquidity that will generally be met with income generated from investments. Given the Fund's liquidity profile and long-term investment horizon it has the ability to take advantage of the superior risk-adjusted returns provided by prudent investments in private markets."~~should maintain~~s~~ sufficient liquidity in order to (1) fund legislative appropriations from the Earnings Reserve Account~~appropriate, as needed, funds to the State of Alaska~~, (2) secure~~rve~~ attractive new investment opportunities as they arise, (3) provide ~~the~~ portfolio rebalancing to meet~~for~~ risk and asset allocation objectives, and (4) meeting capita~~o~~l calls and other fund investment requirements.

4 Mission and Vision (Amended September 27, 2016)

The Alaska Permanent Fund Corporation's mission is to manage and invest the assets of the Permanent Fund and other funds designated by law.

The Alaska Permanent Fund Corporation'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.

5 Objectives (Amended September 27~~67~~, 20177~~6~~)

5.1 Return

The Board's long-term investment goal for the Fund is to achieve an average annual real rate of return of ~~five~~ four and a half percent (CPI+4.5~~5~~%) over time~~per year~~. It is recognized that there may be years, or a period of years, when the Fund does not achieve this goal followed by years when the goal is exceeded. Yet, over one or more business cycles the Board seeks to achieve an average annual real rate of return of ~~five~~ four and a half percent (CPI+4.5~~5~~%) at risk levels broadly consistent with large public and private funds.

In addition the Board will establish other investment objectives for the Fund and Corporation that will strive to achieve excellence on absolute terms as well as relative to peers and benchmarks.

5.2 Trustees

The Board's charter includes the following:

> ***Alaska Permanent Fund Corporation – Charter of the Board of Trustees – Duties and Responsibilities - Investments***
>
> *8. In managing and investing the assets of the Alaska Permanent Fund, the Board is required to 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 the permanent disposition of funds, considering preservation of the purchasing power of the Fund over time while maximizing the expected total return from both income and the appreciation of capital. [AS 37.13.120]

9. *The Board will establish a statement of investment policies and guidelines, including the Board's overall investment philosophy, as well as other related policies as necessary for the effective management and investment of the assets of the Fund.*

10. *The Board will establish a framework or process for the management of the investment risk of the Fund.*

11. *The Board will approve the long-term or strategic asset allocation of the Fund in terms of the proportion of total assets to be invested on average over time in the various asset classes or risk categories, as well as the minimum-maximum range within which the assets can be allocated at any point in time.*

    (a) The Board will establish an investment management structure for the Fund and proportion of assets in an asset class to be managed by external investment managers versus internal staff.

5.3 APFC Investment Staff

The APFC Investment Staff ("Staff") is primarily responsible for implementing the Policy Asset Allocation. This includes: (a) hiring, terminating, and monitoring of internal and external managers; (b) monitoring and communicating the multitude of risks associated with the Fund assets, managers and process; (c) researching and recommending new asset classes and investment strategies; and (d) assisting the Board in setting the asset allocation and investment policy.

5.4 Critical Dependencies

Staff must have adequate internal human resources, financial support and appropriate authority to meet the assigned objectives.

6 Time Horizon (Amended May 23, 2013)

The Fund's design is to benefit current and future generations of Alaskans; hence, the time horizon is long. More specifically, with assistance from independent third party Consultants ("Consultants"), Board Advisors ("Advisors") and Staff, the Board has established an asset allocation with a time horizon greater than ten years to meet the investment objective.

7 Risk Tolerance (Amended September 27, 2017~~6~~)

The Board's investment allocation will be equity-dominant given its long-term investment horizon and goal (including both publicly-traded stocks and private equity), but will include multiple asset classes having varying risk and correlation assumptions. Based on the Consultant's financial models for a 4.5% real return objective (CPI + 4.5%), the Fund's long-term expected standard deviation is approximately 10%-12%, with corresponding 1-in-20 (5% probability) annual Value-at-Risk (VaR) of roughly16%-20%~~ annually~~.

8 Investment (Risk) Efficiency (Added September 27, 2016)

Consistent with the Board's real return objectives and risk tolerance, a long-term "Sharpe Ratio" (equal to real return/risk) of at least 0.5 will be targeted for the overall Fund, which is consistent with the overall investment efficiency targets of best-in-class peers.

9 Policy Asset Allocation (Amended ~~December~~ September 2~~6~~7, 2017~~6~~)

The Policy Asset Allocation envisions a portfolio that will seek to optimize expected return versus expected risk over a long-term investment horizon. The Board will annually evaluate the Policy Asset Allocation after reviewing considerations and recommendations from the Consultant, Advisors, and/or Staff. This portfolio represents the Board's view of different asset classes with regard to risk and return. Implementation of the Policy Asset Allocation is subject to the other investment policies defined in this document.

As stated in the 15 AAC 137.420, "All permanent fund investments must be of a quality considered acceptable by other prudent institutional investors, including endowments, foundations, sovereign wealth funds, or public and private pension funds."

Table 9a: Policy Asset Allocation Overview (2017-2021 Fiscal Years)

Asset Class and Sub Asset Class Targets	Current	FY2018	FY2019	FY2020	FY2021
Public Equities	39%	39%	38%	37%	35%
Fixed Income Plus	22%	22%	22%	20%	18%
Private Equity/Growth Opportunities	11%	11%	12%	13%	14%
Real Assets	17%	17%	18~~7~~%	20%	22~~0~~%
~~Real Estate~~			~~11%~~	~~11%~~	~~12%~~
~~Private Credit/Infrastructure/Income Opportunities~~	~~5%~~		~~6%~~	~~7%~~	~~8%~~
Absolute Return	5%	5%	5%	5%	6%
Asset Allocation	6%	6%	5~~6~~%	5%	5%
Total	**100%**	**100%**	**100%**	**100%**	**100%**

9.1 Tradable Growth

Purpose: When the economy is performing well, public companies are generally producing profits and passing those profits to investors via dividends or through higher stock price. Investing in these corporations allows the Fund to benefit in times of growth and prosperity while providing liquidity.

Long-Term Return Goal: CPI + 4.75% (475~~525~~ basis points) or better~~.~~

Components: global stocks (public)~~.~~

Table 9.1.1 Risk Considerations:

1. Equity risk;
2. Inflation risk; and
3. Currency risk

Benchmark: For purposes of measuring the risk and performance of Tradable Growth, the following benchmark will be used:

Tradable Growth	Current	FY2018	FY2019	FY2020	FY2021
MSCI ACWI IMI	100%	100%	100%	100%	100%

9.2 Illiquid Growth

Purpose: This allocation allows the Fund to invest Private Equity strategies (including Special Growth Opportunities) and Absolute Return Funds (also known as "Hedge Funds") that over time are expected to grow and provide higher returns for the Fund. Additionally because the illiquid nature of some of these investments, they should earn a premium over traditional securities.

Long-Term Return Goal: CPI + 5.5% (550 basis points, ~~(~~with PE's objective of CPI+6.25~~7~~% and Absolute Return Funds' objective of CPI+4.5%) or better

Components: Private Equity (including Special Growth Opportunities), and Absolute Return Funds~~.~~

Table 9.2.1 Risk Considerations

Interest rate risk	Credit spread risk	Liquidity risk
Equity risk	Bankruptcy risk	Refinancing risk
Inflation risk	Currency risk	Partnership risk

Benchmark: For purposes of measuring the risk and performance of Illiquid Growth Opportunities, the following benchmark will be used:

Illiquid Growth	Current	FY2018~~01/01/2018FY2017~~	FY2019~~07/01/2018FY2018~~	FY2020~~07/01/2019FY2019~~	FY2021~~07/01/2020FY2020~~
Cambridge Private Equity	55%	69~~55~~%	71~~55~~%	72~~60~~%	70~~62~~%
Total Fund Benchmark	20%	0~~20~~%	~~2~~0%	~~15~~0%	~~14~~0%
HFRI Total HFOF Universe	25%	31~~25~~%	29~~25~~%	28~~5~~%	30~~24~~%

9.3 Tradable Income

Purpose: The Tradable Income allocation is designed to lessen the overall volatility of the fund, especially in times of market turmoil. It provides steady, low volatility returns in normal market conditions and acts as a cushion when other, more volatile asset classes fall. It can be used as a funding source for other, less liquid asset classes and the cash allocation can be used to meet any Fund liabilities.

Long-Term Return Goal: CPI + 1.75% (175~~200~~ basis points) or better

Components: Cash: Money market funds or fixed income securities with weighted-average maturities of no greater than 24 months. Investment grade fixed income (U.S., Non-U.S. developed, and/or super-sovereign government or government-related fixed income securities), high yield bonds, emerging markets bonds, mortgage-backed securities (MBS), CMBS, investment grade global corporate credit, listed global infrastructure, global REITs and other investment grade fixed income securities and income producing listed securities.

Table 9.3.1 Risk Considerations:

Interest rate risk	Refinancing risk ~~Curve risk~~	Default risk
Re-investment risk	Bankruptcy risk	~~Refinancing risk~~
Inflation risk	Currency risk	
Credit spread risk	Equity risk	

Benchmark: For purposes of measuring the risk and performance of Tradable Income, the following benchmark will be used:

Tradable Income	Current	FY2018	FY2019	FY2020	FY2021
90 Day T-Bills	13%	5%	5%	5%	5%
BC US TIPS	5%	5%	5%	5%	5%
BC US Aggregate	23%	32%	30%	31%	32%
BC US ~~Credit~~Corporate	23%	23%	23%	23%	23%
BC Global Treasury ex-US (Hedged)	9%	9%	9%	9%	9%
BC EMD Hard Currency	5%	5%	5%	5%	5%
BC US High Yield 2% Issuer Cap	9%	9%	9%	9%	9%
S&P Global REIT	9%	9%	9%	9%	9%
S&P Global Infrastructure	5%	5%	5%	5%	5%

Numbers rounded to the nearest whole number

9.4 Illiquid Income

Purpose: The value of these assets, ~~some which are~~including real assets, may hedge inflation risk, helping protect the Fund's real value over time. Additionally, because the illiquid nature of these investments, they should earn a premium over traditional securities while providing the Fund with an income stream.

Long-Term Return Goal: CPI + 4.5% (45~~0~~0 basis points) or better~~.~~

Components: Real estate, infrastructure (private), and other special income opportunities.

Table 9.4.1 Risk Considerations

Interest rate risk	Business (operational) risk	Liquidity risk
Partnership risk	Bankruptcy risk	Refinancing risk
Inflation risk	Currency risk	
Cash flow risk	Natural disaster risk	

Benchmark: For purposes of measuring the risk and performance of Illiquid Income, the following benchmark will be used:

Illiquid Income	Current	FY2018	FY2019	FY2020	FY2021
NCREIF Index	69~~50~~%	~~69~~65~~50~~%	61~~65~~%	55~~61~~%	50~~60~~%
~~60%~~ FTSE Developed Core Infrastructure ~~40% BC US High Yield 2% issuer cap~~	~~50~~31%	~~31~~35~~50~~%	39~~35~~%	45~~39~~%	50~~40~~%

Table 9b: Summary of Asset Class Objectives

Asset Class	Capital Appreciation	Inflation Protection*	Deflation/Crisis Protection	Capital Preservation	Purchasing Power Preservation**	Income Generation	Diversification	Alpha
Cash			M	M	M	m		
U.S. Government Bonds			M	M	M	m		
Intl. Government Bonds			M	M	M	m	M	
Emerging Market Gov. Bonds						M	M	
Global Corporate Bonds						M		
Global High Yield Bonds						M		
U.S. Equities	M				M			
International Equities	M				M		m	
Emerging Market Equities	M				M		m	
Private Equities	M				M			M
Real Estate	M	m			M	M	m	
Infrastructure		m			M	M	m	
Treasury Inflation-Protected Securities		M			M			
Absolute Return Funds	M						m	M
Structured Credit Securities	M					M		
Distressed Debt	M							
Mezzanine Debt	M					M		

*Inflation Protection: investments expected to hedge short-term inflationary shocks.

**Purchasing Power Preservation: investments expected to hedge the corpus against long-term inflation.

Upper case M indicates major objective, while lower case m represents the minor objective.

10 Risk Guidelines (Amended ~~December~~ September 27~~6~~, 201~~6~~7)

The risk guidelines are established to clearly delineate the amount of absolute and relative risk the Staff may utilize to achieve the investment objectives.

10.1 Green, Yellow, and Red Zone 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 10.1.1 Visual Display of Green Zone Concept

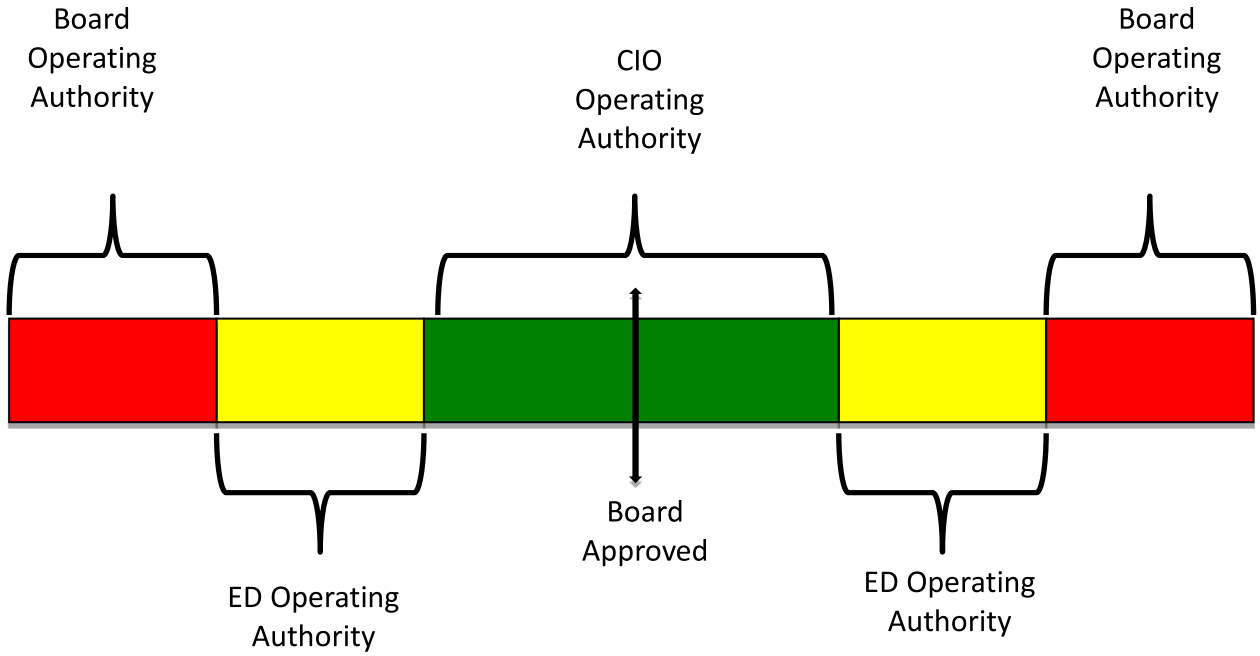
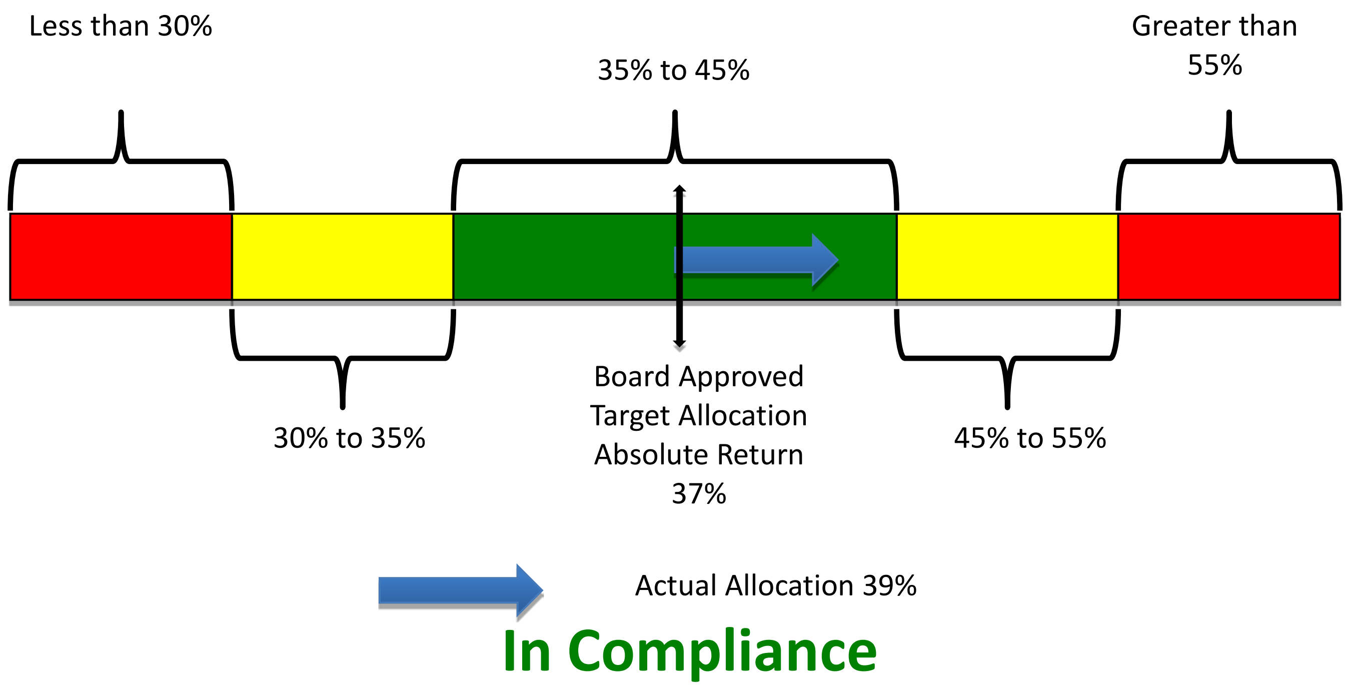


Exhibit 10.1.2 Green Zone Example for Public Equities


Less than 30%
35% to 45%
Greater than 55%
30% to 35%
Board Approved Target Allocation Absolute Return 37%
45% to 55%
Actual Allocation 39%
In Compliance

10.2 Absolute Dollar Limits

Absolute limits are dollar percentage limits on major asset classes and illiquid investments representing deviations around Policy Asset Allocation.

Table 10.2.1 Percentage Allocation Limits (Fiscal Years 2017-2021)

Category (5-Yr Target %)	Green Zone (CIO)	Yellow Zone (ED)	Red Zone (Board)
Growth (60%)	52% to 68%	45% to 52% & 68% to 75%	<45% & >75%
Income (40%)	32% to 48%	25% to 32% & 48% to 55%	<25% & >55%
Tradable (55%)	50% to 65%	45% to 50% & 65% to 75%	<45% & >75%
Illiquid (45%)	35% to 50%	25% to 35% & 50% to 55%	<25% & >55%
Public Equities	35% to 45%	30% to 35% & 45% to 55%	<30% & >55%
Fixed Income Plus	10% to 25%	5% to 10% & 25% to 30%	<5% & >30%
Private Equity & Growth Opportunities	10% to 20%	5% to 10% & 20% to 25%	<5% & >25%
Absolute Return Funds	3% to 10%	<3% & 10% to 15%	>15%
Real Assets	12% to 25%	10% to 12% & 25% to 27%	<1~~2~~0% & >27%
~~Real Estate~~	~~10% to 17%~~	~~7% to 10% & 17% to 20%~~	~~<7% and >20%~~
~~Infrastructure & Income Opportunities(including Private Credit)~~	~~4% to 12%~~	~~0% to 4% & 12% to 17%~~	~~>17%~~

10.3 Relative Risk Limits

Relative risk measures the expected investment portfolio's risk and return relative to a Benchmark using industry-standard risk measures.

10.3.1 Performance Benchmark

The performance benchmark will be set at 60% Equities/20% Bonds/20% Real Assets (10% REITs, 10% TIPS) Benchmark to reflect the general growth- and income-mix prevailing among institutional investment portfolios, reflected in passive investable indexes. Outperformance versus this passive benchmark should represent the value-added by APFC staff through asset allocation and asset class management. This passive performance benchmark will be reviewed annually for potential adjustment. However, this passive benchmark is not be expected to change except to reflect substantial changes in either long-term market opportunities and/or asset allocations among APFC's institutional peers.

Table 10.3.1.1 Performance Benchmark

Total Fund Benchmark Indices	Current	FY2018	FY2019	FY2020	FY2021
MSCI ACWI IMI	41%	43%	41%	40~~39~~%	38%
90 Day T-Bills	3%	1%	1~~3~~%	1~~3~~%	1~~3~~%
BC US TIPS	1%	1%	1%	1%	1%
BC US Aggregate	6%	8%	7~~6~~%	7~~6~~%	6~~5~~%
BC US ~~Credit~~Corporate	6%	~~5~~6%	65~~6~~%	5~~6~~%	54~~5~~%
BC Global Treasury ex-US (Hedged)	2%	2%	2%	2%	2%
BC EMD Hard Currency	1%	1%	1%	1%	1%
BC US High Yield 2% issuer cap index	5%	2%	2~~5~~%	2~~5~~%	2~~5~~%
S&P Global REIT	2%	2%	2%	2%	2%
S&P Global Infrastructure	1%	1%	1%	1%	1%
Cambridge Private Equity	11%	11%	12~~1~~%	1~~2~~3%	14~~3~~%
NCREIF Index	11%	11%	11%	11%	11~~2~~%
FTSE Developed Core Infrastructure	4%	6%	7~~4~~%	9~~4~~%	11~~5~~%
HFRI Total Fund HFOF Universe	5%	5%	5%	5%	6~~5~~%

Numbers rounded to the nearest whole number

10.3.2 Value-at-Risk ("VaR")

Value-at-Risk is a widely used risk measure for risk of loss on a specific portfolio of financial assets. For a given portfolio, probability and time horizon, VaR is defined as a threshold value such that the probability of a mark-to-market loss on the portfolio over the given time horizon exceeds this value (assuming normal markets and no trading in the portfolio) for a given probability level. VaR can be thought of as probability weighted stress tests. At APFC (as is common practice among major institutional investors), VaR is calculated as 1.645 x annualized volatility, roughly reflecting the 1-in-20 or 5% risk of a downside loss.

VaR is used to determine if portfolio risk is higher or lower than the risk tolerance established by the Board under normal market conditions. Guidelines are based on the VaR risk relative to the Performance Benchmark.

Table 10.3.2.1 Relative Risk Guidelines – VaR

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%

Risk
Guidelines

10.4 Active Risk Budget

Active risk refers to the segment of risk in the portfolio that is due to active management decisions made by portfolio managers. It does not include any risk that is merely a function of passive exposure. Active risk is commonly called tracking error and can be estimated well only for liquid portfolios of stocks and tradable income securities.

10.4.1 Tracking Error ("TE")

Tracking error is a measure of how closely a portfolio follows the index to which it is benchmarked. For example, a portfolio invested in stocks with the precise allocations in the Standard & Poor's 500 equity index will have a zero tracking error. 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.

Table 10.4.1.1 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

10.4.2 Downside Risk

Downside risk is risk of significant loss of capital. One example is the 2008 global banking crisis where most asset classes experienced drawdowns in excess of 30%. 2008 would not be considered a "normal" market. Furthermore, risk models that assume normality of returns, e.g. VaR models, failed to predict the severity of the draw down. Hence, it is imperative to monitor the Fund's downside risk relative to the risk benchmark using scenario analysis and stress testing.

10.4.2.1 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.

Scenario Examples:

1. 1973-74 Oil Crisis (1/11/73 - 10/04/74);
2. 1987 Stock Market Crash (10/14/87 – 10/19/87);
3. 1994 Federal Reserve Interest Hike (1/31/94 - 12/13-94);
4. 1997-98 Asian Currency Crisis (7/1/97 -1/9/98); and
5. 2008-09 Global Banking Crisis (10/11/07 - 3/06/09).

10.4.2.2 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.

Stress Test Examples:

1. Global Equities up 30% in market value;
2. Global Equities down 30% in market value;
3. U.S. Dollar strengthens 30% versus non-U.S. currencies;
4. U.S. Dollar weakens 30% versus non-U.S. currencies;
5. Global nominal interest rates instantaneously rise across the curve 200 basis points;
6. Global nominal interest rates instantaneously fall across the curve 200 basis points;
7. Global inflationary shock of plus 300 basis points;
8. Global disinflation or deflationary shock of minus 300 basis points;
9. Credit spreads rise by 200 basis points;
10. Credit spreads contract by 200 basis points;
11. Commodity prices rise by 30%;
12. Commodity prices fall by 30%;
13. Risk aversion rises dramatically, shock option volatility on rates, credit, equities, commodities and currencies by 2 times the current volatility; and
14. Risk aversion falls dramatically, shock option volatility on rates, credit, equities, commodities and currencies by .5 times the current volatility.

10.5 Specific Risk Limits

10.5.1 Public versus Private Investments

Given the Fund's liquidity profile, there is an opportunity to earn an expected liquidity premium associated with private investments. However, due to reduced ability to rebalance asset allocation, private assets, as a percentage of total Fund value, are limited.

For this guideline, private investments are defined as investments with contractual lock-ups:

1. Private Equity Funds and specific privately-held company/project investments;
2. Hedge Fund investments with lock-ups;
3. Private real estate; and
4. Infrastructure investments.

Table 10.5.2.1 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%

10.5.2 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. Because the cash draws are in essence a cash draw liability with unknown timing, the Fund limits future commitments relative to the Fund's overall size.

Table 10.5.3.1 Future Commitment Limits

Category	Green Zone (CIO)	Yellow Zone (ED)	Red Zone (Board)
Future Commitments	< 20%	20% to 25%	>25%

10.6 Risk Monitoring

The Staff will monitor and report quarterly on a multitude of risks, both absolute and relative, to the Board.

Table 10.6.1 Risk Factors

Risk Factors	Descriptions
Economic Environment	State of global economies, such as phase of economic cycle (recession, recovery, expansion, late cycle), level of economic activity, inflation and interest rates.
Country/Currency Risk	Direct exposure to specific countries and currencies.
Counterparty Risk	Risk of a counterparty to an over-the-counter derivatives contract defaulting.
Business Relationship Risk	Exposure to a single firm with which APFC has a contractual relationship.
Pricing Risk	Segmenting sub-asset class by the level of pricing transparency: exchange pricing, public securities, private securities, etc.
Credit (Quality) Risk	Segmentation of investments by credit rating.
Leverage	Extent to which the value of an investment will rise or decline per invested dollar.
Debt Refinancing Risk	Measured by the concentration of debt maturities by year.
Active Risk Contribution	Measured as the tracking error between an asset or portfolio versus a benchmark index.
Liquidity Risk	Risk associated with inability to buy or sell an investment due to contractual commitments, high transaction costs, or time required to find a seller or buyer.
Geographical Risk	Exposure to different regions of the U.S. or countries outside the U.S.
Equity Style Risk	Exposure to style factors such as value versus growth, or large- versus small-cap equities.
Fixed Income Risk	Exposure to fixed income risk factors such as duration, key-rate duration, sector weightings, etc.

Ex-ante versus Ex-post VaR	Ex-ante refers to a projected measure of VaR calculated by an analytical risk model. Ex-post is the realized distribution of portfolio returns.
Ex-ante versus Ex-post Tracking Error	Ex-ante refers to a projected measure of tracking error calculated by an analytical risk model. Ex-post is realized tracking error calculated by taking the standard deviation of the difference in manager returns versus benchmark returns.

10.7 Performance Management

Even though the Alaska Permanent Fund is quite unique, with its payout formula, investment time horizon, risk tolerance, etc., there will be an attempt to compare the Fund's risk and return in relationship to passive alternatives and peers.

Table 10.7.1 ~~Relative Performance Evaluation~~Performance Report Card

Time Horizon	APFC	Benchmark	Spread (Standard Deviation)	Percentile-Calculation
Short-Term (ST)	1-year Return	Performance Benchmark (Table 10.3.1.1 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 Peer Vol	Implied Percentile
Medium-Term (MT)	3-year Return	Peers Policy Asset Allocation Benchmark NACUBO Index	3-year Peer Vol	Percentile among Peers
Long-Term (LT)	5-year Return, Sharpe Ratio	CPI + 4.5% & Sharpe Ratio>0.5	5-year Peer Vol, Sharpe Ratio 0.25	Implied Percentile (average)

10.8 Attribution Analysis

The Consultant will conduct an in-depth performance attribution analysis, which will quantify which strategies, managers and/or sectors added or detracted from the overall performance.

Risk
Guidelines

~~10.9 Currency Risk Management~~

~~Investment managers, whether internal or external, may, with prior written approval of the Chief Investment Officer, transact in any foreign exchange instrument (including currency futures and forward contracts, options, and swap agreements), as appropriate to implement their investment strategies and that adheres to the internal investment policy and 15 AAC 137.480. Such currency transactions should generally represent bona fide hedging and/or cross-hedging of currency risks inherent in the managers' investments~~

~~In addition, APFC's Chief Investment Officer may delegate (generally to the Asset Allocation and Risk Manager) both the measurement and value-added "overlay" management of the funds' overall foreign currency risks, which may be achieved through internal management, external management, or a combination of both. As with the currency management of investment manager strategies, the overlay management of currency risks should reduce the overall currency risk of the Fund(s) while seeking to add value.~~

11 Rebalancing of Fund Assets (Adopted September 27, 2016)

The Executive Director and CIO have the flexibility to implement the Fund's investment program, working within the Board-approved Green Zones in accordance with Sections 10.2, 10.3, 10.4 and 10.5. Written reports shall be presented to the Board showing sources and destinations of cash flows.

The Executive Director shall report to the Board at least monthly regarding the Fund's actual asset allocation as of the end of the preceding month in comparison to the Policy Asset Allocation targets and Green Zones. The CFO will notify the Board when an asset or sub-asset class allocation enters a red zone guideline. The Executive Director is required to recommend a rebalancing strategy upon entry into a red zone. The Board Chair shall determine whether to schedule a special meeting to review the rebalancing strategy. If the rebalancing strategy will take more than 30 days to complete, the Board Chair will determine whether a Board meeting to review the strategy is needed.

In addition, staff and CIO have the flexibility and discretion to tactically and strategically rebalance the portfolio after prior notification to the Executive Director. Staff shall report to the Board at least quarterly the rebalancing moves made during the period.

12 Liquidity & Asset Allocation Strategies Guidelines (Amended September 27~~6~~, 2017)

12.1 Authorized Investments

Liquidity and asset allocation describe a broad range of investment strategies, investment structures, and underlying assets with the common characteristics that they are multi-asset mandates in nature, risk hedging or diversification strategies, or strategies that look to increase the investment risk efficiency of managing the Fund. Strategies in this category are typically characterized by short to medium investment horizons which provide increased Fund liquidity, diversification and the potential for achieving higher ~~for~~ risk-adjusted investment returns to the Fund.

12.2 Return Objective

1. Long term average annual real return objective: CPI + 4.5%~~.~~ or better;
2. Sharpe Ratio of 0.5 over a 5-year period;
3. Short term benchmark composite: 65% MSCI ACWI IMI/35% Bloomberg BC US Aggregate; and
4. Investment horizon is the longer of (i) one business cycle or (ii) 5 years.

12.3 Liquidity Management

The Board ~~of Directors and management of APFC~~ recognize the importance of liquidity in the day-to-day operation of ~~our~~the ~~c~~Corporation and believe it is crucial to have a plan for addressing liquidity both during~~in~~ normal times as well as during~~nd~~ times of financial market stress. Consequently, the Executive Director, ~~APFC management will~~ shall prepare an annual ~~have~~ contingency funding plans ~~in place~~ to manage short-term and long-term crises in the financial markets. The~~e~~is plan ~~for the most significant stress events~~ will be reviewed annually in conjunction with the strategic planning process, or ~~more frequently~~ as needed.

Within the context of this ~~document~~section of the Policy, liquid investments~~ity~~ are~~is~~ defined as cash and cash equivalents, liquid investment balances, access to cash (e.g., lines of credit, letters of credit), and the convertibility of assets to cash in order to meet operating and financial needs during the operating cycle.

12.3.1 Overlay Strategies

Investment Staff, with prior approval from the ~~Board~~Executive Director, may employ "overlays" that will seek to efficiently achieve specific Board policy objectives. Overlay programs may be created to address the following needs: liquidity management, residual manager cash equitization/securitization, transition/reallocation exposure management, rebalancing, fund-wide exposure management, currency exposure management, and interest rate management.

With Executive Director approval, Staff may also apply overlay ~~managers~~strategies for synthetic rebalancing of Fund'~~'~~—s exposures in an efficient and cost effective manner back to desired allocation, reducing transaction costs, ~~,~~and reducing tracking error relative to index benchmarks.

~~APFC management will have contingency funding plans in place to manage short-term and long-term crises in the financial markets. The plan for the most significant stress events will be reviewed annually in conjunction with the planning process, or more frequently as needed.~~

12.4 Currency Risk Management

Investment managers and APFC Staff~~, whether internal or external~~, may, with prior ~~written~~ approval of the Executive Director~~Chief Investment Officer~~, transact in any foreign exchange instrument (including currency futures and forward contracts, options, and swap agreements), ~~as appropriate~~ to implement their investment strategies, contingent upon such transactions being consistent with this Investment Policy and ~~and that adheres to the internal investment policy and~~ the requirements of 15 AAC 137.480. ~~Such currency transactions should generally represent bona fide hedging and/or cross-hedging of currency risks inherent in the managers' investments~~

~~In addition, APFC's Chief Investment Officer may delegate (generally to the Asset Allocation and Risk Manager) both t~~The overall goal of the currency management program ~~measurement and value-added "overlay" management of the funds' overall foreign currency risks, which may be achieved through internal management, external management, or a combination of both. As with the currency management of investment manager strategies, the overlay management of currency risks~~ should seek to reduce the overall currency risk of the Fund~~(s)~~ while also seeking to add value.

12.5 External CIO (eCIO) Strategies

12.5.1 Purpose

The intent is to hire the "best in class" institutional asset management firms to serve as "external CIOs~~.~~" on a small portion of Fund assets which can provide compelling returns~~ in their own right~~, an additional benchmark to measure the Fund's overall performance against, and a mechanism to impart the best portfolio strategy ideas from reputable ~~top money~~ asset managers to APFC ~~investment s~~Staff. The performance objectivess for the external CIOs include producing a ~~similar~~ real return in excess of the Fund's return objective, while operating within the APFC's overarching value-at-risk guidelines and generally limited to investments with lock-ups of no longer than 2 years. ~~The external CIOs may be required to report in person at a regular Board meeting for an in-depth portfolio review, and may be askedrequested to present on special topics.~~

12.5.2 Investment Objective

The investment objectives are to provide a total rate of return through a diversified portfolio of investments that meets or exceeds the return objective, with volatility and downside risk lower than APFC's risk limits.

12.5.3 Return Objective

Long term average annual -real return objective of the Fund: CPI + 4.5%. or better~~.~~

1. ;
2. Sharpe Ratio of 0.5 over a 5-year period; and
3. Investment horizon is the longer of (i) one business cycle or (ii) 5 years.

12.5.4 Reporting Requirements

The ~~Investmente~~CIO- Manager shall be required to provide monthly, quarterly, and annual reports to the APFC. These reports shall include such information and analysis as determined necessary and appropriate by the CIO in consultation with the Consultant~~ and the Investment Manager~~. The ~~Investmente~~CIO Manager shall also be required to meet with the APFC as reasonably requested and at least annually to discuss the evolution of the manager's investment strategy and other matters as the CIO, in collaboration with the Consultants and Advisors, may request.

~~12~~13 Fixed Income Plus Guidelines (Amended September 27~~December 6~~, 201~~7~~6)

~~12.1~~13.1 Authorized Investments

The APFC may invest in tradable income assets (including investment grade domestic and international fixed-income, mortgage-backed securities (MBS/CMBS), domestic and international high yield fixed income, emerging markets fixed income, inflation-linked securities, real estate and other income-generating trusts, tradable infrastructure, yield-oriented exchange-traded funds (ETFs) and other listed yield-oriented securities) –

(i) internally,

(ii) through separate accounts managed by external managers (including through a separate account formed as a limited liability entity such as a corporation, limited partnership, limited liability partnership, or limited liability company under 15 AAC 137.520), or

(iii) through collective or commingled investment funds under 15 AAC 137.470, 15 AAC 137.520 and 15 AAC 137.990(4).

The requirements of sections 12.2 and 12.3 below apply to assets invested internally and through separate accounts with tradable income mandates.

~~12.2~~13.2 Standard of Care

Subject to the limitations established under AS 37.13.120, 15 AAC 137.430, and these guidelines, tradable income managers, whether internal or external, shall exercise the care, skill, judgment, and diligence under the circumstances then prevailing that a prudent professional investment manager for hire acting in like capacity exercises in the management of large investments entrusted to it not in regard to speculation but in regard to the permanent disposition of funds, considering probable safety of capital as well as probable income.

~~12.3~~13.3 Investment Guidelines

~~12.3.1~~13.3.1 Performance Objectives

The performance of the tradable income portfolio over a market cycle shall be measured against the following objectives:

1. Total returns commensurate with the level of total risk taken in the portfolio so as to fulfill the role of tradable income in the Fund's asset allocation policy; and

2. Risk-adjusted returns measured using standard industry metrics such as the Sharpe ratio or information ratio that are enhanced relative to the tradable

income portfolio's assigned benchmark.

3. Total returns relative to the total returns of the assigned benchmark.

~~12.3.2~~13.3.2 Active Risk Limits

Tracking error is a measure of how closely a portfolio follows the index to which it is benchmarked. Tracking error is calculated for this purpose on an ex-ante basis using a holdings-based risk analytical system.

Table 12.3.2.1 Relative Tradable Income Risk Guidelines – VaR and Tracking Error

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	Bloomberg 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	Bloomberg Barclays Developed Government Bond Index (ex. U.S. & currency hedged)	0 to 200 bps	200 to 300 bps	>300 bps
Investment Grade Corporate Bonds	Bloomberg Barclays US Investment Grade Corporate Bond Index	0 to 200 bps	200 to 300 bps	>300 bps
High Yield Corporate Bonds	Bloomberg Barclays US High Yield 2% issuer cap Index	0 to 400 bps	400 to 500 bps	>500 bps

Category	Risk Benchmark	Green Zone (CIO)	Yellow Zone (ED)	Red Zone (Board)
Treasury Inflation Protected Securities	Bloomberg Barclays U.S. Treasury Inflation Protected Securities Index	0 to 200 bps	200 to 300 bps	>300 bps
Domestic Fixed Income Aggregate	Bloomberg Barclays U.S. Aggregate Index	0 to 300 bps	300 to 400 bps	>400 bps

~~12.3.3~~13.3.3 Additional Clarification and Limitations

A tradable income manager, whether internal or external, may, with prior written approval of the Chief Investment Officer, transact in any derivative instrument, as appropriate to implement its investment strategy and that adheres to the internal investment policy and 15 AAC 137.430.

~~12.3.4~~13.3.4 Clarifications and Restrictions Specifically Related to Cash Management Accounts

APFC's Collateral Cash Management Account is primarily intended to serve as a mechanism for investing the collateral used to back specific forward-settle transactions such as TBA's (to be announced). As such, its benchmark is short-term and the guidelines confined to highly liquid investments. The following apply to the Collateral Cash Management Accounts:

1. Repurchase agreements permitted by law are allowed so long as the collateral has a market value equal to or greater than 102% of the amount of the repurchase agreement and the APFC retains possession of the collateral;
2. Commercial paper may be purchased if it is issued under either Section 3(a)(3) or Section 4(2) of the Securities Act of 1933, as amended; and
3. Commercial paper must be rated A-a or A-1+ from S&P or P-1 from Moody's at the time of purchase.

Delegation of Contract Management

The Executive Director is authorized to enter into, execute, and amend contracts with external managers that the Executive Director considers necessary, convenient, and desirable for the purposes of this policy and to take such other action as is necessary, convenient, and desirable to carry out the purposes of this policy.

~~13~~14 Public Equity Guidelines (Amended September 27, 2017~~6~~)

Authorized Investments

Assets in the Fund's publicly traded equity securities portfolios may be invested

(i) internally,
(ii) through separate accounts managed by external managers (including through a separate account formed as a limited liability entity such as a corporation, limited partnership, limited liability partnership, or limited liability company under 15 AAC 137.520), or
(iii) through collective or commingled investment funds under 15 AAC 137.470, 15 AAC 137.520 and 15 AAC 137.990(4).

And may only include investments in the following:

1. common and preferred stock of entities (including banks and banking associations) organized under the laws of the United States or of states, territories, possessions, or other political subdivisions of the foregoing;
2. common and preferred stock of entities (including banks and banking associations) organized under the laws of a foreign jurisdiction;
3. equity-related and equity-linked shares, including convertible debt securities, of an entity described in 1. or 2. of this Section;
4. depositary receipts and equivalent instruments of those investments authorized in 2. and 3. of this Section, as applicable;
5. equity securities not included in 1. through 4. of this Section that are generally represented in the equity benchmark index assigned to an investment manager;
6. option contracts on common stocks and common stock indices;
7. exchange traded funds (ETFs) which owns underlying shares of stock
8. exchange traded stock index futures, to facilitate asset allocation strategies in the equity portfolio, including country or regional equity market allocation strategies, the investment of available cash and accrued income of investments authorized in this Section, the orderly sale of equity investments, and to manage equity exposure during portfolio restructurings
9. contracts for the future delivery of foreign currencies to the extent necessary for the purchase or sale (whether undertaken or expected to be undertaken) of those investments authorized in 2., 3., 4., 5., and 6. of this Section, as applicable;

10. futures or forward contracts for the purchase or sale of foreign currencies for the purpose of hedging the foreign currency value of an existing equivalent ownership position, currency cross hedging with prior authorization by the Executive Director, active management of currency exposures in an equity portfolio, provided that
    a. if 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;
11. collective or commingled equity investment entities, including, but not limited to, any common trust fund, collective trust fund, registered investment company (open-end or closed-end), partnership, limited liability company, or any other similar entity whose purpose is to direct the collective investment of assets, including exchange traded funds, provided that Staff has determined that such investment entity invests its assets predominantly in equity instruments that the APFC is otherwise authorized to invest in directly;
12. newly offered or issued shares of investments authorized in 1., 2., 3., 4., and 5. of this Section, including initial public offerings (IPOs);
13. the Executive Director may authorize an active equity manager to short-sell investments authorized in 1., 2., 3., 4. or 5. of this Section, provided that the market value of such short exposure in aggregate is targeted to range between twenty percent (20%) and forty percent (40%) of the market value of the Fund's assets invested with that manager, with a control band of zero to fifty percent (0-50%) to allow for transactional flexibility.

Investment Guidelines

~~13.1.1~~14.1.1 Performance Objectives

The performance of the total public equity portfolio over a market cycle shall be measured against the following objectives:

1. Total returns commensurate with the level of total equity risk taken in the portfolio so as to fulfill the role of public equities in the Fund's asset allocation policy; and
2. Risk-adjusted returns measured using standard industry metrics such as the Sharpe ratio or information ratio that are enhanced relative to the total public equity portfolio's assigned benchmark.
3. Total returns relative to the total returns of the assigned benchmark.

~~13.1.2~~14.1.2 Portfolio Structure

Consistent with performance objectives, and applicable tracking error guidelines outlined in Section 10, the structure of the total public equity portfolio shall include one or more of the following:

1. Actively managed equity strategies that strive to enhance total returns of a portfolio relative to its assigned benchmark through one or more active decisions, including stock selection, factor exposure, and allocation decisions to regions, countries, currencies, sectors, industries, etc.;
2. Passively managed equity strategies that strive to replicate, in a cost efficient manner, the returns of a benchmark index; and
3. Quasi-passively managed equity strategies that strive to provide diversified, low turnover exposure to certain risk factors or replicate an index that provides such exposure.

~~13.1.3~~14.1.3 Portfolio Rebalancing and Mandate Modification

The Chief Investment Officer may:

1. With prior approval of the Executive Director, rebalance assets to, from or between individual equity portfolios;
2. With prior approval of the Executive Director, give authority to the Director of Public Equities to trade, rebalance assets to, from or between individual public equity portfolios at his/her own discretion up to 1% of the public equity allocation per rebalancing event.
3. With the prior approval of the Executive Director, add, remove or modify passive (and quasi-passive) equity portfolio mandates for investment managers; and
4. ~~With the prior approval of the Executive Director, add, remove or modify quasi-passive equity portfolio mandates for investment managers.~~

Investment Management Contracts

The investment of Fund assets in equity securities shall be made by internal or external investment managers, with such investments by external managers to be made under terms of contracts entered into by the Executive Director and investment managers. Such investment management contracts shall include, without limitation, provisions that:

1. provide for measuring the manager's investment performance against appropriate investment benchmarks assigned by the Chief Investment Officer;
2. require the manager to be fully invested according to the following:
   a. except for managers with an incentive compensation arrangement, the manager should be at least ninety-eight percent (98%) invested (no more than two percent 2% cash) in each account for which the manager has responsibility, with a control band of zero to five percent (0-5%) to allow for transactional cash;
   b. a manager may elect to hold cash greater than five percent (5%) for any period of time, if the manager's strategy indicates that doing so would be

beneficial to the APFC; a manager must notify the APFC prior to implementing that strategy; the Executive Director shall report to the Board regarding any manager who chooses to implement such a strategy;

c. unless the Executive Director authorizes an exception (e.g., for managers with incentive compensation arrangements), APFC will not compensate managers for that portion of cash exposure of an account that exceeds the applicable cash limitation under Paragraphs a. or b. of this Section, if held for a period of more than 90 days; and

d. an external manager may, with the prior approval of

   1. the Chief Investment Officer, invest up to five percent (5%) of an account's assets in exchange traded funds (ETFs); and

   2. the Chief Investment Officer, invest more than five percent (5%) of the account's assets in exchange traded funds (ETFs) for a period of not more than 90 days in order to accommodate large deposits to or withdrawals from the account or the manager's equity portfolio strategy.

3. require that the manager shall seek to obtain best execution of trade orders at the most favorable prices reasonably obtainable and, in doing so, consider a number of factors, including, without limitation, the overall direct net economic result to the Fund (including commissions, which may not be the lowest available but which ordinarily will not be higher than the generally prevailing competitive range), the financial strength and stability of the broker, the efficiency with which the transaction is effected, the ability to effect the transaction at all where a large block is involved, the availability of the broker to stand ready to execute possible difficult transactions in the future, and other matters involved in the receipt of "brokerage and research services" as defined in and in compliance with Section 28(e) of the Securities and Exchange Act of 1934, as amended, and regulations thereunder;

4. consistent with manager obligations to seek best execution, encourage, but not require, an active equity manager to participate in the APFC's commission recapture program;

5. in recognition that proxy votes have economic value and thus are assets to manage, and consistent with the Board's responsibility to ensure that its shares are voted:

   a. require each manager to vote proxies in accordance with the manager's proxy voting policies for all shares owned, controlled, or held directly or indirectly by the APFC, excluding (a) shares on loan under the APFC's securities lending program, and (b) shares traded in share-blocking markets when the resulting selling limitation would not be in the best financial interests of the Fund, in accordance with its rights and responsibilities as a shareholder and its fiduciary duty as an institutional investor, in a manner so as to maximize the Fund's rate of return over the period the manager would likely hold the investment and promote the best financial interest of the Fund;

b. encourage but not require managers to consider the following principles when voting proxies: (a) proxy matters dealing with a corporate governance process have the potential to improve board-shareholder dynamics for an extended period; (b) board independence is one of the cornerstones of good corporate governance; independent corporate boards of directors lead to the creation and maintenance of good decision-making processes within companies in which the Fund is invested; (c) an independent director is someone whose only non-trivial past and present connection to the corporation is that person's directorship; and, therefore (d) the following proposals have the potential to impact corporate governance and improve board-shareholder dynamics:

  i. proposals that support:

    a) independent compensation, nominating, and audit board committees;
    b) majority of independent directors;
    c) confidential voting by shareholders;
    d) right of shareholders to act by written consent;
    e) right of shareholders to call a special meeting;
    f) requirement that shareholders approve poison pills, payment of greenmail, or dual-class share structures;
    g) requirement that the audit firm be limited to performing audits only; and
    h) except for companies that allow cumulative voting, election of directors by a majority of shareholder votes or adoption of director resignation policies for directors receiving more "withhold" versus "for" votes;

  ii. proposals that are against:

    a) classified or staggered boards; and
    b) supermajority vote requirements; and

c. require each manager to furnish to the APFC annually copies of the manager's written policies with respect to voting proxies and at least annually report to the APFC how the manager voted all proxies on behalf of the APFC; at a minimum, each manager's report shall be submitted to the APFC in electronic form and shall indicate for each proxy ballot item voted, the company, the issue, company management's recommendation, how the manager voted, and any comments explaining the basis for the manager's vote, so that Staff will have the information necessary to generate a consolidated report.

6. provide for the manager to make periodic reports to the APFC and Board;
7. address such other terms and conditions as the Executive Director or Chief Investment Officer consider in the Fund's best interest.

Delegation of Contract Management

The Executive Director is authorized to enter into, execute, and amend contracts with external equity managers that the Executive Director considers necessary, convenient, and desirable for the purposes of this Policy and to take such other action as is necessary, convenient, and desirable to carry out the intent of this Policy. In the execution and monitoring of contracts with investment managers, the Executive Director shall ensure that applicable statutes and policies established by the Board are followed.

~~14~~15 Private Equity & Growth Opportunities Guidelines (Amended December 6, 2016)

~~14.1~~15.1 Authorized Investments

Private Equity and Growth Opportunities describe a broad range of investment strategies, investment structures, and underlying assets with several common characteristics. Current private equity investment strategies pursued by large institutional investors include venture capital, buyouts, and distressed assets. Opportunities are accessed both through long-term commitments to funds managed by our investment partners and through targeted, direct investments into operating companies.

Private market portfolio 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.

~~14.2~~15.2 Standard of Care

Higher expected returns 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.

~~14.3~~15.3 Investment Guidelines

~~14.3.1~~15.3.1 Performance Objectives

To compensate for the illiquidity and the higher specific risk of the private assets, the private equity and special growth programs are expected to produce, over the long term, a high absolute long-term rate of return, with a premium (net of all fees and expenses) over an appropriate public equity benchmark. The Board will monitor progress and results through regular staff updates and an annual performance measurement report prepared by the APFC's general consultant.

APFC's private equity and special growth opportunities portfolio will be evaluated using customary approaches including: (1) comparison of vintage year performance against private equity industry benchmarks; and (2) comparing long-term performance over ten year rolling periods to public equity benchmarks plus a premium of 200 to 500 basis points over a benchmark, as recommended by APFC's general consultant. Consistent with industry practice, performance shall be calculated using the internal rate-of-return (IRR) methodology.

~~14.3.2~~15.3.2 Private Equity

Private equity and special growth investments shall be made in a manner consistent with the fiduciary standards of the prudent investor rule, namely, for the sole interest of the Fund. Guidelines must be flexible enough to allow for adjustments based on certain external factors including the availability of quality investment opportunities, the flow of capital into the private capital markets, and the state of the overall economic environment.

The selection and management of assets in the portfolio will be designed to generate a high level of risk-adjusted return, provide a modest amount of current income, and maintain prudent diversification of assets.

The investment risks associated with illiquid assets will be mitigated through skillful management and rigorous due diligence:

1. Institutional Quality: All investments must be of institutional investment quality. Institutional quality is defined as an investment that would be considered acceptable by other prudent institutional investors (i.e., insurance company, commercial banks, public employee retirement systems, corporate employee benefit plans, endowments and other tax-exempt institutions).
2. Diversification: The private equity portfolio 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 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 target allocation as established by the Board.

   a. 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.

      i. Venture Capital: (5% to 30%) – Venture capital partnerships 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.

      ii. 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 measures.

      iii. Specialized Funds: (0% to 50%) - Private investments in commingled partnerships not described by the prior two categories or which do not justify a separate long-term strategic allocation. This will include, but not be limited to, distressed debt strategies and certain industry-specific strategies.

b. Geographical Diversification: Although the priority should be to achieve diversification by investment strategy and industry groups, geographical diversification is also desirable. Over the long-term, the portfolio should seek 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.

c. Industry Sector Diversification: The portfolio shall be diversified by industry sector (i.e., Biotechnology, Computers, Financial Services, Healthcare, Medical, Media/Communications, Electronics, Software, Consumer/Retail, Basic Industry, Other, etc.) so that no single industry classification is heavily represented in the private equity portfolio. Industry sector diversification will be measured based on aggregate exposures of the underlying portfolio company investments.

d. Time and Life Cycle Diversification: Commitments to private investments shall be staged over time, and venture capital shall include early, later, and multi-stage investments. The Board will approve a target funding level each year in conjunction with its annual review of its asset allocation policy and allocation target to private equity.

e. General Partner Diversification: Fund commitments shall be diversified by investment partner and seek to limit exposure to any single general partnership or investment sponsor organization to a maximum of 20% of the total private equity portfolio (based on estimated total commitments).

~~14.3.3~~15.3.3 Growth Opportunities

Technological innovation, market volatility, and behavioral economics often create attractive, sometimes fleeting, investment opportunities that do not fit precisely into standard, predetermined categories. These opportunities may be caused by, among other things, 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.

1. The CIO, with Executive Director consent, may invest in specific opportunities, subject to previously Board-approved asset classes or sub-asset classes, up to 1% of the Fund's assets.

2. The CIO and Executive Director will report all new investment opportunities, along with the rationale, at the next regularly-scheduled Board meeting.

   Accordingly, APFC may invest directly or indirectly in these special opportunities through: (a) collective or commingled investment funds; (b) separate accounts; or (c) limited liability entities (including limited partnerships, limited liability companies, funds-of-one, and similar structures) that invest directly in operating companies or in funds managed by an independent fiduciary.

   Such investments must be made in a manner consistent with applicable regulations and Policy provisions. To the extent applicable, guidelines, objectives and benchmarks will be addressed in transactional agreements or otherwise.

~~14.4~~15.4 Portfolio Management

~~14.4.1~~15.4.1 Ownership Structure

1. Separate Account Investment Structure: APFC's ownership structure may include separate account relationships established with one or more fiduciary oversight managers ("gatekeeper"). The gatekeeper will in turn make commitments to private equity limited partnerships, limited liability companies, or other investments on APFC's behalf, in either a discretionary basis or a non-discretionary capacity.
2. Fund-of-Funds Vehicles: APFC may also invest through fund-of-funds (FOF) vehicles. To the degree practicable, the FOF documents should reflect operational and reporting procedures similar to these policies and guidelines and governing documents should seek to address the conflicts of interest inherent in fund-of-funds structures.
3. Direct Commitments: APFC Staff may commit directly to investment partnerships in accordance with its stated policies and purpose. Such managers must agree to act in a fiduciary capacity and staff will support its own analysis and investment decisions with research, analysis, and a written investment review prepared by an independent third party with relevant expertise and experience.
4. Co-Investment Program: APFC recognizes that the practice of co-investing along-side private equity fund managers in underlying portfolio companies has the potential to enhance overall returns through careful selection of investments, active engagement with investment partners, and reduction of management fees and profit sharing costs. The co-investing program shall include the following elements:
   a. Third-party managed co-investment commingled funds or separate accounts: APFC may hire one or more fiduciary manager(s) to make co-

investments on APFC's behalf as part of a commingled fund or separate account.

b. Staff-managed co-investment portfolio: Subject to a board-approved allocation, Staff may co-invest along-side any of its existing private equity fund managers. Such co-investments are subject to an investment due diligence review by a third-party advisor.

c. Concentration: APFC recognizes that co-investments are likely to represent more concentrated exposure to individual portfolio companies compared to exposure through commingled funds. APFC will manage risks by diversifying the co-investment portfolio by sponsor, strategy, vintage, industry, and geography.

   Individual co-investments (or a series of co-investments in the same underlying operating entity or corporation) will not exceed an aggregate total commitment or cost basis of 1.0% of the value of the Fund, as determined at the time of investment.

   In addition, co-investments will be effected in a manner that limits liability to APFC either through the co-investment vehicle or the nature of the underlying portfolio company entity.

d. Performance measurement: Performance of the co-investment program shall be evaluated using customary and applicable measures of performance, e.g., vintage-year analyses, IRR analysis, and multiple analysis. The investment performance of APFC staff will be compared to the performance of external managers and reported at least once annually by APFC's consultant or an independent third party.

5. Potential Conflicts: With regard to private equity investments managed by third parties, the following potential conflicts of interest warrant inclusion in this policy:

   a. Manager Proprietary Products: The separate account oversight manager may not invest in a proprietary product without the explicit prior approval of the CIO.

   b. Allocation of Investments among Accounts: Any third-party manager shall disclose to APFC in writing its policies regarding the allocation of investment opportunities among potentially competing asset pools. The manager shall inform APFC of any change to such policies and shall report periodically as requested by Staff regarding its application of those policies.

~~14.4.2~~15.4.2 Additional Investment Limits and Requirements

The CIO may, with the Executive Director's consent, invest up to 1% of the Fund's assets (measured at the time of investment) in a single entity. However, the maximum allocation to Special Growth Opportunities directed solely by the CIO and

Executive Director between board meetings is 2% of the Fund's assets. The CIO will report all new Special Growth Opportunities investments, along with investment rationale, at the next regularly scheduled board meeting.

~~14.4.3~~15.4.3 Annual Review and Plan

An Annual Review and Investment Plan must submitted to the CIO prior to the start of each fiscal year. Staff will submit annually for review by the Board a pacing and investment plan that reflects then current exposures, assumptions, and outlook.

~~15~~16 Real Estate Guidelines (Amended September 27~~67~~, 2017~~6~~)

~~15.1~~16.1 Authorized Investments

The return objective for APFC's real estate portfolio is to generate a long-term total return between the expected return for equities and tradable income investments, calculated on a time-weighted basis over rolling five-year periods.

1. APFC may invest assets of the Fund in real estate investments subject to the applicable restrictions and conditions set out in 15 AAC 137.
2. Property Types—Private Real Estate. Fund assets may be invested in the following types of private real estate:
   a. All property types that are representative of Class A, institutional grade, "income producing"(completed and substantially rented) real estate;
   b. land, located within the market area in which the Fund holds an existing private equity real estate interest;
   c. land purchased by equity interests in entities formed to develop for commercial purposes vacant or underdeveloped real estate ~~in the United States~~ that, when completed and occupied would meet 2.a above; and/or
   d. land purchased for the purpose of granting or entering into a ground lease where the land is improved by a completed and substantially rented building consistent with 2.a, above.

~~15.2~~16.2 Investment Guidelines

1. Real Estate Investments
   a) Requirements Related to "Substantially Rented"
      i. "Substantially rented" is satisfied if the following conditions are met:

Table 15.2.1 Real Estate Investment Guidelines for "Substantially Rented"

	Core	Value-Added
Physical Test	At least 80 percent of the physical net rentable area must be leased and at least 65 percent of the physical net rentable area must be leased and occupied by tenants on an arms-length basis.	At least 65 percent of the physical net rentable area must be leased and at least 50 percent of the physical net rentable area must be leased and occupied by tenants on an arms-length basis.

Income Test	The property must be sufficiently leased to generate income sufficient to cover operating expenses and, if applicable, debt service.

2. Commercial Mortgage/Commercial Mortgage Backed Securities (“CMBS”) Requirements.
    a) Commercial mortgages and CMBS in which APFC invests shall be secured by properties of a quality considered acceptable by other institutional investors, including endowments, foundations, sovereign wealth funds, or public and private pension funds, and that are improved by a completed and substantially rented building of a type listed in Section 15.2.2 Authorized Investments, above.
    b) Publicly traded mortgages shall consist of CMBS secured by first mortgage positions.
3. Real Estate Securities. The provisions dealing with best execution and proxy voting of the Public Equity Guidelines in effect at the time of the trade or vote, as applicable, shall apply to publicly traded real estate securities in the real estate portfolio.

~~15.2.1~~16.2.1 Investment Strategy

Staff shall prepare a real estate investment strategy for the real estate portfolio ("Investment Strategy"). The Investment Strategy shall set out APFC's three- to five-year objectives and implementation plan for investment and management of the Fund's real estate assets. The Investment Strategy takes effect upon approval by the Board and shall be reviewed by Staff annually and updated for consideration and approval by the Board as appropriate.

~~15.2.2~~16.2.2 Tactical Plan

Annually, APFC Staff shall also prepare a real estate tactical plan for the real estate portfolio ("Tactical Plan"). The Tactical Plan shall detail the current status of the portfolio and identify Staff's expectations for the coming year toward meeting the objectives of the Investment Strategy. The Tactical Plan shall be based on input from each of the Fund's real estate investment managers and other sources. The Tactical Plan takes effect upon approval by the Executive Director.

~~15.2.3~~16.2.3 Diversification

To minimize risk from regional economic imbalances, property performance volatility, and management style, Staff shall diversify the Fund's real estate investments by investment type, property type, property location, and manager. Staff shall report the degree of diversification across these dimensions to the Board on a regular basis.

~~15.2.4~~16.2.4 Leverage
APFC may leverage real estate investments of the Fund subject to the applicable restrictions and conditions set out in 15 AAC 137.

~~15.2.5~~16.2.5 Development/Property Life Cycle
In accordance with AS 37.13.120, APFC may invest in real estate development projects subject to the applicable restrictions and conditions set out in 15 AAC 137 and to additional restrictions specified in the Real Estate Investment Strategy.

~~15.2.6~~16.2.6 Investment Authority/Control
The Executive Director is authorized to enter into, execute, and amend contracts with existing external managers that the Executive Director considers necessary, convenient, and desirable for the purposes of this policy and to take such other action as is necessary, convenient, and desirable to carry out the purposes of this policy. In the execution and monitoring of contracts with investment managers, the Executive Director shall ensure that applicable statutes and policies established by the Board are followed.

Final approval of real estate investments is given to the Executive Director. The Executive Director may further delegate:

1. to APFC's Chief Investment Officer and/or the Director of Real Estate Investments authority to approve (and execute documents relating to) the acquisition or disposition of an interest in real estate; and/or
2. to those external investment managers, who serve as fiduciaries under Board-approved policies and guidelines, provided that:
   a. the following discretionary matters may not be delegated to external investment managers:
      i. decisions to finance or refinance any portion of an investment or guarantee the obligations of another;
      ii. reviewing investment performance; and
      iii. granting or exercising a right to buy or sell between co-investors.

~~15.3~~16.3 Reporting Procedures and Benchmarks

~~15.3.1~~16.3.1 Reporting
Staff shall provide reports to the Board that fully describes the real estate portfolio by including: property types and targets, development exposure by phase, and leverage as a Loan to Value (LTV) %.

~~15.3.2~~16.3.2 Benchmark
Staff shall use the NCREIF NPI Index when reporting portfolio performance results for the private real estate portfolio, and held to a long-term return objective of 4% real.

~~15.4~~16.4 Valuation

APFC shall follow generally accepted accounting principles for valuation of private equity real estate. As applicable, standards then in effect for accounting for the Fund's real estate assets, including participating mortgages and equivalent obligations, both manager's internal valuation and external appraisals may be used to establish the fair value of real estate investments.

~~15.5~~16.5 Authority

Each individual private equity real estate acquisition exceeding 1% of the total Fund value shall be subject to Board approval.

~~15.6~~16.6 Investment Managers and Fiduciaries

Each private equity real estate acquisition shall be made only:

1. through an approved investment manager; or
2. on the recommendation and advice of an independent fiduciary retained by APFC to evaluate a specific proposed investment or investment strategy.

~~16~~17 Infrastructure & Income Opportunities Guidelines (Amended December 6, 2016)

Authorized Investments

Infrastructure and Income Opportunities describes a broad range of investment strategies covering infrastructure, other private real asset investments (such as timber and hard asset leasing), private credit, opportunistic/distressed credit and other miscellaneous private market investments that provide income generation to the Fund. In the case of infrastructure, these assets are, by nature, long-lived and exhibit inflation protection characteristics. In the case of private credit, investments may not provide inflation protection, but compensate for this with high income generation. All Infrastructure and Special Income investments should be additive to the Corporation's mandate of safeguarding the principal of the Fund while maximizing total return.

Standards of Care

Infrastructure and Income investments shall be made in a manner consistent with the fiduciary standards of the prudent investor rule, namely, for the sole interest of the Fund. Guidelines must be flexible enough to allow for adjustments based on external factors including the availability of quality investment opportunities, the flow of capital into the private capital markets, and the state of the overall economic environment

Investment Guidelines

~~16.1.1~~17.1.1 Performance Objective

The performance target for the Infrastructure & Income portfolio is a real return of 4% (CPI+4%). The life-cycle of Private Infrastructure and Special Income investing, which can be similar in structure to private equity, will in many circumstances contribute to an uneven return profile or J-Curve phenomena for investments early in their respective life-cycle.

~~16.1.2~~17.1.2 Infrastructure and Credit

The selection and management of assets in the portfolio will be designed to generate a high level of income, potentially provide for some capital appreciation or equity upside, while maintaining prudent diversification of assets. There may some situations where an investment's cash flows are directed toward capacity expansion, debt amortization or other value creating purposes (as opposed to investor distributions), however, in spite of this, any investment should be in underlying assets with the potential for high future income generation.

The investment risks associated with illiquid assets will be mitigated through skillful management, rigorous due diligence, and the following additional requirements:

1. Institutional Quality: All investments must be institutional investment quality. Institutional quality is defined as an investment that would be considered acceptable by other prudent institutional investors (e.g., insurance companies, commercial banks, public employee retirement systems, corporate employee benefit plans, endowments and other tax-exempt institutions).
2. Diversification: Without prior approval of the Executive Director, no more than twenty percent (20%) of the total portfolio will be invested at any time with any single partnership, entity, or organization.
3. Limited Liability: As highlighted in Section 15.3.1 below, the AFPC shall invest in Infrastructure and Special Income investments through a limited liability investment vehicle- or ensure that any investment does not provide for recourse to the Fund beyond the invested capital.
4. Targeted Investment Types: Investments in the Infrastructure and Special Income portfolio will broadly fall into one of three categories:
    a. Infrastructure & Other Real Assets:
        i. Energy Infrastructure (e.g., power generation, oil & gas pipelines and storage, regulated utilities)
        ii. Transportation (e.g., airports, ports, toll roads)
        iii. Water Infrastructure (e.g., water utilities, desalination facilities)
        iv. Telecommunications (e.g., data centers, cell towers, satellite systems)
        v. Social Infrastructure (e.g., lotteries, student housing, prisons)
        vi. Other Infrastructure (e.g., other protected income stream assets, other interests of infrastructure issuers, other infrastructure related assets)
        vii. Other Real Assets (e.g., timberlands, agricultural farmlands, leasable hard assets, and any other tangible or intangible asset that possesses similar portfolio characteristics as those envisioned for infrastructure and other real assets outlined in this section)
    b. Private Credit:
        i. Direct Lending
        ii. Opportunistic / Distressed Credit
        iii. Asset-based Lending

iv. Mezzanine Lending
v. Other Private Credit Investment Strategies (e.g., structured credit, leasing, royalties, venture debt)

~~16.1.3~~17.1.3 Income Opportunities

Income Opportunities: The dynamic nature of global markets, company innovation, market volatility and behavioral economics often create attractive, sometimes fleeting, investment opportunities that don't fit precisely into standard, predetermined categories. These "Income Opportunities", to the extent that they are income generating in nature, shall be included in the Infrastructure & Special Income portfolio and will be subject to the constraints, guidelines and performance measurement mandates of this policy.

1. The CIO, with Executive Director consent, may invest in specific opportunities, subject to previously Board-approved asset classes or sub-asset classes, up to 1% of the Fund's assets.
2. The CIO and Executive Director will report all new investment opportunities, along with the rationale, at the next regularly-scheduled Board meeting.

Portfolio Management

~~16.1.4~~17.1.4 Ownership Structure

APFC assets may be invested in Infrastructure and Income investments through limited liability entities and collective or comingled investment funds. These investments may be into investment partnerships managed by a third-party fiduciary or directly into interests or securities of private companies. In either case, Staff will support its own analysis and investment decisions with research, analysis, and a written investment review prepared by an independent third party with relevant expertise and experience.

The primary three means through which capital will be deployed are (i) comingled investment funds managed by third party fiduciaries in limited liability vehicles, (ii) co-investments with third party fiduciaries managed through limited liability vehicles, and (iii) direct investments into securities and interests of private companies.

~~16.1.5~~17.1.5 Annual Review and Plan

An Annual Review and Investment Plan must be submitted to the CIO prior to the start of each fiscal year. Staff will submit annually for review by the Board a pacing and investment plan that reflects the then current exposures, assumptions, and outlook.

~~17~~18 Absolute Return Funds Guidelines (Amended September 27, 201~~6~~7)

~~17.1~~18.1 Investment Objectives

Absolute Return Funds (also known as "Hedge Funds") describes a broad range of investment strategies that seek to deliver reasonably consistent returns that are largely uncorrelated with traditional market driven asset classes. Absolute Return is considered to be an opportunistic investment approach and not an "asset class" in the traditional sense. Accordingly, Staff will seek to invest with managers and funds viewed as exhibiting the characteristics being sought, but without the requirement to be fully invested at any given time.

Investment Guidelines

The APFC's Absolute Return portfolio shall be invested in a diversified basket of Absolute Return strategies managed by absolute return managers. Investment risks associated with concentrated alternative investments will be mitigated with the following requirements:

1. Institutional Quality: All investments must be of institutional quality. Institutional quality is defined as an investment that would be considered acceptable by other prudent institutional investors (e.g., insurance companies, commercial banks, public employee retirement systems, corporate employee benefit plans, endowments and other tax-exempt institutions).
2. Diversification: Without prior approval of the Executive Director, no more than twenty percent (20%) of the total absolute return portfolio will be invested at any time with any single partnership, entity, or organization.
3. Liquidity: While investments in illiquid securities or partnership funds with long lock-up periods often can provide enhanced returns, Absolute Return managers must offer a level of liquidity that is consistent with those of other Absolute Return managers of similar strategies.
4. Limited Liability: As highlighted in Section 16.3.1 below, AFPC shall invest through a limited liability investment vehicle or ensure that there is no possible recourse to the Fund's beyond the invested capital.

Portfolio Management

~~17.1.1~~18.1.1 Ownership Structure

APFC Staff may commit directly to investment funds managed by Absolute Return managers. These managers may be Fund-of-Funds or direct fund managers. Such managers must agree to act in a fiduciary capacity and Staff will support its own analysis and investment decisions with research, analysis and a written investment review prepared by an independent third party with relevant expertise and experience.

~~17.1.2~~18.1.2 Performance Measurement and Benchmarks

The performance of the Absolute Return portfolio shall be measured against the following objectives:

1. Achievement of a minimum of four and a half~~ive~~ percent (4~~5~~.5~~0~~%) annualized excess return over CPI over a market cycle, net of all fees;
2. Achievement of this return with a long-term correlation of monthly returns compared to the Fund's overall returns of less than fifty percent (50.0%);
3. Achievement of this return with an ex-ante standard deviation of monthly returns of less than twelve percent (12.0%) per annum.

~~18~~19 Alaska Investment Policy (Amended September 27, 201~~6~~7~~6~~)

As prescribed by Alaska Statute 37.13.120(c), the Board believes that the Fund should have an Alaska 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:

1. Honor Alaska Statute 37.13.120(c): Prescribes that if an Alaskan investment has equivalent risk and expected return comparable to a similar non-Alaskan investment, the Alaskan investment should be preferred.
2. Require compelling risk-adjusted expected 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.
3. Ensure Fund Diversification: In order to provide sufficient risk diversification as required under Alaska Statute 37.13.120(c), the total of all Alaskan investments should generally not exceed 0.5% of the total Fund without ED approval or 1% of the total Fund without Board approval (measured at the time of purchase)—includes public and private market investments.

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 seek to invest in an Alaska investment along-side of at least one of its peers (i.e. a large institutional investor, including endowments, foundations, sovereign wealth funds, or public and private pension funds).

~~19~~20 Securities Lending (Amended September 27, 201~~6~~7~~6~~)

APFC may lend securities held in the Fund's portfolios (including entering into exclusive borrowing arrangements) and require collateral for loans with, among other types of collateral, cash collateral.

The Executive Director may execute an agreement with the Fund's custodian (or other lending agent) to lend domestic and non-U.S. equity and debt instruments of the Fund directly to borrowers in accordance with 15 AAC 137.510 and the following guidelines:

1. The lending agent shall extend without reservation or qualification complete indemnification against any direct loss from borrower default, the reinvestment of cash collateral, and failure to comply with the terms and conditions of the lending agreements;
2. 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 policy guidelines of the Corporation;
3. Collateral and loaned securities shall be marked to market daily; and
4. APFC shall periodically review investments of cash collateral for compliance with the provisions of AS 37.13.120, 15 AAC 137, and the policy guidelines of the Corporation.

The Executive Director shall establish, as deemed appropriate, additional policy guidelines determined to be in the Corporation's best interest for administration of the securities lending program.

~~20~~21 Portfolio Managers (Amended September 2~~7~~67~~6~~~~7~~, 201~~6~~76~~6~~)

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.

Internal Management of Fund Assets

The Board believes that it is in the interest of the Fund for a portion of the following types of Fund investments to be internally managed by Staff: Fixed-Income and cash-substitutes subject to Section 12 of the Policy; Public Equity subject to Section 13; Real Estate subject to Section 15; Private Equity and Special Growth Opportunities subject to Section 14; Infrastructure and Special Income subject to Section 16; Absolute Return subject to Section 17. This policy requires a heightened focus on the capital markets and mandates high standards for Staff qualifications and performance. The Executive Director will identify Staff, their specific roles, and applicable Policy provisions in the *Addendum re Internal Investment Managers*. The Board's consultant shall monitor and evaluate the performance of the APFC investment Staff in the same manner it evaluates the Fund's external managers.

External Investment Managers and Real Estate Advisors

The Board authorizes the CIO, with the Executive Director consent, to hire new investment managers and real estate advisors.

~~20.1.1~~21.1.1 Manager Searches and Selection

When the need for a new investment manager is identified, the Executive Director will authorize a manager search, which shall be conducted by a Consultant and Staff. Although a specific situation may warrant modifying the process, a typical manager search process would involve the following steps:

1. the setting of relevant search criteria by Staff, working with the Consultant, of applicable manager qualifications;
2. 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 the manager search group; this list may include existing APFC investment managers;
3. 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; the Consultant informs the CIO of selected managers recommended by the Consultant's review committee;

2. 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;
3. Staff makes a thorough analysis and provides a detailed recommendation to the CIO and Executive Director, taking into account not only manager-specific characteristics but also portfolio considerations; and
4. CIO, with Executive Director consent, may approve a new manager, assignment of a benchmark, 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 Permanent 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.

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:

1. a manager under consideration for hire has already been vetted in a significant manner either through a search process that conforms to that described in Section 20.3, above, or the manager is already employed in a manager capacity by APFC;
2. 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; ~~and~~or
3. the Consultant and the Staff ~~are both recommending~~ recommend 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.

Monitoring and Evaluation of Managers

The Board looks to its Consultant as the primary source of quantitative evaluation of the performance of the Fund's 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 each external manager and of the Fund's internally managed assets and portfolios. 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 the benchmark or benchmarks established for that manager or manager groupings.

The report shall, at a minimum, address each manager's performance for the preceding quarter, for the prior one, three, and five year periods, and from inception and shall compare and rank the manager's performance in those periods with the performance of other managers having a similar investment mandate. 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.

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.

Manager Termination

The Board authorizes the CIO, with Executive Director consent, to terminate an investment manager.

Reporting

The CIO and Executive Director are required to report all manager additions and terminations, along with the rationale, at the next regularly-scheduled Board meeting.

Addendum re Specific Policy Modifications

The following pages of this Addendum set forth or reference specific Policy modifications that apply only to specific investments or managers.

Specific Policy Modification for Tysons Corner Phase I Project

Name of manager or investment: Tysons Corner Phase I Project

Specific Policy provisions modified, and description of how they are modified:

Section 14.2.2 *Authorized Investments* of the *Real Estate Guidelines* of the APFC Investment Policy in effect as of April 23, 2012 is modified for the Tysons Corner real estate investment only to permit investment in a hotel component as part of the Phase I project.

Except as modified herein, all other *Real Estate Guidelines* remain in full force and effect for the Tysons Corner Phase I Project.

Date approved by the Board: April 23, 2012

Addendum re Internal Investment Managers (Updated September 27, 2017~~6~~)

This Addendum identifies internal Investment Managers at APFC. The Executive Director may update this Addendum from time-to-time; updates will be provided to the Board at its next regularly scheduled meeting.

NAME AND TITLE	ASSET CLASS OR TYPE AND APPLICABLE POLICY SECTION
Jim Parise, *Director of Investments, Tradable Income* Chris Cummins, *Senior Portfolio Manager ~~II~~, Fixed Income* Masha Skuratovskaya, *Senior Portfolio Manager ~~I~~, Fixed Income* Matt Olmstead, *Senior Portfolio Manager*	Tradable Income – Section 13~~2~~
Rosemarie Duran, *Director of Investments, Real Estate* Timothy Andreyka, *Senior Portfolio Manager, Real Estate*	Real Estate – Section 16~~5~~
Marcus Frampton, *Director of Investments, Infrastructure and Special Income* Jared Brimberry, *Portfolio Manager, Infrastructure and Special Income*	Infrastructure and Special Income – Section 17~~6~~ Absolute Return - 18~~7~~
Steve Moseley, *Director of Investments, Private Equity and Special Growth* Yup Kim, *Senior Portfolio Manager, Special Growth*	Private Equity and Special Growth– Section 15~~4~~
Fawad Razzaque, *Director of Investments, Public Equities* Yulian Ninkov, *Public Equities Strategist Trader*	Public Equities – Section 14~~3~~
Valeria Martinez, *Director of Investments, Risk and Asset Allocation*	Policy Asset Allocation – Section 9 Liquidity and Allocation Strategies- Section 12 Risk Guidelines – 10 Risk Monitoring - 21~~0~~
Russell Read, *Chief Investment Officer*	All of the above

Appendix I: Glossary (Amended September 27, 2016~~7~~~~6~~)

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 II: Amendments

This 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)

e) APFC Investment Policy Clean

INVESTMENT POLICY

Last Amended September 27th, 2017

Table of Contents

1 Preamble (adopted May 27, 2010)

Alaska Statutes ("AS") Title 37 Chapter 13. Alaska Permanent Fund Corporation ("APFC" or "Corporation").

Article 01. Alaska Permanent Fund ("Fund")

Section 37.13.020. Findings.

The people of the state, by constitutional amendment, have required the placement of at least 25 percent of all mineral lease rentals, royalties, royalty sale proceeds, and federal mineral revenue sharing payments and bonuses received by the state into a permanent fund. The legislature finds with respect to the fund that

(1) the fund should provide a means of conserving a portion of the state's revenue from mineral resources to benefit all generations of Alaskans;

(2) the fund's goal should be to maintain safety of principal while maximizing total return;

(3) the fund should be used as a savings device managed to allow the maximum use of disposable income from the fund for purposes designated by law.

2 Purpose (Amended September 27, 2016)

The purpose of the Alaska Permanent Fund Corporation is to manage and invest the assets of the Permanent Fund and other funds designated by law. The Corporation's policies are set by the Board of Trustees ("Board"), which also appoints and removes its Executive Director.

The purpose of this statement of investment policy is to set out in a comprehensive way the Board's policies and practices that deal with the Board's investment-related functions. The statement of investment policy is not, however, intended to be a static, one-time document. The Board intends that the statement of investment policy be kept current and updated as the Board modifies or adds to its investment-related policies and practices.

These policies will be considered in their entirety on at least a bi-annual basis. Policies may be modified at any time by Board action (so long as such action is approved by roll call vote), even if this document is not immediately amended to reflect Board changes. In these circumstances, changes will be noted in Board meeting minutes, copies of which will be highlighted with relevant sections and filed in the same electronic folder as this document.

The policies addressed herein shall be interpreted and applied in a manner consistent with AS 37.13.120(a), which provides, in part, as follows:

> *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.*

3 Philosophy (Amended September 27, 2017)

3.1 Asset Allocation

The Board believes…

"that asset allocation is a fiduciary responsibility, which is a basic duty of the Board. To meet the long-term real, i.e. inflation-adjusted, return objective, the portfolio should be built on a diversified global basis."

3.2 Risk Tolerance

The Board believes…

"that global equity-oriented investments will produce long-term returns that can outweigh the short-term and medium-term risks to the portfolio. The Board believes the markets will exhibit volatility. A temporary loss of capital may occur in the future, but the long-term nature of the Fund allows it to weather such occurrences."

3.3 Time Horizon

The Board believes…

"that to preserve purchasing power and to provide benefits to the current and future generations the portfolio should have an asset allocation built on a long-term investment horizon."

3.4 Preservation of Capital

The Board believes…

"that it is important to limit loss of capital in down markets, as large negative underperformance mathematically reduces the probability of meeting the long-term real return objective."

3.5 Rebalancing

The Board believes…

"that rebalancing the portfolio should enhance returns and control risk over the long-term."

3.6 Diversification

The Board believes…

"that diversification of asset class, sub-asset class, risk and manager are the primary techniques available to institutional investors for maximizing the potential return per unit of risk when investing to produce returns higher than cash."

3.7 Sources of Return

The Board believes…

"that compelling risk-adjusted Fund returns can be achieved through a combination of (1) efficient Fund design (strategic asset allocation), (2) effective tactical asset allocation, and (3) value-added performance within each asset class."

3.8 Internal Asset Management

The Board believes…

"that in cases where internal management has the capability to produce competitive returns, internal asset management can benefit the Fund through lower fees, greater transparency and increased market awareness."

3.9 Liquidity

The Board believes…

"that the Fund should maintain sufficient liquidity in order to (1) fund legislative appropriations from the Earnings Reserve Account, (2) secure attractive new investment opportunities as they arise, (3) provide portfolio rebalancing to meet risk and asset allocation objectives, and (4) meeting capital calls and other fund investment requirements.

4 Mission and Vision (Amended September 27, 2016)

The Alaska Permanent Fund Corporation's mission is to manage and invest the assets of the Permanent Fund and other funds designated by law.

The Alaska Permanent Fund Corporation'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.

5 Objectives (Amended September 27, 2017)

5.1 Return

The Board's long-term investment goal for the Fund is to achieve an average annual real rate of return of four and a half percent (CPI+4.5%) over time. It is recognized that there may be years, or a period of years, when the Fund does not achieve this goal followed by years when the goal is exceeded. Yet, over one or more business cycles the Board seeks to achieve an average annual real rate of return of four and a half percent (CPI+4.5%) at risk levels broadly consistent with large public and private funds.

In addition the Board will establish other investment objectives for the Fund and Corporation that will strive to achieve excellence on absolute terms as well as relative to peers and benchmarks.

5.2 Trustees

The Board's charter includes the following:

Alaska Permanent Fund Corporation – Charter of the Board of Trustees – Duties and Responsibilities - Investments

8. In managing and investing the assets of the Alaska Permanent Fund, the Board is required to 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 the permanent disposition of funds, considering preservation of the purchasing power of the Fund over time while maximizing the expected total return from both income and the appreciation of capital. [AS 37.13.120]*

9. *The Board will establish a statement of investment policies and guidelines, including the Board's overall investment philosophy, as well as other related policies as necessary for the effective management and investment of the assets of the Fund.*

10. *The Board will establish a framework or process for the management of the investment risk of the Fund.*

11. *The Board will approve the long-term or strategic asset allocation of the Fund in terms of the proportion of total assets to be invested on average over time in the various asset classes or risk categories, as well as the minimum-maximum range within which the assets can be allocated at any point in time.*

    (a) The Board will establish an investment management structure for the Fund and proportion of assets in an asset class to be managed by external investment managers versus internal staff.

5.3 APFC Investment Staff

The APFC Investment Staff ("Staff") is primarily responsible for implementing the Policy Asset Allocation. This includes: (a) hiring, terminating, and monitoring of internal and external managers; (b) monitoring and communicating the multitude of risks associated with the Fund assets, managers and process; (c) researching and recommending new asset classes and investment strategies; and (d) assisting the Board in setting the asset allocation and investment policy.

5.4 Critical Dependencies

Staff must have adequate internal human resources, financial support and appropriate authority to meet the assigned objectives.

6 Time Horizon (Amended May 23, 2013)

The Fund's design is to benefit current and future generations of Alaskans; hence, the time horizon is long. More specifically, with assistance from independent third party Consultants ("Consultants"), Board Advisors ("Advisors") and Staff, the Board has established an asset allocation with a time horizon greater than ten years to meet the investment objective.

7 Risk Tolerance (Amended September 27, 2017)

The Board's investment allocation will be equity-dominant given its long-term investment horizon and goal (including both publicly-traded stocks and private equity), but will include multiple asset classes having varying risk and correlation assumptions. Based on the Consultant's financial models for a 4.5% real return objective (CPI + 4.5%), the Fund's long-term expected standard deviation is approximately 10%-12%, with corresponding 1-in-20 (5% probability) annual Value-at-Risk (VaR) of roughly16%-20%.

8 Investment (Risk) Efficiency (Added September 27, 2016)

Consistent with the Board's real return objectives and risk tolerance, a long-term "Sharpe Ratio" (equal to real return/risk) of at least 0.5 will be targeted for the overall Fund, which is consistent with the overall investment efficiency targets of best-in-class peers.

9 Policy Asset Allocation (Amended September 27, 2017)

The Policy Asset Allocation envisions a portfolio that will seek to optimize expected return versus expected risk over a long-term investment horizon. The Board will annually evaluate the Policy Asset Allocation after reviewing considerations and recommendations from the Consultant, Advisors, and/or Staff. This portfolio represents the Board's view of different asset classes with regard to risk and return. Implementation of the Policy Asset Allocation is subject to the other investment policies defined in this document.

As stated in the 15 AAC 137.420, "All permanent fund investments must be of a quality considered acceptable by other prudent institutional investors, including endowments, foundations, sovereign wealth funds, or public and private pension funds."

Table 9a: Policy Asset Allocation Overview (2017-2021 Fiscal Years)

Asset Class and Sub Asset Class Targets	Current	FY2018	FY2019	FY2020	FY2021
Public Equities	39%	39%	38%	37%	35%
Fixed Income Plus	22%	22%	22%	20%	18%
Private Equity/Growth Opportunities	11%	11%	12%	13%	14%
Real Assets	17%	17%	18%	20%	22%
Absolute Return	5%	5%	5%	5%	6%
Asset Allocation	6%	6%	5%	5%	5%
Total	**100%**	**100%**	**100%**	**100%**	**100%**

9.1 Tradable Growth

Purpose: When the economy is performing well, public companies are generally producing profits and passing those profits to investors via dividends or through higher stock price. Investing in these corporations allows the Fund to benefit in times of growth and prosperity while providing liquidity.

Long-Term Return Goal: CPI + 4.75% (475 basis points) or better

Components: global stocks (public)

Table 9.1.1 Risk Considerations:

1. Equity risk;
2. Inflation risk; and
3. Currency risk

Benchmark: For purposes of measuring the risk and performance of Tradable Growth, the following benchmark will be used:

Tradable Growth	Current	FY2018	FY2019	FY2020	FY2021
MSCI ACWI IMI	100%	100%	100%	100%	100%

9.2 Illiquid Growth

Purpose: This allocation allows the Fund to invest Private Equity strategies (including Special Growth Opportunities) and Absolute Return Funds (also known as "Hedge Funds") that over time are expected to grow and provide higher returns for the Fund. Additionally because the illiquid nature of some of these investments, they should earn a premium over traditional securities.

Long-Term Return Goal: CPI + 5.5% (550 basis points, with PE's objective of CPI+6.25% and Absolute Return Funds' objective of CPI+4.5%) or better

Components: Private Equity (including Special Growth Opportunities), and Absolute Return Funds

Table 9.2.1 Risk Considerations

Interest rate risk	Credit spread risk	Liquidity risk
Equity risk	Bankruptcy risk	Refinancing risk
Inflation risk	Currency risk	Partnership risk

Benchmark: For purposes of measuring the risk and performance of Illiquid Growth Opportunities, the following benchmark will be used:

Illiquid Growth	Current	FY2018	FY2019	FY2020	FY2021
Cambridge Private Equity	55%	69%	71%	72%	70%
Total Fund Benchmark	20%	0%	0%	0%	0%
HFRI Total HFOF Universe	25%	31%	29%	28%	30%

9.3 Tradable Income

Purpose: The Tradable Income allocation is designed to lessen the overall volatility of the fund, especially in times of market turmoil. It provides steady, low volatility returns in normal market conditions and acts as a cushion when other, more volatile asset classes fall. It can be used as a funding source for other, less liquid asset classes and the cash allocation can be used to meet any Fund liabilities.

Long-Term Return Goal: CPI + 1.75% (175 basis points) or better

Components: Cash: Money market funds or fixed income securities with weighted-average maturities of no greater than 24 months. Investment grade fixed income (U.S., Non-U.S. developed, and/or super-sovereign government or government-related fixed income securities), high yield bonds, emerging markets bonds, mortgage-backed securities (MBS), CMBS, investment grade global corporate credit, listed global infrastructure, global REITs and other investment grade fixed income securities and income producing listed securities.

Table 9.3.1 Risk Considerations:

Interest rate risk	Refinancing risk	Default risk
Re-investment risk	Bankruptcy risk	
Inflation risk	Currency risk	
Credit spread risk	Equity risk	

Benchmark: For purposes of measuring the risk and performance of Tradable Income, the following benchmark will be used:

Tradable Income	Current	FY2018	FY2019	FY2020	FY2021
90 Day T-Bills	13%	5%	5%	5%	5%
BC US TIPS	5%	5%	5%	5%	5%
BC US Aggregate	23%	32%	30%	31%	32%
BC US Corporate	23%	23%	23%	23%	23%
BC Global Treasury ex-US (Hedged)	9%	9%	9%	9%	9%
BC EMD Hard Currency	5%	5%	5%	5%	5%
BC US High Yield 2% Issuer Cap	9%	9%	9%	9%	9%
S&P Global REIT	9%	9%	9%	9%	9%
S&P Global Infrastructure	5%	5%	5%	5%	5%

Numbers rounded to the nearest whole number

9.4 Illiquid Income

Purpose: The value of these assets, including real assets, may hedge inflation risk, helping protect the Fund's real value over time. Additionally, because the illiquid nature of these investments, they should earn a premium over traditional securities while providing the Fund with an income stream.

Long-Term Return Goal: CPI + 4.5% (450 basis points) or better

Components: Real estate, infrastructure (private), and other special income opportunities.

Table 9.4.1 Risk Considerations

Interest rate risk	Business (operational) risk	Liquidity risk
Partnership risk	Bankruptcy risk	Refinancing risk
Inflation risk	Currency risk	
Cash flow risk	Natural disaster risk	

Benchmark: For purposes of measuring the risk and performance of Illiquid Income, the following benchmark will be used:

Illiquid Income	Current	FY2018	FY2019	FY2020	FY2021
NCREIF Index	69%	65%	61%	55%	50%
FTSE Developed Core Infrastructure	31%	35%	39%	45%	50%

Table 9b: Summary of Asset Class Objectives

Asset Class	Capital Appreciation	Inflation Protection*	Deflation/Crisis Protection	Capital Preservation	Purchasing Power Preservation**	Income Generation	Diversification	Alpha
Cash			M	M	M	m		
U.S. Government Bonds			M	M	M	m		
Intl. Government Bonds			M	M	M	m	M	
Emerging Market Gov. Bonds						M	M	
Global Corporate Bonds						M		
Global High Yield Bonds						M		
U.S. Equities	M				M			
International Equities	M				M		m	
Emerging Market Equities	M				M		m	
Private Equities	M				M			M
Real Estate	M	m			M	M	m	
Infrastructure		m			M	M	m	
Treasury Inflation-Protected Securities		M			M			
Absolute Return Funds	M						m	M
Structured Credit Securities	M					M		
Distressed Debt	M							
Mezzanine Debt	M					M		

*Inflation Protection: investments expected to hedge short-term inflationary shocks.

**Purchasing Power Preservation: investments expected to hedge the corpus against long-term inflation.

Upper case M indicates major objective, while lower case m represents the minor objective.

10 Risk Guidelines (Amended September 27, 2017)

The risk guidelines are established to clearly delineate the amount of absolute and relative risk the Staff may utilize to achieve the investment objectives.

10.1 Green, Yellow, and Red Zone 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 10.1.1 Visual Display of Green Zone Concept

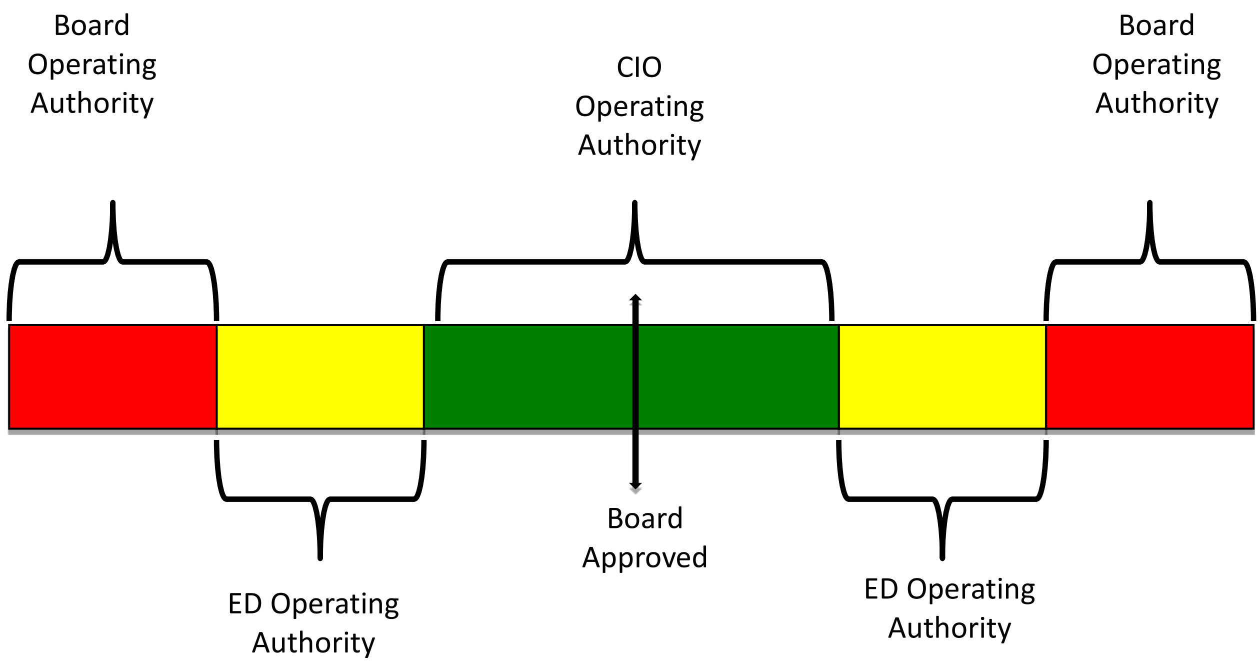
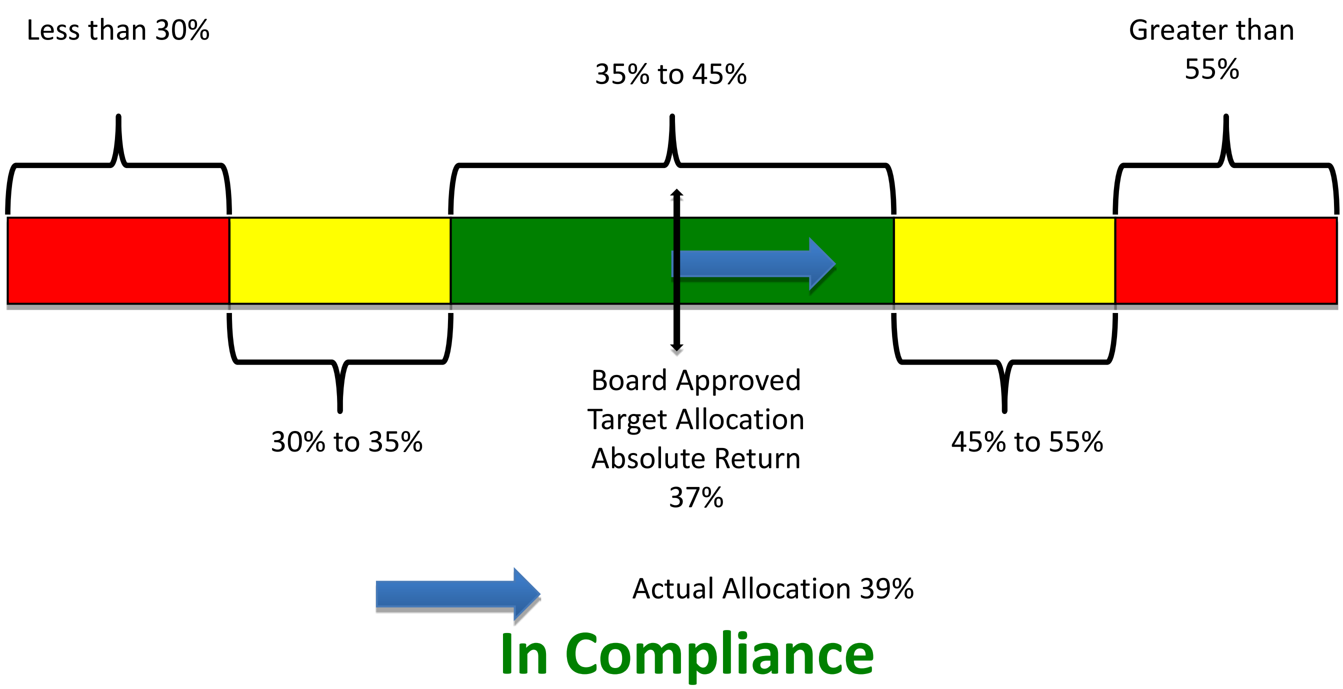


Exhibit 10.1.2 Green Zone Example for Public Equities



10.2 Absolute Dollar Limits

Absolute limits are dollar percentage limits on major asset classes and illiquid investments representing deviations around Policy Asset Allocation.

Table 10.2.1 Percentage Allocation Limits (Fiscal Years 2017-2021)

Category (5-Yr Target %)	Green Zone (CIO)	Yellow Zone (ED)	Red Zone (Board)
Growth (60%)	52% to 68%	45% to 52% & 68% to 75%	<45% & >75%
Income (40%)	32% to 48%	25% to 32% & 48% to 55%	<25% & >55%
Tradable (55%)	50% to 65%	45% to 50% & 65% to 75%	<45% & >75%
Illiquid (45%)	35% to 50%	25% to 35% & 50% to 55%	<25% & >55%
Public Equities	35% to 45%	30% to 35% & 45% to 55%	<30% & >55%
Fixed Income Plus	10% to 25%	5% to 10% & 25% to 30%	<5% & >30%
Private Equity & Growth Opportunities	10% to 20%	5% to 10% & 20% to 25%	<5% & >25%
Absolute Return Funds	3% to 10%	<3% & 10% to 15%	>15%
Real Assets	12% to 25%	10% to 12% & 25% to 27%	<10% & >27%

10.3 Relative Risk Limits

Relative risk measures the expected investment portfolio's risk and return relative to a Benchmark using industry-standard risk measures.

10.3.1 Performance Benchmark

The performance benchmark will be set at 60% Equities/20% Bonds/20% Real Assets (10% REITs, 10% TIPS) Benchmark to reflect the general growth- and income-mix prevailing among institutional investment portfolios, reflected in passive investable indexes. Outperformance versus this passive benchmark should represent the value-added by APFC staff through asset allocation and asset class management. This passive performance benchmark will be reviewed annually for potential adjustment. However, this passive benchmark is not be expected to change except to reflect substantial changes in either long-term market opportunities and/or asset allocations among APFC's institutional peers.

Table 10.3.1.1 Performance Benchmark

Total Fund Benchmark Indices	Current	FY2018	FY2019	FY2020	FY2021
MSCI ACWI IMI	41%	43%	41%	40%	38%
90 Day T-Bills	3%	1%	1%	1%	1%
BC US TIPS	1%	1%	1%	1%	1%
BC US Aggregate	6%	8%	7%	7%	6%
BC US Corporate	6%	6%	6%	5%	5%
BC Global Treasury ex-US (Hedged)	2%	2%	2%	2%	2%
BC EMD Hard Currency	1%	1%	1%	1%	1%
BC US High Yield 2% issuer cap index	5%	2%	2%	2%	2%
S&P Global REIT	2%	2%	2%	2%	2%
S&P Global Infrastructure	1%	1%	1%	1%	1%
Cambridge Private Equity	11%	11%	12%	13%	14%
NCREIF Index	11%	11%	11%	11%	11%
FTSE Developed Core Infrastructure	4%	6%	7%	9%	11%
HFRI Total Fund HFOF Universe	5%	5%	5%	5%	6%

Numbers rounded to the nearest whole number

10.3.2 Value-at-Risk ("VaR")

Value-at-Risk is a widely used risk measure for risk of loss on a specific portfolio of financial assets. For a given portfolio, probability and time horizon, VaR is defined as a threshold value such that the probability of a mark-to-market loss on the portfolio over the given time horizon exceeds this value (assuming normal markets and no trading in the portfolio) for a given probability level. VaR can be thought of as probability weighted stress tests. At APFC (as is common practice among major institutional investors), VaR is calculated as 1.645 x annualized volatility, roughly reflecting the 1-in-20 or 5% risk of a downside loss.

VaR is used to determine if portfolio risk is higher or lower than the risk tolerance established by the Board under normal market conditions. Guidelines are based on the VaR risk relative to the Performance Benchmark.

Table 10.3.2.1 Relative Risk Guidelines – VaR

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%

10.4 Active Risk Budget

Active risk refers to the segment of risk in the portfolio that is due to active management decisions made by portfolio managers. It does not include any risk that is merely a function of passive exposure. Active risk is commonly called tracking error and can be estimated well only for liquid portfolios of stocks and tradable income securities.

10.4.1 Tracking Error ("TE")

Tracking error is a measure of how closely a portfolio follows the index to which it is benchmarked. For example, a portfolio invested in stocks with the precise allocations in the Standard & Poor's 500 equity index will have a zero tracking error. 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.

Table 10.4.1.1 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

10.4.2 Downside Risk

Downside risk is risk of significant loss of capital. One example is the 2008 global banking crisis where most asset classes experienced drawdowns in excess of 30%. 2008 would not be considered a "normal" market. Furthermore, risk models that assume normality of returns, e.g. VaR models, failed to predict the severity of the draw down. Hence, it is imperative to monitor the Fund's downside risk relative to the risk benchmark using scenario analysis and stress testing.

10.4.2.1 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.

Scenario Examples:

1. 1973-74 Oil Crisis (1/11/73 - 10/04/74);
2. 1987 Stock Market Crash (10/14/87 – 10/19/87);
3. 1994 Federal Reserve Interest Hike (1/31/94 - 12/13-94);
4. 1997-98 Asian Currency Crisis (7/1/97 -1/9/98); and
5. 2008-09 Global Banking Crisis (10/11/07 - 3/06/09).

10.4.2.2 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.

Stress Test Examples:

1. Global Equities up 30% in market value;
2. Global Equities down 30% in market value;
3. U.S. Dollar strengthens 30% versus non-U.S. currencies;
4. U.S. Dollar weakens 30% versus non-U.S. currencies;
5. Global nominal interest rates instantaneously rise across the curve 200 basis points;
6. Global nominal interest rates instantaneously fall across the curve 200 basis points;
7. Global inflationary shock of plus 300 basis points;
8. Global disinflation or deflationary shock of minus 300 basis points;
9. Credit spreads rise by 200 basis points;
10. Credit spreads contract by 200 basis points;
11. Commodity prices rise by 30%;
12. Commodity prices fall by 30%;
13. Risk aversion rises dramatically, shock option volatility on rates, credit, equities, commodities and currencies by 2 times the current volatility; and
14. Risk aversion falls dramatically, shock option volatility on rates, credit, equities, commodities and currencies by .5 times the current volatility.

10.5 Specific Risk Limits

10.5.1 Public versus Private Investments

Given the Fund's liquidity profile, there is an opportunity to earn an expected liquidity premium associated with private investments. However, due to reduced ability to rebalance asset allocation, private assets, as a percentage of total Fund value, are limited.

For this guideline, private investments are defined as investments with contractual lock-ups:

1. Private Equity Funds and specific privately-held company/project investments;
2. Hedge Fund investments with lock-ups;
3. Private real estate; and
4. Infrastructure investments.

Table 10.5.2.1 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%

10.5.2 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. Because the cash draws are in essence a cash draw liability with unknown timing, the Fund limits future commitments relative to the Fund's overall size.

Table 10.5.3.1 Future Commitment Limits

Category	Green Zone (CIO)	Yellow Zone (ED)	Red Zone (Board)
Future Commitments	< 20%	20% to 25%	>25%

10.6 Risk Monitoring

The Staff will monitor and report quarterly on a multitude of risks, both absolute and relative, to the Board.

Table 10.6.1 Risk Factors

Risk Factors	Descriptions
Economic Environment	State of global economies, such as phase of economic cycle (recession, recovery, expansion, late cycle), level of economic activity, inflation and interest rates.
Country/Currency Risk	Direct exposure to specific countries and currencies.
Counterparty Risk	Risk of a counterparty to an over-the-counter derivatives contract defaulting.
Business Relationship Risk	Exposure to a single firm with which APFC has a contractual relationship.
Pricing Risk	Segmenting sub-asset class by the level of pricing transparency: exchange pricing, public securities, private securities, etc.
Credit (Quality) Risk	Segmentation of investments by credit rating.
Leverage	Extent to which the value of an investment will rise or decline per invested dollar.
Debt Refinancing Risk	Measured by the concentration of debt maturities by year.
Active Risk Contribution	Measured as the tracking error between an asset or portfolio versus a benchmark index.
Liquidity Risk	Risk associated with inability to buy or sell an investment due to contractual commitments, high transaction costs, or time required to find a seller or buyer.
Geographical Risk	Exposure to different regions of the U.S. or countries outside the U.S.
Equity Style Risk	Exposure to style factors such as value versus growth, or large- versus small-cap equities.
Fixed Income Risk	Exposure to fixed income risk factors such as duration, key-rate duration, sector weightings, etc.
Ex-ante versus Ex-post VaR	Ex-ante refers to a projected measure of VaR calculated by an analytical risk model. Ex-post is the realized distribution of portfolio returns.
Ex-ante versus Ex-post Tracking Error	Ex-ante refers to a projected measure of tracking error calculated by an analytical risk model. Ex-post is realized tracking error calculated by taking the standard deviation of the difference in manager returns versus benchmark returns.

10.7 Performance Management

Even though the Alaska Permanent Fund is quite unique, with its payout formula, investment time horizon, risk tolerance, etc., there will be an attempt to compare the Fund's risk and return in relationship to passive alternatives and peers.

Table 10.7.1 Performance Report Card

Time Horizon	APFC	Benchmark	Spread (Standard Deviation)	Percentile-Calculation
Short-Term (ST)	1-year Return	Performance Benchmark (Table 10.3.1.1 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 Peer Vol	Implied Percentile
Medium-Term (MT)	3-year Return	Peers Policy Asset Allocation Benchmark NACUBO Index	3-year Peer Vol	Percentile among Peers
Long-Term (LT)	5-year Return, Sharpe Ratio	CPI + 4.5% & Sharpe Ratio>0.5	5-year Peer Vol, Sharpe Ratio 0.25	Implied Percentile (average)

10.8 Attribution Analysis

The Consultant will conduct an in-depth performance attribution analysis, which will quantify which strategies, managers and/or sectors added or detracted from the overall performance.

11 Rebalancing of Fund Assets (Adopted September 27, 2016)

The Executive Director and CIO have the flexibility to implement the Fund's investment program, working within the Board-approved Green Zones in accordance with Sections 10.2, 10.3, 10.4 and 10.5. Written reports shall be presented to the Board showing sources and destinations of cash flows.

The Executive Director shall report to the Board at least monthly regarding the Fund's actual asset allocation as of the end of the preceding month in comparison to the Policy Asset Allocation targets and Green Zones. The CFO will notify the Board when an asset or sub-asset class allocation enters a red zone guideline. The Executive Director is required to recommend a rebalancing strategy upon entry into a red zone. The Board Chair shall determine whether to schedule a special meeting to review the rebalancing strategy. If the rebalancing strategy will take more than 30 days to complete, the Board Chair will determine whether a Board meeting to review the strategy is needed.

In addition, staff and CIO have the flexibility and discretion to tactically and strategically rebalance the portfolio after prior notification to the Executive Director. Staff shall report to the Board at least quarterly the rebalancing moves made during the period.

12 Liquidity & Asset Allocation Strategies Guidelines (Amended September 27, 2017)

12.1 Authorized Investments

Liquidity and asset allocation describe a broad range of investment strategies, investment structures, and underlying assets with the common characteristics that they are multi-asset mandates in nature, risk hedging or diversification strategies, or strategies that look to increase the investment risk efficiency of managing the Fund. Strategies in this category are typically characterized by short to medium investment horizons which provide increased Fund liquidity, diversification and the potential for achieving higher risk-adjusted investment returns to the Fund.

12.2 Return Objective

1. Long term average annual real return objective: CPI + 4.5% or better;
2. Sharpe Ratio of 0.5 over a 5-year period;
3. Short term benchmark composite: 65% MSCI ACWI IMI/35% Bloomberg BC US Aggregate; and
4. Investment horizon is the longer of (i) one business cycle or (ii) 5 years.

12.3 Liquidity Management

The Board recognize the importance of liquidity in the day-to-day operation of the Corporation and believe it is crucial to have a plan for addressing liquidity both during normal times as well as during times of financial market stress. Consequently, the Executive Director, shall prepare an annual contingency funding plan to manage short-term and long-term crises in the financial markets. This plan will be reviewed annually in conjunction with the strategic planning process, or as needed.

Within the context of this section of the Policy, liquid investments are defined as cash and cash equivalents, liquid investment balances, access to cash (e.g., lines of credit, letters of credit), and the convertibility of assets to cash in order to meet operating and financial needs during the operating cycle.

12.3.1 Overlay Strategies

Investment Staff, with prior approval from the Executive Director, may employ “overlays” that will seek to efficiently achieve specific Board policy objectives. Overlay programs may be created to address the following needs: liquidity management, residual manager cash equitization/securitization, transition/reallocation exposure management, rebalancing, fund-wide exposure management, currency exposure management, and interest rate management.

With Executive Director approval, Staff may also apply overlay strategies for synthetic rebalancing of Fund's exposures in an efficient and cost effective manner back to desired allocation, reducing transaction costs, and reducing tracking error relative to index benchmarks.

12.4 Currency Risk Management

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 this Investment Policy and the requirements of 15 AAC 137.480.

The overall goal of the currency management program should seek to reduce the overall currency risk of the Fund while also seeking to add value.

12.5 External CIO (eCIO) Strategies

12.5.1 Purpose

The intent is to hire the "best in class" institutional asset management firms to serve as "external CIOs" on a small portion of Fund assets which can provide compelling returns, an additional benchmark to measure the Fund's overall performance against, and a mechanism to impart the best portfolio strategy ideas from reputable asset managers to APFC Staff. The performance objectives for the external CIOs include producing a real return in excess of the Fund's return objective, while operating within the APFC's overarching value-at-risk guidelines and generally limited to investments with lock-ups of no longer than 2 years.

12.5.2 Investment Objective

The investment objectives are to provide a total rate of return through a diversified portfolio of investments that meets or exceeds the return objective, with volatility and downside risk lower than APFC's risk limits.

12.5.3 Return Objective

1. Long term average annual real return objective of the Fund: CPI + 4.5%. or better;
2. Sharpe Ratio of 0.5 over a 5-year period; and
3. Investment horizon is the longer of (i) one business cycle or (ii) 5 years.

12.5.4 Reporting Requirements

The eCIO Manager shall be required to provide monthly, quarterly, and annual reports to the APFC. These reports shall include such information and analysis as determined necessary and appropriate by the CIO in consultation with the Consultant. The eCIO Manager shall also be required to meet with the APFC as reasonably requested and at least annually to discuss the evolution of the manager's investment strategy and other matters as the CIO, in collaboration with the Consultants and Advisors, may request.

13 Fixed Income Plus Guidelines (Amended September 27, 2017)

13.1 Authorized Investments

The APFC may invest in tradable income assets (including investment grade domestic and international fixed-income, mortgage-backed securities (MBS/CMBS), domestic and international high yield fixed income, emerging markets fixed income, inflation-linked securities, real estate and other income-generating trusts, tradable infrastructure, yield-oriented exchange-traded funds (ETFs) and other listed yield-oriented securities) –

(i) internally,

(ii) through separate accounts managed by external managers (including through a separate account formed as a limited liability entity such as a corporation, limited partnership, limited liability partnership, or limited liability company under 15 AAC 137.520), or

(iii) through collective or commingled investment funds under 15 AAC 137.470, 15 AAC 137.520 and 15 AAC 137.990(4).

The requirements of sections 12.2 and 12.3 below apply to assets invested internally and through separate accounts with tradable income mandates.

13.2 Standard of Care

Subject to the limitations established under AS 37.13.120, 15 AAC 137.430, and these guidelines, tradable income managers, whether internal or external, shall exercise the care, skill, judgment, and diligence under the circumstances then prevailing that a prudent professional investment manager for hire acting in like capacity exercises in the management of large investments entrusted to it not in regard to speculation but in regard to the permanent disposition of funds, considering probable safety of capital as well as probable income.

13.3 Investment Guidelines

13.3.1 Performance Objectives

The performance of the tradable income portfolio over a market cycle shall be measured against the following objectives:

1. Total returns commensurate with the level of total risk taken in the portfolio so as to fulfill the role of tradable income in the Fund’s asset allocation policy; and

2. Risk-adjusted returns measured using standard industry metrics such as the Sharpe ratio or information ratio that are enhanced relative to the tradable income portfolio’s assigned benchmark.

3. Total returns relative to the total returns of the assigned benchmark.

13.3.2 Active Risk Limits

Tracking error is a measure of how closely a portfolio follows the index to which it is benchmarked. Tracking error is calculated for this purpose on an ex-ante basis using a holdings-based risk analytical system.

Table 12.3.2.1 Relative Tradable Income Risk Guidelines – VaR and Tracking Error

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	Bloomberg 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	Bloomberg Barclays Developed Government Bond Index (ex. U.S. & currency hedged)	0 to 200 bps	200 to 300 bps	>300 bps
Investment Grade Corporate Bonds	Bloomberg Barclays US Investment Grade Corporate Bond Index	0 to 200 bps	200 to 300 bps	>300 bps
High Yield Corporate Bonds	Bloomberg Barclays US High Yield 2% issuer cap Index	0 to 400 bps	400 to 500 bps	>500 bps
Treasury Inflation Protected Securities	Bloomberg Barclays U.S. Treasury Inflation Protected Securities Index	0 to 200 bps	200 to 300 bps	>300 bps

Category	Risk Benchmark	Green Zone (CIO)	Yellow Zone (ED)	Red Zone (Board)
Domestic Fixed Income Aggregate	Bloomberg Barclays U.S. Aggregate Index	0 to 300 bps	300 to 400 bps	>400 bps

13.3.3 Additional Clarification and Limitations

A tradable income manager, whether internal or external, may, with prior written approval of the Chief Investment Officer, transact in any derivative instrument, as appropriate to implement its investment strategy and that adheres to the internal investment policy and 15 AAC 137.430.

13.3.4 Clarifications and Restrictions Specifically Related to Cash Management Accounts

APFC's Collateral Cash Management Account is primarily intended to serve as a mechanism for investing the collateral used to back specific forward-settle transactions such as TBA's (to be announced). As such, its benchmark is short-term and the guidelines confined to highly liquid investments. The following apply to the Collateral Cash Management Accounts:

1. Repurchase agreements permitted by law are allowed so long as the collateral has a market value equal to or greater than 102% of the amount of the repurchase agreement and the APFC retains possession of the collateral;
2. Commercial paper may be purchased if it is issued under either Section 3(a)(3) or Section 4(2) of the Securities Act of 1933, as amended; and
3. Commercial paper must be rated A-a or A-1+ from S&P or P-1 from Moody's at the time of purchase.

Delegation of Contract Management

The Executive Director is authorized to enter into, execute, and amend contracts with external managers that the Executive Director considers necessary, convenient, and desirable for the purposes of this policy and to take such other action as is necessary, convenient, and desirable to carry out the purposes of this policy.

14 Public Equity Guidelines (Amended September 27, 2017)

Authorized Investments

Assets in the Fund's publicly traded equity securities portfolios may be invested

(i) internally,
(ii) through separate accounts managed by external managers (including through a separate account formed as a limited liability entity such as a corporation, limited partnership, limited liability partnership, or limited liability company under 15 AAC 137.520), or
(iii) through collective or commingled investment funds under 15 AAC 137.470, 15 AAC 137.520 and 15 AAC 137.990(4).

And may only include investments in the following:

1. common and preferred stock of entities (including banks and banking associations) organized under the laws of the United States or of states, territories, possessions, or other political subdivisions of the foregoing;
2. common and preferred stock of entities (including banks and banking associations) organized under the laws of a foreign jurisdiction;
3. equity-related and equity-linked shares, including convertible debt securities, of an entity described in 1. or 2. of this Section;
4. depositary receipts and equivalent instruments of those investments authorized in 2. and 3. of this Section, as applicable;
5. equity securities not included in 1. through 4. of this Section that are generally represented in the equity benchmark index assigned to an investment manager;
6. option contracts on common stocks and common stock indices;
7. exchange traded funds (ETFs) which owns underlying shares of stock
8. exchange traded stock index futures, to facilitate asset allocation strategies in the equity portfolio, including country or regional equity market allocation strategies, the investment of available cash and accrued income of investments authorized in this Section, the orderly sale of equity investments, and to manage equity exposure during portfolio restructurings
9. contracts for the future delivery of foreign currencies to the extent necessary for the purchase or sale (whether undertaken or expected to be undertaken) of those investments authorized in 2., 3., 4., 5., and 6. of this Section, as applicable;

10. futures or forward contracts for the purchase or sale of foreign currencies for the purpose of hedging the foreign currency value of an existing equivalent ownership position, currency cross hedging with prior authorization by the Executive Director, active management of currency exposures in an equity portfolio, provided that
    a. if 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;
11. collective or commingled equity investment entities, including, but not limited to, any common trust fund, collective trust fund, registered investment company (open-end or closed-end), partnership, limited liability company, or any other similar entity whose purpose is to direct the collective investment of assets, including exchange traded funds, provided that Staff has determined that such investment entity invests its assets predominantly in equity instruments that the APFC is otherwise authorized to invest in directly;
12. newly offered or issued shares of investments authorized in 1., 2., 3., 4., and 5. of this Section, including initial public offerings (IPOs);
13. the Executive Director may authorize an active equity manager to short-sell investments authorized in 1., 2., 3., 4. or 5. of this Section, provided that the market value of such short exposure in aggregate is targeted to range between twenty percent (20%) and forty percent (40%) of the market value of the Fund's assets invested with that manager, with a control band of zero to fifty percent (0-50%) to allow for transactional flexibility.

Investment Guidelines

14.1.1 Performance Objectives

The performance of the total public equity portfolio over a market cycle shall be measured against the following objectives:

1. Total returns commensurate with the level of total equity risk taken in the portfolio so as to fulfill the role of public equities in the Fund's asset allocation policy; and
2. Risk-adjusted returns measured using standard industry metrics such as the Sharpe ratio or information ratio that are enhanced relative to the total public equity portfolio's assigned benchmark.
3. Total returns relative to the total returns of the assigned benchmark.

14.1.2 Portfolio Structure

Consistent with performance objectives, and applicable tracking error guidelines outlined in Section 10, the structure of the total public equity portfolio shall include one or more of the following:

1. Actively managed equity strategies that strive to enhance total returns of a portfolio relative to its assigned benchmark through one or more active decisions, including stock selection, factor exposure, and allocation decisions to regions, countries, currencies, sectors, industries, etc.;
2. Passively managed equity strategies that strive to replicate, in a cost efficient manner, the returns of a benchmark index; and
3. Quasi-passively managed equity strategies that strive to provide diversified, low turnover exposure to certain risk factors or replicate an index that provides such exposure.

14.1.3 Portfolio Rebalancing and Mandate Modification

The Chief Investment Officer may:

1. With prior approval of the Executive Director, rebalance assets to, from or between individual equity portfolios;
2. With prior approval of the Executive Director, give authority to the Director of Public Equities to trade, rebalance assets to, from or between individual public equity portfolios at his/her own discretion up to 1% of the public equity allocation per rebalancing event.
3. With the prior approval of the Executive Director, add, remove or modify passive (and quasi-passive) equity portfolio mandates for investment managers; and

Investment Management Contracts

The investment of Fund assets in equity securities shall be made by internal or external investment managers, with such investments by external managers to be made under terms of contracts entered into by the Executive Director and investment managers. Such investment management contracts shall include, without limitation, provisions that:

1. provide for measuring the manager's investment performance against appropriate investment benchmarks assigned by the Chief Investment Officer;
2. require the manager to be fully invested according to the following:
   a. except for managers with an incentive compensation arrangement, the manager should be at least ninety-eight percent (98%) invested (no more than two percent 2% cash) in each account for which the manager has responsibility, with a control band of zero to five percent (0-5%) to allow for transactional cash;
   b. a manager may elect to hold cash greater than five percent (5%) for any period of time, if the manager's strategy indicates that doing so would be beneficial to the APFC; a manager must notify the APFC prior to

implementing that strategy; the Executive Director shall report to the Board regarding any manager who chooses to implement such a strategy;

c. unless the Executive Director authorizes an exception (e.g., for managers with incentive compensation arrangements), APFC will not compensate managers for that portion of cash exposure of an account that exceeds the applicable cash limitation under Paragraphs a. or b. of this Section, if held for a period of more than 90 days; and

d. an external manager may, with the prior approval of

    1. the Chief Investment Officer, invest up to five percent (5%) of an account's assets in exchange traded funds (ETFs); and

    2. the Chief Investment Officer, invest more than five percent (5%) of the account's assets in exchange traded funds (ETFs) for a period of not more than 90 days in order to accommodate large deposits to or withdrawals from the account or the manager's equity portfolio strategy.

3. require that the manager shall seek to obtain best execution of trade orders at the most favorable prices reasonably obtainable and, in doing so, consider a number of factors, including, without limitation, the overall direct net economic result to the Fund (including commissions, which may not be the lowest available but which ordinarily will not be higher than the generally prevailing competitive range), the financial strength and stability of the broker, the efficiency with which the transaction is effected, the ability to effect the transaction at all where a large block is involved, the availability of the broker to stand ready to execute possible difficult transactions in the future, and other matters involved in the receipt of "brokerage and research services" as defined in and in compliance with Section 28(e) of the Securities and Exchange Act of 1934, as amended, and regulations thereunder;

4. consistent with manager obligations to seek best execution, encourage, but not require, an active equity manager to participate in the APFC's commission recapture program;

5. in recognition that proxy votes have economic value and thus are assets to manage, and consistent with the Board's responsibility to ensure that its shares are voted:

    a. require each manager to vote proxies in accordance with the manager's proxy voting policies for all shares owned, controlled, or held directly or indirectly by the APFC, excluding (a) shares on loan under the APFC's securities lending program, and (b) shares traded in share-blocking markets when the resulting selling limitation would not be in the best financial interests of the Fund, in accordance with its rights and responsibilities as a shareholder and its fiduciary duty as an institutional investor, in a manner so as to maximize the Fund's rate of return over the period the manager would likely hold the investment and promote the best financial interest of the Fund;

b. encourage but not require managers to consider the following principles when voting proxies: (a) proxy matters dealing with a corporate governance process have the potential to improve board-shareholder dynamics for an extended period; (b) board independence is one of the cornerstones of good corporate governance; independent corporate boards of directors lead to the creation and maintenance of good decision-making processes within companies in which the Fund is invested; (c) an independent director is someone whose only non-trivial past and present connection to the corporation is that person's directorship; and, therefore (d) the following proposals have the potential to impact corporate governance and improve board-shareholder dynamics:

   i. proposals that support:

      a) independent compensation, nominating, and audit board committees;

      b) majority of independent directors;

      c) confidential voting by shareholders;

      d) right of shareholders to act by written consent;

      e) right of shareholders to call a special meeting;

      f) requirement that shareholders approve poison pills, payment of greenmail, or dual-class share structures;

      g) requirement that the audit firm be limited to performing audits only; and

      h) except for companies that allow cumulative voting, election of directors by a majority of shareholder votes or adoption of director resignation policies for directors receiving more "withhold" versus "for" votes;

   ii. proposals that are against:

      a) classified or staggered boards; and

      b) supermajority vote requirements; and

c. require each manager to furnish to the APFC annually copies of the manager's written policies with respect to voting proxies and at least annually report to the APFC how the manager voted all proxies on behalf of the APFC; at a minimum, each manager's report shall be submitted to the APFC in electronic form and shall indicate for each proxy ballot item voted, the company, the issue, company management's recommendation, how the manager voted, and any comments explaining the basis for the manager's vote, so that Staff will have the information necessary to generate a consolidated report.

6. provide for the manager to make periodic reports to the APFC and Board;
7. address such other terms and conditions as the Executive Director or Chief Investment Officer consider in the Fund's best interest.

Delegation of Contract Management

The Executive Director is authorized to enter into, execute, and amend contracts with external equity managers that the Executive Director considers necessary, convenient, and desirable for the purposes of this Policy and to take such other action as is necessary, convenient, and desirable to carry out the intent of this Policy. In the execution and monitoring of contracts with investment managers, the Executive Director shall ensure that applicable statutes and policies established by the Board are followed.

15 Private Equity & Growth Opportunities Guidelines (Amended December 6, 2016)

15.1 Authorized Investments

Private Equity and Growth Opportunities describe a broad range of investment strategies, investment structures, and underlying assets with several common characteristics. Current private equity investment strategies pursued by large institutional investors include venture capital, buyouts, and distressed assets. Opportunities are accessed both through long-term commitments to funds managed by our investment partners and through targeted, direct investments into operating companies.

Private market portfolio 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.

15.2 Standard of Care

Higher expected returns 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.

15.3 Investment Guidelines

15.3.1 Performance Objectives

To compensate for the illiquidity and the higher specific risk of the private assets, the private equity and special growth programs are expected to produce, over the long term, a high absolute long-term rate of return, with a premium (net of all fees and expenses) over an appropriate public equity benchmark. The Board will monitor progress and results through regular staff updates and an annual performance measurement report prepared by the APFC's general consultant.

APFC's private equity and special growth opportunities portfolio will be evaluated using customary approaches including: (1) comparison of vintage year performance against private equity industry benchmarks; and (2) comparing long-term performance over ten year rolling periods to public equity benchmarks plus a premium of 200 to 500 basis points over a benchmark, as recommended by APFC's general consultant. Consistent with industry practice, performance shall be calculated using the internal rate-of-return (IRR) methodology.

15.3.2 Private Equity

Private equity and special growth investments shall be made in a manner consistent with the fiduciary standards of the prudent investor rule, namely, for the sole interest of the Fund. Guidelines must be flexible enough to allow for adjustments based on certain external factors including the availability of quality investment opportunities, the flow of capital into the private capital markets, and the state of the overall economic environment.

The selection and management of assets in the portfolio will be designed to generate a high level of risk-adjusted return, provide a modest amount of current income, and maintain prudent diversification of assets.

The investment risks associated with illiquid assets will be mitigated through skillful management and rigorous due diligence:

1. Institutional Quality: All investments must be of institutional investment quality. Institutional quality is defined as an investment that would be considered acceptable by other prudent institutional investors (i.e., insurance company, commercial banks, public employee retirement systems, corporate employee benefit plans, endowments and other tax-exempt institutions).
2. Diversification: The private equity portfolio 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 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 target allocation as established by the Board.

   a. 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.

      i. Venture Capital: (5% to 30%) – Venture capital partnerships 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.

      ii. 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 measures.

      iii. Specialized Funds: (0% to 50%) - Private investments in commingled partnerships not described by the prior two categories or which do not justify a separate long-term strategic allocation. This will include, but not be limited to, distressed debt strategies and certain industry-specific strategies.

b. Geographical Diversification: Although the priority should be to achieve diversification by investment strategy and industry groups, geographical diversification is also desirable. Over the long-term, the portfolio should seek 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.

c. Industry Sector Diversification: The portfolio shall be diversified by industry sector (i.e., Biotechnology, Computers, Financial Services, Healthcare, Medical, Media/Communications, Electronics, Software, Consumer/Retail, Basic Industry, Other, etc.) so that no single industry classification is heavily represented in the private equity portfolio. Industry sector diversification will be measured based on aggregate exposures of the underlying portfolio company investments.

d. Time and Life Cycle Diversification: Commitments to private investments shall be staged over time, and venture capital shall include early, later, and multi-stage investments. The Board will approve a target funding level each year in conjunction with its annual review of its asset allocation policy and allocation target to private equity.

e. General Partner Diversification: Fund commitments shall be diversified by investment partner and seek to limit exposure to any single general partnership or investment sponsor organization to a maximum of 20% of the total private equity portfolio (based on estimated total commitments).

15.3.3 Growth Opportunities

Technological innovation, market volatility, and behavioral economics often create attractive, sometimes fleeting, investment opportunities that do not fit precisely into standard, predetermined categories. These opportunities may be caused by, among other things, 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.

1. The CIO, with Executive Director consent, may invest in specific opportunities, subject to previously Board-approved asset classes or sub-asset classes, up to 1% of the Fund's assets.

2. The CIO and Executive Director will report all new investment opportunities, along with the rationale, at the next regularly-scheduled Board meeting.

   Accordingly, APFC may invest directly or indirectly in these special opportunities through: (a) collective or commingled investment funds; (b) separate accounts; or (c) limited liability entities (including limited partnerships, limited liability companies, funds-of-one, and similar structures) that invest directly in operating companies or in funds managed by an independent fiduciary.

   Such investments must be made in a manner consistent with applicable regulations and Policy provisions. To the extent applicable, guidelines, objectives and benchmarks will be addressed in transactional agreements or otherwise.

15.4 Portfolio Management

15.4.1 Ownership Structure

1. Separate Account Investment Structure: APFC's ownership structure may include separate account relationships established with one or more fiduciary oversight managers ("gatekeeper"). The gatekeeper will in turn make commitments to private equity limited partnerships, limited liability companies, or other investments on APFC's behalf, in either a discretionary basis or a non-discretionary capacity.

2. Fund-of-Funds Vehicles: APFC may also invest through fund-of-funds (FOF) vehicles. To the degree practicable, the FOF documents should reflect operational and reporting procedures similar to these policies and guidelines and governing documents should seek to address the conflicts of interest inherent in fund-of-funds structures.

3. Direct Commitments: APFC Staff may commit directly to investment partnerships in accordance with its stated policies and purpose. Such managers must agree to act in a fiduciary capacity and staff will support its own analysis and investment decisions with research, analysis, and a written investment review prepared by an independent third party with relevant expertise and experience.

4. Co-Investment Program: APFC recognizes that the practice of co-investing along-side private equity fund managers in underlying portfolio companies has the potential to enhance overall returns through careful selection of investments, active engagement with investment partners, and reduction of management fees and profit sharing costs. The co-investing program shall include the following elements:

   a. Third-party managed co-investment commingled funds or separate accounts: APFC may hire one or more fiduciary manager(s) to make co-investments on APFC's behalf as part of a commingled fund or separate account.

b. Staff-managed co-investment portfolio: Subject to a board-approved allocation, Staff may co-invest along-side any of its existing private equity fund managers. Such co-investments are subject to an investment due diligence review by a third-party advisor.

c. Concentration: APFC recognizes that co-investments are likely to represent more concentrated exposure to individual portfolio companies compared to exposure through commingled funds. APFC will manage risks by diversifying the co-investment portfolio by sponsor, strategy, vintage, industry, and geography.

   Individual co-investments (or a series of co-investments in the same underlying operating entity or corporation) will not exceed an aggregate total commitment or cost basis of 1.0% of the value of the Fund, as determined at the time of investment.

   In addition, co-investments will be effected in a manner that limits liability to APFC either through the co-investment vehicle or the nature of the underlying portfolio company entity.

d. Performance measurement: Performance of the co-investment program shall be evaluated using customary and applicable measures of performance, e.g., vintage-year analyses, IRR analysis, and multiple analysis. The investment performance of APFC staff will be compared to the performance of external managers and reported at least once annually by APFC's consultant or an independent third party.

5. Potential Conflicts: With regard to private equity investments managed by third parties, the following potential conflicts of interest warrant inclusion in this policy:

   a. Manager Proprietary Products: The separate account oversight manager may not invest in a proprietary product without the explicit prior approval of the CIO.

   b. Allocation of Investments among Accounts: Any third-party manager shall disclose to APFC in writing its policies regarding the allocation of investment opportunities among potentially competing asset pools. The manager shall inform APFC of any change to such policies and shall report periodically as requested by Staff regarding its application of those policies.

15.4.2 Additional Investment Limits and Requirements

The CIO may, with the Executive Director's consent, invest up to 1% of the Fund's assets (measured at the time of investment) in a single entity. However, the maximum allocation to Special Growth Opportunities directed solely by the CIO and

Executive Director between board meetings is 2% of the Fund's assets. The CIO will report all new Special Growth Opportunities investments, along with investment rationale, at the next regularly scheduled board meeting.

15.4.3 Annual Review and Plan

An Annual Review and Investment Plan must submitted to the CIO prior to the start of each fiscal year. Staff will submit annually for review by the Board a pacing and investment plan that reflects then current exposures, assumptions, and outlook.

16 Real Estate Guidelines (Amended September 27, 2017)

16.1 Authorized Investments

The return objective for APFC's real estate portfolio is to generate a long-term total return between the expected return for equities and tradable income investments, calculated on a time-weighted basis over rolling five-year periods.

1. APFC may invest assets of the Fund in real estate investments subject to the applicable restrictions and conditions set out in 15 AAC 137.
2. Property Types—Private Real Estate. Fund assets may be invested in the following types of private real estate:
   a. All property types that are representative of Class A, institutional grade, “income producing”(completed and substantially rented) real estate;
   b. land, located within the market area in which the Fund holds an existing private equity real estate interest;
   c. land purchased by equity interests in entities formed to develop for commercial purposes vacant or underdeveloped real estate that, when completed and occupied would meet 2.a above; and/or
   d. land purchased for the purpose of granting or entering into a ground lease where the land is improved by a completed and substantially rented building consistent with 2.a, above.

16.2 Investment Guidelines

1. Real Estate Investments
   a) Requirements Related to “Substantially Rented”
      i. “Substantially rented” is satisfied if the following conditions are met:

Table 15.2.1 Real Estate Investment Guidelines for “Substantially Rented”

	Core	Value-Added
Physical Test	At least 80 percent of the physical net rentable area must be leased and at least 65 percent of the physical net rentable area must be leased and occupied by tenants on an arms-length basis.	At least 65 percent of the physical net rentable area must be leased and at least 50 percent of the physical net rentable area must be leased and occupied by tenants on an arms-length basis.

Income Test	The property must be sufficiently leased to generate income sufficient to cover operating expenses and, if applicable, debt service.

2. Commercial Mortgage/Commercial Mortgage Backed Securities (“CMBS”) Requirements.
    a) Commercial mortgages and CMBS in which APFC invests shall be secured by properties of a quality considered acceptable by other institutional investors, including endowments, foundations, sovereign wealth funds, or public and private pension funds, and that are improved by a completed and substantially rented building of a type listed in Section 15.2.2 Authorized Investments, above.
    b) Publicly traded mortgages shall consist of CMBS secured by first mortgage positions.
3. Real Estate Securities. The provisions dealing with best execution and proxy voting of the Public Equity Guidelines in effect at the time of the trade or vote, as applicable, shall apply to publicly traded real estate securities in the real estate portfolio.

16.2.1 Investment Strategy
Staff shall prepare a real estate investment strategy for the real estate portfolio ("Investment Strategy"). The Investment Strategy shall set out APFC's three- to five-year objectives and implementation plan for investment and management of the Fund's real estate assets. The Investment Strategy takes effect upon approval by the Board and shall be reviewed by Staff annually and updated for consideration and approval by the Board as appropriate.

16.2.2 Tactical Plan
Annually, APFC Staff shall also prepare a real estate tactical plan for the real estate portfolio ("Tactical Plan"). The Tactical Plan shall detail the current status of the portfolio and identify Staff's expectations for the coming year toward meeting the objectives of the Investment Strategy. The Tactical Plan shall be based on input from each of the Fund's real estate investment managers and other sources. The Tactical Plan takes effect upon approval by the Executive Director.

16.2.3 Diversification
To minimize risk from regional economic imbalances, property performance volatility, and management style, Staff shall diversify the Fund's real estate investments by investment type, property type, property location, and manager. Staff shall report the degree of diversification across these dimensions to the Board on a regular basis.

16.2.4 Leverage
APFC may leverage real estate investments of the Fund subject to the applicable restrictions and conditions set out in 15 AAC 137.

16.2.5 Development/Property Life Cycle
In accordance with AS 37.13.120, APFC may invest in real estate development projects subject to the applicable restrictions and conditions set out in 15 AAC 137 and to additional restrictions specified in the Real Estate Investment Strategy.

16.2.6 Investment Authority/Control
The Executive Director is authorized to enter into, execute, and amend contracts with existing external managers that the Executive Director considers necessary, convenient, and desirable for the purposes of this policy and to take such other action as is necessary, convenient, and desirable to carry out the purposes of this policy. In the execution and monitoring of contracts with investment managers, the Executive Director shall ensure that applicable statutes and policies established by the Board are followed.

Final approval of real estate investments is given to the Executive Director. The Executive Director may further delegate:

1. to APFC's Chief Investment Officer and/or the Director of Real Estate Investments authority to approve (and execute documents relating to) the acquisition or disposition of an interest in real estate; and/or
2. to those external investment managers, who serve as fiduciaries under Board-approved policies and guidelines, provided that:
    a. the following discretionary matters may not be delegated to external investment managers:
        i. decisions to finance or refinance any portion of an investment or guarantee the obligations of another;
        ii. reviewing investment performance; and
        iii. granting or exercising a right to buy or sell between co-investors.

16.3 Reporting Procedures and Benchmarks

16.3.1 Reporting
Staff shall provide reports to the Board that fully describes the real estate portfolio by including: property types and targets, development exposure by phase, and leverage as a Loan to Value (LTV) %.

16.3.2 Benchmark
Staff shall use the NCREIF NPI Index when reporting portfolio performance results for the private real estate portfolio, and held to a long-term return objective of 4% real.

16.4 Valuation

APFC shall follow generally accepted accounting principles for valuation of private equity real estate. As applicable, standards then in effect for accounting for the Fund's real estate assets, including participating mortgages and equivalent obligations, both manager's internal valuation and external appraisals may be used to establish the fair value of real estate investments.

16.5 Authority

Each individual private equity real estate acquisition exceeding 1% of the total Fund value shall be subject to Board approval.

16.6 Investment Managers and Fiduciaries

Each private equity real estate acquisition shall be made only:

1. through an approved investment manager; or
2. on the recommendation and advice of an independent fiduciary retained by APFC to evaluate a specific proposed investment or investment strategy.

17 Infrastructure & Income Opportunities Guidelines (Amended December 6, 2016)

Authorized Investments

Infrastructure and Income Opportunities describes a broad range of investment strategies covering infrastructure, other private real asset investments (such as timber and hard asset leasing), private credit, opportunistic/distressed credit and other miscellaneous private market investments that provide income generation to the Fund. In the case of infrastructure, these assets are, by nature, long-lived and exhibit inflation protection characteristics. In the case of private credit, investments may not provide inflation protection, but compensate for this with high income generation. All Infrastructure and Special Income investments should be additive to the Corporation's mandate of safeguarding the principal of the Fund while maximizing total return.

Standards of Care

Infrastructure and Income investments shall be made in a manner consistent with the fiduciary standards of the prudent investor rule, namely, for the sole interest of the Fund. Guidelines must be flexible enough to allow for adjustments based on external factors including the availability of quality investment opportunities, the flow of capital into the private capital markets, and the state of the overall economic environment

Investment Guidelines

17.1.1 Performance Objective

The performance target for the Infrastructure & Income portfolio is a real return of 4% (CPI+4%). The life-cycle of Private Infrastructure and Special Income investing, which can be similar in structure to private equity, will in many circumstances contribute to an uneven return profile or J-Curve phenomena for investments early in their respective life-cycle.

17.1.2 Infrastructure and Credit

The selection and management of assets in the portfolio will be designed to generate a high level of income, potentially provide for some capital appreciation or equity upside, while maintaining prudent diversification of assets. There may some situations where an investment's cash flows are directed toward capacity expansion, debt amortization or other value creating purposes (as opposed to investor distributions), however, in spite of this, any investment should be in underlying assets with the potential for high future income generation.

The investment risks associated with illiquid assets will be mitigated through skillful management, rigorous due diligence, and the following additional requirements:

1. Institutional Quality: All investments must be institutional investment quality. Institutional quality is defined as an investment that would be considered acceptable by other prudent institutional investors (e.g., insurance companies, commercial banks, public employee retirement systems, corporate employee benefit plans, endowments and other tax-exempt institutions).
2. Diversification: Without prior approval of the Executive Director, no more than twenty percent (20%) of the total portfolio will be invested at any time with any single partnership, entity, or organization.
3. Limited Liability: As highlighted in Section 15.3.1 below, the AFPC shall invest in Infrastructure and Special Income investments through a limited liability investment vehicle or ensure that any investment does not provide for recourse to the Fund beyond the invested capital.
4. Targeted Investment Types: Investments in the Infrastructure and Special Income portfolio will broadly fall into one of three categories:
    a. Infrastructure & Other Real Assets:
        i. Energy Infrastructure (e.g., power generation, oil & gas pipelines and storage, regulated utilities)
        ii. Transportation (e.g., airports, ports, toll roads)
        iii. Water Infrastructure (e.g., water utilities, desalination facilities)
        iv. Telecommunications (e.g., data centers, cell towers, satellite systems)
        v. Social Infrastructure (e.g., lotteries, student housing, prisons)
        vi. Other Infrastructure (e.g., other protected income stream assets, other interests of infrastructure issuers, other infrastructure related assets)
        vii. Other Real Assets (e.g., timberlands, agricultural farmlands, leasable hard assets, and any other tangible or intangible asset that possesses similar portfolio characteristics as those envisioned for infrastructure and other real assets outlined in this section)
    b. Private Credit:
        i. Direct Lending
        ii. Opportunistic / Distressed Credit
        iii. Asset-based Lending

iv. Mezzanine Lending
v. Other Private Credit Investment Strategies (e.g., structured credit, leasing, royalties, venture debt)

17.1.3 Income Opportunities

Income Opportunities: The dynamic nature of global markets, company innovation, market volatility and behavioral economics often create attractive, sometimes fleeting, investment opportunities that don't fit precisely into standard, predetermined categories. These "Income Opportunities", to the extent that they are income generating in nature, shall be included in the Infrastructure & Special Income portfolio and will be subject to the constraints, guidelines and performance measurement mandates of this policy.

1. The CIO, with Executive Director consent, may invest in specific opportunities, subject to previously Board-approved asset classes or sub-asset classes, up to 1% of the Fund's assets.
2. The CIO and Executive Director will report all new investment opportunities, along with the rationale, at the next regularly-scheduled Board meeting.

Portfolio Management

17.1.4 Ownership Structure

APFC assets may be invested in Infrastructure and Income investments through limited liability entities and collective or comingled investment funds. These investments may be into investment partnerships managed by a third-party fiduciary or directly into interests or securities of private companies. In either case, Staff will support its own analysis and investment decisions with research, analysis, and a written investment review prepared by an independent third party with relevant expertise and experience.

The primary three means through which capital will be deployed are (i) comingled investment funds managed by third party fiduciaries in limited liability vehicles, (ii) co-investments with third party fiduciaries managed through limited liability vehicles, and (iii) direct investments into securities and interests of private companies.

17.1.5 Annual Review and Plan

An Annual Review and Investment Plan must be submitted to the CIO prior to the start of each fiscal year. Staff will submit annually for review by the Board a pacing and investment plan that reflects the then current exposures, assumptions, and outlook.

18 Absolute Return Funds Guidelines (Amended September 27, 2017)

18.1 Investment Objectives

Absolute Return Funds (also known as "Hedge Funds") describes a broad range of investment strategies that seek to deliver reasonably consistent returns that are largely uncorrelated with traditional market driven asset classes. Absolute Return is considered to be an opportunistic investment approach and not an "asset class" in the traditional sense. Accordingly, Staff will seek to invest with managers and funds viewed as exhibiting the characteristics being sought, but without the requirement to be fully invested at any given time.

Investment Guidelines

The APFC's Absolute Return portfolio shall be invested in a diversified basket of Absolute Return strategies managed by absolute return managers. Investment risks associated with concentrated alternative investments will be mitigated with the following requirements:

1. Institutional Quality: All investments must be of institutional quality. Institutional quality is defined as an investment that would be considered acceptable by other prudent institutional investors (e.g., insurance companies, commercial banks, public employee retirement systems, corporate employee benefit plans, endowments and other tax-exempt institutions).
2. Diversification: Without prior approval of the Executive Director, no more than twenty percent (20%) of the total absolute return portfolio will be invested at any time with any single partnership, entity, or organization.
3. Liquidity: While investments in illiquid securities or partnership funds with long lock-up periods often can provide enhanced returns, Absolute Return managers must offer a level of liquidity that is consistent with those of other Absolute Return managers of similar strategies.
4. Limited Liability: As highlighted in Section 16.3.1 below, AFPC shall invest through a limited liability investment vehicle or ensure that there is no possible recourse to the Fund's beyond the invested capital.

Portfolio Management

18.1.1 Ownership Structure

APFC Staff may commit directly to investment funds managed by Absolute Return managers. These managers may be Fund-of-Funds or direct fund managers. Such managers must agree to act in a fiduciary capacity and Staff will support its own analysis and investment decisions with research, analysis and a written investment review prepared by an independent third party with relevant expertise and experience.

18.1.2 Performance Measurement and Benchmarks

The performance of the Absolute Return portfolio shall be measured against the following objectives:

1. Achievement of a minimum of four and a half percent (4.5%) annualized excess return over CPI over a market cycle, net of all fees;
2. Achievement of this return with a long-term correlation of monthly returns compared to the Fund's overall returns of less than fifty percent (50.0%);
3. Achievement of this return with an ex-ante standard deviation of monthly returns of less than twelve percent (12.0%) per annum.

19 Alaska Investment Policy (Amended September 27, 2016)

As prescribed by Alaska Statute 37.13.120(c), the Board believes that the Fund should have an Alaska 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:

1. Honor Alaska Statute 37.13.120(c): Prescribes that if an Alaskan investment has equivalent risk and expected return comparable to a similar non-Alaskan investment, the Alaskan investment should be preferred.
2. Require compelling risk-adjusted expected 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.
3. Ensure Fund Diversification: In order to provide sufficient risk diversification as required under Alaska Statute 37.13.120(c), the total of all Alaskan investments should generally not exceed 0.5% of the total Fund without ED approval or 1% of the total Fund without Board approval (measured at the time of purchase)—includes public and private market investments.

   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 seek to invest in an Alaska investment along-side of at least one of its peers (i.e. a large institutional investor, including endowments, foundations, sovereign wealth funds, or public and private pension funds).

20 Securities Lending (Amended September 27, 2016)

APFC may lend securities held in the Fund's portfolios (including entering into exclusive borrowing arrangements) and require collateral for loans with, among other types of collateral, cash collateral.

The Executive Director may execute an agreement with the Fund's custodian (or other lending agent) to lend domestic and non-U.S. equity and debt instruments of the Fund directly to borrowers in accordance with 15 AAC 137.510 and the following guidelines:

1. The lending agent shall extend without reservation or qualification complete indemnification against any direct loss from borrower default, the reinvestment of cash collateral, and failure to comply with the terms and conditions of the lending agreements;
2. 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 policy guidelines of the Corporation;
3. Collateral and loaned securities shall be marked to market daily; and
4. APFC shall periodically review investments of cash collateral for compliance with the provisions of AS 37.13.120, 15 AAC 137, and the policy guidelines of the Corporation.

The Executive Director shall establish, as deemed appropriate, additional policy guidelines determined to be in the Corporation's best interest for administration of the securities lending program.

21 Portfolio Managers (Amended September 27, 2016)

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.

Internal Management of Fund Assets

The Board believes that it is in the interest of the Fund for a portion of the following types of Fund investments to be internally managed by Staff: Fixed-Income and cash-substitutes subject to Section 12 of the Policy; Public Equity subject to Section 13; Real Estate subject to Section 15; Private Equity and Special Growth Opportunities subject to Section 14; Infrastructure and Special Income subject to Section 16; Absolute Return subject to Section 17. This policy requires a heightened focus on the capital markets and mandates high standards for Staff qualifications and performance. The Executive Director will identify Staff, their specific roles, and applicable Policy provisions in the *Addendum re Internal Investment Managers*. The Board's consultant shall monitor and evaluate the performance of the APFC investment Staff in the same manner it evaluates the Fund's external managers.

External Investment Managers and Real Estate Advisors

The Board authorizes the CIO, with the Executive Director consent, to hire new investment managers and real estate advisors.

21.1.1 Manager Searches and Selection

When the need for a new investment manager is identified, the Executive Director will authorize a manager search, which shall be conducted by a Consultant and Staff. Although a specific situation may warrant modifying the process, a typical manager search process would involve the following steps:

1. the setting of relevant search criteria by Staff, working with the Consultant, of applicable manager qualifications;
2. 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 the manager search group; this list may include existing APFC investment managers;
3. 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; the Consultant informs the CIO of selected managers recommended by the Consultant's review committee;

2. 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;
3. Staff makes a thorough analysis and provides a detailed recommendation to the CIO and Executive Director, taking into account not only manager-specific characteristics but also portfolio considerations; and
4. CIO, with Executive Director consent, may approve a new manager, assignment of a benchmark, 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 Permanent 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.

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:

1. a manager under consideration for hire has already been vetted in a significant manner either through a search process that conforms to that described in Section 20.3, above, or the manager is already employed in a manager capacity by APFC;
2. 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
3. the Consultant and the Staff recommend 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.

Monitoring and Evaluation of Managers

The Board looks to its Consultant as the primary source of quantitative evaluation of the performance of the Fund's 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 each external manager and of the Fund's internally managed assets and portfolios. 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 the benchmark or benchmarks established for that manager or manager groupings.

The report shall, at a minimum, address each manager's performance for the preceding quarter, for the prior one, three, and five year periods, and from inception and shall compare and rank the manager's performance in those periods with the performance of other managers having a similar investment mandate. 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.

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.

Manager Termination

The Board authorizes the CIO, with Executive Director consent, to terminate an investment manager.

Reporting

The CIO and Executive Director are required to report all manager additions and terminations, along with the rationale, at the next regularly-scheduled Board meeting.

Addendum re Specific Policy Modifications

The following pages of this Addendum set forth or reference specific Policy modifications that apply only to specific investments or managers.

Specific Policy Modification for Tysons Corner Phase I Project

Name of manager or investment: Tysons Corner Phase I Project

Specific Policy provisions modified, and description of how they are modified:

Section 14.2.2 *Authorized Investments* of the *Real Estate Guidelines* of the APFC Investment Policy in effect as of April 23, 2012 is modified for the Tysons Corner real estate investment only to permit investment in a hotel component as part of the Phase I project.

Except as modified herein, all other *Real Estate Guidelines* remain in full force and effect for the Tysons Corner Phase I Project.

Date approved by the Board: April 23, 2012

Addendum re Internal Investment Managers (Updated September 27, 2017)

This Addendum identifies internal Investment Managers at APFC. The Executive Director may update this Addendum from time-to-time; updates will be provided to the Board at its next regularly scheduled meeting.

NAME AND TITLE	ASSET CLASS OR TYPE AND APPLICABLE POLICY SECTION
Jim Parise, *Director of Investments, Tradable Income* Chris Cummins, *Senior Portfolio Manager, Fixed Income* Masha Skuratovskaya, *Senior Portfolio Manager, Fixed Income* Matt Olmstead, *Senior Portfolio Manager*	Tradable Income – Section 13
Rosemarie Duran, *Director of Investments, Real Estate* Timothy Andreyka, *Senior Portfolio Manager, Real Estate*	Real Estate – Section 16
Marcus Frampton, *Director of Investments, Infrastructure and Special Income* Jared Brimberry, *Portfolio Manager, Infrastructure and Special Income*	Infrastructure and Special Income – Section 17 Absolute Return - 18
Steve Moseley, *Director of Investments, Private Equity and Special Growth* Yup Kim, *Senior Portfolio Manager, Special Growth*	Private Equity and Special Growth– Section 15
Fawad Razzaque, *Director of Investments, Public Equities* Yulian Ninkov, *Public Equities Strategist Trader*	Public Equities – Section 14
Valeria Martinez, *Director of Investments, Risk and Asset Allocation*	Policy Asset Allocation – Section 9 Liquidity and Allocation Strategies- Section 12 Risk Guidelines – 10 Risk Monitoring - 21
Russell Read, *Chief Investment Officer*	All of the above

Appendix I: Glossary (Amended September 27, 2016)

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 II: Amendments

This 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)

f) Real Estate Strategic Plan

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

SUBJECT: Real Estate Investment Strategy-Exception ACTION: X

DATE: 9/27/2017

BACKGROUND:
The real estate investment strategy was approved by the board of trustees on September 27, 2016 which includes a portfolio leverage limit at 40%; and property-specific loan to value (LTV) level at 50%.

STATUS:
The strategic plan also provides for "build-to-core" opportunities. These investments were included as a way to expand our opportunity set of investments. A number of deals have been evaluated and an expansive joint venture (U.S. and overseas) is currently under consideration that all indicate market deals with construction debt "loan-to-cost" (LTC) levels of 55-65%.

RECOMMENDATION:
In order to pursue these "build-to-core" opportunities an exception to the real estate investment strategy is recommended to allow for construction debt at loan-to-cost (LTC) levels up to 65%. Staff will retain the 40% portfolio limit for leverage. Once these development projects are stabilized (construction complete and occupied), permanent financing will be obtained at the existing maximum of 50% LTV. The 65% LTC is for short term debt only and not the level sought at asset stabilization, hence maintaining the same conservative underwriting standards of all APFC investments.

Proposed Motion-
"I move the board create an exception to the real estate investment strategy to approve a construction debt loan-to-cost level of up to 65% for the tactical purpose of implementing the "build-to-core" strategy, while still maintaining the overall portfolio leverage maximum of 40%."

Multifamily Real Estate – Executive Session Memo

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

SUBJECT: Real Estate Investment ACTION: ________

DATE: 9/27/2017 INFORMATION: ___X____

BACKGROUND:
APFC Staff have identified a real estate investment matter that should be discussed in Executive Session because the immediate knowledge of this matter could have an adverse effect on the value of a Permanent Fund real estate asset.

STATUS:
APFC staff will provide an update and be available to discuss relevant issues.

RECOMMENDATION:
No Board action is requested. The real estate issues described in executive session are only informational.

Liquidity Management Plan: Manager Selection Memo

APFC ALASKA PERMANENT FUND CORPORATION

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

SUBJECT: Liquidity Overlay Program ACTION: ____X____

DATE: 9/27/2017 INFORMATION: __________

BACKGROUND:
The Alaska Permanent Fund is invested in liquid as well as private investments which make liquidity management relevant in order to meet the future obligations that private commitments bring.

At the last meeting, Callan Associates presented a short overview on liquidity pertaining to management best practices in the industry followed by staff current practices managing the Fund's liquidity. One of these best practices, used by institutional investors, is the use of synthetic overlays to manage liquidity and equitize excess cash in a more efficient manner.

STATUS:
At this meeting Callan, in conjunction with Staff, will propose a liquidity overlay program with the objective of managing liquidity more efficiently, adding value by reducing cash drag, and the use of an external liquidity manager's services to gain market exposure synthetically under rebalancing events.

RECOMMENDATION:
Staff with the advice of the Board's general consultant recommends that the Board approve the implementation of a liquidity overlay program.

SUGGESTED MOTION LANGUAGE:

The Board moves to approve the Staff's and General Consultant's recommendation to appoint the selected manager as APFC's Liquidity Overlay manager to more efficiently manage liquidity and exposures of the Fund, and Staff to begin implementing a liquidity overlay program with the objectives detailed in this presentation.

a) Liquidity Management Plan: Manager Selection Presentation

Callan

September 2017

APFC Liquidity Overlay Program

Board Discussion

Gregory C. Allen
President, Director of Research

Overview

Proposed Liquidity Overlay Program

- The Alaska Permanent Fund portfolio has exposure to cash within the portfolio due to a number of different factors.
  - Cash raised to fund annual appropriation(s);
  - Frictional cash held in equity manager accounts (2%-5%);
  - Cash generated by distributions from private markets portfolios;
  - Cash held in anticipation of funding capital calls for private markets portfolios;
- The long term expected return for cash is CPI plus 25 basis points, well below the targeted return for the overall portfolio.
- A liquidity overlay manager can use derivatives to “overlay” the cash held in the portfolio to achieve equity or fixed income market returns cheaply and efficiently.
- The overlay can be adjusted on a daily basis in reaction to the varying levels of cash in the underlying portfolio.
- The process is mechanical in nature with the liquidity overlay manager following very specific guidelines with respect to the targeted exposures used in the overlay.
- Over the long run the cash with the overlay program should perform in line with the overall target asset allocation for the total fund.

Proposed Program Objectives

Proposed Liquidity Overlay Program – Initial Design Parameters

- Custodian will sweep equity manager cash balances into nightly sweep account.
- Overlay manager will “equitize” cash held in sweep account, targeting the MSCI ACWI index.
- Cash generated by other activities within the fund will be held in the “Asset Allocation” portfolio.
- Asset Allocation portfolio cash overlay will target exposure of 65% MSCI ACWI index, and 35% Bloomberg Aggregate Bond index.
- 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.
- The overlay exposure will be trued up on a daily basis by the manager based on cash reports provided directly from the fund custodian.

Provider Evaluation Process

Overview of Selection Process

- **Step 1** – Callan's Trust, Custody, and Overlay specialists meet regularly with all of the major providers of portfolio overlay services. Based on criteria developed in collaboration with APFC Investment Staff the specialists evaluated all of the institutional providers and narrowed the starting universe down to six firms. Criteria used during this stage included:
  - Organization and team stability;
  - Resources and commitment to overlay as a core business;
  - Assets under management, institutional client base, US presence;
- **Step 2** – A Request for Information (RFI) was circulated to each of the six firms.
- **Step 3** – Callan's specialists evaluated the RFI responses and narrowed the list to three firms that were invited for interviews in Callan's San Francisco offices:
  - NISA Investment Advisors;
  - Parametric Engineered Portfolio Solutions;
  - State Street Global Advisors;
- **Step 4** – Follow-up information was requested from each of the finalists;
- **Step 5** – As of the deadline for Board presentation materials a finalist had not been selected.

Action Item

Board Approval Requested

- Staff, in conjunction with the General Consultant, recommend implementing a liquidity overlay program designed to reduce cash drag across the entire APFC portfolio through targeted synthetic exposure to the equity and fixed income markets.
- The use of an external manager to manage this program will expand the fund's tool kit to address other challenges including: residual manager cash balances, manager transitions, deviation from policy targets, rebalancing, etc.
- The use an overlay program will increase the expected long-run return of the portfolio, while allowing it to maintain the liquidity required to meet it's day-to-day cash needs.

Suggested Motion Language

The Board moves to approve the Staff's and General Consultant's recommendation to implement a liquidity overlay program, and to appoint the selected manager as the manager of the program.

b) Liquidity Overlay: Investment Management Services

Request for Information

for

LIQUIDITY OVERLAY
INVESTMENT MANAGEMENT SERVICES

JULY 26, 2017

Callan

Callan Associates Inc. on behalf of
Alaska Permanent Fund Corporation

<u>Deadline: Friday, August 18, 2017 by 5:00 PM PDT</u>

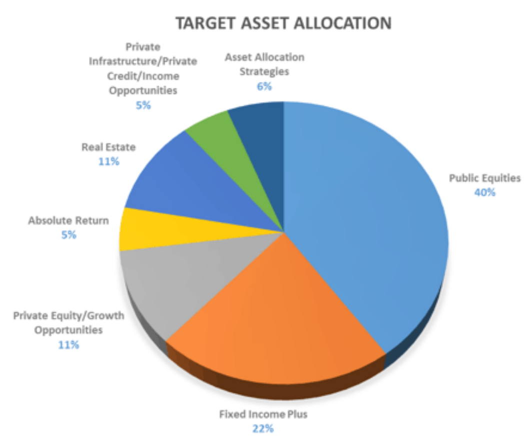
INTRODUCTION AND BACKGROUND

The Alaska Permanent Fund Corporation ("APFC") is seeking to implement a cash/liquidity overlay program. The goals of the program will be to remain fully invested within the asset classes held in the portfolio, and to manage the overall asset allocation relative to target over time. As of May 31, 2017, the APFC portfolio represented approximately $60 billion in total assets invested across multiple asset classes.

APFC, with assistance from Callan Associates Inc. ("Callan"), is conducting a due diligence process to identify an experienced cash overlay/equitization manager to manage the program. The manager will work with APFC investment staff and Callan to develop a comprehensive cash overlay program taking into consideration all asset classes, investment manager portfolio structures, duration, and asset allocation policy. As part of the program the overlay manager will likely equitize residual cash for equity managers swept using a custodian short term cash sweep account, and will also be responsible for overlay specific to cash sitting in the portfolios or sweep account waiting to be deployed to pay APFC's distributions, expenses, monies earmarked for private markets managers, etc. The cash position is typically around $1 to $2 billion but can balloon up to $4 to $5 billion at times. Please refer to the following link to learn more about the cash variability and balances for each month, for each year over the last 20 years, and other financial and performance information - http://www.apfc.org/home/Content/publications/reportArchive.cfm.

The AFPC Board attempts to balance the anticipated risks within the portfolio with the return potential of different mixes of assets. When considering the asset allocation, the Board does not try to time markets or focus on short-term market conditions. Instead, the Board engineers a portfolio that will provide a diversified and compelling long-term return under a variety of potential market conditions.

The current structure defines six asset classes organized according to "investment objective" (i.e., Growth or Income) and liquidity—(1) Public Equities, (2) Fixed-Income Plus, (3) Private Equity & Special Opportunities, (4) Real Estate, (5) Infrastructure, and (6) Absolute Return Strategies, in addition to cash and asset allocation.



This RFI is being sent to a short list of roughly half a dozen qualified firms chosen based on a preliminary screening process conducted by Callan and APFC Investment Staff. Upon receipt of the RFI responses Callan will evaluate them and collaborate with the APFC Investment Staff to narrow the list down to 2-3 firms which seem best suited to the mandate. It is likely (though not certain) that interviews with these firms will be held during the week of **August 28, 2017** in either Callan's San Francisco office, or at the APFC's Juneau office.

As part of this RFI, we invite your firm to describe your capabilities and experiences in overlay management. For large firms, an overlay program is typically of the custom variety, and we would like to emphasize that this RFI is part of an ongoing conversation to find the best liquidity solution for APFC. Please address any consideration your firm feels is critical to the successful achievement of the above goals, including portfolio construction, your capabilities advising clients, building and executing the strategy, and the way in which your firm would add value to the overall process. Thought leadership and depth of consideration will be weighed highly in this process.

SUBMISSION INSTRUCTIONS

Responses to this Request for Information must be submitted prior to **5 PM Pacific, on August 18, 2017**. Submissions shall be submitted electronically to the following email addresses:

Bo Abesamis, Callan Associates: abesamis@callan.com
Steve Center, Callan Associates:center@callan.com
Greg Allen, Callan Associates:allen@callan.com

Any response received after the above deadline will be rejected. Any questions should be addressed to Bo Abesamis of the above e-mail addresses prior to **August 11, 2017**. A comprehensive list of responses to the questions will be distributed to all firms on **August 15, 2017**.

QUESTIONNAIRE

A. FIRM PROFILE

1. Describe your firm's ownership, structure, and employee strength. Include any name changes, ownership structure or ownership changes in the previous five years.

2. Complete the following table, listing the number of individuals in each job function as of June 30, 2017, or latest available.

Job Function	Total # of Employees	Employees for Proposed Strategy
Portfolio Managers		
Trading		
Research		
Investment Analysts		
Sales & Client Service		
Marketing		
Compliance & Risk Management		
IT		
Operations		
Administration		
Finance		
HR		
Other		
Total Firm Employees		

3. Please indicate the number of total investment professionals firm-wide committed to liquidity and cash overlay mandates.
   - Number of liquidity overlay investment professionals
   - Number of liquidity overlay portfolio managers
   - Number of liquidity overlay analysts
   - Number of liquidity overlay traders
   - Number of investment professionals involved with subject strategies

Name	Title	Education	Industry Experience	Tenure with Firm (years)

4. Describe your firm's liability insurance (e.g. errors and omissions). What insurance or indemnification, if any, do you provide for accounting or investment errors made on your part? Have you ever made an improper trade that negatively impacted your client's account (e.g., bought a future instead of selling)? If so, explain how it happened and how it was rectified.

5. Is the firm a registered investment advisor under the Investment Company Act of 1940? If yes, attach a copy of your most recent SEC Form ADV. Is the firm exempt from registering as an investment advisor? If yes, explain.

6. Is the firm currently involved, or in the last five years been involved, in any litigation or investigation by the SEC, a state or federal agency, or any governmental authority? If yes, explain.

7. Have any senior personnel, or personnel involved in the product you are proposing, left or joined the firm within the last 3 years? If so, explain. How long has the current team been together? Include an organizational chart for the group and how it relates to the firm overall.

8. Indicate your office location(s); if more than one, indicate the functions at each location. Which office and who will be responsible for the management and client servicing of your product?

9. Describe your compliance process specific to overlay services.

10. Describe your conflict of interest policy. Summarize any identified conflicts in your overlay business and how they are mitigated. (e.g. brokerage relationships/soft dollars, client fairness/priority on fills, etc.). Attach your Code of Ethics.

B. GENERAL QUESTIONS ABOUT FIRM'S OVERLAY SERVICES:

1. Provide a brief history of the organization's involvement in overlay or cash management strategies or any other strategy you are proposing. Discuss how the cash management or overlay program fits inside your company's business model.

2. Complete the following chart for the clients in the proposed strategy.

Account Type	Asset Amount ($ mil.)	# of Accounts (Client Relationships)
Corporate		
Public Fund/Sovereign Fund		
Union/Multi-employer		
Foundation & Endowment		
HNW Individuals		
Sub-advised Assets		
Other (Health Service Organizations)		
Total		

3. How long has your firm provided this service to institutional clients?

4. Provide a list of three (3) references (including contact name, title, phone number and email address) from plan sponsors that you currently provide similar services to for the strategy being proposed. (If possible, at least 1 client with a $1 billion overlay program.)

Name	Title	Firm	Email	Phone

C. INVESTMENT PROCESS:

1. Describe your investment philosophy and process for the proposed strategy. Has it changed in the last few years, and if so, why?

2. Describe some of the unique issues you have addressed with other clients having a similar mandate.

3. Explain your methodology for replicating various asset class exposures (both liquid and illiquid) and how you minimize tracking error. Specifically, how would you replicate the asset classes utilized by APFC? Comment on the transaction costs and tracking error.

4. What security types does your firm envision utilizing to implement market exposure? Describe how and under what circumstances you would utilize each of these instruments.

5. What guidelines and practices does your firm employ in managing its counterparty risk? What types of counterparty risk do you monitor and manage (settlement risk, potential exposure risk, MTM risk, etc.)? How do you determine maximum exposure to a given counterparty and how do you manage to that limit?

6. Describe the flow of the daily process, including how investment decisions will be made and who the key people are who make the decisions. Include biographies of key personnel and what role each person would serve, including the portfolio and relationship managers.

7. What is the most appropriate benchmark for your strategy?

8. Cash Overlay Case Study - *The manager will likely equitize residual cash for equity managers using a custodian sweep account, and will also overlay cash that is sitting in the portfolio waiting to be deployed to pay the State's bills or to go to private markets managers, etc.*

    - Provide a cash/liquidity/equitization strategy given $1 billion in cash and how will you structure the cash overlay program?
    - If the cash balance fluctuates from $2 to $4 billion over a course of a year, does your strategy change? How will you tweak and manage the strategy? Do you create liquidity tranches, and does each tranche require a different strategy?

9. Given currency overlay is contingent on client cash balances, client defined policies and guidelines, and customization, what would be a verifiable Track Record to prove your competency and capabilities?

10. In addition to Cash Overlay, are you able to manage asset allocation rebalancing and exposure management through the strategic deployment of cash overlay?

11. What unique features of your investment approach do you feel add the most value over time? (Portfolio Management Skills, Risk Management, Operations, Trading, Risk Tools, Systems and Technology Deployed)

12. Would it be reasonable to try to use an overlay program to rebalance a $60 billion portfolio back to target on a daily basis? Do you have other clients that attempt to manage their asset allocation to target on a daily basis? If the overall target for the portfolio is assumed to be rebalanced on a quarterly basis, how would you take this into account?

D. OPERATIONAL CONSIDERATIONS

1. Do you have a built in interface with our custodian BNY Mellon? Please describe.

2. Discuss your existing connectivity with custodian banks to support the overlay strategy. What is your with experience with BNY Mellon as Custodian?

3. Specify what data items are required from the client and Custodian to support the strategy on an on-going basis.

4. Do you have daily access to the custody cash module of BNY Mellon within the Securities Movement and Control System?

5. How do you reconcile both trade and settled cash positions? Custody vs. Accounting Cash (IBOR vs. ABOR)

6. Please describe the initial margin and the daily mark to market, including Brokerage Arrangements and how our custodian gets daily feeds for tracking purposes.

7. Problem and Error Resolution of Daily Cash Recon – What happens when you are wrong and you synthetically deploy over or under the actual cash position?

8. Do you have a formalized working Operating Procedures with BNY Mellon in the conduct of an overlay program with other clients?

9. Do you have a SSAE 16 (SAS 70) on the General Operations and Process Controls of the Currency Overlay Program?

10. Identify all business partners, 3rd party vendors, consultants, outsource firms, futures commission merchant(s), and/or authorized participants your firm relies on or have arrangements in the conduct of your overlay program.

11. Please describe your use and deployment of Synthetics and Derivatives to effectuate Overlay Strategies (Futures, ETFs, Cash Markets, etc.)

12. Please describe how you structure and track Margin Accounts and Collateral Management – Aggregation, Optimization, and Deployment.

E. TRADING

1. Detail your firm's trading capabilities and experience, highlighting the instruments that will be utilized in this strategy.

2. Is your firm in the position where it may be on the other side of any given transaction? If so, what safeguards can you provide to ensure you are providing the best execution to each client's account? List any conflicts this creates and how your firm manages those conflicts?

3. How are you compensated for your activities in this area? How transparent is this compensation? Are commissions fully disclosed? Do you make a spread on any transactions? Do you have any arrangement with other funds or firms whereby you are compensated by trading with those firms?

4. List the various types and levels of costs associated (both implicit and explicit) with this type of trading. What brokerage arrangements are required for this service, which brokerage firms would be utilized, and how would they be selected?

5. Describe your experience and approach to working with OTC exposures and ISDA's. Do you utilize an umbrella ISDA?

6. Describe your firm's trading function. Who would be responsible for trading the portfolio?

7. Does your firm have an affiliated brokerage firm? If so, would your firm ever direct trades through the affiliated brokerage firm? Under what circumstances and for what reasons would your firm do so? Is it your firm's practice to fully disclose all trading costs at least annually? If so, please provide a copy of the most recently issued report(s).

8. Does your firm engage in soft dollar arrangements? Does the firm pay hard dollars for all products and services provided by 3rd party entities? Does the firm receive any bundled research products or services from brokerage firms? Please provide a copy of your firm's policy on soft dollar usage and your most recently issued report disclosing such use.

F. RISK MANAGEMENT:

1. Describe in detail the risks involved in an overlay strategy and your risk management process.

2. How does your firm ensure that all data and trade instructions are correct?

3. How does your firm ensure the plan achieves the exposure target without any leverage?

4. How will your firm ensure compliance of the exposure target with pre-specified policy ranges? How will your firm ensure compliance of the program to client specific risk targets (e.g., stop-loss, VAR limits), if any?

5. Describe in detail the risk management systems in place at your firm and the risk management platform deployed in the governance of the overlay program.

6. Detail how, and under what circumstances, your process could produce absolute losses to the total portfolio.

7. Describe your approach to liquidity management. What tools do you use to help in this process?

8. Describe your process for managing credit risk of various counterparties involved in derivatives transactions.

9. Describe in detail the best way to measure the performance of the program and judge its success relative to its objectives over time.

G. FEES AND REPORTING:

1. Provide a complete schedule of fees that you would propose for this strategy and a list of services included.

2. Specify the approach you would use for measuring and reporting the performance of the overlay and its impact on the total fund. How would you expect to coordinate with the consultant and custodian to ensure the overlay performance is properly reflected at the total fund and manager level?

3. Describe your client servicing and reporting capabilities.

4. Provide samples of your client reporting in respect to the overlay services you have undertaken. How often are reports available and how are they delivered?

5. Provide samples of all legal agreements necessary for the proposed services.

Strategic Considerations: Threats & Opportunities in VC Memo

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

SUBJECT: Venture Capital Panel — ACTION: ______

DATE: September 28, 2017 — INFORMATION: ___X___

BACKGROUND:

Steve Moseley, head of private equity and special opportunities for the APFC, will coordinate a three-person panel to discuss long-term considerations related to venture capital generally and the APFC in particular.

The format will be a Q&A.

"Threats and Opportunities in Venture Capital"

Ryan Watts, President and CEO, Denali Therapeutics

Robert Nelsen, Co-founder, Arch Venture Partners

Arif Janmohamed, Partner, Lightspeed Venture Partners

Attachments:

- Biographies of panelists
- List of relevant investments

Biographies

Ryan Watts is a co-founder Denali Therapeutics ("Denali") and serves as president, CEO and board member. Ryan previously served as Director of the Department of Neuroscience at Genentech, where he was employed for 11 years. During his tenure there, he led the company's entry into neuroscience, building a department and advancing multiple programs for neurological disease from discovery to clinical testing. Ryan's own laboratory focused on drug discovery for Alzheimer's disease and on understanding mechanisms of neurodegeneration guided by human genetics. Ryan is also a leader in the development of improved methods for delivering therapeutic antibodies across the blood-brain barrier. He obtained his B.S. from the University of Utah and his Ph.D. in biological sciences from Stanford University.

Robert Nelsen is a co-founder and a Managing Director of ARCH Venture Partners. He joined ARCH at its founding and played a significant role in the early sourcing, financing and development of more than thirty companies, including nineteen which have reached valuations exceeding $1 billion. His seed and early-stage investments include Illumina (ILMN); Alnylam Pharmaceuticals (ALNY); Juno Therapeutics (JUNO); Vir Biotechnology, Agios Pharmaceuticals (AGIO); Sage Therapeutics (SAGE); GRAIL, Ikaria; Kythera Biopharmaceuticals (KYTH), Receptos (RCPT); Aviron (AVIR); Denali Therapeutics; NetBot; Bluebird Bio (BLUE); R2 Technology; XenoPort (XNPT); Caliper Life Sciences (CALP); Trubion Pharmaceuticals (TRBN); Adolor (ADLR); deCODE Genetics; Array BioPharma (ARRY); Editas (EDIT), IDUN Pharmaceuticals; Classmates.com; Hua Medicine; Fate Therapeutics (FATE); NextCODE Health; and Everyday Learning Corporation.

Mr. Nelsen also served previously as a Trustee of the Fred Hutchinson Cancer Research Institute, the Institute for Systems Biology, and as a director of the National Venture Capital Association. He holds an M.B.A. from the University of Chicago and a B.S. from the University of Puget Sound with majors in Economics and Biology.

Arif Janmohamed joined Lightspeed in 2008 and focuses on investments in the areas of cloud and datacenter technologies, as well as enterprise mobile and SaaS solutions. Arif is currently working closely with the teams at Avi Networks, Blend Labs, Highfive, Mist Systems, Netskope, Nutanix, Qubole, Takipi, TripActions and ThoughtSpot. He was also involved in several realized investments including Edgespring (acquired by Salesforce.com), Pertino Networks (acquired by Cradlepoint), IO Turbine (acquired by Fusion-io), RAPsphere (acquired by AppSense), Memoir Systems (acquired by Cisco), and StreamOnce (acquired by Jive Software). Prior to joining Lightspeed, Arif worked in the Corporate Business Development group at Cisco Systems where he focused on mergers and acquisitions, strategy, and investments in the Unified Communications, Enterprise Collaboration, Mobile, and SaaS market segments. Before joining Cisco Systems, he was with Novitas Capital, an early-stage venture capital firm.

Earlier in his career, Arif worked in technical development and product management roles at WebTV, Andes Networks, and Sun Microsystems. Arif is a charter member of the organizing committee for the C100, a non-profit, member-driven organization that supports Canadian technology entrepreneurship through mentorship, partnership and investment. He also founded WVP Ventures, a student-run venture capital fund, while in business school. Arif holds an MBA from the Wharton School, University of Pennsylvania and a BSc in Computer Engineering from the University of Waterloo, Canada.

APFC Investments with Arch and Lightspeed
($mm)

Year		Committed	Invested	Total Value at 6/30/2017
Fund Commitments				
2014	Lightspeed Select I			
2016	Lightspeed Select II			
2012	Lightspeed IX			
2014	Lightspeed X			
2016	Lightspeed XI			
2014	Arch VIII			
2015	Arch VIII overage			
2016	Arch IX			
2016	Arch IX overage			
Direct Investments				
2013	Juno Therapeutics			
2016	Denali Therapeutics			
2017	Rubrik			
2017	Vir Bio			
	Total	**$ 652.2**	**$ 484.6**	**$ 1,503.5**

redacted in accordance with applicable confidentiality agreements and governing statutes

Policies and Procedures

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

SUBJECT:	APFC Policies & Procedures Travel Policy Board Seat Policy	ACTION:	X
DATE:	September 27, 2017	INFORMATION:	

BACKGROUND

Periodically various policies and procedures are brought before the Board in order to review and update corporate actions. At this meeting the Board will review both an updated travel policy along with an internal personnel policy to provide staff with the rules for serving as a volunteer board member to corporate boards of companies the Fund has invested in.

STATUS

Travel Policy: Under current statutes, travel by state employees, including the staff of APFC, is determined by the Alaska Administrative Manual (AAM) which is written and approved by the Commissioner of the Administration. The AAM does provide for and APFC has utilized the ability to ask for waivers or exceptions to sections of the AAM.

APFC travel has changed considerably with the evolution of its private market portfolio. The due diligence and direct investment into these assets requires staff to travel more in general, but also more international travel. Attached are a series of proposed exceptions in order to streamline and recognize the evolving travel requirements of APFC staff. Upon board approval, this request will be forwarded to the Acting Commissioner of Administration for the Department's consideration and approval.

Proposed Motion:
"I move that the Trustees approve the attached exceptions to the State Travel Policy and direct the Executive Director to forward to the Acting Commissioner of Administration for final approval."

Board Seat Policy: This policy defines how and under what circumstances APFC Staff may participate as board members of privately-held companies into which the Permanent Fund has invested. Such board participation is common and, typically, expected for staff from institutional investment programs that invest directly into private companies rather than through funds managed by third parties. APFC's historical and continuing success with direct private market investments (across private equity, infrastructure, and real estate) makes approving APFC staff serving as board members of private portfolio companies a natural next step. This policy is being adopted by the Executive Director and is being provided as an informational item.

a) Draft Addendum of Exceptions, Travel Policy

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

Memo

To: Leslie Ridle
Acting Commissioner, Alaska Department of Administration

From: Angela Rodell
Chief Executive Officer, Alaska Permanent Fund Corporation

Date: [Select Date]

Re: Modifications To Travel Policy for APFC Employee Travel

Pursuant AAM 60.010 and with the support of the Board of Trustees of the Alaska Permanent Fund Corporation, I would like to request your approval for APFC employees to travel on state business with the following modifications to the current state travel policy:

1. AAM 60.010-This section of the state travel policy authorizes each commissioner or their designee to approve travel for subordinate personnel that is not consistent with the state travel policy on a case-by-case basis for exceptional circumstances, contingent upon the documentation of the exceptional circumstances. Although APFC is housed within Department of Revenue for administrative purposes, the APFC Executive Director and APFC Staff report to the Board of Trustees not the Commissioner for the Department of Revenue. We would like to modify this section of the policy so that the term "Commissioner or designee" refers to the "APFC Executive Director or designee".

Do you approve this modification?

☐ Approved ________________________________ Date ___________________

☐ Not Approved______________________________ Date____________________

2. AAM 60.010-This section of the state travel policy further states that travel policy exceptions for commissioners must be approved by the Commissioner of the Department of Administration (DOA Commissioner). Because the APFC Executive Director reports to the Board of Trustees we would like to modify this section of the policy so that travel exceptions for the APFC Executive Director are approved by the APFC Board Chair, not the DOA Commissioner.

Do you approve this modification?

☐ Approved ________________________________ Date ___________________

☐ Not Approved_____________________________ Date____________________

3. AAM 60.020 and AAM 60.210- These sections define and refer to the Travel Authorization as the form approved by the Department of Administration used to document pre-travel approval and final travel related expenses. Because APFC has an accounting system separate from the State Accounting System, we would like to modify this definition so that the Travel Authorization form is approved by the APFC Executive Director, not the DOA Commissioner.

Do you approve this modification?

☐ Approved ________________________________ Date ___________________

☐ Not Approved_____________________________ Date____________________

4. AAM 60.030- This section describes the E-Travel program established by DOA and describes it as serving members of boards and commissions. In 2005, APFC was granted an exemption from using the State Travel Office/E-Travel program, a copy of the e-mail documenting this exemption is attached. Given the passage of time, we wanted to take this opportunity to verify your recognition of this exemption.

Do you recognize this exemption?

☐ Approved ________________________________ Date ___________________

☐ Not Approved_____________________________ Date____________________

5. AAM 60.040- This section requires different levels of Pre-Trip Approval based on the destination of travel:

- Travel within Alaska - Prior approval is required within the agency and shall at a minimum have the approval of the Traveler's immediate supervisor or designee.

- Travel to the Contiguous United States, Hawaii, British Columbia, and Yukon Territory - Prior approval is required by the agency and by the department's commissioner or designee.
- Travel Outside the United States - Prior approval is required by the agency, the department's commissioner and the Governor's Office.

We would like to modify this section so that pre-trip approvals are as follows:

- Travel within Alaska - Prior approval is required and that approval will come from Both the Traveler's immediate supervisor within APFC and the APFC Executive Director.
- Travel to the Contiguous United States, Hawaii, and Canada- Prior approval is required and that approval will come from Both the Traveler's immediate supervisor within APFC and the APFC Executive Director.
- Travel Outside the United States and Canada - Prior approval is required and that approval will come from the Traveler's immediate supervisor within APFC, the APFC Executive Director, and the APFC Board Chair.

Do you approve this modification?

☐ Approved ________________________________ Date ___________________

☐ Not Approved_____________________________ Date____________________

6. AAM 60.050- This section of the policy states that First or business class is allowed if it is offered to the Traveler on a complimentary basis because of frequent flyer status and upgraded by the airline involved. Because APFC has numerous international investments, APFC staff regularly travel long distances, often on overnight/redeye flights. Consistent with the language of AS 39.20.140(b)(3), APFC would like DOA to find that it is in the best interest of the State to modify this policy to authorize APFC to purchase: (1) premium economy class tickets for flights in excess of six (6) hours, including layovers; and (2) business class tickets for flights outside of North America.

Do you approve this modification?

☐ Approved ________________________________ Date ___________________

☐ Not Approved_____________________________ Date____________________

7. AAM 60.060- This section pertains to payment methods for transportation and expenses, and states that “There may be occasions when neither the Card nor the CTS can be used to purchase transportation. In these cases, it should be purchased using EDI or a state warrant.” APFC does use the state’s One Card and CTS program, however, because APFC is not on the State Accounting System it cannot produce a state warrant. So, APFC request authority to use the following alternative forms of payment: check, EDI, wire transfer, or ACH.

Do you approve this modification?

☐ Approved ________________________________ Date __________________

☐ Not Approved_____________________________ Date____________________

8. AAM 60.230- This section of the policy addresses Third Party Reimbursements for travel, stating “The third party should be instructed to reimburse the state directly for the travel expenses to reduce potential tax consequences to the Traveler. When this is not possible, any third party reimbursement made directly to the Traveler for travel expenses, Per Diem, and/or meal allowances shall be turned over to the Traveler's state agency for deposit into the state treasury.” Because APFC is not on the State Accounting System, APFC receipts are deposited into the APFC bank account, so we wish to modify this policy to allow APFC to deposit third party reimbursements into its own bank account.

Do you approve this modification?

☐ Approved ________________________________ Date __________________

☐ Not Approved_____________________________ Date____________________

9. AAM 60.250- This section of the policy addresses the calculation of M&IE allowance for travel based on destination. Specifically, the policy provides:

There are two types of M&IE allowances, short-term and long- term/noncommercial. The appropriate M&IE allowance rate for a day is the rate established for the community in which the Traveler is required to obtain overnight lodging. On the day of return, a Traveler is entitled to the M&IE allowance rate applicable for the preceding day. When travel involves crossing the International Date Line, the M&IE allowance shall be calculated based on the total number of hours in flight.

APFC employees travel internationally, often with multiple destinations, and flight times that make it difficult to determine when the traveler crosses the International Date Line. So, APFC would like to modify this section so that for the first day of travel to destinations outside of the US, M&IE allowance shall be 75% of the rate for the community in which the Traveler is required to obtain overnight lodging, and on the day of return to the US, a Traveler would be entitled to 75% M&IE allowance rate applicable for the preceding day.

Do you approve this modification?

☐ Approved ________________________________ Date __________________

☐ Not Approved_____________________________ Date____________________

b) Board Seat Policy

STATE OF ALASKA ALASKA PERMANENT FUND CORPORATION **BOARD SEAT POLICY**	POLICY NUMBER		EFFECTIVE DATE
SUBJECT Staff Serving as Board Member	EXECUTIVE DIRECTOR APPROVAL		PAGE 1 of 2

This policy defines how and under what circumstances APFC Staff may participate as board members of privately-held companies into which the Permanent Fund has invested. Such board participation is common and, typically, expected for staff from institutional investment programs that invest directly into private companies rather than through funds managed by third parties. APFC's historical and continuing success with direct private market investments (across private equity, infrastructure, and real estate), has become increasingly tied to APFC staff serving as board members of portfolio companies. Any such service will be subject to the guidelines and practices summarized in this policy and delivered with the same high standards of faithful conduct and integrity expected of APFC Staff in their other work functions.

Voting Board Membership: When, in connection with an investment, APFC has the right to designate or nominate a board member, APFC's Chief Executive Officer may approve an APFC Staff member that has volunteered to serve as a board member. Such opportunities will generally arise only in connection with direct private equity, infrastructure, or real estate investment opportunities. APFC will reserve the right to designate and replace such board members on an "as needed" basis. Potential board members may be selected from APFC Staff, including private and public markets investment professionals and senior non-investment staff. The default number of board seats for an APFC staff member is one (excluding observer seats), but can be increased to two in exceptional circumstances. Because APFC staff serving as voting board member of an APFC portfolio company will have fiduciary duties to the company which may be in conflict with APFC’s investment interests in the company, neither APFC's CEO nor CIO will accept a position to serve as a board member of a portfolio company that APFC has invested in.

Importantly, when an APFC staff member is serving as a board member of an APFC-invested company, that staff member will be obligated to follow the fiduciary and legal obligations that apply with respect to that company's board. Any compensation associated with any board role will be paid to APFC rather than to the staff member. Portfolio company board meetings are deemed to be APFC company business. That said, to the extent possible, costs associated with attending such board meetings will be reimbursed or funded by the portfolio company which the APFC staff serves as a board member. APFC's Chief Executive Officer may elect to withdraw or replace staff members as portfolio company board designees for any reason. APFC staff will be required to resign all board memberships associated with APFC's investments upon termination of APFC employment or for any other reason if requested by the APFC CEO. APFC staff serving as board members will be required to ensure that they will be indemnified by the company on whose board they serve for all actions taken in good faith in connection with their service as board members of the portfolio company. In addition, any employee designated by the APFC to serve on a portfolio company board must be an insured person covered by customary and adequate directors' and officers' liability insurance, the cost of which will be borne by the portfolio company. Prior to accepting a board Seat, the APFC staff member will be required to execute an acknowledgment of their obligation to comply with the requirements of this policy.

Advisory/Observer Board Membership: In contrast to voting board seats on the boards of APFC-invested companies, advisory or observer board memberships do not typically entail conflicting fiduciary duties and risks, nor is the time commitment typically as great. As with voting board memberships, advisory board designations associated with APFC's investments shall be appointed by APFC's Chief Executive Officer. All APFC staff, including APFC's Chief Executive Officer and Chief Investment Officer, are eligible to become advisory board members or board observers. APFC staff serving as advisory board members may be removed or replaced at any time by APFC's Chief Executive Officer. APFC staff will also be expected to resign from advisory board roles associated with APFC's investments upon their separation from APFC employment.

A list of all voting and non-voting board memberships and observer designations associated with APFC investments will be maintained by APFC's Chief Investment Officer and filed with the Human Resources Manager.

Disaster Recovery – Executive Session Memo

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

SUBJECT: Disaster Recovery Update ACTION: __________

DATE: September 28, 2017 INFORMATION: ______X___

BACKGROUND:
Disaster Recovery Plan will be reviewed and discussed.

RECOMMENDATION:
InfoTech recommends going into Executive Session to discuss APFC Disaster Recovery Plan. Items of discussion include:

- Hardware
- Software
- Processes

Attachment – RPO/RTO Timeline

Suggested Motion:

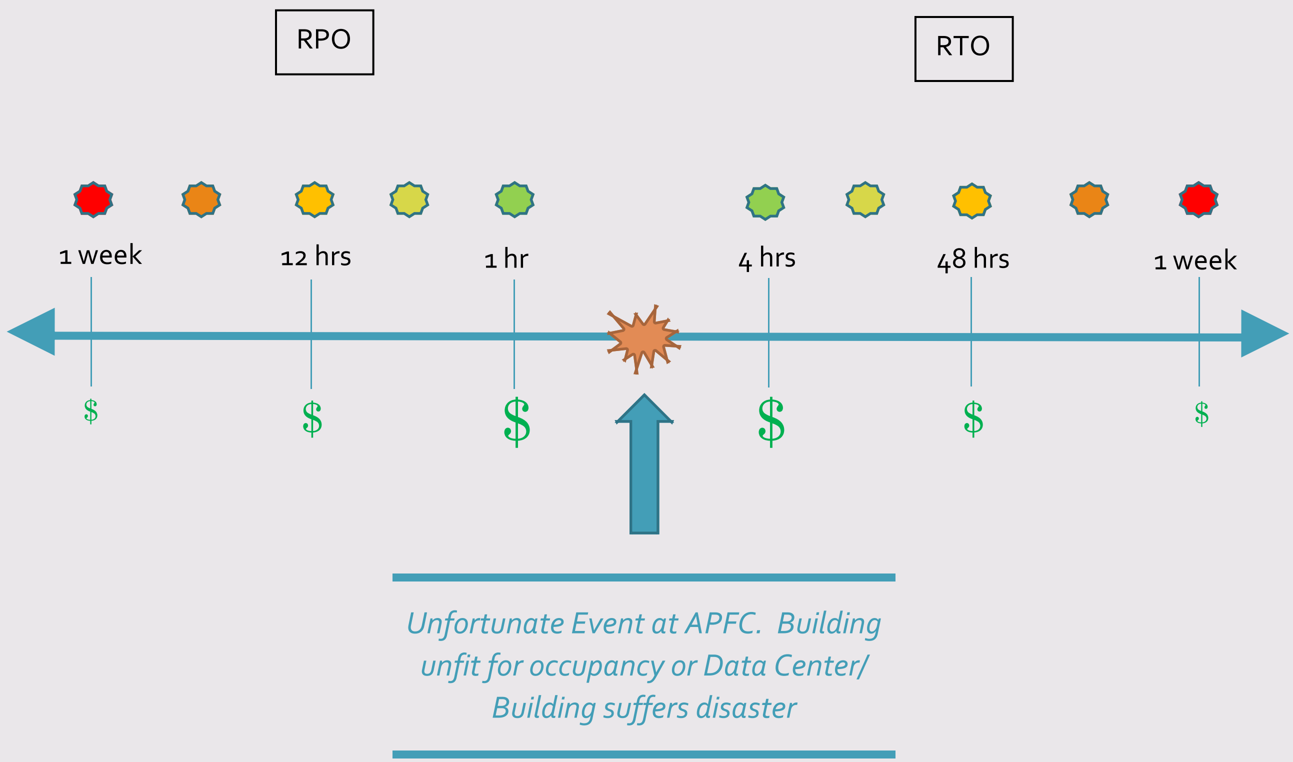
"Pursuant to Alaska's Open Meeting Act, I move that the Board of Trustees convene in executive session to receive an update on APFC's disaster recovery plan. This topic is appropriate for executive session because the immediate knowledge of this information could thwart the efficacy of this plan and, in turn, negatively impact the value the Permanent Fund."

a) Disaster Recovery Attachment – RPO/RTO

RPO & RTO

RTO = How fast services are restored (down time)

RPO = The point data was recovered to (data loss)



APFC

FY19 Budget Approval Memo

SUBJECT: **FY2019 Proposed Budget** **ACTION:** _____X_____

DATE: **September 27, 2017** **INFORMATION:** ____________

Background:

The Alaska Permanent Fund Corporation's budget appropriation is divided into two allocations: one for Operations of the Corporation and one for Investment Management related costs. As the APFC brings more investments in-house, it becomes increasingly difficult to separate costs that are directly related to Investment Management from those that are more Operational in nature. Last year, the Board submitted a FY18 budget that merged both allocations into a single appropriation. The Governor and the Legislature took the initiative to split the appropriation back into two allocations. It should be noted that as a result the FY2018 Operating Budget Allocation was held flat at FY2017 levels. APFC is recommending that we continue to pursue a single appropriation that gives the Board maximum flexibility. However, for discussion purposes, we have provided two proposed allocations for Fiscal Year 2019 which represent staffs' best efforts to continue to follow the historical separation of these two parts of the Corporation's budget.

The expected timeline for budget approval begins with this work session, when the Board meets in to review the budget, providing direction that may result in additional analysis. Staff will then bring the final proposal before the Board for approval at the annual meeting on September 27 and 28. The Governor's Office of Management and Budget will review the proposal, and Governor Walker will present his budget request for all public agencies, including the APFC, to the Legislature by December 15 for consideration during the upcoming Legislative Session. Traditionally, staff returns to the Board at the May meeting with the final budget approved by the Legislature to be implemented on July 1, though in recent years this has been delayed by extended Sessions.

Attached to this memo are two appendices with tables showing the Operating Allocation broken down by objects of expenditure and program, the Investment Management Allocation broken down by the type of service, and the Capital Project Appropriation for the APFC's office renovation.

	Authorized	Proposed	Variance
	FY2018	FY2019	From FY2018
Operating Allocation	$ 12,254,400	$ 17,956,308	$ 5,701,908
Investment Management Allocation	$ 138,769,200	$ 151,255,982	$ 12,486,782
Total Appropriation	**$ 151,023,600**	**$ 169,212,290**	**$ 18,188,690**

Internal Investments

Bringing more investments in-house benefits the Permanent Fund through lower investment costs, greater control over investments within and across allocations, and greater investment transparency. In addition, studies have shown that bringing investments in-house provides a return premium over externally managed investments. Though not the purpose of this program, a side benefit is that it creates professional, in-state jobs, boosting both Alaska's economic and knowledge economy.

By the end of FY2019, APFC is expected to have brought $4 billion in public equities securities in-house, providing an annual savings of $7.9 million in external manager fees, the result of a program that was implemented in FY2017.

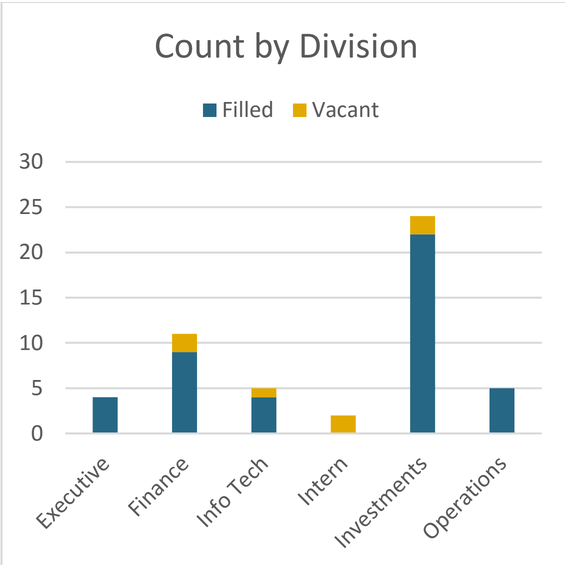
Private equity and infrastructure investments are harder to quantify on a year-by-year basis as some costs are paid to external mangers at the end of an investment's life. However, a general rule is that with an anticipated life-span of five years, for each $100 million in capital that the APFC staff directly invests, fee savings would keep as much as $27.5 million in the Fund for investment.

In order to support these programs as they grow, the Corporation must grow as well. This means increases in investments, middle and back office staff, and support staff in IT and Operations. This produces increased internal costs for travel, IT hardware, software, licensing and support, an increase in the underlying IT infrastructure to support a greater staff load, and other costs related to increased occupancy of APFC's space.

Currently APFC has a total staff of 44 year-round staff with 2 summer interns and an additional 5 positions vacant. Of the vacant positions, two are in Investments, two in Finance, and one in IT. Filling the vacancies is a priority but needs to be managed with the limited funding for personal services. Oftentimes a ratio of 1:1 of front office to support staff is used to demonstrate appropriate staffing levels. The ratios calculated below do not include the CEO, Executive Assistant, Communications Manager or the HR Manager. Both the complexity of the Fund as well as the increased workload required by moving more investments in-house requires an increased investment in the support needs of the investment staff. Current staffing levels make it difficult to bring any additional portfolios internally.

Current APFC Ratios, excluding Interns and Vacancies

18 Support Staff to 22 Investment Staff	Ratio of 1 to 1.2
2 Middle Office Staff to 6 Internal Traders	Ratio of 1 to 3
16 Back Office to 22 Investment Staff	Ratio of 1 to 1.4



Count by Division	Filled	Vacant
Executive	4	0
Finance	9	2
Info Tech	4	1
Intern		2
Investments	22	2
Operations	5	0
	44	7

New position requests

The FY2019 full budget proposal includes four new investment officers and six support staff across the organization to support increases in internally managed investments. Without these additions, APFC may have to slow or halt the growth of both the internal public and internal private asset investment programs.

This request is driving the bulk of the increment in FY2019 as compared to FY2018. However, it should be noted that the FY2018 Operating Budget Allocation was held flat at FY2017 levels by the Governor and the Legislature. As a result, even without the new positions, APFC must request increments to keep up with status-quo-needs. To this end, a status quo proposal for FY2019 has also been prepared.

	Authorized	Proposed	Variance	Status Quo	Variance
	FY2018	FY2019	From FY2018	FY2019	From FY2018
Operating Allocation	$ 12,254,400	$ 17,956,308	$ 5,701,908	$ 14,906,909	$ 2,652,509
Investment Management Allocation	$ 138,769,200	$ 151,255,982	$ 12,486,782	$ 159,378,364	$ 20,609,164
Total Appropriation	**$ 151,023,600**	**$ 169,212,290**	**$ 18,188,690**	**$ 174,285,274**	**$ 23,261,674**

Operating Allocation

The Operating Allocation is separated into five objects of expenditure, each of which is discussed below.

Personal Services –

	Authorized	Proposed	Variance	Status Quo	Variance
	FY2018	FY2019	From FY2018	FY2019	From FY2018
Personal Services	$ 9,600,700	$ 12,500,141	$ 2,899,441	$ 10,301,698	$ 700,998

The full FY2019 personal services request represents the total cost of the ten requested new positions, fully staffing existing positions and funding retention increases. The status quo request includes only the funding for all current positions and an annual retention increase for staff.

Please note that the variance between the FY2018 budgets and the two FY2019 proposals is not entirely due to the requested increments. State agencies are required to hold three to six percent of the total cost of filling all positions vacant, reflecting anticipated turnover. Historically, APFC has been required to have a 6% vacancy rate. As a result, the authorized budget for FY2018 represents a shortfall of the actual $10.2 million cost of filling all of APFC's current positions. The FY2019 budget request fully funds all necessary positions and any actual vacancies will just accrue a potential savings at year end.

Travel –

	Authorized	Proposed	Variance	Status Quo	Variance
	FY2018	FY2019	From FY2018	FY2019	From FY2018
Travel Total	$ 605,500	$ 1,203,200	$ 597,700	$ 884,888	$ 279,388

Both versions of the proposed travel request include a greater emphasis on international markets going forward, increased travel related to training needs, and anticipated growth in air fare and other travel costs. The request for ten new employees adds travel costs to the full proposal in anticipation of new employees' duty-related travel, as well as the cost of interviewing and moving new staff, many of whom are expected to come from outside of Juneau.

Contractual Services –

	Authorized	Proposed	Variance	Status Quo	Variance
	FY2018	FY2019	From FY2018	FY2019	From FY2018
Contractual Services	$ 1,870,900	$ 3,417,667	$ 1,546,767	$ 3,068,174	$ 1,197,274

When the Board proposed the FY2018 budget to the Governor, it was presented as a fully integrated budget rather than in two allocations, in recognition of the greater use of internal investment management and the support that requires within the operating portion of the budget. Increases in internal operating costs were offset by decrements in investment management fees. When the FY2018 budget was split back into two allocations during the approval process, it was held at the FY2017 Operating Allocation amount. All of the affected increments were within the Contractual Services portion of the budget, so the FY2019 budget represents two years of growth, accounting for increments in FY2018 that were not approved.

With the FY2019 budget, staff is presenting the Contractual Services budget request in a format that groups items by the program they support, rather than the type of cost in Appendix A and in this narrative. For example, recruitment ads are now in the HR and Recruitment Budget, and Newspaper Insert costs are now in the Communications Budget, while in the past they would have been grouped together under Advertising and Printing. Staff believes this new organizational structure allows for a better assessment of the costs and benefits of each program.

Audit, Legal, Consulting – Professional services that support the broader needs of the Corporation are contained within this group, such as the audit, and legal and consultants not directly related to Fund investments. The general consulting line was reduced in the FY2018 budget to fill gaps in other hard costs that were part of the denied increment, and is made whole again in the FY2019 budget proposals, both of which are the same.

Public Communications – This group encompasses all of the layout and design, printing, and web hosting services that support the communications program. Costs are not expected to increase over FY2018 in either version of the FY2019 budget proposal.

Board Meetings – Items related to board support and board meetings, including room and equipment rentals, refreshments, transcription services, board packet software and Board advisor costs are included in this group. Increases in both FY2019 proposals are due to increased transcription costs for meeting minutes and accounting for board packet software in this program, rather than within the Information Technology program.

Information Technology – All of the IT contractual services related to the general support of the Corporation are now in this group. This includes software licenses, support, equipment repairs, and telecommunications costs. Included in both proposals are increases due to the upcoming end of the natural life of APFC's firewalls and the costs of replacing them, and technology needed to support an increasingly mobile workforce. The full budget proposal adds the software licensing and support needed to accommodate growth in support costs due to the proposed new positions.

HR and Recruitment – The status quo budget proposal incorporates natural cost growth of the FY2017 level of costs, such as recruitment notices, and the inclusion of existing HR and performance management software within the program. In addition, the full FY2019 proposal includes an increase for anticipated recruitment costs for ten new positions.

Training – Training and professional certifications for staff are important if the APFC is going to continue to bring internal investments in-house and successfully compete in the investment markets. In FY2016 and FY2017, the Governor requested State of Alaska agencies, including the Permanent Fund, to significantly limit training due to the budget crisis. The FY2018 budget was cut almost in half from prior year's authorizations to make up for short-falls in other non-discretionary budget lines that resulted from denied increments in FY2018. The FY2019 status quo request includes anticipated training increases to make up for FY2017 and FY2018, and the full proposal includes training for the ten proposed positions.

Office Support – All of the contractual services necessary to support the shared administrative needs of the Corporation are contained within this group, including office lease costs, copier rentals, and pass-through costs from the Department of Revenue. The FY2019 status quo budget proposal includes a $13,000 increase contained in the office lease, natural growth in other support costs, and moving staff during the renovation, a cost that is not included in the capital project. The full FY2019 proposal includes the costs necessary to support ten new staff.

Commodities and Equipment –

	Authorized	Proposed	Variance		Status Quo	Variance
	FY2018	FY2019	From FY2018		FY2019	From FY2018
Commodities	$ 97,300	$ 435,300	$ 338,000		$ 352,150	$ 254,850
Equipment	$ 80,000	$ 400,000	$ 320,000		$ 300,000	$ 220,000

Commodities and Equipment are the final two objects of expenditure within the Operating Allocation, and due to their similarity are presented together. These budgets include goods that are purchased to support the needs of the Corporation, such as workstations, servers, furniture, office supplies and paper. The two lines are separated by cost – items that are less than $5,000 fall under the Commodities line, while those greater than $5,000 fall in the Equipment line. As with Contractual Services, these two lines are presented by program in Appendix A.

Information Technology- Increases in the status quo FY2019 proposals are to purchase new workstations and servers that are needed to upgrade existing technology to meet the needs of Corporation staff, and replace servers that have reached the end of their lifespan. The full FY2019 proposal adds increases in servers and workstations to support ten new staff members.

Office Support – The Commodities budget includes subscriptions to industry publications, office supplies and paper. The increase in the status quo request for FY2019 is due to anticipated cost increases for commodities at the current usage level, while the full budget proposal includes the anticipated cost of supporting ten additional staff. The FY2019 Equipment requests do not include any new furniture, something that is usually done on a small scale each year to replace worn items, because new furniture is included in the capital project.

Investment Management Allocation

The Investment Management Allocation falls within a single object of expenditure that is divided into four types of service. Each is discussed below.

	Authorized	Proposed	Variance		Status Quo	Variance
	FY2018	FY2019	From FY2018		FY2019	From FY2018
Investment Manager Fees	$ 125,827,100	$ 136,520,085	$ 10,692,985		$ 145,399,752	$ 19,572,652

Investment Manager Fees – This budget includes all of the costs that are paid directly to firms that manage the Fund's external portfolios, but does not include fees paid thorough net-of-fee arrangements. Even with the increase in internal investments, projected growth for the Permanent Fund shows an increase in the externally managed portfolios, resulting in requested increments over the FY2018 budget. The status quo budget reflects a higher level of manager fees for public equities as the request for new staff includes support for the internal public equities program. The full FY2019 proposal shows a lower external management cost compared to the status quo proposal in reflection of the growth of the internal programs.

	Authorized	Proposed	Variance		Status Quo	Variance
	FY2018	FY2019	From FY2018		FY2019	From FY2018
Investment Due Diligence	$ 6,095,000	$ 7,178,200	$ 1,083,200		$ 6,778,200	$ 683,200

Investment Due Diligence – This program includes the funding for fiduciary advisors, Callan's general consulting contract, manager searches, and APFC's membership in peer groups such as the International Forum of Sovereign Wealth Funds (IFSWF). The increase in the status quo FY2019 proposal includes an increase in projected manager search costs, to account for proportional growth that will occur in the externally managed assets alongside the internal portfolios, and fiduciary advisor services to support the real estate program. This proposal also includes funding for APFC to host the annual IFSWF meeting in Juneau in 2019. The full FY2019 proposal adds increases in fiduciary advisor costs that are anticipated if new investment officers are hired and the internal investment portfolios are able to grow.

	Authorized	Proposed	Variance		Status Quo	Variance
	FY2018	FY2019	From FY2018		FY2019	From FY2018
Investment Systems	$ 5,447,100	$ 6,057,697	$ 610,597		$ 5,700,412	$ 253,312

Investment systems – All of the financial network systems, data feeds and research portals used by APFC staff to make investment decisions, trade, confirm and account for investments, manage external accounts, and manage investment risk at various levels of the portfolio are included in this group. Examples of these vendors are Bloomberg, BlackRock, Tradeweb, Moody's, S&P and Fitch. The FY2019 status quo costs represent natural growth in existing subscription costs. This includes the cost of the trade order management system, which is based on the volume of securities and accounts in the system. The full FY2019 proposal includes increases in the user licenses for systems that new employees in the Investment and Finance departments will use to manage internal investments.

	Authorized	Proposed	Variance		Status Quo	Variance
	FY2018	FY2019	From FY2018		FY2019	From FY2018
Custody Fees	$ 1,400,000	$ 1,500,000	$ 100,000		$ 1,500,000	$ 100,000

Custody Fees – Bank of New York Mellon is the custodian of the Permanent Fund's assets. Custody fees are increasing as exposure to emerging markets and alternative investments increases.

Capital Project Appropriation

In the FY2018 State of Alaska Capital Budget, APFC received an appropriation of $4.1 million to fund office renovations. August 7, 2017 APFC entered into Reimbursable Services Agreement (RSA) for Construction in Leased Space with Alaska Department of Transportation and Public Facilities (DOTPF), which will manage the final design services, bidding, and construction of the office space reconfiguration. The amount of the RSA is $4.7 million, as calculated by DOTPF and is based on estimates through completion of the project, and including contingencies, escalation costs from preliminary cost analysis, and DOTPF construction administration costs, a difference of about $650,000.

As of August 22, 2017, APFC has completed 35 percent of the design work with conceptual layout including preliminary furniture, fixture and equipment (FF&E). APFC, partnering with the DFOTPF Project Manager, will procure design services to prepare construction bid ready documents and finalize layout and FF&E, which will then be put out to bid by DOTPF. Following bid and award of construction services, DOTPF estimates five (5) phases, and assumes 5-6 months for actual construction. The target completion date is December 1, 2018, and APFC personnel will occupy the space during the construction.

Proposed Motion:

The Board of Trustees authorizes APFC staff to:

1. Carry forward the Status Quo 2019 proposed Operating and Investment Management Allocations to the Governor and Legislature.

2. Request that the Corporation's budget be included in the language section of the Operating Budget bill as follows:

   "An amount not to exceed $174,285,274 is appropriated from Alaska Permanent Fund Corporate Receipts for the investment and operating costs of the Alaska Permanent Fund Corporation."

3. To request ten new positions, which if approved would reduce the total budget request to $169,212,290.

a) FY19 Budget Options

Appendix A
ALASKA PERMANENT FUND CORPORATION
FY2019 Budget Proposals

	Actual	**Authorized**	**Proposed**	**Variance**		**Status Quo**	**Variance**
Budget Line	FY2017	FY2018	FY2019	From FY2017	From FY2018	FY2019	From FY2018
Personal Services	**$ 8,888,795**	**$ 9,600,700**	**$ 12,500,141**	**$ 3,611,346**	**$ 2,899,441**	**$ 10,301,698**	**$ 700,998**
Staff	$ 8,877,273	$ 9,581,834	$ 12,481,131	$ 3,603,858	$ 2,899,297	$ 10,282,688	$ 700,854
Trustees: Honorarium	$ 11,522	$ 18,866	$ 19,010	$ 7,488	$ 144	$ 19,010	$ 144
Travel	**$ 453,522**	**$ 605,500**	**$ 1,203,200**	**$ 749,087**	**$ 597,700**	**$ 884,888**	**$ 279,388**
Staff	$ 349,698	$ 475,100	$ 946,077	$ 596,379	$ 470,977	$ 752,010	$ 276,910
Trustees	$ 21,103	$ 47,300	$ 45,623	$ 24,520	$ (1,678)	$ 45,623	$ (1,678)
Recruitment Travel	$ 83,312	$ 83,100	$ 211,500	$ 128,188	$ 128,400	$ 87,255	$ 4,155
Contractual Services	**$ 1,574,684**	**$ 1,870,900**	**$ 3,417,667**	**$ 1,842,983**	**$ 1,546,767**	**$ 3,068,174**	**$ 1,197,274**
Audit, Legal, Consulting	$ 220,356	$ 260,500	$ 390,900	$ 170,544	$ 130,400	$ 390,900	$ 130,400
Public Communications	$ 97,119	$ 146,500	$ 146,500	$ 49,381	$ -	$ 146,500	$ -
Board Support and Meetings	$ 108,260	$ 94,500	$ 119,181	$ 10,921	$ 24,681	$ 119,181	$ 24,681
Information Technology	$ 418,517	$ 617,100	$ 1,795,000	$ 1,376,483	$ 1,177,900	$ 1,485,000	$ 867,900
HR and Recruitment	$ 19,186	$ 20,000	$ 48,450	$ 29,264	$ 28,450	$ 35,450	$ 15,450
Training/Education	$ 62,828	$ 56,500	$ 175,990	$ 113,162	$ 119,490	$ 150,368	$ 93,868
Office Support	$ 648,418	$ 675,800	$ 741,646	$ 93,228	$ 65,846	$ 740,775	$ 64,975
Commodities	**$ 113,751**	**$ 97,300**	**$ 435,300**	**$ 321,549**	**$ 338,000**	**$ 352,150**	**$ 254,850**
Information Technology	$ 82,209	$ 53,570	$ 385,000	$ 302,791	$ 331,430	$ 306,250	$ 252,680
Office Support	$ 31,542	$ 43,730	$ 50,300	$ 18,758	$ 6,570	$ 45,900	$ 2,170
Equipment	**$ 245,995**	**$ 80,000**	**$ 400,000**	**$ 154,005**	**$ 320,000**	**$ 300,000**	**$ 220,000**
Information Technology	$ 168,750	$ 80,000	$ 400,000	$ 231,250	$ 320,000	$ 300,000	$ 220,000
Office Support	$ 77,245	$ -	$ -	$ (77,245)	$ -	$ -	$ -
Operating Allocation Total	**$ 11,276,748**	**$ 12,254,400**	**$ 17,956,308**	**$ 6,678,970**	**$ 5,701,908**	**$ 14,906,909**	**$ 2,652,509**

	Actual	**Authorized**	**Proposed**	**Variance**		**FY2019**	**Variance**
Budget Line	FY2017	FY2018	FY2019	From FY2017	From FY2018	No new staff	From FY2018
Investment Manager Fees	$ 102,862,963	$ 125,827,100	$ 136,520,085	$ 33,657,122	$ 10,692,985	$ 145,399,752	$ 19,572,652
Equity	$ 60,651,274	$ 68,827,100	$ 82,493,617	$ 21,842,343	$ 13,666,517	$ 91,373,284	$ 22,546,184
Fixed Income Plus	$ 5,555,276	$ 12,000,000	$ 13,116,245	$ 7,560,969	$ 1,116,245	$ 13,116,245	$ 1,116,245
Real Estate	$ 3,316,376	$ 1,000,000	$ 780,000	$ (2,536,376)	$ (220,000)	$ 780,000	$ (220,000)
Alternative Investments	$ 33,340,037	$ 44,000,000	$ 40,130,223	$ 6,790,186	$ (3,869,777)	$ 40,130,223	$ (3,869,777)
Investment Due Diligence	$ 2,207,954	$ 6,095,000	$ 7,178,200	$ 4,970,246	$ 1,083,200	$ 6,778,200	$ 683,200
Investment Systems	$ 4,979,288	$ 5,447,100	$ 6,057,697	$ 1,078,409	$ 610,597	$ 5,700,412	$ 253,312
Custody Fees	$ 1,252,470	$ 1,400,000	$ 1,500,000	$ 247,530	$ 100,000	$ 1,500,000	$ 100,000
Investment Management Allocation Total	**$ 111,302,676**	**$ 138,769,200**	**$ 151,255,982**	**$ 39,953,306**	**$ 12,486,782**	**$ 159,378,364**	**$ 20,609,164**
Net of Fee Investments	**$270 million**	**$87 - $160 million**	**$68 - $187 million**			**$68 - $187 million**	

b) FY19 Capital Project Budget

Appendix B
ALASKA PERMANENT FUND CORPORATION
Capital Budget Appropriation
Office Renovation

Design and Bidding		**$ 355,700**
Construction		**$ 4,348,897**
Construction	3,141,766	
Construction Administration	173,000	
Furnishings	755,775	
1% for Art	31,418	
ICAP	41,840	
Contingency	205,098	
Project Total		**$ 4,704,597**

Capital Project Funding		**$ 4,050,000**

Budget shortfall		**$ (654,597)**

Legislative Request Memo

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

SUBJECT:	Legislative Initiatives	ACTION:	X
DATE:	September 27, 2017	INFORMATION:	

There are two issues the Corporation has identified that would require legislation to address. The goal of this agenda item is to answer any questions the Board may have with these items and seek board approval to advance these items to the Legislature for consideration in the upcoming legislative session:

1. Procurement
a. **Issue**-When APFC staff is making an investment using permanent fund (Fund) assets the state procurement code does not apply to such investments. That said, to complete the investment due diligence process and then monitor investments, APFC typically contracts with vendors to assist them in this process and the state procurement does apply to these contracts. Because these investment opportunities must often be completed within a relatively short time frame and often involve proprietary information, application of the state procurement code hinders APFC's ability to quickly and efficiently contract with vendors needed to assist APFC staff when directly investing Fund assets.
b. **Proposed Solution**-request an exemption from the state procurement code for APFC contracts where the work to be performed is related to the investment and monitoring of assets managed by APFC.

2. Inflation Proofing
a. **Issue**-With royalty payments into the Fund steadily decreasing combined with the Legislature's recent decision not to include an appropriation for inflation proofing, should preserving the purchasing power of the Fund for future generations remain a goal of the permanent fund (as stated in AS 37.13.040), some form of inflation-proofing must occur.
b. **Proposed Solution**-While there are numerous ways to achieve this goal, a simple solution would be to modify the current method of calculating annual net income (i.e. statutory net income) of the fund to hold the principal of the Fund harmless from the effects of inflation just like we currently use realized gains that have accumulated in the earnings reserve account during the year to offset realized losses experienced during the year.

Proposed Motion-
"I move the Board authorize the Corporation to pursue legislation that would seek a procurement exemption for investment related services and request the impacts of inflation experienced by the Fund be accounted for in the annual calculation of net income."

Election of Corporate Officers Memo

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

SUBJECT: Election of Corporate Officers ACTION: ____X____

DATE: September 28, 2017 INFORMATION: _________

BACKGROUND: Section 6 of Article II of the APFC Bylaws states that the election of the Chair and Vice Chair of the Board of Trustees shall occur at the annual meeting of the Corporation, and those officers shall hold office for one year or until their successors are elected and qualified.

In accordance with APFC Board of Trustees Charters and Governance Policy the following, the election of corporate officers and the committee assignments are noted below.

Charter of the Chair of the Board (excerpts)

1. Alaska Law, Article 01, Section 37.13.050 requires the Board of Trustees to elect a Chair annually from among its members.

2. The Chair will perform the duties and responsibilities and exercise the powers as specified below:
   (a) Appoint the members of the committees of the Board and the committee chairs (other than the chair of the Governance Committee);

Charter of the Vice Chair of the Board (excerpt)

1. The Bylaws of the APFC establish the Vice Chair as an officer of the Board. The Vice Chair is elected annually.

Charter of the Governance Committee of the Board (excerpt)

2. The Vice Chair of the Board will serve as the Chair of the Governance Committee. The Vice Chair may act on behalf of the Governance Committee in performing the following duties with the approval of the full Board.

Charter of the Audit Committee of the Board (excerpt)

7. The Committee will consist of at least three Trustees, each of whom must have a basic understanding of finance and accounting and be able to read and understand financial statements

RECOMMENDATION:

- Elect a Board of Trustees Chair
- Elect a Board of Trustees Vice-Chair
- Vice Chair to serve as Chair of the Governance Committee
- Chair to Appoint at least three Trustees to the Audit Committee

Board of Trustees Meeting Schedule Agenda Memo

SUBJECT: Board of Trustees Meeting Schedule
Re-approval of the 2018 Schedule
Approval of the 2019 Schedule

ACTION: ___X___

DATE: September 27, 2017

INFORMATION: ________

BACKGROUND:
At the 2016 Annual Meeting, the Board approved meeting dates for calendar year 2018 (please see schedule below). Approving these dates a year in advance enables staff to seek out and confirm space for future meetings. It also assists Trustees and Advisors with long-term schedule planning.

Staff has reviewed potential meeting dates for 2019, and these recommended dates are listed below for Trustee approval. Factors considered in recommending the following dates were the ARMB calendar of meetings (not yet established for 2019), the timing of the Callan Performance Measurement Reports for each quarter, state and federal holidays and dates by which specific business matters require Board action or review. We suggest these dates for our core quarterly board meetings. Additional meetings for budget review, trustee education, retreats, etc. will be scheduled independently. Advisor selections for each meeting are suggestions only and may be changed as needed.

2017 BOARD OF TRUSTEES MEETINGS ARE CURRENTLY SCHEDULED:

FEBRUARY 21-22, 2018 Wednesday & Thursday Location: Juneau	Regular Quarterly Meeting Advisor: Walsh *Presidents' Day is Monday, February 19*
MAY 23-24, 2018 Wednesday & Thursday Location: Anchorage	Regular Quarterly Meeting/Audit Committee Advisor: Mitchell *Memorial Day is Monday, May 28*
SEPTEMBER 6, 2018 Thursday Location: Anchorage	Audit Committee/Budget Planning Session No Advisor *Labor Day is Monday, September 3*
SEPTEMBER 26-27, 2018 Wednesday & Thursday Location: Juneau	Annual Board Meeting Advisor: Walsh
DECEMBER 11-12, 2018 Tuesday & Wednesday Location: Anchorage	Regular Quarterly Meeting Advisor: Zinn

2019 BOARD OF TRUSTEES MEETINGS ARE PROPOSED TO BE SCHEDULED:

FEBRUARY 20-21, 2019	Regular Quarterly Meeting
Wednesday & Thursday	Advisor: tbd
Location: Juneau	*Presidents' Day is Monday, February 18*
MAY 22-23, 2019	Regular Quarterly Meeting/Audit Committee
Wednesday & Thursday	Advisor: tbd
Location: Juneau	*Memorial Day is Monday, May 27*
SEPTEMBER 5, 2019	Audit Committee/Budget Planning Session
Thursday	No Advisor
Location: Anchorage	*Labor Day is Monday, September 2*
SEPTEMBER 25-26, 2019	Annual Board Meeting
Wednesday & Thursday	Advisor: tbd
Location: Juneau	
DECEMBER 3-4, 2018	Regular Quarterly Meeting
Tuesday & Wednesday	Advisor: tbd
Location: Anchorage	

RECOMMENDATION:

- **Re-approval of 2018 Board of Trustees Meeting Schedule**
- **Initial approval of 2019 Board of Trustees Meeting Schedule**

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
May 23-24, 2018 (Wednesday/Thursday)	Anchorage	Regular Audit Committee	Mitchell
September 6, 2018* (Thursday)	Anchorage	Audit Committee Budget Work Session	
September 26-27, 2018 (Wednesday/Thursday)	Juneau	Annual Meeting	Walsh
December 11-12, 2018 (Tuesday/Wednesday)	Anchorage	Regular	Zinn

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 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)	Anchorage	Audit Committee Budget Planning Session	
September 25-26, 2019 (Wednesday/Thursday)	Juneau	Annual Meeting	TBD
December 3-4, 2019 (Tuesday/Wednesday)	Anchorage	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 dates for the Audited Statements and the Annual Report as required in statute.

12/22/16

State of Alaska

2018

STATE CALENDAR

State Holidays

Date	Holiday
01/01	New Year's Day
01/15	MLK Jr.'s Birthday
02/19	Presidents' Day
03/26	Seward's Day
05/28	Memorial Day
07/04	Independence Day
09/03	Labor Day
10/18	Alaska Day
11/11	Veterans' Day (observed 11/12)
11/22	Thanksgiving Day
12/25	Christmas Day

Biweekly employees please refer to appropriate collective bargaining unit agreement for more information regarding holidays.

Holiday

Payday

JANUARY

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JULY

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OCTOBER

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NOVEMBER

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DECEMBER

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State calendar maintained by the
Division of Finance,
Department of Administration
http://doa.alaska.gov/calendars.html
Rev. 7/10/2017

timeanddate.com

Calendar for Year 2019 (United States)

January

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March

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April

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May

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June

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July

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August

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4	5	6	7	8	9	10
11	12	13	14	15	16	17
18	19	20	21	22	23	24
25	26	27	28	29	30	31

◐: 7 ○: 15 ◑: 23 ●: 30

September

S	M	T	W	T	F	S
1	2	3	4	5	6	7
8	9	10	11	12	13	14
15	16	17	18	19	20	21
22	23	24	25	26	27	28
29	30					

◐: 5 ○: 14 ◑: 21 ●: 28

October

S	M	T	W	T	F	S
		1	2	3	4	5
6	7	8	9	10	11	12
13	14	15	16	17	18	19
20	21	22	23	24	25	26
27	28	29	30	31		

◐: 5 ○: 13 ◑: 21 ●: 27

November

S	M	T	W	T	F	S
					1	2
3	4	5	6	7	8	9
10	11	12	13	14	15	16
17	18	19	20	21	22	23
24	25	26	27	28	29	30

◐: 4 ○: 12 ◑: 19 ●: 26

December

S	M	T	W	T	F	S
1	2	3	4	5	6	7
8	9	10	11	12	13	14
15	16	17	18	19	20	21
22	23	24	25	26	27	28
29	30	31				

◐: 4 ○: 12 ◑: 18 ●: 26

Jan 1	New Year's Day
Jan 21	Martin Luther King Jr. Day
Feb 14	Valentine's Day
Feb 18	Presidents' Day
Apr 13	Thomas Jefferson's Birthday
Apr 21	Easter Sunday
May 12	Mother's Day
May 27	Memorial Day
Jun 16	Father's Day
Jul 4	Independence Day
Sep 2	Labor Day
Oct 14	Columbus Day (Most regions)
Oct 31	Halloween
Nov 11	Veterans Day
Nov 28	Thanksgiving Day
Dec 24	Christmas Eve
Dec 25	Christmas Day
Dec 31	New Year's Eve